

Table 5-1: EMG1 surveyed vehicle trip rates per 100sqm GFA (incl. mezzanine) in 2022, 2023 and 2024

Year	Vehicle Type	AM Peak			AM Peak			PM Peak			PM Peak			Daily		
		0700 - 0800			0800 – 0900			1600 - 1700			1700 – 1800			24hrs		
		Arrival	Departure	Two-Way	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
2014 assessed trip rates per 100sqm (557,414sqm)	Light	0.089	0.028	0.118	0.121	0.013	0.135	0.040	0.140	0.180	0.029	0.108	0.137	1.060	1.043	2.103
	HGV	0.023	0.031	0.053	0.019	0.023	0.041	0.025	0.015	0.035	0.020	0.024	0.044	0.459	0.475	0.934
	Total	0.112	0.059	0.171	0.140	0.036	0.176	0.065	0.155	0.220	0.049	0.132	0.181	1.519	1.517	3.036
2022 surveyed trip rates per 100sqm (426,785sqm)	Light				0.067	0.021	0.088				0.044	0.051	0.095	0.932	0.953	1.884
	HGV				0.008	0.005	0.013				0.005	0.007	0.012	0.145	0.163	0.309
	Total				0.075	0.026	0.101				0.049	0.058	0.107	1.077	1.116	2.193
2023 surveyed trip rates per 100sqm (511,808 sqm)	Light	0.107	0.024	0.131	0.053	0.020	0.073	0.007	0.042	0.049	0.029	0.044	0.073	0.599	0.624	1.223
	HGV	0.015	0.015	0.031	0.017	0.016	0.033	0.013	0.016	0.028	0.013	0.016	0.029	0.306	0.357	0.662
	Total	0.123	0.039	0.162	0.069	0.036	0.106	0.019	0.058	0.077	0.042	0.060	0.102	0.904	0.981	1.885
2024 surveyed trip rates per 100sqm (590,182sqm)	Light	0.093	0.021	0.113	0.055	0.009	0.064	0.011	0.046	0.060	0.035	0.057	0.094	0.691	0.691	1.383
	HGV	0.011	0.014	0.026	0.015	0.012	0.028	0.015	0.015	0.029	0.013	0.014	0.025	0.297	0.297	0.595
	Total	0.104	0.035	0.139	0.071	0.022	0.092	0.026	0.062	0.089	0.047	0.071	0.120	0.988	0.989	1.978
Difference between 2014 and 2024 vehicle trip rates per 100sqm GFA	Light	0.004	-0.007	-0.005	-0.066	-0.004	-0.071	-0.029	-0.094	-0.120	0.006	-0.051	-0.043	-0.369	-0.352	-0.720
	HGV	-0.012	-0.017	-0.027	-0.004	-0.011	-0.013	-0.010	0.000	-0.006	-0.007	-0.010	-0.019	-0.162	-0.178	-0.339
	Total	-0.008	-0.024	-0.032	-0.069	-0.014	-0.084	-0.039	-0.093	-0.131	-0.002	-0.061	-0.061	-0.531	-0.528	-1.058

Table 5-2: EMG1 surveyed vehicle trip rates per 100sqm GFA (excl. mezzanine) in 2022, 2023 and 2024

Year	Vehicle Type	AM Peak			AM Peak			PM Peak			PM Peak			Daily		
		0700 - 0800			0800 – 0900			1600 - 1700			1700 – 1800			24hrs		
		Arrival	Departure	Two-way	Arrival	Departure	Two-way	Arrival	Departure	Two-way	Arrival	Departure	Two-way	Arrival	Departure	Two-way
2014 assessed trip rates per 100sqm (557,414 sqm)	Light	0.089	0.028	0.118	0.121	0.013	0.135	0.040	0.140	0.180	0.029	0.108	0.137	1.06	1.043	2.103
	HGV	0.023	0.031	0.053	0.019	0.023	0.041	0.025	0.015	0.035	0.020	0.024	0.044	0.459	0.475	0.934
	Total	0.112	0.059	0.171	0.140	0.036	0.176	0.065	0.155	0.220	0.049	0.132	0.181	1.519	1.517	3.036
2022 surveyed trip rates per 100sqm (288,479 sqm)	Light				0.097	0.033	0.130				0.069	0.072	0.141	1.374	1.413	2.788
	HGV				0.013	0.007	0.019				0.007	0.011	0.018	0.221	0.235	0.457
	Total				0.110	0.040	0.149				0.075	0.084	0.159	1.596	1.649	3.244
2023 surveyed trip rates per 100sqm (369,327 sqm)	Light	0.149	0.033	0.182	0.073	0.028	0.101	0.010	0.058	0.068	0.040	0.061	0.101	0.830	0.865	1.695
	HGV	0.021	0.021	0.043	0.023	0.022	0.045	0.017	0.022	0.039	0.018	0.022	0.040	0.423	0.494	0.918
	Total	0.170	0.054	0.224	0.096	0.051	0.146	0.027	0.080	0.107	0.058	0.083	0.141	1.253	1.360	2.613
2024 surveyed trip rates per 100sqm (434,501 sqm)	Light	0.127	0.029	0.153	0.075	0.013	0.087	0.015	0.063	0.081	0.047	0.077	0.128	0.938	0.939	1.878
	HGV	0.015	0.018	0.035	0.021	0.017	0.038	0.020	0.021	0.040	0.017	0.019	0.034	0.404	0.404	0.808
	Total	0.142	0.047	0.188	0.096	0.030	0.125	0.036	0.084	0.121	0.064	0.096	0.162	1.342	1.343	2.686
Difference between 2014 and 2024 vehicle trip rates per 100sqm GFA	Light	0.038	0.001	0.035	-0.046	0.000	-0.048	-0.025	-0.077	-0.099	0.018	-0.031	-0.009	-0.122	-0.104	-0.225
	HGV	-0.008	-0.013	-0.018	0.002	-0.006	-0.003	-0.005	0.006	0.000	-0.003	-0.005	-0.010	-0.055	-0.071	-0.126
	Total	0.030	-0.012	0.017	-0.044	-0.006	-0.051	-0.029	-0.071	-0.099	0.015	-0.036	-0.019	-0.177	-0.174	-0.350

6 Summary

This review of EMG1 outlines that the total number of daily vehicles arriving and departing the site has increased between 2023 to 2024 (21% increase in daily two-way vehicles). This also follows an increase from 2022 to 2023. Like in the previous assessment, the 2023 to 2024 increase is most likely due to increased commercial operations of tenants on site. Whilst the vehicle volume has increased, it remains lower than the number of trips that would have been expected based on the 2014 TA assessed trip rates and GFA built out.

Over half of the plots included within this assessment have mezzanine space included within their GFA. Despite this additional GFA, the 2024 daily vehicle trips rates per 100 sqm when including and excluding mezzanine levels are still lower than those assessed at the planning stage which is the same as in the 2023 assessment.

APPENDIX 34: BWB email dated 5 March 2025

Subject: FW: 250305 EMGP2 - mezzanine floor space - updated 2024 EMG1 survey information
Attachments: EMG1_2024VehicleTripRateComparisonReport_070225_v1.pdf; EMG2: mezzanines and parameters plan; EMG-UMC-SI-01-DR-A-0100-A - Racking Analysis.pdf

From: Paul Wilson <Paul.Wilson@bwbconsulting.com>
Sent: 05 March 2025 13:31
To: Ahmed, Fiona <Fiona.Ahmed@jacobs.com>
Cc: Catherine Townend <catherine.townend@nationalhighways.co.uk>; Jeremy Bloom <consulting@jeremybloom.co.uk>; Adrian Whiteman <Adrian.Whiteman@leics.gov.uk>; Harry Horsley <Harry.Horsley@leics.gov.uk>; Daniel Sullivan <daniel.sullivan@nottsc.gov.uk>; Tom Boylan <tom.boyland@nottsc.gov.uk>; Ian Rigby <ian.rigby@segro.com>; steve@oxalisplanning.co.uk; Matt Corner <Matt.Corner@bwbconsulting.com>; Simon Hilditch <Simon.Hilditch@bwbconsulting.com>; Kate.Stephen@nationalhighways.co.uk; Nock, George <George.Nock@jacobs.com>; Chandler-Hurst, Alain <Alain.ChandlerHurst@jacobs.com>
Subject: 250305 EMGP2 - mezzanine floor space - updated 2024 EMG1 survey information

Hi Fiona

I refer to your email below and subsequent conversations.

To confirm, we are **considering** doubling the amount of mezzanine space from 100,000sqm to 200,000sqm GFA, therefore resulting in a total of 440,000sqm of B8 use at EMG2 (plus 60,000sqm of B2 use at EMG2 & 30,000sqm B8 use at EMG1). That is subject to you being content that such an increase will not prejudice the transport modelling work undertaken thus far.

With that in mind this email sets out the following which we trust is of use, and are happy to weave into a more formal note, similar to the Rail Freight Terminal one, assuming you are more comfortable with what is set out:

- i) 2024 traffic survey results for EMG1
- ii) a refresh with re. to how mezzanines operate
- iii) review of the racking analysis plan attached
- iv) ditto how it would be dealt with from a DCO perspective if you were content that we could increase said figure.

1. 2024 traffic survey results for EMG1

We have since received the 2024 traffic survey results for EMG1, based on what is now a fully built out development, which are attached. I have therefore updated the calcs previously provided on 6/1/25 to reflect this below. In summary, the recorded trip rates have reduced versus the 2022 ones assessed earlier in the year, so much so that based on this methodology 650,000sqm GFA of B8 use could be built out at EMG2 if the trip rates ultimately mirrored that recorded in 2024 at EMG1, versus the 340,000sqm currently proposed in traffic generation terms – i.e. nearly double.

Scenario	Trip Rate Approach Adopted	AM Peak (8-9am)						PM Peak (4-5pm)					
		Total Vehicle Trip Rates			Total Vehicle Traffic Generation			Total Vehicle Trip Rates			Total Vehicle Traffic Generation		
		arrival	departure	2-way	arrival	departure	2-way	arrival	departure	2-way	arrival	departure	2-way
1. As currently proposed (V14 Proforma)	Currently agreed EMGP1 rates v devel as per latest proposal; 340,000sqm B8 only (inc 100,000sqm mezzanine at 100% trip rate)	0.140	0.036	0.176	476	122	598	0.065	0.155	0.220	221	527	748
2. As currently proposed - 2024 trip rates	Surveyed flows, inc mezz (340,000sqm B8)	0.071	0.022	0.092	241	75	313	0.026	0.062	0.089	88	211	303
3. With 200,000sqm GFA mezzanine space - V14 proforma trip rates	Currently agreed EMGP1 rates v 200,000sqm GFA of mezzanine space at 50% = 440,000sqm B8 in total (with 240,000sqm GFA assessed at 100% of trip rates set out in	0.070	0.018	0.088	140 + 336 = 476	36 + 86 =122	176 +422 =598	0.0325	0.0775	0.110	65 + 156 = 221	155 +372 = 527	220 + 528 = 748

	for ground and 50% for mezzanine	scenario 1 and 200,000sqm GFA assessed at 50%)												
4.	Total 440,000sqm GFA - agreed v14 trip rates	Currently agreed EMGP1 rates v 440,000sqm GFA (inc additional mezzanine space)	0.140	0.036	0.176	616	158	774	0.065	0.155	0.220	286	682	968
5.	Total 440,000sqm GFA - 2024 trip rates	Surveyed trip rates, inc mezz (440,000sqm B8; ie 200,000sqm GFA of mezzanine space)	0.071	0.022	0.092	312	97	405 (= a 33% reduction v 1)	0.026	0.062	0.089	114	273	391 (= a 48% reduction v 1)
6.	Total space based on 2024 trip rates to match V14 traffic flows	Surveyed trip rates maximised to mirror agreed trip generation = a GFA of 650,000sqm; i.e. 91% uplift versus that currently being assessed)	0.075	0.026	0.101	444	154	598	0.031	0.077	0.108	184	456	639

In your last email, we note that you picked up that the recorded shoulder peak trip rates were higher than what we're assessing, hence the nervousness in accepting lower trip rates as the timing of arrivals/departures may fluctuate.

Looking at Table 5-1 of ITP's report, the data shows that again shoulder peak trip rates are higher between 7-8am at 0.139 (albeit reduced from 0.162 from the 2023 information). Whilst we have adopted the 4-5pm trip rates in the table above for consistency, the 5-6pm recorded rates are higher (0.120 vs 0.089). However, both 'alternative' peak hour trip rates remain significantly lower than those which we have assessed to date.

The daily trip rates further support our case as shown in Figure 5-1, which show that 2024 rates are much lower than 2014 rates; 3.036 vs 1.978 (two-way).

2. How mezzanines operate

By way of a refresher, I set out the information contained in point iii) of my email dated 17/12/24, which I discussed once more with Jeremy in a recent catch up:

Over recent years there has been a trend, driven by increased automation and hand picking, for traditional storage racking to be replaced by mezzanine floors to facilitate the varying automation solutions. These mezzanine floors enhance the efficiency of the internal organisation and management of the logistics space but clearly as there are no loading doors at mezzanine level all goods still need to be transferred via loading doors at ground floor level to HGVs. We have seen no substantial increase in the number of loading doors per sqft of ground warehouse floor area. With the loading doors only being able to accommodate a given through put of goods, this corroborates the data we have collated at EMG that shows that the introduction of trips has no significant effect on HGV trip generation.

In simplistic terms traffic flows generated by B8 developments are driven by the number of loading doors and HGV parking spaces, not mezzanine levels, which in effect provide more sophisticated, automated racking systems, rather than an intensified operation from a traffic generation perspective. Hence why mezzanine floor spaces generate far less trips per 100sqm GFA than ground floor space.

3. Racking analysis plan

Building on the above point, please find attached the above plan, which should hopefully be self explanatory. In summary:

- i) Diagrams 1 and 2, Section B-B, and image 3 present a standard racking system
- ii) Section A-A, and images 1 and 2 present the alternative mezzanine option

What it does not say (possibly because nobody has ever carried out the exercise) is how the volumes compare. The main difference is that in the traditional racking system, products are stacked vertically and on the mezz floor they are stacked horizontally.

4. How any increase in mezzanine floor space would be dealt with from a DCO perspective

I attach an email Simon sent to Harry which sets out the above.

Does the above, more recent information, based on the built out EMG1 site, provide sufficient comfort and justification to now accept the assumption of a reduced rate based upon the expanded sample now provided, based upon its own merits and the elaborated information supplied above/attached?

We trust the above/attached are of use and look forward to hearing from you at your earliest opportunity. Thanks in advance

Kind regards

Kind regards

Paul Wilson BA(Hons) MCIHT MSoRSA CMILT MInstILM
Director | Head of Transport & Accessibility Planning | BWB Consulting Limited

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From: Ahmed, Fiona <Fiona.Ahmed@jacobs.com>
Sent: 29 January 2025 16:11
To: Paul Wilson <Paul.Wilson@bwbconsulting.com>; Nock, George <George.Nock@jacobs.com>
Cc: Catherine Townend <catherine.townend@nationalhighways.co.uk>; Jeremy Bloom <consulting@jeremybloom.co.uk>; Adrian Whiteman <Adrian.Whiteman@leics.gov.uk>; Harry Horsley <Harry.Horsley@leics.gov.uk>; Daniel Sullivan <daniel.sullivan@nottsc.gov.uk>; Tom Boylan <tom.boyland@nottsc.gov.uk>; Ian Rigby <ian.rigby@segro.com>; steve@oxalisplanning.co.uk; Matt Corner <Matt.Corner@bwbconsulting.com>; Simon Hilditch <Simon.Hilditch@bwbconsulting.com>; Kate.Stephen@nationalhighways.co.uk
Subject: RE: 250109 EMGP2 - mezzanine floor space - summary of current and desired position

This email originated from outside of our organisation. Please exercise caution with content, links and attachments.

Paul,

Further to your email below confirming the proposed quantum of development. You are now proposing an additional 100,000sqm of B8 floor space beyond that which was previously presented and included within the agreed modelling (430,000sqm).

We have reviewed your email of 9th January, and the data supplied in your email of 18th December 2024.

Using the data supplied in December [East Midlands Gateway Vehicle Trip Rate Comparison 2023 Table 5-1], we note that the observed 2022 data for the 0700 – 0800 peak hour actually generates higher demand than the 2014 data for the 0800 – 0900 (which is being used for the current modelling assessment). If this data was to be used with regards to the AM Peak modelling for scenarios 5 & 6, then this would result in a higher trip rate than in scenario 1.

We are therefore cautious in terms of how much weight we can give the observed data given the variation demonstrated within the data set.

Turning to the B8 mezzanine floor reductions, we still do not feel that there is sufficient justification to accept the assumption of a reduced rate based upon the sample provided. Such assumptions may well have been accepted in the cases presented, however each development proposal must be assessed based upon its own merits and the information supplied.

Your aspirational vision is underpinned by the principal that the development will generate less trips than predicted thereby justifying an increase in the floor space without accounting for this within the strategic modelling. Comparing the assumptions of the aspirational Vision against evidentiary sources, analysis demonstrates there is significant variation in potential externalised trip making. In the case of the AM peak, the proposal for 530,000sqm would generate approximately some 176 more trips than is currently being assessed. In the PM peak, this would be some 220 trips as identified in your email.

National Highways’ principal concern would be unmitigated impacts upon congestion or unacceptable impacts upon highway safety if the vision is not fully realised in the way it is envisaged. To mitigate against this risk, National Highways seeks two core traffic modelling scenarios to be run, the first one should reflect the full quantum (530,000 sqm) of floor space using the agreed trip rates and the second scenario should apply the lower floor area (430,000 sqm) which assumes that the mezzanine floor area does not generate any additional trip generation. National Highways will then be able to review whether the mitigation proposed can accommodate both core scenarios.

With thanks

Fiona Ahmed

APPENDIX 35: National Highways email dated 1 May 2025

Matt Corner

From: Ahmed, Fiona <Fiona.Ahmed@jacobs.com>
Sent: 01 May 2025 15:28
To: Paul Wilson
Cc: Catherine Townend; Jeremy Bloom; Adrian Whiteman; Harry Horsley; Daniel Sullivan; Tom Boylan; Ian Rigby; steve@oxalisplanning.co.uk; Matt Corner; Simon Hilditch; Kate Stephen; Nock, George; Chandler-Hurst, Alain
Subject: RE: 250305 EMGP2 - mezzanine floor space - updated 2024 EMG1 survey information

Follow Up Flag: Follow up
Flag Status: Completed

This email originated from outside of our organisation. Please exercise caution with content, links and attachments.

Paul,

Thank you for your email regarding the proposed additional 100,000 sqm of B8 mezzanine floor space you are considering, and apologies for the delay in responding. We have considered this carefully in consultation with National Highways Legal team and relevant technical experts.

National Highways' primary concern is the risk of unmitigated impacts on the Strategic Road Network (SRN) in terms of safety and capacity if the proposed operational vision for this additional 100,000 sqm is not achieved as envisioned. We believe these risks can be effectively managed through suitable provisions.

We acknowledge Segro's shift towards mezzanine floors, automation, and vertical stacking/storage. We can accept the additional 100,000 sqm of mezzanine floor space without additional modelling, provided it is used for the intended vertical stacking/storage purpose as stated. National Highways require a provision within the Order stipulating that the additional 100,000 sqm floor space for storage/racking must be used for its intended purpose in perpetuity, ancillary to B8 ground floor space.

Furthermore, as you've utilised the observed data set for EMG1 in your technical evaluation, National Highways expect the sustainable transport objectives achieved for Phase 1 to be applied to Phase 2 (current DCO). Please can you update the sustainable transport strategy to align modal shift targets of Phase 1 with Phase 2.

Subject to the above provisions, National Highways agrees to the increased mezzanine floorspace without any further modelling exercises carried out. Subject to the above provisions, National Highways agrees to the increased mezzanine floorspace without any further modelling exercises carried out. We continue to require you to test the development's impacts against the demand as set out within Proforma 14.

We would be pleased to discuss any element of the above if required.

Regards

Fiona

Fiona Ahmed, BSc, MSc, CTPP | **Jacobs** | Associate Director Transport Planner | Cities and Places
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APPENDIX 36: PRTM Proforma v14a & Uncertainty Log v7a

Pan Regional Transport Model (PRTM) Development Testing Proforma

Foreword:

Before completing this form for development management purposes, it is recommended that you contact Leicestershire County Council (LCC) and seek advice from the Highway Development Management (HDM) team on the proposed use of PRTM. The HDM team can be contacted at hdc@leics.gov.uk.

Although not a requirement it is strongly recommended that potential stakeholders, e.g. LCC HDM, National Highways, sign-off on your brief and trip generation before submitting this proforma to Environment and Transport Modelling Services Contract (E&T MSC). This should ensure that any subsequent work proposal through E&T MSC is as accurate as possible in terms of scope, timescales and cost.

Please note that E&T MSC and wider Network Data and Intelligence (NDI) Team work independently from all other teams within LCC, including HDM. Please ensure any correspondence intended for the HDM team is sent to the case officer for your (pre)application; or, if unknown, to HDM's generic inbox: hdc@leics.gov.uk.

On the following page is an indicative flowchart summarising the general transport modelling process for using the PRTM to inform client Transport Assessments; this is a typical approach and has been simplified to a generic process – each individual application may differ from the below and as above advice should be sought from the HDM team.



Section 1: Client Details

Name:	Paul Wilson
Company:	BWB Consulting Ltd (on behalf of Segro)
Telephone:	07889995471
E-mail:	paul.wilson@bwbconsulting.com
Date:	28/10/2024

Section 2: Project Details

Title:	East Midlands Gateway Phase 2
District / Location:	Land to the southeast of EMA, and southwest of M1J23a in North West Leicestershire DC's jurisdiction
Background:	<p>This version of the PRTM proforma (v14a) outlines additional scenarios that require testing as part of the EMG2 Development Consent Order over and above the scenarios already set out within PRTM proforma v14 (dated 10/10/24).</p> <p>The additional scenarios cover requirements for transport planning, air quality and noise quality purposes.</p> <p>The majority of the other details in this proforma remain unchanged from v14 (trip rates, traffic generation, development details etc. all remain the same) and the only changes relate to additional modelling scenarios set out in Section 4. This proforma is accompanied by a revised uncertainty log (v7a).</p>

Section 3: Development Details

Please input your development phasing into the provided table on the right; if it is a mixed-use site, please separate dwellings and employment floorspace with a comma. This table will act as an overview to the detail provided further in this proforma as well as the supporting brief (if available).

There are two main forms of assessment that the E&T MSC offers, a highway-only model run and a full-PRTM model run. Your HDM Case Officer will confirm which type of assessment is needed for your development.

For highway-only model runs please provide details in section 3a, for full model runs please provide details in section 3b.

Please provide a brief description of the access arrangements in the box below; if there are preliminary scheme drawings available please provide these alongside submission of this proforma via email attachment.

Brief description of access arrangements:

The access proposals to EMG2 involve a single main access via a fourth arm of the existing A453/Hunter Road roundabout to serve 100% of the development plus the bus interchange, which can then connect directly into the site.

A separate emergency access would also be provided, but that won't affect the revised modelling work.

Development on Plot 16 of EMG1 would be served by the existing access via Wilder's Way.

Year	No.
2021	Figure
2022	Figure
2023	Figure
2024	Figure
2025	Figure
2026	Figure
2027	Figure
2028	130,000sqm
2029	100,000sqm
2030	100,000sqm
2031	100,000sqm
2032	Figure
2033	Figure
2034	Figure
2035	Figure
2036	Figure
2037	Figure
2038	Figure
2039	Figure
2040	Figure
2041	Figure
2042	Figure
2043	Figure
2044	Figure
2045	Figure
2046	Figure
2047	Figure
2048	Figure
2049	Figure
2050	Figure
2051	Figure
Total	430,000sqm

Section 3a: Highway Model Only Development Details

Please provide either the agreed trip rates and/or trip generation for your development in the relevant tables below. Depending on your land use and agreed approach with LCC HDM, values may not be required for all three time periods.

Trip Rates:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

Employment: B2

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.376	0.057	0.433	-	-	-	0.046	0.363	0.408
HGV's	0.016	0.014	0.030	-	-	-	0.003	0.006	0.009
Total	0.392	0.071	0.463	-	-	-	0.049	0.369	0.417

Employment: B8

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.121	0.013	0.135	-	-	-	0.040	0.140	0.180
HGV's	0.019	0.023	0.041	-	-	-	0.025	0.015	0.040
Total	0.140	0.036	0.176	-	-	-	0.065	0.155	0.220

The B8 trip rates for the PM peak now mirror the 1600 to 1700 hour shoulder peak trip rates adopted for EMG1

Trip Generation:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

EMG2 (400,000sqm)

Employment: B2; 60,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	226	34	260	-	-	-	28	218	246
HGV's	10	8	18	-	-	-	2	4	6
Total	235	43	278	-	-	-	30	222	252

Employment: B8 340,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	411	44	455	-	-	-	136	476	612
HGV's	65	78	143	-	-	-	85	51	136
Total	476	122	598	-	-	-	221	527	748

Employment: TOTAL EMG2 DEVELOPMENT

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	637	78	715	-	-	-	164	694	858
HGV's	75	86	161	-	-	-	87	55	142
Total	711	165	876	-	-	-	250	748	998

Plot 16 EMG1 (30,000sqm)

Employment: B8 30,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	36	4	40	-	-	-	12	42	54
HGV's	6	7	13	-	-	-	8	5	13
Total	42	11	53	-	-	-	20	47	67

Section 3b: Full Model Run Development Details

Please provide the number of dwellings and/or employment floorspace, or preferably if known, jobs for each of the sub-categories below.

Employment Development Land Use:

Land Use	Class	Unit	Quantum	Jobs
Shops	A1	m ²		
Business	B1a	m ²		
General Industrial	B2	m ²	60,000	TBC
Storage or Distribution	B8	m ²	370,000*	TBC
Research & Development	B1b	m ²		
Leisure	D2	m ²		
Hotels	C1	Beds		
Education	D1	Jobs		

* includes 340,000sqm of B8 floorspace on EMG2 and 30,000sqm of B8 floorspace on Plot 16 of EMG1

Housing Development Land Use:

Land Use	Class	Dwellings
Dwellings	C3	

Section 4: Modelling Required

Assessment Years:

Please select your assessment years from the options below. Please note that if you need PRTM forecast years to infer model flows to correspond with data collection, you will need to select the 'shoulder' forecast years (i.e. inferring the 2018 model forecast year will require 2016 and 2021 PRTM forecast years). Bespoke individual forecast years may be requested with the "Other, please specify" option, but this does not guarantee inclusion in any provided proposal.

2014 (base) <input type="checkbox"/>	2016 <input type="checkbox"/>	2021 <input type="checkbox"/>
2026 <input type="checkbox"/>	2031 <input type="checkbox"/>	2036 <input type="checkbox"/>
2041 <input type="checkbox"/>	2046 <input type="checkbox"/>	2051 <input type="checkbox"/>
Other, please specify:	2028 and 2038 forecast years are required that remove the Local Plan allocated sites. The Local Plan sites are highlighted in yellow in uncertainty log 7a and include: <ol style="list-style-type: none"> 1. Isley Woodhouse (W1). 2. Land North and South of Park Lane, Castle Donington (CD10). 3. Land West of Hilltop Farm, Castle Donington (EMP89). 4. Land North of J11A/M42 (EMP82). 5. Land North of Remembrance Way, Kegworth (EMP73). 6. Land North of Derby Road, Kegworth (EMP73). All Freeport designations are to remain included in all modelling scenarios.	

If required, please provide proposed phasing in each forecast year selected above, in the box below. An example has been included in green, please delete and populate with your data.

2023: 0% development (do minimum)
 2024: 0% development (do minimum)
 2028: 100% occupancy (excluding Local Plan sites)
 2038: 100% occupancy (excluding Local Plan sites)

Assessment Options:

Please select which scenarios you will want testing, as well as defining which model year each scenario corresponds to as this can potentially be multiple forecast years for one scenario; this will depend on your discussions with HDM and their requirements.

Scenario	Choice	Model Year(s)
Core	Assumed	2023/2024/2028/2038
Core + no development + access strategy	<input type="checkbox"/>	
Core + development + no mitigation	Assumed	2028/2038
Core + development + mitigation	<input checked="" type="checkbox"/>	2028/2038
Other, please specify:	<p>The following additional scenarios will need testing as part of the Stage 1 modelling:</p> <ul style="list-style-type: none"> i) 2023/2024 forecast base year (for air and noise quality purposes) ii) 2028/2038 forecast year without development (excluding the Local Plan related schemes) iii) 2028/2038 forecast year with development (excluding the Local Plan related schemes) 	

Time Period Selection:

Please select the time periods you would like your development assessed in.

AM (0800-0900)	<input checked="" type="checkbox"/>
IP (average hour for 1000-1600)	<input type="checkbox"/>
PM (1700-1800)	<input checked="" type="checkbox"/>

Indicative list of Junctions for Further Assessment:

If known, please provide an indicative list of expected junctions that may be required for further assessment in the box below. This, in turn, will facilitate the delivery of strategic model outputs to inform any further detailed junction assessments. Failing that, a rough estimation of the number of junctions that **may** require further assessment will aid consultants in producing robust quotations within their proposals.

Strategic modelling outputs are expected to be required at the following 7 junctions.

Junction 2) A453/Hunter Road/proposed site access Roundabout (Leicestershire)
Junction 3) Finger Farm Roundabout (National Highways)
Junction 4) A453/EMGP1 Signal Gyratory (National Highways)
Junction 5) M1 Junction 24 (National Highways)
Junction 6) A453/East Midlands Airport Signal Junction (Leicestershire)
Junction 7) A453/Grimes Gate Priority Junction (Leicestershire)
Junction 8) A453/The Green Priority Junction (Leicestershire)

Section 5: Pre-Modelling Outputs

This section details the options available to the client pre-modelling; typically, in aid of model assurance for project stakeholders to ensure no abortive work is undertaken. Please de-select which pre-modelling outputs you do not require, as these are usually standard documents provided to HDM.

Project Specific Study Area Model Validation Report	<input type="checkbox"/>
Local Planning Data Assumptions	<input type="checkbox"/>
Network Scheme Uncertainty Log	<input type="checkbox"/>

Section 6: Post-Modelling Outputs

Highway Model Outputs:

The following highway model output options are available post-transport-model assignment. Some metrics below will need to be specified by the client after analysis of the forecasting report; for instance, “individual junction plots” which would tie in with the relevant sub-section in Section 4.

Area of Influence (Aol) (criteria defined as 5% and 30 PCU change)	Assumed
Highway Flow Changes within Aol	Assumed
Highway Delay Changes within Aol	<input checked="" type="checkbox"/>
Individual Junction Plots – Turning Flows	<input checked="" type="checkbox"/>
Individual Junction Plots – Volume/Capacity Ratio	<input checked="" type="checkbox"/>
Maximum Volume/Capacity Ratio Plots	<input checked="" type="checkbox"/>
Select Link Analysis of Development Traffic (link based)	<input checked="" type="checkbox"/>
Provision of flow data for junction design/assessment	<input checked="" type="checkbox"/>
AADT/AAWT	<input checked="" type="checkbox"/>
<p>The following model outputs would be required in shape file format for the purposes of our subsequent analysis (which may overlap with above).</p> <ul style="list-style-type: none"> - AM/PM Peak flows classified into Lights/Heavies/Total - AM/PM/AADT Development only flows classified into Lights/Heavies/Total - Maximum Junction VoC - Link Delay - Link Queue - AADT classified into Lights/Heavies/Total - AAWT (24hr, 18hr, 8hr) classified into Lights/Heavies/Total <p>Further to the above extraction of cordon matrices (actual flows) for the VISSIM modelling extent is required which includes the following junctions:</p> <ul style="list-style-type: none"> - M1 J24; - M1 J24a southbound merge onto the M1 and M1 junction 24; - A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory; - M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads); - A453/Hunter Road/minor EMG Phase 2 access roundabout; <p>The outputs from the cordon matrices should include:</p> <ul style="list-style-type: none"> - Cordon matrices (in vehicle) for <ul style="list-style-type: none"> o Cars / LGVs / HGVs o AM Peak hour / PM Peak hour - The cordon matrices to be provided in spreadsheet format. <p>The above outputs are required for the 2028/2038 forecast year scenarios only and only shapefiles are needed for the 2023/2024 baseline year scenarios.</p>	

Variable Demand Model Outputs (full PRTM run required):

The following demand model output options are available post-transport-model assignment.

Mode Share reporting; PT, Car, Active	<input type="checkbox"/>
Trip Distance, 24-hour trip making & sustainability	<input type="checkbox"/>

Public Transport Model Outputs (full PRTM run required):

The following highway model output options are available post-transport-model assignment.

Change in travel time, distances & speeds	<input type="checkbox"/>
Distribution Analysis/Diagrams of Development Traffic	<input type="checkbox"/>
Travel Time Changes along Key Routes	<input type="checkbox"/>
Public Transport Passenger Changes	<input type="checkbox"/>

Environmental Model Outputs:

Environmental model outputs are available post-transport-model assignment. Please note that environmental outputs will require a separate commission via the E&T MSC Manager, please contact ETCF@leics.gov.uk if you require emission or dispersion modelling to support your application.

Section 7: Supporting Documents

Supporting Documents:

Please provide any supporting documents that have been selected below to the E&T MSC Manager upon delivery of your proforma.

Location Plan	<input type="checkbox"/>
Access Scheme Drawings	<input type="checkbox"/>
Development Masterplan (to be updated in the coming weeks)	<input type="checkbox"/>
Other, please specify:	Click here to enter text

Client's Expected Timescales:

Please provide an approximation for your client's timescales for this modelling commission in the box below; please take into consideration HDM's and National Highways' standard response times and sign-off procedures to avoid unrealistic timescales being provided and slippage to your project.

It is understood that these additional scenarios will have a small impact on the timescales for the Stage 1 modelling work, extending timescales by 1-2 weeks. We request a revised programme from AECOM formally setting out timescales for the modelling.

Section 8: Contact Details

Email the completed form, along with supporting documents to ETCF@leics.gov.uk

For queries regarding the modelling process please contact:

Laura Good – ETCF & E&T MSC Manager
Email: ETCF@leics.gov.uk

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Source	Authority	Source	Type	MasterUseItemNameAndHighwayProject	Description	SubAreaNumber	Year_2000	Year_2001	Year_2002	Year_2003	Year_2004	Year_2005	Year_2006	Year_2007	Year_2008	Year_2009	Year_2010	Year_2011	Year_2012	Year_2013	Year_2014	Year_2015	Year_2016	Year_2017	Year_2018	Year_2019	Year_2020	Year_2021	Year_2022	Year_2023	Year_2024	Year_2025	Year_2026	Year_2027	Year_2028	Year_2029	Year_2030	One Year	Index
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EMPLOYMENT	North	North	North	North	Employment	Employment	17076	16480	7224	2217	2333	2381	2338	1	1	1	1</																						

[illegible]

Highway Network Scheme Assumptions

Scheme No.	Location	Scheme Name	Included from...	Included
16	Earl Shilton	Access arrangements for SUE / Highway improvements for SUE	2026	Y
17	Barwell	Access arrangements for SUE / Highway improvements for SUE	2026	Y
18	Lubbesthorpe	Access arrangements for SUE including strategic traffic link to the A563 Lubbesthorpe Way	2021	Y
20	Loughborough	A512 widening B591 to M1 J23, improvements to J23 and completion of dualling thereafter to either Snell's Nook Lane or Epinal Way junction	2021	Y
23	Coalville	4. Bardon Road Link: Southern section only	2026	Y
24	Castle Donington	Western Link Road from Back Lane to Tops Hill, NWLDC package of measures to help mitigate growth planned	2021	Y
25	Lubbesthorpe	Link across M69 to join North and South of the Lubbesthorpe development.	2031	Y
26	Earl Shilton & Barwell	Highway improvements for SUE	2026	Y
27	Lubbesthorpe	Highway improvements for SUE	2026	Y
30	Loughborough	West of Loughborough SUE (access from the north via the A6 roundabout)	2022	Y
36	Blaby	Desford Crossroads	2026	N
37	Harborough	Harborough Strategic Development Area	2021	Y
38	Charnwood	North of Birstall SUE	2026	Y
39	Charnwood	Mountsorrel Lane, Rothley Link Road	2021	Y
40	Charnwood	A512 junction improvements	2021	Y
46	North of East Leicester	North of East Leicester Development Network - Thorpebury (previously Thurmaston) SUE.	2026	Y
53	Leicester City	Traffic Calming Schemes (Phase 2)	2021	Y
60	Leicester City	Welford Road	2021	Y
63	Leicester City	Waterside Development	2026	Y
66	Leicester City	Belgrave Gate South	2020	Y
70	Leicester City	Lancaster Road	2020	Y
71	Leicester City	Mansfield Street & Church Gate	2021	Y
72	Leicester City	SMBS Access to Burleys Way	2021	Y
73	Leicester City	Vaughan Way	2020	Y
74	Leicester City	Ashton Green	2021	Y
108	Leicester City	LNW2 Ravensbridge Drive / Blackbird Road	2020	Y
104	Melton	MMDR Northern Section	2026	Y
105	Melton	MMDR Eastern Section	2026	Y
106	Melton	MMDR Southern Section	2026	Y
109	Melton	Gladman's Site (Leicester Rd and Kirby Lane Access)	2021	Y
114	Leicester City	Beaumont Leys Anstey Lane Improvements	2021	Y
115	Hinckley	Hinckley Rugby Road Corridor Improvements - Phase 4	2023	Y
116	Leicester City	Putney Road West Improvement	2022	Y
117	Lutterworth	Frank Whittle Roundabout approaches	2021	Y
601	Lutterworth	Lutterworth East Development (Development Access (A4304, Gilmorton Road and A426))	2026	Y
602	Lutterworth	Lutterworth East Development associated mitigations	2031	Y
603	Lutterworth	Lutterworth East Development (Link Road between A4304 and A426)	2031	Y
604	Lutterworth	Lutterworth East Development (Gilmorton Road bridge bus restriction)	2026	Y
119	Bardon Hill	Bardon Hill Link Road North Section	2026	Y
120	Coalville	Hoo Ash Roundabout	2025	Y
121	Coalville	Thornborough Road Roundabout	2025	Y
122	Coalville	Dual Carriageway from Thornborough Rd to Whitwick Road	2025	Y
123	Coalville	Whitwick Road Roundabout	2025	Y
124	Coalville	Broom Leys Road Junction	2025	Y
125	Coalville	Bardon Link Road Junction	2025	Y
126	Coalville	Birch Tree Roundabout	2025	Y
128	Coalville	Flying Horse Roundabout	2025	Y
129	Coalville	Fieldhead Roundabout	2025	Y
134	Hinckley	DPD A5 Access	2021	Y
137	Padge Hall	Padge Hall Development Access	2024	Y
140	Leicester City	Abbey Park Road Cycle Provision	2021	Y
142	Blaby	A47/Kirby Lane Tesco Express	2021	Y
143	Leicester City	Abbey Street	2021	Y
144	Leicester City	A50 Groby Road Bus Lane	2022	Y
150	Harborough	Magna Park Extension Access - Mere Lane, Lutterworth	2021	Y
151	Harborough	Magna Park Extension Access - A5, Lutterworth	2026	Y
152	Blaby	Highway improvements for Lubbesthorpe SUE	2021	Y
153	Blaby	Foxhunter Roundabout Eastbound Approach	2021	Y
154	Loughborough	West of Loughborough SUE (connection to the northern arm of the A512 roundabout)	2036	Y

155	Harborough	B4114/B581 Signalisation Improvement, Broughton Astley	2026	Y
157	Blaby	Blaby DPD Site Access	2026	Y
158	Blaby	West of St Johns (Blaby DPD) Site Access	2026	Y
159	Harborough	Wigston Direction for Growth Site Access	2026	Y
160	Blaby	Everard Way Closure, Fosse Park	2020	Y
161	Loughborough	Access connection for the Science Park via the A512 roundabout	2031	Y
163	NWL	Money Hill Site Access A511	2026	Y
164	Derbyshire	Wragley Way (South Derbyshire) SUE Access A50	2031	Y
166	Derbyshire	Clifton (Rushcliffe) SUE Access	2022	Y
167	Derbyshire	EMIP A50 (Freeport)	2030	Y
169	Derbyshire	Toton Innovation Hub (HS2)	2026	Y
170	Nottinghamshire	Ratcliffe Power Station A453 (Freeport)	2030	Y
171	Rugby	Rugby Radio Station - A5 Access	2022	Y
174	North West Leicestershire	Mercia Park	2020	Y
175	Leicester City	Western Park Golf Course	2029	Y
176	Harborough	Kettering Road Signalisation	2021	Y
177	Charnwood	Shuttle signals on Tickow Lane (over bridge)	2022	Y
178	Charnwood	Buttercup Lane in Shepshed	2022	Y
179	Blaby	Dans Lane (A47)	2023	Y
180	Hinckley	B582 / B585 signalisation	2023	Y
181	Hinckley	A47 roundabout between Wykin Rd and Outlands Dr	2021	Y
502	M6 J10-13	M54-Stafford ALR	2021	Y
504	M54-M6 Toll	New Link Road min 2 lane motorway	2024	Y
507	M6 J13-J16	Stafford South to Stoke ALR	2022	Y
510	M1 J13-16	MK South - J16 ALR	2022	Y
513	M40 M42	M40 J16-M42 J3 ALR	2026	Y
516	A46 Coventry	Remove Binley and Walsgrove roundabouts M40-M6 as 'expressway standard'(ie all grade separated junctions)	2026	Y
520	A46 Toll Bar End	Grade separated jcn at TBE & Stonebridge Hwy to 3 lanes	2021	Y
526	Newark N	Dualling Newark N bypass first stages now in RIS 2	2031	Y
527	Newark S	A1-A46 link S of Newark; part constructed. Not in MRTM list	2031	Y
528	Lincoln E	A15-A158; under construction	2021	Y
529	Lincoln S	A158-A46; *sketchy details*; envisaged as dual carriageway... Assumed costing will be similar to Lincoln E bypass and will be 60mph single	2031	Y
530	Grantham S	A1-A52 link bypassing Grantham; under construction	2023	Y
9	Warwickshire	M6 J2 - J4 SMART motorway	2021	Y
201	Nuneaton and Bedworth Borough	Coton Arches	2021	Y
202	Nuneaton and Bedworth Borough	A4254b Eastboro Way P1	2024	Y
203	Nuneaton and Bedworth Borough	College Street / A444	2026	Y
204	Nuneaton and Bedworth Borough	Transforming Nuneaton	2026	Y
205	Nuneaton and Bedworth Borough	Croft Road/Greenmoor Road Priority	2031	Y
206	Nuneaton and Bedworth Borough	A47 Old Hinckley Road	2024	Y
207	Nuneaton and Bedworth Borough	Coventry Road / Gipsy Lane	2026	Y
208	Nuneaton and Bedworth Borough	A4254 / B4114 / Eastboro Way	2026	Y
209	Nuneaton and Bedworth Borough	Nuneaton Northern Sites Link Road	2026	Y
210	North Warwickshire	B5000 Market Street/Bridge St Signals	2026	Y
211	North Warwickshire	A5 Dualling between Grendon and Dordon Junction	2033	Y
213	Rugby Borough	A426/A4071 Avon Mill Roundabout/Newbold Road/Hunters Lane Priority Junction	2026	Y
214	Rugby Borough	Ashlawn Road/Hillmorton Road	2021	Y
215	Rugby Borough	A5 Northern Access to DIRFT III	2021	Y
216	Rugby Borough	A5/A428 Halfway House Roundabout	2026	Y
217	Rugby Borough	M1 Junction 18	2031	Y
218	Rugby Borough	M6 to Coton House	2021	Y
219	Rugby Borough	A5 Southern Access to DIRFT III	2021	Y
221	North Warwickshire	A5 dualling Grendon to Atherstone	2031	Y
223	Rugby Borough	M6 J2 Signalisation	2024	Y
250	Nuneaton and Bedworth Borough	Callendar Farm Phase 2	2031	Y
251	Nuneaton and Bedworth Borough	Bermuda Triangle Project	2026	Y
252	Rugby Borough	Ansty Park Access (Combe Fields Road)	2020	Y
182	Castle Donington	Land South of A50 J1 Development Access	2024	Y
183	Hinckley	B4114 Coventry Rd / Broughton Rd widening	2021	Y
184	Shepshed	A512 Ashby Rd Quarry access/signalised jnc	2021	Y
185	Bardon	Tungsten Park, Bardon A511	2021	Y
186	NWL	EMAGIC Segro EMG Phase 2 Development Access	2028	N

306	Leicester City	St George Street (Queen St to Southampton St)	2022	Y
307	Leicester City	Dover Street (Granby Street Jct)	2024	Y
305	Leicester City	Granby St (Bishop St to Halford St)	2024	Y
304	Leicester City	Granby St (N'hampton St to St George's Way)	2022	Y
303	Leicester City	Pocklington's Walk	2022	Y
302	Leicester City	Aylestone Road, Saffron Lane to Oxford Street (A426)	2023	Y
301	Leicester City	Saffron Lane (B5366)	2023	Y
149	Leicester City	Duns Lane/Braunstone Gate	2023	Y
148	Leicester City	Abbey Park Road (Eastern section and bridge)	2023	Y
147	Leicester City	Anstey Lane (A5630)	2022	Y
146	Leicester City	St. Margaret's to Birstall (A6)	2024	Y
145	Leicester City	Melton Road (A607)	2023	Y
77	Leicester City	Belgrave Gate/Haymarket/Church Gate Pedestrianisation	2020	Y
187	NWL	A50 J1 signalisation of two additional arms (Tamworth Road and Trent Lane)	2025	Y
188	Blaby	Desford Road/Ratby Lane signalisation	2022	Y
189	Nottinghamshire	A52 Gamston roundabout	2023	Y
190	Nottinghamshire	A52 Wheatcroft junction	2028	Y
191	Nottinghamshire	A52 Nottingham Knight junction	2028	Y
n/a	Derbyshire	A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout)	2024	Y
n/a	Broxtowe	Toton Link Road	2026	N

**APPENDIX 37: A52 Signal Junctions Green Time Calculations email dated 23 August
2024**

Matt Corner

From: Matt Corner
Sent: 23 August 2024 14:21
To: Morrow, Jonathan; aled.davies@aecom.com
Cc: Chandler-Hurst, Alain; Jeremy Bloom; Ian Rigby; Freek, Steve; Vibeeshan Devaharan; Laura Good; ETD - Commissioning Framework; stefan@deltaplanning.co.uk; david@deltaplanning.co.uk; Stephanie Meyers; steve@oxalisplanning.co.uk; Anthea Anderson; Paul Wilson; tom.boylan@nottscg.gov.uk; Harry Horsley; daniel.sullivan; Adrian Whiteman; Ahmed, Fiona; catherine.townend@nationalhighways.co.uk; Nock, George
Subject: RE: EMG2 - A52 Signal Timing Information
Attachments: 240819_Furnessing_Traffic_Flow_Matrices.xlsx

Hi Jonathan/Aled,

As you know we have been trying to obtain signal timing information for the three A52 improvement schemes but unfortunately to no avail. We have therefore taken it upon ourselves to calculate assumed signal timing information using PRTM flow data and the scheme drawings provided to us. This has incurred quite a lengthy exercise but should provide reasonable signal timing information to be coded into PRTM. I understand that you will sense check the timings when undertaking the modelling and optimise timings where necessary. Attached is a copy of the spreadsheet presenting the calculations for records more than anything, whilst a summary of the methodology is provided below.

Methodology for Calculating Green Times

1. As PRTM data provides entry/exit flows for each arm but not turning counts, a furnessing exercise was undertaken to determine turning proportions, using the previously agreed methodology.
2. Each junction was split into individual streams, typically including an approach arm and the opposing lanes on the circulatory. All streams are shown in the images in the attached spreadsheet.
3. Traffic was assigned to each lane using the turning proportions determined through the furnessing exercise (point 1). Where multiple lanes allow for the same direction of travel, flows were split equally across each lane.
4. A percentage of the maximum lane flow for each arm in the same stream was calculated. For example, if the heaviest flow is 100 vehicles on an entry arm lane and 150 vehicles on a circulatory lane, then the percentage split would be 40% (entry arm) and 60% (circulatory).
5. A base cycle time of 60 seconds was adopted for streams with two stages and streams with more than two stages adopted a cycle time of 90 seconds.
6. Intergreens were calculated based on geometries using the drawings supplied to us.
7. The total green times were calculated by subtracting the intergreen time from the total cycle time.
8. The remaining green time was then allocated to each stage stream in line with the percentage split calculated at point 4.

By adopting the above methodology, the green times for each stream for the three junctions are summarised in the tables below, whilst intergreen times can be found in the spreadsheet. These should provide a reasonable estimation of green times in the absence of any further information, which we recommend AECOM take on board within the PRTM modelling, noting that you will carry out your own sense checks during the process.

Green Times

Junction 1 A52/A60 (Nottingham Knight)

Stream	Cycle Time Sec	Arm	AM GT Sec	PM GT Sec
1	90	Arm A - A52 E Approach	22	23
		Arm B - A52 W Approach	15	18
		Arm C - Circulatory	10	6
2	60	Arm A - A60	16	16
		Arm B - Circulatory	33	33
3	60	Arm A - A52 W Approach	32	34
		Arm B - Circulatory	16	14

Junction 2 A52/A606 (Wheatcroft Island)

Stream	Cycle Time Sec	Arm	AM GT Sec	PM GT Sec
1	60	Arm A - Melton Road N	17	16
		Arm B - Circulatory	30	31
2	60	Arm A - A52 E Approach	23	23
		Arm B - Circulatory	24	24
3	60	Arm A - Melton Road E	11	14
		Arm B - A52 W Approach	7	7
		Arm C - Circulatory	18	15
4	60	Arm A - Flawforth Lane	8	7
		Arm B - Circulatory	39	40
5	60	Arm A - A52 W Approach	30	31
		Arm B - Circulatory	17	16

Junction 3 A52/A6011 (Gamston Roundabout)

Stream	Cycle Time Sec	Arm	AM GT Sec	PM GT Sec
1	60	Arm A - A52 E Approach	31	28
		Arm B - Circulatory	19	22
2	60	Arm A - A52 S Approach	20	29
		Arm B - Circulatory	29	20
2	60	Arm A - Radcliffe Road	34	31
		Arm B - Circulatory	16	19

On a separate note, we have reviewed the other three junction improvements on the A52 raised by Catherine at the TWG meeting (Silverdale, Stragglethorpe and Bingham Road). Whilst they are currently excluded from the uncertainty log, they comprise more minor changes such as introducing part time signals/changes to signal timings etc, with the latter two junctions located more remote from the site within Radcliffe on Trent. Therefore, we are of the opinion that they do not including for in the PRTM modelling work.

This should now give AECOM everything you need to continue the PRTM modelling work and running the forecast year scenarios. However, please let us know if you have any questions or require any further information. We have copied in the TWG seeing as this was included for as a key action, but trust that they will be accepting of the approach adopted, seeing as we were hoping that said information would have been provided directly to us, rather than us having to had gone to such lengths to determine it. Thanks

Kind regards

Matt Corner

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Subject: EMGP2 - August Meeting Minutes/Actions

Hi all,

Thank you for your time again on Thursday last week.

Please see attached minutes from the meeting, along with Steph's slides on the sustainable transport update and a revised programme. The programme has been cropped to include the tasks leading up to December 2024, which is when the core modelling tasks should be complete as this should keep it more focused as appreciate the main version is fairly comprehensive.

Key actions from the meeting are summarised below:

1. BWB/NH to follow up with Jeremy on the A52 signal timing information. [@catherine.townend@nationalhighways.co.uk](mailto:catherine.townend@nationalhighways.co.uk) I'll be following up with Jeremy this week but if you are able to assist that would be greatly appreciated as this is critical for the modelling.
2. BWB to review the other three NH junction improvement schemes and whether these are included in PRTM.
3. AECOM to check EMG1 flows, which from the original modelling look very high.
4. AECOM to confirm the methodology for covid sensitivity assessment and how factors are applied to increase base flows.
5. BWB to arrange a meeting with Jeremy to run through NH's note and the mitigation points in particular.

6. BWB to finalise and circulate a link to the SharePoint page.
7. AECOM to issue the PRTM base model validation addendum note.
8. Matt to schedule a modelling meeting following responses on the survey poll schedule poll.

I trust the above covers all the points and actions discussed at the meeting but if anyone has any comments then please feel free to get in touch.

Kind regards

Matt Corner

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Subject: RE: 240710 EMGP2 - July TWG agenda

Dear all,

We look forward to catching up Thursday at 10am. The proposed agenda is set out below.

- a. Review of July 24 meeting minutes/actions (re-attached for ease of reference)
- b. Client update; IR
- c. Sustainable transport strategy update; SM
- d. EMFM modelling update, post inception meeting (minutes re-attached for ease)
- e. Wider strategic modelling update
- f. Covid sensitivity testing; KT thoughts post AECOM presentation?
- g. Jeremy Blooms note 23/7

- h. Vision & Validate Assessment
- i. Statement of Common Ground
- j. Next steps
- k. AOB

We trust the above/attached is of use; however, should anyone have any queries prior to the meeting please ask. Thanks

Kind regards

Matt Corner

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APPENDIX 38: Stage 1C Modelling sign off sheet

Document Name	Stage 1C Modelling Documents	Project reference	220500
Document reference / revision	Covid-19 Assessment (EMG2-BWB-GEN-XX-RP-TR-0014 Revision P1)	Date	19.02.25
Approver 1	Name	Jeremy Bloom	
	Organisation	National Highways	
	Position	Interim Spatial Planner	
	Date	30/04/2025	
	Signature		
	Comments (if applicable)	<p>Covid-19 Assessment (EMG2-BWB-GEN-XX-RP-TR-0014 Revision P1)</p> <p>To inform the Applicant's assessment of the impact of Covid on the traffic data used to unpin the assessment of development impacts, assessment work was undertaken by AECOM and is presented in East Midlands Gateway Phase 2 – proposed approaches to COVID-19 strategic model forecast sensitivity tests [July 2024].</p> <p>Data gaps were identified by JSJV within this assessment. This absence of data affected the Strategic Road Network particularly the M1, A50, A42 and the A453 close to the development site.</p> <p>To account for this, JSJV undertook a supplementary exercise comparing 2019 and 2024 Webtris data in the area around M1 J24 and the A453 towards Nottingham. This information and data assessment was provided to the Applicant in email on 25th July 2024.</p> <p>Further assessment was then undertaken by BWB and AECOM and is presented in Technical Note East Midlands Gateway Phase 2 – Covid-19 Assessment (The Note).</p> <p>The JSJV assessment work and data analysis indicate increases greater than the overall relatively low level of change presented in the Note and information provided by BWB in email on 10th December 2024 (approximately 7% increase on the M1 in the PM peak</p>	

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		<p>and 8% increase on the A42 using the WEBTRIS dataset to gauge an understanding of Covid neutrality).</p> <p>JSJV would expect a degree of recovery of post-Covid traffic volumes between 2019 - 2023. Whilst JSJV have noted higher levels of growth on the SRN when comparing 2019 and 2024 data, JSJV would expect any further post Covid increases on the SRN to be contained with the expected growth rate applied to the modelling and any differences are likely to be marginal or in fact a small decrease between 2019 and 2023.</p>
Approver 2	Name	
	Organisation	
	Position	
	Date	
	Signature	
	Comments (if applicable)	

TECHNICAL APPROVAL
East Midlands Gateway 2



Document Name	Stage 1C Modelling Documents		Project reference	220500
Document reference / revision	Covid-19 Assessment (EMG2-BWB-GEN-XX-RP-TR-0014 Revision P1)		Date	19.02.25
Approver 1	Name			
	Organisation			
	Position			
	Date			
	Signature			
	Comments (if applicable)			
Approver 2	Name			
	Organisation			
	Position			
	Date			
	Signature			
	Comments (if applicable)			
Approver 3	Name	Tom Boylan		
	Organisation	Nottinghamshire County Council		
	Position	Principal Officer Transport Planning		
	Date	06/03/2025		
	Signature	TB—		

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	Comments (if applicable)	<p>Nottinghamshire County Council (NCC) accept the findings of the Covid 19 Technical Note that was produced by BWB (07/01/25).</p> <p>NCC are aware through ongoing attendance of the Transport Working Group (TWG) that that an updated PRTM model (2023 version) is now available and there has been ongoing dialogue with Leicestershire County Council (LCC) officers on this matter. NCC do not feel it appropriate to offer an opinion on the PRTM model version and feel this matter needs to be agreed with LCC as custodians of the PRTM model and National Highways.</p>
--	-------------------------------------	--

**APPENDIX 39: PRTM Stage 1A Modelling Forecasting Report (document reference East
Midlands Gateway Phase 2: Forecasting Report v1.0)**

EMFM 2019

East Midlands Gateway Phase 2: Forecasting Report

Quality Information

Prepared by

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Principal Consultant

Checked by

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
v1.0	2025-02-04	For Issue	Yes	Mark Dazeley	Regional Director

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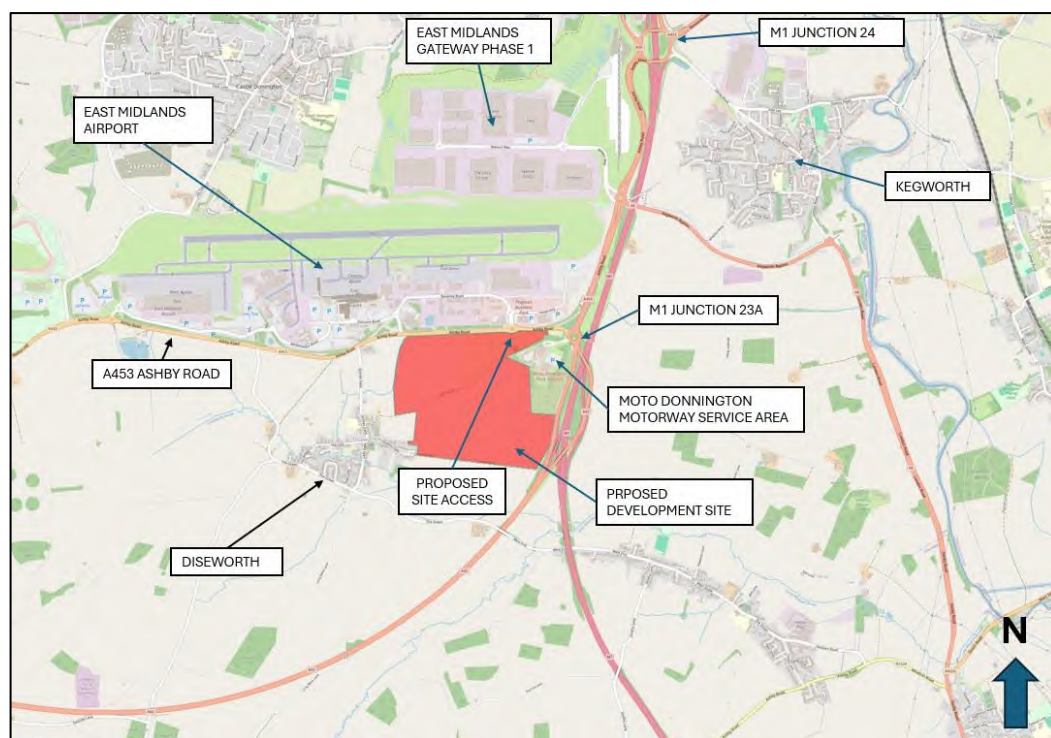
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Section 1 – Overview

1.1 Introduction

- 1.1.1 The East Midlands Gateway (EMG) Phase 2 development is a proposed employment development of mixed B2 (general industrial) and B8 (storage or distribution) use, with capacity for 400,000sqm floorspace (300,000sqm ground floorspace and 100,000sqm of B8 mezzanine floorspace) of industrial use, comprising 340,000sqm B8 and 60,000sqm B2. In addition to this, 30,000sqm of B8 floorspace is proposed on EMG Phase 1 (Plot 16).
- 1.1.2 The development site is located to the south of East Midlands Airport in Leicestershire and west of the A42 and is expected to build out by 2031.
- 1.1.3 Figure 1.1 shows an indication of the location of the proposed EMG Phase 2 development, denoted by the area shaded in red. The proposed development has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. M1 Junction 23a lies to the east of the site with the Moto Donnington Motorway Service Area (MSA) directly abutting to the north-east.

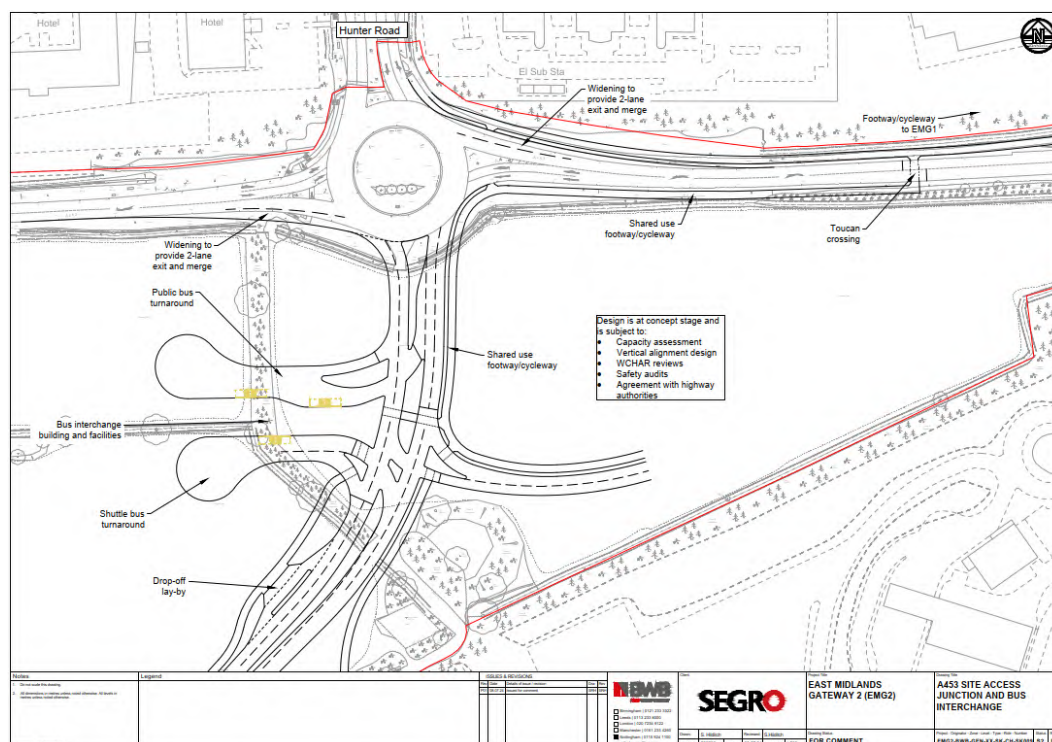
Figure 1.1: Location of Proposed Development¹



© OpenStreetMap Contributors

- 1.1.4 The proposed EMG Phase 2 development will access the highway network via a single point of access:
- a fourth arm off the existing A453 / Hunter Road roundabout, as shown in Figure 1.2.
- 1.1.5 The proposed EMG Phase 1 (Plot 16) development will access the highway network via:
- the existing access via Wilder's Way.

¹ Location of Proposed Development adapted from Technical Note 1 – Transport Scoping Note, East Midlands Gateway Phase 2 (EMG-BWB-GEN-XX-RP-TR-0001_TN1 Transport Scoping Note-S1-P3.pdf). Provided as part of the information pack with the PRTM Development Form for East Midlands Gateway Phase 2.

Figure 1.2: Site Access Junction²

1.1.6 The following development sites have been proposed at the nearby Isley Woodhouse site, on land west of Castle Donington, on land to the north of Kegworth, near Junction 11 of A/M42 and East Midlands Freeport sites. The forecast assumptions for the assessment of the East Midlands Gateway Phase 2 development will include these development sites:

- Isley Woodhouse (Site IW1), which comprises:
 - approximately 4,500 new homes and some 23,000sqm of employment floorspace (industry and warehousing)³.
- Land North and South of Park Lane, Castle Donington (Site CD10), which comprises:
 - around 1,076 homes⁴.
- Land West of Hilltop Farm, Castle Donington (Site EMP89), which comprises:
 - around 6,000sqm of offices and 11,850sqm of industry / smaller scale warehousing (use classes B2/B8)⁴.
- Land North of Remembrance Way (A453) and Land North of Derby Road (A6), Kegworth (Site EMP73)⁴, which comprises:
 - around 30,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of Derby Road (A6) site; and
 - around 40,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of A543 Remembrance Way site.
- Land to the North of J11 A/M42 (Site EMP82)⁴, which comprises:
 - 28ha of employment land for strategic distribution purposes.

² EMG2-BWB-GEN-XX-SK-CH-SK009 S2 P01

³ Draft North West Leicestershire Local Plan 2020-2024 – Proposed Housing and Employment Allocation for Consultation (www.nwleics.gov.uk/files/documents/proposed_housing_and_employment_allocations/Reg%2018%20%28Site%20Allocations%29%20Consultation_final.pdf)

⁴ EMGP2 Uncertainty Log v7.0 (Jul 2024).xlsx

- East Midlands Freeport sites, which include the Uniper site (Ratcliffe), East Midlands Intermodal Park (EMIP) site, and the East Midlands Airport Aviation Expansion site.
- 1.1.7 AECOM has been commissioned to undertake strategic modelling to assess the potential traffic impacts of the proposed development using the East Midlands Freeport Model (EMFM) for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours.
- 1.1.8 The strategic modelling assessment for the proposed EMG Phase 2 development will be undertaken in three stages, as follows:
- Stage 1a modelling (Proforma 14)
- 2022/2023/2024 'Without Development';
 - 2028/2038 'Without Development (1a)' without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)); and
 - 2028/2038 'With Development (1a)' with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)).
- Stage 1b modelling (Proforma 14a)
- 2028/2038 'Without Development (1b)' without EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6)); and
 - 2028/2038 'With Development (1b)' with EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6)).
- Stage 2 modelling (details to be confirmed)
- 2028/2038 with EMG Phase 2 and with mitigation measures; and
 - 2028/2038 with EMG Phase 2 construction.
- 1.1.9 This version of the report presents the forecast model results for Stage 1a only with Stage 1b and Stage 2 to follow.
- 1.1.10 This report is the Forecasting Report which documents the forecast model results for the EMFM strategic modelling assessment of the proposed development. This report follows the East Midlands Gateway Phase 2 Base Year Model Review Addendum report⁵ which details the calibrated 2019 base year model review and performance in the vicinity of the proposed development site.

1.2 Report Structure

- 1.2.1 Following the introduction, this report contains the following sections:
- Section 2 – Forecast Approach and Assumptions: this section details the forecast assumptions applied within this assessment of the proposed development, including the assumed development trip generation and trip distribution.
 - Section 3 – Forecast Model Results: the section details the forecast results requested as part of the brief.
 - Section 4– Summary of the EMFM Assessment: this section provides a summary of the assessment of the proposed development.

⁵ EMFM 2019 – East Midlands Gateway Phase 2: Base Year Model Review Addendum v1.0 (2024-08-19)

Section 2 – Forecast Approach and Assumptions

2.1 Introduction

- 2.1.1 This section sets out the forecast assumptions applied for this application of the EMFM, and the methodology adopted to create the required model forecasts.
- 2.1.2 The following forecast model scenarios have been produced for this version of the report:
Stage 1a modelling (Proforma 14)
- 2022/2023/2024 ‘Without Development’;
 - 2028/2038 ‘Without Development (1a)’ without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)); and
 - 2028/2038 ‘With Development (1a)’ with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)).
- 2.1.3 The EMFM is a highway assignment model, linked to and derived from the PRTM (Pan-Regional Transport Model). For the development of the 2022, 2023, 2024 2028 and 2038 ‘Without Development’ scenarios, an existing process to take the highway demand growth from the wider PRTM has been applied. Section 2.2 provides the ‘Without Development’ assumptions applied.
- 2.1.4 To produce the ‘With Development (1a)’ forecasts, the highway demand for the proposed development has been added to the EMFM 2028 ‘Without Development (1a)’ and 2038 ‘Without Development (1a)’ highway demand matrices and assigned in the EMFM. To estimate the development trip distribution, the gravity model within the PRTM has been used. Sections 2.3 to 2.5 provide the highway network and demand assumptions for the proposed development.
- 2.1.5 For information, both the EMFM and PRTM use the May 2024 TAG data book. This was the latest available TAG data book at the time of calibrating the PRTM. The EMFM was calibrated using the draft November 2022 TAG data book, again the latest TAG data book available during calibration. However, EMFM was updated to use the May 2024 TAG data book for this application. The impact on the 2019 base year modelled flows due to the update of the TAG data book was not considered material with most links having an absolute difference of fewer than 25 PCUs (Passenger Car Unit). The EMFM 2019, East Midlands Gateway Phase 2: Base Year Model Review Addendum (update to May 2024 TAG data book) (19/08/24) provides more detail.

2.2 ‘Without Development’ Assumptions

- 2.2.1 The forecast planning and infrastructure schemes, in the format of an uncertainty log, were reviewed by the client and stakeholders.
- 2.2.2 Appendix A presents the planning data assumptions (residential and employment) within North West Leicestershire that have been incorporated in the forecast modelling. Given the number of developments in the uncertainty log, the reporting of the planning data are limited to residential sites with more than 500 dwellings and employment sites with more than 750 jobs. All available data that should be used in the modelling, irrespective of size, have been used in the model forecasts. The complete list of the planning assumptions, including data for neighbouring districts such as Rushcliffe, is included in the East Midlands Gateway Phase 2 Uncertainty Log v7.0⁶.
- 2.2.3 Appendix B presents the forecast assumptions for the highway network for this application.
- 2.2.4 As discussed in Paragraph 2.1.3, the EMFM is a highway assignment model, and a process to take the highway demand growth from the wider PRTM has been applied. Planning data assumptions (housing and employment) have been input into the PRTM and the full PRTM has been run for 2022, 2023, 2024, 2028 and 2038. Planning forecasts were unconstrained (NTEM minimum⁷) for this application as noted in the proposal⁸.

⁶ EMGP2 Uncertainty Log v7.0 (Jul 2024).xlsx

⁷ In the event that the planning data lead to below NTEM / TEMPro growth, the model reverts to NTEM / TEMPro as minimum.

⁸ EMFM 2019 Fee Proposal – East Midlands Gateway Phase 2 v2.0 (2024-07-18)

2.3 Proposed Development Access Assumptions

- 2.3.1 To produce the 'With Development' network for 2028 and 2038, the assumed site accesses for the proposed development, as discussed in Paragraph 1.1.4, were added in the relevant 'Without Development' networks.
- 2.3.2 A development zone has been used to represent the proposed East Midlands Gateway Phase 2 development.

2.4 Proposed Development Trip Generation Assumptions

- 2.4.1 Development trip generation data for the proposed development were provided by the client which have been reproduced in Table 2.1.

Table 2.1: Development Trip Generation (2028 and 2038)⁹

	Light Vehicle Trips (in veh)			HGV Trips (in veh)			All (in veh)		
	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total
East Midlands Gateway Phase 2 Development - Employment B2 (60,000sqm)									
AM Peak hour (08:00 to 09:00)	34	226	260	8	10	18	43	235	278
PM Peak hour (17:00 to 18:00)	218	28	246	4	2	6	222	30	252
East Midlands Gateway Phase 2 Development - Employment B8 (340,000sqm)									
AM Peak hour (08:00 to 09:00)	44	411	455	78	65	143	122	476	598
PM Peak hour (17:00 to 18:00)	476	136	612	51	85	136	527	221	748
East Midlands Gateway Phase 2 Development Total									
AM Peak hour (08:00 to 09:00)	78	637	715	86	75	161	165	711	876
PM Peak hour (17:00 to 18:00)	694	164	858	55	87	142	748	250	998
East Midlands Gateway Phase 1 (Plot 16) Development Total									
AM Peak hour (08:00 to 09:00)	4	36	40	7	6	13	11	42	53
PM Peak hour (17:00 to 18:00)	42	12	54	5	8	13	47	20	67

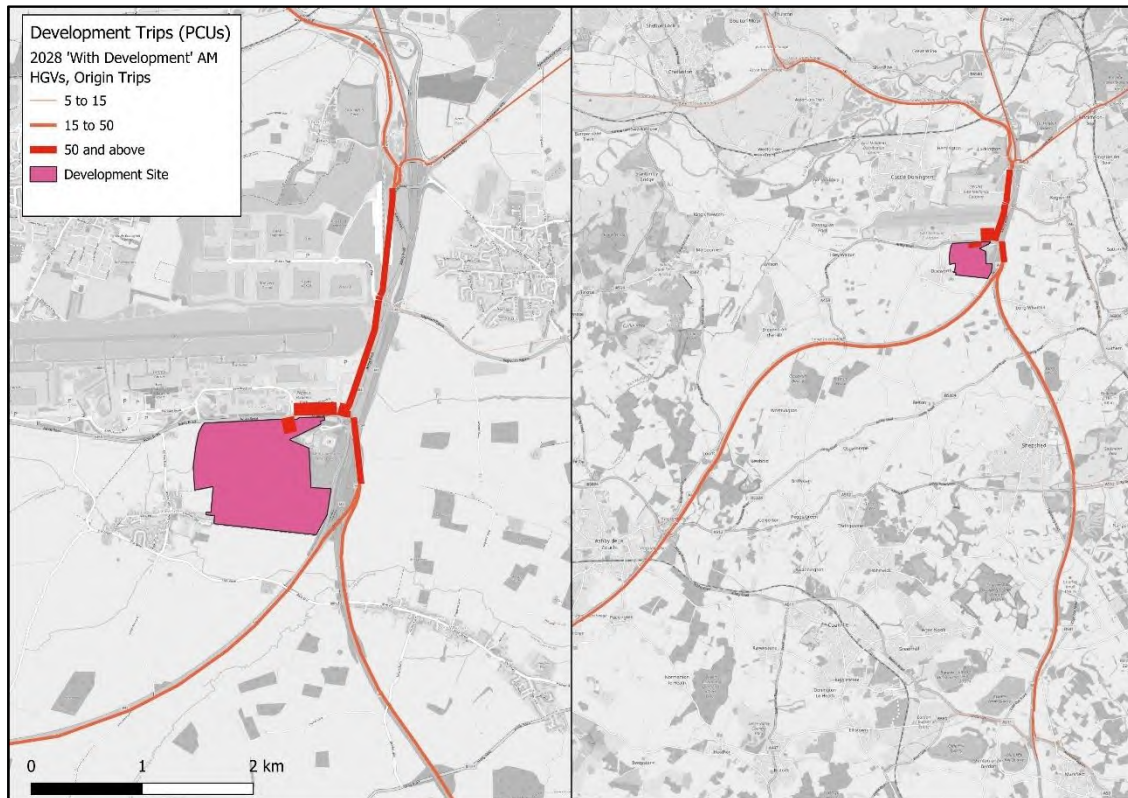
- 2.4.2 We assume that the proposed development will be fully build out (i.e. 100% occupancy) in the 2028 and 2038 'With Development (1a)' scenarios.

2.5 Proposed Development Trip Distribution Assumptions

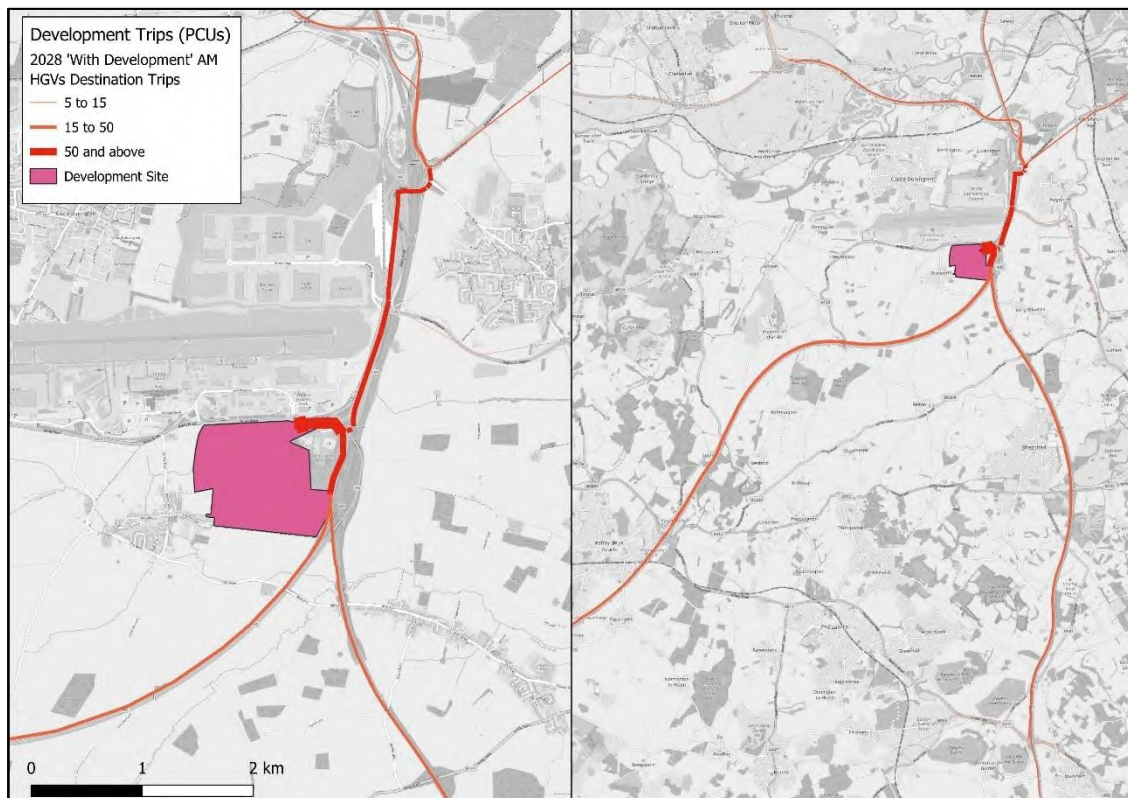
- 2.5.1 It was agreed that the development trip distributions are to be based on the PRTM 'gravity model' approach.
- 2.5.2 Figure 2.1 to Figure 2.8 show the forecast development trip distribution separately for HGVs and light vehicles on the highway network for the 2028 and 2038 'With Development (1a)' scenarios in PCUs. For information, the PCU factor for HGV is 2.0 and the PCU factor for the other assignment vehicle types (i.e. cars and LGVs) is 1.0.
- 2.5.3 These figures show that the forecast HGV development traffic has a broadly similar distribution to and from the proposed development in both the AM Peak and PM Peak hours, and both forecast years (i.e. 2028 and 2038). HGVs are forecast to use the M1, A50 and the

⁹ 241010 EMGP2 PRTM Development Form rev 14.docx

-
- A453 Remembrance Way to and from Derby and the north, and the M1 and A42 to and from Leicester, Birmingham and the south.
- 2.5.4 For light vehicle traffic, the majority of development-related trips during the AM Peak hour in 2028 are forecast to use the M1 southbound and the A42 towards Birmingham. In the northbound direction development trips are forecast to route via the M1 and Castle Donnington Relief Road towards Derby. By 2038 AM Peak hour, a higher proportion of trips is forecast to route south from the A453 towards Diseworth to access Gelscoe Lane and the A42.
- 2.5.5 Light vehicle development trips from the development in the PM Peak hour in 2028 are forecast to route north via the M1, the A50, A453 Remembrance Way and south via the M1 and towards Diseworth to access the A42. This pattern is forecast in the reverse for the AM Peak hour development trips to the proposed development but with fewer trips on the M1 northbound and more trips on Castle Donnington Relief Road to avoid the congested M1 Junction 24.
- 2.5.6 The routeing patterns for the development trips for 2038 forecast scenarios are similar to their respective patterns in 2028, although 2038 has a slightly higher proportion of development trips on local roads and fewer on the SRN, due to the higher congestion around the M1 Junction 24 area in the later forecast year (i.e. 2038).
- 2.5.7 It should be noted that the local networks through Diseworth, Castle Donnington and Kegworth have HGV restrictions applied. These restrictions are represented in the EMFM, and the HGV development trips are therefore forecast to route to and from the proposed development site via mainly the SRN.

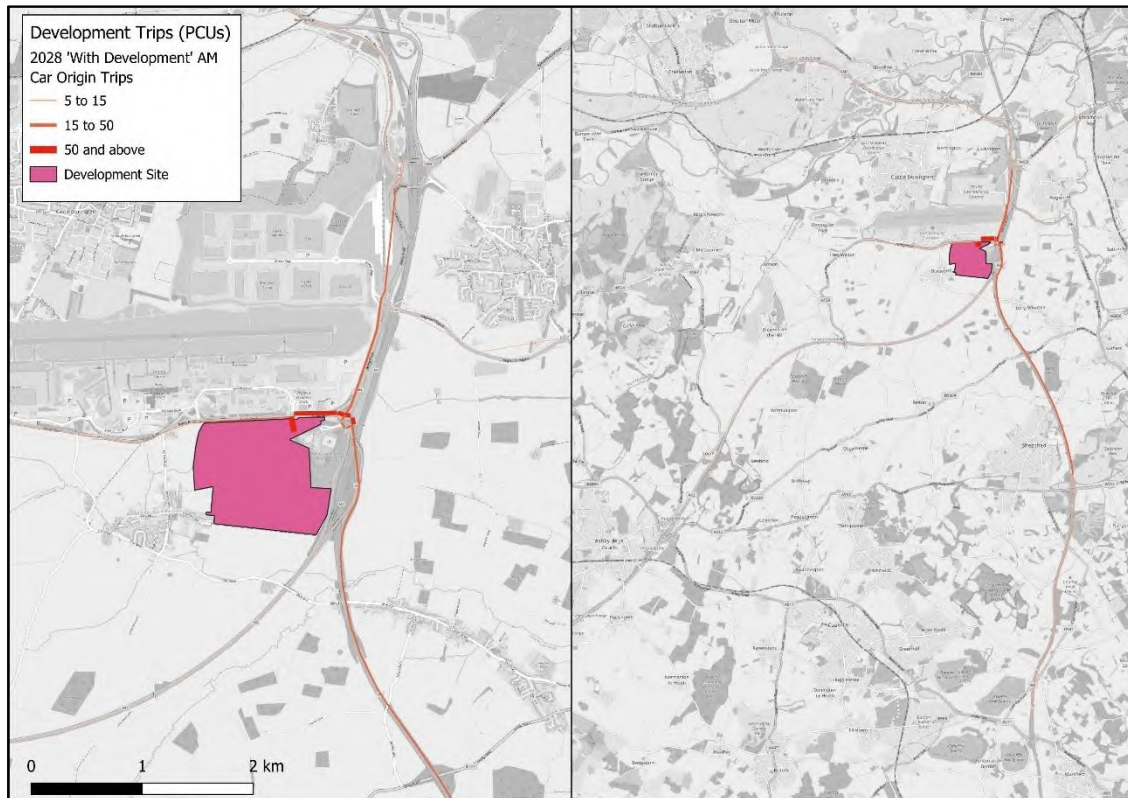
Figure 2.1: HGV Trip Distribution to and from the Proposed Development for 2028 (AM)**2028 'With Development (1a)' (AM), HGVs – From the Development**

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2028 'With Development (1a)' (AM), HGVs – To the Development

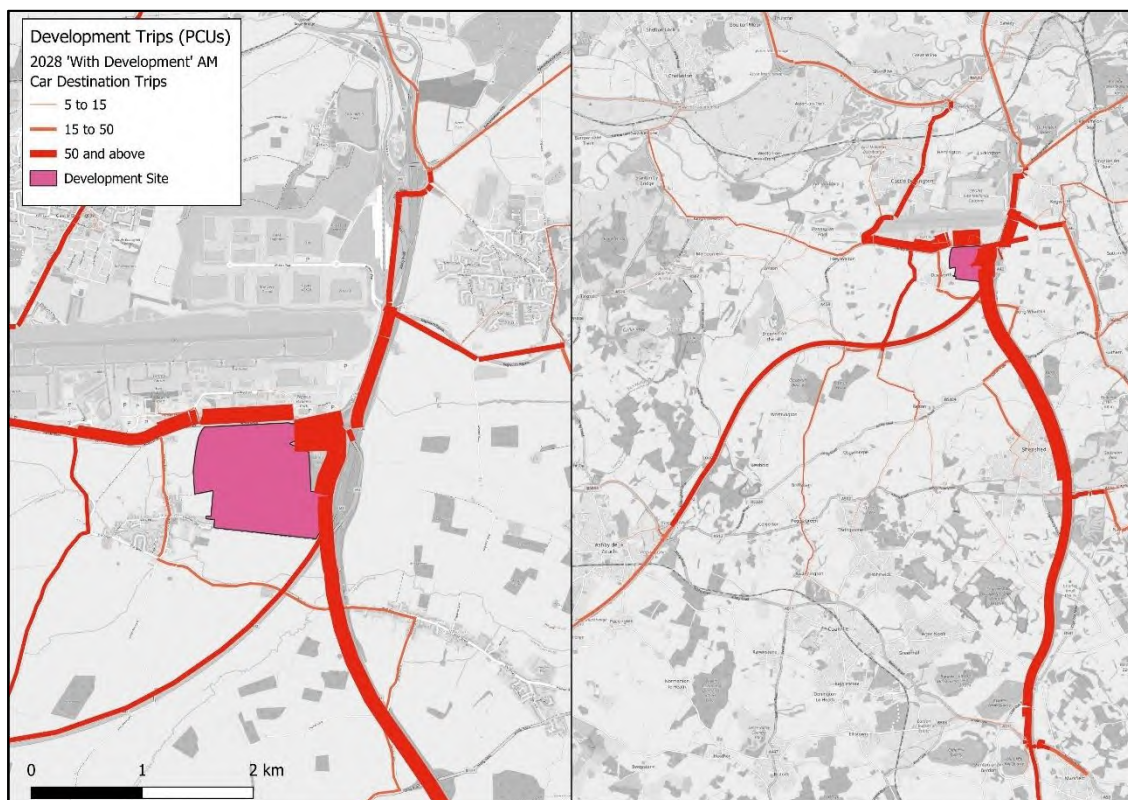
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Figure 2.2: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (AM)
2028 'With Development (1a)' (AM), Light Vehicles – From the Development

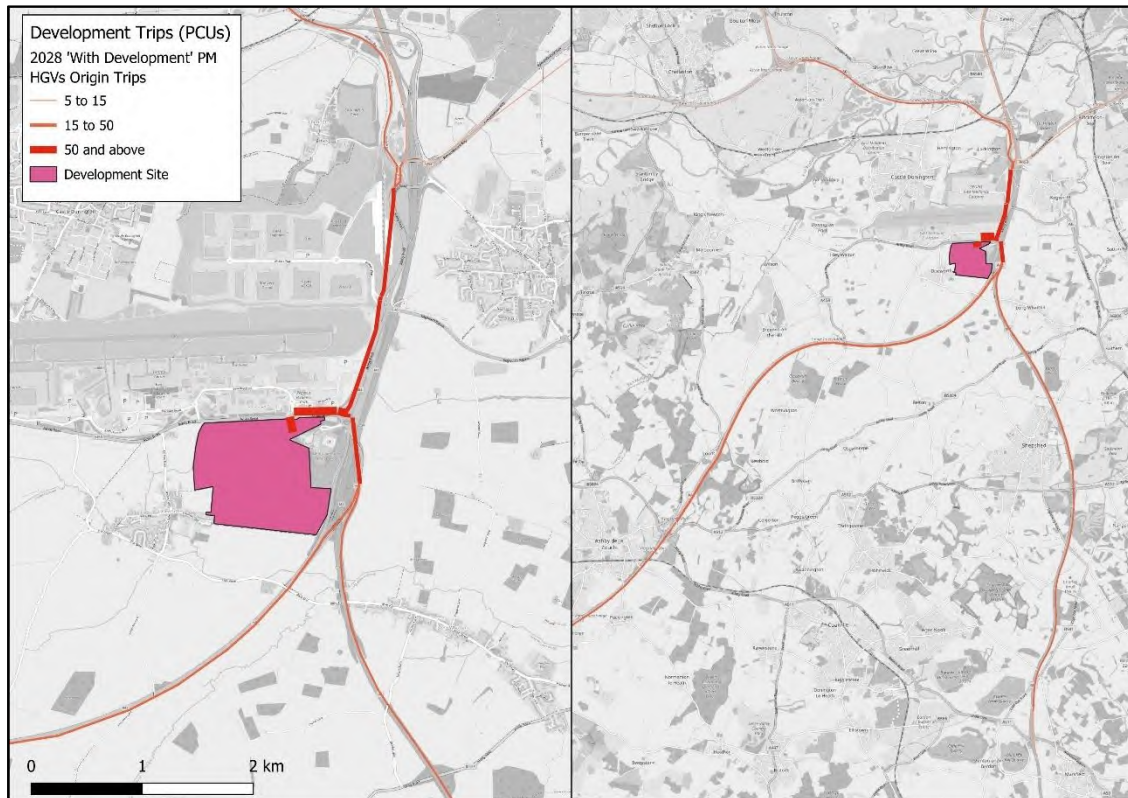


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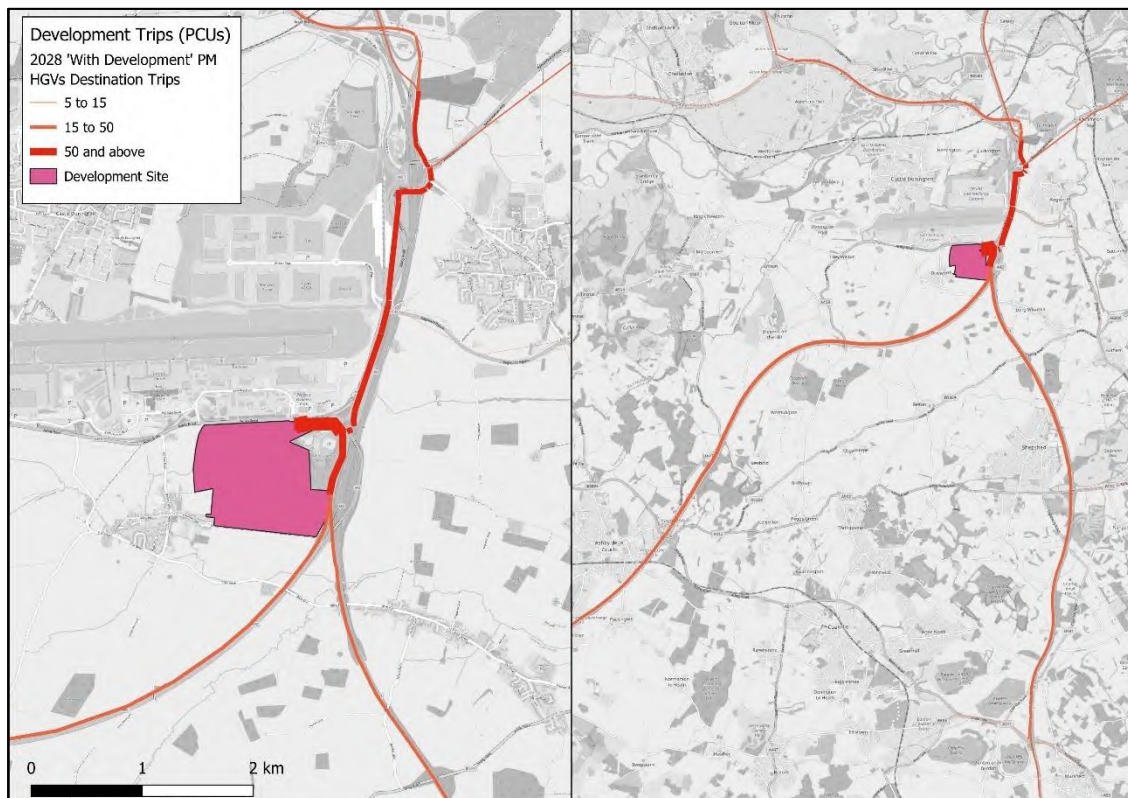
2028 'With Development (1a)' (AM), Light Vehicles – To the Development



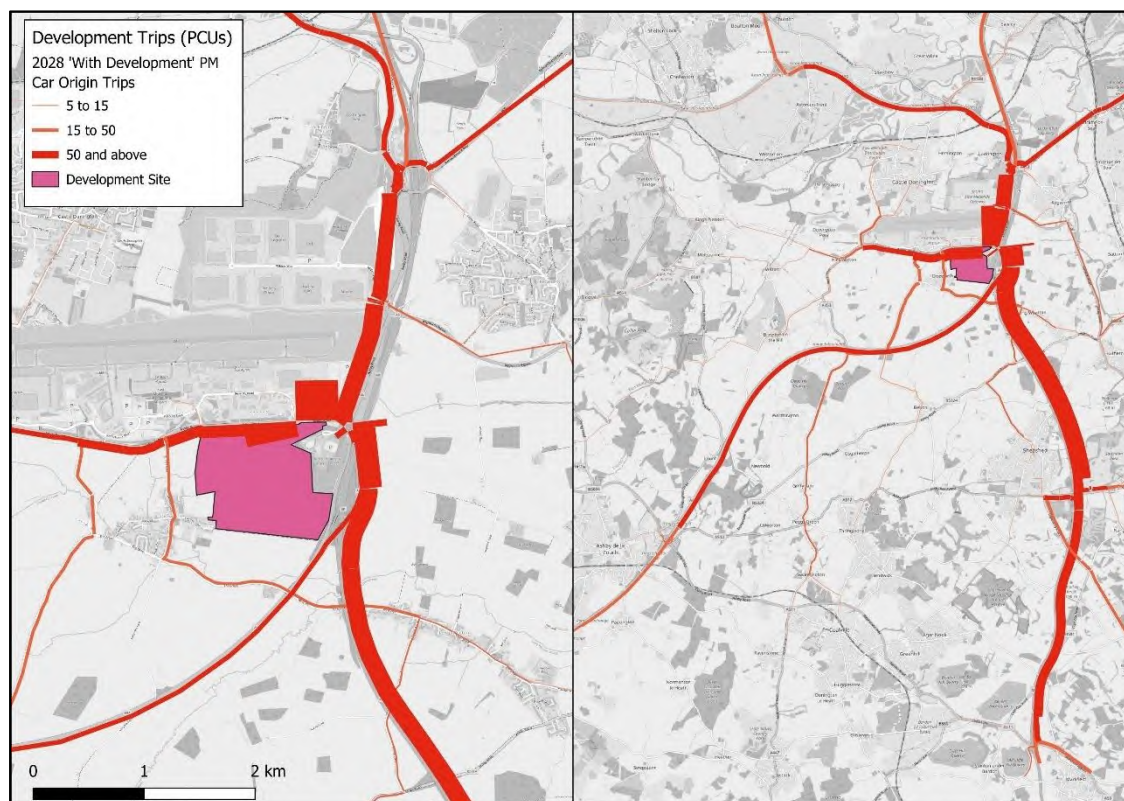
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Figure 2.3: HGV Trip Distribution to and from the Proposed Development for 2028 (PM)**2028 'With Development (1a)' (PM), HGVs – From the Development**

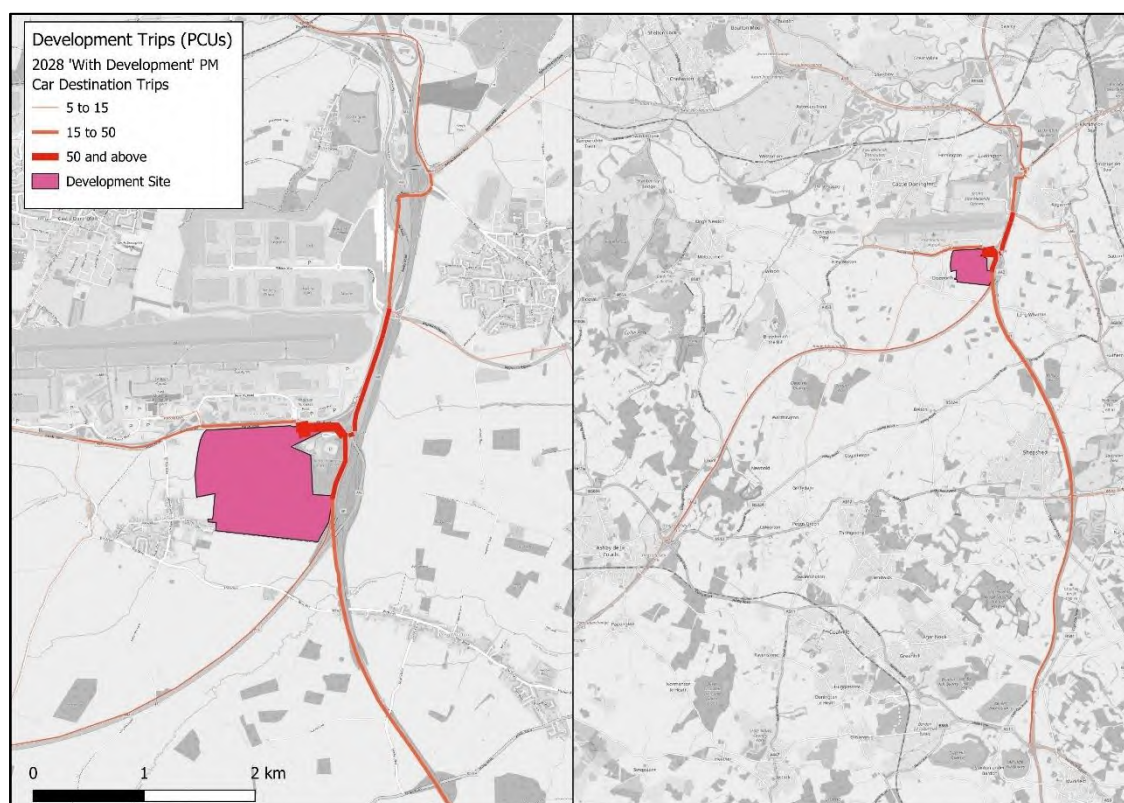
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2028 'With Development (1a)' (PM), HGVs – To the Development

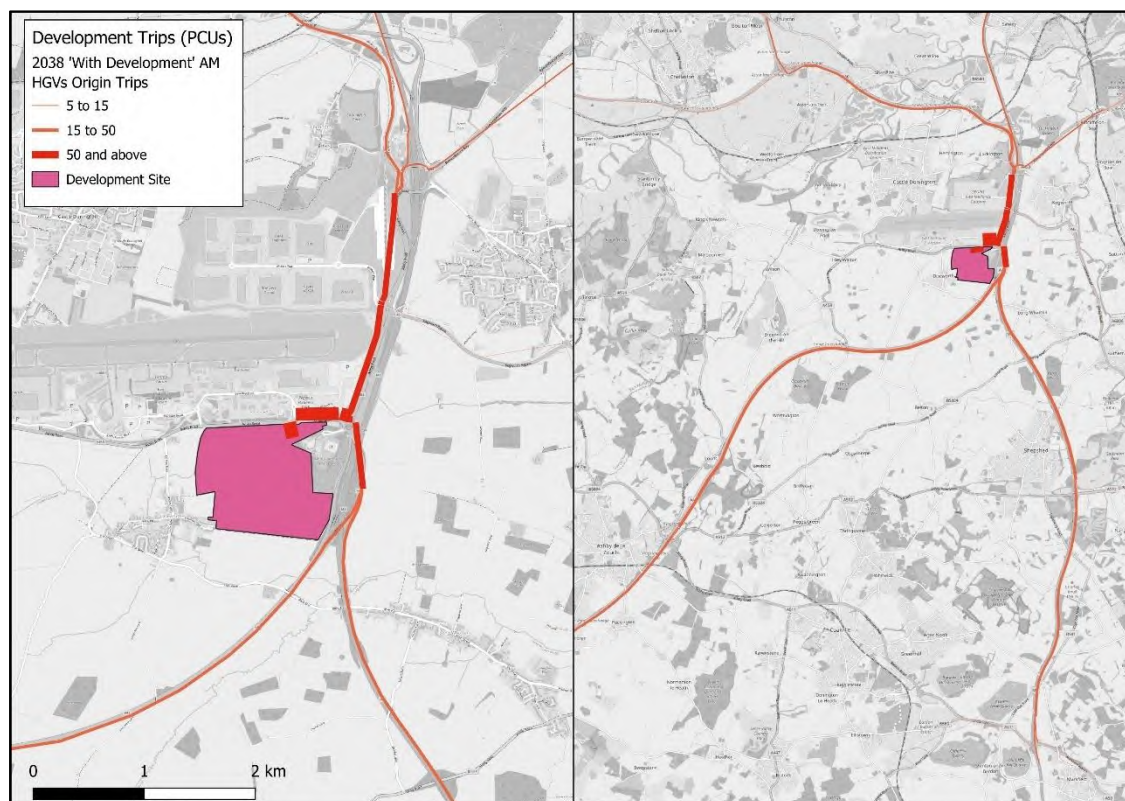
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Figure 2.4: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (PM)**2028 'With Development (1a)' (PM), Light Vehicles – From the Development**

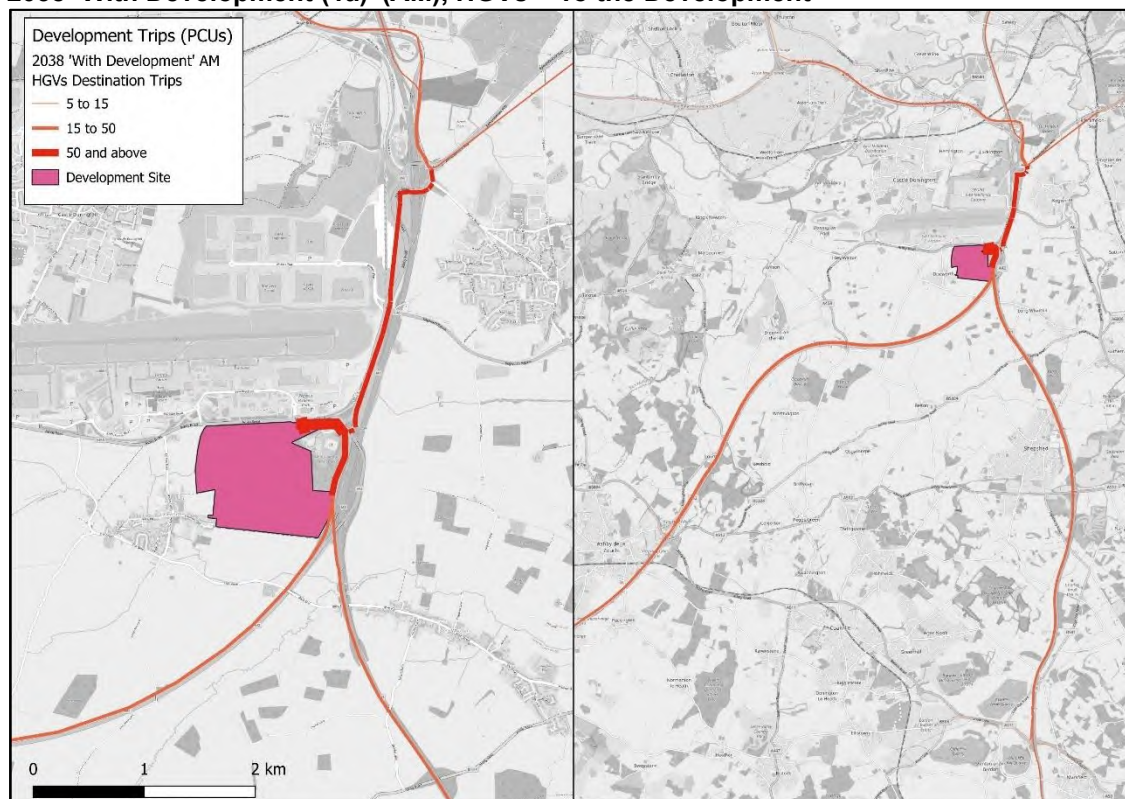
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2028 'With Development (1a)' (PM), Light Vehicles – To the Development

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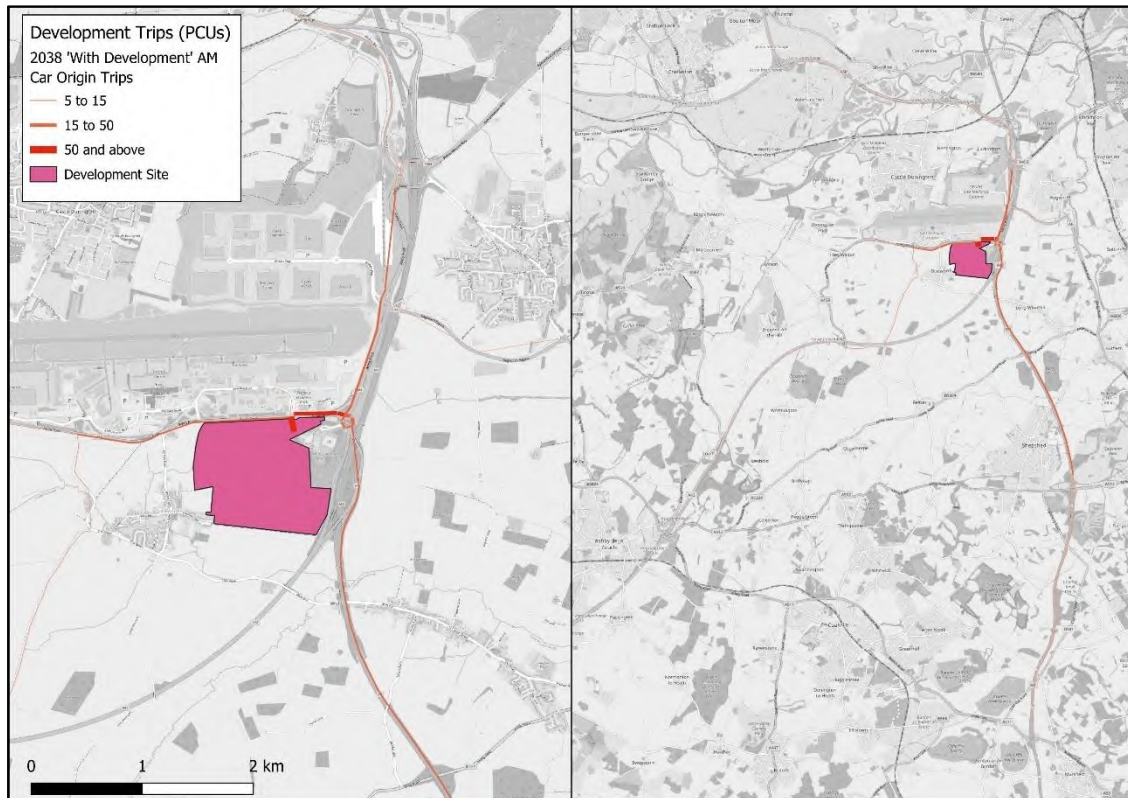
Figure 2.5: HGV Trip Distribution to and from the Proposed Development for 2038 (AM)**2038 'With Development (1a)' (AM), HGVs – From the Development**

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2038 'With Development (1a)' (AM), HGVs – To the Development

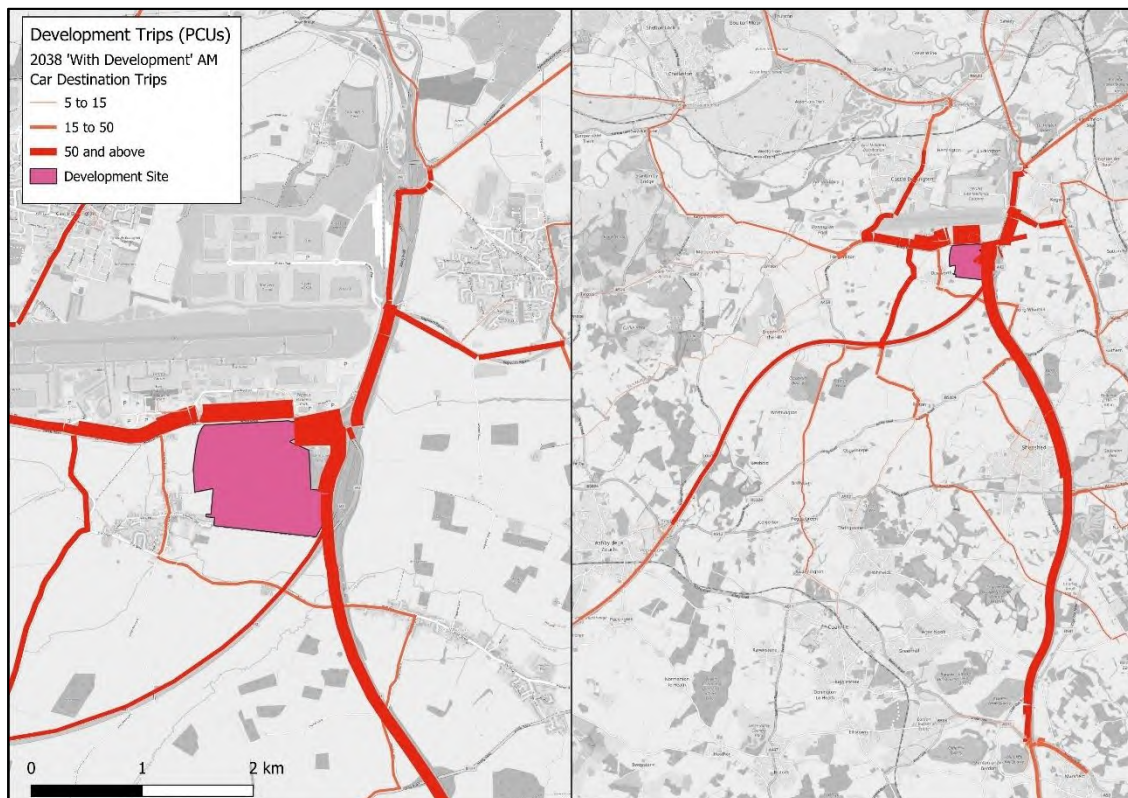
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Figure 2.6: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (AM)
2038 'With Development (1a)' (AM), Light Vehicles – From the Development

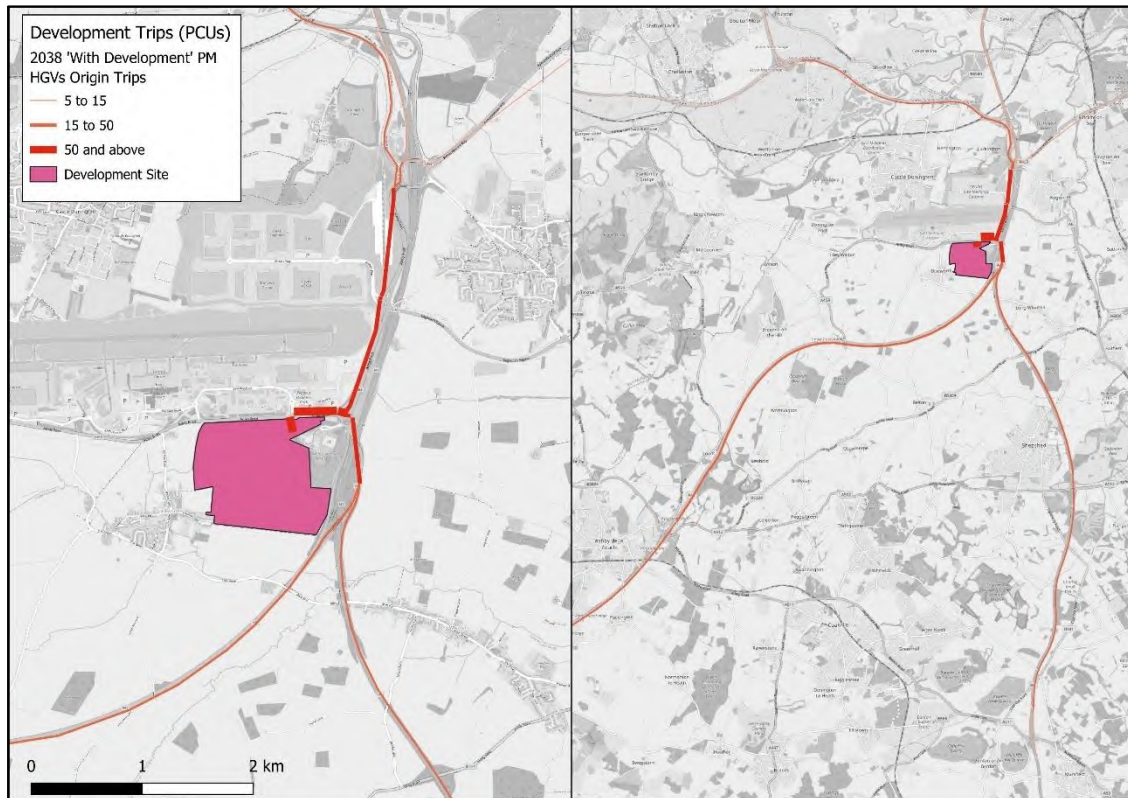


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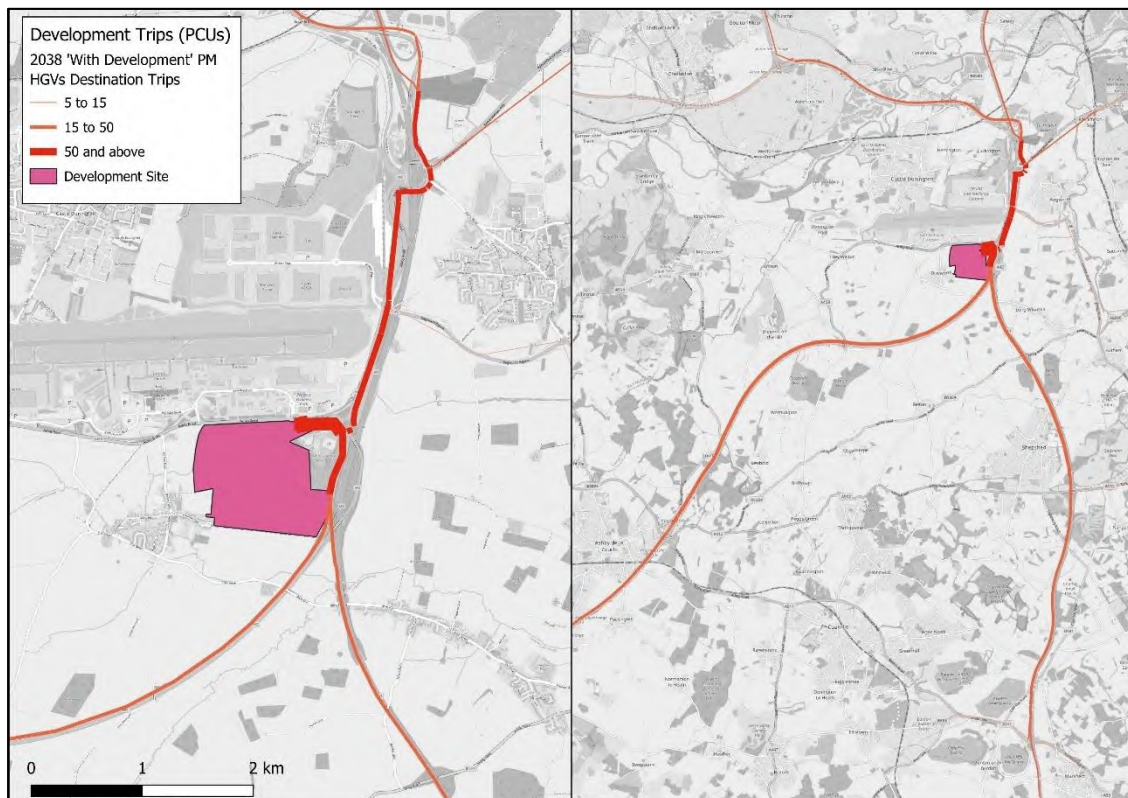
2038 'With Development (1a)' (AM), Light Vehicles – To the Development



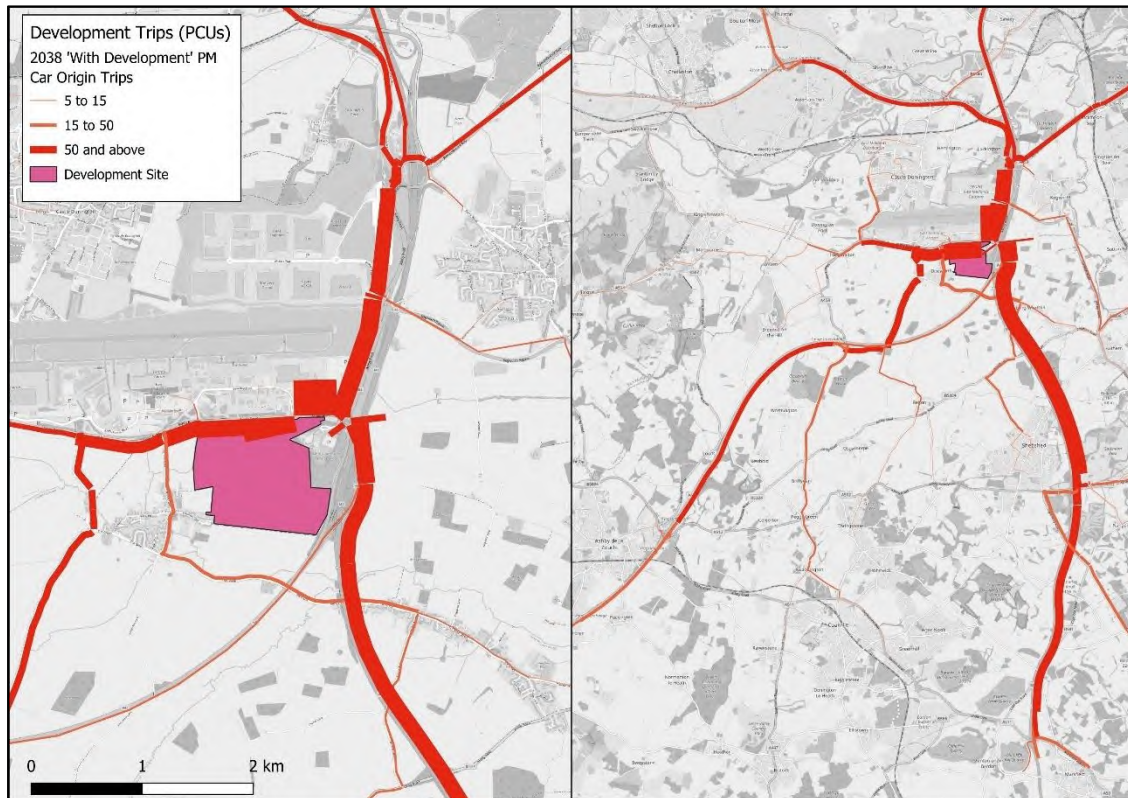
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Figure 2.7: HGV Trip Distribution to and from the Proposed Development for 2038 (PM)**2038 'With Development (1a)' (PM), HGVs – From the Development**

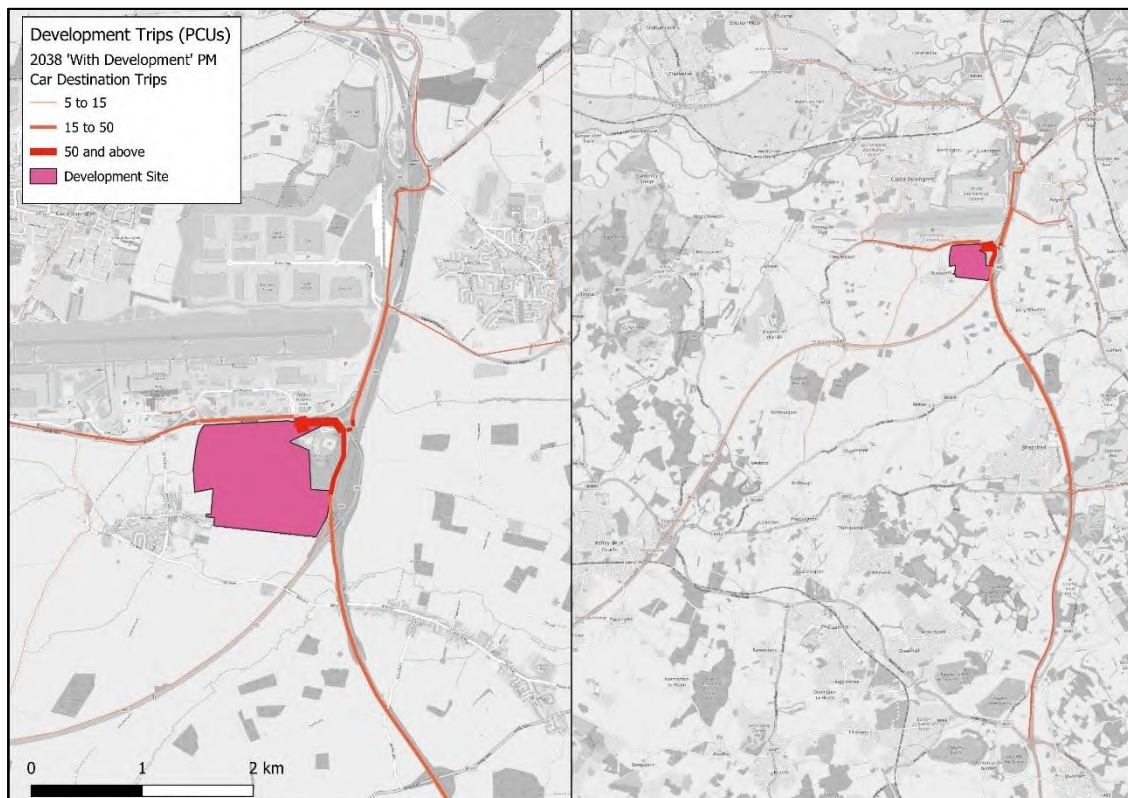
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2038 'With Development (1a)' (PM), HGVs – To the Development

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Figure 2.8: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (PM)**2038 'With Development (1a)' (PM), Light Vehicles – From the Development**

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2038 'With Development (1a)' (PM), Light Vehicles – To the Development

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Section 3 – Forecast Model Results

3.1 Introduction

- 3.1.1 This section details the forecast model results for the proposed East Midlands Gateway Phase 2 development assessment for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours. The analysis includes:
- routing of the forecast development traffic in the 2028 and 2038 'With Development (1a)' scenarios (Section 2.5 and Section 3.2);
 - forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios (Section 3.3);
 - an assessment of the Area of Influence (Aoi) (Section 3.4);
 - forecast delay changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios (Section 3.5);
 - forecast maximum node volume-capacity ratios in the 2028 and 2038 'With Development (1a)' scenarios (Section 3.6); and
 - forecast turning flows (and volume-capacity ratios for turns) at selected junctions (Section 3.7).

3.2 Forecast Development Traffic

- 3.2.1 Figure 2.1 to Figure 2.8 in Section 2.5 illustrate the assigned forecast trip distribution to and from the proposed development in 2028 and 2038 for both AM Peak and PM Peak hours. These figures show that the HGV development traffic mainly routes via the SRN including the M1, A42, A50 and the A453 Remembrance Way.
- 3.2.2 For light vehicle development traffic, the M1 Junction 24 area is congested and has high delays, particularly in the AM Peak hour. As such, a proportion of the light vehicle trips to the development is forecast to route via Castle Donnington Relief Road and the A6 Kegworth Bypass to avoid the M1 Junction 24 and Junction 24a area.
- 3.2.3 The modelling shows that the light vehicle development traffic is forecast to:
- route to and from the north via the M1 and Castle Donnington Relief Road;
 - route to and from the south via the M1 and M1 Junction 23a;
 - route to and from the south-west using the A42 via both Diseworth and the M1 Junction 23a;
 - route to and from the west via the A50, M1 Junction 24 and through Castle Donnington Relief Road; and
 - route to and from the east via the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth.

3.3 Forecast Flow Change

- 3.3.1 Figure 3.1 and Figure 3.2 show the forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios for the AM Peak and PM Peak hours. Red bandwidth represents an increase in traffic flow in the 'With Development (1a)' scenario and green bandwidth represents a decrease.
- 3.3.2 As expected, the largest increases in flows are forecast along the A453 in the immediate vicinity of the proposed development. The M1 and the A42 are also forecast to experience increases in flow across all modelled forecast scenarios. There is a decrease in traffic forecast on the east side of Beverley Road, particularly for the AM Peak hour. This decrease has been caused by traffic diverting off the Beverley Road / A453 / EMG Phase 2 access roundabout in the 'With Development (1a)' scenario and on to the A453 / East Midlands Airport signal-controlled junction. A high proportion of these trips are from the south routing via Gelscoe Lane and the A42.

-
- 3.3.3 For the local network of Castle Donington, Kegworth and Diseworth, higher flows are forecast for 'With Development (1a)' scenarios when compared with the 'Without Development (1a)' scenarios. This is particularly notable for the AM Peak hour, as a proportion of the development trips is forecast to route via the local network to access / egress from the proposed development site to avoid the congested M1 Junction 24 area.
- 3.3.4 As discussed in Section 3.5.4, the Derby Road / Bostocks Lane signalised junction (to the north of the M1 Junction 25) is overcapacity in the 'Without Development (1a)' scenarios and sensitive to additional demand. This sensitivity has led to large localised delay fluctuations causing some traffic to reroute in the vicinity of the Derby Road / Bostocks Lane junction. This is most notable in the 2038 AM Peak hour (as shown in Figure 3.2).

Figure 3.1: Forecast Flow Change for 2028 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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PM Peak hour



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Figure 3.2: Forecast Flow Change for 2038 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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PM Peak hour



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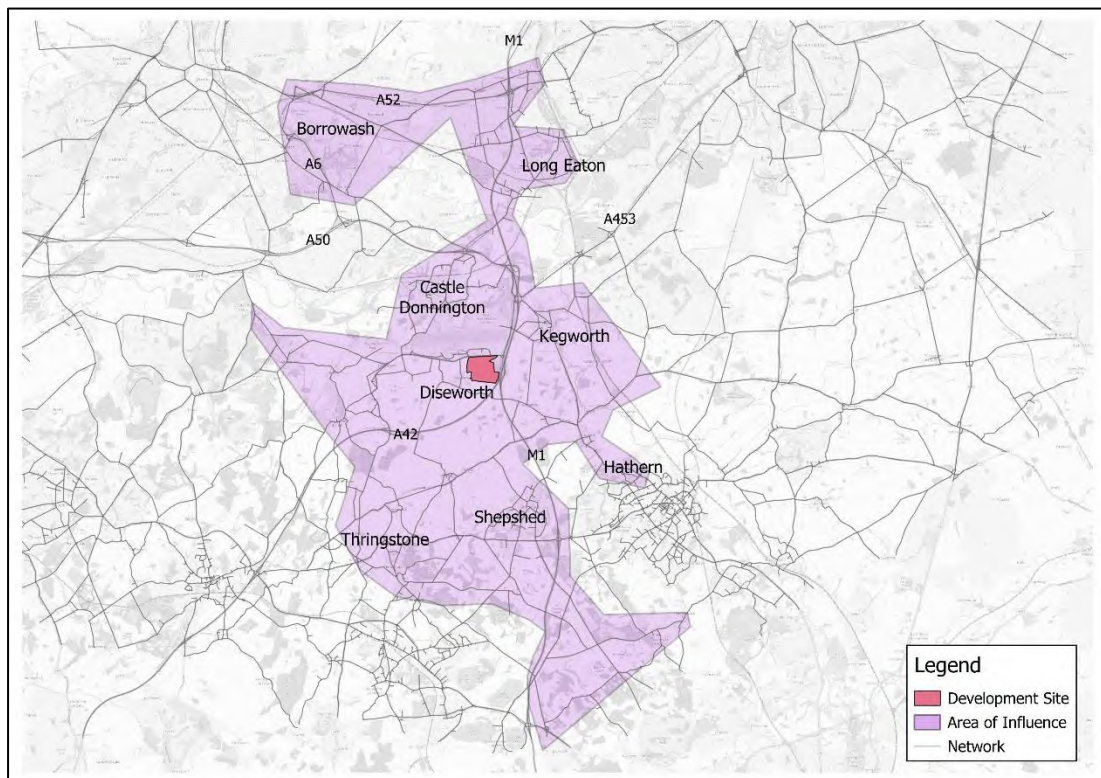
3.4 Area of Influence

3.4.1 Using the forecast flow changes between the 'With Development (1a)' and 'Without Development (1a)' scenarios, an indication of the Area of Influence (Aoi) has been defined. Figure 3.3 shows the Area of Influence for the proposed development.

3.4.2 For the proposed development, the Aoi has been defined by considering the links which are forecast to change flow by more than $\pm 5\%$ and ± 30 PCUs between the 2028 and 2038 'With Development (1a)' and 'Without Development (1a)' scenarios in either the AM Peak or the PM Peak hours. The links which are forecast to meet these criteria are included in the Aoi, as shown in Figure 3.3, and contains the following areas / links:

- the A453 including Finger Farm roundabout;
- the M1 between Junction 23 and Junction 24a;
- the M1 Junction 25;
- the A42 Junction 14;
- the A52 Brian Clough Way between the M1 Junction 25 and Raynesway Interchange;
- the A6 Alvaston Bypass between Raynesway Park Interchange and Thulston Roundabout; and
- local roads in and around Borrowwash, Long Eaton; Castle Donnington; Kegworth; Diseworth; Hathern; Thringstone and Shepshed.

Figure 3.3: Area of Influence



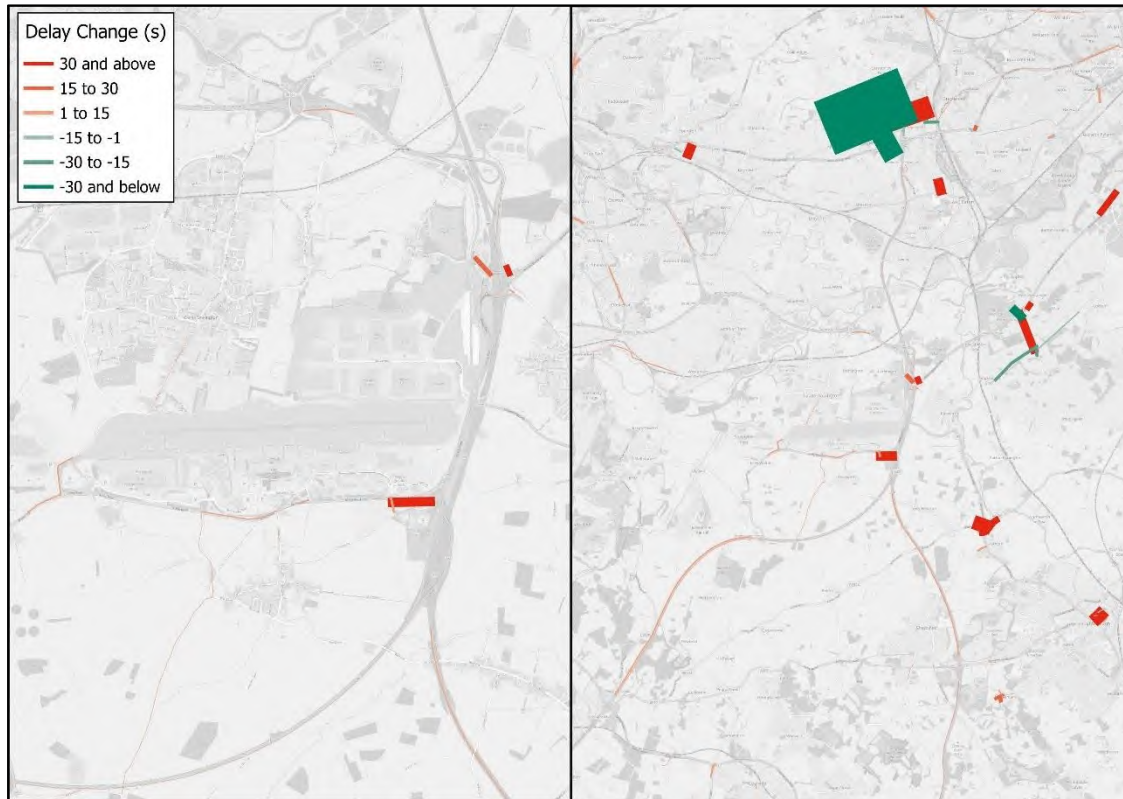
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3.5 Forecast Delay Change

- 3.5.1 As a result of forecast flow changes in the 'With development (1a)' scenario, there are also changes to the forecast delays on the highway network. These changes in delay can be generated from two sources: link delay based on the speed-flow curve applied to the link; and the junction delay due to capacity constraints for individual turning movements. The analysis in this section combines the link and junction delays (taking a flow-weighted average of junction delays) to assess the changes in forecast delays with the proposed development traffic.
- 3.5.2 Figure 3.4 and Figure 3.5 show the forecast delay changes (in seconds) in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios for the AM Peak and PM Peak hours. For the A453 in the immediate vicinity of the proposed development; delays are forecast to increase by up to 66 seconds due to increases in flow from the development site.
- 3.5.3 Increases in delay are forecast on the approaches and circulatory lanes of M1 Junction 24 for both AM Peak and PM Peak hours for the 2038 'With Development (1a)' scenario when compared with the 2038 'Without Development (1a)' scenario. Forecast delays are also higher on the approach to Finger Farm Roundabout from the A453 and southbound from Castle Donnington towards the A453 / Walton Hill signalised junction.
- 3.5.4 As noted in Paragraph 3.3.4, the Derby Road / Bostocks Lane signalised junction (to the north of M1 Junction 25) is forecast to be overcapacity in the 'Without Development (1a)' scenarios. This junction is therefore sensitive to additional demand leading to large delay fluctuations in the vicinity of the junction. As shown in Figure 3.4 and Figure 3.5, this is most notable in the 2028 and 2038 AM Peak hours. These fluctuations in delay are attributed to the sensitivity of this junction in and around the Derby Road / Bostocks Lane junction.

Figure 3.4: Forecast Delay Change for 2028 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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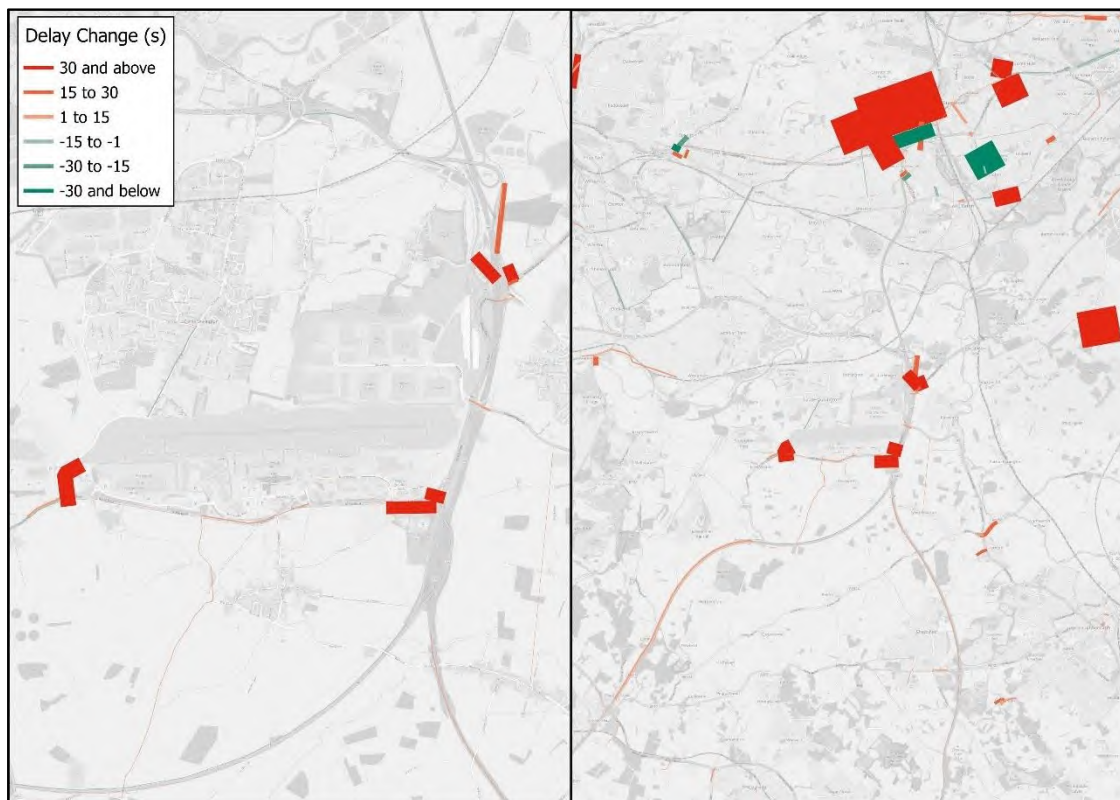
PM Peak hour



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Figure 3.5: Forecast Delay Change for 2038 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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PM Peak hour



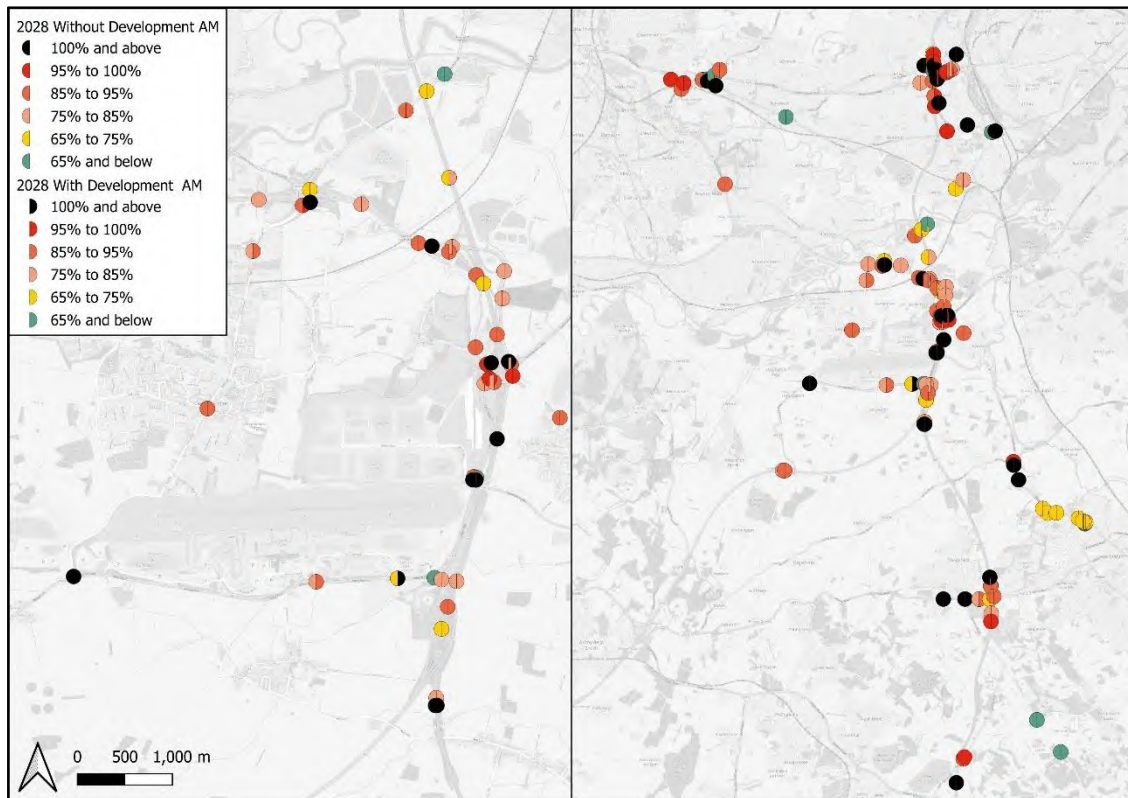
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3.6 Forecast Node Volume-Capacity Ratios

- 3.6.1 As a part of the forecast modelling, node / junction capacities are estimated for individual turning movements based on a number of factors including priority of the turn (for example, give-way or merge), the level of green-time at signalised junctions, and the amount of opposing traffic at the junction. Using these calculated capacities and the forecast traffic volumes, node volume-capacity ratios are estimated to identify locations where the forecast flows are approaching or exceeding the forecast capacity.
- 3.6.2 To summarise the forecast-capacity ratios for the individual turning movements at a node, there are two approaches. These are to calculate the flow-weighted average volume-capacity of the node, or to calculate the maximum volume-capacity ratio for all turns within a node. The average volume-capacity ratio provides an overview of how the individual node is performing but may not highlight locations where a limited number of movements at a node are approaching or exceeding capacity. To highlight these locations, the maximum volume-capacity ratio at each node has been used. Node volume-capacity ratios exceeding 85% indicate that the highway network is under stress, and there is likely to be a reduction in speed and increase in delay.
- 3.6.3 Figure 3.6 and Figure 3.7 show the forecast maximum junction volume-capacity ratios for 2028 and 2038, 'With Development (1a)' and 'Without Development (1a)' scenarios. For ease of comparison, the symbology has been designed to show the data for 'Without Development (1a)' and 'With Development (1a)' scenarios on the same plot.
- 3.6.4 The reader should note that Figure 3.6 and Figure 3.7 show a subset of all nodes within the EMFM to reduce the number of data points within the plots. Nodes which do not fall within the Aol, as defined in Figure 3.3, are not shown. Nodes with maximum volume-capacity ratios below 85% in all forecast scenarios are not shown, except for the node which is located at the proposed site access on the A453.
- 3.6.5 The forecast maximum node volume-capacity ratio plots show that the A453 / Beverly Road / EMG Phase 2 access roundabout junction, the signalised junction with the A453 / East Midlands Airport signalised junction and M1 Junction 24 are most affected by the proposed development. For 2028 and 2038, the proposed development increased the node volume-capacity ratios at these junctions.
- 3.6.6 For M1 Junction 24, the node volume-capacity ratios are high for the 'Without Development (1a)' scenarios, with multiple nodes at this junction exceeding 85%. For the 'With Development (1a)' scenarios, the node volume-capacity ratios remain high, exceeding 85%, showing that the M1 Junction 24 is forecast to have high delays.
- 3.6.7 In the AM Peak hour, the node volume-capacity ratios for the A453 / Beverly Road / EMG Phase 2 access roundabout junction is forecast to be greater than the PM Peak hour in both the 2028 and 2038 forecast year scenarios, consistent with the forecast delay shown in Figure 3.4 and Figure 3.5.
- 3.6.8 Comparing the forecast results between 2028 and 2038, the node volume-capacity ratios are forecast to be greater for the later forecast year (i.e. 2038) as forecast flows increase (when compared with 2028).

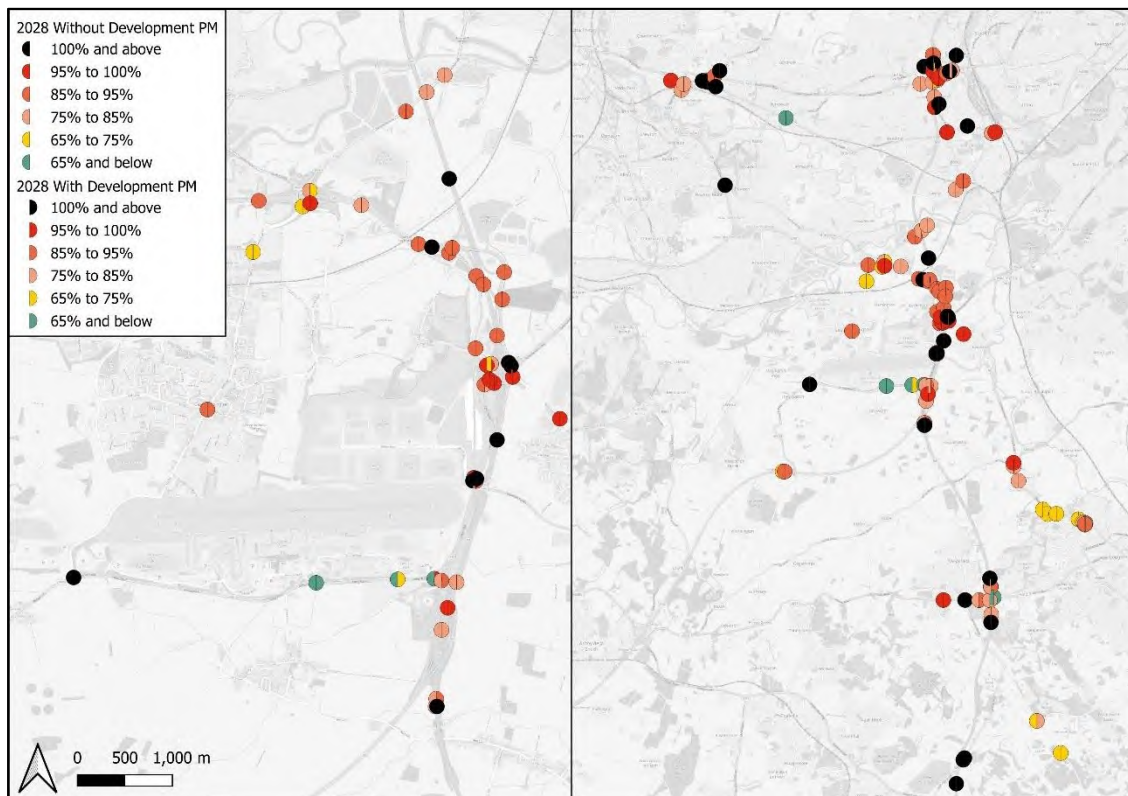
Figure 3.6: Forecast Node Volume-Capacity Ratio for 2028 'Without Development (1a)' and the 2028 'With Development (1a)' Scenarios

AM Peak hour



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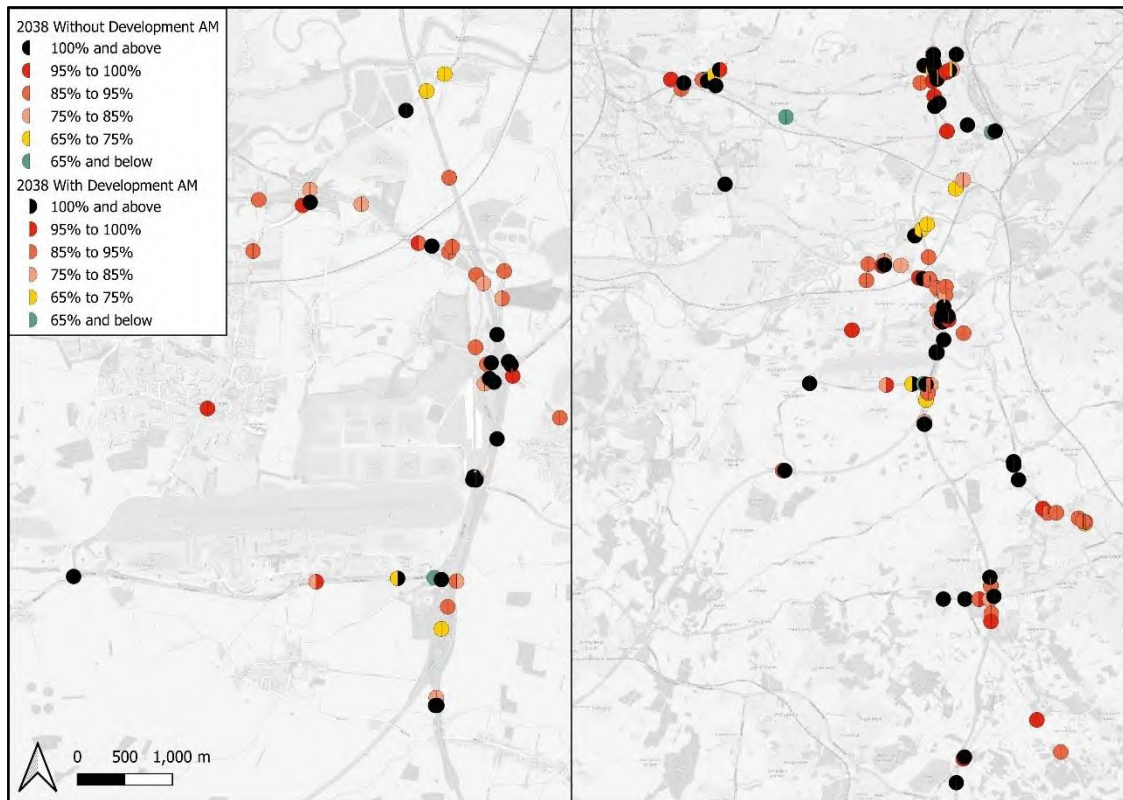
PM Peak hour



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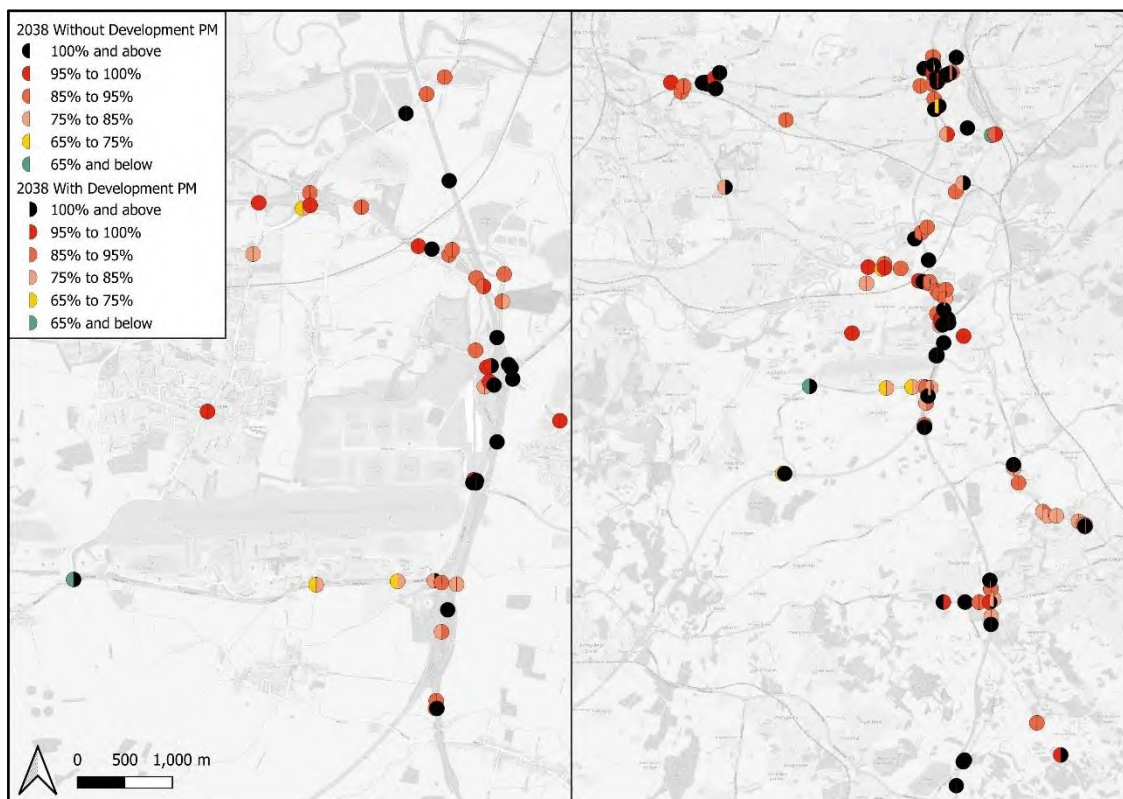
Figure 3.7: Forecast Node Volume-Capacity Ratio for 2038 'Without Development (1a)' and the 2038 'With Development (1a)' Scenarios

AM Peak hour



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PM Peak hour



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3.7 Forecast Junction Turning Flows

3.7.1 Forecast turning flows have been extracted for the following 16 junctions (also shown in Figure 3.8) in the vicinity of the proposed development:

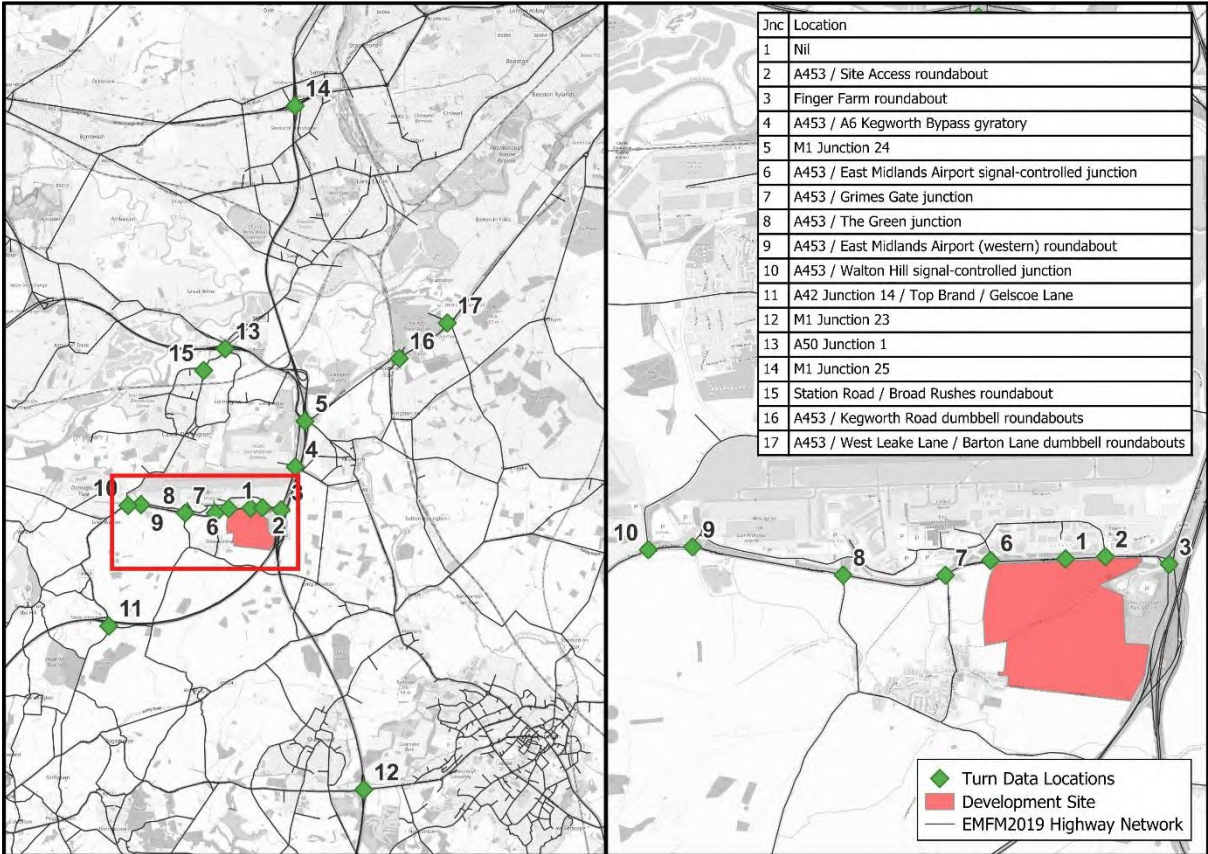
- A453 / Site access Roundabout (Junction 2);
- Finger Farm roundabout (Junction 3);
- A453 / A6 Kegworth Bypass gyratory (Junction 4);
- M1 Junction 24 (Junction 5);
- A453 / East Midlands Airport signal-controlled junction (Junction 6);
- A453 / Grimes Gate junction (Junction 7);
- A453 / The Green junction (Junction 8);
- A453 / East Midlands Airport (western) roundabout (Junction 9);
- A453 / Walton Hill signal-controlled junction (Junction 10);
- A42 Junction 14 / Top Brand / Gelscoe Lane (Junction 11);
- M1 Junction 23 (Junction 12);
- A50 Junction 1 (Junction 13);
- M1 Junction 25 (Junction 14);
- Station Road / Broad Rushes roundabout (Junction 15);
- A453 / Kegworth Road dumbbell roundabouts (Junction 16); and
- A453 / West Leake Lane / Barton Lane dumbbell roundabouts (Junction 17).

3.7.2 The data have been provided separately in MS Excel spreadsheet format¹⁰ which contains the forecast turning flows for the AM Peak and PM Peak hours for light and heavy vehicles. Data are provided for the 2022, 2023, 2024, 2028 and 2038 'Without Development (1a)' and the 2028 and 2038 'With Development (1a)' scenarios. In addition to the turning flows, turn volume-capacity ratios have also been provided where available.

3.7.3 By design the EMFM highway model has not been calibrated or validated for individual turning movements, so care should be taken when using forecasts of flows and volume-capacity ratios at this level.

¹⁰ EMGP2 - Junction Turning Flows_v1.0 - For Issue.xlsx (provided via email on 23rd Jan 2025)

Figure 3.8: Location of Forecast Turning Flow Data



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Section 4 – Summary of the EMFM Assessment

4.1 Summary of Assessment

- 4.1.1 Using the East Midlands Freeport Model (EMFM), forecasts have been undertaken to produce the 2028 and 2038 'Without Development (1a)' and 'With Development (1a)' scenarios for both the AM Peak and PM Peak hours for the strategic assessment of the proposed East Midlands Gateway Phase 2 development.
- 4.1.2 Based on these model forecasts, the following is a summary of the key findings for the assessment of the proposed development.
- Development trips (HGVs) have been forecast to route via the following roads:
 - the M1 to and from the south and north;
 - the A42 to and from the south-west;
 - the A50 to and from the west; and
 - the A453 Remembrance Way to and from the east.
 - Development trips (light vehicles) have been forecast to route via the following roads:
 - the M1 to and from the south and north;
 - the A42, the A42 Junction 14, A453 and Gelscoe Lane from the south-west;
 - the A50 and through the local network of Castle Donington to and from the west; and
 - the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth to and from the east.
 - The forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios show that the largest increases in flows are, as expected, forecast along the A453. The M1 and A42 are also forecast to experience increases in flows as well as the local network of Castle Donington, Kegworth and Diseworth.
 - An Area of Influence (Aol) for the proposed development has been defined by identifying links which are forecast to change by more than $\pm 5\%$ and ± 30 PCUs between the 'With Development (1a)' and 'Without Development (1a)' scenarios for 2028 and 2038 in either the AM Peak or PM Peak hours. The forecast Aol includes:
 - the A453 including Finger Farm roundabout;
 - the M1 between Junction 23 and Junction 24a;
 - the M1 Junction 25;
 - the A42 Junction 14;
 - the A52 Brian Clough Way between M1 Junction 25 and Raynesway Interchange;
 - the A6 Alvaston Bypass between Raynesway Park Interchange and Thulston Roundabout; and
 - local roads in /around Borrowash, Long Eaton, Castle Donnington, Kegworth, Diseworth, Hathern, Thringston and Shepshed.
 - The forecast delay changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios show the proposed development is forecast to increase the delays on the A453 and the approaches of the M1 Junction 24.
 - The forecast maximum node volume-capacity ratios show that the proposed development is forecast to increase pressure for the junctions along the A453 including the Finger Farm roundabout. For the M1 Junction 24, the node volume-capacity ratios are high for both the 'Without Development (1a)' and 'With Development (1a)' scenarios with multiple nodes at this junction exceeding 85% which shows high delays and congestion at this location.

-
- 4.1.3 The forecasts undertaken reflect the forecast impact of the proposed development at East Midlands Gateway Phase 2. It should be noted that the results provided in this report are at a high level. Due to the strategic nature of the EMFM, not all roads are modelled, and the results should be interpreted with that in mind.
- 4.1.4 Although the EMFM modelling provides the strategic impact and form part of the proposed East Midlands Gateway Phase 2 assessment evidence packs, the overall assessment should be complemented by local operational assessment and analysis.

Appendix A Planning Data Assumptions

Table A.1: Residential Development Assumptions (sites with more than 500 dwellings) (North West Leicestershire)

District	Location	Quantum	Timescale	Include
North West Leicestershire	Money Hill North of Nottingham Road	1,953	2021-2037	Y
North West Leicestershire	Land North and South of Park Lane	657	2021-2027	Y
North West Leicestershire	Land off Grange Road (South East Coalville)	3,433	2021-2035	Y
North West Leicestershire	Land at Measham Waterside Burton Road	585	2027-2041	Y
North West Leicestershire	Land North and South of Park Lane, Castle Donington (CD10)	1,076	2027-2036	N
North West Leicestershire	Isley Woodhouse (IW1)	4,500	2029-2050	N

Table A.2: Employment Development Assumptions (sites with more than 750 jobs) (North West Leicestershire and East Midlands Freeport sites)

For information, the following table shows the employment sites with more than 750 jobs within North West Leicestershire as well as the sites associated with the East Midlands Freeport development in South Derbyshire.

District	Location	Quantum	Timescale	Include
North West Leicestershire	Mercia Park	393,100 sqm (floorspace)	2023-2027	Y
North West Leicestershire	Strategic Rail Freight Interchange on Land North of East Midlands Airport/West of M1 Junction 24	499,630 sqm (floorspace)	2020-2025	Y
North West Leicestershire	Money Hill	15.9 ha (Site Area)	2027-2031	Y
North West Leicestershire	Segro East Midlands Gateway Phase 2	400,000 sqm (floorspace)	2028-2031	N
North West Leicestershire	Land South of Junction 1 of the A50 Castle Donington Leicestershire	92,500 sqm (floorspace)	2026-2029	Y
North West Leicestershire*	East Midlands Airport Aviation Expansion	940 Jobs	2026-2028	Y
North West Leicestershire	Land West of Hilltop Farm, Castle Donington (Emp89)	17,850 sqm (floorspace)	2025-2034	N
North West Leicestershire	Land North of Remembrance Way (A453), Kegworth (Emp73 (Part))	40,000 sqm (floorspace)	2025-2034	N
South Derbyshire*	EMIP Masterplan 1	4,440 Jobs	2026-2030	Y
South Derbyshire*	EMIP Masterplan 2	3,540 Jobs	2026-2030	Y
South Derbyshire*	EMIP Masterplan 3	1,620 Jobs	2026-2030	Y

* East Midlands Freeport development sites

Appendix B Network Assumptions

Table B.1: Highway Network Assumptions

Location	Scheme Name	Forecast Year	Include
Earl Shilton	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Barwell	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Lubbesthorpe	Access arrangements for SUE including strategic traffic link to the A563 Lubbesthorpe Way	2021	Y
Loughborough	A512 widening B591 to M1 J23, improvements to J23 and completion of dualling thereafter to either Snell's Nook Lane or Epinal Way junction	2021	Y
Coalville	4. Bardon Road Link: Southern section only	2026	Y
Castle Donington	Western Link Road from Back Lane to Tops Hill, NWLDC package of measures to help mitigate growth planned	2021	Y
Lubbesthorpe	Link across M69 to join North and South of the Lubbesthorpe development.	2031	Y
Earl Shilton & Barwell	Highway improvements for SUE	2026	Y
Lubbesthorpe	Highway improvements for SUE	2026	Y
Loughborough	West of Loughborough SUE (access from the north via the A6 roundabout)	2022	Y
Blaby	Desford Crossroads	2026	N
Harborough	Harborough Strategic Development Area	2021	Y
Charnwood	North of Birstall SUE	2026	Y
Charnwood	Mountsorrel Lane, Rothley Link Road	2021	Y
Charnwood	A512 junction improvements	2021	Y
North of East Leicester	North of East Leicester Development Network - Thorpebury (previously Thurmaston) SUE.	2026	Y
Leicester City	Traffic Calming Schemes (Phase 2)	2021	Y
Leicester City	Welford Road	2021	Y
Leicester City	Waterside Development	2026	Y
Leicester City	Belgrave Gate South	2020	Y
Leicester City	Lancaster Road	2020	Y
Leicester City	Mansfield Street & Church Gate	2021	Y
Leicester City	SMBS Access to Burleys Way	2021	Y
Leicester City	Vaughan Way	2020	Y
Leicester City	Ashton Green	2021	Y
Leicester City	LNW2 Ravensbridge Drive / Blackbird Road	2020	Y
Melton	MMDR Northern Section	2026	Y
Melton	MMDR Eastern Section	2026	Y
Melton	MMDR Southern Section	2026	Y
Melton	Gladman's Site (Leicester Road and Kirby Lane Access)	2021	Y

Location	Scheme Name	Forecast Year	Include
Leicester City	Beaumont Leys Anstey Lane Improvements	2021	Y
Hinckley	Hinckley Rugby Road Corridor Improvements - Phase 4	2023	Y
Leicester City	Putney Road West Improvement	2022	Y
Lutterworth	Frank Whittle Roundabout approaches	2021	Y
Lutterworth	Lutterworth East Development (Development Access (A4304, Gilmorton Road and A426))	2026	Y
Lutterworth	Lutterworth East Development associated mitigations	2031	Y
Lutterworth	Lutterworth East Development (Link Road between A4304 and A426)	2031	Y
Lutterworth	Lutterworth East Development (Gilmorton Road bridge bus restriction)	2026	Y
Bardon Hill	Bardon Hill Link Road North Section	2026	Y
Coalville	Hoo Ash Roundabout	2025	Y
Coalville	Thornborough Road Roundabout	2025	Y
Coalville	Dual Carriageway from Thornborough Rd to Whitwick Road	2025	Y
Coalville	Whitwick Road Roundabout	2025	Y
Coalville	Broom Leys Road Junction	2025	Y
Coalville	Bardon Link Road Junction	2025	Y
Coalville	Birch Tree Roundabout	2025	Y
Coalville	Flying Horse Roundabout	2025	Y
Coalville	Fieldhead Roundabout	2025	Y
Hinckley	DPD A5 Access	2021	Y
Padge Hall	Padge Hall Development Access	2024	Y
Leicester City	Abbey Park Road Cycle Provision	2021	Y
Blaby	A47 / Kirby Lane Tesco Express	2021	Y
Leicester City	Abbey Street	2021	Y
Leicester City	A50 Groby Road Bus Lane	2022	Y
Harborough	Magna Park Extension Access - Mere Lane, Lutterworth	2021	Y
Harborough	Magna Park Extension Access - A5, Lutterworth	2026	Y
Blaby	Highway improvements for Lubbesthorpe SUE	2021	Y
Blaby	Foxhunter Roundabout Eastbound Approach	2021	Y
Loughborough	West of Loughborough SUE (connection to the northern arm of the A512 roundabout)	2036	Y
Harborough	B4114 / B581 Signalisation Improvement, Broughton Astley	2026	Y
Blaby	Blaby DPD Site Access	2026	Y
Blaby	West of St Johns (Blaby DPD) Site Access	2026	Y
Harborough	Wigston Direction for Growth Site Access	2026	Y
Blaby	Everard Way Closure, Fosse Park	2020	Y
Loughborough	Access connection for the Science Park via the A512 roundabout	2031	Y

Location	Scheme Name	Forecast Year	Include
North West Leicestershire	Money Hill Site Access A511	2026	Y
Derbyshire	Wragley Way (South Derbyshire) SUE Access A50	2031	Y
Derbyshire	Clifton (Rushcliffe) SUE Access	2022	Y
Derbyshire	EMIP A50 (Freeport)	2030	Y
Derbyshire	Toton Innovation Hub (HS2)	2026	Y
Nottinghamshire	Ratcliffe Power Station A453 (Freeport)	2030	Y
Rugby	Rugby Radio Station - A5 Access	2022	Y
North West Leicestershire	Mercia Park	2020	Y
Leicester City	Western Park Golf Course	2029	Y
Harborough	Kettering Road Signalisation	2021	Y
Charnwood	Shuttle signals on Tickow Lane (over bridge)	2022	Y
Charnwood	Buttercup Lane in Shepshed	2022	Y
Blaby	Dans Lane (A47)	2023	Y
Hinckley	B582 / B585 signalisation	2023	Y
Hinckley	A47 roundabout between Wykin Road and Outlands Drive	2021	Y
M6 Junction 10-13	M54-Stafford ALR	2021	Y
M54-M6 Toll	New Link Road min 2 lane motorway	2024	Y
M6 J13-J16	Stafford South to Stoke ALR	2022	Y
M1 J13-16	MK South - J16 ALR	2022	Y
M40 M42	M40 J16-M42 J3 ALR	2026	Y
A46 Coventry	Remove Binley and Walsgrove roundabouts M40-M6 as 'expressway standard' (i.e. all grade separated junctions)	2026	Y
A46 Toll Bar End	Grade separated junction at TBE & Stonebridge Highway to 3 lanes	2021	Y
Newark North	Dualling Newark N bypass first stages now in RIS 2	2031	Y
Newark South	A1-A46 link S of Newark; part constructed. Not in MRTM list	2031	Y
Lincoln East	A15-A158; under construction	2021	Y
Lincoln South	A158-A46; *sketchy details*; envisaged as dual carriageway... Assumed costing will be similar to Lincoln E bypass and will be 60mph single	2031	Y
Grantham South	A1-A52 link bypassing Grantham; under construction	2023	Y
Warwickshire	M6 J2 - J4 SMART motorway	2021	Y
Nuneaton and Bedworth Borough	Coton Arches	2021	Y
Nuneaton and Bedworth Borough	A4254b Eastboro Way Phase 1	2024	Y
Nuneaton and Bedworth Borough	College Street / A444	2026	Y

Location	Scheme Name	Forecast Year	Include
Nuneaton and Bedworth Borough	Transforming Nuneaton	2026	Y
Nuneaton and Bedworth Borough	Croft Road / Greenmoor Road Priority	2031	Y
Nuneaton and Bedworth Borough	A47 Old Hinckley Road	2024	Y
Nuneaton and Bedworth Borough	Coventry Road / Gipsy Lane	2026	Y
Nuneaton and Bedworth Borough	A4254 / B4114 / Eastboro Way	2026	Y
Nuneaton and Bedworth Borough	Nuneaton Northern Sites Link Road	2026	Y
North Warwickshire	B5000 Market Street/Bridge Street Signals	2026	Y
North Warwickshire	A5 Dualling between Grendon and Dordon Junction	2033	Y
Rugby Borough	A426/A4071 Avon Mill Roundabout/Newbold Road/Hunters Lane Priority Junction	2026	Y
Rugby Borough	Ashlawn Road/Hillmorton Road	2021	Y
Rugby Borough	A5 Northern Access to DIRFT III	2021	Y
Rugby Borough	A5/A428 Halfway House Roundabout	2026	Y
Rugby Borough	M1 Junction 18	2031	Y
Rugby Borough	M6 to Coton House	2021	Y
Rugby Borough	A5 Southern Access to DIRFT III	2021	Y
North Warwickshire	A5 dualling Grendon to Atherstone	2031	Y
Rugby Borough	M6 J2 Signalisation	2024	Y
Nuneaton and Bedworth Borough	Callendar Farm Phase 2	2031	Y
Nuneaton and Bedworth Borough	Bermuda Triangle Project	2026	Y
Rugby Borough	Ansty Park Access (Combe Fields Road)	2020	Y
Castle Donington	Land South of A50 J1 Development Access	2024	Y
Hinckley	B4114 Coventry Rd / Broughton Rd widening	2021	Y
Shepshed	A512 Ashby Rd Quarry access/signalised junction	2021	Y
Bardon	Tungsten Park, Bardon A511	2021	Y
North West Leicestershire	Segro EMG Phase 2 Development Access	2028	N
Leicester City	St George Street (Queen Street to Southampton Street)	2022	Y
Leicester City	Dover Street (Granby Street Junction)	2024	Y
Leicester City	Granby Street (Bishop Street to Halford Street)	2024	Y
Leicester City	Granby Street (Northampton Street to Street George's Way)	2022	Y
Leicester City	Pocklington's Walk	2022	Y

Location	Scheme Name	Forecast Year	Include
Leicester City	Aylestone Road, Saffron Lane to Oxford Street (A426)	2023	Y
Leicester City	Saffron Lane (B5366)	2023	Y
Leicester City	Duns Lane/Braunstone Gate	2023	Y
Leicester City	Abbey Park Road (Eastern section and bridge)	2023	Y
Leicester City	Anstey Lane (A5630)	2022	Y
Leicester City	St. Margaret's to Birstall (A6)	2024	Y
Leicester City	Melton Road (A607)	2023	Y
Leicester City	Belgrave Gate/Haymarket/Church Gate Pedestrianisation	2020	Y
North West Leicestershire	A50 Junction 1 signalisation of two additional arms (Tamworth Road and Trent Lane)	2025	Y
Blaby	Desford Road/Ratby Lane signalisation	2022	Y
Nottinghamshire	A52 Gamston roundabout	2023	Y
Nottinghamshire	A52 Wheatcroft junction	2028	Y
Nottinghamshire	A52 Nottingham Knight junction	2028	Y
Derbyshire	A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout)	2024	Y
Broxtowe	Toton Link Road	2026	N

About AECOM

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APPENDIX 40: NH Tech Note response to Stage 1A Modelling Forecasting Report

Tech Note

Spatial Planning Framework Commission

Prepared by Jacobs-SYSTRA Joint Venture (JSJV) for the National Highways National Spatial Planning Contract 2022 in relation to the South East Region

Job number:	B2418400		
Job title:	EMG2 DCO		
To:	Paul Wilson, Matt Corner and Vibi Devaharan (BWB)	cc:	Kate Stephen (National Highways), Fiona Ahmed and Jeremy Bloom (JSJV)
Topic:	EMGP2 Forecasting Modelling Review		
Name:	Prepared:	Checked	Approved
	George Nock/ Alain Chandler-Hurst	Simon Doyle	Jeremy Bloom
	Date:		
	13/02/2025	18/02/2025	21/02/2025

Introduction

AECOM have been commissioned by SEGRO to undertake strategic transport modelling to assess the proposed development at the SEGRO Logistics Park East Midlands Gateway 2. This is linked to the Development Consent Order which is currently at public consultation stage.

Strategic transport modelling is required to provide an evidence base for assessing the impacts and identifying the mitigation needed to support the proposed development.

The Strategic Road Network (SRN) is a critical national asset and as such National Highways work to ensure that it operates safely and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

In the case of this development proposal, National Highways' primary interest is in the M1 motorway and the A453, A50 and A42 Trunk Roads.

JSJV has been commissioned by National Highways to audit the supporting traffic modelling documents prepared by AECOM and appraise the impact of development on the SRN.

Review Categorisations

Issues are categorised according to the categories in Table 1 below:-

Table 1: Review Categorisations

Classification	Description
Observations	are points for consideration on an issue that would not significantly affect model operation or output.
Comments	The main function is to highlight such issues for attention in subsequent project stages.
Substantive Issues	which require corrective action. The audit will suggest the detailed action required to address the issue, although there should be freedom for the development team to use alternative approaches in order to achieve the required level of analysis.

Items Reviewed

The following reporting has been provided: -

- EMFM 2019, East Midlands Gateway Phase 2, Forecasting Report, AECOM, 04/02/2025 (The report).

JSJV have undertaken an audit of the received information to appraise the soundness of the conclusions provided within the report and identify areas and next steps for further assessment by the Applicant.

For ease of reference, the detail of the audit presented below follows the chapter sequencing of the report provided.

Section 1 Overview

Paragraph 1.1.8 identifies the modelling assessment and the three proposed stages of the assessment procedure: -

Stage 1a modelling (Proforma 14)

- 2022/2023/2024 'Without Development';
- 2028/2038 'Without Development (1a)' without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6); and
- 2028/2038 'With Development (1a)' with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6).

Stage 1b modelling (Proforma 14a)

- 28/2038 'Without Development (1b)' without EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6); and
- 2028/2038 'With Development (1b)' with EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6).

Stage 2 modelling (details to be confirmed)

- 2028/2038 with EMG Phase 2 and with mitigation measures; and 2028/2038 with EMG Phase 2 construction.

As noted in paragraph 1.1.9, the reporting presented in this version of the report relates to the forecast model results for Stage 1a only with Stage 1b and Stage 2 to follow.

Comment 1:- Proforma 14 includes a construction traffic scenario within the modelling assessment. It is noted above that the overall modelling assessment will be undertaken in three separate stages. The Applicant will be required to agree the inputs for the construction traffic modelling scenario with National Highways prior to the undertaking of assessment on the SRN.

Comment 2:- The Applicant has confirmed that the purpose of the modelling assessment associated with Proforma 14a is for the environmental assessments only; namely, air quality and noise assessment. The scenario used to test and appraise the impacts of development on the SRN are those provided within this current Forecasting Report (using the agreed Proforma 14) and not Proforma 14a. This has been confirmed by BWB in writing on 21st November 2024 acting on behalf of SEGRO.

Paragraph 1.1.10 indicates that the base model validation assessment was presented in a separate report: East Midlands Gateway Phase 2 Base Year Model Review Addendum.

Observation 1:- JSJV are content with the base year model performance in the vicinity of the proposed development as presented in the East Midlands Gateway Phase 2 Base Year Model Review Addendum report.

2.2 'Without Development' Assumptions

The complete list of planning and network assumptions is provided in East Midlands Gateway Phase 2 Uncertainty Log v7.

Observation 2:- JSJV are content with the details provided in the Uncertainty Log v7.

2.4 Proposed Development Trip Generation Assumptions

The proposed development trip generation assumptions are provided in Table 2.1.

Observation 3:- JSJV are content with the proposed trip generation.

Paragraph 2.4.2 notes that both the 2028 and 2038 With Development scenarios are “fully built out (i.e. 100% occupancy)”.

Observation 4:- JSJV are content the scenario assumptions satisfy the requirements of the Department for Transport Circular 01/ 2022 paragraph 50.

2.5 Proposed Development Trip Distribution Assumptions

The following PCU conversion factors have been used for the forecasting assessment: -

- Lights = 1 PCU; and,
- Heavies = 2 PCU.

Observation 5:- JSJV are content with the PCU assumptions.

Figures 2.1 - 2.8 shows the distribution of development traffic by different modes, for the AM and PM time periods for both the 2028 and 2038 assessment.

Comment 3:- JSJV are broadly content with the anticipated trip distribution and routing for each mode. The Applicant should note during the AM peak (Figures 2.4 and 2.6) a number of light vehicle arrivals are anticipated to route via Castle Donington. During the PM peak, routes via Castle Donington are used to a significantly lesser extent with the M1 seeming to be the primary route. The Applicant should be cognisant of any capacity constraints on the A453, M1 and through Castle Donington during the AM and PM peaks in light of the asymmetry identified. This should be further analysed and investigated as part of the next stage of assessment, taking into account journey times along the modelled routes.

Section 3 – Forecast Model Results

Figure 3.1 shows the forecast traffic flow changes during the 2028 AM peak. There are reductions of flows on the A42 where there are reciprocated increases in flows on the A453 routing away from the SRN at A42 Junction 14. For ease of understanding, the Figure is replicated below:-

Figure 3.1: Forecast Flow Change for 2028 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



Contains Ordnance Survey data © Crown copyright and database right 2025

Comment 4:- The traffic flow changes noted above occur during both the 2028 and 2038 AM scenarios. As part of the next stage of assessment, the Applicant should review the capacity constraints on the SRN as a result of development which contributes to traffic rerouting away from the SRN onto the A453. This appears to be traffic associated with the airport. The Applicant should also undertake an analysis of the changes to the background traffic routing in light of the above.

Substantive Issue 1:- Forecast flows on Finger Farm roundabout are anticipated to increase significantly as a direct result of the development. The Applicant should be cognisant of the capacity constraints (noted below under heading 3.6) and consider the requirement for suitable mitigation at Finger Farm roundabout to mitigate the residual cumulative impacts of development.

3.4 Area of Influence

The identified Area of Influence (AOI) is shown in Figure 3.3.

Observation 6:- JSJV are content with the AOI presented in Figure 3.3

3.5 Forecast Delay Change

There are significant forecast increases in delay as a result of development traffic on the SRN. Most critically this includes: -

- M1 Junctions 23A, 24, 24A;
- A453 and Finger Farm Roundabout;
- A42 Junction 14; and,
- A50 Junction 1.

Substantive Issue 2:- The Applicant should be cognisant of the capacity constraints at these locations and consider the requirement for suitable mitigation to mitigate the residual cumulative impacts of development. The exact scale of these delays is also difficult to determine from the Figures. The extent of the anticipated delay changes should be quantified by the Applicant.

The scale of the supporting Figures in this section of the report, particularly Figure 3.4, makes it difficult to determine the precise increase/ reductions in delay close to M1 junction 25.

Substantive Issue 3:- The Applicant should be cognisant of the capacity constraints at and close to M1 junction 25 and consider the requirement for suitable mitigation to mitigate the residual cumulative impacts of development.

3.6 Forecast Node Volume-Capacity Ratios

Section 3.6 presents the forecast nodes Volume / Capacity ratios. Figures 3.6 – 3.7 show the performance of nodes comparing the with and without development scenarios for both 2028 and 2038.

Substantive Issue 4:- Whilst the Figures are helpful, the Applicant will need to consider the scale of the V/C change when comparing with and without development scenarios. Shapefiles and spreadsheets should be provided with outputs to help fully understand the implications of the development. Additionally, more detailed Figures at locations where there are multiple V/Cs shown in close proximity, such as M1 J24, should be provided as it is challenging to decipher the extent of the change. This should be quantified to understand the exact anticipated change in network performance.

In all AM with development scenarios, the site access is shown to be over 85% capacity. In the case of 2038, this is shown to be >100%.

Substantive Issue 5:- Given the proximity of the proposed site access to the SRN, JSJV have concerns with the ability of the proposed site access to safely and efficiently accommodate development traffic. The principal concern would be the impact this could have on the operation of SRN junctions, particularly Finger Farm roundabout (which is also shown to be under significant capacity constraint). An additional concern is that not all traffic may be reaching the network and as such the scale of the impact is not fully known; this needs to be confirmed by the Applicant. It is recommended the Applicant reviews the scale and form of the proposed access strategy in terms of capacity to ensure the access is safe and suitable for all users taking a holistic view of network performance.

There are major constraints at a large number of nodes across the modelled area. Many of these are on or close to the SRN. The following locations are shown to have a significant increase in V/C as a result of development:-

- M1 Junctions 23A, 24, 24A, 25;
- A453 and Finger Farm Roundabout;
- A42 Junction 14; and,
- A50 Junction 1.

Substantive Issue 6:- Whilst there is no information presented which quantifies the degree of V/C change provided at this stage, JSJV has concerns with the potential deterioration of network performance as a result of development traffic. This is particularly critical on the M1 given the complex and high-speed network with multiple interactions, merges and diverges associated with it. The Applicant should be cognisant of the capacity constraints at these locations and consider the requirement for suitable mitigation to mitigate the residual cumulative impacts of development.

3. 7 Forecast Junction Turning Flows

A list of junctions and areas of the network are identified where data will be extracted from the EMFM model.

Observation 7:- JSJV agree with the area identified for further analysis. The Applicant team should remain engaged with National Highways when undertaking further localised junction modelling assessment and microsimulation modelling on the SRN and employ a critical, robust and agreed methodology for extracting and applying demand from the strategic model.

Section 4 – Summary of the EMFM Assessment

Paragraphs 4.1.3 and 4.1.4 states:-

The forecasts undertaken reflect the forecast impact of the proposed development at East Midlands Gateway Phase 2. It should be noted that the results provided in this report are at a high level. Due to the strategic nature of the EMFM, not all roads are modelled, and the results should be interpreted with that in mind.

Although the EMFM modelling provides the strategic impact and forms part of the proposed East Midlands Gateway Phase 2 assessment evidence packs, the overall assessment should be complemented by local operational assessment and analysis.

Observation 8:- JSJV agrees that the outputs from the strategic modelling should be applied critically by the Applicant during the next stage of assessment. Both local junction modelling and microsimulation modelling are required, in addition to a With Mitigation scenario using EMFM 2019.

Summary and Next Steps

JSJV has been commissioned by National Highways to audit the supporting traffic modelling documents prepared by AECOM for the proposed East Midlands Gateway 2 development and appraise the impact of the development on the SRN. It is requested that the Applicant considers the findings identified in this Technical Note and undertakes appropriate actions in consultation with JSJV, National Highways and the Local Highway Authorities during the next stage of assessment.

Further assessment is required using both the strategic as well as the local and microsimulation modelling packages to further explore the more focused implications of development on the SRN and develop a suitable package of interventions to mitigate the residual cumulative impacts of development and any unacceptable impacts on highway safety.

**APPENDIX 41: NH agreement to Stage 1A modelling approach email dated 16 May
2025**

Matt Corner

From: Nock, George <George.Nock@jacobs.com>
Sent: 16 May 2025 13:46
To: Matt Corner
Cc: Ian Rigby; Kate Stephen; Chandler-Hurst, Alain; Jeremy Bloom; steve@oxalisplanning.co.uk; Ahmed, Fiona; Vibeeshan Devaharan; Paul Wilson
Subject: RE: 250416 EMG2 PRTM Forecasting Report - BWB response to NH

Follow Up Flag: Follow up
Flag Status: Completed

This email originated from outside of our organisation. Please exercise caution with content, links and attachments.

Hi Matt

Thanks for your email and your response to the Tech Note.

We are grateful for you acknowledging that further assessment work is on-going which will consider the detailed points raised by National Highways through the next stages of your evaluation work.

We are currently awaiting resubmission of the demand flows for the VISSIM modelling and haven't yet been sighted on the full impact assessments but are looking forward to receiving those soon.

With thanks
George

George Nock, MSc (Eng) | [Jacobs](#) | Associate Director, Cities & Places
George.Nock@jacobs.com | 07875 634322
Multistory (Colmore Square), 7th Floor, 38 Colmore Circus, Birmingham, B4 6BN | UK



Advanced notice of annual leave: 26th May

From: Matt Corner <Matt.Corner@bwbconsulting.com>
Sent: 16 April 2025 09:36
To: Nock, George <George.Nock@jacobs.com>
Cc: Ian Rigby <ian.rigby@segro.com>; Kate Stephen <Kate.Stephen@nationalhighways.co.uk>; Chandler-Hurst, Alain <Alain.ChandlerHurst@jacobs.com>; Jeremy Bloom <consulting@jeremybloom.co.uk>; steve@oxalisplanning.co.uk; Ahmed, Fiona <Fiona.Ahmed@jacobs.com>; Vibeeshan Devaharan <Vibeeshan.Devaharan@bwbconsulting.com>; Paul Wilson <Paul.Wilson@bwbconsulting.com>
Subject: [EXTERNAL] 250416 EMG2 PRTM Forecasting Report - BWB response to NH

Dear George,

Thank you for sharing the attached Technical Note setting out National Highways position on AECOM's PRTM Forecasting Report. Further to recent meetings, BWB has reviewed the observations, comments and substantive issues and produced the attached response setting out how we propose to address each item within the forthcoming work and Transport Assessment.

Hopefully, this provides you with comfort as to how we intend to deal with each issue, a number of which have since progressed in dialogue with the TWG. We would however welcome confirmation on our proposed approach or any further suggestions that we can take on board.

Kind regards

Matt Corner

Associate – Transport & Accessibility Planning
5th Floor, Waterfront House, Station Street, Nottingham, NG2 3DQ
T: 0115 924 1100 | **M:** 07425 757 095 | **W:** bwbconsulting.com



From: Nock, George <George.Nock@jacobs.com>

Sent: 21 February 2025 09:33

To: Matt Corner <Matt.Corner@bwbconsulting.com>; Vibeeshan Devaharan <Vibeeshan.Devaharan@bwbconsulting.com>; Paul Wilson <Paul.Wilson@bwbconsulting.com>

Cc: Ian Rigby <ian.rigby@segro.com>; Kate Stephen <Kate.Stephen@nationalhighways.co.uk>; Chandler-Hurst, Alain <Alain.ChandlerHurst@jacobs.com>; Jeremy Bloom <consulting@jeremybloom.co.uk>; steve@oxalisplanning.co.uk; Ahmed, Fiona <Fiona.Ahmed@jacobs.com>

Subject: RE: 250212 EMG2 Feb '25 modelling meeting minutes/actions

Importance: High

This email originated from outside of our organisation. Please exercise caution with content, links and attachments.

Morning Matt,

Thank you for providing the EMFM 2019, East Midlands Gateway Phase 2, Forecasting Report, AECOM, 04/02/2025.

Noting the timescales provided for comments by the Highway Authorities is 14th March (as per the recent Highways Programme S1.P14.1) we felt it appropriate to undertake our review and appraisal of the strategic impacts on the SRN at pace ahead of that anticipated receipt date noting the scale and significance of impacts identified on the SRN.

Please see attached our Technical Note. The Technical Note follows our procedure of reviewing and categorising findings.

Unsurprisingly, the Forecasting Report demonstrates major constraints across the modelled area. Many of these are on or close to the SRN. The following locations are shown to have a significant increase in V/C as a result of development:-

- M1 Junctions 23A, 24, 24A, 25;
- A453 and Finger Farm Roundabout;
- A42 Junction 14; and,
- A50 Junction 1.

We would be grateful if you could consider the findings of the Note when developing your next stages of analysis (specifically the microsimulation modelling and local junction modelling, and the identification of a suitable mitigation package to mitigate the residual cumulative impacts of development on the SRN).

We hope the time gained on our review is helpful and affords some more time for the team to continue your granular and focused analysis on the impacts to the benefit of the overall programme.

I would be pleased to discuss any elements of our Technical Note with you.

With thanks
George

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Advanced notice of annual leave: 3rd – 7th March (Inclusive).

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Subject: [EXTERNAL] 250212 EMG2 Feb '25 modelling meeting minutes/actions

Dear all,

Please see attached minutes from last week's modelling meeting. The actions from the meeting are as follows:

1. **Adrian** to review January's modelling meeting minutes and confirm whether these are agreed.
2. **BWB** to review Stage 1 modelling outputs and provide comments to AECOM before sharing the Forecasting Report, once happy with the outputs.
3. **AECOM** to continue the modelling work for proforma v14a, with the aim of sending initial outputs w/c 10/2/25.
4. **Adrian** and **Dan** to review and comment on the Covid sensitivity note.
5. **BWB** to update and share a revised construction traffic calculations, with accompanying Explanatory Note. **All** to then review and provide further comments.
6. **AECOM** to review planning data assumptions and advise of any questions.

7. **BWB** to review 2024 data of EMG1 and share this with thoughts on the 'vision and validate' assessment.
8. **Adrian** to provide comments on the base VISSIM model. **Vibi** to take on board and share a revised version with accompanying report.
9. **BWB** to start generating forecast year flows taking on board previously agreed furnishing methodology and share with TWG.
10. **Matt** to circulate sign off sheets to get formal agreement on previous reports.

In response to Item 2, please find attached AECOM's Forecasting Report for the Stage 1 modelling work (based on proforma v14). BWB has undertaken a thorough review of the PRTM outputs and are in the throes of finalising some last minor bits of detail with AECOM although this will have no impact on the Forecasting Report itself. We can discuss this further at tomorrow's TWG meeting, for which we will circulate an agenda for shortly.

I trust the above details are of use and look forward to catching up tomorrow with those that can attend.

Kind regards

Matt Corner

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From: Matt Corner

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Subject: 250205 EMG2 Feb '25 modelling meeting agenda

Dear all,

Please see the below agenda for tomorrow's modelling meeting; please let us know if anyone has any amendments beforehand. Thanks

- i) Review of previous meeting minutes (attached) and actions (below) for agreement
- ii) Current Stage 1 EMG2 modelling work update from **AECOM** (proformas 14 and 14a; information for the latter now fully received) – a collective guided tour would be of use
- iii) Stage 2 modelling:
 - a. LCountyC/NCountyC comments Covid sensitivity report wise, post George's agreement (subsequent note issued 6/1/25; agreement 23/1/25)
 - b. plan to meet the Clients programme for end of May DCO submission (numbers review, VISSIM modelling update, and undertaking of Stage 2 modelling at risk whilst we await comments)
 - c. construction traffic update post comments dated 31/1/25.
- iv) Wider strategic modelling (this, and a EMG2 sensitivity test, to be undertaken using the 2023 version of PRTM, for the avoidance of doubt):
 - a. clarity re. next steps LMVR wise; LCountyC/AECOM to liaise directly with NH we assume with re. to the model itself – is it ready (Patrick?) and can we have a copy also?
 - b. planning data assumptions and uncertainty log update (we have provided the last remaining item from DCityC; is the rest now sorted...?)
 - c. proforma review; comments from George received on 31/1 (we are seeking opinion from Steve Johnstone re the items raised in point 2)
 - d. agreed outstanding information requirements and next steps re. this element?
- v) 'Vison and Validate' related update (last email sent by Fiona on 29/1/25)
- vi) Updated VISSIM base model – update (post Lee's email 23/1/25)
- vii) Sign off position
- viii) Next steps (the revised, detailed version of the programme will be sent post Client review, pre the TWG meeting)
- ix) AOB

Kind regards

Matt Corner

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Cc: Catherine Townend <catherine.townend@nationalhighways.co.uk>; Ahmed, Fiona <Fiona.Ahmed@jacobs.com>; Jeremy Bloom <consulting@jeremybloom.co.uk>; Chandler-Hurst, Alain <Alain.ChandlerHurst@jacobs.com>; Tom Boylan <tom.boyland@nottsc.gov.uk>; Simon Hilditch <Simon.Hilditch@bwbconsulting.com>; Ian Rigby <ian.rigby@segro.com>; Davies, Aled <aled.davies@aeom.com>; Templeman, Lee <Lee.Templeman@jacobs.com>; Laura Good <Laura.Good@leics.gov.uk>; ETD - Commissioning Framework <etcf@leics.gov.uk>; Matt Corner <Matt.Corner@bwbconsulting.com>; Vibeeshan Devaharan <Vibeeshan.Devaharan@bwbconsulting.com>

Subject: 250103 EMG2 Jan '25 modelling meeting minutes/actions

Good afternoon all – Happy New Year

Please see attached minutes from yesterday's modelling meeting. We were unsure as to whether anyone was able to join, so thanks to Harry, Adrian, and Fiona for doing so, as the rest hopefully enjoyed their extended break.

We set out the actions as follows:

1. **Patrick** to liaise with LCityC, alongside Anthea Anderson to get planning data updates.
2. **Paul** to liaise with Duncan at Systra to obtain planning data updates for DCityC, and follow up with NCityC.
3. **AECOM** to issue initial PRTM outputs for the current EMG2 commission as soon as possible w/c 06/01/25
4. **All** to review previous modelling meeting minutes and confirm these are acceptable before **BWB** upload to SharePoint.
5. **BWB** to issue the revised VISSIM base model with summary of changes made.
6. **AECOM/LCountyC NDI** to set out timescale implications for potentially switching to 2023 PRTM model and comparisons of journey time and LMVR details to help inform decision making.
7. **BWB** to update the strategic modelling PRTM proforma to address the minor discrepancy in relation to the Plot 16 traffic flows, and append the information provided to NH, once comments have been received from **LCountyC** in particular.
8. **BWB** to circulate GN email regarding Covid sensitivity assessments and formalise the details into a Technical Note.
9. **BWB** to consider the impacts of any additional mezzanine floorspace and provide traffic comparisons to inform the 'vision and validate' assessment.

10. **Segro** and **BWB** to consider the concerns raised by LCountyC and NH in relation to agreeing and finalising the strategic modelling work in particular (mechanisms for securing and funding the work), regardless of the current query over which version of PRTM should be used.

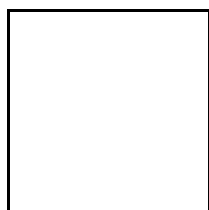
We trust the above/attached is of use and look forward to discussing in further detail at next Thursday's TWG meeting (an agenda will be sent early next week). However, if anyone has any questions in the meantime, please ask. Thanks

Kind regards

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APPENDIX 42: PRTM Trip Distribution Plots on the A50

EMFM

East Midlands Gateway Phase 2
Forecast Results Stage 1a
(Development Traffic on the A50)

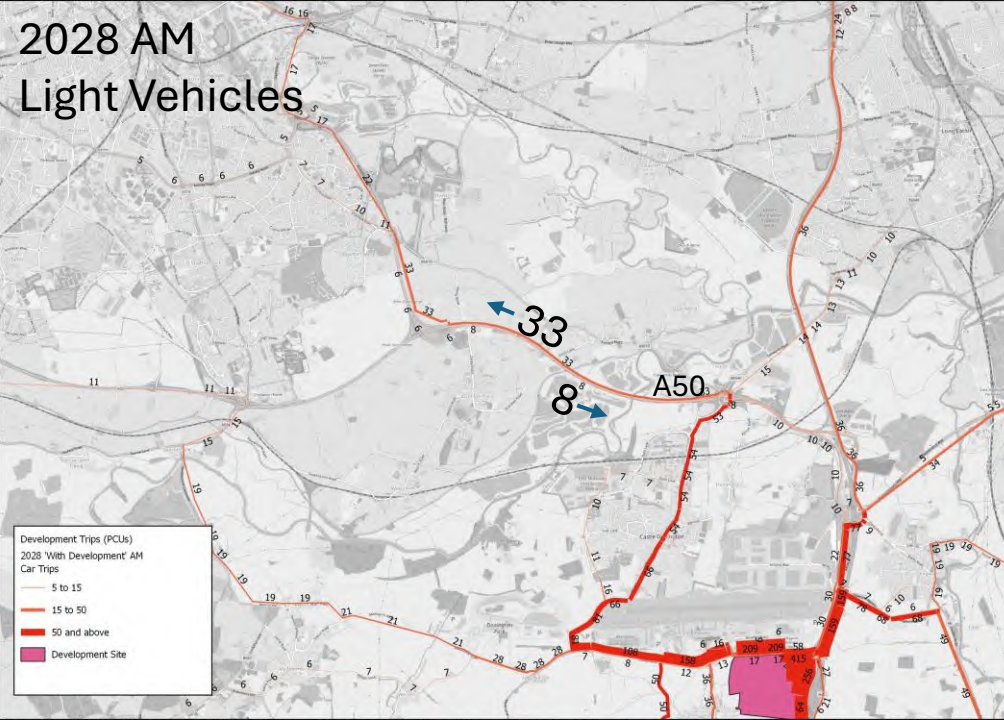
21 May 2025

A50 Traffic Summary for Stage 1a

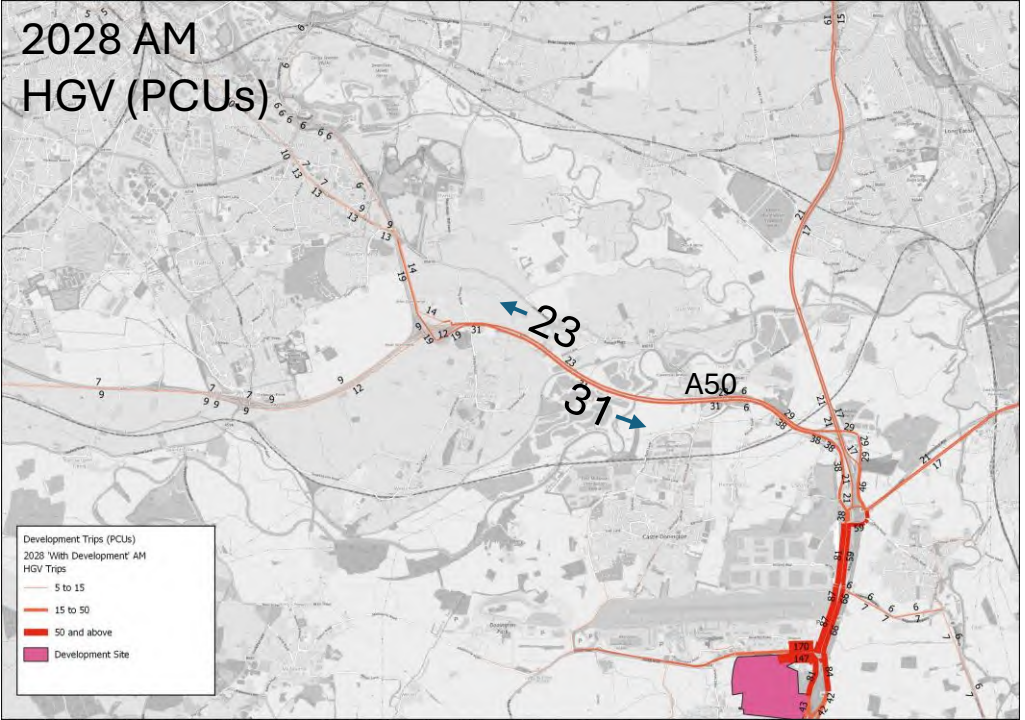
- The development trip distribution has been based on the PRTM in-built 'gravity model'.
- The figures show the forecast development trip distribution for HGVs and light vehicles on the highway network for 2028 and 2038 'With Development (1a)' scenarios in passenger car units (PCUs).
- The development traffic on the A50 is summarised in the table below. The traffic flows are similar between 2028 and 2038. These traffic volumes correspond to Figure 2-1 to 2-8 in the EMGP2 Forecasting Report.
 - The highest number of 2-way development traffic forecast on the A50 is 118 PCUs in the 2028 PM Peak scenario.

EMGP2 Development- related Trips	Light Vehicles				HGVs (in PCUs. Divide by 2 to convert to vehicles)				Total (PCUs)			
	2028		2038		2028		2038		2028		2038	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
A50 EB	8	57	7	54	31	19	30	18	39	76	37	72
A50 WB	33	13	28	12	23	29	23	29	56	42	51	41
2-way	41	70	35	66	54	48	53	47	95	118	88	113

2028 AM Light Vehicles



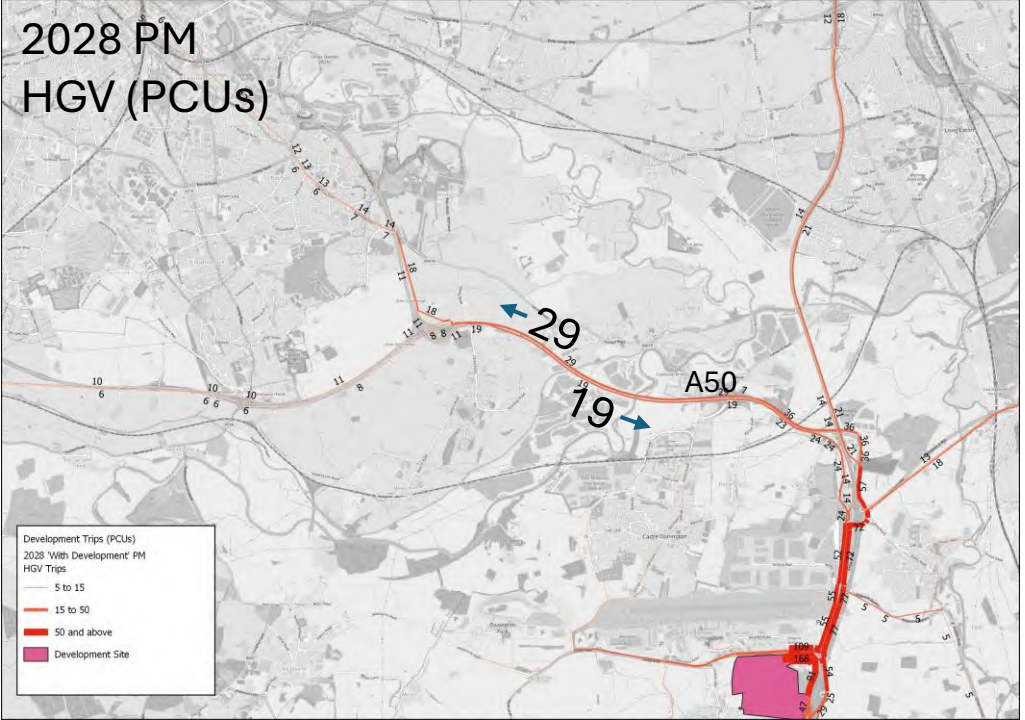
2028 AM HGV (PCUs)



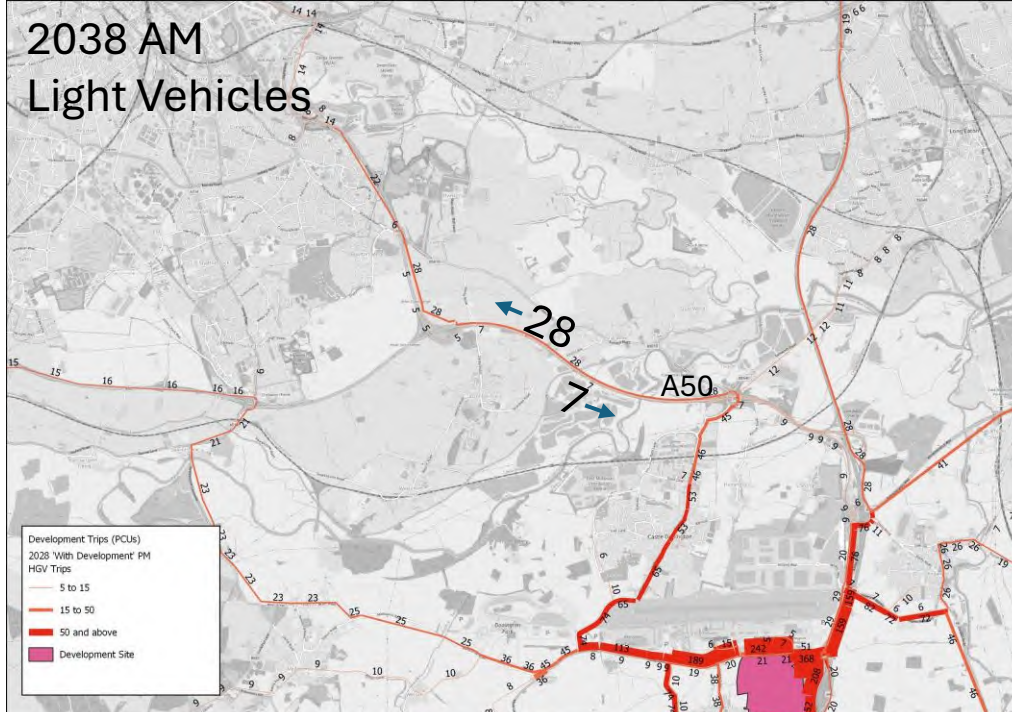
2028 PM Light Vehicles



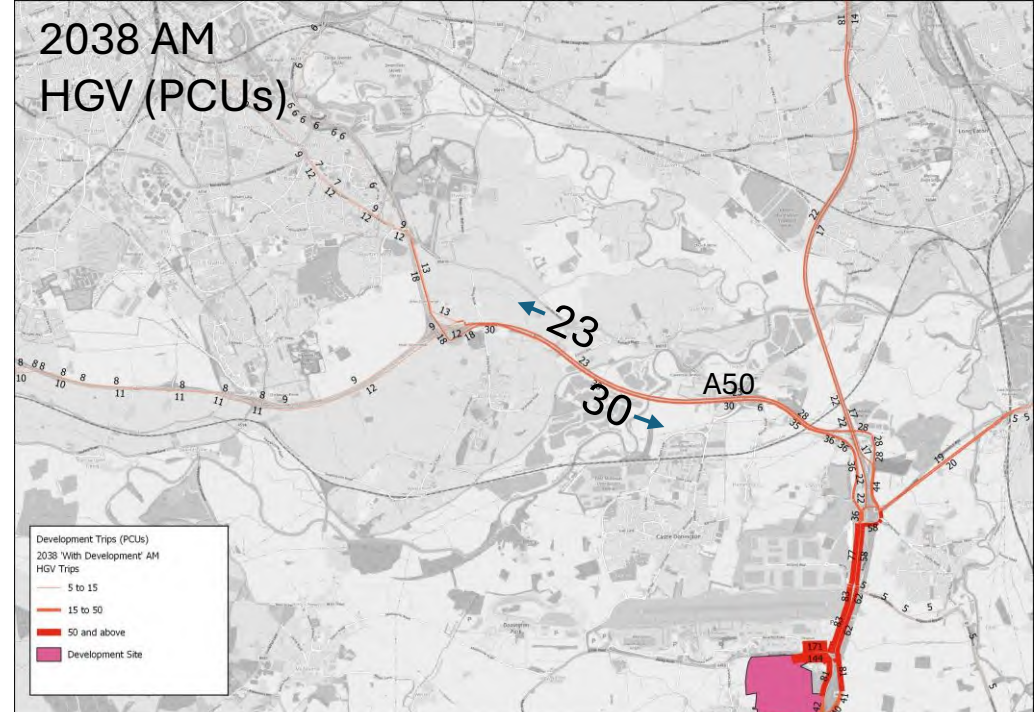
2028 PM HGV (PCUs)



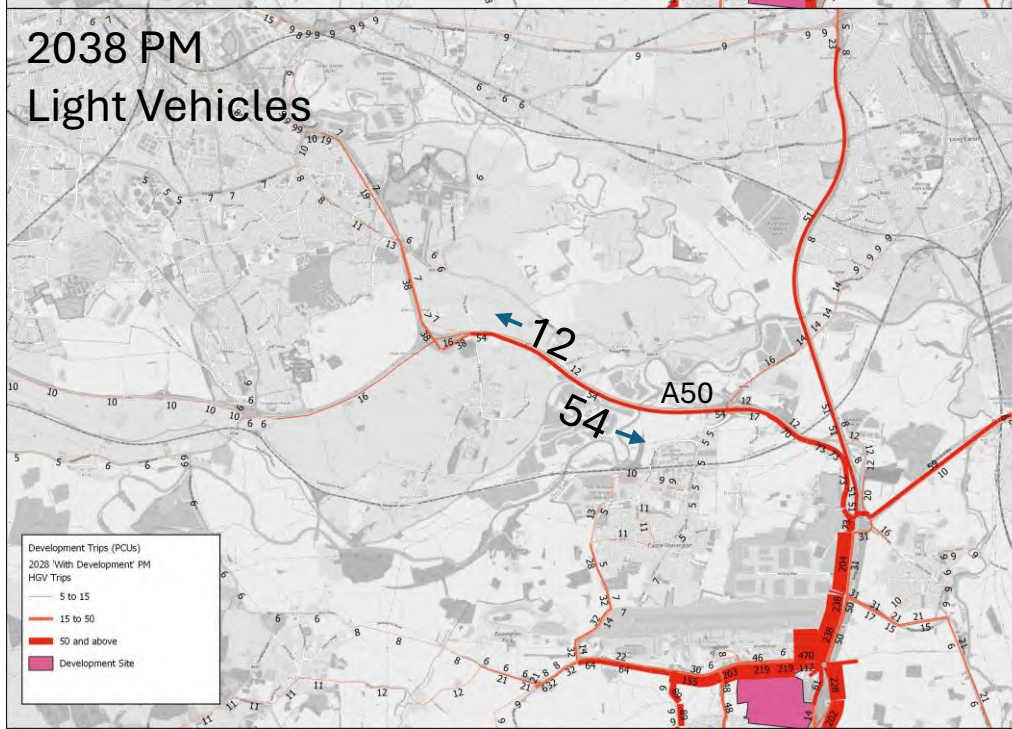
2038 AM Light Vehicles



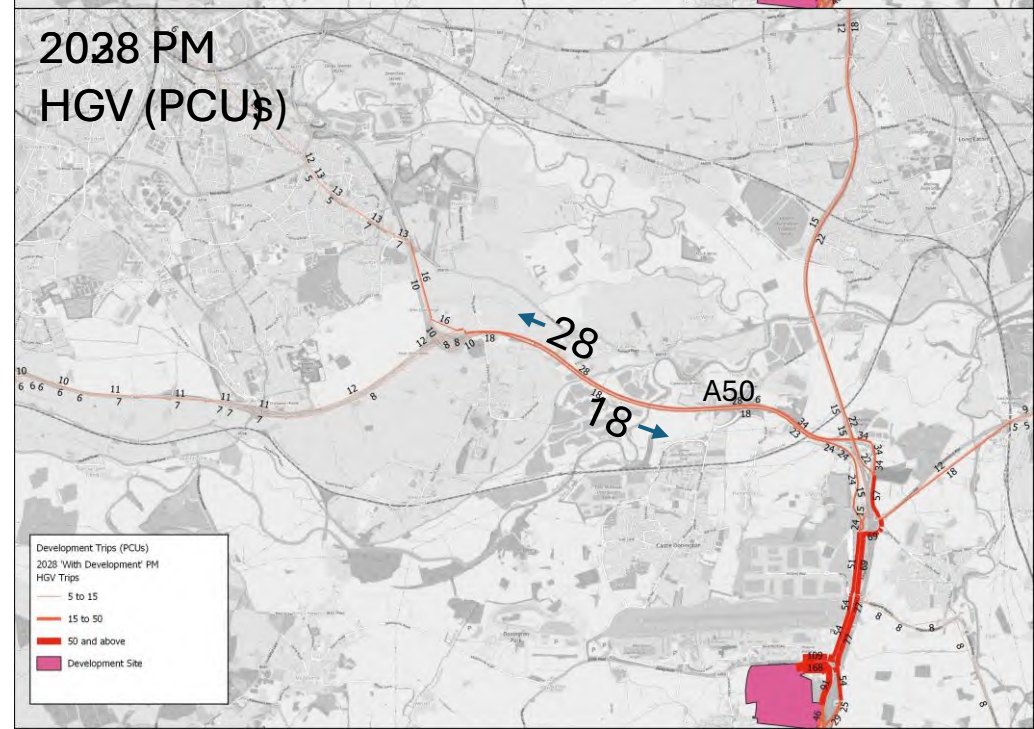
2038 AM HGV (PCUs)



2038 PM Light Vehicles



2038 PM HGV (PCUs)



**APPENDIX 43: PRTM Stage 1B Modelling Forecasting Report Addendum (document
reference East Midlands Gateway Phase 2: Forecasting Report Addendum – Stage 1b)**

EMFM 2019

East Midlands Gateway Phase 2:
Forecasting Report Addendum
(Stage 1b)

Quality Information

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Principal Consultant

Checked by

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
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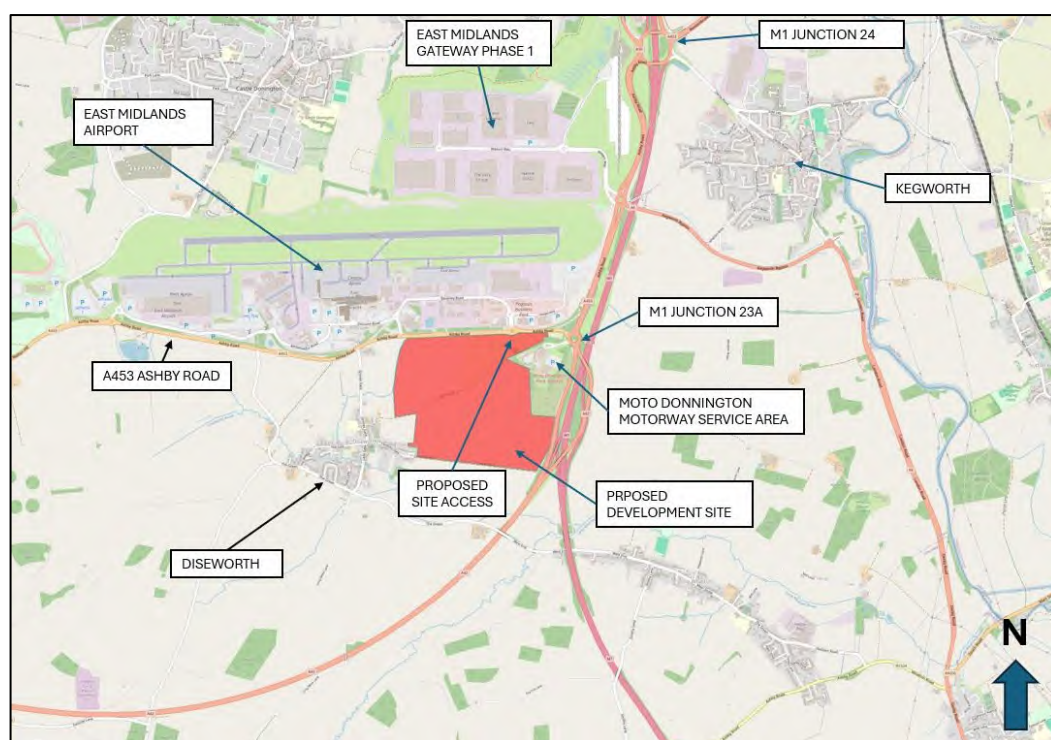
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Section 1 – Overview

1.1 Introduction

- 1.1.1 The East Midlands Gateway (EMG) Phase 2 development is a proposed employment development of mixed B2 (general industrial) and B8 (storage or distribution) use, with capacity for 400,000sqm floorspace (300,000sqm ground floorspace and 100,000sqm of B8 mezzanine floorspace) of industrial use, comprising 340,000sqm B8 and 60,000sqm B2. In addition to this, 30,000sqm of B8 floorspace is proposed on EMG Phase 1 (Plot 16).
- 1.1.2 The development site is located to the south of East Midlands Airport in Leicestershire and west of the A42 and is expected to build out by 2031.
- 1.1.3 Figure 1.1 shows an indication of the location of the proposed EMG Phase 2 development, denoted by the area shaded in red. The proposed development has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. M1 Junction 23a lies to the east of the site with the Moto Donnington Motorway Service Area (MSA) directly abutting to the north-east.

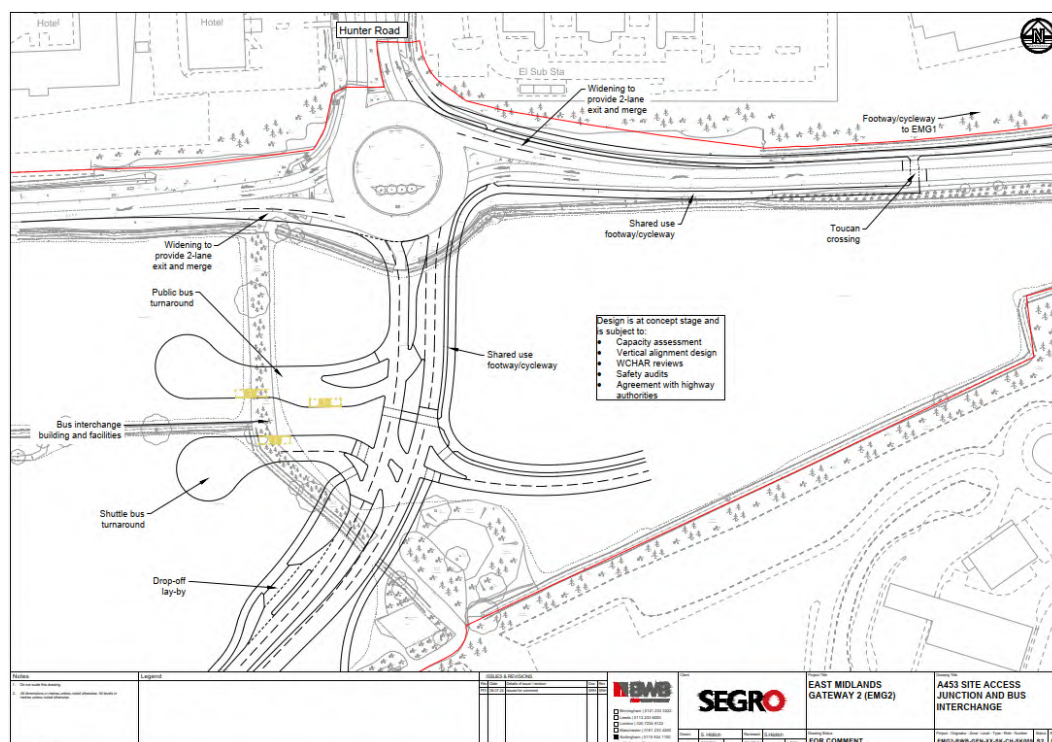
Figure 1.1: Location of Proposed Development¹



© OpenStreetMap Contributors

- 1.1.4 The proposed EMG Phase 2 development will access the highway network via a single point of access:
- a fourth arm off the existing A453 / Hunter Road roundabout, as shown in Figure 1.2.
- 1.1.5 The proposed EMG Phase 1 (Plot 16) development will access the highway network via:
- the existing access via Wilder's Way.

¹ Location of Proposed Development adapted from Technical Note 1 – Transport Scoping Note, East Midlands Gateway Phase 2 (EMG-BWB-GEN-XX-RP-TR-0001_TN1 Transport Scoping Note-S1-P3.pdf). Provided as part of the information pack with the PRTM Development Form for East Midlands Gateway Phase 2.

Figure 1.2: Site Access Junction2

1.1.6 AECOM has been commissioned to undertake strategic modelling to assess the potential traffic impacts of the proposed development using the East Midlands Freeport Model (EMFM) for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours.

1.1.7 The strategic modelling assessment for the proposed EMG Phase 2 development will be undertaken in three stages, as follows:

Stage 1a modelling (Proforma 14)

- 2022/2023/2024 'Without Development';
- 2028/2038 'Without Development (1a)' without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.8)); and
- 2028/2038 'With Development (1a)' with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.8)).

Stage 1b modelling (Proforma 14a)

- 2028/2038 'Without Development (1b)' without EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.8)); and
- 2028/2038 'With Development (1b)' with EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.8)).

Stage 2 modelling (details to be confirmed)

- 2028/2038 with EMG Phase 2 and with mitigation measures; and
- 2028/2038 with EMG Phase 2 construction.

² EMG2-BWB-GEN-XX-SK-CH-SK009 S2 P01

- 1.1.8 The following development sites have been proposed at the nearby Isley Woodhouse site, on land west of Castle Donington, on land to the north of Kegworth, near Junction 11 of A/M42 and East Midlands Freeport sites. The forecast assumptions for the assessment of the East Midlands Gateway Phase 2 development have included these developments for Stage 1a, but these sites have been **excluded** in Stage 1b (as reported in this addendum):
- Isley Woodhouse (Site IW1), which comprises:
 - approximately 4,500 new homes and some 23,000sqm of employment floorspace (industry and warehousing)³.
 - Land North and South of Park Lane, Castle Donington (Site CD10), which comprises:
 - around 1,076 homes⁴.
 - Land West of Hilltop Farm, Castle Donington (Site EMP89), which comprises:
 - around 6,000sqm of offices and 11,850sqm of industry / smaller scale warehousing (use classes B2/B8)⁴.
 - Land North of Remembrance Way (A453) and Land North of Derby Road (A6), Kegworth (Site EMP73)⁴, which comprises:
 - around 30,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of Derby Road (A6) site; and
 - around 40,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of A543 Remembrance Way site.
 - Land to the North of J11 A/M42 (Site EMP82)⁴, which comprises:
 - 28ha of employment land for strategic distribution purposes.
 - East Midlands Freeport sites, which include the Uniper site (Ratcliffe), East Midlands Intermodal Park (EMIP) site, and the East Midlands Airport Aviation Expansion site.
- 1.1.9 This report follows the East Midlands Gateway Phase 2 Base Year Model Review Addendum report⁵, which details the calibrated 2019 base year model review and performance in the vicinity of the proposed development site.
- 1.1.10 This report is the addendum to the Forecasting Report⁶ and documents the forecast model results for Stage 1b for the EMFM strategic modelling assessment of the proposed development. Stage 2 results will be reported separately.

1.2 Report Structure

- 1.2.1 Following the introduction, this report contains the following sections:
- Section 2 – Forecast Approach and Assumptions: this section details the forecast assumptions applied within this assessment of the proposed development, including the assumed development trip generation and trip distribution.
 - Section 3 – Forecast Model Results: the section details the forecast results requested as part of the brief.
 - Section 4– Summary of the EMFM Assessment: this section provides a summary of the assessment of the proposed development.

³ Draft North West Leicestershire Local Plan 2020-2024 – Proposed Houring and Employment Allocation for Consultation (www.nwleics.gov.uk/files/documents/proposed_housing_and_employment_allocations/Reg%2018%20%28Site%20Allocations%29%20Consultation_final.pdf)

⁴ EMGP2 Uncertainty Log v7.0 (Jul 2024).xlsx

⁵ EMFM 2019 – East Midlands Gateway Phase 2: Base Year Model Review Addendum v1.0 (2024-08-19)

⁶ EMFM 2019 – East Midlands Gateway Phase 2: Forecasting Report v1.0 (2025-02-04)

Section 2 – Forecast Approach and Assumptions

2.1 Introduction

- 2.1.1 This section sets out the forecast assumptions applied for this application of the EMFM, and the methodology adopted to create the required model forecasts.
- 2.1.2 The following forecast model scenarios have been produced for this version of the report:
Stage 1b modelling (Proforma 14a)
- 2028/2038 'Without Development (1b)' without EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.8)); and
 - 2028/2038 'With Development (1b)' with EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.8)).
- 2.1.3 The EMFM is a highway assignment model, linked to and derived from the PRTM (Pan-Regional Transport Model). For the development of the 2028 and 2038 'Without Development' scenarios, an existing process to take the highway demand growth from the wider PRTM has been applied. Section 2.2 provides the 'Without Development' assumptions applied.
- 2.1.4 To produce the 'With Development (1b)' forecasts, the highway demand for the proposed development has been added to the EMFM 2028 'Without Development (1b)' and 2038 'Without Development (1b)' highway demand matrices and assigned in the EMFM. To estimate the development trip distribution, the gravity model within the PRTM has been used. Sections 2.3 to 2.5 provide the highway network and demand assumptions for the proposed development.
- 2.1.5 For information, both the EMFM and PRTM use the May 2024 TAG data book. This was the latest available TAG data book at the time of calibrating the version of PRTM that underpins the EMFM. The EMFM was calibrated using the draft November 2022 TAG data book, again the latest TAG data book available during calibration. However, EMFM was updated to use the May 2024 TAG data book for this application. The impact on the 2019 base year modelled flows due to the update of the TAG data book was not considered material with most links having an absolute difference of fewer than 25 PCUs (Passenger Car Unit). The EMFM 2019, East Midlands Gateway Phase 2: Base Year Model Review Addendum (update to May 2024 TAG data book) (19/08/24) provides more detail.

2.2 'Without Development' Assumptions

- 2.2.1 The forecast planning and infrastructure schemes, in the format of an uncertainty log, were reviewed by the client and stakeholders.
- 2.2.2 Appendix A presents the planning data assumptions (residential and employment) within North West Leicestershire that have been incorporated in the forecast modelling. Given the number of developments in the uncertainty log, the reporting of the planning data are limited to residential sites with more than 500 dwellings and employment sites with more than 750 jobs. All available data that should be used in the modelling, irrespective of size, have been used in the model forecasts. The complete list of the planning assumptions, including data for neighbouring districts such as Rushcliffe, is included in the East Midlands Gateway Phase 2 Uncertainty Log v7.0⁷.
- 2.2.3 Appendix B presents the forecast assumptions for the highway network for this application.
- 2.2.4 As discussed in Paragraph 2.1.3, the EMFM is a highway assignment model, and a process to take the highway demand growth from the wider PRTM has been applied. Planning data assumptions (housing and employment) have been input into the PRTM and the full PRTM has been run for 2028 and 2038. Planning forecasts were unconstrained (NTEM minimum⁸) for this application as noted in the proposal⁹.

⁷ EMGP2 Uncertainty Log v7a.0 (Oct 2024).xlsx

⁸ In the event that the planning data lead to below NTEM / TEMPro growth, the model reverts to NTEM / TEMPro as minimum.

⁹ EMFM 2019 Fee Proposal – East Midlands Gateway Phase 2 v2.0 (2024-07-18)

2.3 Proposed Development Access Assumptions

- 2.3.1 To produce the 'With Development' network for 2028 and 2038, the assumed site accesses for the proposed development, as discussed in Paragraph 1.1.4, were added in the relevant 'Without Development' networks.
- 2.3.2 A development zone has been used to represent the proposed East Midlands Gateway Phase 2 development.

2.4 Proposed Development Trip Generation Assumptions

- 2.4.1 Development trip generation data for the proposed development were provided by the client which have been reproduced in Table 2.1.

Table 2.1: Development Trip Generation (2028 and 2038)¹⁰

	Light Vehicle Trips (in veh)			HGV Trips (in veh)			All (in veh)		
	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total
East Midlands Gateway Phase 2 Development - Employment B2 (60,000sqm)									
AM Peak hour (08:00 to 09:00)	34	226	260	8	10	18	43	235	278
PM Peak hour (17:00 to 18:00)	218	28	246	4	2	6	222	30	252
East Midlands Gateway Phase 2 Development - Employment B8 (340,000sqm)									
AM Peak hour (08:00 to 09:00)	44	411	455	78	65	143	122	476	598
PM Peak hour (17:00 to 18:00)	476	136	612	51	85	136	527	221	748
East Midlands Gateway Phase 2 Development Total									
AM Peak hour (08:00 to 09:00)	78	637	715	86	75	161	165	711	876
PM Peak hour (17:00 to 18:00)	694	164	858	55	87	142	748	250	998
East Midlands Gateway Phase 1 (Plot 16) Development Total									
AM Peak hour (08:00 to 09:00)	4	36	40	7	6	13	11	42	53
PM Peak hour (17:00 to 18:00)	42	12	54	5	8	13	47	20	67

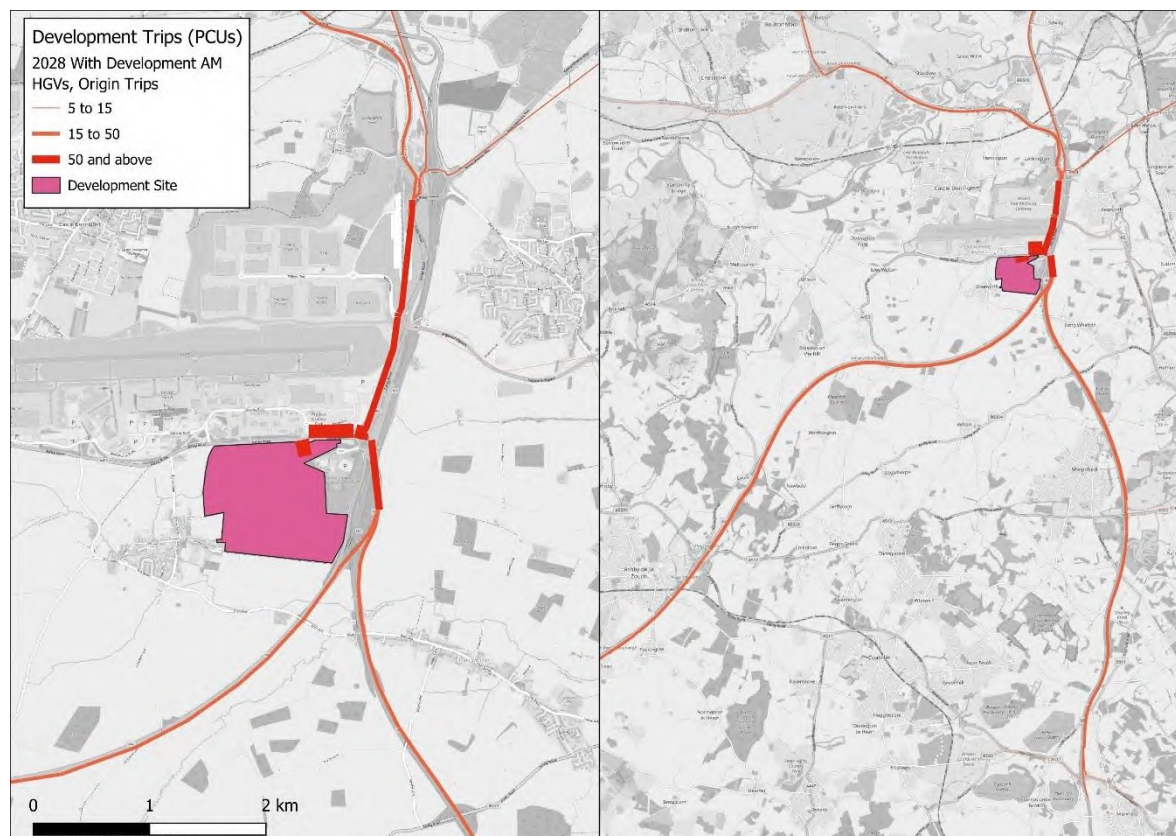
- 2.4.2 We assume that the proposed development will be fully build out (i.e. 100% occupancy) in the 2028 and 2038 'With Development (1b)' scenarios.

2.5 Proposed Development Trip Distribution Assumptions

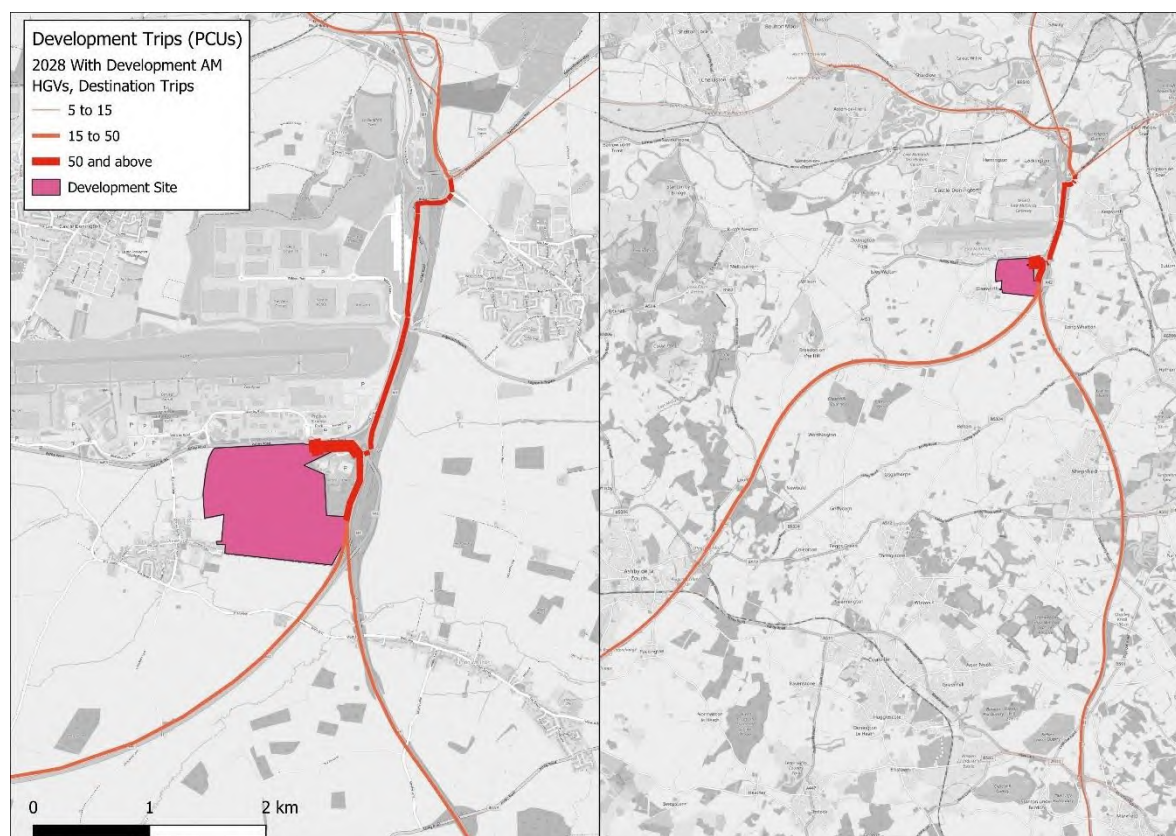
- 2.5.1 It was agreed that the development trip distributions are to be based on the PRTM 'gravity model' approach.
- 2.5.2 Figure 2.1 to Figure 2.8 show the forecast development trip distribution separately for HGVs and light vehicles on the highway network for the 2028 and 2038 'With Development (1b)' scenarios in PCUs. For information, the PCU factor for HGV is 2.0 and the PCU factor for the other assignment vehicle types (i.e. cars and LGVs) is 1.0.
- 2.5.3 These figures show that the forecast HGV development traffic has a broadly similar distribution to and from the proposed development in both the AM Peak and PM Peak hours,

¹⁰ 241010 EMGP2 PRTM Development Form rev 14.docx

- and both forecast years (i.e. 2028 and 2038). HGVs are forecast to use the M1, A50 and the A453 Remembrance Way to and from Derby and the north, and the M1 and A42 to and from Leicester, Birmingham and the south.
- 2.5.4 For light vehicle traffic, the majority of development-related trips during the AM Peak hour in 2028 are forecast to use the M1 southbound and the A42 towards Birmingham. In the northbound direction development trips are forecast to route via the M1 and Castle Donnington Relief Road towards Derby. By 2038 AM Peak hour, a higher proportion of trips is forecast to route south from the A453 towards Diseworth to access Gelscoe Lane and the A42.
- 2.5.5 Light vehicle development trips from the development in the PM Peak hour in 2028 are forecast to route north via the M1, the A50, A453 Remembrance Way and south via the M1 and towards Diseworth to access the A42. This pattern is forecast in the reverse for the AM Peak hour development trips to the proposed development but with fewer trips on the M1 northbound and more trips on Castle Donnington Relief Road to avoid the congested M1 Junction 24.
- 2.5.6 The routing patterns for the development trips for 2038 forecast scenarios are similar to their respective patterns in 2028, although 2038 has a slightly higher proportion of development trips on local roads and fewer on the SRN, due to the higher congestion around the M1 Junction 24 area in the later forecast year (i.e. 2038).
- 2.5.7 It should be noted that the local networks through Diseworth, Castle Donnington and Kegworth have HGV restrictions applied. These restrictions are represented in the EMFM, and the HGV development trips are therefore forecast to route to and from the proposed development site via mainly the SRN.
- 2.5.8 The majority of the development traffic distribution is largely similar to that of the 'With Development (1a)' scenarios documented in the Forecasting Reporting.

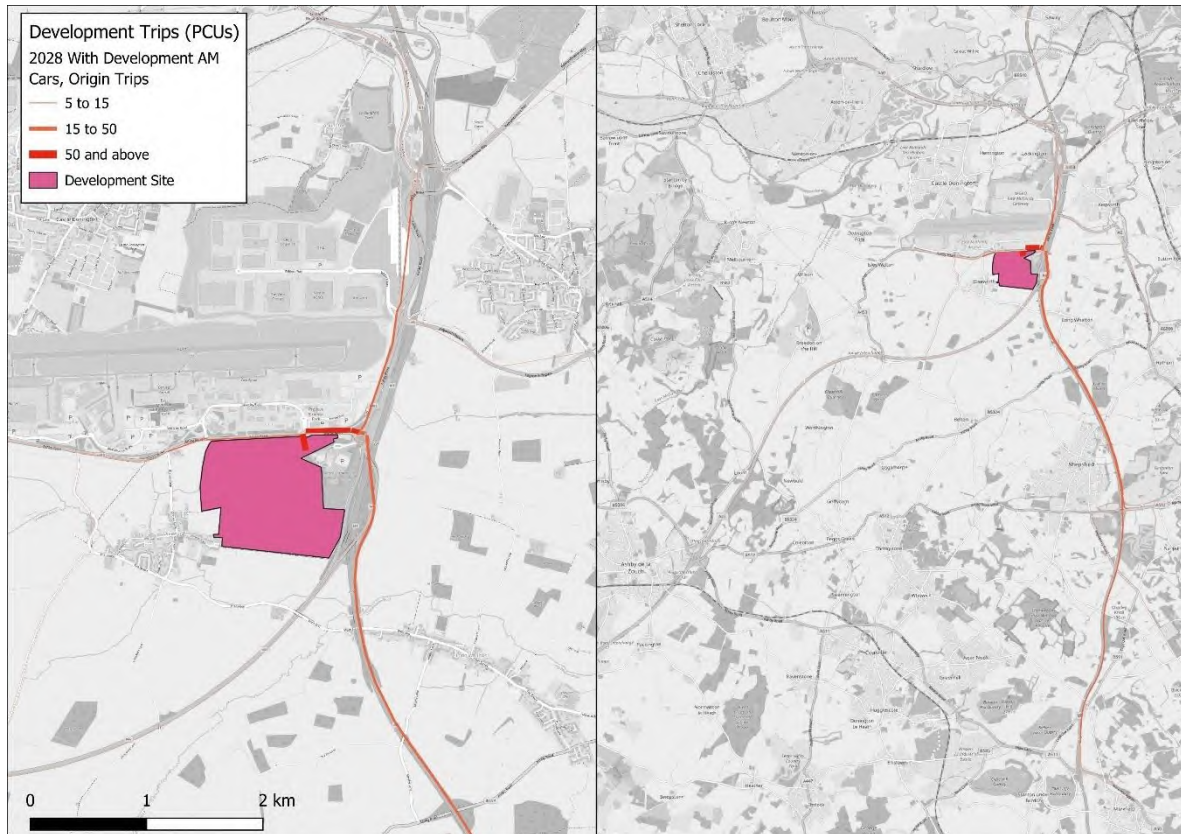
Figure 2.1: HGV Trip Distribution to and from the Proposed Development for 2028 (AM)**2028 'With Development (1b)' (AM), HGVs – From the Development**

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2028 'With Development (1b)' (AM), HGVs – To the Development

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Figure 2.2: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (AM)
2028 'With Development (1b)' (AM), Light Vehicles – From the Development

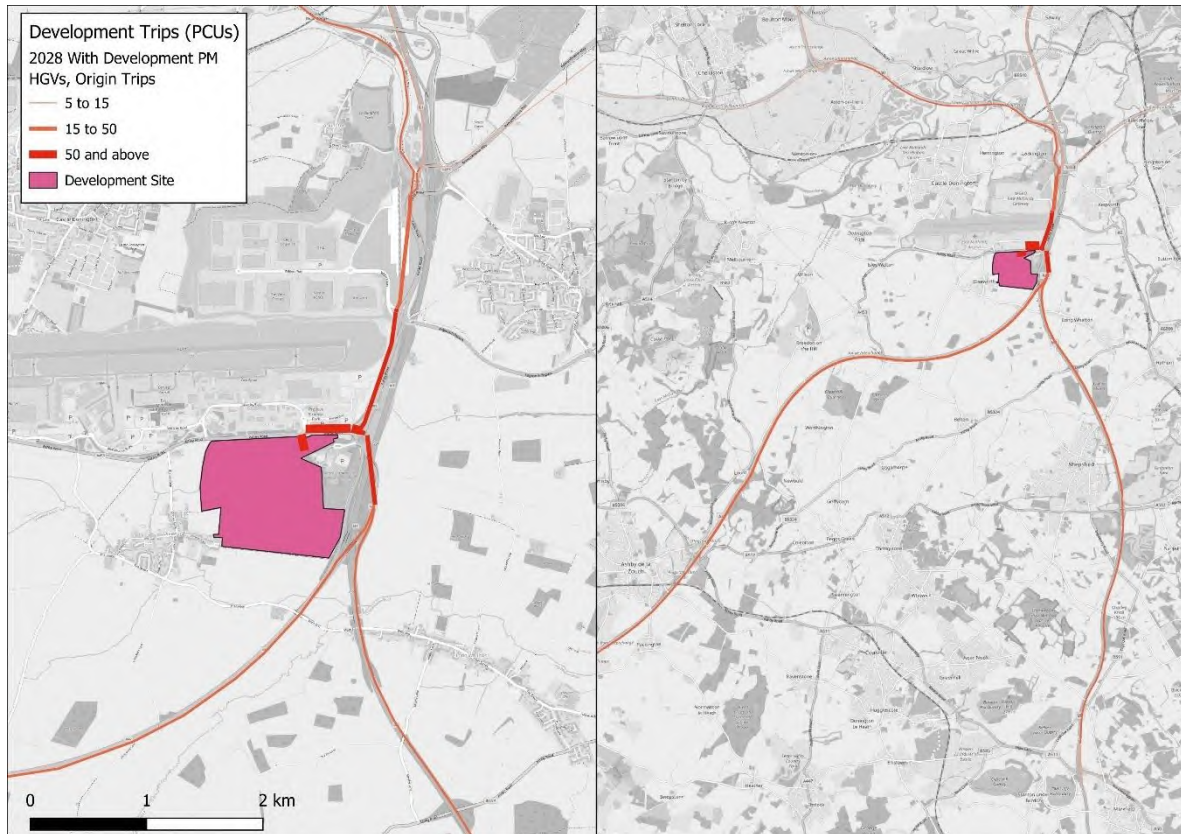


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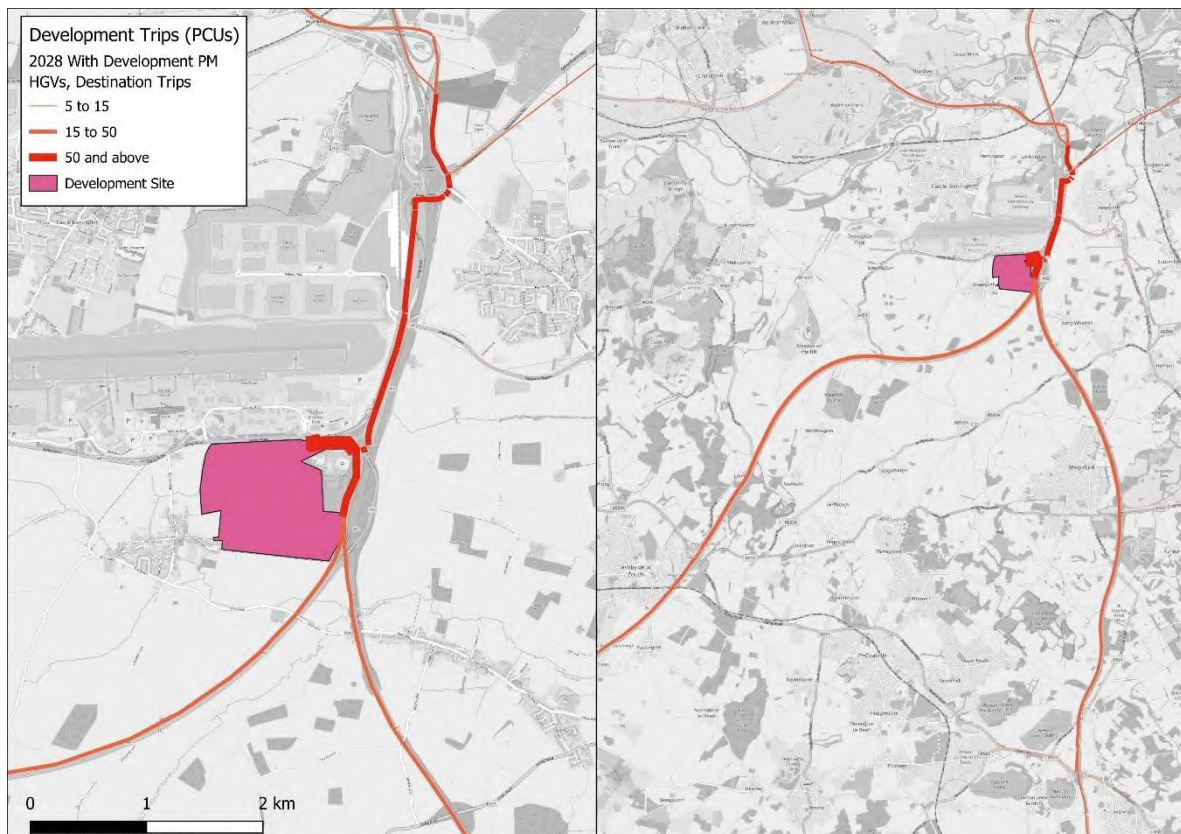
2028 'With Development (1b)' (AM), Light Vehicles – To the Development



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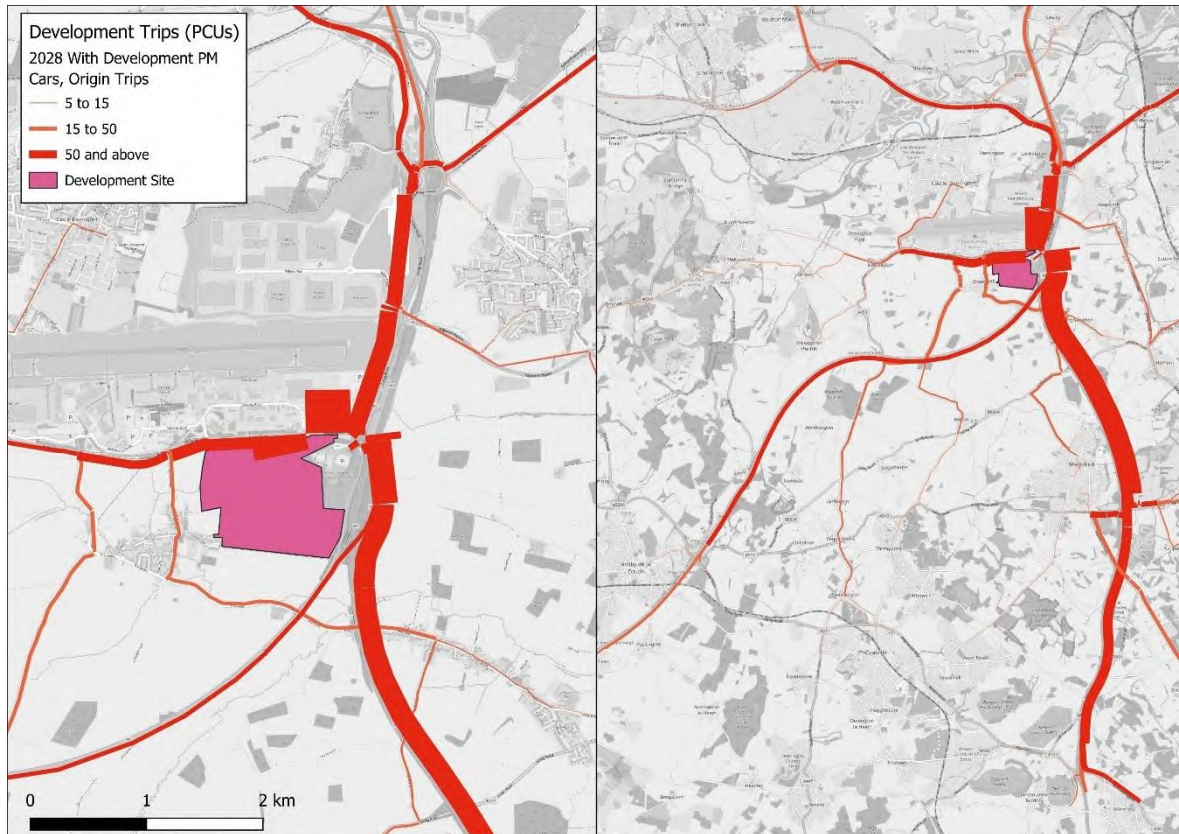
Figure 2.3: HGV Trip Distribution to and from the Proposed Development for 2028 (PM)**2028 'With Development (1b)' (PM), HGVs – From the Development**

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2028 'With Development (1b)' (PM), HGVs – To the Development

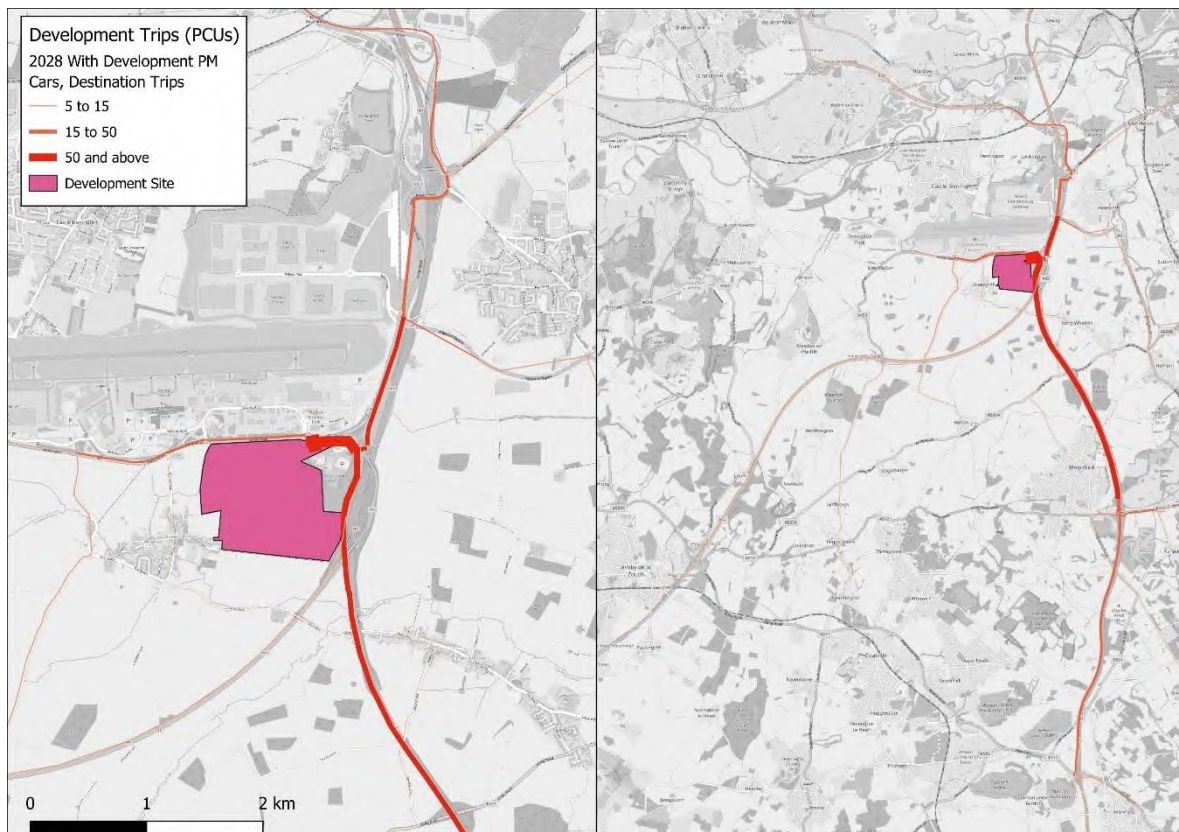
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Figure 2.4: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (PM)
2028 'With Development (1b)' (PM), Light Vehicles – From the Development

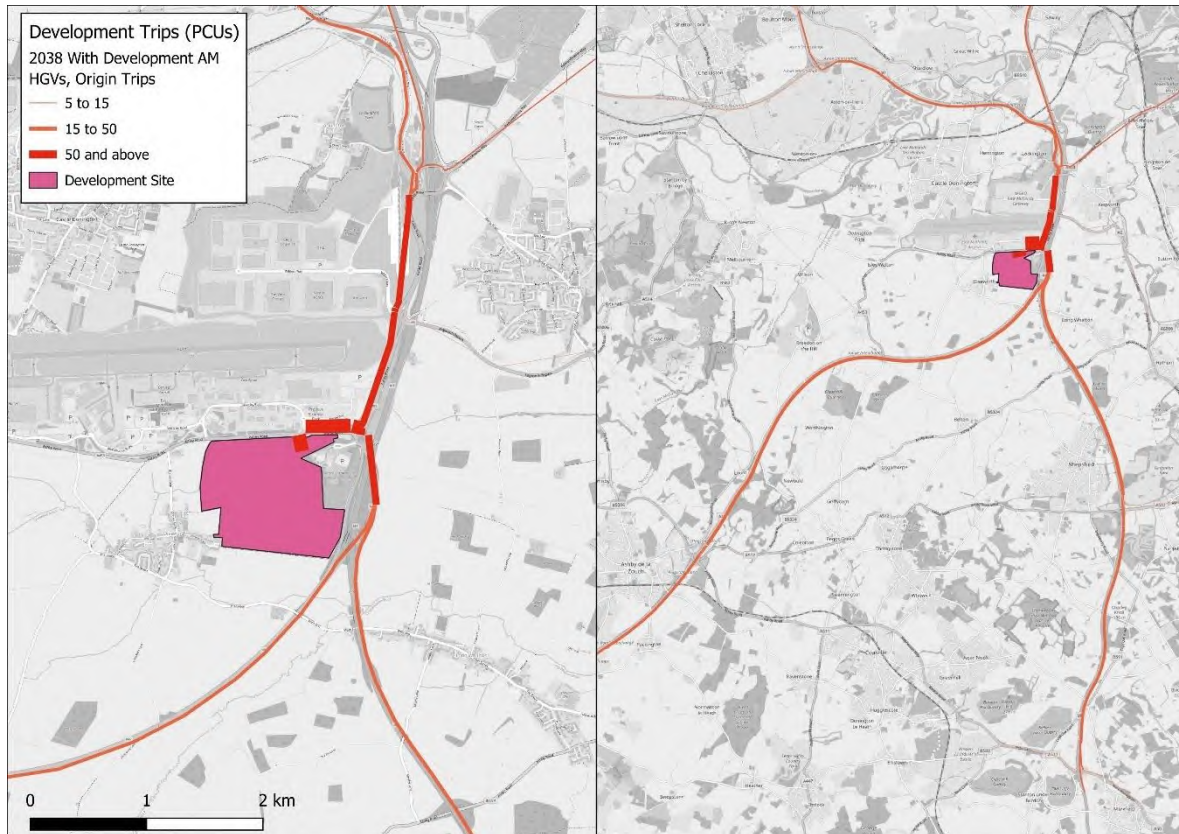


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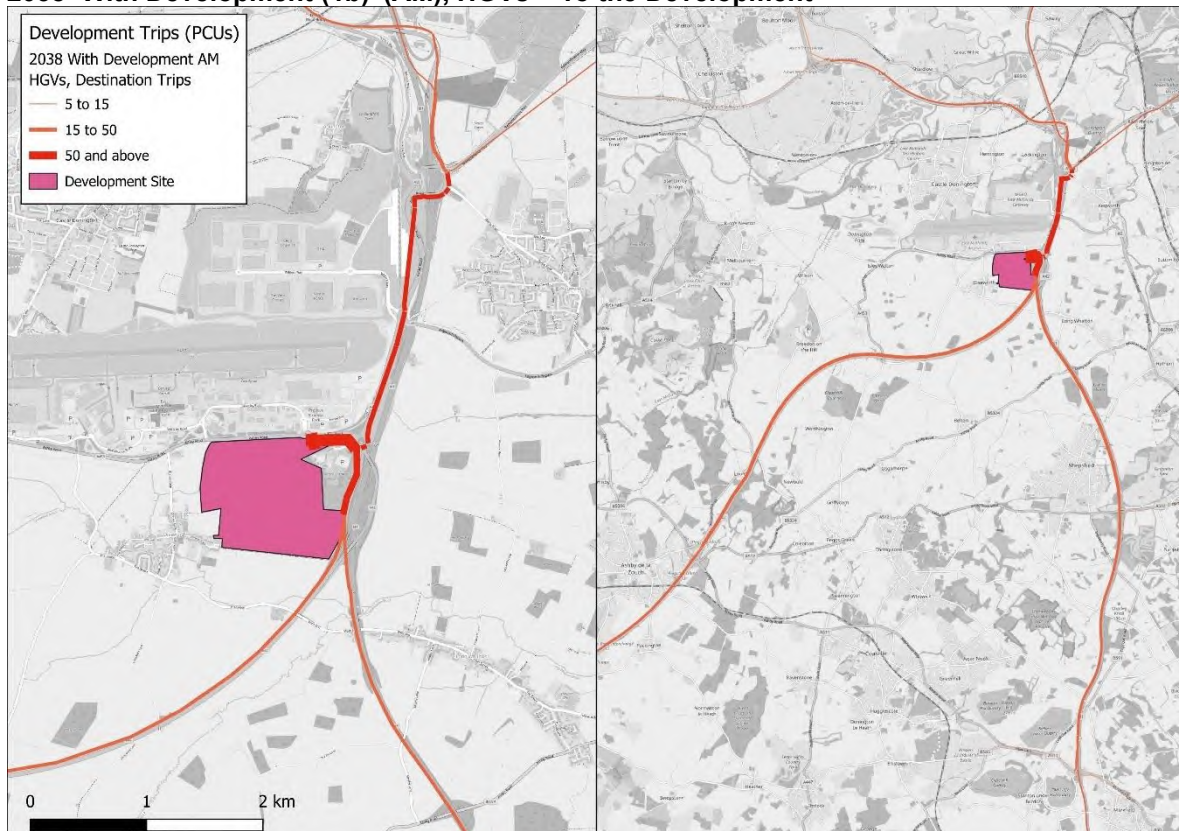
2028 'With Development (1b)' (PM), Light Vehicles – To the Development



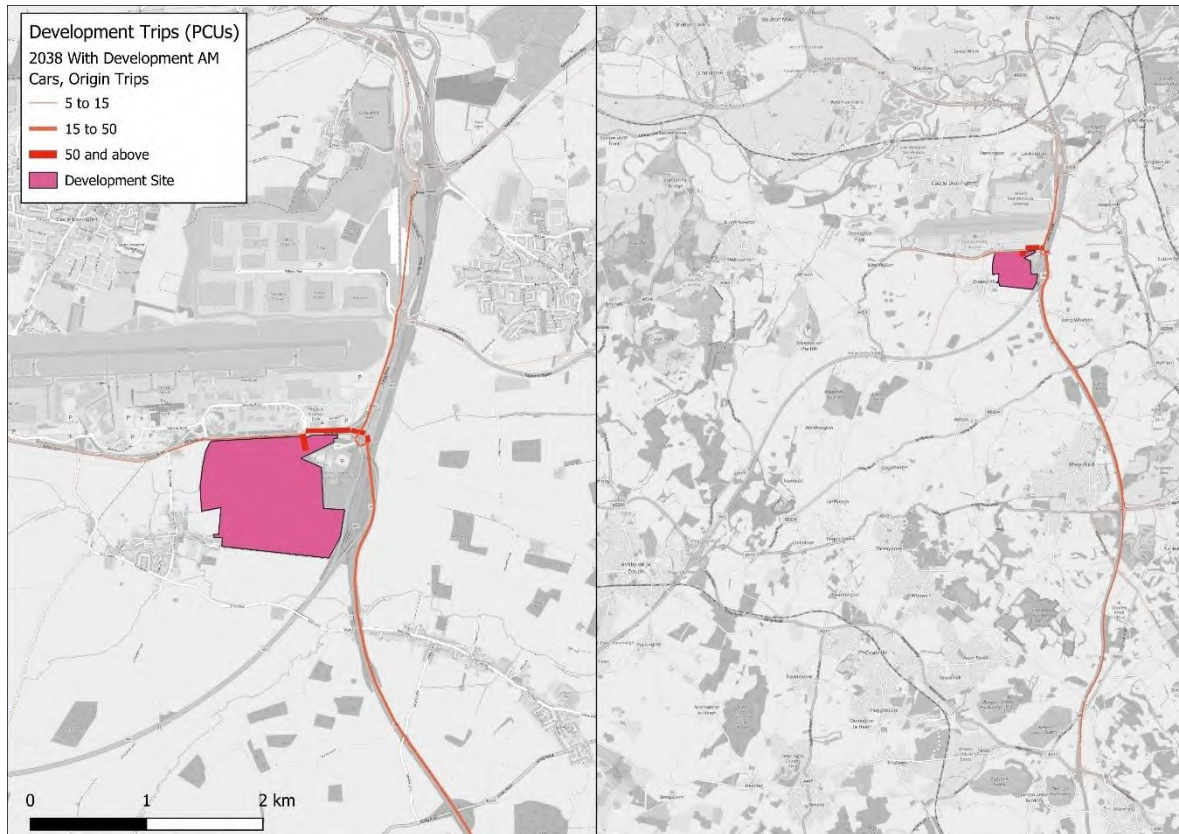
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Figure 2.5: HGV Trip Distribution to and from the Proposed Development for 2038 (AM)**2038 'With Development (1b)' (AM), HGVs – From the Development**

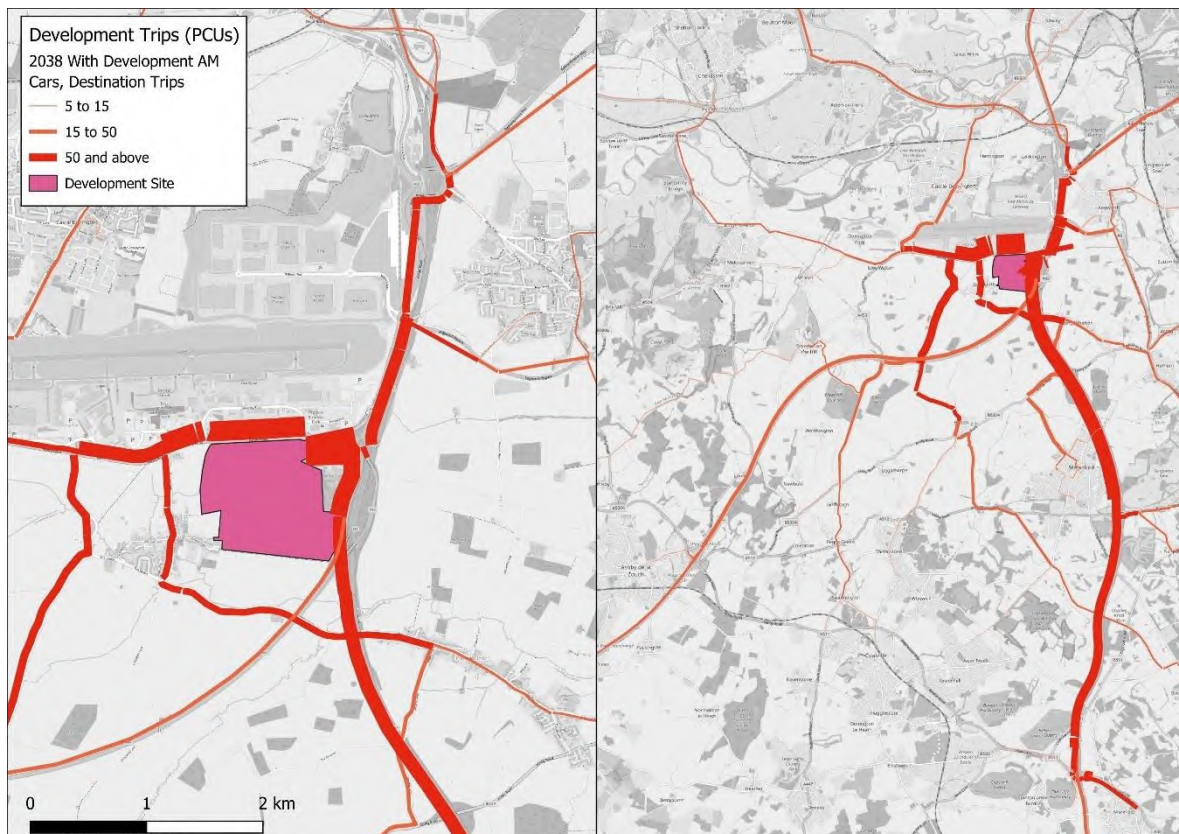
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2038 'With Development (1b)' (AM), HGVs – To the Development

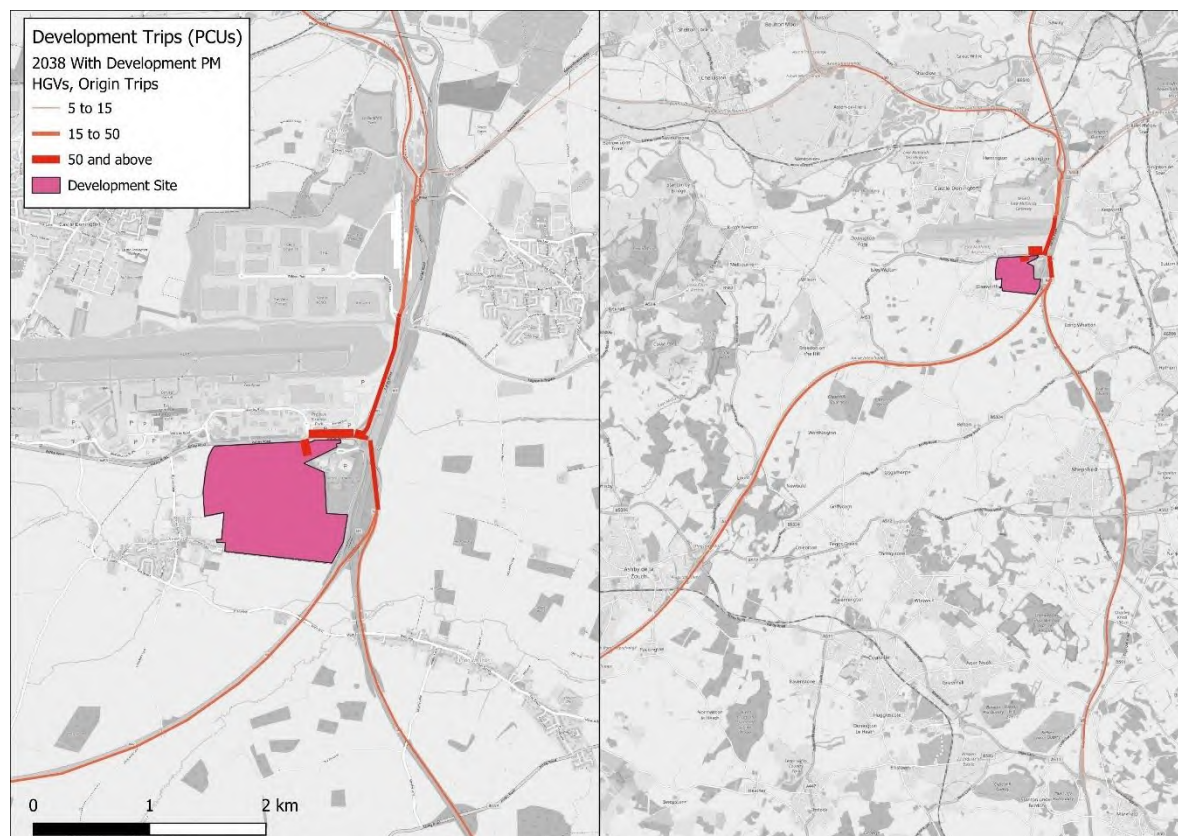
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Figure 2.6: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (AM)**2038 'With Development (1b)' (AM), Light Vehicles – From the Development**

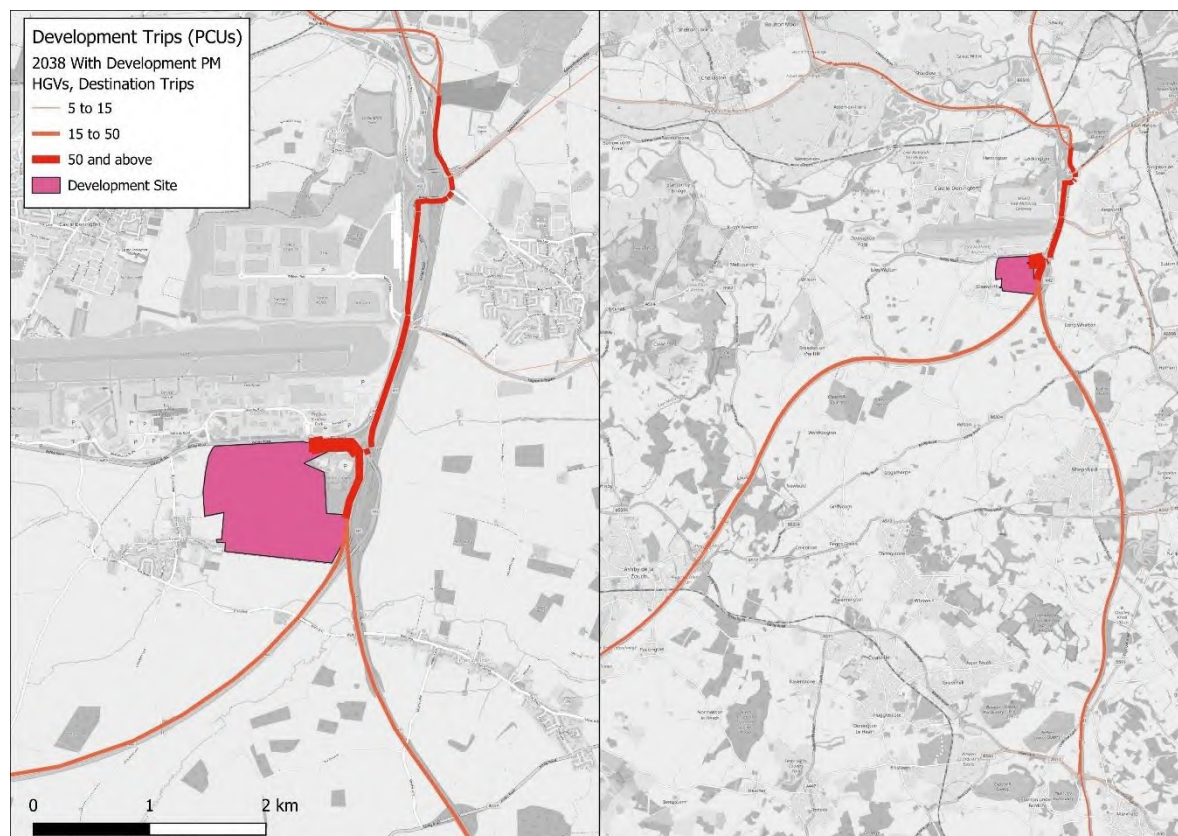
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2038 'With Development (1b)' (AM), Light Vehicles – To the Development

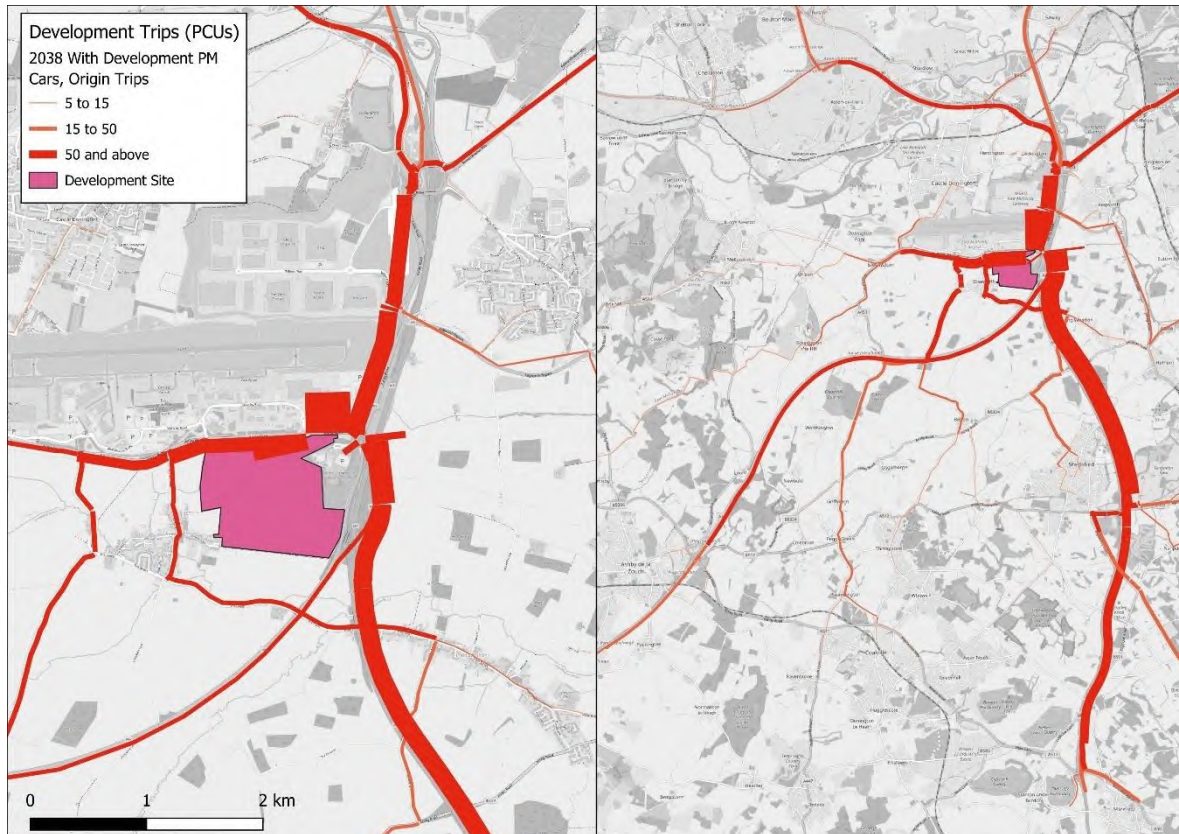
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Figure 2.7: HGV Trip Distribution to and from the Proposed Development for 2038 (PM)**2038 'With Development (1b)' (PM), HGVs – From the Development**

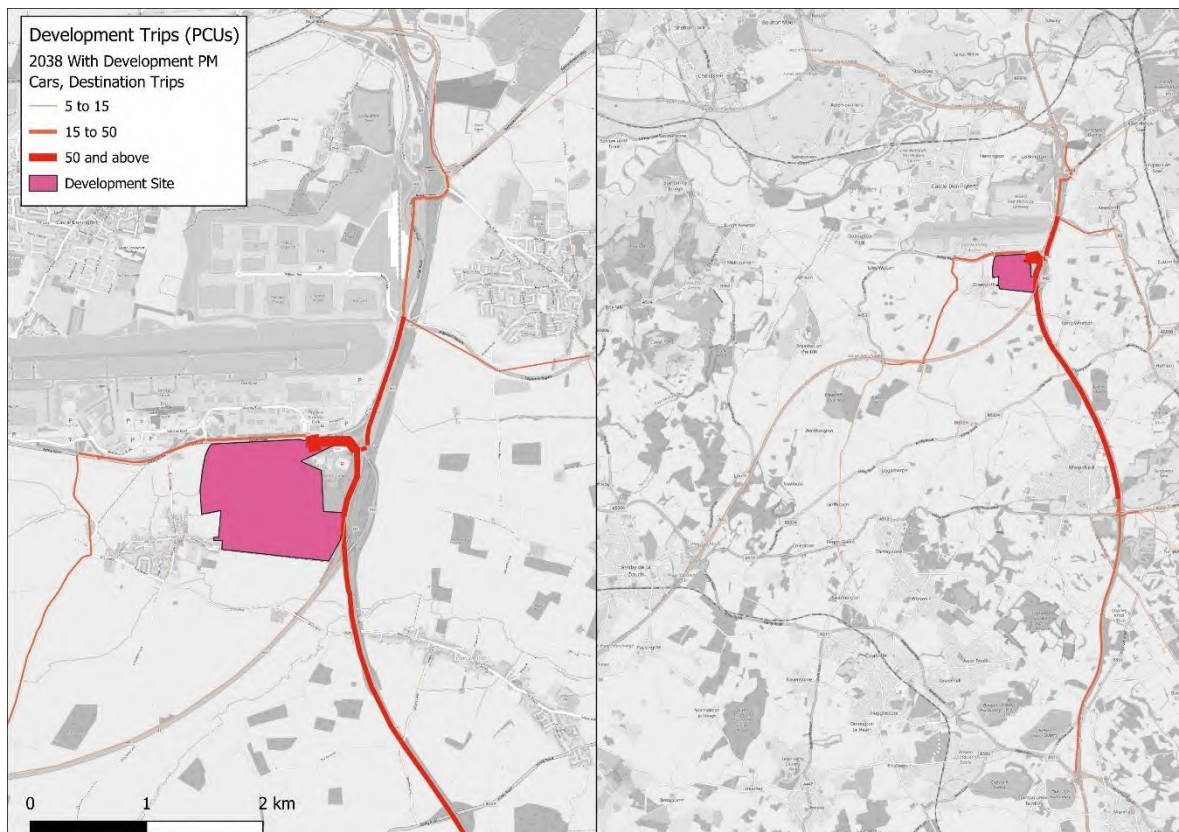
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2038 'With Development (1b)' (PM), HGVs – To the Development

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Figure 2.8: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (PM)**2038 'With Development (1b)' (PM), Light Vehicles – From the Development**

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2038 'With Development (1b)' (PM), Light Vehicles – To the Development

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Section 3 – Forecast Model Results

3.1 Introduction

3.1.1 This section details the forecast model results for the proposed East Midlands Gateway Phase 2 development assessment for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours. The analysis includes:

- routing of the forecast development traffic in the 2028 and 2038 'With Development (1b)' scenarios (Section 2.5 and Section 3.2);
- forecast flow changes in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios (Section 3.3);
- an assessment of the Area of Influence (AoI) (Section 3.4);
- forecast delay changes in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios (Section 3.6);
- forecast maximum node volume-capacity ratios in the 2028 and 2038 'With Development (1b)' scenarios (Section 3.7); and
- forecast turning flows (and volume-capacity ratios for turns) at selected junctions (Section 3.8).

3.2 Forecast Development Traffic

3.2.1 Figure 2.1 to Figure 2.8 in Section 2.5 illustrate the assigned forecast trip distribution to and from the proposed development in 2028 and 2038 for both AM Peak and PM Peak hours. These figures show that the HGV development traffic mainly routes via the SRN including the M1, A42, A50 and the A453 Remembrance Way.

3.2.2 For light vehicle development traffic, the M1 Junction 24 area is congested and has high delays, particularly in the AM Peak hour. As such, a proportion of the light vehicle trips to the development is forecast to route via Castle Donnington Relief Road and the A6 Kegworth Bypass to avoid the M1 Junction 24 and Junction 24a area.

3.2.3 The modelling shows that the light vehicle development traffic is forecast to:

- route to and from the north via the M1 and Castle Donnington Relief Road;
- route to and from the south via the M1 and M1 Junction 23a;
- route to and from the south-west using the A42 via both Diseworth and the M1 Junction 23a;
- route to and from the west via the A50, M1 Junction 24 and through Castle Donnington Relief Road; and
- route to and from the east via the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth.

3.3 Forecast Flow Change

3.3.1 Figure 3.1 and Figure 3.2 show the forecast flow changes in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios for the AM Peak and PM Peak hours. Red bandwidth represents an increase in traffic flow in the 'With Development (1b)' scenario and green bandwidth represents a decrease.

3.3.2 As expected, the largest increases in flows are forecast along the A453 in the immediate vicinity of the proposed development. The M1 and the A42 are also forecast to experience increases in flow across all modelled forecast scenarios. There is a decrease in traffic forecast on the east side of Beverley Road, particularly for the AM Peak hour. This decrease has been caused by traffic diverting off the Beverley Road / A453 / EMG Phase 2 access roundabout in the 'With Development (1b)' scenario and on to the A453 / East Midlands Airport signal-controlled junction. A high proportion of these trips is from the south routing via Gelscoe Lane and the A42.

- 3.3.3 For the local network of Castle Donington, Kegworth and Diseworth, higher flows are forecast for 'With Development (1b)' scenarios when compared with the 'Without Development (1b)' scenarios. This is particularly notable for the AM Peak hour, as a proportion of the development trips is forecast to route via the local network to access / egress from the proposed development site to avoid the congested M1 Junction 24 area.
- 3.3.4 The majority of the forecast flow changes are largely very similar to those of Stage 1a as documented in the Forecasting Report. The large delay fluctuations that caused some traffic to reroute in the vicinity of the Derby Road / Bostocks Lane junction (to the north of the M1 Junction 25) in Stage 1a during the 2038 AM Peak hour are no longer forecast in Stage 1b.

Figure 3.1: Forecast Flow Change for 2028 'With Development (1b)' minus 'Without Development (1b)'

AM Peak hour



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PM Peak hour



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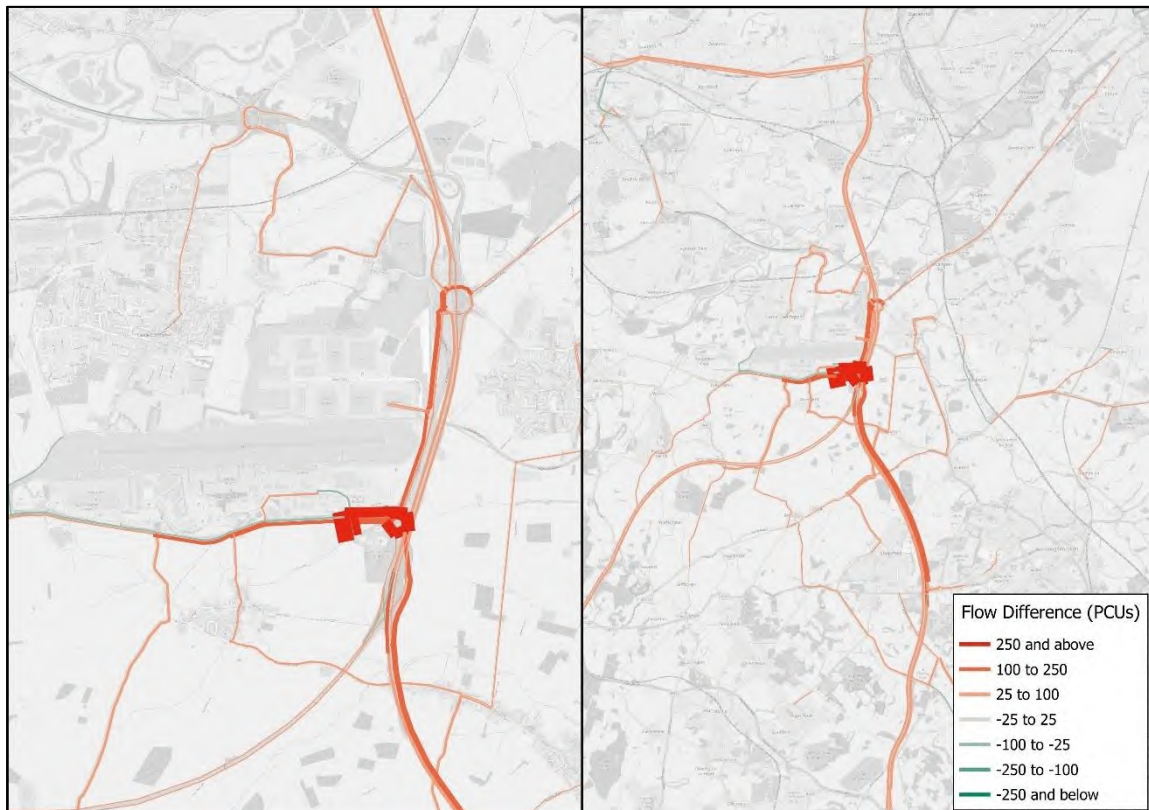
Figure 3.2: Forecast Flow Change for 2038 'With Development (1b)' minus 'Without Development (1b)'

AM Peak hour



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PM Peak hour



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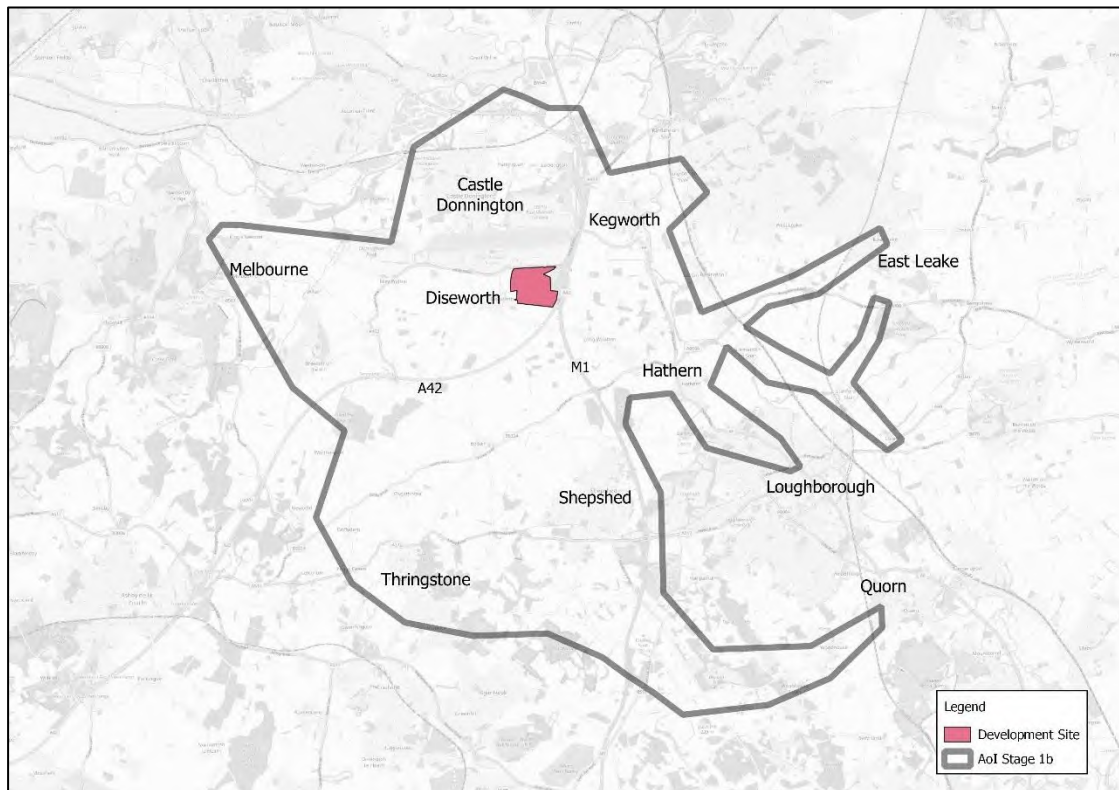
3.4 Area of Influence for Stage 1b

3.4.1 Using the forecast flow changes between the 'With Development (1b)' and 'Without Development (1b)' scenarios, an indication of the Area of Influence (AoI) has been defined. Figure 3.3 shows the Area of Influence for the proposed development.

3.4.2 For the proposed development, the AoI has been defined by considering the links which are forecast to change flow by more than $\pm 5\%$ and ± 30 PCUs between the 2028 and 2038 'With Development (1b)' and 'Without Development (1b)' scenarios in either the AM Peak or the PM Peak hours. The links which are forecast to meet these criteria are included in the AoI, as shown in Figure 3.3, and contains the following areas / links:

- the A453 including Finger Farm roundabout;
- the M1 between Junction 23 and Junction 24a;
- the A42 Junction 14; and
- local roads in and around Castle Donnington; Kegworth; Diseworth; Hathern; Melbourne; Thringstone; and Shepshed.

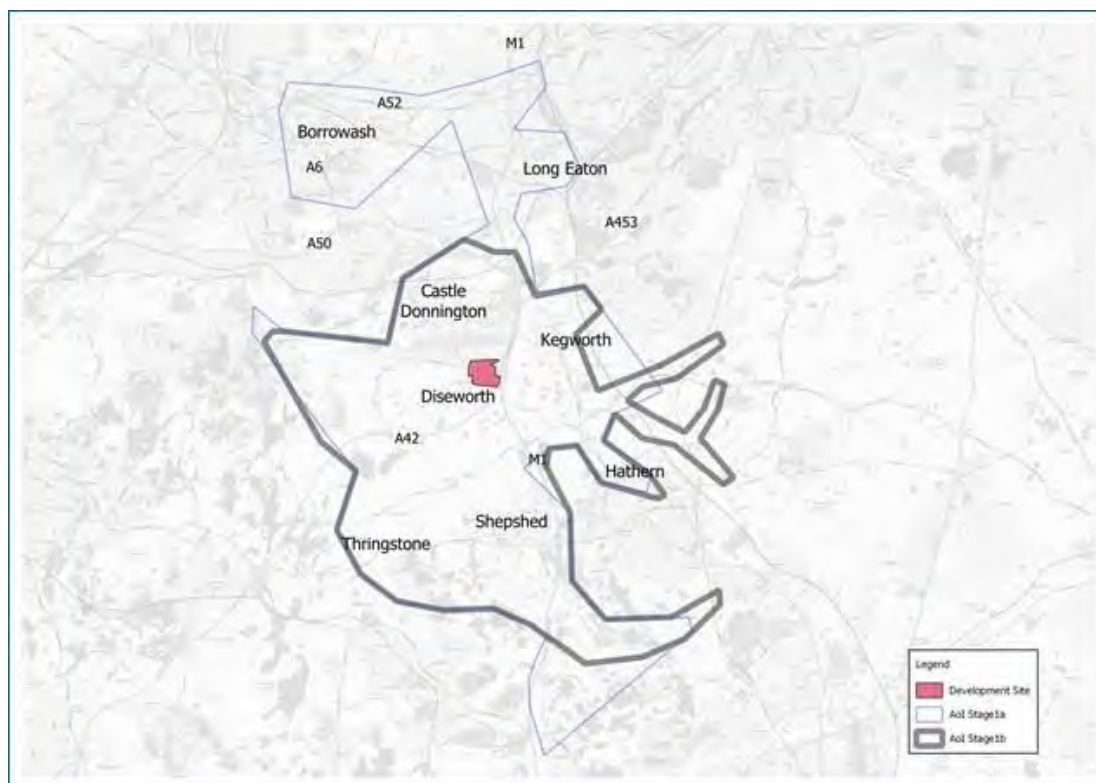
Figure 3.3: Area of Influence for Stage 1b



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3.5 Comparison of Area of Influence Comparison with Stage 1a

3.5.1 Figure 3.4 shows the AoI for both Stage 1a and Stage 1b for the proposed development. The AoI for Stage 1b is smaller compared with Stage 1a, with the AoI not extending as far north compared with Stage 1a, particularly around the areas of Borrowwash and Long Eaton. The remainder of the AoI remains largely unchanged, except for an eastern extension that reaches Woodgate Road and Leake Lane in Stage 1b.

Figure 3.4: Comparison of Area of Influence Between Stage 1a and Stage 1b

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3.6 Forecast Delay Change

- 3.6.1 As a result of forecast flow changes in the 'With development (1b)' scenario, there are also changes to the forecast delays on the highway network. These changes in delay can be generated from two sources: link delay based on the speed-flow curve applied to the link; and the junction delay due to capacity constraints for individual turning movements. The analysis in this section combines the link and junction delays (taking a flow-weighted average of junction delays) to assess the changes in forecast delays with the proposed development traffic.
- 3.6.2 Figure 3.5 and Figure 3.6 show the forecast delay changes (in seconds) in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios for the AM Peak and PM Peak hours. For the A453 in the immediate vicinity of the proposed development; delays are forecast to increase by up to 102 seconds due to increases in flow from the development site.
- 3.6.3 Increases in delay are forecast on the approaches and circulatory lanes of M1 Junction 24 for both AM Peak and PM Peak hours for the 2038 'With Development (1b)' scenario when compared with the 2038 'Without Development (1b)' scenario. Forecast delays are also higher on the approach to Finger Farm Roundabout from the A453 and southbound from Castle Donnington towards the A453 / Walton Hill signalised junction.
- 3.6.4 The forecast change in delay near the development site in Stage 1b is similar to that in Stage 1a. As noted in Paragraph 3.3.4, the Derby Road / Bostocks Lane signalised junction (to the north of M1 Junction 25) is not forecast in Stage 1b. There is an increase in delay at the Derby Road/ High Street junction and the Harvey Road/ Osmaston Road in Derby during the 2028 PM Peak. The changes are attributed to modelling noise, as the distribution of development trips is not expected to cause a significant increase in delays in this area.

Figure 3.5: Forecast Delay Change for 2028 'With Development (1b)' minus 'Without Development (1b)'**AM Peak hour**

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PM Peak hour

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Figure 3.6: Forecast Delay Change for 2038 'With Development (1b)' minus 'Without Development (1b)'**AM Peak hour**

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PM Peak hour

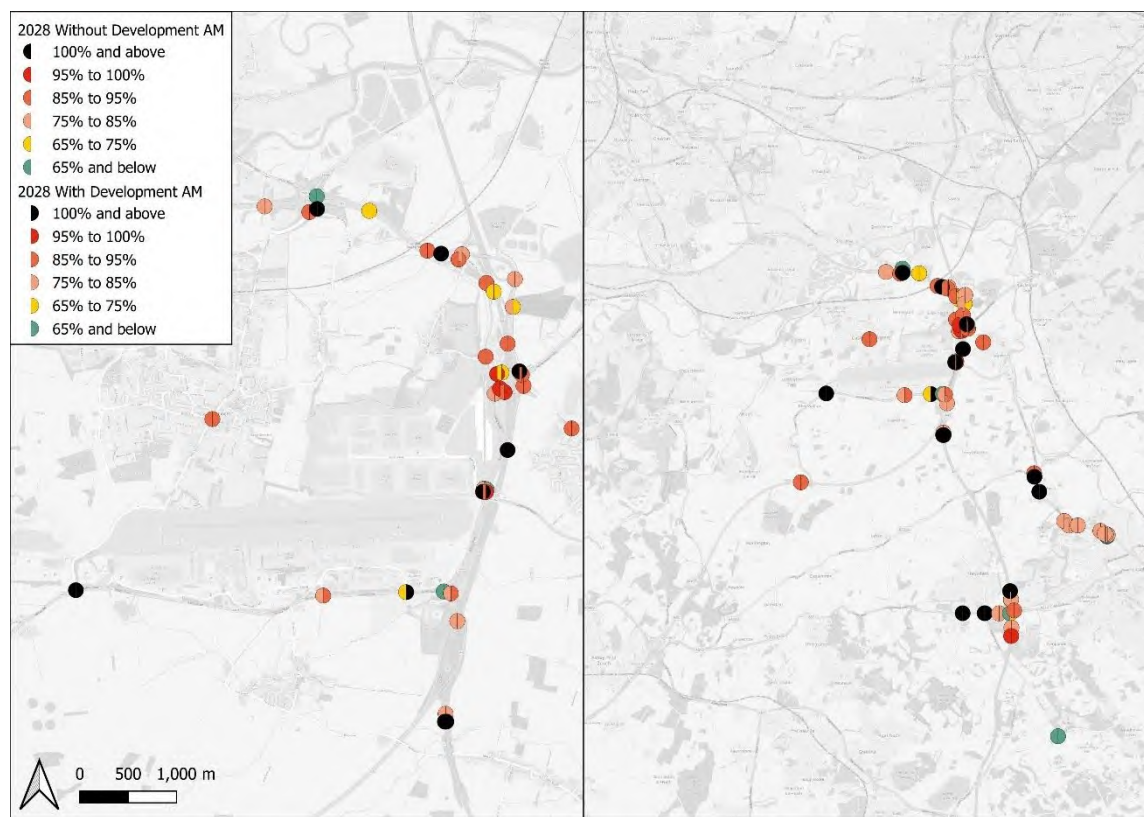
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3.7 Forecast Node Volume-Capacity Ratios

- 3.7.1 As a part of the forecast modelling, node / junction capacities are estimated for individual turning movements based on a number of factors including priority of the turn (for example, give-way or merge), the level of green-time at signalised junctions, and the amount of opposing traffic at the junction. Using these calculated capacities and the forecast traffic volumes, node volume-capacity ratios are estimated to identify locations where the forecast flows are approaching or exceeding the forecast capacity.
- 3.7.2 To summarise the forecast-capacity ratios for the individual turning movements at a node, there are two approaches. These are to calculate the flow-weighted average volume-capacity of the node, or to calculate the maximum volume-capacity ratio for all turns within a node. The average volume-capacity ratio provides an overview of how the individual node is performing but may not highlight locations where a limited number of movements at a node are approaching or exceeding capacity. To highlight these locations, the maximum volume-capacity ratio at each node has been used. Node volume-capacity ratios exceeding 85% indicate that the highway network is under stress, and there is likely to be a reduction in speed and increase in delay.
- 3.7.3 Figure 3.7 and Figure 3.8 show the forecast maximum junction volume-capacity ratios for 2028 and 2038, 'With Development (1b)' and 'Without Development (1b)' scenarios. For ease of comparison, the symbology has been designed to show the data for 'Without Development (1b)' and 'With Development (1b)' scenarios on the same plot.
- 3.7.4 The reader should note that Figure 3.7 and Figure 3.8 show a subset of all nodes within the EMFM to reduce the number of data points within the plots. Nodes which do not fall within the Aol, as defined in Figure 3.3, are not shown. Nodes with maximum volume-capacity ratios below 85% in all forecast scenarios are not shown, except for the node which is located at the proposed site access on the A453.
- 3.7.5 The forecast maximum node volume-capacity ratio plots show that the A453 / Beverly Road / EMG Phase 2 access roundabout junction, the signalised junction with the A453 / East Midlands Airport signalised junction and M1 Junction 24 are most affected by the proposed development. For 2028 and 2038, the proposed development increased the node volume-capacity ratios at these junctions.
- 3.7.6 For M1 Junction 24, the node volume-capacity ratios are high for the 'Without Development (1b)' scenarios, with multiple nodes at this junction exceeding 85%. For the 'With Development (1b)' scenarios, the node volume-capacity ratios remain high, exceeding 85%, showing that the M1 Junction 24 is forecast to have high delays.
- 3.7.7 In the AM Peak hour, the node volume-capacity ratios for the A453 / Beverly Road / EMG Phase 2 access roundabout junction is forecast to be greater than the PM Peak hour in both the 2028 and 2038 forecast year scenarios, consistent with the forecast delay shown in Figure 3.5 and Figure 3.6.
- 3.7.8 Comparing the forecast results between 2028 and 2038, the node volume-capacity ratios are forecast to be greater for the later forecast year (i.e. 2038) as forecast flows increase (when compared with 2028).
- 3.7.9 Most of the change of the node volume-capacity ratios in Stage 1b are very similar to those of Stage 1a.

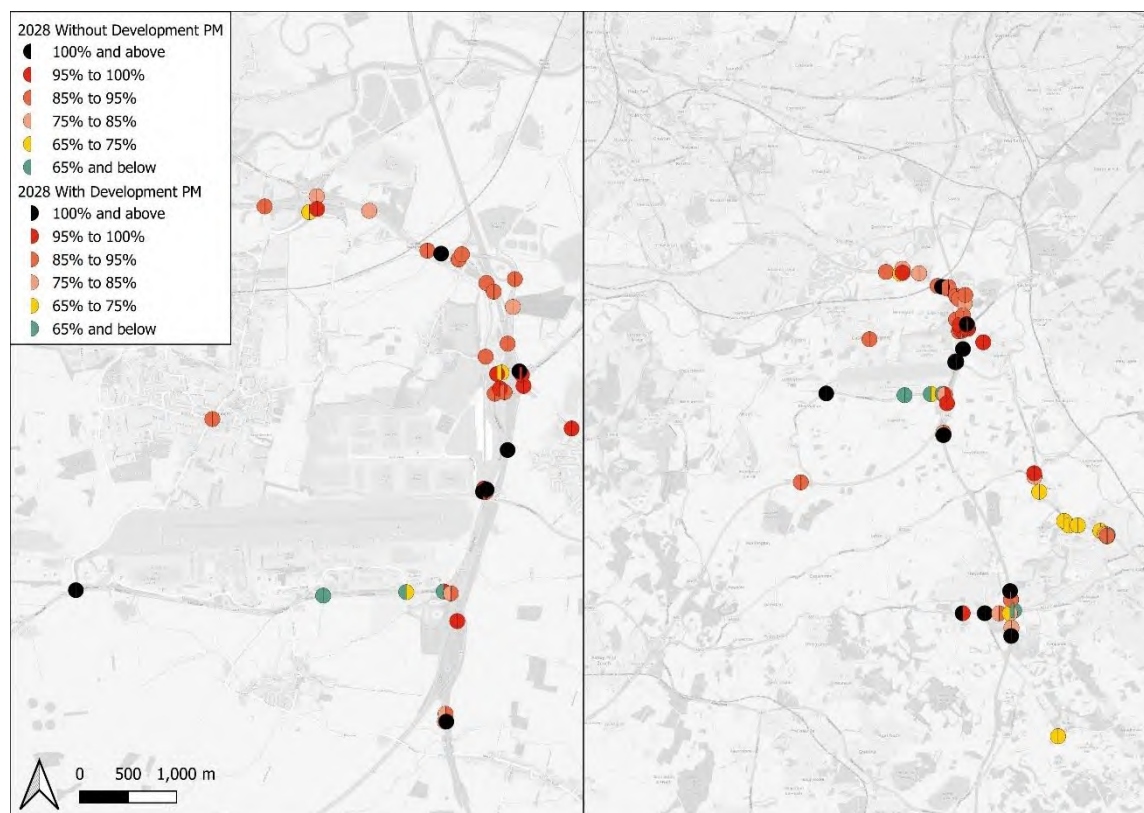
Figure 3.7: Forecast Node Volume-Capacity Ratio for 2028 'Without Development (1b)' and the 2028 'With Development (1b)' Scenarios

AM Peak hour



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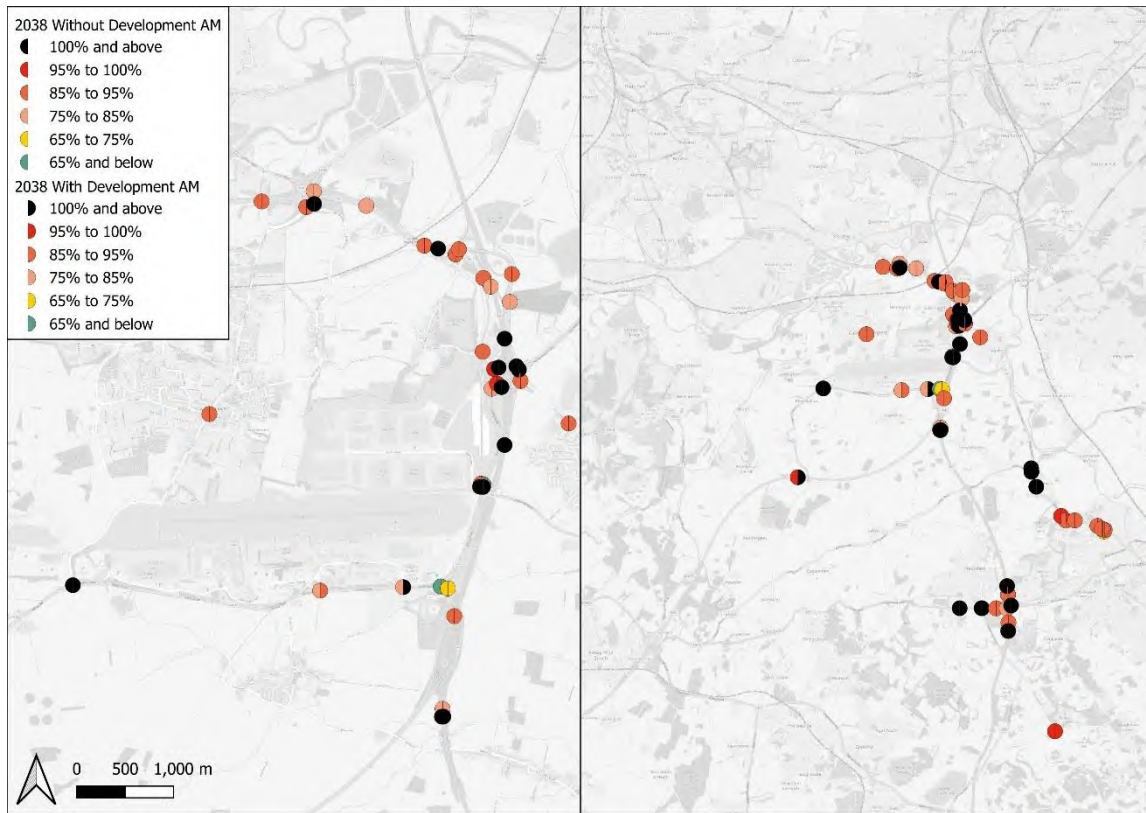
PM Peak hour



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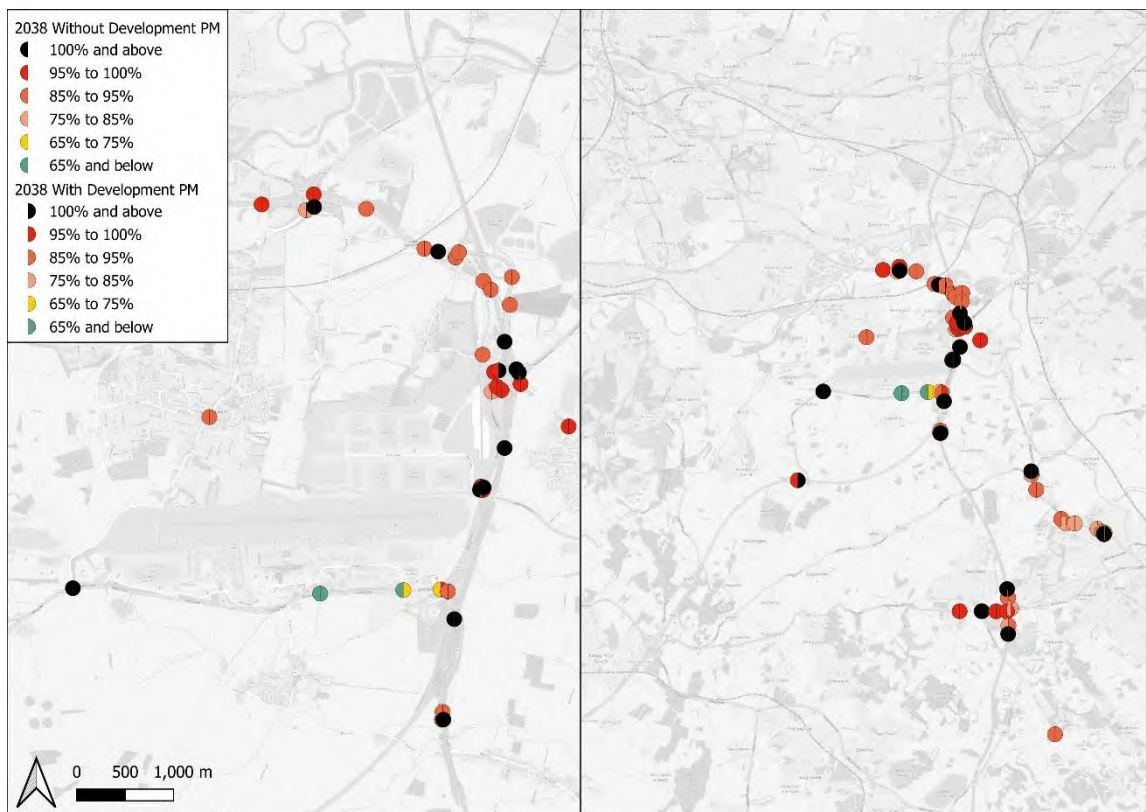
Figure 3.8: Forecast Node Volume-Capacity Ratio for 2038 'Without Development (1b)' and the 2038 'With Development (1b)' Scenarios

AM Peak hour



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PM Peak hour



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3.8 Forecast Junction Turning Flows

3.8.1 Forecast turning flows have been extracted for the following 16 junctions (also shown in Figure 3.9) in the vicinity of the proposed development:

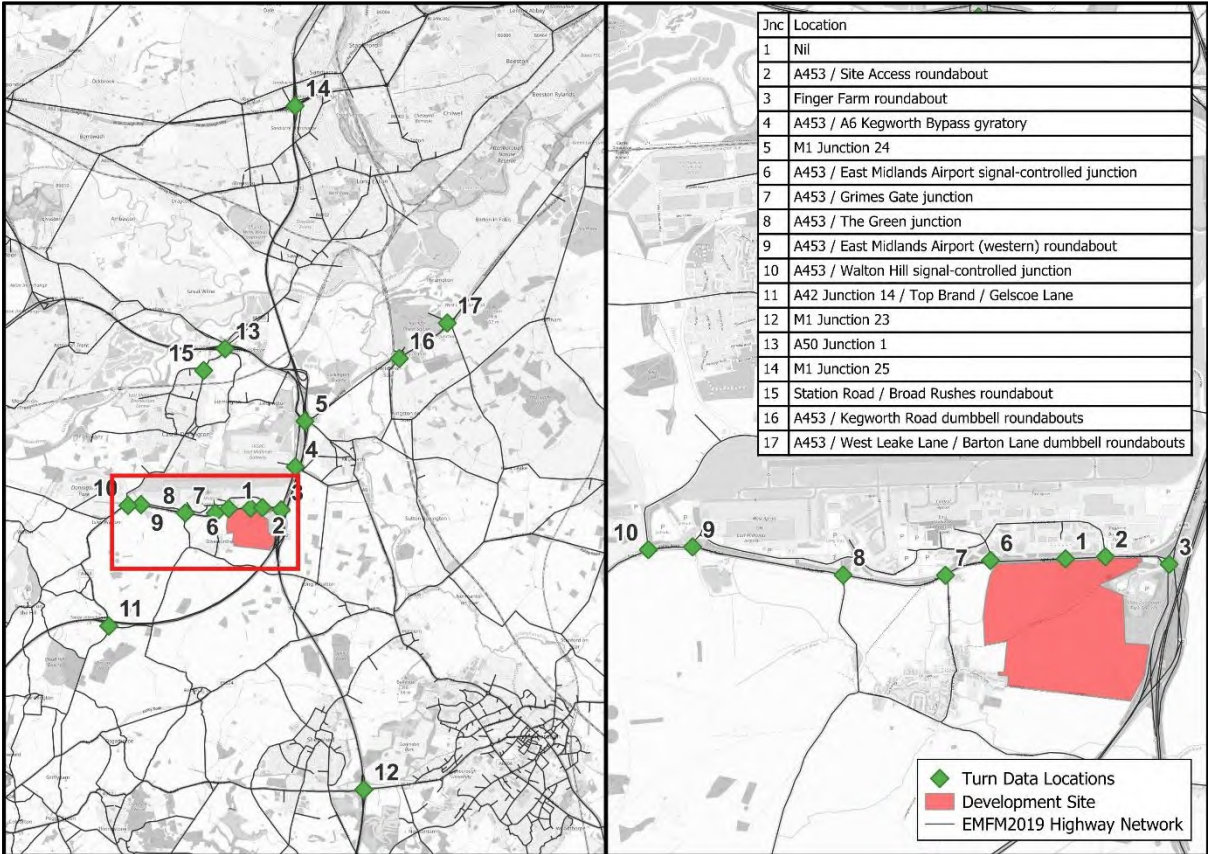
- A453 / Site access Roundabout (Junction 2);
- Finger Farm roundabout (Junction 3);
- A453 / A6 Kegworth Bypass gyratory (Junction 4);
- M1 Junction 24 (Junction 5);
- A453 / East Midlands Airport signal-controlled junction (Junction 6);
- A453 / Grimes Gate junction (Junction 7);
- A453 / The Green junction (Junction 8);
- A453 / East Midlands Airport (western) roundabout (Junction 9);
- A453 / Walton Hill signal-controlled junction (Junction 10);
- A42 Junction 14 / Top Brand / Gelscoe Lane (Junction 11);
- M1 Junction 23 (Junction 12);
- A50 Junction 1 (Junction 13);
- M1 Junction 25 (Junction 14);
- Station Road / Broad Rushes roundabout (Junction 15);
- A453 / Kegworth Road dumbbell roundabouts (Junction 16); and
- A453 / West Leake Lane / Barton Lane dumbbell roundabouts (Junction 17).

3.8.2 The data have been provided separately in MS Excel spreadsheet format¹¹ which contains the forecast turning flows for the AM Peak and PM Peak hours for light and heavy vehicles. Data are provided for the 2028 and 2038 'Without Development (1b)' and the 2028 and 2038 'With Development (1b)' scenarios. In addition to the turning flows, turn volume-capacity ratios have also been provided where available.

3.8.3 By design the EMFM highway model has not been calibrated or validated for individual turning movements, so care should be taken when using forecasts of flows and volume-capacity ratios at this level.

¹¹ EMGP2 - Junction Turning Flows (Stage 1b) v1.0 - For Issue.xlsx (provided via email on 3rd March 2025)

Figure 3.9: Location of Forecast Turning Flow Data



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Section 4 – Summary of the EMFM Assessment

4.1 Summary of Assessment

- 4.1.1 Using the East Midlands Freeport Model (EMFM), forecasts have been undertaken to produce the 2028 and 2038 'Without Development (1b)' and 'With Development (1b)' scenarios for both the AM Peak and PM Peak hours for the strategic assessment of the proposed East Midlands Gateway Phase 2 development.
- 4.1.2 Based on these model forecasts, the following is a summary of the key findings for the assessment of the proposed development and are similar to those forecast for Stage 1a.
- Development trips (HGVs) have been forecast to route via the following roads:
 - the M1 to and from the south and north;
 - the A42 to and from the south-west;
 - the A50 to and from the west; and
 - the A453 Remembrance Way to and from the east.
 - Development trips (light vehicles) have been forecast to route via the following roads:
 - the M1 to and from the south and north;
 - the A42, the A42 Junction 14, A453 and Gelscoe Lane from the south-west;
 - the A50 and through the local network of Castle Donington to and from the west; and
 - the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth to and from the east.
 - The forecast flow changes in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios show that the largest increases in flows are, as expected, forecast along the A453. The M1 and A42 are also forecast to experience increases in flows as well as the local network of Castle Donington, Kegworth and Diseworth.
 - An Area of Influence (Aol) for the proposed development has been defined by identifying links which are forecast to change by more than $\pm 5\%$ and ± 30 PCUs between the 'With Development (1b)' and 'Without Development (1b)' scenarios for 2028 and 2038 in either the AM Peak or PM Peak hours. The Aol for Stage 1b is forecast to be smaller compared with Stage 1a, with the Aol not extending as far north in Stage 1b. The forecast Aol includes:
 - the A453 including Finger Farm roundabout;
 - the M1 between Junction 23 and Junction 24a;
 - the A42 Junction 14; and
 - local roads in and around Castle Donington; Kegworth; Diseworth; Hathern; Melbourne; Thringstone; and Shepshed.
 - The forecast delay changes in 2028 and 2038 between the 'With Development (1b)' and 'Without Development (1b)' scenarios show the proposed development is forecast to increase delays on the A453 and the approaches of the M1 Junction 24.
 - The forecast maximum node volume-capacity ratios show that the proposed development is forecast to increase pressure for the junctions along the A453 including the Finger Farm roundabout. For the M1 Junction 24, the node volume-capacity ratios are high for both the 'Without Development (1b)' and 'With Development (1b)' scenarios with multiple nodes at this junction exceeding 85% which shows high delays and congestion at this location.

- 4.1.3 The forecasts undertaken reflect the forecast impact of the proposed development at East Midlands Gateway Phase 2. It should be noted that the results provided in this report are at a high level. Due to the strategic nature of the EMFM, not all roads are modelled, and the results should be interpreted with that in mind.
- 4.1.4 Although the EMFM modelling provides the strategic impact and form part of the proposed East Midlands Gateway Phase 2 assessment evidence packs, the overall assessment should be complemented by local operational assessment and analysis.

Appendix A Planning Data Assumptions

Table A.1: Residential Development Assumptions (sites with more than 500 dwellings) (North West Leicestershire)

District	Location	Quantum	Timescale	Include
North West Leicestershire	Money Hill North of Nottingham Road	1,953	2021-2037	Y
North West Leicestershire	Land North and South of Park Lane	657	2021-2027	Y
North West Leicestershire	Land off Grange Road (South East Coalville)	3,433	2021-2035	Y
North West Leicestershire	Land at Measham Waterside Burton Road	585	2027-2041	Y
North West Leicestershire	Land North and South of Park Lane, Castle Donington (CD10)	1,076	2027-2036	N
North West Leicestershire	Isley Woodhouse (IW1)	4,500	2029-2050	N

Table A.2: Employment Development Assumptions (sites with more than 750 jobs) (North West Leicestershire and East Midlands Freeport sites)

For information, the following table shows the employment sites with more than 750 jobs within North West Leicestershire as well as the sites associated with the East Midlands Freeport development in South Derbyshire.

District	Location	Quantum	Timescale	Include
North West Leicestershire	Mercia Park	393,100 sqm (floorspace)	2023-2027	Y
North West Leicestershire	Strategic Rail Freight Interchange on Land North of East Midlands Airport/West of M1 Junction 24	499,630 sqm (floorspace)	2020-2025	Y
North West Leicestershire	Money Hill	15.9 ha (Site Area)	2027-2031	Y
North West Leicestershire	Segro East Midlands Gateway Phase 2	400,000 sqm (floorspace)	2028-2031	N
North West Leicestershire	Land South of Junction 1 of the A50 Castle Donington Leicestershire	92,500 sqm (floorspace)	2026-2029	Y
North West Leicestershire*	East Midlands Airport Aviation Expansion	940 Jobs	2026-2028	N
North West Leicestershire	Land West of Hilltop Farm, Castle Donington (Emp89)	17,850 sqm (floorspace)	2025-2034	N
North West Leicestershire	Land North of Remembrance Way (A453), Kegworth (Emp73 (Part))	40,000 sqm (floorspace)	2025-2034	N
South Derbyshire*	EMIP Masterplan 1	4,440 Jobs	2026-2030	N
South Derbyshire*	EMIP Masterplan 2	3,540 Jobs	2026-2030	N
South Derbyshire*	EMIP Masterplan 3	1,620 Jobs	2026-2030	N

* East Midlands Freeport development sites

Appendix B Network Assumptions

Table B.1: Highway Network Assumptions

Location	Scheme Name	Forecast Year	Include
Earl Shilton	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Barwell	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Lubbesthorpe	Access arrangements for SUE including strategic traffic link to the A563 Lubbesthorpe Way	2021	Y
Loughborough	A512 widening B591 to M1 J23, improvements to J23 and completion of dualling thereafter to either Snell's Nook Lane or Epinal Way junction	2021	Y
Coalville	4. Bardon Road Link: Southern section only	2026	Y
Castle Donington	Western Link Road from Back Lane to Tops Hill, NWLDC package of measures to help mitigate growth planned	2021	Y
Lubbesthorpe	Link across M69 to join North and South of the Lubbesthorpe development.	2031	Y
Earl Shilton & Barwell	Highway improvements for SUE	2026	Y
Lubbesthorpe	Highway improvements for SUE	2026	Y
Loughborough	West of Loughborough SUE (access from the north via the A6 roundabout)	2022	Y
Blaby	Desford Crossroads	2026	N
Harborough	Harborough Strategic Development Area	2021	Y
Charnwood	North of Birstall SUE	2026	Y
Charnwood	Mountsorrel Lane, Rothley Link Road	2021	Y
Charnwood	A512 junction improvements	2021	Y
North of East Leicester	North of East Leicester Development Network - Thorpebury (previously Thurmaston) SUE.	2026	Y
Leicester City	Traffic Calming Schemes (Phase 2)	2021	Y
Leicester City	Welford Road	2021	Y
Leicester City	Waterside Development	2026	Y
Leicester City	Belgrave Gate South	2020	Y
Leicester City	Lancaster Road	2020	Y
Leicester City	Mansfield Street & Church Gate	2021	Y
Leicester City	SMBS Access to Burleys Way	2021	Y
Leicester City	Vaughan Way	2020	Y
Leicester City	Ashton Green	2021	Y
Leicester City	LNW2 Ravensbridge Drive / Blackbird Road	2020	Y
Melton	MMDR Northern Section	2026	Y
Melton	MMDR Eastern Section	2026	Y
Melton	MMDR Southern Section	2026	Y
Melton	Gladman's Site (Leicester Road and Kirby Lane Access)	2021	Y
Leicester City	Beaumont Leys Anstey Lane Improvements	2021	Y
Hinckley	Hinckley Rugby Road Corridor Improvements - Phase 4	2023	Y
Leicester City	Putney Road West Improvement	2022	Y
Lutterworth	Frank Whittle Roundabout approaches	2021	Y

Location	Scheme Name	Forecast Year	Include
Lutterworth	Lutterworth East Development (Development Access (A4304, Gilmorton Road and A426))	2026	Y
Lutterworth	Lutterworth East Development associated mitigations	2031	Y
Lutterworth	Lutterworth East Development (Link Road between A4304 and A426)	2031	Y
Lutterworth	Lutterworth East Development (Gilmorton Road bridge bus restriction)	2026	Y
Bardon Hill	Bardon Hill Link Road North Section	2026	Y
Coalville	Hoo Ash Roundabout	2025	Y
Coalville	Thornborough Road Roundabout	2025	Y
Coalville	Dual Carriageway from Thornborough Rd to Whitwick Road	2025	Y
Coalville	Whitwick Road Roundabout	2025	Y
Coalville	Broom Leys Road Junction	2025	Y
Coalville	Bardon Link Road Junction	2025	Y
Coalville	Birch Tree Roundabout	2025	Y
Coalville	Flying Horse Roundabout	2025	Y
Coalville	Fieldhead Roundabout	2025	Y
Hinckley	DPD A5 Access	2021	Y
Padge Hall	Padge Hall Development Access	2024	Y
Leicester City	Abbey Park Road Cycle Provision	2021	Y
Blaby	A47 / Kirby Lane Tesco Express	2021	Y
Leicester City	Abbey Street	2021	Y
Leicester City	A50 Groby Road Bus Lane	2022	Y
Harborough	Magna Park Extension Access - Mere Lane, Lutterworth	2021	Y
Harborough	Magna Park Extension Access - A5, Lutterworth	2026	Y
Blaby	Highway improvements for Lubbesthorpe SUE	2021	Y
Blaby	Foxhunter Roundabout Eastbound Approach	2021	Y
Loughborough	West of Loughborough SUE (connection to the northern arm of the A512 roundabout)	2036	Y
Harborough	B4114 / B581 Signalisation Improvement, Broughton Astley	2026	Y
Blaby	Blaby DPD Site Access	2026	Y
Blaby	West of St Johns (Blaby DPD) Site Access	2026	Y
Harborough	Wigston Direction for Growth Site Access	2026	Y
Blaby	Everard Way Closure, Fosse Park	2020	Y
Loughborough	Access connection for the Science Park via the A512 roundabout	2031	Y
North West Leicestershire	Money Hill Site Access A511	2026	Y
Derbyshire	Wragley Way (South Derbyshire) SUE Access A50	2031	Y
Derbyshire	Clifton (Rushcliffe) SUE Access	2022	Y
Derbyshire	EMIP A50 (Freeport)	2030	N
Derbyshire	Toton Innovation Hub (HS2)	2026	Y
Nottinghamshire	Ratcliffe Power Station A453 (Freeport)	2030	N
Rugby	Rugby Radio Station - A5 Access	2022	Y
North West Leicestershire	Mercia Park	2020	Y

Location	Scheme Name	Forecast Year	Include
Leicester City	Western Park Golf Course	2029	Y
Harborough	Kettering Road Signalisation	2021	Y
Charnwood	Shuttle signals on Tickow Lane (over bridge)	2022	Y
Charnwood	Buttercup Lane in Shepshed	2022	Y
Blaby	Dans Lane (A47)	2023	Y
Hinckley	B582 / B585 signalisation	2023	Y
Hinckley	A47 roundabout between Wykin Road and Outlands Drive	2021	Y
M6 Junction 10-13	M54-Stafford ALR	2021	Y
M54-M6 Toll	New Link Road min 2 lane motorway	2024	Y
M6 J13-J16	Stafford South to Stoke ALR	2022	Y
M1 J13-16	MK South - J16 ALR	2022	Y
M40 M42	M40 J16-M42 J3 ALR	2026	Y
A46 Coventry	Remove Binley and Walsgrove roundabouts M40-M6 as 'expressway standard' (i.e. all grade separated junctions)	2026	Y
A46 Toll Bar End	Grade separated junction at TBE & Stonebridge Highway to 3 lanes	2021	Y
Newark North	Dualling Newark N bypass first stages now in RIS 2	2031	Y
Newark South	A1-A46 link S of Newark; part constructed. Not in MRTM list	2031	Y
Lincoln East	A15-A158; under construction	2021	Y
Lincoln South	A158-A46; *sketchy details*; envisaged as dual carriageway... Assumed costing will be similar to Lincoln E bypass and will be 60mph single	2031	Y
Grantham South	A1-A52 link bypassing Grantham; under construction	2023	Y
Warwickshire	M6 J2 - J4 SMART motorway	2021	Y
Nuneaton and Bedworth Borough	Coton Arches	2021	Y
Nuneaton and Bedworth Borough	A4254b Eastboro Way Phase 1	2024	Y
Nuneaton and Bedworth Borough	College Street / A444	2026	Y
Nuneaton and Bedworth Borough	Transforming Nuneaton	2026	Y
Nuneaton and Bedworth Borough	Croft Road / Greenmoor Road Priority	2031	Y
Nuneaton and Bedworth Borough	A47 Old Hinckley Road	2024	Y
Nuneaton and Bedworth Borough	Coventry Road / Gipsy Lane	2026	Y
Nuneaton and Bedworth Borough	A4254 / B4114 / Eastboro Way	2026	Y
Nuneaton and Bedworth Borough	Nuneaton Northern Sites Link Road	2026	Y
North Warwickshire	B5000 Market Street/Bridge Street Signals	2026	Y
North Warwickshire	A5 Dualling between Grendon and Dordon Junction	2033	Y
Rugby Borough	A426/A4071 Avon Mill Roundabout/Newbold Road/Hunters Lane Priority Junction	2026	Y

Location	Scheme Name	Forecast Year	Include
Rugby Borough	Ashlawn Road/Hillmorton Road	2021	Y
Rugby Borough	A5 Northern Access to DIRFT III	2021	Y
Rugby Borough	A5/A428 Halfway House Roundabout	2026	Y
Rugby Borough	M1 Junction 18	2031	Y
Rugby Borough	M6 to Coton House	2021	Y
Rugby Borough	A5 Southern Access to DIRFT III	2021	Y
North Warwickshire	A5 dualling Grendon to Atherstone	2031	Y
Rugby Borough	M6 J2 Signalisation	2024	Y
Nuneaton and Bedworth Borough	Callendar Farm Phase 2	2031	Y
Nuneaton and Bedworth Borough	Bermuda Triangle Project	2026	Y
Rugby Borough	Ansty Park Access (Combe Fields Road)	2020	Y
Castle Donington	Land South of A50 J1 Development Access	2024	Y
Hinckley	B4114 Coventry Rd / Broughton Rd widening	2021	Y
Shepshed	A512 Ashby Rd Quarry access/signalised junction	2021	Y
Bardon	Tungsten Park, Bardon A511	2021	Y
North West Leicestershire	Segro EMG Phase 2 Development Access	2028	N
Leicester City	St George Street (Queen Street to Southampton Street)	2022	Y
Leicester City	Dover Street (Granby Street Junction)	2024	Y
Leicester City	Granby Street (Bishop Street to Halford Street)	2024	Y
Leicester City	Granby Street (Northampton Street to Street George's Way)	2022	Y
Leicester City	Pocklingtons Walk	2022	Y
Leicester City	Aylestone Road, Saffron Lane to Oxford Street (A426)	2023	Y
Leicester City	Saffron Lane (B5366)	2023	Y
Leicester City	Duns Lane/Braunstone Gate	2023	Y
Leicester City	Abbey Park Road (Eastern section and bridge)	2023	Y
Leicester City	Anstey Lane (A5630)	2022	Y
Leicester City	St. Margaret's to Birstall (A6)	2024	Y
Leicester City	Melton Road (A607)	2023	Y
Leicester City	Belgrave Gate/Haymarket/Church Gate Pedestrianisation	2020	Y
North West Leicestershire	A50 Junction 1 signalisation of two additional arms (Tamworth Road and Trent Lane)	2025	Y
Blaby	Desford Road/Ratby Lane signalisation	2022	Y
Nottinghamshire	A52 Gamston roundabout	2023	Y
Nottinghamshire	A52 Wheatcroft junction	2028	Y
Nottinghamshire	A52 Nottingham Knight junction	2028	Y
Derbyshire	A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout)	2024	Y
Broxtowe	Toton Link Road	2026	N

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**APPENDIX 44: VISSIM Local Model Validation Report (document reference EMG2-BWB-
GEN-XX-RP-TR-0006_S2-P4)**

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

East Midlands Gateway, Phase 2
Local Model Validation Report (LMVR)

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

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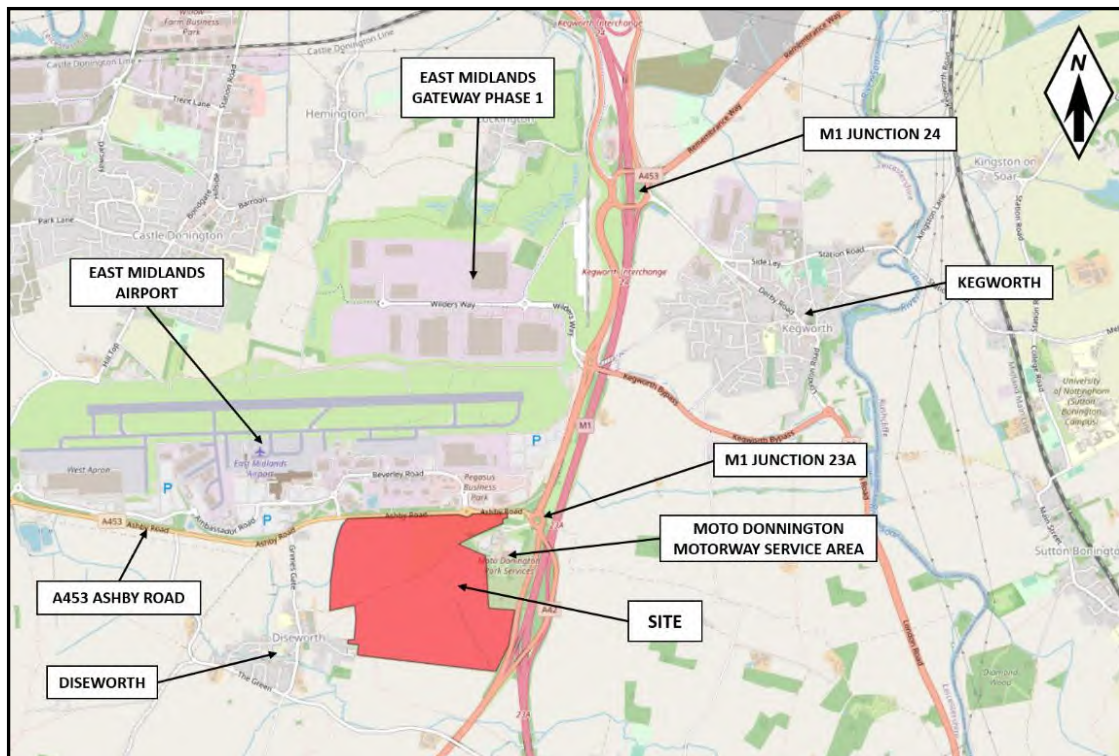
APPENDICES

APPENDIX 1: TURNING COUNT CALIBRATION

1. INTRODUCTION

- 1.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of East Midlands Gateway (EMG) site.
- 1.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use. The location of the proposed development is show in **Figure 1**.

Figure 1. Site Location



- 1.3 As part of East Midlands Gateway Phase 1, BWB obtained a copy of the M1 J24 VISSIM model network from National Highways in 2014. The model was validated and calibrated by AECOM to a base year of 2012. This model was utilised by BWB to assess the proposed highway network changes including improvements to M1 J24 as part of the EMG Phase 1. However, the model is now outdated and the proposed mitigation as well as the scheme have been constructed on site since and is operational.
- 1.4 Therefore, to assess the impact of EMG Phase 2, a revalidation of the base model was required, this technical note has been produced to outline the modelling methodology undertaken as well as provide details of model calibration and validation.

Report Structure

- 1.5 Following this introduction, the remainder of this report is structured as follows:

- **Section 2:** Network Development, sets out the modelling parameters associated with the baseline model;
- **Section 3:** Model calibration, including comparison of manual turning count data against modelled flows.
- **Section 4:** Model validation comparing surveyed journey times with modelled journey times.
- **Section 5:** Summary and Conclusions.

2. NETWORK DEVELOPMENT

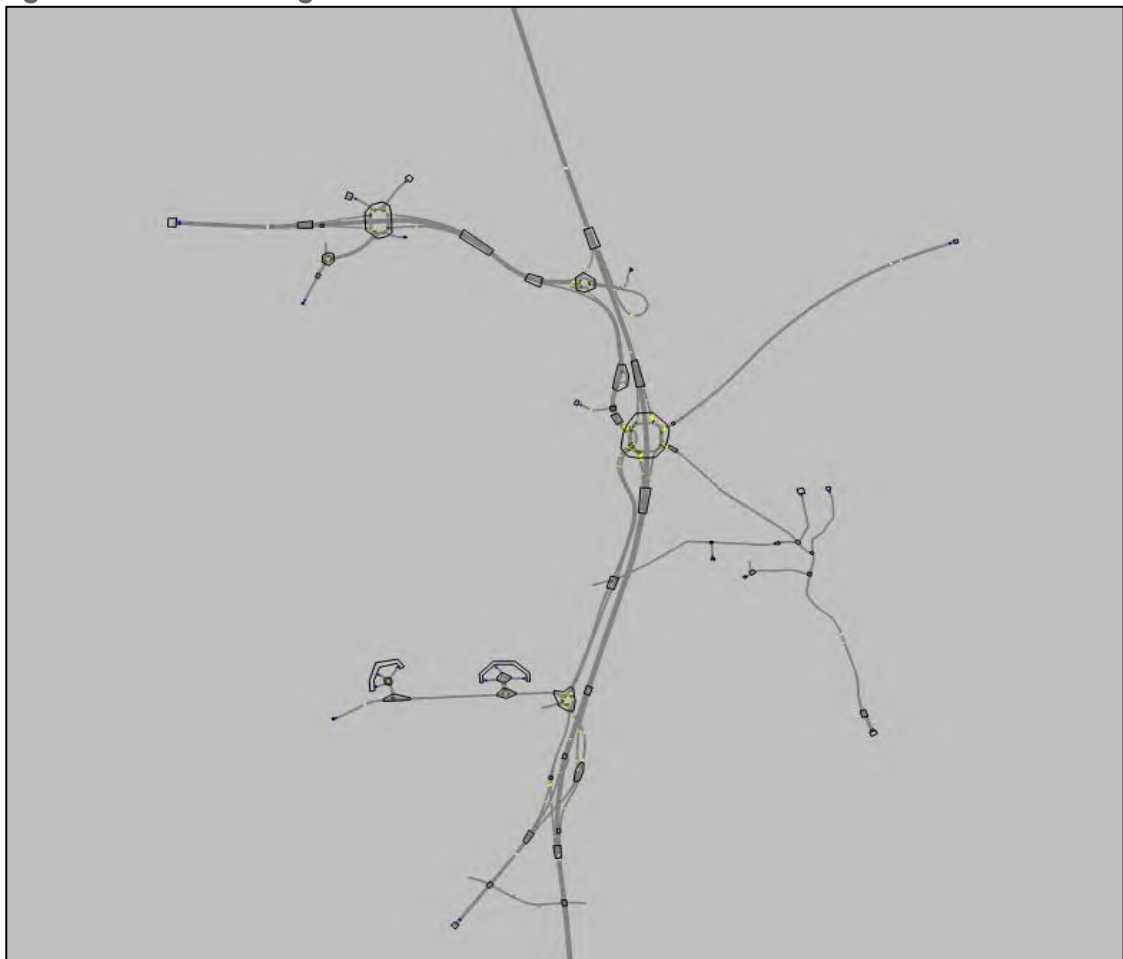
Model Approach

- 2.1 The PTV software package VISSIM is a microscopic, time-step, behaviour-based simulation tool developed to model traffic and public transport operations. VISSIM models individual vehicles and presents these movements visually, assisting in model validation and in the assessment of the performance of network improvement options.
- 2.2 VISSIM provides output information such as queues, delays, and journey times on identified routes and other specific information. VISSIM also enables 3D videos to be produced providing a powerful visual simulation of the highway network.
- 2.3 The existing VISSIM model has utilised dynamics assignment for traffic flow input, therefore the this has been retained.

Model Coverage

- 2.4 The extents of the existing VISSIM model has been illustrated in **Figure 2** below.

Figure 2 Model Coverage



2.5 The existing model comprises of the following junctions.

- i. A50 junction 1 Sawley Interchange;
- ii. M1 J24a;
- iii. M1 J24;
- iv. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- v. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- vi. A453/Hunter Road/minor EMG Phase 2 access roundabout
- vii. A453 East Midlands airport internal roundabouts.

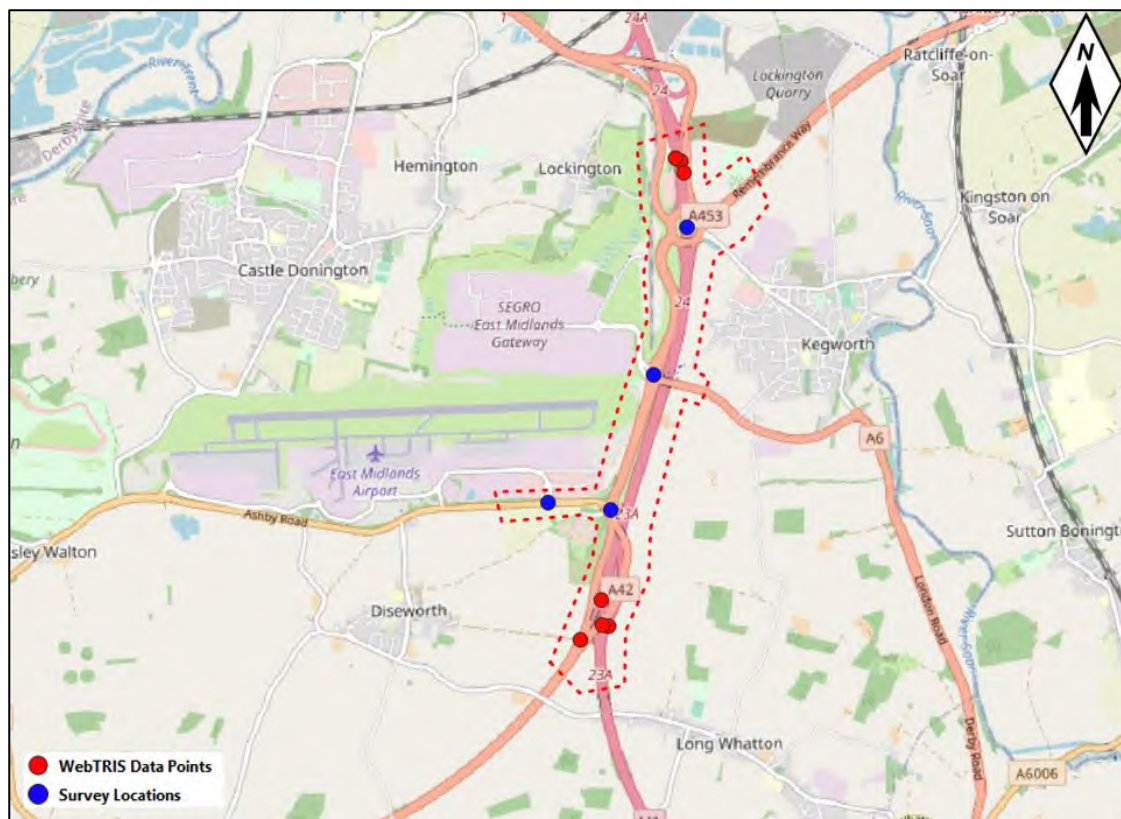
2.6 Following discussions with NH, it was agreed that the model will be cordoned off to the following junctions:

- i. M1 J24;
- ii. M1 J24a southbound merge onto the M1 and M1 junction 24;
- iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- v. A453/Hunter Road/minor EMG Phase 2 access roundabout;
- vi. A453/EMG Phase 2 site access roundabout.

Survey Data

2.7 Manual turning count surveys were undertaken on 3rd November 2023 for all junctions outlined in Paragraph 2.4. with the exception of the A453/Kegworth Bypass junction which was undertaken on 23rd November 2023. **Figure 3** illustrates locations of surveys undertaken and data points that are available on the WebTRIS website.

Figure 3: Survey and WebTRIS Data Locations



2.8 The survey data has been compared to a neutral month which was obtained from the Webtris website for a number of available data points around J24. The **Tables 1** and **2** sets out the GEH comparison between the survey data and the Webtris data.

Table 1: Survey Comparison AM

Approach/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1876	1811	1859	1.51	0.39
M1 S Exit	655	689	691	1.31	1.39
A453 Exit Towards EMG1	944	954	1014	0.32	2.24

Table 2: Survey Comparison PM

Approach/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1712	1715	1769	0.07	1.37
M1 S Exit	955	984	1002	0.93	1.50
A453 Exit Towards EMG1	615	666	699	2.02	3.28

- 2.9 The tables above illustrate that the survey data is within a GEH 5 when comparing the neutral month from webtris and therefore, the survey data is acceptable.
- 2.10 The network peak hours were calculated as 0730-0830 and 1700-1800 in the morning and evening period respectively.
- 2.11 TomTom journey time data was obtained for all neutral days within the month of November 2022. This has been utilised for journey time validation purposes.

Model Time Periods

- 2.12 The modelled time periods include half an hour warm up and cool down period either side of the peak hours. Subsequently, the model covers the following time periods:
- Weekday morning period from 0700-0900; and
 - Weekday evening period from 1630-1830.

Traffic Flow Calculations

- 2.13 The traffic survey were utilised to generate traffic flow diagrams for each 15 minute interval with the time periods set out above for both light and heavy vehicles respectively. As the EMG gyratory junction was surveyed on a different day, there were significant discrepancies in flows northbound/southbound along the A453 therefore the flows have factored in accordance with flows approaching M1 J24 and Finger Farm Roundabout to ensure consistency for OD matrix estimation
- 2.14 The flows for the ahead and merge/diverge proportions have been calculated using counts that are available on the WebTRIS website. **Tables 1** and **2** illustrate the calculations undertaken to derive the flows along the motorway as well as the split of traffic at the merges and diverges.

Table 3: Hourly WebTRIS Flows

Time Periods	WebTRIS				Divided By 4 (each 15 interval)			
	Northbound		Southbound		Northbound		Southbound	
	Lights	Heavies	Lights	Heavies	Lights	Heavies	Lights	Heavies
07:00-08:00	2275	605	4471	643	569	151	1118	161
08:00-09:00	2463	442	4069	581	616	111	1017	145
16:00-17:00	4132	502	3740	518	1033	126	935	130
17:00-18:00	4127	416	3863	491	1032	104	966	123
18:00-19:00	3307	290	3113	410	827	73	778	103

Table 4: 15-minute WebTRIS Flows

Time Periods	WebTRIS				% Split				Inputs into VISSIM			
	Northbound		Southbound		Northbound		Southbound		B-G	B-H	G-B	H-B
	A42	M1	A42	M1	A42	M1	A42	M1				
07:00 - 07:15	463	942	446	1028	33%	67%	30%	70%	780	338	381	187
07:15 - 07:30	441	895	477	1024	33%	67%	32%	68%	763	355	381	188
07:30 - 07:45	466	926	455	937	33%	67%	33%	67%	752	365	378	190
07:45 - 08:00	428	794	455	921	35%	65%	33%	67%	748	370	370	199
08:00 - 08:15	374	777	432	790	32%	68%	35%	65%	658	360	416	200
08:15 - 08:30	360	727	388	714	33%	67%	35%	65%	659	358	412	204
08:30 - 08:45	368	688	395	760	35%	65%	34%	66%	669	348	401	215
08:45 - 09:00	358	645	371	719	36%	64%	34%	66%	671	346	396	220
16:30 - 16:45	646	1148	547	902	36%	64%	38%	62%	582	353	661	372
16:45 - 17:00	525	1079	517	945	33%	67%	35%	65%	604	331	695	338
17:00 - 17:15	545	1145	542	944	32%	68%	36%	64%	614	352	699	333
17:15 - 17:30	571	1196	539	974	32%	68%	36%	64%	622	344	698	333
17:30 - 17:45	497	1301	579	887	28%	72%	39%	61%	584	381	747	285
17:45 - 18:00	615	1140	494	829	35%	65%	37%	63%	605	361	670	362
18:00 - 18:15	524	1040	442	795	34%	66%	36%	64%	500	278	550	277
18:15 - 18:30	464	945	417	718	33%	67%	37%	63%	492	286	554	272

- 2.15 Each 15-minute interval has been inputted into a skeleton LinSig model of the assessment area for both lights and heavies vehicles to allow LinSig's matrix estimation function to generate OD matrices that can be inputted into VISSIM.

Traffic Signals

- 2.16 A copy of the MOVA files for M1 J24 and the EMG gyratory were obtained from NH and the model has been updated to utilise the latest files.
- 2.17 PCMOVA has been utilised to replicate the the signal operation of the M1 J24 and EMG gyratory. The video footage of the junction was compared with the signal operation in VISSIM and it was concluded that this was reflective of on site behaviour.
- 2.18 MOVA data sets were not available for EMG West Steam 3, East Stream 3 and M1 J24 West Stream 4, therefore, VisVAP program has been utilised to set up the exit/crossing signal controllers and subsequently link them to the respective MOVA junctions using detectors.

3. Network Development

- 3.1 A number of changes have been made to the original base model to ensure calibration & validation of the model. These include changes to reduced speed areas, desired speed distributions, priority rules, conflict area and link/flare usage. Details of these have been provided below.

Desired Speed Distribution And Reduced Speed Area

- 3.2 Initial review of the desired speed distributions utilised in the EMG Phase 1 model had been undertaken and it was noted that the speed distributions for 30, 60 and 70mph were affecting the journey times of vehicles in the model. Therefore, DfT data for the most recent year available (2021) has been obtained and new desired speed distributions have been calculated in coded into VISSIM.
- 3.3 Reduced speed areas have been retained and checked in accordance streetview, from the initial model apart from the road that connects the A50 to the M1/M1 J24. The TomTom Journey Data has been review and it was noted that the average speed traveling along this link is lower than what is sign posted and therefore amended to reflect this in the model.
- 3.4 A number of reduced speed area have been coded on to EMG gyratory around the bus stops.

Priority Rules & Conflict Areas

M1 J24

- 3.5 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the M1 J24 on the M1 northbound Off-Slip entry. The priority rules that have been amended are as follows:

- 495, 496, 497, 498

- 3.6 A few priority rules have been added on the M1 southbound Off-Slip entry. The priority rules that have been added are as follows:

- 501, 502, 502, 504

EMG Gyratory

- 3.7 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the EMG gyratory. The priority rules that have been amended are as follows:

- 469, 489, 509

- 3.8 The above alterations have been undertaken to ensure no overrunning of vehicles along the circulatory carriageway.

Public Transport

3.9 A number of bus services were identified within the study area therefore these have been coded into VISSIM in accordance with the respective timetables and route maps. The following services are included within the model:

- EMG Shuttle Bus
- 9 – EMA – Queens Hospital
- Skylink Derby – Leicester – Derby
- Skylink Derby – Derby – Leicester
- Skylink Nottingham – Nottingham – Loughborough
- Skylink Nottingham – Loughborough – Nottingham
- Skylink Express – Nottingham – EMA
- Skylink Express – Nottingham – EMA

4. Model Changes

- 4.1 A copy of the VISSIM model was submitted to National Highways on 31 March 2023 subsequently comments were received on 3 May 2023. Following this, a revised copy of the VISSIM models were submitted on 11 July 2023 to ensure network parameters were acceptable prior to rerunning the models for validation. Details of the changes made are provided below.

Comment 1: "Driver behaviour parameter should retain default values unless a reasonable justification for the changes made is provided."

Amendment 1: The driver behaviour parameters have been reverted back to default

Comment 2: "It is considered that Wiedemann 74 is not suitable for use on motorway, or even dual carriageway links (away from junctions) and that a behaviour type based on Wiedemann 99 should be used."

Amendment 2: Motorway link and dual carriageway links have been amended to Wiedemann 99

Comment 3: "The Behaviour at Amber/Red Signal for Driver Behaviour types should be changed to 'stop' rather than 'go' as current modelled."

Amendment 3: Behaviour at Amber/Red Signal for Driver Behaviour types set to 'stop'

Comment 4: "The various discrepancies between the on-street highway layout and that in the model should be reviewed and corrected."

Amendment 4: Link arrangements have been reviewed and amended to reflect exactly what's on the ground.

Comment 5: "The coded vehicle entry speed from Parking Lots and DSDs throughout the network need to be revised to ensure consistent implied vehicle speeds on the same stretch of highway."

Amendment 5: All Parking Lots and DSD have been reviewed and amended where needed to provide more realistic vehicle speeds throughout the network.

Comment 6: "The omission of RDAs in the locations listed in this review should be investigated and appropriate RDAs added to the network."

Amendment 6: RDAs have been reviewed and added/amended throughout the network

Comment 7: "All discrepancies between the controller information and the modelled controller parameters, in particular the inter-green values, should be checked and corrected as appropriate."

Amendment 7: All Signal spec checked and amended where required including intergreens

Comment 8: "There appears to be differences in the call/cancel times between the controller information and those used in the model. These should be checked and corrected as appropriate."

Amendment 8: call/cancel times have been amended

Comment 9: "The dummy connector on the AS453 eastbound entry to Hunter Roundabout should be deleted, mainly to ensure vehicles entering the roundabout correctly give-way."

Amendment 9: call/cancel times have been amended

- 4.2 Further to the above, some slight modifications were requested for the models, and these changes have been incorporated into the updated VISSIM model.

5. ADDITIONAL MODEL CHANGES

- 5.1 Initial runs of the forecast modelling indicated some calibration issues, therefore, additional changes have been made to the base model. These amendments are set out below.

VISSIM Version

- 5.2 VISSIM base model revalidated in VISSIM 24. VISSIM 24 utilises all cores therefore this will reduce computation time of forecast modelling runs.

Links

M1 J24

- 5.3 M1 NB exit altered (Link 10079) to one lane to reflect existing layout.
- 5.4 Altered the M1 south approach circulatory from 2 x 2-lane links (Link 17 & Link 194) to 1 x 4-lane link (Link 17). This allows better lane utilisation.
- 5.5 M1 N approach lane connectors (Link 10016) to A453 Remembrance Way from 1 lane connectors to a 2-lane connector to reflect video observation as well as road markings.

EMG Gyratory

- 5.6 Altered the EMG approach from 2x2-lane links to 1x4-lane link as the former caused convergence issues in the forecast modelling scenarios.

- Links Amended: 48, 70, 83, 576, 10481, 10482, 10487

Flare lengths

- 5.7 Flare lengths and alignments have also been reviewed and amended, the northbound approach to Finger Farm Roundabout (Link 136) and the eastbound approach to Hunters Road Roundabout (Link 212).

Signals

- 5.8 MOVA changes at M1 J24 special conditioning amended from call/cancel to delay/persistence. Signal linkage issues were noted in the forecast modelling scenarios.

A review of the video footage indicated that the call/cancel special conditioning did not reflect the signal operation well, particularly on the southwestern quadrant of the junction. Therefore special conditioning was amended to delay/persistence which reflected the operation better.

- 5.9 BWB have had discussions with a MOVA engineer who indicated that typically if links are set to simple traffic, these are not utilised on-site. Therefore detectors associated with simple traffic at the EMG gyratory have been removed.

Priority Rules

- 5.10 Some of the priority were slightly misaligned at the Finger Farm Roundabout causing vehicles to change lanes at the approach to the circulatory. Therefore, these have been repositioned to ensure no unnecessary lane changes.

Route Closures

- 5.11 When undertaking the forecast modelling a calibration issue presented itself where traffic coming from the M1 south would come off the M1 travel up the A453 to Junction 24 in the AM. This is not realistic and therefore a route closure has been added to stop vehicles doing this movement. This route closure will be used in all AM forecast modelling to remain consistent.

Route Costs

- 5.12 There are 2 routes to access the A50 via Junction 24 for vehicles travelling northbound from the the M1 and the A42, one route is to travel up the M1 and the other route is via the A453. As the model is a dynamic model and when running the models for calibration VISSIM assigns flows to each of these routes depending on where delay is in the model.
- 5.13 The GEH at Junction 24 for the 2 routes were unbalanced where VISSIM was assigning too many vehicles to use the A453 compared to the M1 and therefore, as a result a cost has been assigned to link number 184 of 75/km. this value provides the best split of traffic between the 2 routes and provides a cohesive GEH at J24. The will remain consistent between all forecast modelling scenarios.

6. MODEL CALIBRATION

Traffic Data

- 6.1 A skeleton LinSig model of the VISSIM network was built and Lights/Heavies turning movements were input into LinSig at 15-minute intervals. LinSig matrix estimation was subsequently used to generate synthetic OD matrices for input into the VISSIM model.

Convergence

- 6.2 The base model has been developed using dynamic assignment therefore models have been converged prior to extracting results from the model. TfL traffic modelling guidelines indicates that a model is converged if:
- 95% of all path traffic volumes change by less than 5% for at least four consecutive iterations; and
 - 95% of travel times on all paths change by less than 20% for at least four consecutive iterations.
- 6.3 A summary of the convergence is presented in **Table 5** below.

Table 5: Model Convergence Summary

Sim Run	Traffic Volume		Travel Time on Paths	
	AM	PM	AM	PM
1	96%	99%	98%	98%
2	96%	98%	98%	97%
3	97%	98%	97%	96%
4	96%	97%	96%	95%
5	98%	96%	95%	97%
6	96%	95%	99%	96%
7	99%	98%	98%	98%
8	98%	99%	97%	99%
9	98%	97%	98%	99%
10	99%	98%	97%	99%

- 6.4 Based on the above, it is considered that both morning and evening peak hour models are converged.

Simulation

- 6.5 Ten iterations of each of the models were run starting at a random seed of 42 and increasing by 5 each interaction. The network performance parameter 'average delay per vehicle' was obtained for each run. The mean of the 10 runs was found for each option and the average was selected for calibration. The results of this process are presented in **Table 6** below.

Table 6: Network Performance

Seed Value	AM PEAK	PM PEAK
	Average Delay per Vehicle	Average Delay per Vehicle
42	46.400	39.173
47	44.885	39.151
52	44.717	40.326
57	47.536	39.703
62	46.376	39.886
67	46.395	39.330
72	50.536	40.078
77	46.169	41.781
82	48.044	38.359
87	47.195	40.057
Average	46.83	39.78
SD	1.58	0.86
Confidence	0.98	0.54

6.6 The stability of the models was judged using the Chi2 goodness of fit test which seeks to demonstrate that statistically the different model runs pass the goodness of fit null hypothesis that there is no significant difference in average delays between the seed values, thus demonstrating stability.

6.7 **Table 7** below demonstrate that, using the Chi2 distribution, in the morning and evening peak models pass the Chi2 goodness of fit test for respective degrees of freedom. The models therefore exhibit suitable stability/repeatability and are fit for purpose.

Table 7: Summary of Seed Stability Assessment

MORNING PEAK						EVENING PEAK				
Seed	Observed	Expected	o-e	(o-e)2	(o-e)2/e	Observed	Expected	o-e	(o-e)2	(o-e)2/e
42	46.400	46.825	-0.425	0	0.004	39.173	39.784	-0.611	0.374	0.009
47	44.885	46.825	-1.940	4	0.080	39.151	39.784	-0.634	0.401	0.010
52	44.717	46.825	-2.108	4	0.095	40.326	39.784	0.542	0.294	0.007
57	47.536	46.825	0.711	1	0.011	39.703	39.784	-0.081	0.007	0.000
62	46.376	46.825	-0.449	0	0.004	39.886	39.784	0.102	0.010	0.000
67	46.395	46.825	-0.431	0	0.004	39.330	39.784	-0.455	0.207	0.005
72	50.536	46.825	3.711	14	0.294	40.078	39.784	0.293	0.086	0.002
77	46.169	46.825	-0.656	0	0.009	41.781	39.784	1.996	3.985	0.100
82	48.044	46.825	1.219	1	0.032	38.359	39.784	-1.425	2.031	0.051
87	47.195	46.825	0.370	0	0.003	40.057	39.784	0.272	0.074	0.002
					0.536					0.188
chi critical 0.05						chi critical 0.05				
DF (n-1) 9 = 16.919						DF (n-1) 9 = 16.919				

Pass as 0.536 is less than 16.919

Pass as 0.188 is less than 16.919

TABLE 2: SUMMARY OF SEED STABILITY ASSESSMENT

Network Performance

6.8 **Table 8** presents a summary of the average Network Performance information.

Table 8: Network Performance

	AM	PM
Average Delay (s)	55	40
Average Speed (mph)	48	52
Vehicles Arrived	18670	18106
Latent Demand	0.5	0.5

- 6.9 **Table 8** illustrates that there is minimal latent demand in the morning peak hour period however a review of the error logs indicate that by the end of the cool down period, all vehicles are able to enter the VISSIM network.

Calibration Methodology

- 6.10 The Design Manual for Roads and Bridges (DMRB) defines model calibration as “the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives”. The model calibration process ensures that model has the ability to exhibit characteristics that accurately compare with observed data.
- 6.11 The model calibration has been undertaken over a model period of 1.0 hour in the morning peak (07:30 – 08:30) and 1 hour in the evening peak (17:00 – 18:00). These periods of calibration do not include the ‘warm up’ and ‘cool down’ period before and after the identified 07:30 – 08:30 and 17:00 – 18:00 morning and evening peak hours.

Traffic Flow Calibration

- 6.12 The Design Manual for Roads and Bridges (DMRB) defines model calibration as “the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives”. The model calibration process ensures that the model has the ability to exhibit characteristics that accurately compare with observed data.
- 6.13 DfT Transport Analysis Guidance (TAG) states that the calibration of traffic data in a model should be based on the Geffrey E.Havers (GEH) statistic, and states that modelled flows must have a GEH value of less than 5 in at least 85% of the cases.
- 6.14 The turning count calibration for the base model has been based on the average of all simulation runs. **Table 9** provides a summary of the comparison between the observed and modelled total turning movements within the model.

Table 9: Summary of Traffic Flow Calibration

	Total Turns	Counts GEH<5
Morning Peak	59	88%
Evening Peak	59	91%

- 3.1 The above table represent a pass rate of over 85% for a GEH of less than 5 in both peak hour periods. The model is therefore considered to be fit for purpose. A copy of the full output is presented in **Appendix 1**.

7. MODEL VALIDATION

Introduction

- 7.1 TAG Unit M3.1 states that “for journey time calibration, the measure which should be used is: the percentage difference between modelled and observed journey times, subject to an absolute maximum difference”. Subsequently, Table 3 of TAG states that the “modelled times along routes should be within 15% of surveyed times or 1 minute, if higher than 15%.”

Travel Time Survey

- 7.2 TomTom journey time survey was obtained at 15 minute intervals for the neutral days within the month of November 2023 during the peak hours.
- 7.3 **Figure 4** and **5** provides routes utilised for journey time validation.

Figure 4: Journey Time Routes (1 - 10)

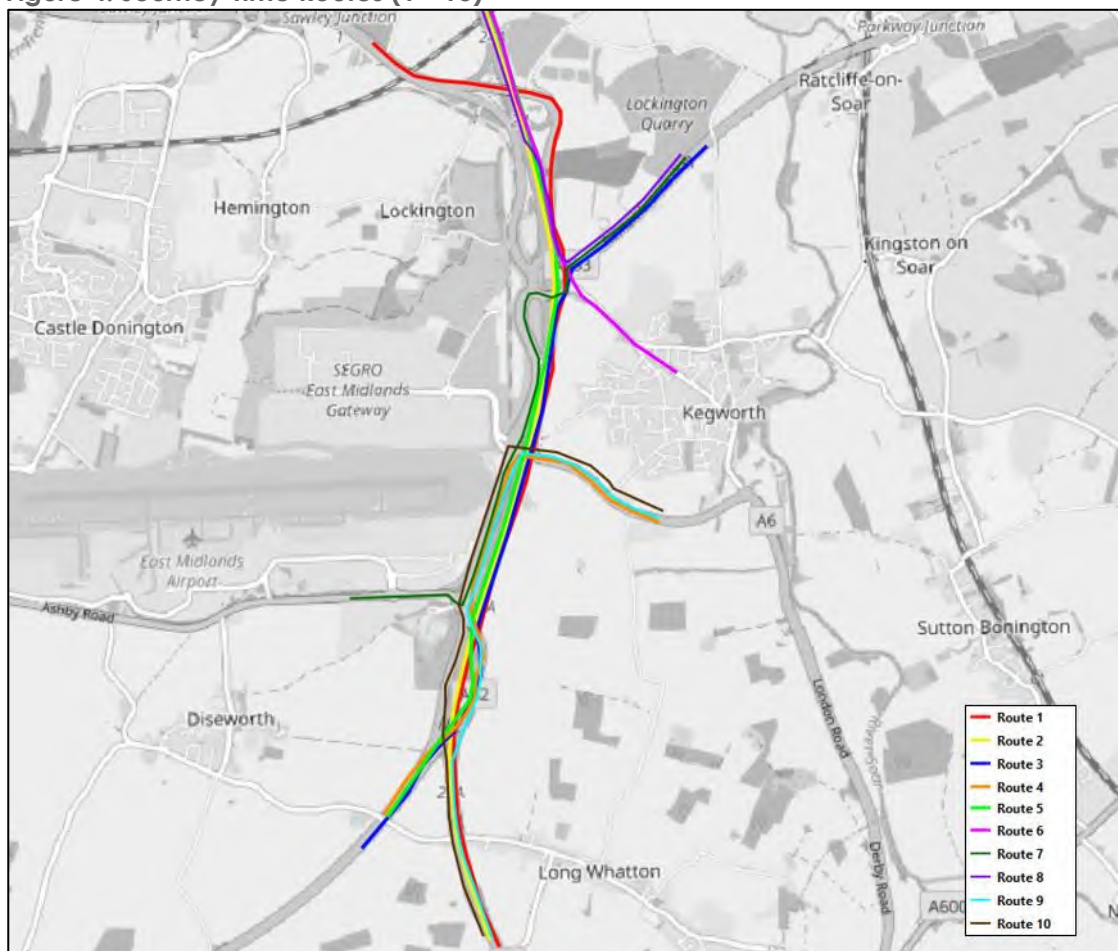
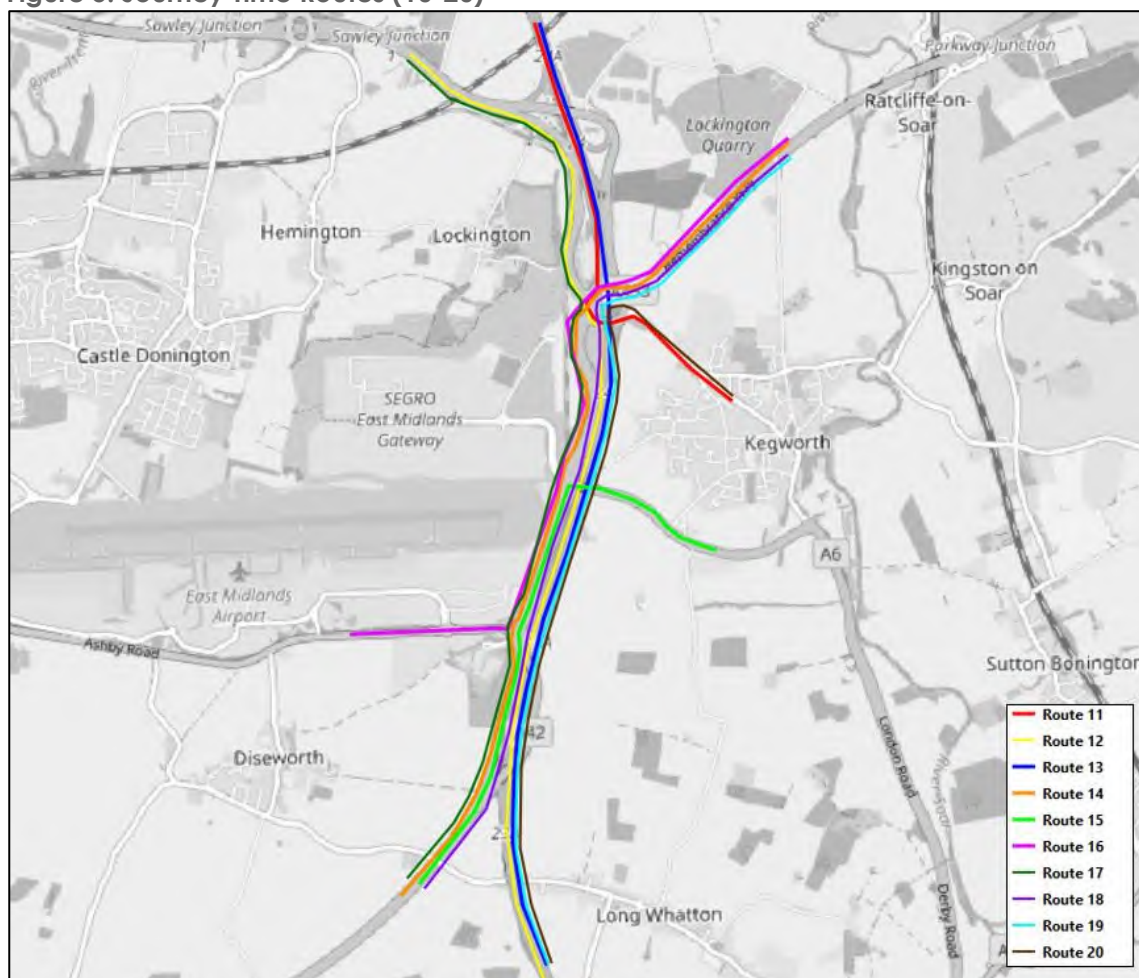


Figure 5: Journey Time Routes (10-20)



7.4 Details of the origin and destination of the routes identified above is provided below:

- Route 1 – A50 to M1 South
- Route 2 – M1 North to M1 South
- Route 3 – A453 Remembrance Way to A42
- Route 4 – Kegworth Bypass to A42
- Route 5 - M1 North to A42
- Route 6 – M1 North to Derby Road
- Route 7 – A453 Remembrance Way to A453 EMA
- Route 8 – M1 North to A453 Remembrance Way
- Route 9 – Kegworth Bypass to M1 South
- Route 10 - M1 South to Kegworth Bypass
- Route 11 – Derby Road to M1 North
- Route 12 – M1 South to A50
- Route 13 – M1 South to M1 North
- Route 14 – A42 to A453 Remembrance Way via A453

- Route 15 - A42 to Kegworth Bypass
- Route 16 – A453 EMA to A453 Remembrance Way
- Route 17 – A42 to A50 via A453
- Route 18 – A42 to A453 Remembrance Way via M1
- Route 19 – M1 South to A453 Remembrance Way via M1
- Route 20 - M1 South to Derby Road via M1

Validation Results

7.5 Model validation has been undertaken using 10 simulation seed runs as illustrated in **Table 7**. The average journey time for each full route has been compared with the surveyed journey times and the resultant output is presented in **Table 10** below.

Table 10: Travel Time Validation

Route	AM			PM		
	Observed	Modelled	% Difference	Observed	Modelled	% Difference
1	489	356	-27.3%	413	321	-22.3%
2	358	337	-6.0%	352	314	-10.7%
3	318	308	-3.0%	353	305	-13.5%
4	271	303	11.8%	269	286	6.3%
5	377	321	-14.8%	359	312	-13.2%
6	311	285	-8.5%	299	261	-12.7%
7	397	402	1.2%	445	463	4.1%
8	271	280	3.2%	255	258	1.1%
9	293	321	9.5%	294	287	-2.5%
10	318	363	14.0%	338	400	18.3%
11	325	348	7.0%	394	340	-13.6%
12	374	430	15.0%	408	341	-16.4%
13	331	329	-0.7%	397	339	-14.6%
14	393	428	8.9%	427	392	-8.2%
15	293	346	18.2%	314	287	-8.7%
16	389	406	4.5%	443	411	-7.3%
17	343	349	1.7%	414	438	5.9%
18	372	362	-2.7%	370	333	-10.0%
19	393	378	-3.8%	394	362	-8.2%
20	433	374	-13.7%	438	364	-16.9%

Table 11: Travel Time Validation Summary

	<15%	
	AM	PM
Fail	2	2
Pass	18	18
Total	20	20
%	90%	90%

7.6 **Table 8** illustrates that the over 85% of the journey times validate within 15% therefore it is considered the model is fit for purpose for future year assessment.

8. SUMMARY & CONCLUSIONS

- 8.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of the East Midlands Gateway (EMG) site.
- 8.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use.
- 8.3 Traffic surveys were undertaken in November 2022 and subsequently a base VISSIM model of the study area has been developed by BWB.
- 8.4 The model was calibrated using observed and modelled turning movements during the peak hours at a 15-minute interval. These were assessed against DfT modelling guidelines and it was concluded that the base model satisfies both criterias.
- 8.5 Modelled journey times indicate that over 85% of these validate within 15% of observed data therefore it is considered the model is 'fit for purpose'.

APPENDICES

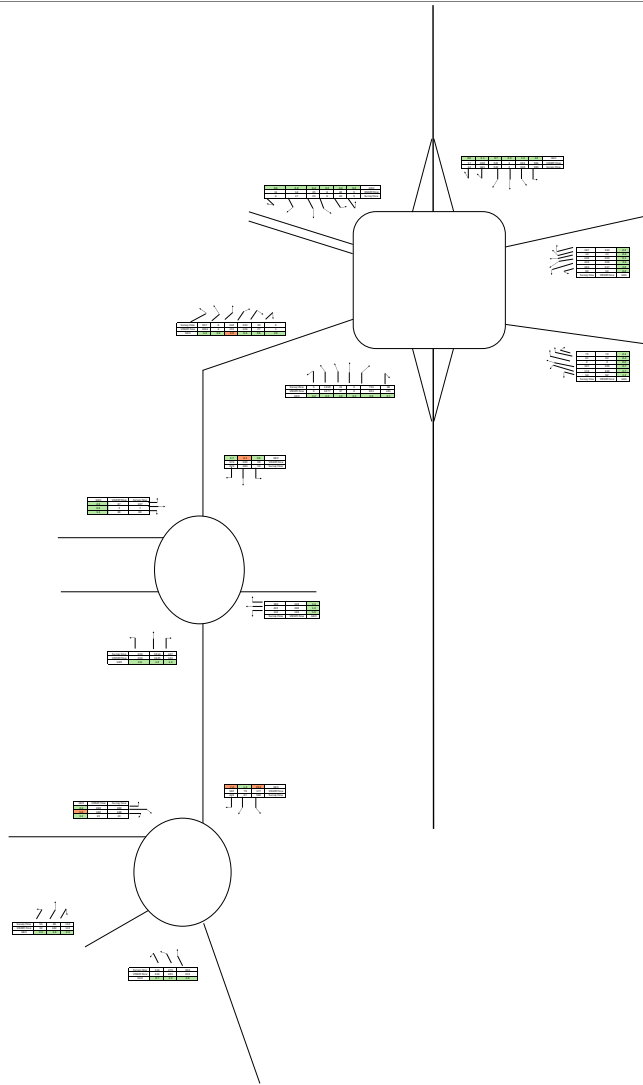
APPENDIX 1: TURNING COUNT CALIBRATION

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	560	177	383	216%	19.95	Fail
Junction 1	A453 (N)	Donington Services Access	67	79	-12	-15%	1.40	Pass
Junction 1	A453 (N)	A453 (W)	420	585	-165	-28%	7.36	Fail
Junction 1	M1 J23A Access	Donington Services Access	134	126	8	6%	0.70	Pass
Junction 1	M1 J23A Access	A453 (W)	475	405	70	17%	3.34	Pass
Junction 1	M1 J23A Access	A453 (N)	952	815	137	17%	4.61	Pass
Junction 1	Donington Services Access	A453 (W)	55	32	23	72%	3.49	Pass
Junction 1	Donington Services Access	A453 (N)	89	102	-13	-13%	1.33	Pass
Junction 1	Donington Services Access	M1 J23A Access	112	115	-3	-3%	0.28	Pass
Junction 1	A453 (W)	A453 (N)	408	498	-90	-18%	4.23	Pass
Junction 1	A453 (W)	M1 J23A Access	249	168	81	48%	5.61	Fail
Junction 1	A453 (W)	Donington Services Access	23	10	13	130%	3.20	Pass
Junction 2	M1 J24 (N)	A453 (N)	900	991	-91	-9%	2.96	Pass
Junction 2	M1 J24 (N)	To Derby Road	526	561	-35	-6%	1.50	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (N)	A453 (S)	542	525	17	3%	0.74	Pass
Junction 2	M1 J24 (N)	A50	321	320	1	0%	0.06	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	14	17	-3	-18%	0.76	Pass
Junction 2	A453 (N)	Derby Road	60	54	6	11%	0.79	Pass
Junction 2	A453 (N)	M1 J24 (S)	483	547	-64	-12%	2.82	Pass
Junction 2	A453 (N)	A453 (S)	424	356	68	19%	3.44	Pass
Junction 2	A453 (N)	A50	246	244	2	1%	0.13	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	14	13	1	8%	0.27	Pass
Junction 2	A453 (N)	M1 J24 (N)	187	194	-7	-4%	0.51	Pass
Junction 2	Derby Road	M1 J24 (S)	54	62	-8	-13%	1.05	Pass
Junction 2	Derby Road	A453 (S)	174	140	34	24%	2.71	Pass
Junction 2	Derby Road	A50	107	100	7	7%	0.69	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	61	64	-3	-5%	0.38	Pass
Junction 2	Derby Road	A453 (N)	75	74	1	1%	0.12	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A50	1150	1077	73	7%	2.19	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	21	27	-6	-22%	1.22	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A453 (N)	731	803	-72	-9%	2.60	Pass
Junction 2	M1 J24 (S)	Derby Road	98	105	-7	-7%	0.69	Pass
Junction 2	A453 (S)	A50	957	1061	-104	-10%	3.27	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	6	4	2	50%	0.89	Pass
Junction 2	A453 (S)	M1 J24 (N)	240	155	85	55%	6.05	Fail
Junction 2	A453 (S)	A453 (N)	232	226	6	3%	0.40	Pass
Junction 2	A453 (S)	Derby Road	30	27	3	11%	0.56	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	5	5	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	63	60	3	5%	0.38	Pass
Junction 2	Hilton Hotel Lane	Derby Road	9	9	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	23	25	-2	-8%	0.41	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	17	14	3	21%	0.76	Pass
Junction 2	Hilton Hotel Lane	A50	9	11	-2	-18%	0.63	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	54	58	-4	-7%	0.53	Pass
Junction 3	A453 (N)	A453 (S)	393	595	-202	-34%	9.09	Fail
Junction 3	A453 (N)	Wilders Way	323	374	-51	-14%	2.73	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	142	160	-18	-11%	1.46	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	415	390	25	6%	1.25	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	369	348	21	6%	1.11	Pass
Junction 3	A453 (S)	Wilders Way	219	259	-40	-15%	2.59	Pass
Junction 3	A453 (S)	A453 (N)	1014	1045	-31	-3%	0.97	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	127	142	-15	-11%	1.29	Pass
Junction 3	Wilders Way	A453 (N)	107	87	20	23%	2.03	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	7	5	2	40%	0.82	Pass
Junction 3	Wilders Way	A453 (S)	80	90	-10	-11%	1.08	Pass

	<5
Fail	5
Pass	54
Total	59
%	92%

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	367	189	178	94%	10.68	Fail
Junction 1	A453 (N)	Donington Services Access	88	82	6	7%	0.65	Pass
Junction 1	A453 (N)	A453 (W)	178	189	-11	-6%	0.81	Pass
Junction 1	M1 J23A Access	Donington Services Access	138	133	5	4%	0.43	Pass
Junction 1	M1 J23A Access	A453 (W)	420	393	27	7%	1.34	Pass
Junction 1	M1 J23A Access	A453 (N)	771	733	38	5%	1.39	Pass
Junction 1	Donington Services Access	A453 (W)	53	58	-5	-9%	0.67	Pass
Junction 1	Donington Services Access	A453 (N)	88	73	15	21%	1.67	Pass
Junction 1	Donington Services Access	M1 J23A Access	124	123	1	1%	0.09	Pass
Junction 1	A453 (W)	A453 (N)	587	498	89	18%	3.82	Pass
Junction 1	A453 (W)	M1 J23A Access	253	282	-29	-10%	1.77	Pass
Junction 1	A453 (W)	Donington Services Access	51	61	-10	-16%	1.34	Pass
Junction 2	M1 J24 (N)	A453 (N)	907	883	24	3%	0.80	Pass
Junction 2	M1 J24 (N)	To Derby Road	545	524	21	4%	0.91	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	4	0	4	0%	2.83	Pass
Junction 2	M1 J24 (N)	A453 (S)	182	110	72	65%	5.96	Fail
Junction 2	M1 J24 (N)	A50	240	198	42	21%	2.84	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	10	10	0	0%	0.00	Pass
Junction 2	A453 (N)	Derby Road	74	70	4	6%	0.47	Pass
Junction 2	A453 (N)	M1 J24 (S)	813	865	-52	-6%	1.80	Pass
Junction 2	A453 (N)	A453 (S)	294	356	-62	-17%	3.44	Pass
Junction 2	A453 (N)	A50	405	342	63	18%	3.26	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	11	11	0	0%	0.00	Pass
Junction 2	A453 (N)	M1 J24 (N)	263	258	5	2%	0.31	Pass
Junction 2	Derby Road	M1 J24 (S)	51	57	-6	-11%	0.82	Pass
Junction 2	Derby Road	A453 (S)	88	86	2	2%	0.21	Pass
Junction 2	Derby Road	A50	135	123	12	10%	1.06	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	87	89	-2	-2%	0.21	Pass
Junction 2	Derby Road	A453 (N)	57	58	-1	-2%	0.13	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A50	1089	1051	38	4%	1.16	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	14	14	0	0%	0.00	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (S)	A453 (N)	528	666	-138	-21%	5.65	Fail
Junction 2	M1 J24 (S)	Derby Road	76	90	-14	-16%	1.54	Pass
Junction 2	A453 (S)	A50	999	943	56	6%	1.80	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	5	3	2	67%	1.00	Pass
Junction 2	A453 (S)	M1 J24 (N)	323	346	-23	-7%	1.26	Pass
Junction 2	A453 (S)	A453 (N)	256	210	46	22%	3.01	Pass
Junction 2	A453 (S)	Derby Road	41	33	8	24%	1.32	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	15	16	-1	-6%	0.25	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	20	22	-2	-9%	0.44	Pass
Junction 2	Hilton Hotel Lane	Derby Road	10	9	1	11%	0.32	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	8	8	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	4	3	1	33%	0.53	Pass
Junction 2	Hilton Hotel Lane	A50	11	10	1	10%	0.31	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	77	75	2	3%	0.23	Pass
Junction 3	A453 (N)	A453 (S)	305	189	116	61%	7.38	Fail
Junction 3	A453 (N)	Wilders Way	243	206	37	18%	2.47	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	132	130	2	2%	0.17	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	402	389	13	3%	0.65	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	389	382	7	2%	0.36	Pass
Junction 3	A453 (S)	Wilders Way	90	120	-30	-25%	2.93	Pass
Junction 3	A453 (S)	A453 (N)	1026	942	84	9%	2.68	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	187	237	-50	-21%	3.43	Pass
Junction 3	Wilders Way	A453 (N)	221	206	15	7%	1.03	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	19	19	0	0%	0.00	Pass
Junction 3	Wilders Way	A453 (S)	140	137	3	2%	0.25	Pass

	<5
Fail	4
Pass	55
Total	59
%	93%



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Project

East Midlands Gateway Phase 2

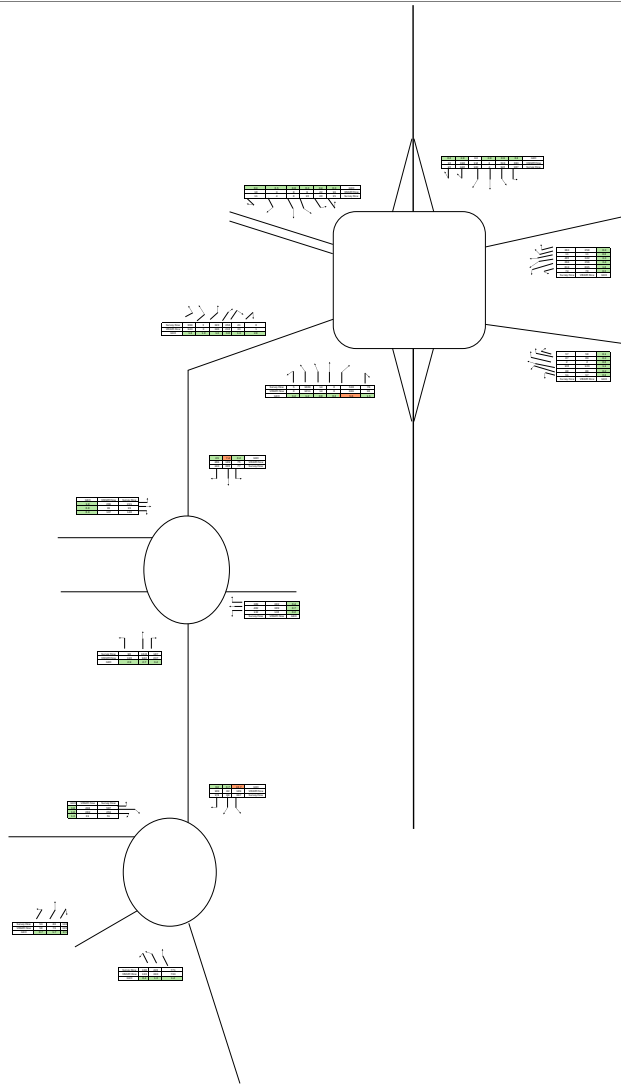
Drawing Title

GEM Comparison AM

Drawn	CC	Approved	VD
Checked	CC	Date	26.06.25

Project Number

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Project

East Midlands Gateway Phase 2

Drawing Title

GEM Comparison PM

Drawn	CC	Approved	VD
Checked	CC	Date	26.06.25

Project Number

220500

APPENDIX 45: National Highways Technical Note agreeing base Junctions 11 models

Tech Note

Spatial Planning Framework Commission

Prepared by Jacobs-SYSTRA Joint Venture (JSJV) for the National Highways National Spatial Planning Contract 2021 in relation to the South East Region



Job number:	B2428400		
Job title:	East Midlands Gateway Phase 2		
To:	Paul Wilson (BWB), Matt Corner (BWB), Vibeeshan Devaharan (BWB) and Ian Rigby (Segro).	cc:	Catherine Townend (NH) & Steve Freek (NH). EMG2 TWG (Highway Authorities only).
Topic:	Base Junction Models Review - EMG2		
	Prepared:	Checked	Approved
Name:	L Templeman	A Chandler-Hurst	G Nock
Date:	3 rd June 2024	3 rd June 2024	5 th June 2024

Introduction

BWB have prepared a series of isolated junction models as part of the emerging Transport Assessment for the East Midlands Gateway Phase 2 development. National Highways has commissioned JSJV to carry out a review of the existing situation / base (ARCADY, LinSig and PICADY) models in relation to the Strategic Road Network (SRN).

Purpose of Audit

The aim of the model audit is to ensure that the supplied models have been developed in accordance with best practice, are a reasonable and robust approximation of the actual highway network and are sufficiently well calibrated and validated to observed flows and conditions.

This review has been undertaken in relation to junctions on or close to the SRN.

Items Reviewed

The following items have been supplied, via WeTransfer on 26th January 2024 and 1st February 2024, for the purposes of the model audit which include junction models for 12 different sites comprising a mix of signalised junctions (LinSig), roundabouts (ARCADY) and major-minor priority junctions (PICADY):

- EMG2-BWB-GEN-XX-RP-TR-0007_Modelling Validation Report_P1.pdf;
- **Junction 6:** 230124 A453_Airport Access Signal Junction (BASE ONLY).lsg3x (LinSig model);

- **Junction 6:** A453 East Midlands Airport Entrance controller specification;
- **Junction 7:** 230124 A453_Grimes Gate (BASE ONLY).j10 (PICADY model);
- **Junction 7:** A453_Grimes Gate PICADY Measurements.pdf;
- **Junction 8:** Import of 230124 A453_The Green (BASE ONLY).j10 (PICADY model);
- **Junction 8:** A453_The Grn PICADY Measurements.pdf;
- **Junction 9:** 230124 A453_EMA Roundabout (BASE ONLY).j10 (ARCADY model);
- **Junction 9:** A453_EMA Roundabout ARCADY Measurements.pdf;
- **Junction 11:** A453_Gelscoe Lane_Top Brand roundabout (BASE ONLY).j10 (ARCADY model);
- **Junction 11:** Junction Measurements-Layout1.pdf;
- **Junction 10:** 230124 A453_Local Road Signal Junction (BASE ONLY).lsg3x (LinSig model);
- **Junction 10:** A454 Copice Corner junction layout drawing and controller specification;
- **Junction 12:** M1 Junction 23 (BASE ONLY).lsg3x (LinSig model);
- **Junction 12:** M1 Junction 23 layout drawing and controller specification;
- **Junction 13:** A50 Junction 1 (BASE ONLY).lsg3x (LinSig model);
- **Junction 13:** A50 J1 traffic signal information layout (controller configuration and MOVA data);
- **Junction 14:** M1 Junction 25 (BASE ONLY).lsg3x (LinSig model);
- **Junction 14:** M1 Junction 25 controller specification documents;
- **Junction 15:** Import of Station Road_Broad Rushes roundabout (BASE ONLY).10 (ARCADY model);
- **Junction 15:** [Station Road_Broad Rushes roundabout] Junction Measurements-Layout1.pdf
- **Junction i:** Import of West Leake Lane.j10 (ARCADY model);
- **Junction i:** A453_West Leake Lane ARCADY Measurements-BWB_A1_H;
- **Junction ii:** Import of A453 Kegworth Road.j10 (ARCADY model);
- **Junction ii:** Junction Measurements Kegworth Road-BWB_A1_H.pdf;

Updated models (where models required revision) were received from BWB on 5th April 2024 with further comments issued by JSJV on 19th April 2024.

A further, and final, re-submission from BWB addressing the outstanding comments on the base models was received on 14th May 2024.

Methodology

Issues are categorised according to the categories in Table 1: -

Table 1: Review Categorisations

Classification	Description
Observations	are points for consideration on an issue that would not significantly affect model operation or output.
Comments	which may identify particular assumptions, technical approaches or guidance references which may be deemed inadequate but may not influence the result of the analysis. The main function is to highlight such issues for attention in subsequent project stages or for future projects.
Substantive Issues	which require corrective action. The audit will suggest the detailed action required to address the issue, although there should be freedom for the model development team to use alternative approaches in order to achieve the required level of analysis.

Model Audit

The findings from the junction model audits are shown in the comment tracker table contained in **Appendix A**. The comments have been updated following successive update submissions from BWB over a number of iterations with the responses from BWB and their consideration by JSJV fully detailed in the table.

Summary

This Technical Note details the findings of a review of 12 existing situation / base (ARCADY, LinSig and PICADY) junction models prepared by BWB in support of the East Midlands Gateway Phase 2 development.

Following a number of re-submissions to address the comments raised in the initial audit and further review-work, the models are now considered suitable for their use in assessing the impacts of the East Midlands Gateway Phase 2 development on the SRN.

It is recommended that approval/ views are sought from the relevant Local Highway Authorities with regards to the junction models of the respective local road network junctions.

Appendix A: Model Audit Comment Tracker

APPENDIX 46: Modelling Furnessing Approach (document reference EMG2-BWB-GEN-XX-RP-TR-0004_S2-P6)

Project Name	East Midlands Gateway, Phase 2		
Document Number	EMG2-BWB-GEN-XX-RP-TR-0004	BWB Ref	220500
Author	Matt Corner	Status	S2
Checked	Vibeeshan Devaharan	Revision	P6
Approved	Paul Wilson	Date	04.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd have been appointed by SEGRO ("the Applicant") to provide highways and transport planning advice on a proposed Phase 2 Expansion of the East Midlands Gateway (EMG) site. The site comprises 430,000sqm of industrial development across the following sites:

- 400,000sqm of B2/B8 industrial development on EMG2, including 100,000sqm of B8 mezzanine floorspace.
- 30,000sqm of B8 industrial development on Plot 16 of EMG1.

1.2 It has been agreed with the Transport Working Group for the development impacts to be assessed using the East Midlands Freeport Model (PRTM) – a cordon of the wider Pan Regional Transport Model (PRTM). This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment. It therefore facilitates the transition from strategic to local junction modelling.

1.3 This revision of the Technical Note (Revision P4) follows the completion of an update of the PRTM base and future forecast modelling scenarios and output information. It therefore adopts the following structure:

- **Section 2: Proposed Methodology** – sets out the furnessing methodology options and the strategy that will be undertaken to determine the most appropriate methodology to derive the future forecast traffic flows.
- **Section 3: Future Forecast Traffic Flows** – provides more detail on the methodology used to derive future forecast traffic flows.
- **Section 4: Development Traffic** – sets out how the development traffic will be accounted for in the VISSIM modelling
- **Section 5: Committed Traffic** – sets out how the East Midlands Point committed development traffic will be accounted for in the VISSIM modelling
- **Section 6: Traffic Flow Data Set** – sets out the various dataset outputs provided from the PRTM and explains the dataset used in the furnessing calculations.
- **Section 7: VISSIM Modelling** – sets out the methodology of extracting PRTM cordon matrices for the VISSIM modelling work.

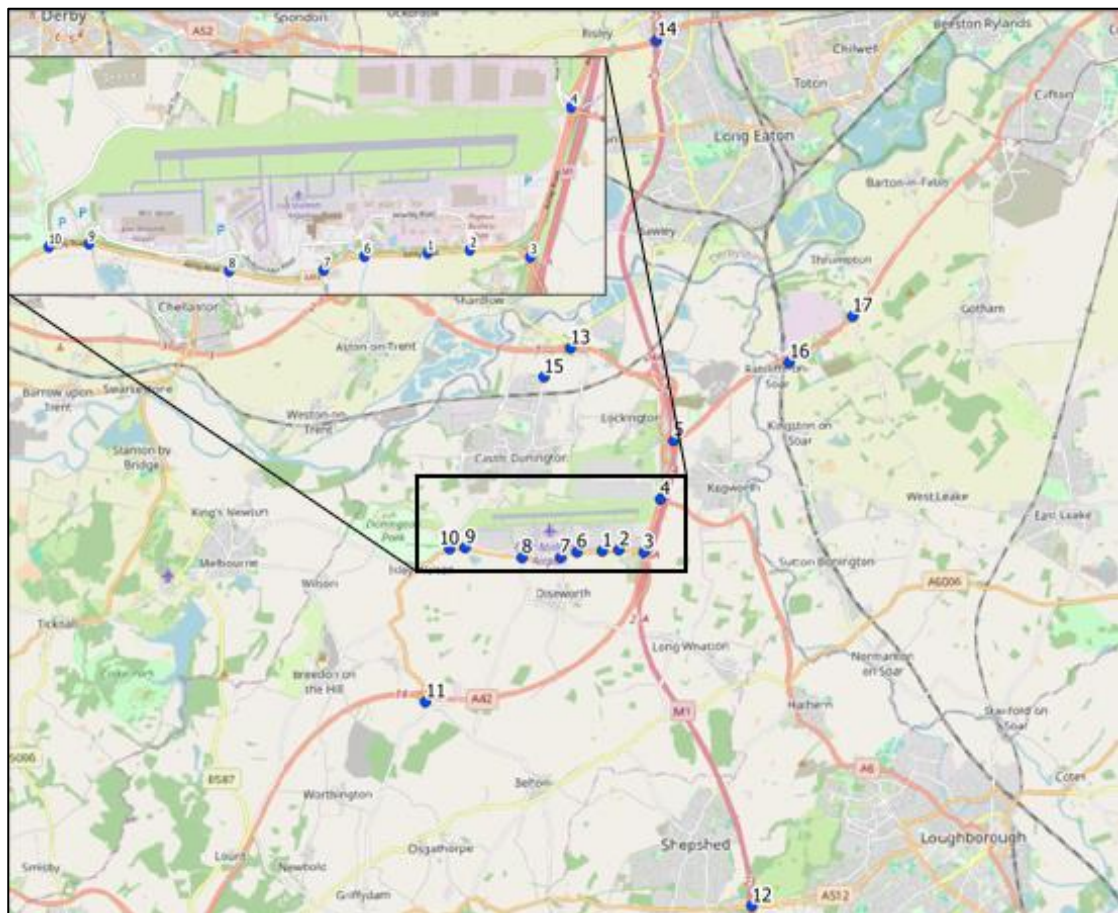
- **Section 8: Traffic Flow Furnessing** – sets out the future forecast traffic flows derived using the preferred methodology and for input into the detailed junction models. It also includes an example as to how the flows have been furnished.
- **Section 9: Summary** – summarises the key conclusions of this Technical Note.

2. PROPOSED METHODOLOGY

Traffic Data and Model Outputs

- 2.1 Manual classified turning counts were commissioned in November 2022 and May 2023 at 16 junctions across the highway network (with the proposed site access roundabout on the A453 forming the 10th junction). These surveys therefore provide observed turning movements which will be used as part of the furnessing procedure to derive future forecast traffic flows and are listed below. The raw survey data for the 16 existing junctions is also appended at the corresponding locations as set out below, whilst the locations are shown at **Figure 1**.

Figure 1. Study Area



November 2023 Surveys

- Junction 2: A453/Hunter Road roundabout (**Appendix 1**)

- Junction 3: Finger Farm roundabout (**Appendix 2**)
- Junction 4: EMGP1 gyratory (**Appendix 3**)
- Junction 5: M1 Junction 24 (**Appendix 4**)
- Junction 6: A453/Grimes Gate priority junction (**Appendix 5**)
- Junction 7: A453/The Green priority junction (**Appendix 6**)
- Junction 8: A453/East Midlands Airport signal junction (**Appendix 7**)
- Junction 9: A453/East Midlands Airport roundabout (**Appendix 8**)
- Junction 10: A453/Walton Hill signal junction (**Appendix 9**)
- Junction 12: M1 Junction 23 (**Appendix 10**)

May 2023 Surveys

- Junction 11: A42 Junction 14 on-slip/A453/Top Brand/Gelscoe Lane Roundabout (**Appendix 11**)
- Junction 13: A50 Junction 1 (**Appendix 12**)
- Junction 14: M1 Junction 25 (**Appendix 13**)
- Junction 15: Station Road/Broad Rushes Roundabout (**Appendix 14**)
- Junction 16: A453/Kegworth Road Roundabouts (**Appendix 15**)
- Junction 17: A453/Barton Lane/West Leake dumbbell Roundabouts (**Appendix 16**)

- 2.2 The EMFM was updated to a 2019 base year and outputs are being provided for 2022, 2023, 2024, 2028 and 2038 scenarios. Hence, an initial comparison will be undertaken between the 2022 observed counts and 2022 flows from the PRTM to understand turning count validation, details of which are provided in the next section.

Traffic Flow Validation

- 2.3 The first step in understanding the most appropriate furnessing methodology is to compare the 2022 traffic flows from the PRTM against observed counts to provide an indication of the statistical significance of any differences. This has been undertaken using the GEH Statistics formula. The formula is set out below where M is the hourly traffic volume of the PRTM and C is the hourly traffic volume from the observed count.

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

- 2.4 It is generally accepted that a GEH value below 5 represents a good correlation between the two datasets. Details of the analysis for all 10 junctions highlighted in Paragraph 2.1 has been presented in Section 3.

Traffic Flow Furnessing Options

- 2.5 Originally, four possible methodologies for furnessing the PRTM model outputs to derive future forecast traffic flows were being considered. The following details provide a brief overview of each option, highlighting the benefits and potential downfalls of each one.

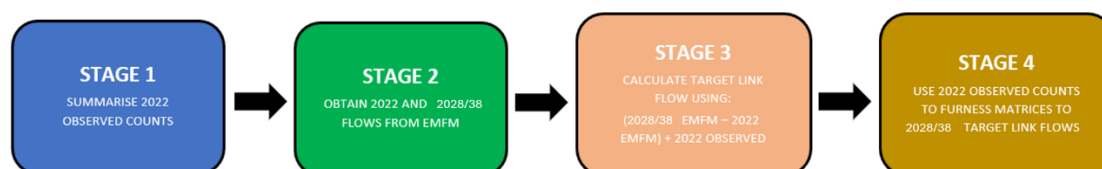
Option 1 – Extraction of target entry and exit flows directly from PRTM

- 2.6 Option 1 involves taking the future year traffic flows directly from the PRTM. This option would only be suitable if the 2022 turning counts compare well against the PRTM base year flows i.e. GEH less than 5.
- 2.7 The benefit of this method is the reduced number of assumptions applied to derive the target trip ends. Notwithstanding this, during a meeting with the Transport Working Group on 12 January 2023, Leicestershire County Council raised concern with this methodology suggesting that whilst the PRTM is well validated against observed link data, it is not calibrated/validated against individual turning movements and hence this option would unlikely be acceptable.

Option 2 – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts

- 2.8 Option 2 involves calculating the percentage difference between the 2022 base and 2028/2038 future PRTM flows and applying the percentage growth directly to the 2022 observed counts at turning movement level. This option has the potential to significantly exacerbate future traffic flows and hence will need to be undertaken alongside a manual assessment.
- 2.9 For example, should the PRTM traffic flows show a turning movement of 1 vehicle in the base year (2022) increasing to 5 movements in the future year (2038), then this equates to a 500% increase. If the 500% increase is applied to a turning movement of 20 vehicles recorded from an observed count then this would result in 100 movements at the future year, which could be a significant overestimate. The four stage methodology involved with Option 2 is shown in **Figure 2**.

Figure 2: Option 2 Furnessing Methodology

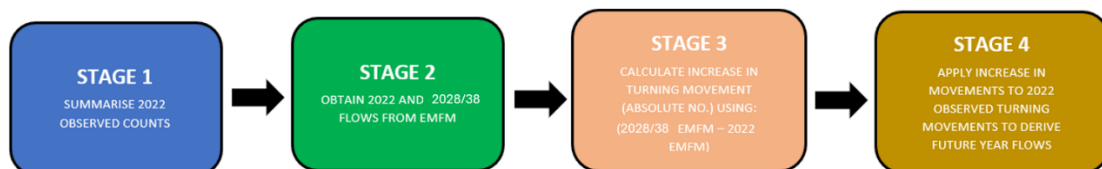


Option 3 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts

- 2.10 Option 3 calculates the difference between the 2022 base and 2028/2038 future PRTM flows in absolute numbers and applies the increase directly to the 2022 observed counts. This option would only be suitable if the 2022 observed counts show good levels of

correlation against the 2022 PRTM base flows using the GEH Statistics formula. The four stage furnessing methodology for Option 3 is shown in **Figure 3**.

Figure 3: Option 3 Furnessing Methodology



Option 4 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase proportionately to the 2022 observed turning counts

- 2.11 Option 4 involves adding the difference in link flows between the 2022 base and 2028/38 future PRTM to the 2022 observed link flows to derive a target link flow. The target link flow is applied proportionally in accordance with the observed turning movements to derive forecast traffic flow matrices. The four stage furnessing methodology for Option 4 is shown in **Figure 4**.

Figure 4: Option 4 Furnessing Methodology



3. FUTURE FORECAST TRAFFIC FLOWS

GEH Statistics

- 3.1 To start with, a comparison was made between the latest received 2022 PRTM flows and the 2022 observed counts to understand the statistical significance of any differences. This was undertaken for Junctions 1 to 9 which formed the original study area. To do this, an Excel spreadsheet was sent separately comparing light and heavy goods vehicle turning movements for both peak hours. The formula set out at Paragraph 2.3 was then applied to compare the two datasets.
- 3.2 A copy of the calculations is included at **Appendix 17**, which shows that all junctions have turning movements with a GEH value in excess of 5 and hence outside of the criteria for where there is a good level of correlation. On this basis, the furnessing options 1 and 3 detailed in Section 2 have been disregarded.

- 3.3 The percentage growth between PRTM base and forecast years were calculated; however, this resulted in large overestimations as described in Paragraph 2.11. Option 4 has however still been utilised to furnish forecast traffic flow matrices.

Furnessing Methodology

- 3.4 The furnessing approach for Option 4 has been built using an MS Excel macro using VBA to ensure an extensive spreadsheet is not required to display every iteration of the furnessing. This also ensures that the methodology is consistent between all furnished matrices. A summary of the process undertaken by the macros is provided below.
- Column adjustment: calculate turning counts across columns using survey data proportions in combination with the target link flow out of each arm.
 - Sum row: calculate the sum of each arm row total.
 - Row adjustment: calculate turning counts across rows using survey data proportions in combination with the target link flow into each arm.
 - Sum column: calculate the sum of each column.
 - Round all values in the matrix to the closest integer.
 - Update sums for column and row total.
 - Repeat the above 'x' number of iterations until the flows converge.
- 3.5 The macro has been built to run the furnessing 20 times for each matrix, however it should be noted that every time the macro is executed, it runs an additional 20 times. The furnessing spreadsheet therefore has been run for at least 20 iterations. The furnessing methodology has been double constrained, i.e. both origin and destination and the traffic flow matrices are furnished until link flows are within a GEH of 5.
- 3.6 Additional matrices are provided to calculate the absolute difference and percentage difference between the forecast and furnished link flows for each scenario respectively. A review of these indicates that this is considered to be convergent with the accepted furnessing methodology.
- 3.7 For certain turning movements there is expected to be negative growth. The PRTM assigns vehicle routes based on delays and cost of journey and therefore some movements may experience a reduction in flows. The negative growth forecast by PRTM will also be taken into account during furnessing as excluding this would overestimate impacts at junctions.
- 3.8 Due to high volumes of traffic that travel on the motorways and key A-roads there is the potential for these numbers to affect the furnessing outputs. As the furnessing process is based on turning proportions, the large motorway flows could cause the furnessing to assign traffic that would use the junctions to the motorway mainline movements instead.
- 3.9 Therefore, the M1 and A42 mainline flows have been removed and furnished separately to avoid any re assignment.

National Highway's Review

- 3.10 All the forecast modelling inputs have yet to be accepted and signed off by National Highway (NH) and therefore, are potentially subject to change. As a result of this, this Furnessing Approach report will be revised once NH and any other highway authority have accepted and signed off the modelling inputs methodology with the agreed information.

4. DEVELOPMENT TRAFFIC

- 4.1 Strategic models reroute traffic in response to congestion within the network. To ensure the true impact of the development is modelled and mitigation is provided along the main routes that the development traffic would take, rather than rerouting via smaller junctions. The distribution of development traffic was extracted from the PRTM model, and it is proposed that the assignment of development traffic is assigned manually to exclude for any rerouting of traffic as a result the proposed development.
- 4.2 It was noticed that in the latest PRTM outputs that 7% of development car trips are originating/travelling to East Midlands Airport. This was queried this with AECOM/LCC NDI and it is because EMA is a zone in PRTM. Therefore, it is proposed to proportionately distribute the 7% of traffic to/from EMA along the seven highest other routes as set out to the TWG.

5. COMMITTED DEVELOPMENT TRAFFIC

- 5.1 The East Midlands Point committed development off Finger Farm roundabout has been included in the PRTM modelling however as the development is not operational, there are no surveyed flows associated with the development. As such, the forecast traffic flows associated with the development has been directly extracted from the PRTM VISSIM cordon matrices and will be utilised for assessment in VISSIM.

6. TRAFFIC FLOW DATA SET

- 6.1 BWB was provided a copy of both 'Actual' and 'Demand' flow datasets by AECOM. Demand flow within SATURN does not assume a fully unconstrained network, both demand and actual flow account for all network constraints i.e. congestion, etc. and include for rerouting within the network.
- 6.2 Demand flow can be considered as the flow from the model assignment within the modelled period, independent of when the flow arrives i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900, demand flow will be displayed as 100.
- 6.3 On the contrary, actual flows can be considered as the flow that reaches a particular link or turn during the simulated time, i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900 however 20 vehicles are unable to get to the link within the modelled time due to constraints elsewhere in the network, actual flows will be displayed as 80 vehicles.

- 6.4 Discussions were held with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised within the modelling therefore all furnessing has been undertaken utilising 'Actual' flow data.

7. VISSIM MODELLING

- 7.1 A VISSIM model has been developed for the following junctions.
- i. M1 J24;
 - ii. M1 J24a southbound merge onto the M1 and M1 junction 24;
 - iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
 - iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
 - v. A453/Hunter Road/minor EMG Phase 2 access roundabout;
 - vi. A453/EMG Phase 2 site access roundabout.
- 7.2 Subsequently cordoned model flows have been obtained from AECOM to furnish the traffic flows for each of the junctions in the VISSIM network in line with furnessing methodology Option 4 to derive forecast modelling traffic flow matrices.

Post Stage 1a Modelling

- 7.3 Stage 1a modelling comprises of 2028/38 forecast years with committed development, proposed development and Local Plan allocations
- 7.4 Upon receiving the Stage 1a VISSIM Cordon modelling outputs from AECOM, a review of the data was undertaken to determine if the PRTM model outputs were coherent and that there was no unforeseen increase/decrease in flows on the links within the VISSIM network.
- 7.5 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously. A proportion of the reduction in flows between the 2022 datasets were as a result of lower traffic flows accessing/egressing the EMG 1 site having previously considered such informatio in greater detail. The EMG1 traffic flows are more in line with that set out in the planning application. However, in addition to this, reduction in flows were noted primarily on the A42 and M1 S approach arms.
- 7.6 The agreed furnessing methodology, Option 4, calculates the flow difference between 2022 base and forecast modelling scenarios and adds the increase/decrease in traffic to the observed link flows. Therefore a lower 2022 base would provide a higher furnessed link flow to be modelled in VISSIM.
- 7.7 Whilst this approach has been retained, an additional comparison has been undertaken between the furnessed link flows and PRTM link flows by way of considering flows forecast to travel along each link in 2038. This is illustrated in **Table 1** below.

Link No	Link Name	AM Origin Total			PM Origin Total		
		Furnished Target Flows	2038 Raw Link Flows	Diff	Furnished Target Flows	2038 Raw Link Flows	Diff
1	A50	2720	2650	-70	1926	2884	+958
2	M1 North	5957	4558	-1399	5309	4011	-1298
3	A453 Remembrance Way	1769	2163	+394	2112	2364	+252
4	Derby Road	684	857	+173	639	938	+299
5	Hilton Lane	493	524	+31	342	446	+104
6	Keg Worth Bypass	1028	1008	-20	1045	1083	+38
7	M1 South	5253	5160	-93	5710	5286	-424
8	A42	2895	2793	-102	2164	2547	+383
9	A453	614	670	+56	948	959	+11
10	Wilders Way	217	202	-15	655	842	+187
11	Services	259	0	-259	268	0	-268
12	Hunter Road	107	106	-1	263	411	+148

- 7.8 Therefore, the scenarios will be tested within VISSIM to determine if the mitigation still provides the benefits envisaged within the internal testing.

Post Stage 2 Modelling

- 7.9 Stage 2 modelling comprises of 2028/38 forecast years with committed development, proposed development and Local Plan allocations with the proposed mitigation scheme that have been determined as a result of the Stage 1 VISSIM Modelling.
- 7.10 Upon receiving the Stage 2 outputs, the outputs were furnished using option 4 methodology but as option 4 is based on the survey turning proportions it was not encapsulating the rerouting of traffic due to the mitigation strategy and provided unrealistic O-D Matrices.
- 7.11 Therefore, a alternative methodology has been applied to Stage 2 furnessing which is instead of the target flows being just the total of each link proportioned against the survey, each turning movement is to be the target flow using the formula (Forecast PRTM – 2022 PRTM Base) + 2022 Survey based on the corden VISSIM output O-D for each forecast assessment year.

8. TRAFFIC FLOW FURNESSING

- 8.1 Future forecast traffic flows for the 2028 and 2038 assessment years have been derived in line with the Option 4 methodology, using outputs from the PRTM and the survey data (noting the junctions included in VISSIM have used separate outputs from the cordon model flows).
- 8.2 A copy of the furnessing spreadsheet has been issued separately which show that the vast majority of link flows are converged so that furnished link flows are within a GEH of 5 of calculated link flows. In calculating the final Passenger Car Unit (PCU) flows, a PCU

factor of 2.0 has been applied to all HGVs and 1.0 for light vehicles, which mirrors the PRTM for consistency.

- 8.3 A worked example of how the traffic flows have been furnished is shown on the 'Furness Process' tab within the spreadsheets.

9. SUMMARY

- 9.1 This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment.
- 9.2 To understand how the 2022 PRTM flows compare to the 2022 observed counts at each junction, the GEH Statistics formula has been used to provide an indication of the statistical significance of any differences. This will then provide a gauge as to which of the four furnessing methodologies considered up until this point is most appropriate, which are summarised below:
- **Option 1** – Extraction of target entry and exit flows directly from PRTM
 - **Option 2** – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts
 - **Option 3** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts
 - **Option 4** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase proportionately to the 2022 observed turning counts
- 9.3 A comparison of GEH indicated that several movements for all surveyed junctions did not meet the GEH threshold therefore Options 1 and 3 had been discounted.
- 9.4 Furthermore, a review of the percentage increase between PRTM base and forecast traffic flow matrices was calculated however this resulted in a significant overestimate of traffic flow movements in some instances therefore Option 2 has also been discounted.
- 9.5 Based on the above, it is considered that Option 4 is the most appropriate furnessing methodology to be utilised in this instance.
- 9.6 Discussions were undertaken with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised in the forecast modelling scenarios.
- 9.7 Additionally, NH was consulted on the approach to utilise forecast flows within the VISSIM modelling and it was concluded that a cordon of the VISSIM extent should be used to extract OD flows from PRTM. Subsequently Option 4 furnessing methodology will be used to derive forecast traffic flow matrices.
- 9.8 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously.

The agreed Option 4 furnessing methodology would provide a higher furnessed link flow to be modelled in VISSIM as a result.

- 9.9 A alternative methodology has been applied to Stage 2 furnessing which is instead of the target flows being just the total of each link proportioned against the survey, each turning movement is to be the target flow.
- 9.10 The scenarios will be tested within VISSIM to determine if the suggested mitigation still provides significant benefits. The final furnessed traffic flows at this stage of the process for the forecast years have been provided within separate spreadsheets.

National Highway's Review

- 9.11 All the forecast modelling inputs have yet to be accepted and signed off by National Highway (NH) and therefore, are potentially subject to change. As a result of this, this Furnessing Approach report will be revised once NH and any other highway authority have accepted and signed off the modelling inputs methodology with the agreed information.

APPENDIX 1 – A453/Hunter Road Roundabout Turning Count Results

East Midlands Gateway
Thursday 3rd November 2022
Junction: 3
Approach: Hunter Road

TIME	Left to A453 (E)									Right to A453 (W)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	23	1	0	1	3	28	32.3	0	0	6	0	1	0	0	7	7.5
07:15 - 07:30	0	0	16	0	2	1	0	19	21.3	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	17	4	4	0	4	29	35.0	0	0	6	0	0	0	0	6	6.0
07:45 - 08:00	0	0	16	0	0	0	1	17	18.0	0	0	3	2	0	0	0	5	5.0
Hourly Total	0	0	72	5	6	2	8	93	106.6	0	0	17	2	1	0	0	20	20.5
08:00 - 08:15	0	0	23	3	2	3	2	33	39.9	0	0	6	4	0	0	0	10	10.0
08:15 - 08:30	0	0	19	7	0	1	1	28	30.3	0	0	5	0	0	0	0	5	5.0
08:30 - 08:45	0	0	28	4	2	0	2	36	39.0	0	0	5	1	0	0	0	6	6.0
08:45 - 09:00	0	0	9	3	2	2	2	18	23.6	0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	79	17	6	6	7	115	132.8	0	0	16	6	0	0	0	22	22.0
09:00 - 09:15	0	0	4	1	1	2	2	10	15.1	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	11	5	2	0	3	21	25.0	0	0	2	2	2	0	0	6	7.0
09:30 - 09:45	0	0	13	6	2	0	1	22	24.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	5	3	1	0	4	13	17.5	0	0	2	0	0	1	0	3	4.3
Hourly Total	0	0	33	15	6	2	10	66	81.6	0	0	8	3	2	1	0	14	16.3

TOTAL	0	0	184	37	18	10	25	274	321.0	0	0	41	11	3	1	0	56	58.8
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16:00 - 16:15	0	0	118	6	0	3	4	131	138.9	0	0	20	0	0	0	0	20	20.0
16:15 - 16:30	0	0	70	4	1	3	1	79	84.4	0	0	6	0	0	0	1	7	8.0
16:30 - 16:45	0	0	80	7	0	1	1	89	91.3	0	0	12	0	0	0	0	12	12.0
16:45 - 17:00	0	0	64	1	1	1	3	70	74.8	0	0	6	0	0	0	1	7	8.0
Hourly Total	0	0	332	18	2	8	9	369	389.4	0	0	44	0	0	0	2	46	48.0
17:00 - 17:15	0	0	101	3	1	1	2	108	111.8	0	0	14	0	0	0	0	14	14.0
17:15 - 17:30	0	0	85	7	2	2	1	97	101.6	0	0	7	1	0	0	0	8	8.0
17:30 - 17:45	0	0	60	7	2	2	1	72	76.6	0	0	5	0	0	0	0	5	5.0
17:45 - 18:00	0	0	64	8	1	4	0	77	82.7	0	0	7	0	1	0	0	8	8.5
Hourly Total	0	0	310	25	6	9	4	354	372.7	0	0	33	1	1	0	0	35	35.5
18:00 - 18:15	0	0	41	2	0	0	3	46	49.0	0	0	7	0	0	0	0	7	7.0
18:15 - 18:30	0	0	38	3	0	1	2	44	47.3	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	29	0	2	8	1	40	52.4	0	0	1	1	0	0	0	2	2.0
18:45 - 19:00	0	0	23	0	1	2	3	29	35.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	131	5	3	11	9	159	183.8	0	0	9	1	0	0	0	10	10.0

TOTAL	0	0	773	48	11	28	22	882	945.9	0	0	86	2	1	0	2	91	93.5
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 3
 Approach: A453 East

	Ahead to A453 (W)									Right to Hunter Road								U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	118	18	6	4	0	146	154.2	0	1	29	1	0	3	1	35	39.3	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	99	28	6	3	0	136	142.9	0	0	38	0	2	1	2	43	47.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	135	15	2	7	0	159	169.1	0	0	54	4	1	3	3	65	72.4	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	101	14	5	5	1	126	136.0	0	0	102	3	1	2	2	110	115.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	453	75	19	19	1	567	602.2	0	1	223	8	4	9	8	253	274.1	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	102	15	3	5	0	125	133.0	0	1	81	8	2	0	1	93	94.4	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	127	16	3	9	0	155	168.2	0	0	108	6	1	0	1	116	117.5	0	0	0	1	0	0	0	1	1.0
08:30 - 08:45	0	0	122	19	8	6	2	157	170.8	0	0	96	5	0	0	2	103	105.0	0	0	2	1	0	0	0	3	3.0
08:45 - 09:00	0	0	97	16	4	4	0	121	128.2	0	0	82	4	1	1	0	88	89.8	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	448	66	18	24	2	558	600.2	0	1	367	23	4	1	4	400	406.7	0	0	3	2	0	0	0	5	5.0
09:00 - 09:15	0	0	77	11	7	4	1	100	109.7	0	1	78	6	1	3	3	92	98.8	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	58	13	5	5	0	81	90.0	0	0	68	4	1	2	2	77	82.1	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	1	53	8	4	7	0	73	83.5	0	0	31	4	3	2	2	42	48.1	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	2	41	12	6	9	1	71	85.5	0	0	31	7	1	1	2	42	45.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	3	229	44	22	25	2	325	368.7	0	1	208	21	6	8	9	253	274.8	0	0	8	1	0	0	0	9	9.0
TOTAL	0	3	1130	185	59	68	5	1450	1571.1	0	3	798	52	14	18	21	906	955.6	0	0	11	3	0	0	0	14	14.0
16:00 - 16:15	0	0	92	14	3	7	0	116	126.6	0	0	18	2	1	1	3	25	29.8	0	0	3	1	1	0	0	5	5.5
16:15 - 16:30	0	0	83	13	1	8	0	105	115.9	0	0	21	3	4	2	2	32	38.6	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	92	24	3	4	0	123	129.7	0	0	16	2	0	1	1	20	22.3	0	0	1	2	0	0	0	3	3.0
16:45 - 17:00	0	0	122	27	2	3	1	155	160.9	0	0	18	2	0	2	2	24	28.6	0	0	2	2	0	0	0	4	4.0
Hourly Total	0	0	389	78	9	22	1	499	533.1	0	0	73	9	5	6	8	101	119.3	0	0	7	5	1	0	0	13	13.5
17:00 - 17:15	0	2	120	12	4	2	0	140	143.4	0	0	15	4	2	1	1	23	26.3	0	0	3	0	1	0	0	4	4.5
17:15 - 17:30	0	0	112	15	6	5	0	138	147.5	0	0	27	3	0	3	3	36	42.9	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	102	14	3	2	0	121	125.1	0	0	26	2	1	0	2	31	33.5	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	98	13	3	1	0	115	117.8	0	0	29	4	1	2	0	36	39.1	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	2	432	54	16	10	0	514	533.8	0	0	97	13	4	6	6	126	141.8	0	0	10	0	1	0	0	11	11.5
18:00 - 18:15	0	0	92	12	2	3	0	109	113.9	0	0	19	4	0	2	2	27	31.6	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	103	10	3	2	0	119	122.5	0	0	24	2	0	6	3	35	45.8	0	0	2	0	0	0	0	2	2.0
18:30 - 18:45	0	2	77	6	2	2	0	89	91.4	0	0	13	1	1	1	0	16	17.8	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	69	5	2	5	0	81	88.5	0	0	27	3	2	1	3	36	41.3	0	0	0	0	0	1	0	1	2.3
Hourly Total	0	3	341	33	9	12	0	398	416.3	0	0	83	10	3	10	8	114	136.5	0	0	6	0	0	1	0	7	8.3
TOTAL	0	5	1162	165	34	44	1	1411	1483.2	0	0	253	32	12	22	22	341	397.6	0	0	23	5	2	1	0	31	33.3

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 3

Approach: A453 West

	Left to Hunter Road									Ahead to A453 (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	3	1	1	0	0	5	5.5	0	0	64	11	2	9	0	86	98.7
07:15 - 07:30	0	0	9	1	0	0	0	10	10.0	0	2	99	21	6	7	0	135	145.9
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	1	100	17	5	14	0	137	157.1
07:45 - 08:00	0	0	25	0	1	0	0	26	26.5	0	0	103	17	4	5	1	130	139.5
Hourly Total	0	0	40	2	2	0	0	44	45.0	0	3	366	66	17	35	1	488	541.2
08:00 - 08:15	0	0	10	0	0	0	0	10	10.0	0	0	103	26	3	8	1	141	153.9
08:15 - 08:30	0	0	12	0	0	0	0	12	12.0	0	0	117	28	6	12	1	164	183.6
08:30 - 08:45	0	0	7	1	0	0	0	8	8.0	0	0	66	19	5	12	1	103	122.1
08:45 - 09:00	0	0	8	1	0	0	0	9	9.0	0	0	65	9	4	14	1	93	114.2
Hourly Total	0	0	37	2	0	0	0	39	39.0	0	0	351	82	18	46	4	501	573.8
09:00 - 09:15	0	0	11	1	0	0	0	12	12.0	0	0	48	7	9	7	0	71	84.6
09:15 - 09:30	0	0	3	0	0	0	0	3	3.0	0	1	38	11	4	6	1	61	71.2
09:30 - 09:45	0	0	2	0	0	0	0	2	2.0	0	0	27	11	6	5	1	50	60.5
09:45 - 10:00	0	0	6	0	0	0	0	6	6.0	0	0	37	10	2	7	0	56	66.1
Hourly Total	0	0	22	1	0	0	0	23	23.0	0	1	150	39	21	25	2	238	282.4

TOTAL	0	0	99	5	2	0	0	106	107.0	0	4	867	187	56	106	7	1227	1397.4
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16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	0	110	18	5	8	0	141	153.9
16:15 - 16:30	0	0	2	0	0	0	0	2	2.0	0	0	98	17	5	1	0	121	124.8
16:30 - 16:45	0	0	4	0	0	0	0	4	4.0	0	0	122	17	2	3	0	144	148.9
16:45 - 17:00	0	0	3	2	0	0	0	5	5.0	0	0	125	15	0	2	1	143	146.6
Hourly Total	0	0	11	2	0	0	0	13	13.0	0	0	455	67	12	14	1	549	574.2
17:00 - 17:15	0	0	6	0	0	0	0	6	6.0	0	0	136	11	1	3	1	152	157.4
17:15 - 17:30	0	0	8	0	0	0	0	8	8.0	0	0	73	4	1	3	0	81	85.4
17:30 - 17:45	0	0	5	3	0	0	0	8	8.0	0	0	135	9	2	3	1	150	155.9
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	0	134	7	1	1	0	143	144.8
Hourly Total	0	0	25	3	0	0	0	28	28.0	0	0	478	31	5	10	2	526	543.5
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	94	9	1	2	0	106	109.1
18:15 - 18:30	0	0	6	0	0	0	0	6	6.0	0	0	79	8	2	1	0	90	92.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	1	62	6	0	1	0	70	70.7
18:45 - 19:00	0	0	5	1	0	0	0	6	6.0	0	0	55	6	1	2	0	64	67.1
Hourly Total	0	0	17	1	0	0	0	18	18.0	0	1	290	29	4	6	0	330	339.2

TOTAL	0	0	53	6	0	0	0	59	59.0	0	1	1223	127	21	30	3	1405	1456.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 2 – Finger Farm Roundabout Turning Count Results

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 4
 Approach: A453 North

	To M1 J23A Access									To Donington Services Access									To A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	47	13	4	10	0	74	89.0	0	0	4	5	4	11	0	24	40.3	0	1	78	4	2	1	1	87	89.7
07:15 - 07:30	0	0	41	10	1	0	1	53	54.5	0	0	7	0	3	4	0	14	20.7	0	0	77	10	3	3	2	95	102.4
07:30 - 07:45	0	0	63	23	7	12	0	105	124.1	0	1	5	3	0	0	0	9	8.4	0	0	93	6	1	3	3	106	113.4
07:45 - 08:00	0	0	119	42	6	18	0	185	211.4	0	0	9	2	0	3	0	14	17.9	0	0	73	4	2	4	3	86	95.2
Hourly Total	0	0	270	88	18	40	1	417	479.0	0	1	25	10	7	18	0	61	87.3	0	1	321	24	8	11	9	374	400.7
08:00 - 08:15	0	0	122	30	4	10	0	166	181.0	0	0	12	7	1	4	0	24	29.7	0	1	82	9	1	2	1	96	99.5
08:15 - 08:30	0	0	67	20	2	15	0	104	124.5	0	0	16	2	0	2	0	20	22.6	0	0	117	10	2	2	1	132	136.6
08:30 - 08:45	0	0	48	15	7	12	1	83	103.1	0	0	13	2	0	4	0	19	24.2	0	0	122	11	0	2	3	138	143.6
08:45 - 09:00	0	0	49	9	3	12	1	74	92.1	0	0	18	3	0	4	0	25	30.2	0	0	76	12	0	1	0	89	90.3
Hourly Total	0	0	286	74	16	49	2	427	500.7	0	0	59	14	1	14	0	88	106.7	0	1	397	42	3	7	5	455	470.0
09:00 - 09:15	0	0	18	4	8	11	0	41	59.3	0	0	14	4	1	2	0	21	24.1	0	1	81	6	3	3	4	98	106.8
09:15 - 09:30	0	0	28	5	4	9	0	46	59.7	0	0	18	4	2	5	1	30	38.5	0	0	77	8	1	1	1	88	90.8
09:30 - 09:45	0	0	11	4	6	7	0	28	40.1	0	0	19	2	3	6	0	30	39.3	0	1	44	7	0	4	2	58	64.6
09:45 - 10:00	0	0	12	7	3	11	1	34	50.8	0	1	14	5	2	3	0	25	29.3	0	2	37	6	5	4	2	56	64.5
Hourly Total	0	0	69	20	21	38	1	149	209.9	0	1	65	15	8	16	1	106	131.2	0	4	239	27	9	12	9	300	326.7
TOTAL	0	0	625	182	55	127	4	993	1189.6	0	2	149	39	16	48	1	255	325.2	0	6	957	93	20	30	23	1129	1197.4
16:00 - 16:15	0	0	72	14	2	10	0	98	112.0	0	0	12	4	4	5	0	25	33.5	0	0	21	8	0	1	2	32	35.3
16:15 - 16:30	0	0	78	18	4	11	0	111	127.3	0	0	9	5	0	3	0	17	20.9	0	0	39	6	0	1	2	48	51.3
16:30 - 16:45	0	0	81	11	0	6	1	99	107.8	0	0	12	2	0	4	0	18	23.2	0	0	9	9	2	2	1	23	27.6
16:45 - 17:00	0	0	67	6	2	7	0	82	92.1	0	0	14	3	0	3	0	20	23.9	0	0	28	14	0	1	3	46	50.3
Hourly Total	0	0	298	49	8	34	1	390	439.2	0	0	47	14	4	15	0	80	101.5	0	0	97	37	2	5	8	149	164.5
17:00 - 17:15	0	0	95	4	1	3	0	103	107.4	0	0	9	2	3	6	0	20	29.3	0	1	24	6	5	2	1	39	44.5
17:15 - 17:30	0	0	64	5	3	7	0	79	89.6	0	0	12	2	0	5	0	19	25.5	0	0	50	12	3	1	3	69	74.8
17:30 - 17:45	0	0	72	7	1	7	0	87	96.6	0	0	13	0	0	4	0	17	22.2	0	0	21	7	2	2	2	34	39.6
17:45 - 18:00	0	0	77	8	3	10	0	98	112.5	0	0	19	5	0	8	0	32	42.4	0	0	29	4	1	2	0	36	39.1
Hourly Total	0	0	308	24	8	27	0	367	406.1	0	0	53	9	3	23	0	88	119.4	0	1	124	29	11	7	6	178	198.0
18:00 - 18:15	0	0	105	6	2	7	1	121	132.1	0	0	11	0	2	4	0	17	23.2	0	0	40	11	0	4	2	57	64.2
18:15 - 18:30	0	0	58	2	3	5	1	69	78.0	0	1	10	1	1	3	0	16	19.8	0	1	79	9	1	3	3	96	102.8
18:30 - 18:45	0	0	78	3	2	5	0	88	95.5	0	0	11	2	0	2	0	15	17.6	0	1	58	3	2	0	0	64	64.4
18:45 - 19:00	0	0	34	2	1	5	0	42	49.0	0	0	16	6	0	4	0	26	31.2	0	0	47	5	3	1	3	59	64.8
Hourly Total	0	0	275	13	8	22	2	320	354.6	0	1	48	9	3	13	0	74	91.8	0	2	224	28	6	8	8	276	296.2
TOTAL	0	0	881	86	24	83	3	1077	1199.9	0	1	148	32	10	51	0	242	312.7	0	3	445	94	19	20	22	603	658.7

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022

Junction: 4
Approach: M1 J23A Access

TIME	To Donington Services Access									To A453 (W)									To A453 (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	16	6	3	5	0	30	38.0	0	0	60	14	2	6	0	82	90.8	0	0	97	28	7	27	2	161	201.6
07:15 - 07:30	0	0	13	6	4	5	0	28	36.5	0	0	53	17	3	1	0	74	76.8	0	0	172	29	8	19	0	228	256.7
07:30 - 07:45	0	0	11	7	2	7	1	28	39.1	0	0	89	10	2	7	0	108	118.1	0	0	184	38	10	23	2	257	293.9
07:45 - 08:00	0	0	21	11	2	3	0	37	41.9	0	0	121	12	2	2	0	137	140.6	0	1	199	28	9	22	0	259	291.5
Hourly Total	0	0	61	30	11	20	1	123	155.5	0	0	323	53	9	16	0	401	426.3	0	1	652	123	34	91	4	905	1043.7
08:00 - 08:15	0	0	19	3	2	3	0	27	31.9	0	0	89	12	3	3	0	107	112.4	0	0	152	29	8	13	0	202	222.9
08:15 - 08:30	0	0	17	13	4	8	0	42	54.4	0	0	107	8	1	7	0	123	132.6	0	0	163	34	15	22	0	234	270.1
08:30 - 08:45	0	0	20	7	2	7	0	36	46.1	0	0	85	13	6	4	1	109	118.2	0	0	102	15	8	25	1	151	188.5
08:45 - 09:00	0	0	22	5	0	6	0	33	40.8	0	0	90	6	3	4	0	103	109.7	0	0	106	21	10	15	0	152	176.5
Hourly Total	0	0	78	28	8	24	0	138	173.2	0	0	371	39	13	18	1	442	472.9	0	0	523	99	41	75	1	739	858.0
09:00 - 09:15	0	0	24	8	3	9	0	44	57.2	0	0	69	8	5	4	0	86	93.7	0	0	108	18	8	19	0	153	181.7
09:15 - 09:30	0	0	19	7	1	9	0	36	48.2	0	0	40	8	4	5	1	58	67.5	0	0	67	20	6	19	0	112	139.7
09:30 - 09:45	0	0	22	6	2	10	0	40	54.0	0	0	31	3	6	5	0	45	54.5	0	0	74	17	7	9	1	108	124.2
09:45 - 10:00	0	0	16	6	2	6	0	30	38.8	0	0	30	11	1	6	0	48	56.3	0	0	56	15	9	16	0	96	121.3
Hourly Total	0	0	81	27	8	34	0	150	198.2	0	0	170	30	16	20	1	237	272.0	0	0	305	70	30	63	1	469	566.9
TOTAL	0	0	220	85	27	78	1	411	526.9	0	0	864	122	38	54	2	1080	1171.2	0	1	1480	292	105	229	6	2113	2468.6
16:00 - 16:15	0	0	27	5	2	9	0	43	55.7	0	0	79	5	4	6	1	95	105.8	0	0	81	35	9	13	0	138	159.4
16:15 - 16:30	0	0	20	5	2	3	0	30	34.9	0	0	59	9	4	8	0	80	92.4	0	0	97	36	2	16	2	153	176.8
16:30 - 16:45	0	0	25	6	1	5	0	37	44.0	0	0	85	17	1	3	0	106	110.4	0	1	110	27	5	16	0	159	181.7
16:45 - 17:00	0	0	26	13	2	4	0	45	51.2	0	0	101	16	2	4	0	123	129.2	0	1	101	23	4	0	0	129	130.4
Hourly Total	0	0	98	29	7	21	0	155	185.8	0	0	324	47	11	21	1	404	437.8	0	2	389	121	20	45	2	579	648.3
17:00 - 17:15	0	0	19	6	4	7	0	36	47.1	0	1	105	7	2	1	0	116	117.7	0	0	141	19	6	18	0	184	210.4
17:15 - 17:30	0	0	26	5	0	4	0	35	40.2	0	0	84	5	2	7	0	98	108.1	0	0	194	20	7	17	0	238	263.6
17:30 - 17:45	0	0	17	12	0	6	0	35	42.8	0	0	95	6	2	0	0	103	104.0	0	0	174	15	2	11	0	202	217.3
17:45 - 18:00	0	0	24	2	3	3	0	32	37.4	0	0	88	11	3	1	0	103	105.8	0	0	130	7	0	9	1	147	159.7
Hourly Total	0	0	86	25	7	20	0	138	167.5	0	1	372	29	9	9	0	420	435.6	0	0	639	61	15	55	1	771	851.0
18:00 - 18:15	0	0	23	2	1	6	0	32	40.3	0	0	60	3	1	0	0	64	64.5	0	0	105	3	6	14	0	128	149.2
18:15 - 18:30	0	0	12	4	0	2	0	18	20.6	0	0	38	1	1	4	0	44	49.7	0	0	76	6	1	7	0	90	99.6
18:30 - 18:45	0	0	3	1	1	0	0	5	5.5	0	0	25	4	1	2	0	32	35.1	0	0	26	1	1	4	0	32	37.7
18:45 - 19:00	0	0	32	7	2	4	0	45	51.2	0	0	39	3	1	6	0	49	57.3	0	0	93	8	3	9	0	113	126.2
Hourly Total	0	0	70	14	4	12	0	100	117.6	0	0	162	11	4	12	0	189	206.6	0	0	300	18	11	34	0	363	412.7
TOTAL	0	0	254	68	18	53	0	393	470.9	0	1	858	87	24	42	1	1013	1080.0	0	2	1328	200	46	134	3	1713	1912.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 4

Approach: Donington Services Access

	To A453 (W)										To A453 (N)										To M1 J23A Access									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	9	1	2	0	0	12	13.0	0	0	8	10	3	8	0	29	40.9	0	0	8	3	1	7	0	19	28.6			
07:15 - 07:30	0	0	7	1	2	0	0	10	11.0	0	0	10	8	3	2	0	23	27.1	0	0	9	4	4	6	0	23	32.8			
07:30 - 07:45	0	0	7	3	0	0	0	10	10.0	0	0	7	8	2	10	0	27	41.0	0	0	6	2	2	3	0	13	17.9			
07:45 - 08:00	0	0	9	1	2	1	0	13	15.3	0	0	8	5	5	14	0	32	52.7	0	0	14	5	0	5	0	24	30.5			
Hourly Total	0	0	32	6	6	1	0	45	49.3	0	0	33	31	13	34	0	111	161.7	0	0	37	14	7	21	0	79	109.8			
08:00 - 08:15	0	0	12	2	1	0	0	15	15.5	0	0	1	4	3	5	0	13	21.0	0	0	24	5	2	4	0	35	41.2			
08:15 - 08:30	0	0	11	5	1	0	0	17	17.5	0	0	4	4	2	7	0	17	27.1	0	0	23	10	1	6	0	40	48.3			
08:30 - 08:45	0	0	13	1	2	0	0	16	17.0	0	0	5	7	3	3	0	18	23.4	0	0	21	6	2	6	0	35	43.8			
08:45 - 09:00	0	0	14	2	2	0	0	18	19.0	0	0	0	2	1	3	1	7	12.4	0	0	19	3	3	3	0	28	33.4			
Hourly Total	0	0	50	10	6	0	0	66	69.0	0	0	10	17	9	18	1	55	83.9	0	0	87	24	8	19	0	138	166.7			
09:00 - 09:15	0	0	6	3	0	0	0	9	9.0	0	0	7	6	1	7	0	21	30.6	0	0	27	3	2	5	0	37	44.5			
09:15 - 09:30	0	0	10	2	1	1	0	14	15.8	0	0	20	5	3	6	0	34	43.3	0	0	16	7	2	4	0	29	35.2			
09:30 - 09:45	0	0	12	2	1	0	0	15	15.5	0	0	10	2	0	6	0	18	25.8	0	0	20	5	4	3	0	32	37.9			
09:45 - 10:00	0	0	8	2	1	0	1	12	13.5	0	0	13	8	0	11	0	32	46.3	0	0	12	4	1	6	0	23	31.3			
Hourly Total	0	0	36	9	3	1	1	50	53.8	0	0	50	21	4	30	0	105	146.0	0	0	75	19	9	18	0	121	148.9			
TOTAL	0	0	118	25	15	2	1	161	172.1	0	0	93	69	26	82	1	271	391.6	0	0	199	57	24	58	0	338	425.4			
16:00 - 16:15	0	0	13	4	1	1	0	19	20.8	0	0	23	2	0	5	0	30	36.5	0	0	18	5	2	5	0	30	37.5			
16:15 - 16:30	0	0	7	1	1	1	0	10	11.8	0	0	15	4	2	4	0	25	31.2	0	0	21	3	1	6	0	31	39.3			
16:30 - 16:45	0	0	15	2	0	0	0	17	17.0	0	1	25	1	5	7	0	39	50.0	0	0	20	5	3	5	0	33	41.0			
16:45 - 17:00	0	0	13	1	0	0	0	14	14.0	0	0	10	2	2	4	0	18	24.2	0	0	22	5	0	3	0	30	33.9			
Hourly Total	0	0	48	8	2	2	0	60	63.6	0	1	73	9	9	20	0	112	141.9	0	0	81	18	6	19	0	124	151.7			
17:00 - 17:15	0	0	9	3	0	0	0	12	12.0	0	0	9	7	0	5	0	21	27.5	0	0	31	4	0	2	0	37	39.6			
17:15 - 17:30	0	0	8	1	1	0	0	10	10.5	0	0	21	1	2	1	0	25	27.3	0	0	19	8	2	4	0	33	39.2			
17:30 - 17:45	0	0	13	3	0	0	0	16	16.0	0	0	13	0	0	1	0	14	15.3	0	0	22	2	0	4	0	28	33.2			
17:45 - 18:00	0	0	13	2	0	0	0	15	15.0	0	0	17	8	0	3	0	28	31.9	0	0	21	2	0	3	0	26	29.9			
Hourly Total	0	0	43	9	1	0	0	53	53.5	0	0	60	16	2	10	0	88	102.0	0	0	93	16	2	13	0	124	141.9			
18:00 - 18:15	0	0	13	2	1	1	0	17	18.8	0	0	26	4	0	3	0	33	36.9	0	0	12	2	1	5	0	20	27.0			
18:15 - 18:30	0	0	12	2	1	1	0	16	17.8	0	0	15	2	0	2	0	19	21.6	0	0	11	3	3	4	0	21	27.7			
18:30 - 18:45	0	1	9	0	0	1	0	11	11.7	0	0	17	2	0	4	0	23	28.2	0	0	9	0	0	1	0	10	11.3			
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	14	2	0	0	0	16	16.0	0	0	13	1	1	3	0	18	22.4			
Hourly Total	0	1	44	4	2	3	0	54	58.3	0	0	72	10	0	9	0	91	102.7	0	0	45	6	5	13	0	69	88.4			
TOTAL	0	1	135	21	5	5	0	167	175.4	0	1	205	35	11	39	0	291	346.6	0	0	219	40	13	45	0	317	382.0			

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 4
 Approach: A453 West

	To A453 (N)									To M1 J23A Access								To Donington Services Access									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	46	10	0	6	3	65	75.8	0	0	29	1	2	4	0	36	42.2	0	0	12	1	0	0	0	13	13.0
07:15 - 07:30	0	0	85	16	2	6	0	109	117.8	0	1	25	3	5	2	0	36	40.5	0	1	5	2	1	0	0	9	8.9
07:30 - 07:45	0	1	81	11	5	8	3	109	124.3	0	0	32	10	4	6	1	53	63.8	0	0	4	0	0	0	0	4	4.0
07:45 - 08:00	0	0	77	12	0	2	0	91	93.6	0	0	35	5	4	3	2	49	56.9	0	0	7	0	0	0	0	7	7.0
Hourly Total	0	1	289	49	7	22	6	374	411.5	0	1	121	19	15	15	3	174	203.4	0	1	28	3	1	0	0	33	32.9
08:00 - 08:15	0	0	76	12	4	6	2	100	111.8	0	0	48	16	1	5	1	71	79.0	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	81	17	3	5	2	108	118.0	0	0	48	19	1	8	0	76	86.9	0	0	7	0	2	0	0	9	10.0
08:30 - 08:45	0	0	60	15	4	7	2	88	101.1	0	0	30	8	3	5	1	47	56.0	0	0	6	1	0	0	0	7	7.0
08:45 - 09:00	0	0	48	7	3	8	3	69	83.9	0	0	24	3	3	7	0	37	47.6	0	0	3	2	0	1	0	6	7.3
Hourly Total	0	0	265	51	14	26	9	365	414.8	0	0	150	46	8	25	2	231	269.5	0	0	18	4	2	1	0	25	27.3
09:00 - 09:15	0	0	26	3	5	8	2	44	58.9	0	0	20	4	4	1	0	29	32.3	0	0	7	1	1	0	0	9	9.5
09:15 - 09:30	0	1	25	9	6	2	4	47	56.0	0	0	21	4	0	4	0	29	34.2	0	0	4	4	0	0	0	8	8.0
09:30 - 09:45	0	0	24	11	7	1	2	45	51.8	0	0	12	3	1	3	0	19	23.4	0	0	7	3	0	1	0	11	12.3
09:45 - 10:00	0	0	31	8	2	4	4	49	59.2	0	0	9	5	0	2	0	16	18.6	0	0	5	0	1	1	0	7	8.8
Hourly Total	0	1	106	31	20	15	12	185	225.9	0	0	62	16	5	10	0	93	108.5	0	0	23	8	2	2	0	35	38.6
TOTAL	0	2	660	131	41	63	27	924	1052.2	0	1	333	81	28	50	5	498	581.4	0	1	69	15	5	3	0	93	98.8
16:00 - 16:15	0	0	161	12	2	3	3	181	188.9	0	0	66	11	2	8	1	88	100.4	0	0	4	2	2	0	0	8	9.0
16:15 - 16:30	0	0	136	12	3	2	1	154	159.1	0	0	25	7	3	2	0	37	41.1	0	0	8	2	0	0	0	10	10.0
16:30 - 16:45	0	0	126	9	0	2	1	138	141.6	0	0	68	15	0	2	0	85	87.6	0	0	9	2	2	0	0	13	14.0
16:45 - 17:00	0	0	133	16	0	1	3	153	157.3	0	0	48	1	1	2	1	53	57.1	0	0	10	1	0	0	0	11	11.0
Hourly Total	0	0	556	49	5	8	8	626	646.9	0	0	207	34	6	14	2	263	286.2	0	0	31	7	4	0	0	42	44.0
17:00 - 17:15	0	0	132	8	2	4	3	149	158.2	0	0	97	4	0	0	0	101	101.0	0	0	11	2	1	0	0	14	14.5
17:15 - 17:30	0	0	113	2	2	1	1	119	122.3	0	0	36	9	1	3	0	49	53.4	0	0	12	0	0	1	0	13	14.3
17:30 - 17:45	0	0	154	8	0	2	2	166	170.6	0	0	30	6	2	3	0	41	45.9	0	0	12	2	2	0	0	16	17.0
17:45 - 18:00	0	0	143	8	1	1	0	153	154.8	0	0	51	6	1	4	0	62	67.7	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	542	26	5	8	6	587	605.9	0	0	214	25	4	10	0	253	268.0	0	0	42	5	3	1	0	51	53.8
18:00 - 18:15	0	0	88	7	0	0	3	98	101.0	0	0	41	3	1	2	0	47	50.1	0	0	8	1	0	0	0	9	9.0
18:15 - 18:30	0	0	83	7	1	1	2	94	97.8	0	0	28	4	1	1	0	34	35.8	0	0	8	0	0	0	0	8	8.0
18:30 - 18:45	0	1	74	4	0	7	1	87	96.5	0	0	16	2	1	2	0	21	24.1	0	0	3	0	1	0	0	4	4.5
18:45 - 19:00	0	0	57	3	2	2	3	67	73.6	0	0	16	2	0	3	0	21	24.9	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	1	302	21	3	10	9	346	368.9	0	0	101	11	3	8	0	123	134.9	0	0	24	2	1	0	0	27	27.5
TOTAL	0	1	1400	96	13	26	23	1559	1621.7	0	0	522	70	13	32	2	639	689.1	0	0	97	14	8	1	0	120	125.3

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 3 – A453/EMGP1 Gyrotory Turning Count Results

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 North

	Left to A6 Kegworth Bypass										Ahead to A453 (S)										Right to Wilders Way										U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	2	4	0	1	0	7	8.3	0	0	70	10	4	7	1	92	104.1	0	0	90	5	3	7	0	105	115.6	0	0	0	0	0	0	0	0	0	0			
07:15 - 07:30	0	0	15	2	2	1	0	20	22.3	0	0	66	12	2	7	0	87	97.1	0	0	107	5	1	7	1	121	131.6	0	0	1	0	0	0	0	0	1	1.0			
07:30 - 07:45	0	0	5	2	2	2	0	11	14.6	0	0	65	8	0	6	0	79	86.8	0	1	106	5	2	5	0	119	125.9	0	0	1	1	0	0	0	0	2	2.0			
07:45 - 08:00	0	0	8	0	2	6	0	16	24.8	0	0	88	12	1	4	0	105	110.7	0	0	83	2	1	7	1	94	104.6	0	0	1	0	0	0	0	1	1.0				
Hourly Total	0	0	30	8	6	10	0	54	70.0	0	0	289	42	7	24	1	363	398.7	0	1	386	17	7	26	2	439	477.7	0	0	3	1	0	0	0	4	4.0				
08:00 - 08:15	0	0	9	2	5	3	0	19	25.4	0	0	95	7	1	5	0	108	115.0	0	0	42	11	5	5	0	63	72.0	0	0	0	0	0	0	0	0	0				
08:15 - 08:30	0	0	6	1	1	0	0	8	8.5	0	0	91	4	3	3	0	101	106.4	0	0	35	4	3	5	0	47	55.0	0	0	3	0	1	0	0	4	4.5				
08:30 - 08:45	0	0	7	1	1	1	0	10	11.8	0	0	107	7	4	0	0	118	120.0	0	1	28	9	1	10	1	50	63.9	0	0	0	0	0	1	0	1	2.3				
08:45 - 09:00	0	1	5	3	4	5	0	18	25.9	0	0	87	10	4	5	0	106	114.5	0	0	40	5	1	3	1	50	55.4	0	0	2	0	0	0	0	2	2.0				
Hourly Total	0	1	27	7	11	9	0	55	71.6	0	0	380	28	12	13	0	433	455.9	0	1	145	29	10	23	2	210	246.3	0	0	5	0	1	1	0	7	8.8				
09:00 - 09:15	0	0	3	1	1	5	0	10	17.0	0	0	87	4	6	5	0	102	111.5	0	0	48	9	0	6	0	63	70.8	0	0	1	0	0	0	0	1	1.0				
09:15 - 09:30	0	0	6	1	0	0	0	7	7.0	0	0	74	6	3	14	0	97	116.7	0	0	52	11	3	5	0	71	79.0	0	0	1	1	0	0	0	2	2.0				
09:30 - 09:45	0	0	4	3	3	4	0	14	20.7	0	0	56	3	6	8	0	73	86.4	0	0	55	15	0	9	2	81	94.7	0	0	0	0	0	0	0	0	0.0				
09:45 - 10:00	0	0	2	2	2	2	0	8	11.6	0	0	54	6	2	5	0	67	74.5	0	0	66	20	1	9	0	96	108.2	0	0	2	0	0	0	0	2	2.0				
Hourly Total	0	0	15	7	6	11	0	39	56.3	0	0	271	19	17	32	0	339	389.1	0	0	221	55	4	29	2	311	352.7	0	0	4	1	0	0	0	5	5.0				
TOTAL	0	1	72	22	23	30	0	148	197.9	0	0	940	89	36	69	1	1135	1243.7	0	2	752	101	21	78	6	960	1076.7	0	0	12	2	1	1	0	16	17.8				
16:00 - 16:15	0	0	9	2	1	1	0	13	14.8	0	0	54	11	2	6	1	74	83.8	0	0	10	5	1	3	0	19	23.4	0	0	0	0	0	0	0	0	0.0				
16:15 - 16:30	0	0	19	3	2	1	0	25	27.3	0	0	45	14	3	3	0	65	70.4	0	0	10	9	0	4	1	24	30.2	0	0	1	0	0	0	0	1	1.0				
16:30 - 16:45	0	0	15	4	1	0	0	20	20.5	0	0	41	8	3	11	0	63	78.8	0	0	16	3	0	4	0	23	28.2	0	0	2	0	0	0	0	2	2.0				
16:45 - 17:00	0	1	15	0	1	0	0	17	16.9	0	0	40	6	4	3	0	53	58.9	0	0	15	7	0	6	1	29	37.8	0	0	3	1	0	0	0	4	4.0				
Hourly Total	0	1	58	9	5	2	0	75	79.5	0	0	180	39	12	23	1	255	291.9	0	0	51	24	1	17	2	95	119.6	0	0	6	1	0	0	0	7	7.0				
17:00 - 17:15	0	0	13	2	0	0	0	15	15.0	0	0	45	8	4	8	1	66	79.4	0	0	19	13	0	4	0	36	41.2	0	0	1	0	0	0	0	1	1.0				
17:15 - 17:30	0	0	22	1	1	1	0	25	26.8	0	1	58	1	3	10	0	73	86.9	0	1	31	13	0	6	1	52	60.2	0	0	3	0	0	0	0	3	3.0				
17:30 - 17:45	0	1	17	0	2	1	0	21	22.7	0	0	73	4	3	4	0	84	90.7	0	3	54	11	0	4	0	72	75.4	0	0	2	0	0	0	0	2	2.0				
17:45 - 18:00	0	0	11	5	0	0	0	16	16.0	0	0	70	2	3	7	0	82	92.6	0	0	66	14	0	3	0	83	86.9	0	0	0	0	0	0	0	0	0.0				
Hourly Total	0	1	63	8	3	2	0	77	80.5	0	1	246	15	13	29	1	305	349.6	0	4	170	51	0	17	1	243	263.7	0	0	6	0	0	0	0	6	6.0				
18:00 - 18:15	0	0	7	0	0	2	0	9	11.6	0	0	42	3	2	7	0	54	64.1	0	1	103	10	0	3	0	117	120.3	0	0	2	0	0	0	0	2	2.0				
18:15 - 18:30	0	0	12	3	0	0	0	15	15.0	0	1	59	3	0	4	0	67	71.6	0	1	103	14	0	2	1	121	124.0	0	0	1	0	0	0	0	1	1.0				
18:30 - 18:45	0	0	10	0	1	1	0	12	13.8	0	0	84	0	4	4	0	92	99.2	0	0	54	12	0	4	0	70	75.2	0	0	0	0	0	1	0	1	2.3				
18:45 - 19:00	0	0	10	0	0	2	0	12	14.6	0	0	80	1	1	4	0	86	91.7	0	0	43	9	0	4	1	57	63.2	0	0	0	0	0	0	0	0	0.0				
Hourly Total	0	0	39	3	1	5	0	48	55.0	0	1	265	7	7	19	0	299	326.6	0	2	303	45	0	13	2	365	382.7	0	0	3	0	0	1	0	4	5.3				
TOTAL	0	2	160	20	9	9	0	200	215.0	0	2	691	61	32	71	2	859	968.1	0	6	524	120	1	47	5	703	766.0	0	0	15	1	0	1	0	17	18.0				

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A6 Kegworth Bypass

	Left to A453 (S)									Ahead to Wilders Way									Right to A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	2	15	3	0	0	0	20	18.8	0	1	87	11	10	2	0	111	118.0	0	0	74	10	8	3	2	97	106.9
07:15 - 07:30	0	0	26	2	1	0	0	29	29.5	0	1	101	16	4	1	1	124	127.7	0	1	65	18	5	0	0	89	90.9
07:30 - 07:45	0	0	29	3	1	0	1	34	35.5	0	0	76	10	2	0	2	90	93.0	0	0	61	10	1	0	0	72	72.5
07:45 - 08:00	0	0	29	5	0	1	0	35	36.3	0	0	109	21	3	3	1	137	143.4	0	0	92	21	4	2	0	119	123.6
Hourly Total	0	2	99	13	2	1	1	118	120.1	0	2	373	58	19	6	4	462	482.1	0	1	292	59	18	5	2	377	393.9
08:00 - 08:15	0	0	35	1	0	0	0	36	36.0	1	0	74	15	3	1	1	95	98.0	0	0	73	13	3	1	0	90	92.8
08:15 - 08:30	0	0	30	2	2	2	1	37	41.6	0	3	69	19	2	1	0	94	94.5	0	3	66	16	1	2	0	88	89.3
08:30 - 08:45	0	1	41	7	1	3	0	53	56.8	0	1	46	14	3	1	1	66	69.2	0	1	43	12	2	2	0	60	63.0
08:45 - 09:00	0	0	31	0	4	0	0	35	37.0	0	0	54	11	6	3	0	74	80.9	0	0	51	10	6	3	0	70	76.9
Hourly Total	0	1	137	10	7	5	1	161	171.4	1	4	243	59	14	6	2	329	342.6	0	4	233	51	12	8	0	308	322.0
09:00 - 09:15	0	0	24	5	0	1	0	30	31.3	0	0	61	13	6	3	3	86	95.9	0	0	54	12	7	3	1	77	85.4
09:15 - 09:30	0	0	17	4	1	0	0	22	22.5	0	0	34	12	3	4	1	54	61.7	0	0	32	12	4	4	0	52	59.2
09:30 - 09:45	0	0	17	5	0	1	0	23	24.3	0	0	30	12	1	2	0	45	48.1	0	0	28	9	1	1	0	39	40.8
09:45 - 10:00	0	0	9	4	0	1	1	15	17.3	0	0	37	19	3	3	0	62	67.4	0	0	26	16	4	3	0	49	54.9
Hourly Total	0	0	67	18	1	3	1	90	95.4	0	0	162	56	13	12	4	247	273.1	0	0	140	49	16	11	1	217	240.3

TOTAL	0	3	303	41	10	9	3	369	386.9	1	6	778	173	46	24	10	1038	1097.8	0	5	665	159	46	24	3	902	956.2
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16:00 - 16:15	0	0	20	6	0	0	1	27	28.0	0	0	50	9	7	4	0	70	78.7	0	0	47	13	7	4	0	71	79.7
16:15 - 16:30	0	0	16	5	2	0	0	23	24.0	0	0	77	17	2	5	1	102	110.5	0	1	67	16	2	5	0	91	97.9
16:30 - 16:45	0	0	28	9	0	1	1	39	41.3	0	0	74	20	1	1	2	98	101.8	0	0	76	21	1	1	0	99	100.8
16:45 - 17:00	0	0	17	4	0	0	0	21	21.0	0	0	85	15	2	0	1	103	105.0	0	0	88	16	1	1	0	106	107.8
Hourly Total	0	0	81	24	2	1	2	110	114.3	0	0	286	61	12	10	4	373	396.0	0	1	278	66	11	11	0	367	386.2
17:00 - 17:15	0	0	25	4	2	0	0	31	32.0	0	0	80	13	2	4	1	100	107.2	0	0	76	16	2	2	0	96	99.6
17:15 - 17:30	0	0	33	3	1	0	0	37	37.5	0	0	94	8	2	0	0	104	105.0	0	0	88	9	2	0	0	99	100.0
17:30 - 17:45	0	0	28	3	1	1	0	33	34.8	0	0	90	15	2	0	1	108	110.0	0	1	87	16	2	0	0	106	106.4
17:45 - 18:00	0	0	26	2	3	0	0	31	32.5	0	0	81	6	2	0	1	90	92.0	0	0	81	6	1	0	0	88	88.5
Hourly Total	0	0	112	12	7	1	0	132	136.8	0	0	345	42	8	4	3	402	414.2	0	1	332	47	7	2	0	389	394.5
18:00 - 18:15	0	0	24	4	1	0	0	29	29.5	0	0	71	2	1	1	0	75	76.8	0	0	55	4	1	1	0	61	62.8
18:15 - 18:30	0	0	14	3	0	0	0	17	17.0	0	1	55	6	1	0	2	65	66.9	0	0	45	8	1	0	0	54	54.5
18:30 - 18:45	0	0	24	2	0	0	1	27	28.0	0	0	47	7	0	0	1	55	56.0	0	0	37	6	0	0	0	43	43.0
18:45 - 19:00	0	0	14	3	0	1	0	18	19.3	0	1	30	2	0	0	0	33	32.4	0	1	24	4	0	0	0	29	28.4
Hourly Total	0	0	76	12	1	1	1	91	93.8	0	2	203	17	2	1	3	228	232.1	0	1	161	22	2	1	0	187	188.7

TOTAL	0	0	269	48	10	3	3	333	344.9	0	2	834	120	22	15	10	1003	1042.3	0	3	771	135	20	14	0	943	969.4
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 South

	Left to Wilders Way									Ahead to A453 (N)									Right to A6 Kegworth Bypass									U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	36	1	3	5	2	47	57.0	0	0	102	22	5	8	0	137	149.9	0	0	13	2	1	1	0	17	18.8	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	102	3	3	11	1	120	136.8	0	0	143	24	4	15	0	186	207.5	0	0	17	11	1	1	1	31	33.8	0	0	2	0	0	0	0	2	2.0	
07:30 - 07:45	0	0	66	2	1	7	3	79	91.6	0	2	162	35	5	19	1	224	251.0	0	0	21	6	1	1	0	29	30.8	0	0	2	0	0	0	0	2	2.0	
07:45 - 08:00	0	0	57	2	1	9	1	70	83.2	0	0	184	43	8	20	0	255	285.0	0	0	26	10	1	0	1	38	39.5	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	0	261	8	8	32	7	316	368.6	0	2	591	124	22	62	1	802	893.4	0	0	77	29	4	3	2	115	122.9	0	0	4	0	0	0	0	4	4.0	
08:00 - 08:15	0	0	25	4	1	4	1	35	41.7	0	0	215	40	9	2	1	267	275.1	0	0	24	5	3	0	0	32	33.5	0	0	0	0	0	0	0	0	0.0	
08:15 - 08:30	0	0	15	2	3	12	3	35	55.1	0	0	191	49	9	18	1	268	296.9	0	0	17	11	0	0	0	28	28.0	0	0	2	0	0	0	0	2	2.0	
08:30 - 08:45	0	0	16	2	1	11	1	31	46.8	0	1	143	30	8	31	0	213	256.7	0	0	17	10	4	2	1	34	39.6	0	0	0	0	0	0	0	0	0.0	
08:45 - 09:00	0	0	27	6	1	9	2	45	59.2	0	0	92	24	6	19	0	141	168.7	0	0	23	2	0	0	0	25	25.0	0	0	1	0	0	0	0	1	1.0	
Hourly Total	0	0	83	14	6	36	7	146	202.8	0	1	641	143	32	70	2	889	997.4	0	0	81	28	7	2	1	119	126.1	0	0	3	0	0	0	0	3	3.0	
09:00 - 09:15	0	0	18	3	3	5	2	31	41.0	0	0	86	28	5	25	0	144	179.0	0	0	18	7	1	1	0	27	28.8	0	0	2	0	0	0	0	2	2.0	
09:15 - 09:30	0	0	20	6	1	7	1	35	45.6	0	0	88	22	11	19	0	140	170.2	0	0	26	6	0	2	0	34	36.6	0	0	1	0	0	0	0	1	1.0	
09:30 - 09:45	0	0	28	12	1	2	3	46	52.1	0	0	81	19	4	21	0	125	154.3	0	0	22	2	3	1	0	28	30.8	0	0	0	0	0	0	0	0	0.0	
09:45 - 10:00	0	0	21	12	2	7	2	44	56.1	0	0	76	17	14	11	0	118	139.3	0	0	7	6	0	1	0	14	15.3	0	0	1	0	0	0	0	1	1.0	
Hourly Total	0	0	87	33	7	21	8	156	194.8	0	0	331	86	34	76	0	527	642.8	0	0	73	21	4	5	0	103	111.5	0	0	4	0	0	0	0	4	4.0	

TOTAL	0	0	431	55	21	89	22	618	766.2	0	3	1563	353	88	208	3	2218	2533.6	0	0	231	78	15	10	3	337	360.5	0	0	11	0	0	0	0	11	11.0
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16:00 - 16:15	0	0	3	2	1	6	4	16	28.3	0	0	205	50	10	20	0	285	316.0	0	0	26	8	0	0	0	34	34.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	4	3	0	3	1	11	15.9	0	0	153	37	4	15	0	209	230.5	0	0	31	2	2	1	0	36	38.3	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	1	8	0	2	5	1	17	24.9	0	1	198	39	10	15	0	263	286.9	0	0	28	6	2	0	1	37	39.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	1	5	2	14	23.0	0	1	203	38	9	21	0	272	303.2	0	0	35	5	1	1	0	42	43.8	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	21	5	4	19	8	58	92.1	0	2	759	164	33	71	0	1029	1136.6	0	0	120	21	5	2	1	149	155.1	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	8	0	1	9	2	20	34.2	0	1	243	30	10	23	0	307	341.3	0	0	29	7	1	0	0	37	37.5	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	13	0	3	3	3	22	30.4	0	0	206	19	5	17	1	248	273.6	0	0	46	7	1	0	0	54	54.5	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	0	4	6	1	21	31.8	0	0	211	27	8	11	0	257	275.3	0	0	53	2	0	0	0	55	55.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	18	1	1	5	2	27	36.0	0	0	179	23	2	10	0	214	228.0	0	1	36	1	1	2	0	41	43.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	49	1	9	23	8	90	132.4	0	1	839	99	25	61	1	1026	1118.2	0	1	164	17	3	2	0	187	190.5	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	34	1	1	2	3	41	47.1	0	1	156	23	3	14	1	198	218.1	0	0	30	5	0	1	1	37	39.3	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	1	51	0	0	2	0	54	56.0	0	0	154	9	6	8	0	177	190.4	0	0	24	3	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	28	0	0	3	1	32	36.9	0	0	91	6	6	13	0	116	135.9	0	0	23	7	1	0	0	31	31.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	24	0	0	8	1	33	44.4	0	0	98	10	4	7	0	119	130.1	0	1	27	2	0	1	0	31	31.7	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	137	1	1	15	5	160	184.4	0	1	499	48	19	42	1	610	674.5	0	1	104	17	2	2	1	127	131.0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	2	207	7	14	57	21	308	408.9	0	4	2097	311	77	174	2	2665	2929.3	0	2	388	55	10	6	2	463	476.6	0	0	0	0	0	0	0	0	0.0
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PCU/Factor	
PCU/F	0.5
NET/PCU	0.4
LCR	1.0
CRP	1.0
ORR	1.0
ORR	1.0
RR	1.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: Wilders Way

TIME	Left to A453 (N)									Ahead to A6 Kegworth Bypass									Right to A453 (S)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	30	0	2	5	0	37	44.5	0	0	2	0	0	0	0	2	2.0	0	1	12	1	0	7	0	21	29.5
07:15 - 07:30	0	0	8	1	1	5	0	15	22.0	0	0	2	1	1	1	0	5	6.8	0	0	4	1	0	9	0	14	25.7
07:30 - 07:45	0	0	18	1	1	9	0	29	41.2	0	0	2	0	0	2	0	4	6.6	0	0	9	0	3	5	0	17	25.0
07:45 - 08:00	0	0	22	2	0	5	0	29	35.5	0	0	0	0	0	0	0	0	0.0	0	0	13	1	2	6	0	22	30.8
Hourly Total	0	0	78	4	4	24	0	110	143.2	0	0	6	1	1	3	0	11	15.4	0	1	38	3	5	27	0	74	111.0
08:00 - 08:15	0	0	23	3	1	5	0	32	39.0	0	0	0	0	0	0	0	0	0.0	0	0	11	3	0	5	0	19	25.5
08:15 - 08:30	0	0	11	1	2	3	0	17	21.9	0	0	2	1	0	0	0	3	3.0	0	0	13	1	1	7	0	22	31.6
08:30 - 08:45	0	0	8	3	3	6	0	20	29.3	0	0	1	1	0	0	0	2	2.0	0	0	7	1	1	6	0	15	23.3
08:45 - 09:00	0	0	5	2	0	10	0	17	30.0	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	6	0	10	17.8
Hourly Total	0	0	47	9	6	24	0	86	120.2	0	0	4	2	0	0	0	6	6.0	0	0	33	7	2	24	0	66	98.2
09:00 - 09:15	0	0	3	2	0	8	0	13	23.4	0	0	3	0	0	1	0	4	5.3	0	0	2	1	1	6	1	11	20.3
09:15 - 09:30	0	0	7	1	2	6	0	16	24.8	0	0	0	0	0	0	0	0	0.0	0	0	2	2	1	8	0	13	23.9
09:30 - 09:45	0	0	12	2	0	8	0	22	32.4	0	0	0	1	1	1	0	3	4.8	0	0	3	2	0	9	0	14	25.7
09:45 - 10:00	0	0	31	48	2	6	1	88	97.8	0	0	6	1	1	0	0	8	8.5	0	0	6	6	1	7	2	22	33.6
Hourly Total	0	0	53	53	4	28	1	139	178.4	0	0	9	2	2	2	0	15	18.6	0	0	13	11	3	30	3	60	103.5

TOTAL	0	0	178	66	14	76	1	335	441.8	0	0	19	5	3	5	0	32	40.0	0	1	84	21	10	81	3	200	312.7
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16:00 - 16:15	0	1	76	9	1	5	0	92	98.4	0	0	8	0	2	0	0	10	11.0	0	0	27	2	3	5	0	37	45.0
16:15 - 16:30	0	1	54	2	2	2	0	61	64.0	0	0	2	1	0	1	0	4	5.3	0	0	21	2	3	3	0	29	34.4
16:30 - 16:45	0	0	65	6	1	1	0	73	74.8	0	0	9	0	0	0	0	9	9.0	0	0	14	5	0	6	0	25	32.8
16:45 - 17:00	0	0	47	3	4	2	0	56	60.6	0	1	1	3	0	0	0	5	4.4	0	0	19	2	1	5	0	27	34.0
Hourly Total	0	2	242	20	8	10	0	282	297.8	0	1	20	4	2	1	0	28	29.7	0	0	81	11	7	19	0	118	146.2
17:00 - 17:15	0	0	40	7	1	5	0	53	60.0	0	0	2	0	0	0	0	2	2.0	0	0	25	2	3	10	1	41	56.5
17:15 - 17:30	0	0	42	8	0	4	0	54	59.2	0	0	4	1	0	1	0	6	7.3	0	1	26	2	2	5	0	36	42.9
17:30 - 17:45	0	0	58	4	0	7	0	69	78.1	0	1	2	1	0	0	0	4	3.4	0	0	21	2	3	7	0	33	43.6
17:45 - 18:00	0	0	33	4	4	4	0	45	52.2	0	0	6	0	1	0	0	7	7.5	0	1	16	4	3	6	0	30	38.7
Hourly Total	0	0	173	23	5	20	0	221	249.5	0	1	14	2	1	1	0	19	20.2	0	2	88	10	11	28	1	140	181.7
18:00 - 18:15	0	0	203	9	1	2	0	215	218.1	0	0	24	1	0	0	0	25	25.0	0	0	74	1	4	6	1	86	96.8
18:15 - 18:30	0	1	59	2	2	2	0	66	69.0	0	0	10	0	0	0	0	10	10.0	0	0	31	2	1	7	0	41	50.6
18:30 - 18:45	0	2	170	3	2	2	0	179	181.4	0	0	24	2	1	0	0	27	27.5	0	0	63	1	1	4	0	69	74.7
18:45 - 19:00	0	0	49	4	1	0	0	54	54.5	0	0	9	1	0	0	0	10	10.0	0	0	13	3	1	1	0	18	19.8
Hourly Total	0	3	481	18	6	6	0	514	523.0	0	0	67	4	1	0	0	72	72.5	0	0	181	7	7	18	1	214	241.9

TOTAL	0	5	896	61	19	36	0	1017	1070.3	0	2	101	10	4	2	0	119	122.4	0	2	350	28	25	65	2	472	569.8
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

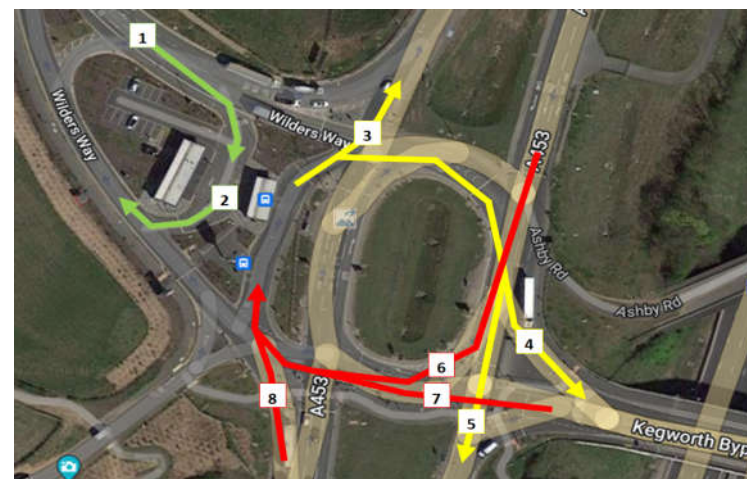
East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Bus Moves

TIME	Bus Moves							
	Move 1	Move 2	Move 3	Move 4	Move 5	Move 6	Move 7	Move 8
07:00 - 07:15	1	1	0	1	1	0	0	2
07:15 - 07:30	2	3	1	0	3	1	2	1
07:30 - 07:45	1	2	1	1	2	0	2	2
07:45 - 08:00	2	2	0	2	2	1	1	2
Hourly Total	6	8	2	4	8	2	5	7
08:00 - 08:15	1	1	1	0	1	0	1	1
08:15 - 08:30	2	1	0	1	1	0	0	2
08:30 - 08:45	1	3	0	1	3	1	1	1
08:45 - 09:00	2	0	1	1	0	1	0	2
Hourly Total	6	5	2	3	5	2	2	6
09:00 - 09:15	1	2	1	1	2	0	2	2
09:15 - 09:30	2	1	0	1	1	0	1	1
09:30 - 09:45	1	2	0	1	2	1	0	3
09:45 - 10:00	2	1	1	1	1	0	0	2
Hourly Total	6	6	2	4	6	1	3	8

TOTAL	18	19	6	11	19	5	10	21
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16:00 - 16:15	1	2	1	2	2	0	0	3
16:15 - 16:30	2	2	0	1	2	1	1	1
16:30 - 16:45	1	2	1	0	2	0	2	1
16:45 - 17:00	2	1	0	1	1	1	1	2
Hourly Total	6	7	2	4	7	2	4	7
17:00 - 17:15	1	1	1	1	1	0	1	2
17:15 - 17:30	2	3	1	1	3	1	0	3
17:30 - 17:45	1	1	1	0	1	0	1	1
17:45 - 18:00	2	0	0	1	0	0	1	1
Hourly Total	6	5	3	3	5	1	3	7
18:00 - 18:15	1	1	0	2	1	0	0	3
18:15 - 18:30	2	3	0	1	3	1	2	1
18:30 - 18:45	1	2	0	1	2	0	1	2
18:45 - 19:00	2	1	1	0	1	1	0	1
Hourly Total	6	7	1	4	7	2	3	7

TOTAL	18	19	6	11	19	5	10	21
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APPENDIX 4 – M1 Junction 24 Turning Count Results

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: M1 J24 North

TIME	To A453 (N)								To Derby Road								To M1 J24 (S)								To A453 (S)								To A50								To Hilton Hotel Lane														
	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	1	138	48	11	9	0	207	223.6	0	0	97	31	8	1	0	137	142.3	0	0	0	0	0	0	0	0	0	0	2	94	11	6	12	0	125	142.4	0	0	36	23	2	4	0	65	71.2	0	0	1	0	0	0	0	1	1.0	
07:15 - 07:30	0	0	123	36	9	9	1	178	195.2	0	0	97	34	2	0	0	133	134.0	0	0	0	0	0	0	0	0	0	0	1	119	11	9	9	0	149	164.6	0	0	40	29	2	7	0	78	88.1	0	0	1	1	0	0	0	2	2.0	
07:30 - 07:45	0	0	152	55	8	5	0	220	230.5	0	0	139	38	7	0	0	184	187.5	0	0	0	0	0	0	0	0	0	0	0	110	16	2	8	0	136	147.4	0	0	69	14	2	6	0	91	99.8	0	0	3	1	0	0	0	4	4.0	
07:45 - 08:00	0	0	146	37	9	7	0	199	212.6	0	0	79	22	0	1	0	102	103.3	0	0	0	0	0	0	0	0	0	0	0	124	28	4	13	0	169	187.9	0	0	62	20	4	6	0	92	101.8	0	0	3	0	0	0	0	3	3.0	
Hourly Total	0	1	559	176	37	30	1	804	861.9	0	0	412	125	17	2	0	556	567.1	0	0	0	0	0	0	0	0	0	0	3	447	66	21	42	0	579	642.3	0	0	207	86	10	23	0	326	360.9	0	0	8	2	0	0	0	10	10.0	
08:00 - 08:15	0	3	151	47	5	18	0	224	248.1	0	0	92	25	6	0	0	123	126.0	0	0	0	0	0	0	0	0	0	0	0	100	15	6	4	0	125	133.2	0	0	55	16	2	4	0	77	83.2	0	0	3	0	0	0	0	3	3.0	
08:15 - 08:30	0	0	196	33	15	13	0	257	281.4	0	0	85	25	7	0	0	117	120.5	0	0	0	0	0	0	0	0	0	0	0	88	10	2	12	0	112	128.6	0	0	40	11	3	7	0	61	71.6	0	0	3	1	0	0	0	4	4.0	
08:30 - 08:45	0	1	179	42	16	17	0	255	284.5	0	2	78	29	1	0	0	110	109.3	0	0	1	0	0	0	0	0	1	1.0	0	88	7	4	12	0	111	128.6	0	0	35	13	3	5	1	57	66.0	0	0	2	1	0	0	0	3	3.0	
08:45 - 09:00	0	0	157	45	11	16	1	230	257.3	0	1	82	29	7	0	0	119	121.9	0	0	0	0	0	0	0	0	0	0	0	62	14	2	10	0	88	102.0	0	0	26	15	2	2	0	45	48.6	0	1	2	1	0	0	0	4	3.4	
Hourly Total	0	4	683	167	47	64	1	966	1071.3	0	3	337	108	21	0	0	469	477.7	0	0	1	0	0	0	0	0	1	1.0	0	338	46	14	38	0	436	492.4	0	0	156	55	10	18	1	240	269.4	0	1	10	3	0	0	0	14	13.4	
09:00 - 09:15	0	0	117	34	14	21	0	186	220.3	0	0	59	17	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0	0	2	55	6	5	12	0	80	96.9	0	1	36	8	4	8	0	57	68.8	0	0	3	1	0	0	0	4	4.0	
09:15 - 09:30	0	1	111	21	8	22	0	163	195.0	0	0	53	21	1	2	0	77	80.1	0	0	1	0	0	0	0	0	1	1.0	0	62	10	7	8	0	87	100.9	0	0	28	11	4	6	1	50	60.8	0	0	2	0	0	0	0	2	2.0	
09:30 - 09:45	0	0	79	27	6	16	0	128	151.8	0	0	51	23	0	0	0	74	74.0	0	0	0	1	0	0	0	0	1	1.0	0	56	7	3	13	0	79	97.4	0	0	33	8	3	4	0	48	54.7	0	0	3	0	0	0	0	3	3.0	
09:45 - 10:00	0	0	74	29	9	17	0	129	155.6	0	0	52	14	4	0	0	70	72.0	0	0	0	0	0	0	0	0	0	0	1	46	9	4	10	0	70	84.4	0	0	27	3	2	6	0	38	46.8	0	0	2	1	0	0	0	3	3.0	
Hourly Total	0	1	381	111	37	76	0	606	722.7	0	0	215	75	6	2	0	298	303.6	0	0	1	1	0	0	0	0	2	2.0	0	3	219	32	19	43	0	316	379.6	0	1	124	30	13	24	1	193	231.1	0	0	10	2	0	0	0	12	12.0

TOTAL	0	6	1623	454	121	170	2	2376	2655.9	0	3	964	308	44	4	0	1323	1348.4	0	0	2	1	0	0	0	3	3.0	0	6	1004	144	54	123	0	1331	1514.3	0	1	487	171	33	65	2	759	861.4	0	1	28	7	0	0	0	36	35.4
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16:00 - 16:15	0	0	124	30	8	9	0	171	186.7	0	0	88	17	4	0	0	109	111.0	0	0	0	0	0	0	0	0	0	0	0	24	3	2	5	0	34	41.5	0	0	32	9	3	3	0	47	52.4	0	0	2	0	0	0	0	2	2.0	
16:15 - 16:30	0	0	163	28	3	6	0	200	209.3	0	0	103	20	0	0	0	123	123.0	0	0	1	0	0	0	0	0	1	1.0	0	0	29	3	2	4	0	38	44.2	0	0	38	6	3	7	0	54	64.6	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	154	33	2	9	0	198	210.7	0	0	101	19	1	0	0	121	121.5	0	0	0	0	0	0	0	0	0	0	0	24	4	4	5	0	37	45.5	0	0	31	7	4	3	0	45	50.9	0	0	1	0	0	0	0	1	1.0	
16:45 - 17:00	0	1	176	27	6	8	0	218	230.8	0	0	92	12	0	0	0	104	104.0	0	0	2	0	0	0	0	0	2	2.0	0	0	28	3	3	6	0	40	49.3	0	0	33	15	3	4	0	55	61.7	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	1	617	118	19	32	0	787	837.5	0	0	384	68	5	0	0	457	459.5	0	0	3	0	0	0	0	0	3	3.0	0	0	105	13	11	20	0	149	180.5	0	0	134	37	13	17	0	201	229.6	0	0	5	0	0	0	0	5	5.0
17:00 - 17:15	0	1	181	32	5	10	0	229	243.9	0	0	94	18	1	2	0	115	118.1	0	0	0	0	0	0	0	0	0	0	0	27	2	4	9	0	42	55.7	0	0	34	8	2	5	0	49	56.5	0	0	2	0	0	0	0	2	2.0	
17:15 - 17:30	0	0	186	34	3	8	0	231	242.9	0	0	143	20	4	0	0	167	169.0	0	0	1	0	0	0	0	0	1	1.0	0	1	36	2	2	0	0	41	41.4	0	0	52	6	1	6	0	65	73.3	0	0	2	1	0	0	0	3	3.0
17:30 - 17:45	0	0	191	28	2	7	2	230	242.1	0	0	120	19	2	0	0	141	142.0	0	0	2	0	0	0	0	0	2	2.0	0	2	34	4	0	2	0	42	43.4	0	1	49	9	1	2	0	62	64.5	0	0	2	0	0	0	0	2	2.0
17:45 - 18:00	0	0	191	13	4	9	0	217	230.7	0	1	103	12	5	0	1	122	124.9	0	0	0	1	0	0	0	0	1	1.0	0	0	48	4	0	5	0	57	63.5	0	0	46	13	2	3	0	64	68.9	0	0	2	1	0	0	0	3	3.0
Hourly Total	0	1	749	107	14	34	2	907	959.6	0	1	460	69	12	2	1	545	554.0	0	0	3	1	0	0	0	0	4	4.0	0	3	145	12	6	16	0	182	204.0	0	1	181	36	6	16	0	240	263.2	0	0	8	2	0	0	0	10	10.0
18:00 - 18:15	0	0	173	13	3	5	0	194	202.0	0	0	98	10	0	0	0	108	108.0	0	0	1	0	0	0	0	0	1	1.0	0	0	55	2	0	7	0	64	73.1	0	0	43	13	1	4	0	61	66.7	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	0	136	11	1	4	0	152	157.7	0	0	103	5	0	0	0	105	108.0	0	0	0	0	0	0	0	0	0	0	0	80	4	2	5	0	91	98.5	0	0	47	5	2	3	0	57	61.9	0	0	2	0	0	0	0	2	2.0	
18:30 - 18:45	0	0	94	15	4	10	0	123	138.0	0	0	53	5	1	0	0	59	59.5	0	0	0	0	0	0	0	0	0	0	0	1	67	8	1	8	0	85	95.3	0	0	42	5	2	4	0	53	59.2	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	95	7	2	6	0	110	118.8	0	0	83	2	0	1	0	86	87.3	0	0	0	0	0	0	0	0	0	0	0	53	5	0	7	0	65	74.1	0	0	32</																

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A453 North

TIME	To Derby Road						To M1 J24 (S)						To A453 (S)						To A50						To Hilton Hotel Lane						To M1 J24 (N)																						
	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs													
07:00 - 07:15	0	1	8	3	0	0	12	11.4	0	0	103	29	3	14	0	149	168.7	0	0	69	9	6	6	0	90	100.8	0	0	31	19	4	3	0	57	62.9	0	0	1	0	0	0	1	1.0	0	0	24	10	2	1	0	37	39.3	
07:15 - 07:30	0	0	10	3	1	0	14	14.5	0	0	96	16	3	14	2	131	152.7	0	0	82	8	4	9	2	105	120.7	0	0	29	21	2	7	0	59	69.1	0	0	1	1	0	0	0	2	2.0	0	0	32	10	2	6	0	50	58.8
07:30 - 07:45	0	0	20	4	0	0	24	24.0	0	0	68	13	5	6	0	92	102.3	0	4	87	18	2	9	1	121	132.3	0	0	49	13	2	5	0	69	76.5	0	0	3	1	0	0	0	4	4.0	0	0	37	6	2	5	0	50	57.5
07:45 - 08:00	0	1	6	0	1	0	8	7.9	0	1	81	16	8	8	0	114	127.8	0	0	89	9	4	9	0	111	124.7	0	1	44	7	8	4	0	64	72.6	0	0	3	0	0	0	0	3	3.0	0	0	30	9	3	4	0	46	52.7
Hourly Total	0	2	44	10	2	0	58	57.8	0	1	348	74	19	42	2	486	551.5	0	4	327	44	16	33	3	427	478.5	0	1	153	60	16	19	0	249	###	0	0	8	2	0	0	0	10	10.0	0	0	123	35	9	16	0	183	208.3
08:00 - 08:15	0	0	9	2	0	0	11	11.0	0	0	100	21	6	8	0	135	148.4	0	0	81	12	3	4	0	100	106.7	0	0	44	13	1	6	0	64	72.3	0	0	3	0	0	0	0	3	3.0	0	0	41	11	1	3	0	56	60.4
08:15 - 08:30	0	0	15	2	0	0	17	17.0	0	0	97	26	11	7	1	142	157.6	0	0	73	8	2	8	1	92	104.4	0	0	32	9	2	6	0	49	57.8	0	0	3	1	0	0	0	4	4.0	0	0	22	6	2	5	0	35	42.5
08:30 - 08:45	0	0	11	2	1	0	14	14.5	0	0	98	24	10	8	0	140	155.4	0	0	71	7	3	8	0	89	100.9	0	0	28	13	3	6	1	51	61.3	0	0	2	1	0	0	0	3	3.0	0	0	18	8	5	5	0	36	45.0
08:45 - 09:00	0	0	7	2	1	0	10	10.5	0	0	74	18	8	11	1	112	131.3	0	0	49	7	2	5	0	63	70.5	0	0	24	6	2	2	1	35	39.6	0	0	2	1	0	0	0	3	3.0	0	0	13	6	2	2	0	23	26.6
Hourly Total	0	0	42	8	2	0	52	53.0	0	0	369	89	35	34	2	529	592.7	0	0	274	34	10	25	1	344	382.5	0	0	128	41	8	20	2	199	###	0	0	10	3	0	0	0	13	13.0	0	0	94	31	10	15	0	150	174.5
09:00 - 09:15	0	0	5	0	2	0	7	8.0	0	0	69	20	3	11	2	105	122.8	0	0	40	5	6	7	2	60	74.1	0	0	25	5	4	4	0	38	45.2	0	0	2	1	0	0	0	3	3.0	0	0	19	2	2	3	0	26	30.9
09:15 - 09:30	0	0	4	3	0	1	8	9.3	0	0	88	26	2	18	0	134	158.4	0	0	44	5	2	9	0	60	72.7	0	0	19	5	3	5	2	34	44.0	0	0	2	0	0	0	0	2	2.0	0	0	15	4	2	5	0	26	33.5
09:30 - 09:45	0	0	9	3	0	0	12	12.0	0	0	70	13	3	12	0	98	115.1	0	0	38	8	6	8	0	60	73.4	0	0	26	6	4	4	0	40	47.2	0	0	2	0	0	0	0	2	2.0	0	0	27	6	0	4	0	37	42.2
09:45 - 10:00	0	0	5	3	0	0	8	8.0	0	0	82	24	10	9	0	125	141.7	0	1	42	9	4	12	0	68	85.0	0	1	26	7	2	9	0	45	57.1	0	0	2	1	0	0	0	3	3.0	0	0	20	4	0	6	0	30	37.8
Hourly Total	0	0	23	9	2	1	35	37.3	0	0	309	83	18	50	2	462	538.0	0	1	164	27	18	36	2	248	305.2	0	1	96	23	13	22	2	157	###	0	0	8	2	0	0	0	10	10.0	0	0	81	16	4	18	0	119	144.4

TOTAL	0	2	109	27	6	1	0	145	148.1	0	1	1026	246	72	126	6	1477	1682.2	0	5	765	105	44	94	6	1019	1166.2	0	2	377	124	37	61	4	605	###	0	0	26	7	0	0	0	0	33	33.0	0	0	298	82	23	49	0	452	527.2
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16:00 - 16:15	0	1	8	0	1	0	0	10	9.9	0	0	160	23	7	9	1	200	216.2	0	0	43	11	2	7	0	63	73.1	0	1	76	27	6	8	0	116	###	0	0	2	0	0	0	0	2	2.0	0	0	52	26	2	4	0	84	90.2
16:15 - 16:30	0	0	9	1	0	0	0	10	10.0	0	2	167	33	2	10	0	214	226.8	0	0	47	7	2	6	0	62	70.8	0	0	64	26	3	8	0	101	###	0	0	2	0	0	0	0	2	2.0	0	0	51	16	5	6	0	78	88.3
16:30 - 16:45	0	0	13	1	0	0	0	14	14.0	0	2	181	45	9	2	0	239	244.9	0	0	30	6	3	7	0	46	56.6	0	2	52	17	3	6	0	80	88.1	0	0	1	0	0	0	0	1	1.0	0	0	54	25	4	4	0	87	94.2
16:45 - 17:00	0	0	15	3	0	0	0	18	18.0	0	0	193	35	4	4	0	236	243.2	0	1	58	10	1	3	1	74	78.8	0	0	68	23	1	3	0	95	99.4	0	0	2	0	0	0	0	2	2.0	0	0	60	21	2	3	0	86	90.9
Hourly Total	0	1	45	5	1	0	0	52	51.9	0	4	701	136	22	25	1	889	931.1	0	1	178	34	8	23	1	245	279.3	0	3	260	93	13	25	0	394	###	0	0	7	0	0	0	0	7	7.0	0	0	217	88	13	17	0	335	363.6
17:00 - 17:15	0	0	10	3	0	0	0	13	13.0	0	1	184	22	2	2	0	211	214.0	0	1	47	3	3	5	0	59	66.4	0	0	66	12	2	1	0	81	83.3	0	0	2	0	0	0	0	2	2.0	0	1	53	15	3	2	0	74	77.5
17:15 - 17:30	0	0	27	1	0	0	0	28	28.0	0	0	175	25	0	8	0	208	218.4	0	1	59	2	6	0	0	68	70.4	0	0	93	17	2	4	0	116	###	0	0	2	1	0	0	0	3	3.0	0	0	58	12	0	6	0	76	83.8
17:30 - 17:45	0	0	18	0	0	0	0	18	18.0	0	0	171	14	4	5	0	194	202.5	0	0	66	6	0	2	0	74	76.6	0	0	89	13	2	5	0	109	###	0	0	2	0	0	0	0	2	2.0	0	0	45	8	0	3	0	56	59.9
17:45 - 18:00	0	1	12	1	1	0	0	15	14.9	0	0	173	12	4	11	0	200	216.3	0	0	81	4	0	8	0	93	103.4	0	0	74	15	4	6	0	99	###	0	0	3	1	0	0	0	4	4.0	0	0	49	6	0	2	0	57	59.6
Hourly Total	0	1	67	5	1	0	0	74	73.9	0	1	703	73	10	26	0	813	851.2	0	2	253	15	9	15	0	294	316.8	0	0	322	57	10	16	0	405	###	0	0	9	2	0	0	0	11	11.0	0	1	208	41	3	13	0	263	280.8
18:00 - 18:15	0	0	17	0	0	0	0	17	17.0	0	0	171	9	3	8	2	193	206.9	0	1	71	2	1	4	0	79	84.1	0	0	54	17	1	2	0	74	77.1	0	0	2	0	0	0	0	2	2.0	0	0	33	8	0	3	0	44	47.9
18:15 - 18:30	0	0	6	1	0	0	0	7	7.0	0	0	144	14	0	6	0	164	171.8	0	0	77	5	2	3	0	87	91.9	0	0	46	6	2	4	0	58	64.2	0	0	3	1	0	0	0	4	4.0	0	0	28	3	1	2	0	34	37.1
18:30 - 18:45	0	0	13	3	1	0	0	17	17.5	0	0	116	9	1	3	0	129	133.4	0	0	63	11	2	4	0	80	86.2	0	0	36	6	2	1	0	45	47.3	0	0	2	0	0	0	0	2	2.0	0	0	40	5	2	2	0	49	52.6
18:45 - 19:00	0	0	7	1	0	1	0	9	10.3	0	0	104	8	1	6	0	119	127.3	0	0	43	9	2	5	0	59	66.5	0	0	23	10	1	2	1	37	41.1	0	0	2	0	0	0	0	2	2.0	0	0	31	4	1	3	0	39	43.4
Hourly Total	0	0	43	5	1	1	0	50	51.8	0	0	535	40	5	23	2	605	639.4	0	1	254																																	

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: Derby Road

TIME	To M1 J24 (S)								To A453 (S)								To A50								To Hilton Hotel Lane								To M1 J24 (N)								To A453 (N)														
	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs							
07:00 - 07:15	0	0	18	1	0	1	0	20	21.3	0	0	26	2	0	0	1	29	30.0	0	0	10	2	0	1	0	13	14.3	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9.0	0	0	7	2	0	0	0	9	9.0			
07:15 - 07:30	0	0	9	3	0	0	0	12	12.0	0	0	27	2	0	0	0	29	29.0	0	0	10	3	1	2	0	16	19.1	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9.0	0	0	8	2	1	0	0	11	11.5			
07:30 - 07:45	0	0	11	3	0	0	0	14	14.0	0	0	35	2	0	0	0	37	37.0	0	0	18	2	2	1	0	23	25.3	0	0	1	0	0	0	0	1	10.0	0	0	10	0	0	0	0	0	10	10.0	0	0	12	4	1	0	0	17	17.5
07:45 - 08:00	0	0	7	0	1	1	0	9	10.8	0	0	46	7	0	0	1	54	55.0	0	0	24	5	1	1	0	31	32.8	0	0	1	0	0	0	0	1	1.0	0	0	16	9	0	0	0	0	25	25.0	0	0	16	4	1	0	0	21	21.5
Hourly Total	0	0	45	7	1	2	0	55	58.1	0	0	134	13	0	0	2	149	151.0	0	0	62	12	4	5	0	83	91.5	0	0	2	0	0	0	0	2	2.0	0	0	44	9	0	0	0	0	53	53.0	0	0	43	12	3	0	0	58	59.5
08:00 - 08:15	0	0	11	5	2	0	0	18	19.0	0	0	33	3	0	0	0	36	36.0	0	0	20	3	0	2	0	25	27.6	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	0	0	0	13	13.0	0	0	17	4	0	0	0	21	21.0
08:15 - 08:30	0	0	11	1	1	0	0	13	13.5	0	0	43	4	0	0	0	47	47.0	0	0	19	3	4	2	0	28	32.6	0	0	0	0	0	0	0	0	0.0	0	0	10	3	0	0	0	0	13	13.0	0	0	12	4	0	0	0	16	16.0
08:30 - 08:45	0	0	8	4	0	1	0	13	14.3	0	0	32	3	0	0	0	35	35.0	0	0	16	9	3	0	1	29	31.5	0	0	1	0	0	0	0	1	1.0	0	0	11	4	0	0	0	0	15	15.0	0	0	9	3	1	0	0	13	13.5
08:45 - 09:00	0	0	3	2	0	0	0	5	5.0	0	0	24	2	0	0	0	26	26.0	0	0	13	2	2	1	2	20	24.3	0	0	0	0	0	0	0	0	0.0	0	0	7	3	2	0	0	0	12	13.0	0	0	9	2	2	0	0	13	14.0
Hourly Total	0	0	33	12	3	1	0	49	51.8	0	0	132	12	0	0	0	144	144.0	0	0	68	17	9	5	3	102	116.0	0	0	1	0	0	0	0	1	1.0	0	0	39	12	2	0	0	0	53	54.0	0	0	47	13	3	0	0	63	64.5
09:00 - 09:15	0	0	10	5	1	1	0	17	18.8	0	0	21	5	0	0	0	26	26.0	0	0	14	3	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0.0	0	0	14	3	0	0	0	0	17	17.0	0	0	11	2	0	1	0	14	15.3
09:15 - 09:30	0	0	12	0	0	0	0	12	12.0	0	0	22	4	0	0	0	26	26.0	0	0	9	3	1	2	0	15	18.1	0	0	0	0	0	0	0	0	0.0	0	0	6	3	0	0	0	0	9	9.0	0	0	8	1	1	0	0	10	10.5
09:30 - 09:45	0	0	5	0	1	1	0	7	8.8	0	0	17	2	0	0	0	19	19.0	0	0	10	2	2	0	0	14	15.0	0	0	1	0	0	0	0	1	1.0	0	0	7	2	0	0	0	0	9	9.0	0	0	5	2	0	0	0	7	7.0
09:45 - 10:00	0	0	6	2	0	2	0	10	12.6	0	1	11	4	0	0	0	16	15.4	0	1	5	4	1	0	0	11	10.9	0	0	0	0	0	0	0	0	0.0	0	0	5	2	0	0	0	0	7	7.0	0	0	5	2	1	0	0	8	8.5
Hourly Total	0	0	33	7	2	4	0	46	52.2	0	1	71	15	0	0	0	87	86.4	0	1	38	12	4	3	0	58	63.3	0	0	1	0	0	0	0	1	1.0	0	0	32	10	0	0	0	0	42	42.0	0	0	29	7	2	1	0	39	41.3
TOTAL	0	0	111	26	6	7	0	150	162.1	0	1	337	40	0	0	2	380	381.4	0	1	168	41	17	13	3	243	270.8	0	0	4	0	0	0	0	4	4.0	0	0	115	31	2	0	0	0	148	149.0	0	0	119	32	8	1	0	160	165.3

16:00 - 16:15	0	0	14	0	0	0	0	14	14.0	0	0	20	2	0	0	0	22	22.0	0	0	33	9	0	0	0	42	42.0	0	0	1	0	0	0	0	1	1.0	0	0	23	7	0	0	0	0	30	30.0	0	0	16	3	0	0	0	19	19.0	
16:15 - 16:30	0	0	8	1	2	0	0	11	12.0	0	0	20	2	0	0	0	22	22.0	0	0	27	14	2	0	0	43	44.0	0	0	0	0	0	0	0	0	0.0	0	0	21	6	0	0	0	0	27	27.0	0	0	13	6	0	0	0	19	19.0	
16:30 - 16:45	0	0	10	4	0	0	0	14	14.0	0	0	14	4	0	0	0	18	18.0	0	4	26	9	0	0	0	39	36.6	0	0	0	0	0	0	0	0	0.0	0	0	23	3	0	0	0	0	26	26.0	0	0	11	7	0	0	0	18	18.0	
16:45 - 17:00	0	0	6	2	0	1	0	9	10.3	0	0	22	2	0	0	0	24	24.0	0	0	26	4	0	2	0	32	34.6	0	0	0	0	0	0	0	0	0.0	0	0	20	4	0	0	0	0	24	24.0	0	0	11	2	0	0	0	13	13.0	
Hourly Total	0	0	38	7	2	1	0	48	50.3	0	0	76	10	0	0	0	86	86.0	0	4	112	36	2	2	0	156	157.2	0	0	1	0	0	0	0	1	1.0	0	0	87	20	0	0	0	0	107	107.0	0	0	51	18	0	0	0	69	69.0	
17:00 - 17:15	0	0	17	5	0	1	0	23	24.3	0	0	25	0	0	2	0	27	29.6	0	0	31	10	0	1	0	42	43.3	0	0	1	0	0	0	0	1	1.0	0	0	25	6	0	0	0	0	31	31.0	0	0	9	1	0	0	0	10	10.0	
17:15 - 17:30	0	0	8	1	0	0	0	9	9.0	0	1	16	0	0	0	0	17	16.4	0	0	28	4	0	0	0	32	32.0	0	0	0	0	0	0	0	0	0.0	0	0	16	2	0	0	0	0	18	18.0	0	0	16	1	0	0	0	17	17.0	
17:30 - 17:45	0	0	15	0	0	0	0	15	15.0	0	0	25	2	0	0	0	27	27.0	0	0	33	3	1	1	0	38	39.8	0	0	1	0	0	0	0	1	1.0	0	0	19	2	0	0	0	0	21	21.0	0	0	17	2	0	0	0	1	20	21.0
17:45 - 18:00	0	0	4	0	0	0	0	4	4.0	0	0	17	0	0	0	0	17	17.0	0	0	16	4	1	2	0	23	26.1	0	0	0	0	0	0	0	0	0.0	0	0	14	3	0	0	0	0	17	17.0	0	0	8	2	0	0	0	10	10.0	
Hourly Total	0	0	44	6	0	1	0	51	52.3	0	1	83	2	0	2	0	88	90.0	0	0	108	21	2	4	0	135	141.2	0	0	2	0	0	0	0	2	2.0	0	0	74	13	0	0	0	0	87	87.0	0	0	50	6	0	0	1	57	58.0	
18:00 - 18:15	0	0	14	0	0	0	0	14	14.0	0	0	36	1	0	0	0	37	37.0	0	0	27	5	1	0	0	33	33.5	0	0	1	0	0	0	0	1	1.0	0	0	18	5	0	0	0	0	23	23.0	0	0	12	4	1	0	0	17	17.5	
18:15 - 18:30	0	0	8	1	1	0	0	10	10.5	0	0	28	0	0	0	0	28	28.0	0	0	17	4	0	0	0	21	21.0	0	0	1	0	0	0	0	1	1.0	0	0	12	0	0	0	0	0	12	12.0	0	0	9	0	0	0	0	9	9.0	
18:30 - 18:45	0	0	6	0	0	0	0	6	6.0	0	0	12	1	0	0	0	13	13.0	0	0	10	1	1	0	0	12	12.5	0	0	1	0	0	0	0	1	1.0	0	0	7	1	0	0	0	0	8	8.0	0	0	10	2	1	0	0	13	13.5	
18:45 - 19:00	0	0	3	0	1	0	0	4	4.5	0	0	29	3	0	0	0	32	32.0	0	0	16	4	3	0	0	23	24.5	0	0	0	0	0	0	0	0	0.0	0	0	16	1	0	0	0	0	17	17.0	0	0	10	1	0	0	1	12	13.0	
Hourly Total	0	0	31	1	2	0</																																																		

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

[illegible]

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A453 South

TIME	To A50							To Hilton Hotel Lane							To M1 J24 (N)							To A453 (N)							To Derby Road							To M1 J24 (S)																		
	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs									
07:00 - 07:15	0	1	128	30	19	17	0	195	226.0	0	0	0	0	0	0	0	0	0.0	0	0	30	2	2	7	0	41	51.1	0	0	23	11	1	2	0	37	40.1	0	0	3	2	1	1	0	7	8.8	0	0	4	2	1	3	0	10	14.4
07:15 - 07:30	0	0	154	30	7	17	0	208	233.6	0	0	0	1	0	0	0	1	1.0	0	0	33	5	0	7	0	45	54.1	0	0	25	9	1	2	1	38	42.1	0	0	4	3	1	1	0	9	10.8	0	0	4	3	1	4	0	12	17.7
07:30 - 07:45	0	0	180	37	10	23	1	251	286.9	0	0	1	0	0	0	0	1	1.0	0	0	43	5	0	4	0	52	57.2	0	0	36	7	2	2	1	48	52.6	0	0	5	2	1	0	0	8	8.5	0	0	4	2	1	3	0	10	14.4
07:45 - 08:00	0	0	180	26	12	19	0	237	267.7	0	0	2	0	0	0	0	2	2.0	0	0	50	10	0	10	0	70	83.0	0	0	55	8	2	5	0	70	77.5	0	0	6	1	0	1	0	8	9.3	0	0	9	2	2	5	0	18	25.5
Hourly Total	0	1	642	123	48	76	1	891	1014.2	0	0	3	1	0	0	0	4	4.0	0	0	156	22	2	28	0	208	245.4	0	0	139	36	6	11	2	193	212.3	0	0	18	8	3	3	0	32	37.4	0	0	21	9	5	15	0	50	72.0
08:00 - 08:15	0	1	173	42	13	8	0	237	253.3	0	0	1	0	0	0	0	1	1.0	0	0	37	1	3	10	0	51	65.5	0	0	38	7	3	1	0	49	51.8	0	0	5	2	1	0	0	8	8.5	0	0	8	3	1	1	0	13	14.8
08:15 - 08:30	0	0	183	24	15	10	0	232	252.5	0	0	2	0	0	0	0	2	2.0	0	0	51	7	2	7	0	67	77.1	0	0	51	9	3	2	0	65	69.1	0	0	5	1	0	0	0	6	6.0	0	0	8	2	2	4	0	16	22.2
08:30 - 08:45	0	1	125	18	15	17	1	177	207.0	0	0	0	0	0	0	0	0	0.0	0	0	58	8	0	7	0	73	82.1	0	0	60	9	2	4	0	75	81.2	0	0	6	1	0	1	0	8	9.3	0	0	11	1	2	3	0	17	21.9
08:45 - 09:00	0	0	107	22	10	18	0	157	185.4	0	0	2	0	0	0	0	2	2.0	0	0	51	8	2	12	0	73	89.6	0	0	51	4	2	1	0	58	60.3	0	0	5	2	1	0	0	8	8.5	0	0	6	1	1	2	2	12	17.1
Hourly Total	0	2	588	106	53	53	1	803	898.2	0	0	5	0	0	0	0	5	5.0	0	0	197	24	7	36	0	264	314.3	0	0	200	29	10	8	0	247	262.4	0	0	21	6	2	1	0	30	32.3	0	0	33	7	6	10	2	58	76.0
09:00 - 09:15	0	0	101	17	10	23	1	152	187.9	0	0	1	0	0	0	0	1	1.0	0	0	16	3	2	5	0	26	33.5	0	0	16	3	2	6	0	27	35.8	0	0	3	2	1	0	0	6	6.5	0	0	5	2	2	3	0	12	16.9
09:15 - 09:30	0	0	84	17	10	19	1	131	161.7	0	0	0	0	0	0	0	0	0.0	0	0	29	8	2	12	0	51	67.6	0	0	30	5	4	4	0	43	50.2	0	0	2	1	1	0	0	4	4.5	0	0	4	1	2	2	0	9	12.6
09:30 - 09:45	0	0	74	18	14	12	2	120	144.6	0	0	0	0	0	0	0	0	0.0	0	0	22	8	0	9	0	39	50.7	0	0	17	5	3	2	0	27	31.1	0	0	3	2	0	0	0	5	5.0	0	0	5	2	0	2	0	9	11.6
09:45 - 10:00	0	0	63	16	10	12	0	101	121.6	0	0	1	0	0	0	0	1	1.0	0	0	16	2	0	6	0	24	31.8	0	0	17	9	0	7	1	34	44.1	0	0	2	2	0	0	0	4	4.0	0	0	5	2	0	4	0	11	16.2
Hourly Total	0	0	322	68	44	66	4	504	615.8	0	0	2	0	0	0	0	2	2.0	0	0	83	21	4	32	0	140	183.6	0	0	80	22	9	19	1	131	161.2	0	0	10	7	2	0	0	19	20.0	0	0	19	7	4	11	0	41	57.3

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TOTAL	0	3	1552	297	145	195	6	2198	2528.2	0	0	10	1	0	0	0	11	11.0	0	0	436	67	13	96	0	612	743.3	0	0	419	86	25	38	3	571	635.9	0	0	49	21	7	4	0	81	89.7	0	0	73	23	15	36	2	149	205.3
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16:00 - 16:15	0	0	178	44	14	13	0	249	272.9	0	0	2	0	0	0	0	2	2.0	0	0	95	16	0	4	0	115	120.2	0	0	44	10	0	3	0	57	60.9	0	0	6	2	0	0	0	8	8.0	0	0	5	2	0	2	0	9	11.6
16:15 - 16:30	0	1	181	33	7	12	1	235	254.5	0	0	1	0	0	0	0	1	1.0	0	0	85	8	3	1	0	97	99.8	0	0	48	9	2	1	0	60	62.3	0	0	6	3	0	0	0	9	9.0	0	0	7	2	2	1	0	12	14.3
16:30 - 16:45	0	0	192	55	9	13	0	269	290.4	0	0	1	0	0	0	0	1	1.0	0	0	88	15	6	9	0	118	132.7	0	0	33	10	1	5	0	49	56.0	0	0	5	2	1	0	0	8	8.5	0	0	7	3	1	2	0	13	16.1
16:45 - 17:00	0	0	130	20	7	8	0	165	178.9	0	0	1	0	0	0	0	1	1.0	0	0	94	9	3	2	0	108	112.1	0	0	53	7	1	1	0	62	63.8	0	0	7	2	0	0	0	9	9.0	0	0	7	2	1	2	0	12	15.1
Hourly Total	0	1	681	152	37	46	1	918	996.7	0	0	5	0	0	0	0	5	5.0	0	0	362	48	12	16	0	438	464.8	0	0	178	36	4	10	0	228	243.0	0	0	24	9	1	0	0	34	34.5	0	0	26	9	4	7	0	46	57.1
17:00 - 17:15	0	0	204	26	7	16	1	254	279.3	0	0	0	0	0	0	0	0	0.0	0	0	91	16	2	3	0	112	116.9	0	0	44	6	1	4	1	56	62.7	0	0	7	2	0	1	0	10	11.3	0	0	8	2	1	1	0	12	13.8
17:15 - 17:30	0	0	255	26	6	20	0	307	336.0	0	0	1	0	0	0	0	1	1.0	0	0	56	2	0	2	0	60	62.6	0	0	49	4	4	1	0	58	61.3	0	0	9	2	0	0	0	11	11.0	0	0	5	2	0	2	0	9	11.6
17:30 - 17:45	0	1	191	23	4	9	0	228	241.1	0	0	1	0	0	0	0	1	1.0	0	0	60	1	0	3	0	64	67.9	0	0	67	6	0	2	1	76	79.6	0	0	7	2	0	0	0	9	9.0	0	0	6	2	0	2	0	10	12.6
17:45 - 18:00	0	0	181	19	2	8	0	210	221.4	0	0	2	1	0	0	0	3	3.0	0	0	78	5	0	4	0	87	92.2	0	0	59	7	0	0	0	66	66.0	0	0	7	4	0	0	0	11	11.0	0	0	7	3	0	1	0	11	12.3
Hourly Total	0	1	831	94	19	53	1	999	1077.8	0	0	4	1	0	0	0	5	5.0	0	0	285	24	2	12	0	323	339.6	0	0	219	23	5	7	2	256	269.6	0	0	30	10	0	1	0	41	42.3	0	0	26	9	1	6	0	42	50.3
18:00 - 18:15	0	1	172	14	5	11	1	204	221.2	0	0	1	0	0	0	0	1	1.0	0	0	86	12	0	0	0	98	98.0	0	1	63	10	0	2	0	76	78.0	0	0	6	2	0	0	0	8	8.0	0	0	8	1	0	1	0	10	11.3
18:15 - 18:30	0	0	106	11	1	6	0	124	132.3	0	0	0	0	0	0	0	0	0.0	0	0	64	5	6	0	0	75	78.0	0	0	57	4	0	0	0	61	61.0	0	0	5	0	0	0	0	5	5.0	0	0	6	1	0	0	0	7	7.0
18:30 - 18:45	0	0	115	7	1	5	0	128	135.0	0	0	2	0	0	0	0	2	2.0	0	0	49	3	0	0	0	52	52.0	0	0	67	4	0	3	1	75	79.9	0	0	4	2	0	0	0	6	6.0	0	0	8	3	0	1	0	12	13.3
18:45 - 19:00	0	0	114	13	2	6	0	135	143.8	0	0	0	0	0	0	0	0	0.0	0	0	41	3	1	5	0	50	57.0	0	0	36	3	3	2	1																				

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A50

	To Hilton Hotel Lane							To M1 J24 (N)							To A453 (N)							To Derby Road							To M1 J24 (S)							To A453 (S)									
TIME	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 5 – A453/Grimes Gate Priority Junction Turning Count Results

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: A453 East

TIME	To Grimes Gate				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	4	0	4	4.0	50	7	57	66.1
07:15 - 07:30	2	1	3	4.3	55	8	63	73.4
07:30 - 07:45	5	0	5	5.0	53	5	58	64.5
07:45 - 08:00	6	0	6	6.0	63	11	74	88.3
Hourly Total	17	1	18	19.3	221	31	252	292.3
08:00 - 08:15	4	0	4	4.0	61	9	70	81.7
08:15 - 08:30	5	0	5	5.0	57	6	63	70.8
08:30 - 08:45	7	1	8	9.3	92	11	103	117.3
08:45 - 09:00	3	1	4	5.3	75	6	81	88.8
Hourly Total	19	2	21	23.6	285	32	317	358.6
09:00 - 09:15	7	0	7	7.0	46	7	53	62.1
09:15 - 09:30	6	0	6	6.0	53	6	59	66.8
09:30 - 09:45	7	1	8	9.3	31	5	36	42.5
09:45 - 10:00	2	1	3	4.3	41	9	50	61.7
Hourly Total	22	2	24	26.6	171	27	198	233.1

TOTAL	58	5	63	69.5	677	90	767	884.0
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16:00 - 16:15	21	0	21	21.0	86	9	95	106.7
16:15 - 16:30	12	0	12	12.0	63	7	70	79.1
16:30 - 16:45	9	0	9	9.0	75	4	79	84.2
16:45 - 17:00	9	2	11	13.6	78	7	85	94.1
Hourly Total	51	2	53	55.6	302	27	329	364.1
17:00 - 17:15	15	2	17	19.6	80	6	86	93.8
17:15 - 17:30	20	0	20	20.0	90	6	96	103.8
17:30 - 17:45	20	0	20	20.0	98	6	104	111.8
17:45 - 18:00	15	0	15	15.0	92	6	98	105.8
Hourly Total	70	2	72	74.6	360	24	384	415.2
18:00 - 18:15	8	1	9	10.3	78	2	80	82.6
18:15 - 18:30	16	0	16	16.0	79	4	83	88.2
18:30 - 18:45	7	1	8	9.3	99	5	104	110.5
18:45 - 19:00	11	0	11	11.0	77	3	80	83.9
Hourly Total	42	2	44	46.6	333	14	347	365.2

TOTAL	163	6	169	176.8	995	65	1060	1144.5
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: Grimes Gate

TIME	To A453 (W)				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	0	0	0	0.0	12	0	12	12.0
07:15 - 07:30	0	0	0	0.0	15	1	16	17.3
07:30 - 07:45	1	0	1	1.0	15	0	15	15.0
07:45 - 08:00	4	0	4	4.0	21	1	22	23.3
Hourly Total	5	0	5	5.0	63	2	65	67.6
08:00 - 08:15	0	0	0	0.0	9	0	9	9.0
08:15 - 08:30	1	0	1	1.0	17	0	17	17.0
08:30 - 08:45	2	0	2	2.0	15	1	16	17.3
08:45 - 09:00	7	0	7	7.0	14	0	14	14.0
Hourly Total	10	0	10	10.0	55	1	56	57.3
09:00 - 09:15	1	0	1	1.0	5	0	5	5.0
09:15 - 09:30	3	0	3	3.0	11	0	11	11.0
09:30 - 09:45	1	0	1	1.0	8	1	9	10.3
09:45 - 10:00	1	1	2	3.3	5	2	7	9.6
Hourly Total	6	1	7	8.3	29	3	32	35.9

TOTAL	21	1	22	23.3	147	6	153	160.8
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16:00 - 16:15	1	0	1	1.0	5	0	5	5.0
16:15 - 16:30	3	0	3	3.0	4	0	4	4.0
16:30 - 16:45	0	0	0	0.0	3	0	3	3.0
16:45 - 17:00	1	0	1	1.0	9	1	10	11.3
Hourly Total	5	0	5	5.0	21	1	22	23.3
17:00 - 17:15	2	0	2	2.0	7	0	7	7.0
17:15 - 17:30	3	0	3	3.0	4	0	4	4.0
17:30 - 17:45	3	0	3	3.0	11	0	11	11.0
17:45 - 18:00	1	0	1	1.0	6	0	6	6.0
Hourly Total	9	0	9	9.0	28	0	28	28.0
18:00 - 18:15	1	0	1	1.0	10	1	11	12.3
18:15 - 18:30	3	0	3	3.0	6	0	6	6.0
18:30 - 18:45	1	0	1	1.0	7	0	7	7.0
18:45 - 19:00	2	0	2	2.0	4	0	4	4.0
Hourly Total	7	0	7	7.0	27	1	28	29.3

TOTAL	21	0	21	21.0	76	2	78	80.6
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: A453 West

TIME	To A453 (E)				To Grimes Gate			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	67	12	79	94.6	1	0	1	1.0
07:15 - 07:30	99	16	115	135.8	0	0	0	0.0
07:30 - 07:45	121	13	134	150.9	2	0	2	2.0
07:45 - 08:00	132	8	140	150.4	1	0	1	1.0
Hourly Total	419	49	468	531.7	4	0	4	4.0
08:00 - 08:15	116	9	125	136.7	3	0	3	3.0
08:15 - 08:30	98	10	108	121.0	1	0	1	1.0
08:30 - 08:45	80	16	96	116.8	7	0	7	7.0
08:45 - 09:00	74	9	83	94.7	2	0	2	2.0
Hourly Total	368	44	412	469.2	13	0	13	13.0
09:00 - 09:15	61	8	69	79.4	0	0	0	0.0
09:15 - 09:30	42	13	55	71.9	0	0	0	0.0
09:30 - 09:45	38	15	53	72.5	2	0	2	2.0
09:45 - 10:00	42	8	50	60.4	1	0	1	1.0
Hourly Total	183	44	227	284.2	3	0	3	3.0

TOTAL	970	137	1107	1285.1	20	0	20	20.0
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16:00 - 16:15	69	8	77	87.4	3	0	3	3.0
16:15 - 16:30	60	5	65	71.5	3	0	3	3.0
16:30 - 16:45	93	2	95	97.6	3	0	3	3.0
16:45 - 17:00	45	2	47	49.6	3	0	3	3.0
Hourly Total	267	17	284	306.1	12	0	12	12.0
17:00 - 17:15	76	2	78	80.6	5	0	5	5.0
17:15 - 17:30	52	7	59	68.1	1	0	1	1.0
17:30 - 17:45	97	4	101	106.2	3	0	3	3.0
17:45 - 18:00	63	2	65	67.6	3	0	3	3.0
Hourly Total	288	15	303	322.5	12	0	12	12.0
18:00 - 18:15	51	3	54	57.9	1	0	1	1.0
18:15 - 18:30	40	2	42	44.6	2	0	2	2.0
18:30 - 18:45	32	5	37	43.5	1	0	1	1.0
18:45 - 19:00	32	2	34	36.6	3	0	3	3.0
Hourly Total	155	12	167	182.6	7	0	7	7.0

TOTAL	710	44	754	811.2	31	0	31	31.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 6 – A453/The Green Priority Junction Turning Count Results

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: A453 East

TIME	To The Green				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	3	0	3	3.0	47	7	54	63.1
07:15 - 07:30	1	0	1	1.0	54	8	62	72.4
07:30 - 07:45	0	0	0	0.0	54	5	59	65.5
07:45 - 08:00	0	1	1	2.3	67	10	77	90.0
Hourly Total	4	1	5	6.3	222	30	252	291.0
08:00 - 08:15	2	0	2	2.0	59	9	68	79.7
08:15 - 08:30	8	0	8	8.0	50	6	56	63.8
08:30 - 08:45	11	0	11	11.0	83	11	94	108.3
08:45 - 09:00	4	0	4	4.0	78	6	84	91.8
Hourly Total	25	0	25	25.0	270	32	302	343.6
09:00 - 09:15	2	0	2	2.0	45	7	52	61.1
09:15 - 09:30	4	0	4	4.0	52	6	58	65.8
09:30 - 09:45	0	0	0	0.0	32	5	37	43.5
09:45 - 10:00	3	0	3	3.0	39	10	49	62.0
Hourly Total	9	0	9	9.0	168	28	196	232.4

TOTAL	38	1	39	40.3	660	90	750	867.0
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16:00 - 16:15	7	0	7	7.0	80	9	89	100.7
16:15 - 16:30	0	1	1	2.3	66	6	72	79.8
16:30 - 16:45	3	0	3	3.0	72	4	76	81.2
16:45 - 17:00	5	0	5	5.0	74	7	81	90.1
Hourly Total	15	1	16	17.3	292	26	318	351.8
17:00 - 17:15	2	0	2	2.0	80	6	86	93.8
17:15 - 17:30	4	0	4	4.0	89	6	95	102.8
17:30 - 17:45	3	0	3	3.0	98	6	104	111.8
17:45 - 18:00	3	0	3	3.0	90	6	96	103.8
Hourly Total	12	0	12	12.0	357	24	381	412.2
18:00 - 18:15	3	0	3	3.0	76	2	78	80.6
18:15 - 18:30	0	0	0	0.0	82	4	86	91.2
18:30 - 18:45	1	0	1	1.0	99	5	104	110.5
18:45 - 19:00	3	0	3	3.0	76	3	79	82.9
Hourly Total	7	0	7	7.0	333	14	347	365.2

TOTAL	34	1	35	36.3	982	64	1046	1129.2
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: The Green

TIME	To A453 (W)				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	6	1	7	8.3	2	0	2	2.0
07:15 - 07:30	10	0	10	10.0	3	0	3	3.0
07:30 - 07:45	17	0	17	17.0	6	0	6	6.0
07:45 - 08:00	18	0	18	18.0	2	1	3	4.3
Hourly Total	51	1	52	53.3	13	1	14	15.3
08:00 - 08:15	16	0	16	16.0	3	0	3	3.0
08:15 - 08:30	34	0	34	34.0	5	0	5	5.0
08:30 - 08:45	23	2	25	27.6	2	0	2	2.0
08:45 - 09:00	22	0	22	22.0	3	0	3	3.0
Hourly Total	95	2	97	99.6	13	0	13	13.0
09:00 - 09:15	10	1	11	12.3	1	0	1	1.0
09:15 - 09:30	9	0	9	9.0	2	0	2	2.0
09:30 - 09:45	6	0	6	6.0	1	0	1	1.0
09:45 - 10:00	11	2	13	15.6	2	0	2	2.0
Hourly Total	36	3	39	42.9	6	0	6	6.0

TOTAL	182	6	188	195.8	32	1	33	34.3
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16:00 - 16:15	20	0	20	20.0	2	0	2	2.0
16:15 - 16:30	16	0	16	16.0	2	0	2	2.0
16:30 - 16:45	16	0	16	16.0	4	0	4	4.0
16:45 - 17:00	19	1	20	21.3	1	0	1	1.0
Hourly Total	71	1	72	73.3	9	0	9	9.0
17:00 - 17:15	11	0	11	11.0	5	0	5	5.0
17:15 - 17:30	14	0	14	14.0	2	0	2	2.0
17:30 - 17:45	15	0	15	15.0	3	0	3	3.0
17:45 - 18:00	18	0	18	18.0	4	0	4	4.0
Hourly Total	58	0	58	58.0	14	0	14	14.0
18:00 - 18:15	13	1	14	15.3	2	0	2	2.0
18:15 - 18:30	8	0	8	8.0	2	0	2	2.0
18:30 - 18:45	10	0	10	10.0	1	0	1	1.0
18:45 - 19:00	9	0	9	9.0	2	0	2	2.0
Hourly Total	40	1	41	42.3	7	0	7	7.0

TOTAL	169	2	171	173.6	30	0	30	30.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: A453 West

	To A453 (E)				To The Green			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	66	12	78	93.6	10	1	11	12.3
07:15 - 07:30	96	16	112	132.8	27	0	27	27.0
07:30 - 07:45	117	13	130	146.9	17	0	17	17.0
07:45 - 08:00	131	7	138	147.1	16	1	17	18.3
Hourly Total	410	48	458	520.4	70	2	72	74.6
08:00 - 08:15	116	9	125	136.7	14	1	15	16.3
08:15 - 08:30	94	10	104	117.0	22	0	22	22.0
08:30 - 08:45	85	16	101	121.8	12	0	12	12.0
08:45 - 09:00	73	9	82	93.7	18	1	19	20.3
Hourly Total	368	44	412	469.2	66	2	68	70.6
09:00 - 09:15	60	8	68	78.4	7	0	7	7.0
09:15 - 09:30	40	13	53	69.9	6	0	6	6.0
09:30 - 09:45	39	15	54	73.5	6	0	6	6.0
09:45 - 10:00	41	8	49	59.4	4	1	5	6.3
Hourly Total	180	44	224	281.2	23	1	24	25.3

TOTAL	958	136	1094	1270.8	159	5	164	170.5
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16:00 - 16:15	70	8	78	88.4	33	0	33	33.0
16:15 - 16:30	61	5	66	72.5	15	0	15	15.0
16:30 - 16:45	92	2	94	96.6	30	0	30	30.0
16:45 - 17:00	47	2	49	51.6	28	0	28	28.0
Hourly Total	270	17	287	309.1	106	0	106	106.0
17:00 - 17:15	76	2	78	80.6	28	0	28	28.0
17:15 - 17:30	51	7	58	67.1	22	0	22	22.0
17:30 - 17:45	97	4	101	106.2	37	0	37	37.0
17:45 - 18:00	62	2	64	66.6	17	0	17	17.0
Hourly Total	286	15	301	320.5	104	0	104	104.0
18:00 - 18:15	50	3	53	56.9	14	0	14	14.0
18:15 - 18:30	40	2	42	44.6	9	0	9	9.0
18:30 - 18:45	32	5	37	43.5	5	0	5	5.0
18:45 - 19:00	33	2	35	37.6	8	0	8	8.0
Hourly Total	155	12	167	182.6	36	0	36	36.0

TOTAL	711	44	755	812.2	246	0	246	246.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 7 – A453/East Midlands Airport Signal Junction Turning Count Results

East Midlands Gateway

Thursday 3rd November 2022

Junction: 2

Approach: East Midlands Airport Access

	Left to A453 (E)									Right to A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	33	0	0	0	0	33	33.0	0	0	9	5	0	0	0	14	14.0
07:15 - 07:30	0	0	34	4	1	0	0	39	39.5	0	0	7	1	1	0	1	10	11.5
07:30 - 07:45	0	0	19	0	0	0	0	19	19.0	0	0	6	3	0	0	0	9	9.0
07:45 - 08:00	0	0	17	3	1	1	0	22	23.8	0	0	6	4	0	0	0	10	10.0
Hourly Total	0	0	103	7	2	1	0	113	115.3	0	0	28	13	1	0	1	43	44.5
08:00 - 08:15	0	0	23	4	1	0	0	28	28.5	0	0	10	1	0	0	0	11	11.0
08:15 - 08:30	0	0	35	3	1	1	0	40	41.8	0	0	3	2	0	1	1	7	9.3
08:30 - 08:45	0	0	23	1	0	0	1	25	26.0	0	0	4	1	1	0	0	6	6.5
08:45 - 09:00	0	0	14	2	0	1	1	18	20.3	0	0	2	0	0	1	0	3	4.3
Hourly Total	0	0	95	10	2	2	2	111	116.6	0	0	19	4	1	2	1	27	31.1
09:00 - 09:15	0	0	9	0	1	0	0	10	10.5	0	0	5	0	0	0	0	5	5.0
09:15 - 09:30	0	0	5	0	1	0	0	6	6.5	0	0	3	2	0	0	1	6	7.0
09:30 - 09:45	0	0	7	2	1	0	0	10	10.5	0	0	2	0	1	1	0	4	5.8
09:45 - 10:00	0	0	8	3	0	0	0	11	11.0	0	0	1	2	0	1	0	4	5.3
Hourly Total	0	0	29	5	3	0	0	37	38.5	0	0	11	4	1	2	1	19	23.1

TOTAL	0	0	227	22	7	3	2	261	270.4	0	0	58	21	3	4	3	89	98.7
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16:00 - 16:15	0	0	66	4	1	0	0	71	71.5	0	0	25	4	1	0	0	30	30.5
16:15 - 16:30	0	0	55	5	0	0	0	60	60.0	0	0	18	6	0	0	0	24	24.0
16:30 - 16:45	0	0	60	5	0	0	0	65	65.0	0	0	26	2	0	0	1	29	30.0
16:45 - 17:00	0	0	69	7	0	0	1	77	78.0	0	0	8	2	0	0	0	10	10.0
Hourly Total	0	0	250	21	1	0	1	273	274.5	0	0	77	14	1	0	1	93	94.5
17:00 - 17:15	0	0	57	3	0	0	1	61	62.0	0	0	18	4	0	0	0	22	22.0
17:15 - 17:30	0	0	27	0	1	0	0	28	28.5	0	0	15	2	0	0	0	17	17.0
17:30 - 17:45	0	0	64	6	0	0	0	70	70.0	0	0	15	0	0	0	0	15	15.0
17:45 - 18:00	0	0	59	4	0	0	0	63	63.0	0	0	10	1	0	0	0	11	11.0
Hourly Total	0	0	207	13	1	0	1	222	223.5	0	0	58	7	0	0	0	65	65.0
18:00 - 18:15	0	0	49	5	0	0	0	54	54.0	0	1	12	2	0	0	1	16	16.4
18:15 - 18:30	0	0	47	6	0	0	0	53	53.0	0	0	6	1	0	0	0	7	7.0
18:30 - 18:45	0	0	44	6	0	0	0	50	50.0	0	0	4	1	0	0	1	6	7.0
18:45 - 19:00	0	0	20	0	0	1	0	21	22.3	0	0	10	2	1	0	0	13	13.5
Hourly Total	0	0	160	17	0	1	0	178	179.3	0	1	32	6	1	0	2	42	43.9

TOTAL	0	0	617	51	2	1	2	673	677.3	0	1	167	27	2	0	3	200	203.4
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 2
 Approach: A453 East

TIME	Ahead to A453 (W)									Right to East Midlands Airport Access								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	59	12	6	4	0	81	89.2	0	0	65	6	1	0	0	72	72.5
07:15 - 07:30	0	0	36	16	5	3	0	60	66.4	0	0	65	12	1	0	0	78	78.5
07:30 - 07:45	0	0	78	10	2	7	0	97	107.1	0	0	63	5	0	0	0	68	68.0
07:45 - 08:00	0	0	47	10	5	5	1	68	78.0	0	0	57	6	0	0	0	63	63.0
Hourly Total	0	0	220	48	18	19	1	306	340.7	0	0	250	29	2	0	0	281	282.0
08:00 - 08:15	0	0	56	16	3	5	0	80	88.0	0	0	52	3	0	0	0	55	55.0
08:15 - 08:30	0	0	81	14	2	9	0	106	118.7	0	0	51	2	1	0	0	54	54.5
08:30 - 08:45	0	0	72	18	7	4	0	101	109.7	0	0	55	2	1	2	2	62	67.1
08:45 - 09:00	0	0	67	15	4	4	0	90	97.2	0	0	30	2	0	0	0	32	32.0
Hourly Total	0	0	276	63	16	22	0	377	413.6	0	0	188	9	2	2	2	203	208.6
09:00 - 09:15	0	0	55	8	7	4	1	75	84.7	0	0	22	3	0	0	0	25	25.0
09:15 - 09:30	0	0	37	11	6	3	0	57	63.9	0	0	23	4	1	2	0	30	33.1
09:30 - 09:45	0	1	25	8	4	7	0	45	55.5	0	0	32	1	0	0	0	33	33.0
09:45 - 10:00	0	2	22	10	5	9	1	49	63.0	0	0	21	2	1	1	0	25	26.8
Hourly Total	0	3	139	37	22	23	2	226	267.1	0	0	98	10	2	3	0	113	117.9

TOTAL	0	3	635	148	56	64	3	909	1021.4	0	0	536	48	6	5	2	597	608.5
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16:00 - 16:15	0	0	75	9	2	7	0	93	103.1	0	0	37	5	1	0	0	43	43.5
16:15 - 16:30	0	0	62	10	1	8	0	81	91.9	0	0	27	3	0	0	1	31	32.0
16:30 - 16:45	0	0	74	21	3	4	0	102	108.7	0	0	30	3	0	0	0	33	33.0
16:45 - 17:00	0	0	86	19	2	3	0	110	114.9	0	0	42	8	0	0	2	52	54.0
Hourly Total	0	0	297	59	8	22	0	386	418.6	0	0	136	19	1	0	3	159	162.5
17:00 - 17:15	0	2	102	11	4	2	0	121	124.4	0	0	32	1	0	0	0	33	33.0
17:15 - 17:30	0	0	87	15	5	4	0	111	118.7	0	0	32	1	1	1	0	35	36.8
17:30 - 17:45	0	0	86	12	2	2	0	102	105.6	0	0	21	2	1	0	0	24	24.5
17:45 - 18:00	0	0	73	9	3	1	0	86	88.8	0	0	32	4	1	0	0	37	37.5
Hourly Total	0	2	348	47	14	9	0	420	437.5	0	0	117	8	3	1	0	129	131.8
18:00 - 18:15	0	0	78	8	2	3	0	91	95.9	0	0	21	4	0	0	0	25	25.0
18:15 - 18:30	0	1	68	8	3	2	0	82	85.5	0	0	36	2	0	0	0	38	38.0
18:30 - 18:45	0	2	51	3	2	2	0	60	62.4	0	0	27	4	0	0	0	31	31.0
18:45 - 19:00	0	0	50	2	2	5	0	59	66.5	0	0	19	3	0	0	0	22	22.0
Hourly Total	0	3	247	21	9	12	0	292	310.3	0	0	103	13	0	0	0	116	116.0

TOTAL	0	5	892	127	31	43	0	1098	1166.4	0	0	356	40	4	1	3	404	410.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 2

Approach: A453 West

Left to East Midlands Airport Access										Ahead to A453 (E				
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1
07:00 - 07:15	0	0	18	2	0	0	0	20	20.0	0	0	34	12	3
07:15 - 07:30	0	0	18	1	0	0	1	20	21.0	0	2	74	18	5
07:30 - 07:45	0	0	26	5	0	0	0	31	31.0	0	1	84	17	5
07:45 - 08:00	0	0	31	6	0	1	0	38	39.3	0	0	111	14	4
Hourly Total	0	0	93	14	0	1	1	109	111.3	0	3	303	61	17
08:00 - 08:15	0	0	24	6	0	0	0	30	30.0	0	0	90	22	2
08:15 - 08:30	0	0	28	1	0	0	0	29	29.0	0	0	94	25	5
08:30 - 08:45	0	0	20	1	2	0	1	24	26.0	0	0	50	19	5
08:45 - 09:00	0	0	18	1	0	0	0	19	19.0	0	0	59	8	4
Hourly Total	0	0	90	9	2	0	1	102	104.0	0	0	293	74	16
09:00 - 09:15	0	0	11	0	0	0	0	11	11.0	0	0	50	8	8
09:15 - 09:30	0	0	7	1	0	1	0	9	10.3	0	1	36	11	3
09:30 - 09:45	0	0	4	2	1	0	1	8	9.5	0	0	22	9	5
09:45 - 10:00	0	0	9	3	0	0	0	12	12.0	0	0	35	7	2
Hourly Total	0	0	31	6	1	1	1	40	42.8	0	1	143	35	18
TOTAL	0	0	214	29	3	2	3	251	258.1	0	4	739	170	51
16:00 - 16:15	0	0	6	1	1	0	0	8	8.5	0	0	46	14	4
16:15 - 16:30	0	0	11	3	0	0	0	14	14.0	0	0	45	12	5
16:30 - 16:45	0	0	10	2	1	0	0	13	13.5	0	0	66	12	2
16:45 - 17:00	0	0	8	3	0	0	1	12	13.0	0	0	59	10	0
Hourly Total	0	0	35	9	2	0	1	47	49.0	0	0	216	48	11
17:00 - 17:15	0	0	9	0	0	0	0	9	9.0	0	0	85	8	1
17:15 - 17:30	0	0	6	1	0	0	0	7	7.0	0	0	54	4	0
17:30 - 17:45	0	0	9	0	0	0	1	10	11.0	0	0	76	6	2
17:45 - 18:00	0	0	11	1	0	0	1	13	14.0	0	0	81	3	1
Hourly Total	0	0	35	2	0	0	2	39	41.0	0	0	296	21	4
18:00 - 18:15	0	0	6	0	0	0	0	6	6.0	0	0	50	4	1
18:15 - 18:30	0	0	6	2	0	0	0	8	8.0	0	0	38	2	2
18:30 - 18:45	0	0	6	1	0	0	0	7	7.0	0	1	19	0	0
18:45 - 19:00	0	0	9	2	1	0	0	12	12.5	0	0	40	7	1
Hourly Total	0	0	27	5	1	0	0	33	33.5	0	1	147	13	4
TOTAL	0	0	97	16	3	0	3	119	123.5	0	1	659	82	19

APPENDIX 8 – A453/East Midlands Airport Roundabout Turning Count Results

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: Northern Arm

TIME	To A453 (E)				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	21	3	24	27.9	13	4	17	22.2
07:15 - 07:30	10	3	13	16.9	12	1	13	14.3
07:30 - 07:45	8	4	12	17.2	4	6	10	17.8
07:45 - 08:00	11	4	15	20.2	7	5	12	18.5
Hourly Total	50	14	64	82.2	36	16	52	72.8
08:00 - 08:15	13	1	14	15.3	13	2	15	17.6
08:15 - 08:30	10	2	12	14.6	4	3	7	10.9
08:30 - 08:45	5	3	8	11.9	9	4	13	18.2
08:45 - 09:00	5	2	7	9.6	8	4	12	17.2
Hourly Total	33	8	41	51.4	34	13	47	63.9
09:00 - 09:15	5	2	7	9.6	5	4	9	14.2
09:15 - 09:30	1	5	6	12.5	6	1	7	8.3
09:30 - 09:45	5	5	10	16.5	10	2	12	14.6
09:45 - 10:00	5	3	8	11.9	7	2	9	11.6
Hourly Total	16	15	31	50.5	28	9	37	48.7

TOTAL	99	37	136	184.1	98	38	136	185.4
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16:00 - 16:15	22	6	28	35.8	55	2	57	59.6
16:15 - 16:30	5	4	9	14.2	40	2	42	44.6
16:30 - 16:45	50	1	51	52.3	64	3	67	70.9
16:45 - 17:00	29	1	30	31.3	47	3	50	53.9
Hourly Total	106	12	118	133.6	206	10	216	229.0
17:00 - 17:15	31	1	32	33.3	62	1	63	64.3
17:15 - 17:30	18	3	21	24.9	18	3	21	24.9
17:30 - 17:45	67	3	70	73.9	88	2	90	92.6
17:45 - 18:00	28	2	30	32.6	39	1	40	41.3
Hourly Total	144	9	153	164.7	207	7	214	223.1
18:00 - 18:15	16	2	18	20.6	25	1	26	27.3
18:15 - 18:30	9	1	10	11.3	12	2	14	16.6
18:30 - 18:45	10	2	12	14.6	24	5	29	35.5
18:45 - 19:00	9	2	11	13.6	11	2	13	15.6
Hourly Total	44	7	51	60.1	72	10	82	95.0

TOTAL	294	28	322	358.4	485	27	512	547.1
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: A453 East

TIME	To A453 (W)				To Northern Arm			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	32	3	35	38.9	19	5	24	30.5
07:15 - 07:30	31	5	36	42.5	31	3	34	37.9
07:30 - 07:45	43	4	47	52.2	28	1	29	30.3
07:45 - 08:00	47	8	55	65.4	38	2	40	42.6
Hourly Total	153	20	173	199.0	116	11	127	141.3
08:00 - 08:15	48	6	54	61.8	27	3	30	33.9
08:15 - 08:30	67	5	72	78.5	17	1	18	19.3
08:30 - 08:45	62	10	72	85.0	44	3	47	50.9
08:45 - 09:00	67	4	71	76.2	33	2	35	37.6
Hourly Total	244	25	269	301.5	121	9	130	141.7
09:00 - 09:15	44	4	48	53.2	11	4	15	20.2
09:15 - 09:30	42	4	46	51.2	19	2	21	23.6
09:30 - 09:45	27	1	28	29.3	11	4	15	20.2
09:45 - 10:00	39	7	46	55.1	11	5	16	22.5
Hourly Total	152	16	168	188.8	52	15	67	86.5

TOTAL	549	61	610	689.3	289	35	324	369.5
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16:00 - 16:15	94	4	98	103.2	6	5	11	17.5
16:15 - 16:30	69	4	73	78.2	11	2	13	15.6
16:30 - 16:45	74	1	75	76.3	12	3	15	18.9
16:45 - 17:00	75	6	81	88.8	14	2	16	18.6
Hourly Total	312	15	327	346.5	43	12	55	70.6
17:00 - 17:15	77	2	79	81.6	12	4	16	21.2
17:15 - 17:30	92	4	96	101.2	11	2	13	15.6
17:30 - 17:45	85	2	87	89.6	24	4	28	33.2
17:45 - 18:00	88	3	91	94.9	20	3	23	26.9
Hourly Total	342	11	353	367.3	67	13	80	96.9
18:00 - 18:15	65	2	67	69.6	22	1	23	24.3
18:15 - 18:30	46	1	47	48.3	44	3	47	50.9
18:30 - 18:45	58	0	58	58.0	51	5	56	62.5
18:45 - 19:00	40	0	40	40.0	45	3	48	51.9
Hourly Total	209	3	212	215.9	162	12	174	189.6

TOTAL	863	29	892	929.7	272	37	309	357.1
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: A453 West

TIME	To Northern Arm				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	41	3	44	47.9	55	10	65	78.0
07:15 - 07:30	40	4	44	49.2	113	13	126	142.9
07:30 - 07:45	62	5	67	73.5	126	9	135	146.7
07:45 - 08:00	51	3	54	57.9	136	4	140	145.2
Hourly Total	194	15	209	228.5	430	36	466	512.8
08:00 - 08:15	35	2	37	39.6	117	9	126	137.7
08:15 - 08:30	60	6	66	73.8	106	8	114	124.4
08:30 - 08:45	88	5	93	99.5	92	13	105	121.9
08:45 - 09:00	57	2	59	61.6	86	8	94	104.4
Hourly Total	240	15	255	274.5	401	38	439	488.4
09:00 - 09:15	31	4	35	40.2	62	6	68	75.8
09:15 - 09:30	19	1	20	21.3	45	8	53	63.4
09:30 - 09:45	24	4	28	33.2	40	10	50	63.0
09:45 - 10:00	13	3	16	19.9	40	6	46	53.8
Hourly Total	87	12	99	114.6	187	30	217	256.0

TOTAL	521	42	563	617.6	1018	104	1122	1257.2
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16:00 - 16:15	8	1	9	10.3	81	2	83	85.6
16:15 - 16:30	13	0	13	13.0	71	1	72	73.3
16:30 - 16:45	9	4	13	18.2	72	1	73	74.3
16:45 - 17:00	15	4	19	24.2	46	1	47	48.3
Hourly Total	45	9	54	65.7	270	5	275	281.5
17:00 - 17:15	17	3	20	23.9	73	1	74	75.3
17:15 - 17:30	32	1	33	34.3	55	4	59	64.2
17:30 - 17:45	34	1	35	36.3	67	1	68	69.3
17:45 - 18:00	27	7	34	43.1	51	0	51	51.0
Hourly Total	110	12	122	137.6	246	6	252	259.8
18:00 - 18:15	27	3	30	33.9	48	1	49	50.3
18:15 - 18:30	35	3	38	41.9	40	1	41	42.3
18:30 - 18:45	69	2	71	73.6	27	3	30	33.9
18:45 - 19:00	49	4	53	58.2	32	0	32	32.0
Hourly Total	180	12	192	207.6	147	5	152	158.5

TOTAL	335	33	368	410.9	663	16	679	699.8
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 9 – A453/Walton Hill Signal Junction Turning Count Results

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: Northern Arm

TIME	Left to A453									Right to Walton Hill								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	1	66	9	6	0	1	84	86.6	0	2	27	4	1	0	0	34	33.3
07:15 - 07:30	0	2	66	9	1	0	1	79	79.3	0	0	37	7	1	1	0	46	47.8
07:30 - 07:45	0	1	107	8	2	2	4	124	131.0	0	1	43	12	7	2	0	65	70.5
07:45 - 08:00	0	0	97	12	5	2	3	119	127.1	0	0	48	6	2	1	0	57	59.3
Hourly Total	1	4	336	38	14	4	9	406	424.0	0	3	155	29	11	4	0	202	210.9
08:00 - 08:15	0	0	90	16	3	2	2	113	119.1	0	1	55	13	3	2	0	74	77.5
08:15 - 08:30	0	0	92	7	11	8	1	119	135.9	0	0	51	11	1	5	0	68	75.0
08:30 - 08:45	0	0	86	9	7	3	3	108	118.4	0	1	50	7	2	1	0	61	62.7
08:45 - 09:00	0	1	65	10	1	1	3	81	85.2	0	4	33	5	5	4	0	51	56.3
Hourly Total	0	1	333	42	22	14	9	421	458.6	0	6	189	36	11	12	0	254	271.5
09:00 - 09:15	1	0	26	6	4	1	4	42	48.5	0	0	37	8	4	3	0	52	57.9
09:15 - 09:30	0	1	33	5	2	1	1	43	45.7	2	0	28	7	2	4	0	43	47.6
09:30 - 09:45	0	0	22	3	2	3	3	33	40.9	0	0	28	9	0	1	0	38	39.3
09:45 - 10:00	0	0	19	2	2	0	3	26	30.0	0	0	25	8	4	1	0	38	41.3
Hourly Total	1	1	100	16	10	5	11	144	165.1	2	0	118	32	10	9	0	171	186.1

TOTAL	2	6	769	96	46	23	29	971	1047.7	2	9	462	97	32	25	0	627	668.5
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16:00 - 16:15	0	2	42	8	2	2	2	58	62.4	0	0	62	15	5	2	0	84	89.1
16:15 - 16:30	0	2	39	11	2	1	1	56	58.1	1	1	59	12	0	0	0	73	71.6
16:30 - 16:45	0	0	35	5	2	2	1	45	49.6	0	0	68	10	0	1	0	79	80.3
16:45 - 17:00	1	3	37	5	1	1	2	50	51.2	0	1	41	8	0	2	1	53	56.0
Hourly Total	1	7	153	29	7	6	6	209	221.3	1	2	230	45	5	5	1	289	297.0
17:00 - 17:15	0	0	51	9	1	2	2	65	70.1	0	0	81	4	1	2	0	88	91.1
17:15 - 17:30	0	0	43	10	0	1	1	55	57.3	0	0	67	5	0	1	0	73	74.3
17:30 - 17:45	0	0	47	4	0	0	0	51	51.0	1	2	51	9	0	1	0	64	63.3
17:45 - 18:00	1	0	43	1	0	0	3	48	50.2	0	0	56	2	1	0	0	59	59.5
Hourly Total	1	0	184	24	1	3	6	219	228.6	1	2	255	20	2	4	0	284	288.2
18:00 - 18:15	0	0	49	1	0	0	2	52	54.0	0	0	53	4	0	0	0	57	57.0
18:15 - 18:30	0	1	49	9	0	1	2	62	64.7	0	0	45	1	0	0	0	46	46.0
18:30 - 18:45	1	2	64	4	1	1	2	75	76.8	0	0	17	2	2	0	0	21	22.0
18:45 - 19:00	0	0	52	4	1	1	2	60	63.8	0	0	39	3	1	0	0	43	43.5
Hourly Total	1	3	214	18	2	3	8	249	259.3	0	0	154	10	3	0	0	167	168.5

TOTAL	3	10	551	71	10	12	20	677	709.2	2	4	639	75	10	9	1	740	753.7
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: A453

TIME	Ahead to Walton Hill									Right to Northern Arm								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	20	4	1	3	0	28	32.4	0	0	19	5	1	0	3	28	31.5
07:15 - 07:30	0	0	25	7	1	3	0	36	40.4	0	0	21	7	4	1	0	33	36.3
07:30 - 07:45	0	0	23	9	4	3	1	40	46.9	0	0	27	5	1	1	2	36	39.8
07:45 - 08:00	0	0	24	8	2	4	0	38	44.2	0	0	35	10	2	3	2	52	58.9
Hourly Total	0	0	92	28	8	13	1	142	163.9	0	0	102	27	8	5	7	149	166.5
08:00 - 08:15	0	0	27	3	1	3	0	34	38.4	0	1	29	14	3	2	3	52	58.5
08:15 - 08:30	0	0	35	4	2	8	0	49	60.4	0	0	34	10	2	3	1	50	55.9
08:30 - 08:45	0	0	38	5	1	4	0	48	53.7	0	1	25	6	3	1	1	37	40.2
08:45 - 09:00	0	0	19	5	1	4	0	29	34.7	0	0	30	10	1	3	2	46	52.4
Hourly Total	0	0	119	17	5	19	0	160	187.2	0	2	118	40	9	9	7	185	207.0
09:00 - 09:15	0	0	28	7	1	3	0	39	43.4	0	0	19	5	5	1	1	31	35.8
09:15 - 09:30	0	0	13	5	4	1	0	23	26.3	0	0	15	5	2	2	2	26	31.6
09:30 - 09:45	0	0	17	3	1	4	0	25	30.7	0	0	25	6	4	0	1	36	39.0
09:45 - 10:00	0	0	10	6	1	6	1	24	33.3	0	2	21	6	2	1	1	33	35.1
Hourly Total	0	0	68	21	7	14	1	111	133.7	0	2	80	22	13	4	5	126	141.5

TOTAL	0	0	279	66	20	46	2	413	484.8	0	4	300	89	30	18	19	460	515.0
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16:00 - 16:15	0	1	63	3	3	5	0	75	82.4	0	0	62	4	0	2	2	70	74.6
16:15 - 16:30	0	0	60	7	2	3	1	73	78.9	0	0	57	9	0	2	3	71	76.6
16:30 - 16:45	0	0	92	13	2	3	0	110	114.9	1	0	61	5	1	1	1	70	72.0
16:45 - 17:00	0	0	62	8	0	0	0	70	70.0	0	1	65	3	0	0	2	71	72.4
Hourly Total	0	1	277	31	7	11	1	328	346.2	1	1	245	21	1	5	8	282	295.6
17:00 - 17:15	0	0	78	3	2	1	0	84	86.3	0	2	85	7	0	0	1	95	94.8
17:15 - 17:30	0	0	56	5	0	1	1	63	65.3	0	0	62	8	2	0	2	74	77.0
17:30 - 17:45	0	0	72	0	1	3	0	76	80.4	1	1	78	5	0	0	1	86	85.6
17:45 - 18:00	0	0	53	3	0	0	0	56	56.0	0	0	74	3	0	0	3	80	83.0
Hourly Total	0	0	259	11	3	5	1	279	288.0	1	3	299	23	2	0	7	335	340.4
18:00 - 18:15	0	0	49	2	0	0	0	51	51.0	0	1	37	1	0	1	1	41	42.7
18:15 - 18:30	0	2	36	0	1	0	0	39	38.3	0	2	38	6	0	1	2	49	51.1
18:30 - 18:45	0	2	30	1	0	0	1	34	33.8	0	0	27	4	1	0	0	32	32.5
18:45 - 19:00	0	0	29	1	2	0	0	32	33.0	0	0	26	2	0	0	0	28	28.0
Hourly Total	0	4	144	4	3	0	1	156	156.1	0	3	128	13	1	2	3	150	154.3

TOTAL	0	5	680	46	13	16	3	763	790.3	2	7	672	57	4	7	18	767	790.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: Walton Hill

TIME	Left to Northern Arm									Ahead to A453								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	33	12	2	0	0	48	48.2	0	0	45	6	1	6	1	59	68.3
07:15 - 07:30	1	0	45	12	1	1	0	60	61.0	0	1	64	8	2	5	0	80	86.9
07:30 - 07:45	0	0	49	10	4	1	0	64	67.3	0	0	81	8	3	9	0	101	114.2
07:45 - 08:00	0	0	60	20	1	3	0	84	88.4	0	0	90	6	1	4	0	101	106.7
Hourly Total	2	0	187	54	8	5	0	256	264.9	0	1	280	28	7	24	1	341	376.1
08:00 - 08:15	0	0	54	8	2	0	0	64	65.0	0	0	70	7	2	5	0	84	91.5
08:15 - 08:30	0	0	74	9	3	1	0	87	89.8	0	0	62	16	5	3	1	87	94.4
08:30 - 08:45	0	0	58	4	3	2	1	68	73.1	0	0	57	3	3	6	0	69	78.3
08:45 - 09:00	0	0	49	3	3	3	0	58	63.4	0	0	66	4	4	6	0	80	89.8
Hourly Total	0	0	235	24	11	6	1	277	291.3	0	0	255	30	14	20	1	320	354.0
09:00 - 09:15	0	0	28	3	6	3	0	40	46.9	0	0	47	10	4	6	0	67	76.8
09:15 - 09:30	0	0	36	3	3	2	0	44	48.1	0	0	31	6	3	2	2	44	50.1
09:30 - 09:45	0	1	30	5	5	0	0	41	42.9	0	0	25	6	1	2	0	34	37.1
09:45 - 10:00	0	1	38	5	1	3	0	48	51.8	0	0	31	5	2	3	0	41	45.9
Hourly Total	0	2	132	16	15	8	0	173	189.7	0	0	134	27	10	13	2	186	209.9

TOTAL	2	2	554	94	34	19	1	706	745.9	0	1	669	85	31	57	4	847	940.0
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16:00 - 16:15	0	0	37	9	0	2	0	48	50.6	0	0	33	6	1	1	0	41	42.8
16:15 - 16:30	0	1	47	6	0	1	0	55	55.7	0	0	25	12	3	0	0	40	41.5
16:30 - 16:45	0	2	36	7	0	0	0	45	43.8	0	0	23	11	0	0	0	34	34.0
16:45 - 17:00	0	0	57	7	0	1	0	65	66.3	0	0	30	5	0	0	1	36	37.0
Hourly Total	0	3	177	29	0	4	0	213	216.4	0	0	111	34	4	1	1	151	155.3
17:00 - 17:15	0	1	49	1	1	0	0	52	51.9	0	0	41	3	0	0	0	44	44.0
17:15 - 17:30	0	0	51	3	1	1	0	56	57.8	0	0	35	1	0	0	0	36	36.0
17:30 - 17:45	0	0	50	6	2	0	0	58	59.0	0	1	54	3	0	1	1	60	61.7
17:45 - 18:00	0	1	45	6	2	0	0	54	54.4	0	0	41	2	1	0	0	44	44.5
Hourly Total	0	2	195	16	6	1	0	220	223.1	0	1	171	9	1	1	1	184	186.2
18:00 - 18:15	0	0	36	2	1	0	0	39	39.5	0	0	29	2	2	0	1	34	36.0
18:15 - 18:30	0	0	32	4	0	1	0	37	38.3	0	0	23	0	0	0	0	23	23.0
18:30 - 18:45	0	1	27	3	1	0	0	32	31.9	0	0	39	2	1	1	0	43	44.8
18:45 - 19:00	0	0	28	1	0	0	0	29	29.0	0	0	39	4	0	0	0	43	43.0
Hourly Total	0	1	123	10	2	1	0	137	138.7	0	0	130	8	3	1	1	143	146.8

TOTAL	0	6	495	55	8	6	0	570	578.2	0	1	412	51	8	3	3	478	488.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 10 – M1 Junction 23 Turning Count Results

	To A512									To M1 J23 Slip Road (S)									To Ashby Road East								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	41	28	1	1	2	73	76.8	0	0	0	0	0	0	0	0	0.0	0	0	26	9	0	4	0	39	44.2
07:15 - 07:30	0	0	59	16	6	2	0	83	88.6	0	0	0	0	0	0	0	0	0.0	0	0	27	22	2	1	0	52	54.3
07:30 - 07:45	0	0	115	19	2	0	0	136	137.0	0	0	0	0	0	0	0	0	0.0	0	0	33	17	7	0	0	57	60.5
07:45 - 08:00	0	1	189	31	6	1	0	228	231.7	0	0	0	0	0	0	0	0	0.0	0	0	68	18	9	4	0	99	108.7
Hourly Total	0	1	404	94	15	4	2	520	534.1	0	0	0	0	0	0	0	0	0.0	0	0	154	66	18	9	0	247	267.7
08:00 - 08:15	0	0	153	39	8	3	0	203	210.9	0	0	0	0	0	0	0	0	0.0	0	0	53	24	6	3	0	86	92.9
08:15 - 08:30	0	1	170	23	2	5	0	201	207.9	0	0	0	0	0	0	0	0	0.0	0	0	58	18	7	8	0	91	104.9
08:30 - 08:45	0	0	165	24	9	8	0	206	220.9	0	0	0	0	0	0	0	0	0.0	0	0	39	16	9	2	0	66	73.1
08:45 - 09:00	0	0	131	17	0	3	0	151	154.9	0	0	0	0	0	0	0	0	0.0	0	0	61	17	1	4	1	84	90.7
Hourly Total	0	1	619	103	19	19	0	761	794.6	0	0	0	0	0	0	0	0	0.0	0	0	211	75	23	17	1	327	361.6
09:00 - 09:15	0	0	92	17	2	6	2	119	129.8	0	0	0	0	0	0	0	0	0.0	0	0	42	10	4	5	0	61	69.5
09:15 - 09:30	0	0	84	13	7	4	3	111	122.7	0	0	0	0	0	0	0	0	0.0	0	0	46	16	2	7	0	71	81.1
09:30 - 09:45	0	0	83	16	5	1	0	105	108.8	0	0	0	0	0	0	0	0	0.0	0	0	25	12	2	7	0	46	56.1
09:45 - 10:00	0	0	74	20	5	3	1	103	110.4	0	0	0	0	0	0	0	0	0.0	0	0	25	4	4	4	0	37	44.2
Hourly Total	0	0	333	66	19	14	6	438	471.7	0	0	0	0	0	0	0	0	0.0	0	0	138	42	12	23	0	215	250.9

TOTAL	0	2	1356	263	53	37	8	1719	1800.4	0	0	0	0	0	0	0	0	0.0	0	0	503	183	53	49	1	789	880.2
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16:00 - 16:15	0	0	58	11	3	3	1	76	82.4	0	0	0	0	0	0	0	0	0.0	0	0	28	8	1	3	1	41	46.4
16:15 - 16:30	0	0	83	17	2	0	0	102	103.0	0	0	0	0	0	0	0	0	0.0	0	0	30	17	2	5	0	54	61.5
16:30 - 16:45	0	1	88	20	3	1	0	113	115.2	0	0	0	0	0	0	0	0	0.0	0	0	44	12	5	5	0	66	75.0
16:45 - 17:00	0	1	100	11	2	1	1	116	118.7	0	0	0	0	0	0	0	0	0.0	0	1	36	10	2	4	0	53	58.6
Hourly Total	0	2	329	59	10	5	2	407	419.3	0	0	0	0	0	0	0	0	0.0	0	1	138	47	10	17	1	214	241.5
17:00 - 17:15	0	0	91	14	0	2	0	107	109.6	0	0	0	0	0	0	0	0	0.0	0	0	36	9	0	1	0	46	47.3
17:15 - 17:30	0	0	107	12	1	0	0	120	120.5	0	0	0	0	0	0	0	0	0.0	0	0	37	6	2	7	0	52	62.1
17:30 - 17:45	0	0	70	8	1	1	0	80	81.8	0	0	0	0	0	0	0	0	0.0	0	0	38	5	0	3	0	46	49.9
17:45 - 18:00	0	0	83	9	0	2	0	94	96.6	0	0	0	0	0	0	0	0	0.0	0	0	22	2	1	2	0	27	30.1
Hourly Total	0	0	351	43	2	5	0	401	408.5	0	0	0	0	0	0	0	0	0.0	0	0	133	22	3	13	0	171	189.4
18:00 - 18:15	0	0	71	12	1	1	0	85	86.8	0	0	0	0	0	0	0	0	0.0	0	0	33	5	2	1	0	41	43.3
18:15 - 18:30	0	0	99	6	1	0	1	107	108.5	0	0	0	0	0	0	0	0	0.0	0	0	59	1	2	3	0	65	69.9
18:30 - 18:45	0	0	65	7	0	1	0	73	74.3	0	0	0	0	0	0	0	0	0.0	0	0	41	6	3	4	0	54	60.7
18:45 - 19:00	0	0	84	6	2	0	1	93	95.0	0	0	0	0	0	0	0	0	0.0	0	0	34	11	1	3	0	49	53.4
Hourly Total	0	0	319	31	4	2	2	358	364.6	0	0	0	0	0	0	0	0	0.0	0	0	167	23	8	11	0	209	227.3

TOTAL	0	2	999	133	16	12	4	1166	1192.4	0	0	0	0	0	0	0	0	0.0	0	1	438	92	21	41	1	594	658.2
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To M1 J23 Slip Road (S)									To Ashby Road East									To M1 J23 Slip Road (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	42	7	4	1	0	54	57.3	0	1	39	11	3	0	1	55	56.9	0	0	90	20	2	4	0	116	122.2
07:15 - 07:30	0	0	28	9	2	0	0	39	40.0	0	1	52	14	3	1	0	71	73.2	0	0	106	24	3	4	0	137	143.7
07:30 - 07:45	0	0	30	5	2	1	0	38	40.3	0	0	65	8	4	4	1	82	90.2	0	1	121	13	4	1	0	140	142.7
07:45 - 08:00	0	0	21	7	1	2	1	32	36.1	0	0	79	14	2	1	2	98	102.3	0	0	100	14	3	5	0	122	130.0
Hourly Total	0	0	121	28	9	4	1	163	173.7	0	2	235	47	12	6	4	306	322.6	0	1	417	71	12	14	0	515	538.6
08:00 - 08:15	0	0	35	3	2	3	0	43	47.9	0	0	101	12	5	0	0	118	120.5	0	1	82	10	3	4	0	100	106.1
08:15 - 08:30	0	0	22	4	4	1	0	31	34.3	0	0	51	8	0	0	1	60	61.0	0	0	90	12	3	2	0	107	111.1
08:30 - 08:45	0	0	19	7	2	6	3	37	48.8	0	0	72	14	2	4	0	92	98.2	0	0	81	7	1	3	1	93	98.4
08:45 - 09:00	0	0	19	7	3	3	1	33	39.4	0	0	59	18	0	0	2	79	81.0	0	1	70	9	2	3	0	85	89.3
Hourly Total	0	0	95	21	11	13	4	144	170.4	0	0	283	52	7	4	3	349	360.7	0	2	323	38	9	12	1	385	404.9
09:00 - 09:15	0	0	19	12	3	2	1	37	42.1	0	0	45	20	3	2	1	71	76.1	0	1	76	15	3	1	0	96	98.2
09:15 - 09:30	0	0	19	2	6	2	0	29	34.6	0	0	45	14	3	0	2	64	67.5	0	0	57	11	2	5	0	75	82.5
09:30 - 09:45	0	0	28	7	7	4	2	48	58.7	0	0	42	14	1	3	0	60	64.4	0	0	64	12	4	5	0	85	93.5
09:45 - 10:00	0	0	22	9	3	2	0	36	40.1	0	0	46	13	4	1	1	65	69.3	0	1	53	10	6	2	0	72	77.0
Hourly Total	0	0	88	30	19	10	3	150	175.5	0	0	178	61	11	6	4	260	277.3	0	2	250	48	15	13	0	328	351.2

TOTAL	0	0	304	79	39	27	8	457	519.6	0	2	696	160	30	16	11	915	960.6	0	5	990	157	36	39	1	1228	1294.7
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16:00 - 16:15	0	0	102	14	2	1	0	119	121.3	0	0	127	16	2	1	2	148	152.3	0	0	102	16	3	0	3	124	128.5
16:15 - 16:30	0	1	99	12	0	1	1	114	115.7	0	0	113	10	2	2	2	129	134.6	0	0	121	11	4	2	1	139	144.6
16:30 - 16:45	0	0	79	16	1	3	0	99	103.4	1	1	121	14	1	1	0	139	139.4	0	0	120	22	1	1	0	144	145.8
16:45 - 17:00	0	1	95	12	0	0	0	108	107.4	0	2	134	15	1	2	0	154	155.9	0	0	126	18	2	2	2	150	155.6
Hourly Total	0	2	375	54	3	5	1	440	447.8	1	3	495	55	6	6	4	570	582.2	0	0	469	67	10	5	6	557	574.5
17:00 - 17:15	0	0	90	11	0	0	1	102	103.0	0	0	162	13	0	1	3	179	183.3	0	0	112	16	1	2	1	132	136.1
17:15 - 17:30	0	0	87	8	1	1	1	98	100.8	0	1	92	10	0	0	0	103	102.4	0	0	135	14	1	3	1	154	159.4
17:30 - 17:45	0	0	78	4	1	0	0	83	83.5	0	0	124	13	1	3	1	142	147.4	0	0	91	4	1	0	0	96	96.5
17:45 - 18:00	0	0	53	10	0	0	0	63	63.0	0	0	72	9	0	0	3	84	87.0	0	0	91	6	1	0	0	98	98.5
Hourly Total	0	0	308	33	2	1	2	346	350.3	0	1	450	45	1	4	7	508	520.1	0	0	429	40	4	5	2	480	490.5
18:00 - 18:15	0	0	52	3	0	0	0	55	55.0	0	7	83	17	1	3	2	113	115.2	0	1	62	6	0	0	0	69	68.4
18:15 - 18:30	0	0	38	4	0	1	3	46	50.3	0	0	104	15	0	0	2	121	123.0	0	1	48	4	3	0	0	56	56.9
18:30 - 18:45	0	0	40	2	2	0	0	44	45.0	0	0	61	9	0	0	1	71	72.0	0	1	50	6	0	1	0	58	58.7
18:45 - 19:00	0	0	24	2	0	0	1	27	28.0	0	0	56	7	0	1	1	65	67.3	0	0	47	5	1	1	1	55	57.8
Hourly Total	0	0	154	11	2	1	4	172	178.3	0	7	304	48	1	4	6	370	377.5	0	3	207	21	4	2	1	238	241.8

TOTAL	0	2	837	98	7	7	7	958	976.4	1	11	1249	148	8	14	17	1448	1479.8	0	3	1105	128	18	12	9	1275	1306.8
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To Ashby Road East									To M1 J23 Slip Road (N)									To A512								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	15	2	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	30	9	3	0	0	42	43.5
07:15 - 07:30	0	1	24	7	1	0	0	33	32.9	0	0	0	0	0	0	0	0	0.0	0	0	49	6	6	0	0	61	64.0
07:30 - 07:45	0	0	34	8	2	2	0	46	49.6	0	0	0	0	0	0	0	0	0.0	0	0	60	10	6	3	0	79	85.9
07:45 - 08:00	0	0	37	7	1	3	0	48	52.4	0	0	0	0	0	0	0	0	0.0	0	1	74	8	2	2	0	87	90.0
Hourly Total	0	1	110	24	6	9	0	150	164.1	0	0	0	0	0	0	0	0	0.0	0	1	213	33	17	5	0	269	283.4
08:00 - 08:15	0	0	33	9	5	4	0	51	58.7	0	0	0	0	0	0	0	0	0.0	0	0	92	13	2	2	0	109	112.6
08:15 - 08:30	0	0	21	11	1	4	0	37	42.7	0	0	0	0	0	0	0	0	0.0	0	0	109	16	2	1	0	128	130.3
08:30 - 08:45	0	0	17	7	1	4	0	29	34.7	0	0	0	0	0	0	0	0	0.0	0	0	105	6	2	2	1	116	120.6
08:45 - 09:00	0	0	19	5	1	2	0	27	30.1	0	0	0	0	0	0	0	0	0.0	0	0	80	8	3	1	0	92	94.8
Hourly Total	0	0	90	32	8	14	0	144	166.2	0	0	0	0	0	0	0	0	0.0	0	0	386	43	9	6	1	445	458.3
09:00 - 09:15	0	0	16	9	3	3	0	31	36.4	0	0	0	0	0	0	0	0	0.0	0	0	76	5	4	0	0	85	87.0
09:15 - 09:30	0	0	13	10	2	2	0	27	30.6	0	0	0	0	0	0	0	0	0.0	0	0	55	7	3	1	0	66	68.8
09:30 - 09:45	0	0	14	3	1	1	1	20	22.8	0	0	0	0	0	0	0	0	0.0	0	0	36	6	4	3	1	50	56.9
09:45 - 10:00	0	0	18	5	0	2	0	25	27.6	0	0	0	0	0	0	0	0	0.0	0	0	34	8	2	4	0	48	54.2
Hourly Total	0	0	61	27	6	8	1	103	117.4	0	0	0	0	0	0	0	0	0.0	0	0	201	26	13	8	1	249	266.9

TOTAL	0	1	261	83	20	31	1	397	447.7	0	0	0	0	0	0	0	0	0.0	0	1	800	102	39	19	2	963	1008.6
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16:00 - 16:15	0	0	12	5	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	28	2	2	0	1	33	35.0
16:15 - 16:30	0	0	34	7	2	4	0	47	53.2	0	0	0	0	0	0	0	0	0.0	0	0	28	10	2	1	0	41	43.3
16:30 - 16:45	0	0	32	7	3	2	0	44	48.1	0	0	0	0	0	0	0	0	0.0	0	0	47	5	0	4	0	56	61.2
16:45 - 17:00	0	0	22	3	2	1	0	28	30.3	0	0	0	0	0	0	0	0	0.0	0	0	28	3	1	0	0	32	32.5
Hourly Total	0	0	100	22	9	11	0	142	160.8	0	0	0	0	0	0	0	0	0.0	0	0	131	20	5	5	1	162	172.0
17:00 - 17:15	0	0	17	3	1	6	0	27	35.3	0	0	0	0	0	0	0	0	0.0	0	0	47	3	1	0	1	52	53.5
17:15 - 17:30	0	0	38	4	3	5	0	50	58.0	0	0	0	0	0	0	0	0	0.0	0	0	50	4	1	1	0	56	57.8
17:30 - 17:45	0	0	30	4	1	2	0	37	40.1	0	0	0	0	0	0	0	0	0.0	0	0	44	2	2	1	0	49	51.3
17:45 - 18:00	0	0	24	2	3	2	0	31	35.1	0	0	0	0	0	0	0	0	0.0	0	0	32	3	2	0	0	37	38.0
Hourly Total	0	0	109	13	8	15	0	145	168.5	0	0	0	0	0	0	0	0	0.0	0	0	173	12	6	2	1	194	200.6
18:00 - 18:15	0	0	20	6	2	2	0	30	33.6	0	0	0	0	0	0	0	0	0.0	0	0	41	0	1	1	0	43	44.8
18:15 - 18:30	0	0	31	3	2	1	0	37	39.3	0	0	0	0	0	0	0	0	0.0	0	0	34	3	0	0	0	37	37.0
18:30 - 18:45	0	0	29	3	1	3	0	36	40.4	0	0	0	0	0	0	0	0	0.0	0	0	23	4	0	0	0	27	27.0
18:45 - 19:00	0	0	24	0	1	1	0	26	27.8	0	0	0	0	0	0	0	0	0.0	0	0	22	3	1	0	0	26	26.5
Hourly Total	0	0	104	12	6	7	0	129	141.1	0	0	0	0	0	0	0	0	0.0	0	0	120	10	2	1	0	133	135.3

TOTAL	0	0	313	47	23	33	0	416	470.4	0	0	0	0	0	0	0	0	0.0	0	0	424	42	13	8	2	489	507.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To M1 J23 Slip Road (N)									To A512									To M1 J23 Slip Road (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	58	23	2	8	0	92	102.8	0	0	74	13	1	1	1	90	92.8	0	0	38	11	1	2	0	52	55.1
07:15 - 07:30	0	0	55	13	2	10	0	80	94.0	0	1	75	21	2	2	1	102	106.0	0	0	28	7	1	3	0	39	43.4
07:30 - 07:45	0	0	70	17	2	7	0	96	106.1	0	1	135	17	5	1	1	160	164.2	0	0	27	9	0	1	0	37	38.3
07:45 - 08:00	0	0	52	9	1	3	0	65	69.4	0	1	165	15	4	1	2	188	192.7	0	0	20	9	4	3	0	36	41.9
Hourly Total	0	1	235	62	7	28	0	333	372.3	0	3	449	66	12	5	5	540	555.7	0	0	113	36	6	9	0	164	178.7
08:00 - 08:15	0	0	44	10	6	1	0	61	65.3	0	0	137	15	0	0	4	156	160.0	0	0	21	2	2	1	0	26	28.3
08:15 - 08:30	0	0	30	10	3	1	0	44	46.8	0	2	162	21	6	6	2	199	210.6	0	0	16	4	0	1	0	21	22.3
08:30 - 08:45	0	0	31	7	2	1	0	41	43.3	0	0	149	13	5	8	1	176	189.9	0	0	15	3	2	4	0	24	30.2
08:45 - 09:00	0	0	39	8	2	2	0	51	54.6	0	0	114	15	6	1	1	137	142.3	0	1	19	1	4	4	0	29	35.6
Hourly Total	0	0	144	35	13	5	0	197	210.0	0	2	562	64	17	15	8	668	702.8	0	1	71	10	8	10	0	100	116.4
09:00 - 09:15	0	0	27	6	3	6	0	42	51.3	0	1	102	15	5	2	0	125	129.5	0	0	15	1	2	2	0	20	23.6
09:15 - 09:30	0	1	15	6	1	5	1	29	36.4	1	0	88	13	8	3	1	114	122.1	0	0	10	5	1	2	0	18	21.1
09:30 - 09:45	0	0	30	6	2	4	0	42	48.2	0	1	95	11	6	1	1	115	119.7	0	0	12	3	1	4	0	20	25.7
09:45 - 10:00	0	0	7	8	5	2	0	22	27.1	0	1	109	16	0	1	1	128	129.7	0	0	10	6	2	6	0	24	32.8
Hourly Total	0	1	79	26	11	17	1	135	163.0	1	3	394	55	19	7	3	482	501.0	0	0	47	15	6	14	0	82	103.2

TOTAL	0	2	458	123	31	50	1	665	745.3	1	8	1405	185	48	27	16	1690	1759.5	0	1	231	61	20	33	0	346	398.3
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16:00 - 16:15	0	0	55	15	3	1	0	74	76.8	0	0	85	11	1	0	1	98	99.5	0	0	34	8	1	1	0	44	45.8
16:15 - 16:30	0	1	44	9	1	3	0	58	61.8	1	0	84	17	0	0	1	103	103.2	0	0	33	9	0	1	0	43	44.3
16:30 - 16:45	0	0	38	15	1	1	1	56	58.8	0	0	88	10	0	0	0	98	98.0	0	0	31	10	2	5	0	48	55.5
16:45 - 17:00	0	0	31	7	3	0	0	41	42.5	0	0	79	11	0	0	1	91	92.0	0	0	24	7	1	2	0	34	37.1
Hourly Total	0	1	168	46	8	5	1	229	239.9	1	0	336	49	1	0	3	390	392.7	0	0	122	34	4	9	0	169	182.7
17:00 - 17:15	0	0	47	9	1	1	0	58	59.8	0	1	89	11	0	0	1	102	102.4	0	0	28	5	2	0	0	35	36.0
17:15 - 17:30	0	0	49	8	2	1	0	60	62.3	0	1	104	13	0	1	0	119	119.7	0	0	28	2	0	0	0	30	30.0
17:30 - 17:45	0	0	41	8	0	0	0	49	49.0	0	0	74	5	0	0	3	82	85.0	0	0	29	4	0	0	0	33	33.0
17:45 - 18:00	0	0	35	7	0	2	0	44	46.6	0	0	72	3	2	1	0	78	80.3	0	0	17	1	0	0	0	18	18.0
Hourly Total	0	0	172	32	3	4	0	211	217.7	0	2	339	32	2	2	4	381	387.4	0	0	102	12	2	0	0	116	117.0
18:00 - 18:15	0	0	25	4	1	2	0	32	35.1	0	0	72	14	0	1	1	88	90.3	0	0	20	2	1	1	0	24	25.8
18:15 - 18:30	0	0	23	3	0	0	0	26	26.0	0	1	55	5	0	0	3	64	66.4	0	0	16	3	0	2	0	21	23.6
18:30 - 18:45	0	0	17	0	0	0	0	17	17.0	0	0	84	9	0	0	2	95	97.0	0	0	10	3	0	1	1	15	17.3
18:45 - 19:00	0	0	18	1	1	0	0	20	20.5	0	0	75	7	1	0	0	83	83.5	0	0	10	2	0	1	0	13	14.3
Hourly Total	0	0	83	8	2	2	0	95	98.6	0	1	286	35	1	1	6	330	337.2	0	0	56	10	1	5	1	73	81.0

TOTAL	0	1	423	86	13	11	1	535	556.2	1	3	961	116	4	3	13	1101	1117.3	0	0	280	56	7	14	1	358	380.7
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PCU Factors:

CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 11 – A42/A453A/Top Brand Junction Turning Count Results

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: A453

	To Gelscoe Lane										To Top Brand										To A42 Entry Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	3	0	0	0	0	3	3.0	0	0	10	0	0	1	0	11	12.3	0	0	6	5	2	1	0	14	16.3			
07:15 - 07:30	1	0	11	1	0	0	0	13	12.2	0	1	7	3	0	8	0	19	28.8	0	0	18	2	1	0	0	21	21.5			
07:30 - 07:45	0	0	11	2	1	0	0	14	14.5	0	1	14	5	0	4	0	24	28.6	0	0	9	1	1	0	0	11	11.5			
07:45 - 08:00	0	0	11	2	0	0	0	13	13.0	0	0	12	2	0	6	0	20	27.8	0	0	17	2	1	0	0	20	20.5			
Hourly Total	1	0	36	5	1	0	0	43	42.7	0	2	43	10	0	19	0	74	97.5	0	0	50	10	5	1	0	66	69.8			
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	0	9	2	0	10	0	21	34.0	0	0	10	1	2	2	0	15	18.6			
08:15 - 08:30	0	0	9	0	0	0	0	9	9.0	0	0	18	5	1	8	0	32	42.9	0	0	18	3	1	1	0	23	24.8			
08:30 - 08:45	0	0	8	3	1	0	0	12	12.5	0	0	10	5	1	11	0	27	41.8	0	0	7	4	0	1	0	12	13.3			
08:45 - 09:00	0	0	6	2	0	0	0	8	8.0	0	0	5	3	0	6	0	14	21.8	0	0	12	1	1	1	0	15	16.8			
Hourly Total	0	0	28	6	1	0	0	35	35.5	0	0	42	15	2	35	0	94	140.5	0	0	47	9	4	5	0	65	73.5			
09:00 - 09:15	0	0	6	1	0	0	0	7	7.0	0	0	7	2	0	6	0	15	22.8	0	0	8	3	0	0	0	11	11.0			
09:15 - 09:30	0	0	3	2	0	1	0	6	7.3	0	0	5	2	0	7	0	14	23.1	0	0	1	1	0	1	0	3	4.3			
09:30 - 09:45	0	0	3	4	2	0	0	9	10.0	0	0	4	2	1	6	0	13	21.3	0	0	8	1	1	0	0	10	10.5			
09:45 - 10:00	1	0	3	0	0	0	0	4	3.2	0	0	5	0	0	15	0	20	39.5	0	0	3	2	1	2	0	8	11.1			
Hourly Total	1	0	15	7	2	1	0	26	27.5	0	0	21	6	1	34	0	62	106.7	0	0	20	7	2	3	0	32	36.9			

TOTAL	2	0	79	18	4	1	0	104	105.7	0	2	106	31	3	88	0	230	344.7	0	0	117	26	11	9	0	163	180.2
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16:00 - 16:15	0	0	8	0	0	0	0	8	8.0	0	0	15	4	0	3	0	22	25.9	0	0	23	5	0	0	0	28	28.0
16:15 - 16:30	0	0	4	3	0	0	0	7	7.0	0	0	12	4	1	3	0	20	24.4	0	0	22	4	1	1	0	28	29.8
16:30 - 16:45	0	0	7	3	0	0	0	10	10.0	0	0	23	1	1	0	0	25	25.5	0	0	31	5	1	0	1	38	39.5
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	7	8	0	1	0	16	17.3	0	0	16	2	1	0	0	19	19.5
Hourly Total	0	0	22	6	0	0	0	28	28.0	0	0	57	17	2	7	0	83	93.1	0	0	92	16	3	1	1	113	116.8
17:00 - 17:15	0	0	11	1	0	0	0	12	12.0	0	1	26	2	0	0	0	29	28.4	0	0	18	10	0	0	0	28	28.0
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	24	0	0	0	0	24	24.0	0	0	33	4	1	0	0	38	38.5
17:30 - 17:45	0	0	8	1	0	0	0	9	9.0	0	0	20	4	0	0	0	24	24.0	0	0	21	2	0	1	0	24	25.3
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	1	12	1	0	0	0	14	13.4	0	0	11	3	0	0	0	14	14.0
Hourly Total	0	0	29	2	0	0	0	31	31.0	0	2	82	7	0	0	0	91	89.8	0	0	83	19	1	1	0	104	105.8
18:00 - 18:15	0	0	10	2	0	0	0	12	12.0	0	0	20	0	0	1	0	21	22.3	0	0	22	4	0	2	0	28	30.6
18:15 - 18:30	0	0	8	0	0	0	0	8	8.0	0	0	9	0	0	1	0	10	11.3	0	0	10	2	0	1	0	13	14.3
18:30 - 18:45	0	0	10	2	0	0	0	12	12.0	0	0	16	2	0	0	0	18	18.0	0	0	9	1	2	1	0	13	15.3
18:45 - 19:00	0	0	8	1	0	0	0	9	9.0	0	0	8	0	0	1	0	9	10.3	0	0	11	0	0	1	0	12	13.3
Hourly Total	0	0	36	5	0	0	0	41	41.0	0	0	53	2	0	3	0	58	61.9	0	0	52	7	2	5	0	66	73.5

TOTAL	0	0	87	13	0	0	0	100	100.0	0	2	192	26	2	10	0	232	244.8	0	0	227	42	6	7	1	283	296.1
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: Gelscoe Lane

	To Top Brand									To A42 Entry Slip Road									To A453								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	5	0	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	5	0	1	0	0	6	6.5	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	0	9	0	0	0	0	9	9.0	0	0	3	1	0	0	0	4	4.0
07:45 - 08:00	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	0	0	9	0	1	0	0	10	10.5	0	0	22	0	1	0	0	23	23.5	0	0	12	1	0	0	0	13	13.0
08:00 - 08:15	0	0	3	0	0	0	0	3	3.0	0	0	4	0	2	0	0	6	7.0	0	0	5	0	0	0	0	5	5.0
08:15 - 08:30	0	0	0	1	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
08:30 - 08:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	7	0	0	0	0	7	7.0
Hourly Total	0	0	6	1	0	0	0	7	7.0	0	0	12	0	3	0	0	15	16.5	0	0	20	1	0	0	0	21	21.0
09:00 - 09:15	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	4	0	0	0	0	4	4.0	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	5	1	0	0	0	6	6.0	0	0	13	1	1	0	0	15	15.5	0	0	12	1	0	0	0	13	13.0

TOTAL	0	0	20	2	1	0	0	23	23.5	0	0	47	1	5	0	0	53	55.5	0	0	44	3	0	0	0	47	47.0
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16:00 - 16:15	0	0	6	2	0	0	0	8	8.0	0	0	4	0	0	0	0	4	4.0	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	0	0	6	0	0	0	0	6	6.0	0	0	1	1	0	0	0	2	2.0	0	1	4	2	0	0	0	7	6.4
16:30 - 16:45	0	0	6	0	0	0	0	6	6.0	0	0	6	1	0	0	0	7	7.0	0	0	5	1	0	0	0	6	6.0
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	0	1	0	0	0	1	1.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	0	0	21	2	0	0	0	23	23.0	0	0	11	3	0	0	0	14	14.0	0	1	18	5	0	0	0	24	23.4
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	7	1	0	0	0	8	8.0	1	0	9	0	0	0	0	10	9.2
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	4	1	0	0	0	5	5.0	0	0	6	2	0	0	0	8	8.0
17:30 - 17:45	0	0	2	0	0	0	0	2	2.0	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
17:45 - 18:00	0	0	2	1	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0
Hourly Total	0	0	12	1	0	0	0	13	13.0	0	0	16	3	0	0	0	19	19.0	1	0	20	3	0	0	0	24	23.2
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	1	2	0	0	0	3	3.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	1	1	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	0	0	4	1	0	0	0	5	5.0	0	0	8	3	0	0	0	11	11.0	0	0	17	1	0	0	0	18	18.0

TOTAL	0	0	37	4	0	0	0	41	41.0	0	0	35	9	0	0	0	44	44.0	1	1	55	9	0	0	0	66	64.6
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: Top Brand

	To A42 Entry Slip Road									To A453									To Gelscoe Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	0	0	6	0	7	14.8	0	0	9	2	1	4	0	16	21.7	0	0	2	0	0	1	0	3	4.3
07:15 - 07:30	0	0	0	2	0	6	0	8	15.8	0	0	18	4	2	9	0	33	45.7	0	0	9	2	0	0	0	11	11.0
07:30 - 07:45	0	0	0	0	0	2	0	2	4.6	0	0	31	2	0	13	0	46	62.9	0	0	5	0	0	0	0	5	5.0
07:45 - 08:00	0	0	1	0	0	7	0	8	17.1	0	0	23	4	0	6	1	34	42.8	0	0	5	2	0	0	0	7	7.0
Hourly Total	0	0	2	2	0	21	0	25	52.3	0	0	81	12	3	32	1	129	173.1	0	0	21	4	0	1	0	26	27.3
08:00 - 08:15	0	0	0	0	0	4	0	4	9.2	0	0	22	2	1	4	0	29	34.7	0	0	7	0	0	0	0	7	7.0
08:15 - 08:30	0	0	1	0	1	5	0	7	14.0	0	1	15	1	1	7	1	26	36.0	0	0	3	1	0	0	0	4	4.0
08:30 - 08:45	0	0	0	0	1	3	0	4	8.4	0	0	13	3	2	5	0	23	30.5	0	0	4	0	0	0	0	4	4.0
08:45 - 09:00	0	0	0	0	0	8	0	8	18.4	0	0	20	4	0	4	0	28	33.2	0	0	2	1	0	0	0	3	3.0
Hourly Total	0	0	1	0	2	20	0	23	50.0	0	1	70	10	4	20	1	106	134.4	0	0	16	2	0	0	0	18	18.0
09:00 - 09:15	0	0	0	0	0	1	0	1	2.3	0	0	6	1	0	3	0	10	13.9	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	0	0	0	6	0	6	13.8	0	0	8	4	0	5	0	17	23.5	0	0	4	0	0	0	0	4	4.0
09:30 - 09:45	0	0	0	0	0	4	0	4	9.2	0	0	7	2	0	2	0	11	13.6	0	0	7	0	0	0	0	7	7.0
09:45 - 10:00	0	0	0	0	0	5	0	5	11.5	0	0	7	1	0	1	0	9	10.3	0	0	4	0	0	0	0	4	4.0
Hourly Total	0	0	0	0	0	16	0	16	36.8	0	0	28	8	0	11	0	47	61.3	0	0	16	0	0	0	0	16	16.0

TOTAL	0	0	3	2	2	57	0	64	139.1	0	1	179	30	7	63	2	282	368.8	0	0	53	6	0	1	0	60	61.3
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16:00 - 16:15	0	0	2	0	0	1	0	3	4.3	0	0	10	2	0	0	0	12	12.0	0	0	4	0	2	0	0	6	7.0
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	0	0	14	14.5	0	0	3	1	0	0	0	4	4.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	15	1	0	0	0	16	16.0	0	0	5	2	0	0	0	7	7.0
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	0	1	7	0	0	0	0	8	7.4	0	0	1	2	0	0	0	3	3.0
Hourly Total	0	0	6	0	0	1	0	7	8.3	0	1	43	5	1	0	0	50	49.9	0	0	13	5	2	0	0	20	21.0
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	1	0	14	3	0	1	0	19	19.5	0	0	1	0	0	0	0	1	1.0
17:15 - 17:30	0	0	1	0	0	0	0	1	1.0	0	0	12	1	0	0	0	13	13.0	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	1	0	12	13.3	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	0	0	11	11.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	1	0	48	4	0	2	0	55	56.8	0	0	7	0	0	0	0	7	7.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	13	0	0	2	0	15	17.6	0	0	3	1	0	0	0	4	4.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	1	12	1	0	0	0	14	13.4	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	1	5	1	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	12	1	0	2	0	15	17.6	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	0	2	42	3	0	4	0	51	55.0	0	0	4	1	0	0	0	5	5.0

TOTAL	0	0	9	0	0	1	0	10	11.3	1	3	133	12	1	6	0	156	161.7	0	0	24	6	2	0	0	32	33.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To A453									To Gelscoe Lane									To Top Brand								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 12 – A50 Junction 1 Turning Count Results

APPENDIX 13 – M1 Junction 25 Turning Count Results

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TOTAL	0	4	566	107	14	7	0	698	711.7	0	1	564	109	10	12	1	697	718.0	0	0	0	0	0	0	0	0	0	0	0	0	0	624	129	15	21	2	791	827.8	0	1	269	87	19	11	0	387	410.2
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

PCU Factors	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 14 – Station Road/Broad Rushes Roundabout Junction Turning Count
Results

	Ahead to Station Road (S)									Right to Broad Rushes								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	50	23	3	1	2	80	84.2	0	0	44	13	6	4	0	67	75.2
07:15 - 07:30	0	0	85	19	4	1	3	112	118.3	0	1	67	7	4	11	0	90	105.7
07:30 - 07:45	0	2	102	24	6	0	1	135	137.8	0	0	78	11	2	4	0	95	101.2
07:45 - 08:00	1	2	120	13	9	3	4	152	162.4	0	0	98	11	5	7	0	121	132.6
Hourly Total	1	5	357	79	22	5	10	479	502.7	0	1	287	42	17	26	0	373	414.7
08:00 - 08:15	2	2	106	25	4	4	2	145	151.4	0	1	80	17	6	5	0	109	117.9
08:15 - 08:30	0	0	135	15	3	1	3	157	162.8	0	0	111	11	5	7	0	134	145.6
08:30 - 08:45	0	0	103	20	4	1	0	128	131.3	0	1	91	15	7	8	0	122	135.3
08:45 - 09:00	0	1	85	23	2	1	3	115	119.7	0	1	96	12	5	11	0	125	141.2
Hourly Total	2	3	429	83	13	7	8	545	565.2	0	3	378	55	23	31	0	490	540.0
09:00 - 09:15	0	3	74	20	3	2	2	104	108.3	0	2	47	12	6	9	0	76	89.5
09:15 - 09:30	0	1	76	19	2	1	3	102	106.7	0	0	28	10	4	8	0	50	62.4
09:30 - 09:45	0	0	67	19	6	4	0	96	104.2	0	0	35	6	5	12	0	58	76.1
09:45 - 10:00	0	1	73	12	4	0	3	93	97.4	0	2	39	5	6	10	0	62	76.8
Hourly Total	0	5	290	70	15	7	8	395	416.6	0	4	149	33	21	39	0	246	304.8

TOTAL	3	13	1076	232	50	19	26	1419	1484.5	0	8	814	130	61	96	0	1109	1259.5
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16:00 - 16:15	0	0	95	12	5	1	2	115	120.8	0	0	36	15	5	5	0	61	70.0
16:15 - 16:30	0	0	97	12	4	1	1	115	119.3	0	0	46	7	2	7	0	62	72.1
16:30 - 16:45	0	1	91	11	5	1	2	111	116.2	0	3	50	16	0	9	0	78	87.9
16:45 - 17:00	0	2	104	13	1	2	3	125	129.9	0	0	60	7	2	8	0	77	88.4
Hourly Total	0	3	387	48	15	5	8	466	486.2	0	3	192	45	9	29	0	278	318.4
17:00 - 17:15	0	0	112	14	1	0	1	128	129.5	0	0	70	11	2	5	0	88	95.5
17:15 - 17:30	0	0	189	7	0	0	3	199	202.0	0	3	80	4	2	3	0	92	95.1
17:30 - 17:45	0	2	99	6	1	1	1	110	111.6	0	0	119	5	1	4	0	129	134.7
17:45 - 18:00	0	2	86	10	1	0	3	102	104.3	0	1	95	8	1	4	0	109	114.1
Hourly Total	0	4	486	37	3	1	8	539	547.4	0	4	364	28	6	16	0	418	439.4
18:00 - 18:15	0	4	80	7	0	0	1	92	90.6	0	1	85	3	3	2	0	94	97.5
18:15 - 18:30	0	1	74	9	3	0	3	90	93.9	0	0	57	9	1	4	0	71	76.7
18:30 - 18:45	0	0	103	6	1	0	1	111	112.5	0	0	49	4	0	11	0	64	78.3
18:45 - 19:00	0	0	68	6	1	1	1	77	79.8	0	0	32	4	0	2	0	38	40.6
Hourly Total	0	5	325	28	5	1	6	370	376.8	0	1	223	20	4	19	0	267	293.1

TOTAL	0	12	1198	113	23	7	22	1375	1410.4	0	8	779	93	19	64	0	963	1050.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	Left to Broad Rushes									Ahead to Station Road (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	1	0	0	0	3	3.0	0	0	40	10	2	3	0	55	59.9
07:15 - 07:30	0	0	2	1	0	0	0	3	3.0	0	0	33	13	4	0	2	52	56.0
07:30 - 07:45	0	0	4	0	0	0	0	4	4.0	0	0	73	14	3	0	2	92	95.5
07:45 - 08:00	0	0	2	2	0	0	0	4	4.0	0	0	53	15	4	0	1	73	76.0
Hourly Total	0	0	10	4	0	0	0	14	14.0	0	0	199	52	13	3	5	272	287.4
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	1	51	10	4	0	4	70	75.4
08:15 - 08:30	0	0	5	1	0	1	0	7	8.3	0	0	64	12	8	2	0	86	92.6
08:30 - 08:45	0	0	6	1	0	0	0	7	7.0	0	0	51	10	4	3	2	70	77.9
08:45 - 09:00	0	0	4	2	0	0	0	6	6.0	0	0	64	16	6	1	3	90	97.3
Hourly Total	0	0	20	5	0	1	0	26	27.3	0	1	230	48	22	6	9	316	343.2
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	51	13	2	2	1	69	73.6
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	5	0	56	19	3	4	2	89	93.7
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	1	56	17	2	0	4	80	84.4
09:45 - 10:00	0	0	2	2	0	0	0	4	4.0	0	0	59	11	6	0	0	76	79.0
Hourly Total	0	0	4	3	0	0	0	7	7.0	5	1	222	60	13	6	7	314	330.7

TOTAL	0	0	34	12	0	1	0	47	48.3	5	2	651	160	48	15	21	902	961.3
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16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	2	122	10	3	0	3	140	143.3
16:15 - 16:30	0	0	2	1	0	0	0	3	3.0	0	0	115	24	5	0	1	145	148.5
16:30 - 16:45	0	0	0	0	1	0	0	1	1.5	2	1	125	17	2	0	2	149	149.8
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	1	3	95	9	4	0	2	114	115.4
Hourly Total	0	0	6	1	1	0	0	8	8.5	3	6	457	60	14	0	8	548	557.0
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	1	2	195	23	1	0	2	224	224.5
17:15 - 17:30	0	0	4	1	0	0	0	5	5.0	0	0	119	10	1	1	2	133	136.8
17:30 - 17:45	0	1	1	2	0	0	0	4	3.4	1	3	97	11	0	0	3	115	115.4
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	2	99	13	0	0	1	115	114.8
Hourly Total	0	1	8	3	0	0	0	12	11.4	2	7	510	57	2	1	8	587	591.5
18:00 - 18:15	0	0	2	1	0	0	0	3	3.0	0	4	89	10	0	0	3	106	106.6
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	5	86	5	0	0	0	96	93.0
18:30 - 18:45	0	0	2	0	0	0	0	2	2.0	0	6	64	3	1	0	3	77	76.9
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	66	2	1	0	1	70	71.5
Hourly Total	0	0	6	1	0	0	0	7	7.0	0	15	305	20	2	0	7	349	348.0

TOTAL	0	1	20	5	1	0	0	27	26.9	5	28	1272	137	18	1	23	1484	1496.5
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PCU Factors:

CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 27th September 2023
Junction: 2
Approach: Broad Rushes

TIME	Left to Station Road (N)									Right to Station Road (S)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	4	6	4	0	50	58.2	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	59	17	10	6	0	92	104.8	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	72	12	4	10	0	98	113.0	0	0	3	0	1	0	0	4	4.5
07:45 - 08:00	0	0	75	9	5	10	0	99	114.5	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	242	42	25	30	0	339	390.5	0	0	4	0	1	0	0	5	5.5
08:00 - 08:15	0	0	79	8	1	10	0	98	111.5	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	42	11	9	4	0	66	75.7	0	0	3	0	0	0	0	3	3.0
08:30 - 08:45	0	0	54	7	1	9	0	71	83.2	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	51	13	6	6	0	76	86.8	0	0	5	1	1	0	0	7	7.5
Hourly Total	0	0	226	39	17	29	0	311	357.2	0	0	14	3	1	0	0	18	18.5
09:00 - 09:15	0	0	39	8	5	7	0	59	70.6	0	0	2	0	1	0	0	3	3.5
09:15 - 09:30	0	0	31	16	4	6	0	57	66.8	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	33	6	8	10	0	57	74.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	37	8	5	6	0	56	66.3	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	140	38	22	29	0	229	277.7	0	0	8	2	1	0	0	11	11.5

TOTAL	0	0	608	119	64	88	0	879	1025.4	0	0	26	5	3	0	0	34	35.5
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16:00 - 16:15	0	4	130	17	1	10	0	162	173.1	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	1	3	87	8	3	9	0	111	121.6	0	0	3	0	0	0	0	3	3.0
16:30 - 16:45	0	3	85	11	1	3	0	103	105.6	0	0	3	0	0	0	0	3	3.0
16:45 - 17:00	0	2	90	7	5	5	0	109	116.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	1	12	392	43	10	27	0	485	517.1	0	0	12	1	0	0	0	13	13.0
17:00 - 17:15	0	2	132	12	0	3	0	149	151.7	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	1	90	3	2	2	0	98	101.0	0	0	3	1	0	0	0	4	4.0
17:30 - 17:45	0	0	130	7	2	5	0	144	151.5	0	0	10	0	0	0	0	10	10.0
17:45 - 18:00	0	0	73	6	1	2	0	82	85.1	0	0	4	0	0	0	0	4	4.0
Hourly Total	0	3	425	28	5	12	0	473	489.3	0	0	20	1	0	0	0	21	21.0
18:00 - 18:15	1	4	175	8	1	2	0	191	190.9	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	66	2	4	2	0	75	79.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	2	108	4	1	4	0	119	123.5	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	45	5	0	3	0	53	56.9	0	0	1	0	0	0	0	1	1.0
Hourly Total	1	7	394	19	6	11	0	438	450.3	0	0	8	0	0	0	0	8	8.0

TOTAL	2	22	1211	90	21	50	0	1396	1456.7	0	0	40	2	0	0	0	42	42.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 15 – A453/Kegworth Road Roundabout Junction Turning Count Results

TIME	To Kegworth Road (E)									To Kegworth Road (S)									To A453 Entry Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	14	4	0	0	0	18	18.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	11	2	0	0	0	13	13.0	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	11	0	0	0	0	11	11.0	0	0	7	0	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	10	1	0	0	0	11	11.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	46	7	0	0	0	53	53.0	0	0	17	3	0	1	0	21	22.3	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	8	2	1	0	0	11	11.5	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	5	0	0	0	0	5	5.0	0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	4	0	0	1	0	5	6.3	0	0	2	3	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	5	0	0	0	0	5	5.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	22	2	1	1	0	26	27.8	0	0	14	6	2	0	0	22	23.0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	1	3	4.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	5	2	0	0	0	7	7.0	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	2	3	0	0	0	5	5.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	12	5	0	0	0	17	17.0	0	0	5	1	0	1	1	8	10.3	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	80	14	1	1	0	96	97.8	0	0	36	10	2	2	1	51	55.6	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	1	1	0	0	0	2	2.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	1	0	0	0	4	4.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	5	0	0	0	0	5	5.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	0	0	0	6	6.0	0	0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	15	2	0	0	0	17	17.0	0	0	28	6	1	0	0	35	35.5	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	1	1	0	0	0	2	2.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	1	2	3.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	6	2	0	0	1	9	10.0	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	11	3	0	0	2	16	18.0	0	0	31	5	0	0	0	36	36.0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	3	1	0	0	0	4	4.0	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	9	1	0	0	0	10	10.0	0	0	16	1	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	35	6	0	0	2	43	45.0	0	0	75	12	1	0	0	88	88.5	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To Kegworth Road (S)									To A453 Entry Slip Road									To A453 Exit Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	1	0	0	0	1	1.0	0	0	5	2	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	1	3	0	0	0	4	4.0	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	6	0	0	0	0	6	6.0	0	0	13	0	0	0	0	13	13.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	10	5	0	0	0	15	15.0	0	1	24	2	0	0	0	27	26.4	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	6	1	0	0	0	7	7.0	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	1	2	0	0	0	3	3.0	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	2	1	0	0	0	3	3.0	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	1	1	0	0	0	2	2.0	0	0	6	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	10	5	0	0	0	15	15.0	0	0	16	2	3	1	0	22	24.8	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	1	0	0	1	0	0	0	2	1.2	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	1	1	0	0	0	2	2.0	0	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	4	3	0	0	0	8	7.2	0	0	18	1	0	1	0	20	21.3	0	0	0	0	0	0	0	0	0.0

TOTAL	1	0	24	13	0	0	0	38	37.2	0	1	58	5	3	2	0	69	72.5	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	3	3	2	0	0	0	8	6.2	0	0	32	2	0	0	0	34	34.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	0	0	0	0	3	3.0	0	0	14	2	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	2	1	0	0	0	3	3.0	0	1	13	5	0	0	0	19	18.4	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	33	2	0	0	0	35	35.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	3	13	3	0	0	0	19	17.2	0	1	92	11	0	0	0	104	103.4	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	30	1	0	0	0	31	31.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	1	0	8	0	0	0	0	9	8.2	0	0	7	2	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	5	1	0	0	2	8	10.0	0	0	13	2	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	18	1	0	0	2	22	23.2	0	0	61	7	1	2	0	71	74.1	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	1	1	2.0	0	0	20	1	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	5	1	0	0	0	6	6.0	0	0	22	1	1	0	1	25	26.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	4	0	0	0	0	4	4.0	0	0	5	2	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	1	3	4.0	0	0	27	1	0	0	0	28	28.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	11	1	0	0	2	14	16.0	0	0	74	5	2	0	1	82	84.0	0	0	0	0	0	0	0	0	0.0

TOTAL	1	3	42	5	0	0	4	55	56.4	0	1	227	23	3	2	1	257	261.5	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TOTAL	0	0	10	4	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	2	0	88	18	2	0	1	111	111.4
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APPENDIX 16 – A453/Barton Lane/West Leake Lane Roundabouts Junction Turning
Count Results

	To A453 Entry Slip Road									To Barton Lane (S)									To A453 Exit Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	5	1	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	2	0	0	1	4	5.0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	9	4	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	6	5	1	1	0	13	14.8	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	0	0	21	12	2	3	1	39	44.9	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	8	1	1	0	1	11	12.5	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	10	3	0	3	0	16	19.9	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	10	3	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	2	0	8	10.6	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	33	8	2	5	1	49	57.5	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	1	1	1	1	0	4	5.8	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	5	2	0	0	1	8	9.0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	13	6	1	1	1	22	24.8	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	2	0	0	0	0	2	2.0	0	0	67	26	5	9	3	110	127.2	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	3	0	0	0	0	3	3.0	0	0	7	1	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	9	1	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	1	0	3	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	4	0	0	0	0	4	4.0	1	0	23	2	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	1	0	5	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	1	5	6.0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	1	0	0	0	0	1	1.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	1	0	13	3	0	0	1	18	18.2	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	0	0	14	2	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	7	0	0	0	0	7	7.0	2	0	50	7	0	0	1	60	59.4	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To Barton Lane (S)									To A453 Exit Slip Road									To Barton Lane (N)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0

16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: Barton Lane South

TIME	To A453 Exit Slip Road									To Barton Lane (N)									To A453 Entry Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	5	1	1	0	0	7	7.5	0	0	2	0	2	1	0	5	7.3
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	1	1	1	0	9	10.8
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	13	1	0	2	1	17	20.6
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	11	1	0	4	0	16	21.2
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	2	1	0	0	12	12.5	0	0	32	3	3	8	1	47	59.9
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	2	0	3	5.6	0	0	15	3	0	0	0	18	18.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	13	0	0	0	1	14	15.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	10	0	0	0	0	10	10.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3	0	0	9	1	0	0	1	11	12.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	2	0	4	0	15	20.2	0	0	47	4	0	0	2	53	55.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	3	0	1	0	1	5	6.5
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	1	0	3	4.3	0	0	5	0	0	0	0	5	5.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	1	3	4.5	0	0	4	0	0	2	0	6	8.6
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	7	1	1	2	1	12	16.1	0	0	16	1	1	2	1	21	25.1

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	25	5	2	6	1	39	48.8	0	0	95	8	4	10	4	121	140.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	3	1	1	0	0	5	5.5	0	0	6	4	0	0	0	10	10.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	1	8	2	0	0	1	12	12.4
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0	0	1	7	0	0	1	0	9	9.7
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	7	2	1	0	0	10	10.5	0	2	28	7	0	1	1	39	40.1
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	2	0	0	0	2	2.0	0	0	13	1	0	1	1	16	18.3
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	15	2	0	0	1	18	19.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	13	1	0	0	0	14	14.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	5	3	0	0	0	8	8.0	0	0	47	4	0	1	2	54	57.3
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	5	1	0	1	1	8	10.3
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	4	1	0	1	0	6	7.3
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	0	0	0	0	9	9.0	0	0	15	3	0	2	1	21	24.6

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	21	5	1	0	0	27	27.5	0	2	90	14	0	4	4	114	122.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: A453 Exit Slip Road

	To Barton Lane (N)									To A453 Entry Slip Road									To Barton Lane (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	4	1	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0.0	0	0	24	14	2	5	0	45	52.5
07:15 - 07:30	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	1	25	13	3	5	0	47	54.4
07:30 - 07:45	0	0	1	4	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	30	11	1	3	0	45	49.4
07:45 - 08:00	0	0	4	2	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0.0	0	0	28	17	2	5	0	52	59.5
Hourly Total	0	0	13	7	1	5	0	26	33.0	0	0	0	0	0	0	0	0	0.0	0	1	107	55	8	18	0	189	215.8
08:00 - 08:15	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	39	11	1	5	0	56	63.0
08:15 - 08:30	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0	0	0	49	9	7	8	0	73	86.9
08:30 - 08:45	0	0	10	4	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0.0	0	0	42	6	3	7	0	58	68.6
08:45 - 09:00	0	0	8	5	2	1	0	16	18.3	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	3	0	61	67.4
Hourly Total	0	0	25	11	4	1	0	41	44.3	0	0	0	0	0	0	0	0	0.0	0	0	170	39	16	23	0	248	285.9
09:00 - 09:15	0	0	28	8	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0.0	0	0	34	12	2	7	0	55	65.1
09:15 - 09:30	0	0	5	5	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0.0	0	0	26	7	2	5	0	40	47.5
09:30 - 09:45	0	0	7	2	2	0	0	11	12.0	0	0	0	0	0	0	0	0	0.0	0	0	8	2	1	1	0	12	13.8
09:45 - 10:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	5	5	0	3	0	13	16.9
Hourly Total	0	0	44	15	4	2	0	65	69.6	0	0	0	0	0	0	0	0	0.0	0	0	73	26	5	16	0	120	143.3

TOTAL	0	0	82	33	9	8	0	132	146.9	0	0	0	0	0	0	0	0	0.0	0	1	350	120	29	57	0	557	645.0
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16:00 - 16:15	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	17	5	0	5	1	28	35.5
16:15 - 16:30	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	1	30	4	0	3	0	38	41.3
16:30 - 16:45	0	0	4	1	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	36	2	1	4	0	43	48.7
16:45 - 17:00	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	50	8	0	4	0	62	67.2
Hourly Total	0	1	9	4	0	0	0	14	13.4	0	0	0	0	0	0	0	0	0.0	0	1	133	19	1	16	1	171	192.7
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	34	8	0	1	0	43	44.3
17:15 - 17:30	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	47	5	1	1	0	54	55.8
17:30 - 17:45	0	0	2	1	0	0	1	4	5.0	0	0	0	0	0	0	0	0	0.0	0	0	45	2	0	2	0	49	51.6
17:45 - 18:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	38	3	0	0	0	41	41.0
Hourly Total	0	1	9	1	0	0	1	12	12.4	0	0	0	0	0	0	0	0	0.0	0	0	164	18	1	4	0	187	192.7
18:00 - 18:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	23	3	0	0	0	26	26.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	27	2	0	1	0	30	31.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	13	3	1	2	0	19	22.1
18:45 - 19:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	17	2	0	4	0	23	28.2
Hourly Total	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0	0	0	80	10	1	7	0	98	107.6

TOTAL	0	2	27	5	0	0	1	35	34.8	0	0	0	0	0	0	0	0	0.0	0	1	377	47	3	27	1	456	493.0
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PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: Barton Lane

	To A453 Exit Slip Road										To West Leake Lane										To A453 Entry Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	28	12	2	5	0	47	54.5	0	0	1	3	0	0	0	4	4.0			
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	20	13	1	5	1	41	48.4	0	0	6	2	2	0	0	10	11.0			
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	35	10	2	4	0	51	57.2	0	0	4	5	0	1	0	10	11.3			
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	29	21	1	6	0	57	65.3	0	0	5	1	2	0	0	8	9.0			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	1	112	56	6	20	1	196	225.4	0	0	16	11	4	1	0	32	35.3			
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	41	11	2	5	1	60	68.5	0	0	6	1	0	0	0	7	7.0			
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	47	11	6	7	0	71	83.1	0	0	12	1	1	4	0	18	23.7			
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	41	9	2	6	0	58	66.8	0	0	11	0	2	1	0	14	16.3			
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	4	0	62	69.7	0	0	5	1	0	1	0	7	8.3			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	169	44	15	22	1	251	288.1	0	0	34	3	3	6	0	46	55.3			
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	25	10	1	8	0	44	54.9	0	0	10	3	2	0	0	15	16.0			
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	23	9	2	5	0	39	46.5	0	0	7	0	0	0	0	7	7.0			
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	1	8	10.3	0	0	8	3	1	0	0	12	12.5			
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	5	3	0	3	0	11	14.9	0	0	3	3	0	0	0	6	6.0			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	58	23	3	17	1	102	126.6	0	0	28	9	3	0	0	40	41.5			
TOTAL	0	0	0	0	0	0	0	0	0.0	0	1	339	123	24	59	3	549	640.1	0	0	78	23	10	7	0	118	132.1			

16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	20	5	0	5	1	31	38.5	0	0	4	1	0	0	0	5	5.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	1	35	4	0	3	0	43	46.3	0	0	4	1	0	0	0	5	5.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	1	0	38	1	1	4	0	45	49.9	0	0	1	1	0	0	0	2	2.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	51	8	0	4	0	63	68.2	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	1	144	18	1	16	1	182	202.9	0	0	12	3	0	0	0	15	15.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	32	8	0	1	0	41	42.3	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	1	0	50	3	1	1	0	56	57.0	0	0	2	2	0	0	0	4	4.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	44	2	0	2	1	49	52.6	0	0	4	1	0	0	0	5	5.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	39	5	0	0	0	44	44.0	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	165	18	1	4	1	190	195.9	0	0	12	3	0	0	0	15	15.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	24	3	0	0	0	27	27.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	27	3	0	1	0	31	32.3	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	13	4	1	2	0	20	23.1	0	0	3	0	0	0	0	3	3.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	20	1	0	4	0	25	30.2	0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	84	11	1	7	0	103	112.6	0	0	10	1	0	0	0	11	11.0
TOTAL	0	0	0	0	0	0	0	0	0.0	2	1	393	47	3	27	2	475	511.4	0	0	34	7	0	0	0	41	41.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Exit Slip Road

	To West Leake Lane									To A453 Entry Slip Road									To Barton Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0
07:15 - 07:30	0	0	4	2	2	1	0	9	11.3	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	0	2	2.5
07:30 - 07:45	0	1	3	3	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
07:45 - 08:00	0	0	8	4	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	1	16	11	2	2	0	32	35.0	0	0	0	0	0	0	0	0	0.0	0	0	8	2	1	0	0	11	11.5
08:00 - 08:15	0	0	14	0	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	8	1	0	0	2	11	13.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	5	3	1	0	1	10	11.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	38	5	2	0	3	48	52.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:00 - 09:15	0	0	12	2	0	1	0	15	16.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	6	3	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:30 - 09:45	0	0	7	4	1	2	0	14	17.1	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	4	2	1	0	1	8	9.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	29	11	3	4	2	49	57.7	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0

TOTAL	0	1	83	27	7	6	5	129	144.7	0	0	0	0	0	0	0	0	0.0	0	0	12	2	1	0	0	15	15.5
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16:00 - 16:15	0	0	1	2	0	1	1	5	7.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
16:15 - 16:30	0	0	10	2	0	2	0	14	16.6	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
16:30 - 16:45	0	0	5	4	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	18	1	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	34	9	1	4	2	50	57.7	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
17:00 - 17:15	0	0	13	1	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
17:15 - 17:30	0	0	13	0	0	0	1	14	15.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	11	1	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	47	3	0	1	1	52	54.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0
18:00 - 18:15	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	11	0	0	1	1	13	15.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3
18:30 - 18:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	30	1	0	3	1	35	39.9	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	0	7	8.3

TOTAL	0	0	111	13	1	8	4	137	151.9	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	1	0	14	15.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To A453 Entry Slip Road									To Barton Lane									To A453 Exit Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	35	4	3	3	0	45	50.4	0	0	4	0	3	1	0	8	10.8	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	25	5	0	5	0	35	41.5	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	34	13	1	3	0	51	55.4	0	0	11	1	0	2	1	15	18.6	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	1	57	4	0	8	0	70	79.8	0	0	11	2	0	4	0	17	22.2	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	151	26	4	19	0	201	227.1	0	0	33	3	3	8	1	48	60.9	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	63	7	2	8	0	80	91.4	0	0	16	3	0	2	0	21	23.6	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	36	6	0	3	0	45	48.9	0	0	15	1	0	0	1	17	18.0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	1	40	7	0	6	0	54	61.2	0	0	13	0	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	1	31	8	2	4	0	46	51.6	0	0	10	2	0	1	1	14	16.3	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	2	170	28	4	21	0	225	253.1	0	0	54	6	0	4	2	66	73.2	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	32	6	0	7	0	45	54.1	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	22	7	1	6	0	36	44.3	0	0	4	0	1	1	1	7	9.8	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	25	2	0	6	0	33	40.8	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	18	6	2	6	0	32	40.8	0	0	4	1	1	2	1	9	13.1	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	97	21	3	25	0	146	180.0	0	0	21	2	2	4	2	31	39.2	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	3	418	75	11	65	0	572	660.2	0	0	108	11	5	16	5	145	173.3	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	37	16	3	0	0	56	57.5	0	0	8	5	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	39	13	2	3	0	57	61.9	0	1	6	2	0	0	1	10	10.4	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	37	11	2	2	0	52	55.6	0	1	8	1	0	1	0	11	11.7	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	1	36	5	0	5	0	47	52.9	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	149	45	7	10	0	212	227.9	0	2	32	9	1	1	1	46	47.6	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	37	16	1	1	0	55	56.8	0	0	12	2	0	1	1	16	18.3	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	37	4	1	2	0	44	47.1	0	0	17	3	0	0	1	21	22.0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	38	2	0	2	0	42	44.6	0	0	14	1	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	33	8	1	4	0	46	51.7	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	145	30	3	9	0	187	200.2	0	0	49	6	0	1	2	58	61.3	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	1	24	0	0	0	0	25	24.4	0	0	8	1	0	1	1	11	13.3	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	13	1	3	5	0	22	30.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	1	8	2	0	2	0	13	15.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	12	1	0	2	0	15	17.6	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	2	57	4	3	9	0	75	87.0	0	0	19	2	0	1	1	23	25.3	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	3	351	79	13	28	0	474	515.1	0	2	100	17	1	3	4	127	134.2	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Entry Slip Road

	To Barton Lane										To A453 Exit Slip Road										To West Leake Lane									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 17 – GEH Comparison

	Junction Arm	2022 Observed Flows (Lights AM)	2022 Satum Actual Flows (Lights AM)	GEH Comparison																																																																																																																																																																																																
J1 - A453 / Walton Hill	A Northern Arm B A453 C Walton Hill	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>430</td><td>241</td></tr><tr><td>B</td><td>165</td><td>0</td><td>133</td></tr><tr><td>C</td><td>284</td><td>340</td><td>0</td></tr></table>		A	B	C	A	0	430	241	B	165	0	133	C	284	340	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>721</td><td>337</td></tr><tr><td>B</td><td>131</td><td>0</td><td>228</td></tr><tr><td>C</td><td>399</td><td>320</td><td>0</td></tr></table>		A	B	C	A	0	721	337	B	131	0	228	C	399	320	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>12</td><td>6</td></tr><tr><td>B</td><td>3</td><td>0</td><td>7</td></tr><tr><td>C</td><td>6</td><td>1</td><td>0</td></tr></table>		A	B	C	A	0	12	6	B	3	0	7	C	6	1	0																																																																																																																																																
	A	B	C																																																																																																																																																																																																	
A	0	430	241																																																																																																																																																																																																	
B	165	0	133																																																																																																																																																																																																	
C	284	340	0																																																																																																																																																																																																	
	A	B	C																																																																																																																																																																																																	
A	0	721	337																																																																																																																																																																																																	
B	131	0	228																																																																																																																																																																																																	
C	399	320	0																																																																																																																																																																																																	
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B	3	0	7																																																																																																																																																																																																	
C	6	1	0																																																																																																																																																																																																	
J2- A453 / East Midland Airport Access	A East Midlands Airport Access B A453 (E) C A453(W)	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>104</td><td>35</td></tr><tr><td>B</td><td>239</td><td>0</td><td>312</td></tr><tr><td>C</td><td>127</td><td>458</td><td>0</td></tr></table>		A	B	C	A	0	104	35	B	239	0	312	C	127	458	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>4</td><td>67</td></tr><tr><td>B</td><td>58</td><td>0</td><td>291</td></tr><tr><td>C</td><td>267</td><td>776</td><td>0</td></tr></table>		A	B	C	A	0	4	67	B	58	0	291	C	267	776	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>14</td><td>4</td></tr><tr><td>B</td><td>15</td><td>0</td><td>1</td></tr><tr><td>C</td><td>10</td><td>13</td><td>0</td></tr></table>		A	B	C	A	0	14	4	B	15	0	1	C	10	13	0																																																																																																																																																
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B	239	0	312																																																																																																																																																																																																	
C	127	458	0																																																																																																																																																																																																	
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A	0	4	67																																																																																																																																																																																																	
B	58	0	291																																																																																																																																																																																																	
C	267	776	0																																																																																																																																																																																																	
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C	10	13	0																																																																																																																																																																																																	
J3- A453 / Hunter Road	A Hunter Road B A453 (E) C A453 (W)	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>89</td><td>26</td></tr><tr><td>B</td><td>367</td><td>0</td><td>525</td></tr><tr><td>C</td><td>50</td><td>512</td><td>0</td></tr></table>		A	B	C	A	0	89	26	B	367	0	525	C	50	512	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>155</td><td>0</td></tr><tr><td>B</td><td>543</td><td>0</td><td>281</td></tr><tr><td>C</td><td>0</td><td>578</td><td>0</td></tr></table>		A	B	C	A	0	155	0	B	543	0	281	C	0	578	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>6</td><td>7</td></tr><tr><td>B</td><td>8</td><td>0</td><td>12</td></tr><tr><td>C</td><td>10</td><td>3</td><td>0</td></tr></table>		A	B	C	A	0	6	7	B	8	0	12	C	10	3	0																																																																																																																																																
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B	367	0	525																																																																																																																																																																																																	
C	50	512	0																																																																																																																																																																																																	
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C	0	578	0																																																																																																																																																																																																	
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C	10	3	0																																																																																																																																																																																																	
J4- A453 / M1 J23A Access / Donnington Services	A A453 (N) B M1 J23A Access C Donnington Services Access D A453 (W)	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>486</td><td>57</td><td>395</td></tr><tr><td>B</td><td>828</td><td>0</td><td>102</td><td>448</td></tr><tr><td>C</td><td>41</td><td>89</td><td>0</td><td>50</td></tr><tr><td>D</td><td>368</td><td>213</td><td>21</td><td>0</td></tr></table>		A	B	C	D	A	0	486	57	395	B	828	0	102	448	C	41	89	0	50	D	368	213	21	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>145</td><td>0</td><td>211</td></tr><tr><td>B</td><td>1276</td><td>0</td><td>0</td><td>608</td></tr><tr><td>C</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>D</td><td>351</td><td>381</td><td>0</td><td>0</td></tr></table>		A	B	C	D	A	0	145	0	211	B	1276	0	0	608	C	0	0	0	0	D	351	381	0	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>19</td><td>11</td><td>11</td></tr><tr><td>B</td><td>14</td><td>0</td><td>14</td><td>7</td></tr><tr><td>C</td><td>9</td><td>13</td><td>0</td><td>10</td></tr><tr><td>D</td><td>1</td><td>10</td><td>6</td><td>0</td></tr></table>		A	B	C	D	A	0	19	11	11	B	14	0	14	7	C	9	13	0	10	D	1	10	6	0																																																																																																																					
	A	B	C	D																																																																																																																																																																																																
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B	828	0	102	448																																																																																																																																																																																																
C	41	89	0	50																																																																																																																																																																																																
D	368	213	21	0																																																																																																																																																																																																
	A	B	C	D																																																																																																																																																																																																
A	0	145	0	211																																																																																																																																																																																																
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C	0	0	0	0																																																																																																																																																																																																
D	351	381	0	0																																																																																																																																																																																																
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A	0	19	11	11																																																																																																																																																																																																
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C	9	13	0	10																																																																																																																																																																																																
D	1	10	6	0																																																																																																																																																																																																
J5- A453 / Derby Road / M1 J24 / A50	A M1 J24 (N) B A453 (N) C Derby Road D M1 J24 (S) E A453 (S) F A50 G Hilton Hotel Lane	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td></tr><tr><td>A</td><td>0</td><td>820</td><td>505</td><td>0</td><td>491</td><td>287</td><td>14</td></tr><tr><td>B</td><td>162</td><td>0</td><td>59</td><td>423</td><td>381</td><td>212</td><td>14</td></tr><tr><td>C</td><td>61</td><td>73</td><td>0</td><td>49</td><td>173</td><td>94</td><td>2</td></tr><tr><td>D</td><td>5</td><td>661</td><td>87</td><td>0</td><td>3</td><td>957</td><td>21</td></tr><tr><td>E</td><td>204</td><td>211</td><td>27</td><td>38</td><td>0</td><td>846</td><td>6</td></tr><tr><td>F</td><td></td><td></td><td></td><td></td><td></td><td>0</td><td></td></tr><tr><td>G</td><td>5</td><td>63</td><td>9</td><td>23</td><td>17</td><td>9</td><td>0</td></tr></table>		A	B	C	D	E	F	G	A	0	820	505	0	491	287	14	B	162	0	59	423	381	212	14	C	61	73	0	49	173	94	2	D	5	661	87	0	3	957	21	E	204	211	27	38	0	846	6	F						0		G	5	63	9	23	17	9	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td></tr><tr><td>A</td><td>0</td><td>440</td><td>521</td><td>0</td><td>87</td><td>0</td><td>0</td></tr><tr><td>B</td><td>136</td><td>0</td><td>1</td><td>660</td><td>68</td><td>507</td><td>64</td></tr><tr><td>C</td><td>183</td><td>0</td><td>0</td><td>122</td><td>0</td><td>370</td><td>20</td></tr><tr><td>D</td><td>0</td><td>802</td><td>84</td><td>0</td><td>4</td><td>545</td><td>75</td></tr><tr><td>E</td><td>163</td><td>84</td><td>1</td><td>0</td><td>0</td><td>1024</td><td>7</td></tr><tr><td>F</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>G</td><td>13</td><td>203</td><td>159</td><td>16</td><td>1</td><td>0</td><td>0</td></tr></table>		A	B	C	D	E	F	G	A	0	440	521	0	87	0	0	B	136	0	1	660	68	507	64	C	183	0	0	122	0	370	20	D	0	802	84	0	4	545	75	E	163	84	1	0	0	1024	7	F	0	0	0	0	0	0	0	G	13	203	159	16	1	0	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td></tr><tr><td>A</td><td>0</td><td>15</td><td>1</td><td>0</td><td>24</td><td>24</td><td>5</td></tr><tr><td>B</td><td>2</td><td>0</td><td>11</td><td>10</td><td>21</td><td>16</td><td>8</td></tr><tr><td>C</td><td>11</td><td>12</td><td>0</td><td>8</td><td>19</td><td>18</td><td>5</td></tr><tr><td>D</td><td>3</td><td>5</td><td>0</td><td>0</td><td>1</td><td>15</td><td>8</td></tr><tr><td>E</td><td>3</td><td>10</td><td>7</td><td>9</td><td>0</td><td>6</td><td>0</td></tr><tr><td>F</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>G</td><td>3</td><td>12</td><td>16</td><td>2</td><td>5</td><td>4</td><td>0</td></tr></table>		A	B	C	D	E	F	G	A	0	15	1	0	24	24	5	B	2	0	11	10	21	16	8	C	11	12	0	8	19	18	5	D	3	5	0	0	1	15	8	E	3	10	7	9	0	6	0	F	0	0	0	0	0	0	0	G	3	12	16	2	5	4	0
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A	0	820	505	0	491	287	14																																																																																																																																																																																													
B	162	0	59	423	381	212	14																																																																																																																																																																																													
C	61	73	0	49	173	94	2																																																																																																																																																																																													
D	5	661	87	0	3	957	21																																																																																																																																																																																													
E	204	211	27	38	0	846	6																																																																																																																																																																																													
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G	5	63	9	23	17	9	0																																																																																																																																																																																													
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B	136	0	1	660	68	507	64																																																																																																																																																																																													
C	183	0	0	122	0	370	20																																																																																																																																																																																													
D	0	802	84	0	4	545	75																																																																																																																																																																																													
E	163	84	1	0	0	1024	7																																																																																																																																																																																													
F	0	0	0	0	0	0	0																																																																																																																																																																																													
G	13	203	159	16	1	0	0																																																																																																																																																																																													
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B	2	0	11	10	21	16	8																																																																																																																																																																																													
C	11	12	0	8	19	18	5																																																																																																																																																																																													
D	3	5	0	0	1	15	8																																																																																																																																																																																													
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J6- A453 / Northern Arm	A Northern Arm B A453 (E) C A453 (W)	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>42</td><td>28</td></tr><tr><td>B</td><td>205</td><td>0</td><td>110</td></tr><tr><td>C</td><td>208</td><td>485</td><td>0</td></tr></table>		A	B	C	A	0	42	28	B	205	0	110	C	208	485	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>119</td><td>77</td></tr><tr><td>B</td><td>118</td><td>0</td><td>164</td></tr><tr><td>C</td><td>344</td><td>458</td><td>0</td></tr></table>		A	B	C	A	0	119	77	B	118	0	164	C	344	458	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>A</td><td>0</td><td>9</td><td>7</td></tr><tr><td>B</td><td>7</td><td>0</td><td>5</td></tr><tr><td>C</td><td>8</td><td>1</td><td>0</td></tr></table>		A	B	C	A	0	9	7	B	7	0	5	C	8	1	0																																																																																																																																																
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B	205	0	110																																																																																																																																																																																																	
C	208	485	0																																																																																																																																																																																																	
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B	118	0	164																																																																																																																																																																																																	
C	344	458	0																																																																																																																																																																																																	
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J10- M1 J23 Slip Road / Ashby Road East	A M1 J23 Slip Road (N) B A512 C M1 J23 Slip Road (S) D Ashby Road (E)	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>741</td><td>0</td><td>289</td></tr><tr><td>B</td><td>444</td><td>0</td><td>127</td><td>338</td></tr><tr><td>C</td><td>0</td><td>383</td><td>0</td><td>0</td></tr><tr><td>D</td><td>242</td><td>671</td><td>108</td><td>0</td></tr></table>		A	B	C	D	A	0	741	0	289	B	444	0	127	338	C	0	383	0	0	D	242	671	108	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>217</td><td>0</td><td>431</td></tr><tr><td>B</td><td>155</td><td>0</td><td>124</td><td>713</td></tr><tr><td>C</td><td>0</td><td>125</td><td>0</td><td>337</td></tr><tr><td>D</td><td>312</td><td>219</td><td>215</td><td>0</td></tr></table>		A	B	C	D	A	0	217	0	431	B	155	0	124	713	C	0	125	0	337	D	312	219	215	0	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>A</td><td>0</td><td>24</td><td>0</td><td>7</td></tr><tr><td>B</td><td>17</td><td>0</td><td>0</td><td>16</td></tr><tr><td>C</td><td>0</td><td>16</td><td>0</td><td>26</td></tr><tr><td>D</td><td>4</td><td>21</td><td>8</td><td>0</td></tr></table>		A	B	C	D	A	0	24	0	7	B	17	0	0	16	C	0	16	0	26	D	4	21	8	0																																																																																																																					
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	Junction Arm	2022 Observed Flows (Lights PM)	2022 Saturn Actual Flows (Lights PM)	GEH Comparison
J1 - A453 / Walton Hill	A Northern Arm B A453 C Walton Hill	A B C A 0 208 277 B 325 0 270 C 213 181 0	A B C A 0 245 353 B 382 0 284 C 322 193 0	A B C A 0 2 4 B 3 0 1 C 7 1 0
J2 - A453 / East Midland Airport Access	A East Midlands Airport Access B A453 (E) C A453(W)	A B C A 0 220 65 B 125 0 397 C 37 317 0	A B C A 0 57 252 B 10 0 415 C 95 337 0	A B C A 0 14 15 B 14 0 1 C 7 1 0
J3 - A453 / Hunter Road	A Hunter Road B A453 (E) C A453 (W)	A B C A 0 335 34 B 110 0 488 C 28 509 0	A B C A 0 476 0 B 136 0 447 C 0 582 0	A B C A 0 7 8 B 2 0 2 C 7 3 0
J4 - A453 / M1 Donnington Services	A A453 (N) B M1 J23A Access C Donnington Services Access D A453 (W)	A B C D A 0 332 62 154 B 700 0 111 402 C 76 109 0 52 D 568 239 47 0	A B C D A 0 385 0 209 B 1201 0 0 338 C 0 0 0 0 D 491 566 0 0	A B C D A 0 3 11 4 B 16 0 15 3 C 0 15 0 10 D 3 16 10 0
J5 - A453 / Derby Road / M1 J24 / A50	A M1 J24 (N) B A453 (N) C Derby Road D M1 J24 (S) E A453 (S) F A50 G Hilton Hotel Lane	A B C D E F G A 0 857 530 4 160 218 10 B 247 0 73 777 270 379 11 C 87 56 0 50 86 129 2 D 0 489 67 0 4 978 14 E 309 242 40 35 0 926 5 F 0 0 0 0 0 0 0 G 15 20 10 8 4 11 0	A B C D E F G A 0 754 578 0 233 0 0 B 138 0 0 936 164 644 68 C 285 0 0 0 0 347 22 D 0 662 112 0 83 584 55 E 271 116 24 81 0 1156 19 F 0 0 0 0 0 0 0 G 39 58 21 27 8 0 0	A B C D E F G A 0 4 2 3 5 21 4 B 8 0 12 5 7 12 9 C 15 11 0 10 13 14 6 D 0 7 5 0 12 14 7 E 2 9 3 6 0 7 4 F 0 0 0 0 0 0 0 G 5 6 3 5 2 5 0
J6 - A453 / Northern Arm	A Northern Arm B A453 (E) C A453 (W)	A B C A 0 144 207 B 67 0 342 C 110 246 0	A B C A 0 46 309 B 110 0 273 C 332 116 0	A B C A 0 10 6 B 5 0 4 C 15 10 0
J7 - A453 / The Green	A A453 (E) B The Green C A453 (W)	A B C A 0 12 357 B 14 0 58 C 286 104 0	A B C A 0 130 285 B 97 0 139 C 241 153 0	A B C A 0 14 4 B 11 0 8 C 3 4 0
J8 - A453 / Grimes Gate	A A453 (E) B Grimes Gate C A453 (W)	A B C A 0 70 360 B 28 0 9 C 288 12 0	A B C A 0 27 415 B 17 0 0 C 338 0 0	A B C A 0 6 3 B 2 0 4 C 3 5 0
J9 - A453 / A6 Kegworth Bypass / Wildens Way	A A453 (N) B A6 Kegworth Bypass C A453 (S) D Wildens Way	A B C D A 5 57 209 193 B 288 0 95 294 C 665 146 0 42 D 149 15 73 0	A B C D A 0 238 198 42 B 393 0 355 27 C 1516 61 0 87 D 373 126 173 0	A B C D A 0 15 1 14 B 6 0 17 21 C 26 8 0 6 D 14 13 9 0
J10 - M1 J23 A512 / Ashby Road East	A M1 J23 Slip Road (N) B A512 C M1 J23 Slip Road (S) D Ashby Road (E)	A B C D A 0 394 0 155 B 469 0 341 496 C 0 185 0 122 D 204 373 114 0	A B C D A 0 305 0 348 B 258 0 119 401 C 0 182 0 243 D 311 467 340 0	A B C D A 0 5 0 12 B 11 0 15 4 C 0 0 0 9 D 7 5 15 0

Junction Arm			2022 Observed Flows (Heavies AM)				2022 Saturn Actual Flows (Heavies AM)				GEH Comparison							
J1 - A453 / Walton Hill	A	Northern Arm		A	B	C		A	B	C		A	B	C				
	B	A453	A	0	45	23	A	0	0	4	A	0	9	5				
	C	Walton Hill	B	25	0	28	B	0	0	20	B	7	0	2				
			C	15	33	0	C	1	40	0	C	5	1	0				
J2 - A453 / East Midlands Airport Access	A	East Midlands Airport Access		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	5	2	A	0	0	3	A	0	3	1				
	C	A453(W)	B	1	0	39	B	0	0	17	B	1	0	4				
			C	1	1	0	C	8	32	0	C	3	8	0				
J3 - A453 / Hunter Road	A	Hunter Road		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	18	0	A	0	8	0	A	0	3	####				
	C	A453 (W)	B	17	0	40	B	36	0	39	B	4	0	0				
			C	1	60	0	C	0	34	0	C	1	4	0				
J4 - A453 / M1 J23A Access / Donnington	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	M1 J23A Access	A	0	74	10	25	A	0	65	0	20	A	0	1	4	1	
	C	Donnington Services Access	B	124	0	32	27	B	362	0	0	54	B	15	0	8	4	
	D	A453 (W)	C	48	23	0	5	C	0	0	0	0	C	10	7	0	3	
			D	40	36	2	0	D	39	3	0	0	D	0	7	2	0	
J5 - A453 / Derby Road / M1 J24 / A50	A	M1 J24 (N)		A	B	C	D	E	F	G		A	B	C	D	E	F	G
	B	A453 (N)	A	0	80	21	0	51	34	0	A	0	103	3	0	306	0	2
	C	Derby Road	B	25	0	1	60	43	34	0	B	11	0	0	75	80	87	0
	D	M1 J24 (S)	C	0	2	0	5	1	13	0	C	0	0	0	0	0	0	0
	E	A453 (S)	D	0	70	11	0	2	193	0	D	0	90	0	0	0	109	3
	F	A50	E	36	21	3	19	0	111	0	E	177	50	0	0	0	169	2
	G	Hilton Hotel Lane	F						0		F	0	0	0	0	0	0	0
			G	0	0	0	0	0	0	0	G	0	0	0	1	1	1	0
J6 - A453 / Northern Arm	A	Northern Arm		A	B	C		A	B	C		A	B	C		A	B	C
	B	A453 (E)	A	0	11	16	A	0	3	29	A	0	3	3				
	C	A453 (W)	B	7	0	23	B	0	0	5	B	4	0	5				
			C	16	30	0	C	17	22	0	C	0	2	0				
J7 - A453 / The Green	A	A453 (E)		A	B	C		A	B	C		A	B	C		A	B	C
	B	The Green	A	0	1	30	A	0	0	17	A	0	1	3				
	C	A453 (W)	B	1	0	0	B	0	0	0	B	1	0	0				
			C	39	2	0	C	32	0	0	C	1	2	0				
J8 - A453 / Grimes Gate	A	A453 (E)		A	B	C		A	B	C		A	B	C		A	B	C
	B	Grimes Gate	A	0	0	31	A	0	0	17	A	0	0	3				
	C	A453 (W)	B	1	0	0	B	0	0	0	B	1	0	0				
			C	40	0	0	C	32	0	0	C	1	0	0				
J9 - A453 / A6 Kegworth Bypass / Wilders Way	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A6 Kegworth Bypass	A	3	20	17	26	A	0	25	18	326	A	0	1	0	23	
	C	A453 (S)	B	11	0	3	16	B	54	0	3	22	B	8	0	0	1	
	D	Wilders Way	C	65	7	0	28	C	45	33	0	323	C	3	6	0	22	
			D	21	2	21	0	D	308	66	68	0	D	22	11	7	0	
J10 - M1 J23 Slip Road / A512 / Ashby Road East	A	M1 J23 Slip Road (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A512	A	0	27	0	44	A	0	6	0	103	A	0	5	0	7	
	C	M1 J23 Slip Road (S)	B	25	0	17	20	B	12	0	2	47	B	3	0	0	5	
	D	Ashby Road (E)	C	0	20	0	22	C	0	2	0	14	C	0	5	0	2	
			D	24	32	12	0	D	13	47	15	0	D	3	2	1	0	

Junction Arm			2022 Observed Flows (Heavies PM)				2022 Saturn Actual Flows (Heavies PM)				GEH Comparison							
J1 - A453 / Walton Hill	A	Northern Arm		A	B	C		A	B	C		A	B	C				
	B	A453	A	0	10	6	A	0	0	0	A	0	4	3				
	C	Walton Hill	B	9	0	9	B	0	0	20	B	4	0	3				
			C	7	3	0	C	0	11	0	C	4	3	0				
J2 - A453 / East Midlands Airport Access	A	East Midlands Airport Access		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	2	0	A	0	0	3	A	0	2	2				
	C	A453(W)	B	4	0	23	B	0	0	17	B	3	0	1				
			C	2	15	0	C	1	10	0	C	1	1	0				
J3 - A453 / Hunter Road	A	Hunter Road		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	19	1	A	0	7	0	A	0	3	1				
	C	A453 (W)	B	16	1	26	B	4	0	20	B	4	0	1				
			C	0	17	0	C	0	24	0	C	0	2	0				
J4 - A453 / M1 J23A Access / Donnington	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	M1 J23A Access	A	0	35	26	24	A	0	91	0	13	A	0	7	7	3	
	C	Donnington Services Access	B	71	0	27	18	B	207	0	0	8	B	12	0	7	3	
			D	12	15	0	1	C	0	0	0	0	C	5	5	0	1	
				D	19	14	4	0	D	29	2	0	0	D	2	4	3	0
J5 - A453 / Derby Road / M1 J24 / A50	A	M1 J24 (N)		A	B	C	D	E	F	G		A	B	C	D	E	F	G
	B	A453 (N)	A	0	50	15	0	22	22	0	A	0	54	0	0	167	0	1
	C	Derby Road	B	16	0	1	36	24	26	0	B	4	0	0	65	52	52	0
	D	M1 J24 (S)	C	0	1	0	1	2	6	0	C	0	0	0	0	0	0	0
	E	A453 (S)	D	0	39	9	0	1	111	0	D	0	45	0	0	0	48	1
	F	A50	E	14	14	1	7	0	73	0	E	121	70	0	0	0	162	1
	G	Hilton Hotel Lane	F						0		F	0	0	0	0	0	0	0
		G	0	0	0	0	0	0	0	G	0	0	0	1	1	0	0	
J6 - A453 / Northern Arm	A	Northern Arm		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	9	7	A	0	0	10	A	0	4	1				
	C	A453 (W)	B	13	0	11	B	0	0	14	B	5	0	1				
			C	12	6	0	C	17	4	0	C	1	1	0				
J7 - A453 / The Green	A	A453 (E)		A	B	C		A	B	C		A	B	C				
	B	The Green	A	0	0	24	A	0	0	17	A	0	0	2				
	C	A453 (W)	B	0	0	0	B	0	0	0	B	0	0	0				
			C	15	0	0	C	10	0	0	C	1	0	0				
J8 - A453 / Grimes Gate	A	A453 (E)		A	B	C		A	B	C		A	B	C				
	B	Grimes Gate	A	0	2	24	A	0	0	17	A	0	2	2				
	C	A453 (W)	B	0	0	0	B	0	0	0	B	0	0	0				
			C	15	0	0	C	10	0	0	C	1	0	0				
J9 - A453 / A6 Kegworth Bypass / Wilders Way	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A6 Kegworth Bypass	A	0	5	30	14	A	0	27	14	176	A	0	6	3	17	
	C	A453 (S)	B	5	0	6	8	B	46	0	1	46	B	8	0	3	7	
			D	54	4	0	28	C	26	13	0	192	C	4	3	0	16	
				D	19	2	26	0	D	420	118	114	0	D	27	15	11	0
J10 - M1 J23 Slip Road / A512 / Ashby Road East	A	M1 J23 Slip Road (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A512	A	0	7	0	16	A	0	5	0	17	A	0	1	0	0	
	C	M1 J23 Slip Road (S)	B	11	0	5	12	B	9	0	0	26	B	1	0	3	3	
			D	0	9	0	23	C	0	3	0	5	C	0	2	0	5	
				D	7	8	2	0	D	16	22	4	0	D	3	4	1	0

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**APPENDIX 47: VISSIM Forecast Modelling Report (document reference EMG2-BWB-
GEN-XX-RP-TR-0019_S2-P1)**

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

East Midlands Gateway 2

VISSIM Forecast Modelling Report

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

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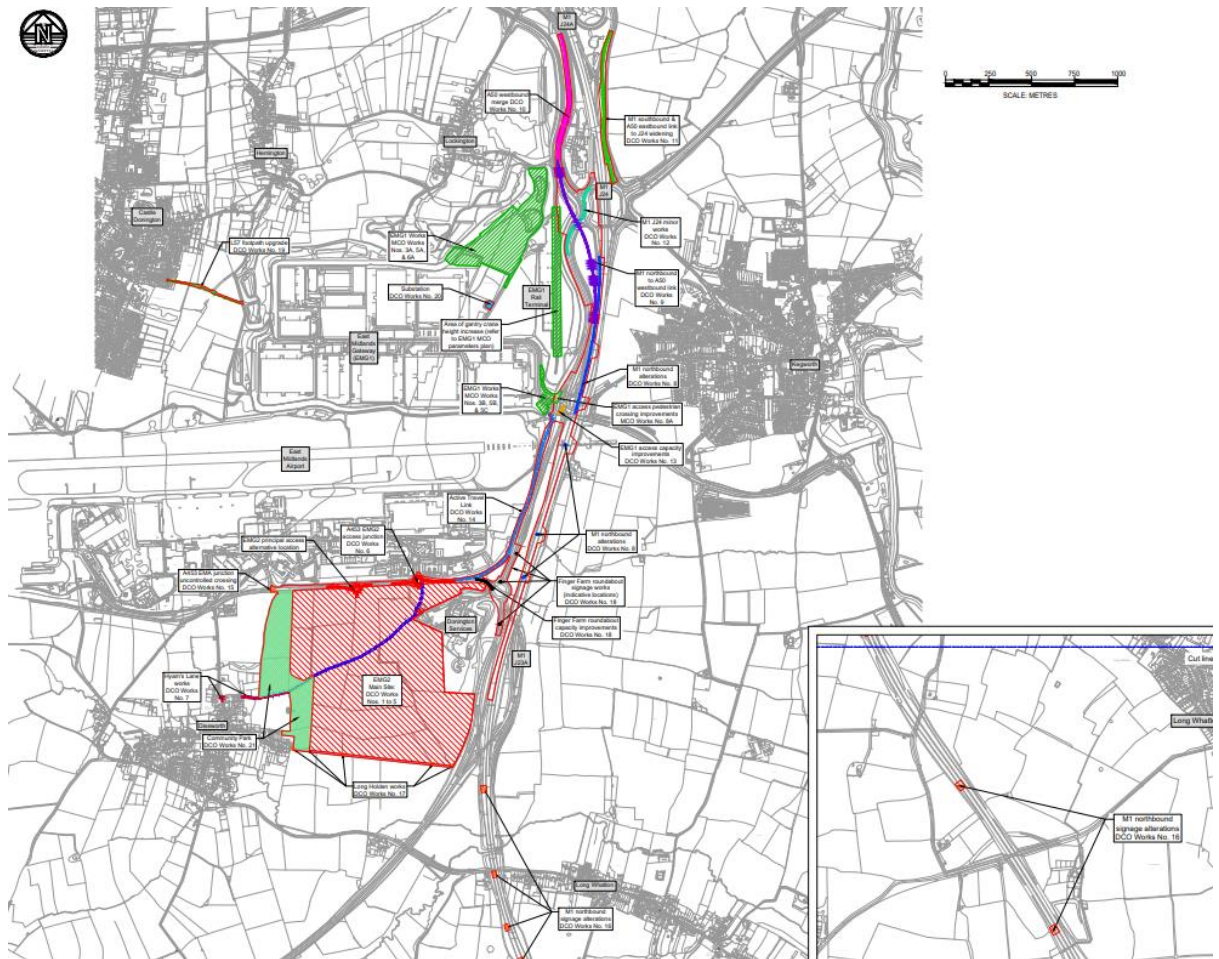
APPENDIX 2: EMG2-BWB-GEN-XX-RP-TR-0017_TA ES Chapter Assessment Methodology-S2-P4

APPENDIX 3: EMG2-BWB-GEN-XX-RP-TR-0004_S2-P6_Modelling Furnessing Approach

1. INTRODUCTION

- 1.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of a DCO application for the Phase 2 Expansion of East Midlands Gateway (EMG) site.
- 1.2 The EMG2 Project comprises a second phase to Segro's EMG1 logistics park and Rail Freight Interchange and comprises the following three components:
- **EMG2 Main Site** – A new logistics and advanced manufacturing employment park located south of East Midlands Airport and the A453, and west of the M1 motorway. This part of the site falls within the 'East Midlands Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022. It comprises 300,000sqm of B2/B8 use (assessed as 60,000sqm B2 and 240,000sqm B8 as set out in Section 7 below), plus an allowance for 200,000sqm of B8 mezzanine floorspace.
 - **Highways Works** – Highways works to the SRN including improvements at Junction 24 of the M1 motorway and the road network interacting with that junction; and
 - **EMG1 Works** – Additional warehousing of 26,500sqm plus a mezzanine allowance for 3,500 sq.m (Use Class B8) at Plot 16 together with works to increase the permitted height of the cranes at the rail freight terminal, improvements to the EMG1 public transport interchange and site management building.
- 1.3 The location of the proposed development is shown in **Figure 1**.

Figure 1. Site Location



- 1.4 A VISSIM model had been developed for the M1 J24 corridor and a Local Model Validation Report (LMVR) was produced within Technical Note EMG2-BWB-GEN-XX-RP-TR-0006 Revision P4 (**Appendix 1**) and issued to the TWG in consultation with National Highways (NH) consultants and Leicestershire County Council (LCountyC). The report concluded that the model calibrates well against observed and modelled turning movements during both peak hours at 15-minute intervals in line with DfT guidelines and as a result satisfied the validation criteria.
- 1.5 The base model was subsequently agreed with NH within the Stage 1A Modelling sign off sheet with LCountyC and Nottinghamshire County Council (NCountyC) agreeing to defer to National Highways (NH) on this element.
- 1.6 However, NH made a comment on the forecast a elements which could affect the base model. Therefore, it has been re-submitted and currently under review.
- 1.7 This report sets out the out comes of the future year scenarios and assessment the proposed mitigation scheme.

Report Structure

- 1.8 Following this introduction, the remainder of this report is structured as follows:

- **Section 2:** Modelling Background – Modelling Extents, Assessment Scenarios, Traffic Flows and Journey Time Routes
- **Section 3:** sets out the Stage 1A and 1B VISSIM Modelling Outcomes
- **Section 4:** sets out proposed highway mitigation and modelling results comparison between with and without the proposed development and mitigation.
- **Section 5:** sets out the Stage 2A and 2B PRTM outputs and VISSIM Modelling results
- **Section 6:** Summary and Conclusions.

Forecast Years & Assessment Criteria

- 2.2 It has been agreed with the TWG for a forecast base year of 2022 to be adopted (aligning with the year traffic surveys were undertaken) and forecast years of 2028 and 2038, reflecting the year of opening and post 10 years. The forecast year modelling has been undertaken in two stages, referred to as 'Stage 1A modelling' and 'Stage 1B modelling'. The stages adopt slightly different planning data assumptions in the uncertainty logs and baseline traffic, as summarised below.
- **Stage 1a modelling** (Proforma v14, Uncertainty Log v7) = 2028/2038 forecast years with and without EMG2, including, consented and committed sites as well as draft Local Plan allocation sites and Ratcliffe on Soar power station, which is authorised by a Local Development Order (LDO).
 - **Stage 1b modelling** (Proforma v14a, Uncertainty Log v7a) = 2028/2038 forecast years with and without EMG2, including consented and committed sites but excluding the draft Local Plan allocation sites and Ratcliffe on Soar power station (beyond the element of Ratcliffe power station development which is currently able to proceed under the LDO).
- 2.3 The draft Local Plan allocation sites, include the following projects:
- Isley Woodhouse (W1)
 - Land North and South of Park Lane, Castle Donington (CD10)
 - Land West of Hilltop Farm, Castle Donington (EMP89)
 - Land North of J11/M42 (EMP82)
 - Land North of Remembrance Way, Kegworth (EMP73)
 - Land North of Derby Road, Kegworth (EMP73)
- 2.4 Technical Note EMG2-BWB-GEN-XX-RP-TR-0017 Revision P4 (**Appendix 2**) sets out the basis for the two stage approach to modelling and the policy context for it, which can be summarised as follows:
- Stage 1A modelling complies with the TWG interpretation of the TAG M4 Guidance
 - Stage 1B modelling complies with the guidance in Circular 01/2022 and IEMA 2024
- 2.5 The Stage 1A modelling provides a highly robust assessment as it includes traffic from the draft Local Plan allocations but not any associated highway mitigation. This is with the exception of the proposed re-alignment of the A453 around the Isley Woodhouse draft allocation, which is included in the Uncertainty Log v7 because it forms part of the access strategy for that development.

- 2.6 The planning data assumptions and highway schemes included in the Uncertainty Log v7 (Stage 1A) and v7a (Stage 1B) were discussed and agreed with the TWG and relevant Local Planning Authorities. The committed and consented schemes and draft Local Plan allocations have been profiled out within the uncertainty logs in accordance with the Local Planning Authority's understanding of when they are likely to be built out.
- 2.7 The core scenario for the TA adopts the outputs from the Stage 1A modelling, inclusive of draft Local Plan allocation sites. A sensitivity test will be carried out on a smaller number of junctions using Stage 1B modelling, excluding draft Local Plan allocation sites due to the lack of mitigation measures included. This forecast report will therefore test the following scenarios:
- 2028 forecast opening year 'without development'
 - 2028 forecast opening year 'with development'
 - 2038 forecast future year 'without development'
 - 2038 forecast future year 'with development'
 - 2028 forecast future year with development with mitigation.
 - 2038 forecast future year with development with mitigation.
- 2.8 Planned development growth is accounted for within the 'without development' scenarios as per the agreed Uncertainty Log v7. PRTM proforma v14 and Uncertainty Log v7 have been formally agreed with NH and LCountyC within the Stage 1A Modelling sign off sheet, whilst LCountyC confirmed they were accepted by email on 26 September 2026.
- 2.9 The 'with development' scenarios include the development on both EMG2 Main Site and Plot 16 of EMG1. A scenario has not been undertaken that considers EMG1 traffic in isolation, which is being applied for as a Material Change of Use (MCO). Plot 16 is expected to generate 53 two-way trips in the morning peak hour and 67 two-way trips in the evening peak hour, circa one per minute. This would have a negligible impact on the network and would not trigger the requirement for further VISSIM modelling.

Deriving Future Forecast Traffic Flows

- 2.10 The PRTMmodel is validated at link flow level but not turning movement level and therefore a furnishing process has been carried out to derive future forecast traffic flows to be input into the Junctions 10, LinSig and VISSIM models.
- 2.11 BWB prepared Technical Note EMG2-BWB-GEN-XX-RP-TR-0004 Revision P6 (**Appendix 3**) setting out the methodology for deriving the future forecast traffic flows, which in summary involved the following process:
- Column adjustment: calculate turning counts across columns using survey data proportions in combination with the target link flow out of each arm.

- Sum row: calculate the sum of each arm row total.
 - Row adjustment: calculate turning counts across rows using survey data proportions in combination with the target link flow into each arm.
 - Sum column: calculate the sum of each column.
 - Round all values in the matrix to the closest integer.
 - Update sums for column and row total.
 - Repeat the above 'x' number of iterations until the flows converge.
- 2.12 The macro has been built to run the furnessing 20 times for each matrix, however it should be noted that every time the macro is executed, it runs an additional 20 times. The furnessing spreadsheet therefore has been run for at least 20 iterations. The furnessing methodology has been double constrained, i.e. both origin and destination and the traffic flow matrices are furnessed until link flows are within a GEH of 5. This has been calculated by taking the absolute difference between the calculated target link flow and furnessed link flow. Should these be higher than a GEH of 5, the macro is executed until convergence is achieved. The furnessing process has been undertaken for the assessment years 2028 and 2038.
- 2.13 Due to high volumes of traffic that travel on the motorways and major A-roads there is the potential for these numbers to affect the furnessing outputs. As the furnessing process is based on turning proportions, the large motorway flows could cause the furnessing to assign traffic that would use the junctions to the motorway mainline movements instead.
- 2.14 Therefore, the M1 and A42 mainline flows were removed and furnessed seperately to avoid any re-assignment and subsequently added back into the matrix after the furnessing process was complete.
- 2.15 PRTM, as a strategic highway model, re-routes traffic in response to congestion. To ensure the true impact of the development is modelled and fully mitigated, the development traffic was extracted from the PRTM model, and assigned manually to exclude the effects of any rerouting. The modelling therefore presents a highly robust assessment of the full impact of the proposed development trips.

Journey Time Routes

- 2.16 To determine the impact of the development on the highway network, journey time routes utilised for the validation have been retained to provide a comparison between "with" and "without development" scenarios.
- 2.17 Error! Reference source not found.3 and 4 provides routes utilised for journey time results.

Figure 3: Journey Time Routes (1 - 10)

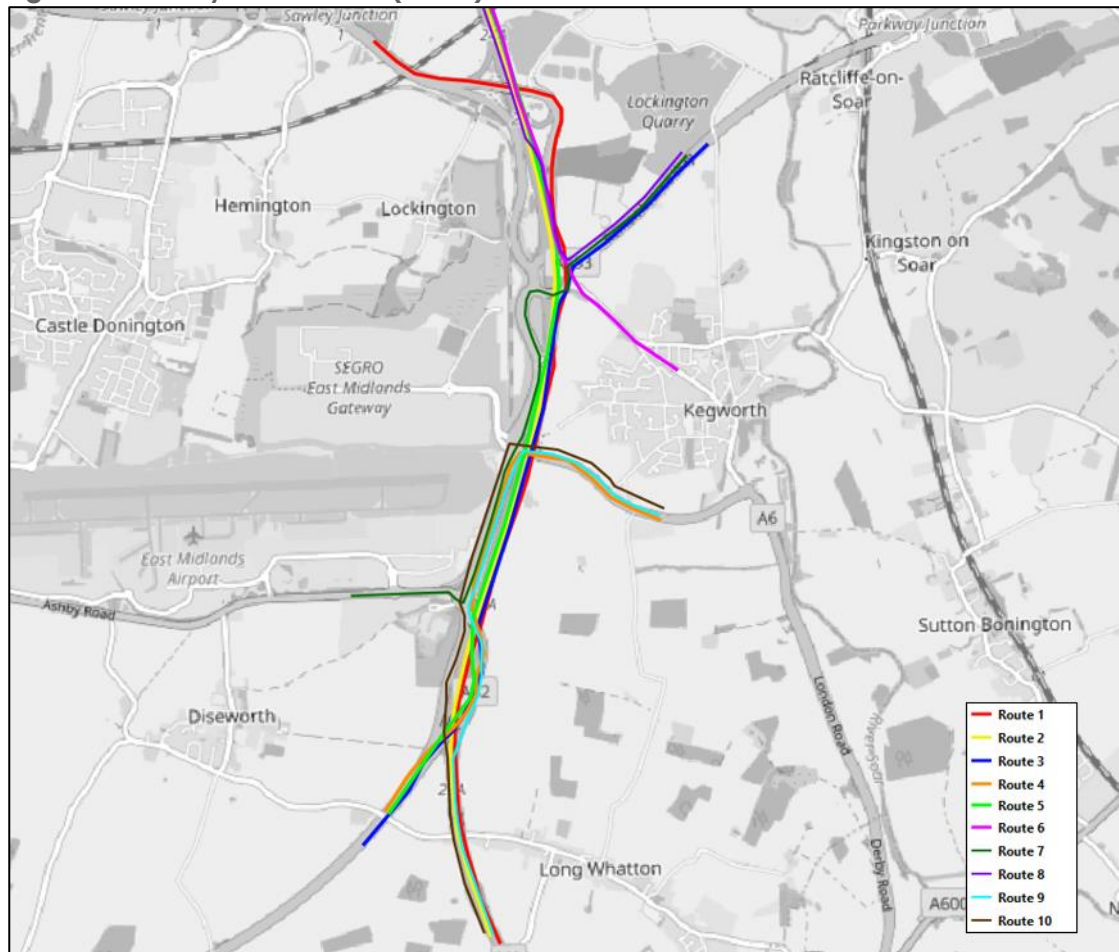
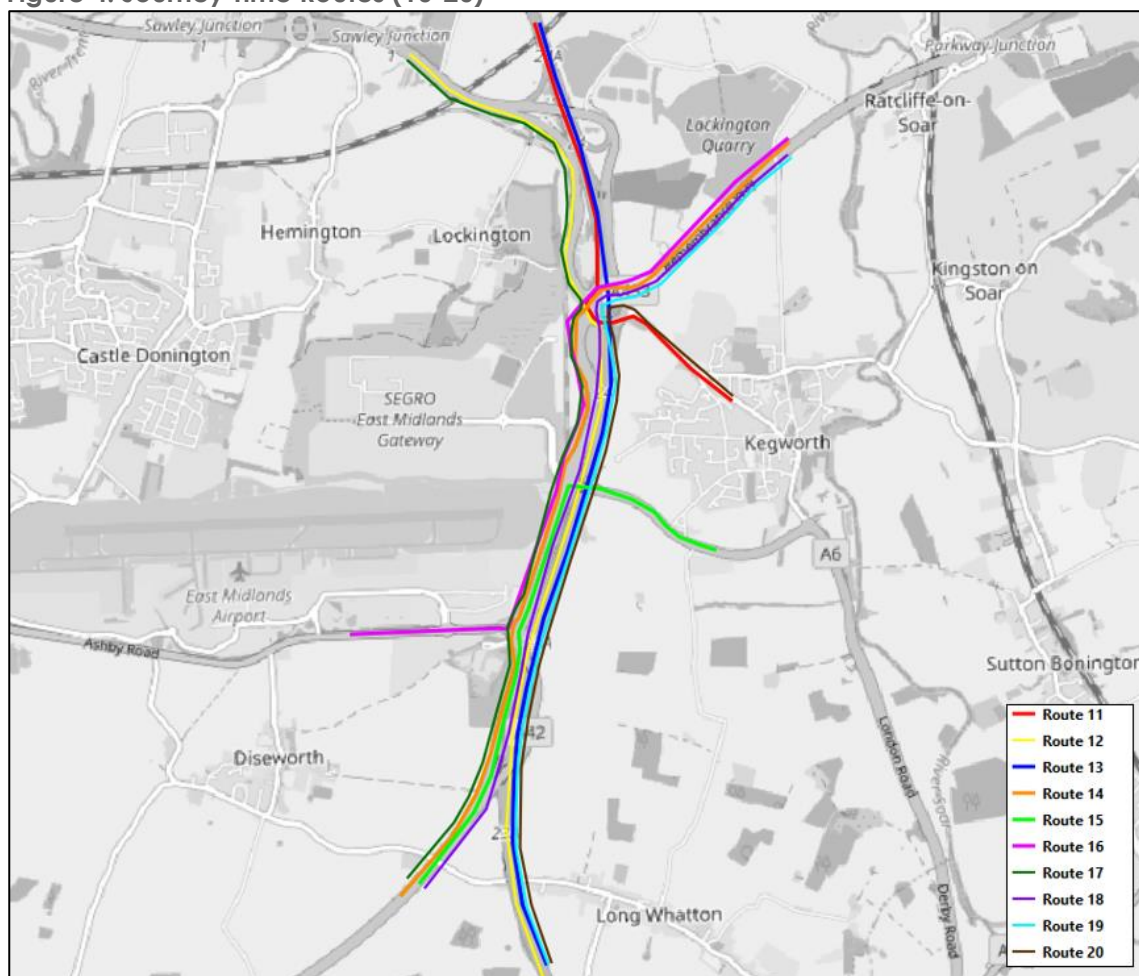


Figure 4: Journey Time Routes (10-20)



2.18 Details of the origin and destination of the routes identified above is provided below:

- Route 1 – A50 to M1 South
- Route 2 – M1 North to M1 South
- Route 3 – A453 Remembrance Way to A42
- Route 4 – Kegworth Bypass to A42
- Route 5 - M1 North to A42
- Route 6 – M1 North to Derby Road
- Route 7 – A453 Remembrance Way to A453 EMA
- Route 8 – M1 North to A453 Remembrance Way
- Route 9 – Kegworth Bypass to M1 South
- Route 10 - M1 South to Kegworth Bypass
- Route 11 – Derby Road to M1 North
- Route 12 – M1 South to A50
- Route 13 – M1 South to M1 North
- Route 14 – A42 to A453 Remembrance Way via A453

- Route 15 - A42 to Kegworth Bypass
- Route 16 – A453 EMA to A453 Rememberance Way
- Route 17 – A42 to A50 via A453
- Route 18 – A42 to A453 Rememberance Way via M1
- Route 19 – M1 South to A453 Rememberance Way via M1
- Route 20 - M1 South to Derby Road via M1

3. STAGE 1 VISSIM MODELLING

Introduction

- 3.1 The following section presents the results of the detailed junction modelling assessments for the core Stage 1A and 1B forecast year scenarios using VISSIM.

Measurement of Capacity

- 3.2 The primary measurement of capacity in VISSIM is to conduct a journey time analysis between the without development and with development scenarios along with a comparisons of predicted queues and a series of network perormanec indicator such as average delays, average speeds, number of vehicle entering the network and latent demand. Judgement is then required as to where significant impacts are occuring and subsequently where mitigation needs to be focussed.

Measurement of Impacts

- 3.3 The impacts of the **EMG2 Project** will be assessed against the policy contained within Paragraph 5,283 of the NPS, which states:

“The applicant should provide evidence that the development improves the operation of the network and assists with capacity issues”

- 3.4 In addition the impacts of the **EMG2 Project** will be assessed against the policy contained within Paragraph 116 of the NPPF, which states:

“development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios”

- 3.5 While the Stage 1A modelling accounts for both committed sites and draft Local Plan allocation sites, it does not consider any forthcoming mitigations. Therefore, it is important to focus on the overall improvements to the M1 J24 highway network rather than on individual journey time changes.

Stage 1A VISSIM Results

Journey Time Comparison

- 3.6 **Table 1** and **2** below shows the journey time comparison between the “without development” and “with development” for the modelling years 2028 and 2038 respectively.

Table 1: 2028 Journey Time Comparison

	AM			PM		
Route	WoD	WD	WD - WD	WoD	WD	WD - WoD
Route 1	354	378	24	327	341	14
Route 2	356	365	9	323	337	14
Route 3	313	318	5	459	479	20
Route 4	309	341	32	285	309	24
Route 5	341	347	6	318	323	6
Route 6	302	338	36	268	275	8
Route 7	398	424	26	422	458	36
Route 8	303	342	39	268	282	13
Route 9	309	350	40	290	331	42
Route 10	468	553	85	291	350	59
Route 11	371	386	15	368	397	29
Route 12	468	705	238	379	404	25
Route 13	368	517	149	383	416	33
Route 14	651	767	116	407	471	64
Route 15	428	540	112	291	350	59
Route 16	786	758	-29	384	554	170
Route 17	540	642	101	342	412	69
Route 18	542	811	269	361	380	19
Route 19	547	748	201	412	439	28
Route 20	546	746	200	407	432	25

Table 2: 2038 Journey Time Comparison

	AM			PM		
Route	WoD	WD	WD - WD	WoD	WD	WD - WoD
Route 1	426	487	60	330	343	13
Route 2	364	371	8	326	341	15
Route 3	510	564	54	1004	991	-13
Route 4	339	428	88	318	333	15
Route 5	344	349	4	322	331	8
Route 6	336	348	12	277	282	5
Route 7	760	820	60	880	879	-1
Route 8	336	347	11	275	293	18
Route 9	346	437	91	322	348	26

	AM			PM		
Route	WoD	WD	WD - WD	WoD	WD	WD - WoD
Route 10	477	596	119	0	482	482
Route 11	399	398	-1	374	406	32
Route 12	583	612	29	391	400	8
Route 13	500	527	27	402	418	16
Route 14	734	839	105	427	489	62
Route 15	463	538	74	302	340	38
Route 16	910	839	-70	444	781	336
Route 17	550	676	125	354	418	64
Route 18	1035	1101	65	381	398	18
Route 19	952	965	12	441	455	14
Route 20	970	974	3	443	450	6

- 3.7 **Tables 1 and 2** show that there are significant increases in journey time between Scenario 2038 without development and 2038 with development particularly at Finger Farm roundabout, EMG1 Gyratory and M1 J24.
- 3.8 A review of the VISSIM simulation indicates that the M1 northbound off-slip becomes significantly congested under the future year without development scenarios, with queues extending back past Junction 23A. This issue is exacerbated in the future year with development scenario, reducing the number of vehicles able to access M1 J24.
- 3.9 This is shown in **table 3 and 4** which sets the average and max queues for the 2028 without and with development scenarios.

Table 3: 2028 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WD	WoD	WD	WD - WD
Finger Farm Roundabout	1	A453 W	551	725	174	12	479	467
	2	A453 N	1	1	0	1	3	2
	3	M1/A42 S	352	1389	1037	2	3	1
M1 J24	11	M1 SB Off Slip	101	1399	1297	34	37	3
	12	Remembrance Way	22	27	5	479	487	9
	13	Deby Road	24	31	7	12	13	1
	14	M1 NB Off Slip to A50	193	379	186	27	37	10
	15	A453 S	46	62	17	33	66	33
	16	Hilton Hotel Lane	780	905	125	18	20	2
	17	M1 NB South of Slip	14	38	24	0	0	0
	20	M1 NB Off Slip	324	385	61	22	24	2
EMG Access	24	Kegworth By-Pass	56	151	94	49	41	-8
	25	A453 S	588	802	214	30	38	7
	26	Wilders Way	0	1	1	1	3	3
	28	A453 S Left turn	17	20	3	8	8	0
	29	Kegworth By-Pass Left Turn	21	143	123	34	25	-10
	30	A453 N	20	28	8	8	11	3

Table 4: 2028 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WD	WoD	WD	WD - WD
Finger Farm Roundabout	1	A453 W	1142	1141	-1	67	634	117
	2	A453 N	45	33	-11	30	60	46
	3	M1/A42 S	1678	2010	332	45	44	34
M1 J24	11	M1 SB Off Slip	451	1878	1427	193	208	197
	12	Remembrance Way	107	105	-2	757	883	666
	13	Deby Road	96	140	44	64	60	70
	14	M1 NB Off Slip to A50	607	607	0	118	289	0
	15	A453 S	337	321	-16	138	376	110
	16	Hilton Hotel Lane	1184	1437	253	76	90	30
	17	M1 NB South of Slip	534	399	-135	0	0	0
EMG Access	20	M1 NB Off Slip	610	610	0	86	114	77
	24	Kegworth By-Pass	385	827	442	342	283	623
	25	A453 S	1272	1272	0	137	206	134
	26	Wilders Way	30	25	-5	32	54	41
	28	A453 S Left turn	106	105	-1	73	60	68
	29	Kegworth By-Pass Left Turn	197	827	630	341	282	620
	30	A453 N	109	108	-1	82	89	86

3.10 **Table 5** and **6** which sets the average and max queues for the 2038 without and with development scenarios.

Table 5: 2038 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WoD	WoD	WD	WD - WoD
Finger Farm Roundabout	1	A453 W	462	653	192	177	1006	829
	2	A453 N	1	3	1	3	2	-1
	3	M1/A42 S	30	483	453	2	3	0
M1 J24	11	M1 SB Off Slip	1581	1799	218	46	47	2
	12	Remembrance Way	797	1168	371	1753	1786	33
	13	Deby Road	25	25	0	18	17	-1
	14	M1 NB Off Slip to A50	557	565	8	30	26	-4
	15	A453 S	423	77	-346	48	56	8
	16	Hilton Hotel Lane	1321	1351	30	145	231	86
	17	M1 NB South of Slip	1530	1627	97	0	0	0
	20	M1 NB Off Slip	560	568	8	33	26	-7
EMG Access	24	Kegworth By-Pass	199	1022	823	135	100	-35
	25	A453 S	746	765	19	39	42	3
	26	Wilders Way	1	1	0	1	1	0
	28	A453 S Left turn	19	22	2	9	7	-2
	29	Kegworth By-Pass Left Turn	185	1022	836	114	63	-51
	30	A453 N	20	22	2	10	10	0

Table 6: 2038 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WoD	WoD	WD	WD - WoD
Finger Farm Roundabout	1	A453 W	1142	1135	-7	522	1135	613
	2	A453 N	52	77	25	76	41	-35
	3	M1/A42 S	193	1047	854	80	58	-22
M1 J24	11	M1 SB Off Slip	2010	2010	0	209	243	34
	12	Remembrance Way	1263	2010	748	2010	2010	0
	13	Deby Road	86	105	19	100	77	-24
	14	M1 NB Off Slip to A50	607	607	0	147	93	-54
	15	A453 S	1050	314	-736	290	404	113
	16	Hilton Hotel Lane	1645	1645	0	272	389	117
	17	M1 NB South of Slip	2010	2010	0	0	0	0
	20	M1 NB Off Slip	610	610	0	124	91	-32
EMG Access	24	Kegworth By-Pass	759	1558	799	849	477	-372
	25	A453 S	1234	1272	37	150	187	36
	26	Wilders Way	35	30	-5	31	39	8
	28	A453 S Left turn	104	111	7	100	61	-39
	29	Kegworth By-Pass Left Turn	759	1558	799	849	419	-430
	30	A453 N	91	92	2	76	88	13

Network Performance

- 3.11 **Table 7** below sets out the network performance comparison for all scenarios at the 2028 future year.

Table 7: 2028 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	126	39.5	20826	127
	WD	198	32.8	21083	290
	WD - WoD	72	-6.7	257	164
PM	WoD	68	47.3	21314	6
	WD	101	42.4	22018	269
	WD - WoD	32	-4.9	704	263

- 3.12 When comparing the with development against the base WoD scenario, the results shows that the average delay increases and the Latent Demand also increases.
- 3.13 **Table 8** below sets out the network performance comparison for all scenarios at the 2038 future year.

Table 8: 2038 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	225	31.2	21747	313
	WD	266	28.3	22112	541
	WD - WoD	41	-2.9	365	228
PM	WoD	133	39.5	22220	508
	WD	161	36.2	22648	1171
	WD - WoD	28	-3.3	428	663

- 3.14 Similarly to the 2028 assessment year results, Table 8 shows that the average delay increases, the amount of vehicles that enter the model increases and Latent Demand increases.
- 3.15 As a result a mitigation strategy is proposed which set out in **Section 4**.

Stage 1B VISSIM Results

Journey Time Comparison

- 3.16 **Table 19** and **10** below shows the journey time comparison between the "without development" and "with development" for the modelling years 2028 and 2038 respectively for the Stage 1B scenarios.

Table 9: 2028 Journey Time Comparison

Route	AM			PM		
	WoD	WD	WD - WoD	WoD	WD	WD - WoD
Route 1	359	373	15	325	342	17
Route 2	355	365	10	321	336	14
Route 3	335	450	115	503	555	51
Route 4	325	325	0	294	314	20
Route 5	336	344	8	317	325	8
Route 6	297	360	63	265	274	9
Route 7	514	760	246	447	498	51
Route 8	290	354	64	266	280	14
Route 9	332	335	3	292	329	37
Route 10	451	468	17	337	371	35
Route 11	382	382	0	361	395	34
Route 12	454	469	15	378	400	21
Route 13	359	356	-3	380	404	24
Route 14	540	512	-28	407	476	69
Route 15	435	459	23	311	363	52
Route 16	621	486	-135	385	555	171
Route 17	456	428	-28	344	423	79
Route 18	494	517	23	356	372	16
Route 19	503	534	31	407	422	15
Route 20	504	534	30	408	415	8

Table 10: 2038 Journey Time Comparison

Route	AM			PM		
	WoD	WD	WD - WoD	WoD	WD	WD - WoD
Route 1	365	402	37	329	343	14
Route 2	358	365	6	326	340	14
Route 3	529	650	121	765	796	31
Route 4	321	360	38	301	321	20
Route 5	339	346	7	321	331	9
Route 6	298	325	27	274	278	4
Route 7	778	937	159	656	704	48
Route 8	292	320	27	273	291	18
Route 9	324	368	44	299	338	39
Route 10	428	422	-6	380	395	15
Route 11	387	393	6	379	406	28
Route 12	423	493	70	392	403	11
Route 13	352	370	17	398	417	19
Route 14	537	533	-3	433	496	63
Route 15	380	395	15	310	347	37
Route 16	572	501	-70	416	678	263
Route 17	456	453	-4	349	419	71
Route 18	460	485	25	407	407	0
Route 19	480	508	28	464	462	-2
Route 20	486	504	18	470	457	-13

- 3.17 **Tables 9 and 10** show that there are significant increases in journey times between Scenario 2038 without development and 2038 with development particularly at Finger Farm roundabout, EMG1 Gyratory and M1 J24. This a similar outcome to the Stage 1A results.
- 3.18 This is shown in **Table 11 and 12** which sets the average and max queues for the 2028 without and with development scenarios.

Table 11: 2028 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WD	WoD	WD	WD - WD
Finger Farm Roundabout	1	A453 W	619	37	-583	13	498	485
	2	A453 N	1	4	4	1	2	1
	3	M1/A42 S	305	117	-188	2	2	1
M1 J24	11	M1 SB Off Slip	85	500	415	33	34	1
	12	Remembrance Way	446	814	368	573	718	144
	13	Deby Road	25	28	3	11	13	1
	14	M1 NB Off Slip to A50	99	301	203	27	34	8
	15	A453 S	24	28	4	25	31	6
	16	Hilton Hotel Lane	39	52	13	12	13	1
	17	M1 NB South of Slip	0	302	302	0	0	0
	20	M1 NB Off Slip	114	322	208	20	24	4
EMG Access	24	Kegworth By-Pass	182	81	-100	45	38	-7
	25	A453 S	903	83	-819	30	44	14
	26	Wilders Way	27	26	-1	1	1	0
	28	A453 S Left turn	21	16	-5	7	8	0
	29	Kegworth By-Pass Left Turn	75	63	-12	15	19	4
	30	A453 N	55	66	11	8	10	2

Table 12: 2028 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WD	WoD	WD	WD - WD
Finger Farm Roundabout	1	A453 W	1136	315	-822	103	636	74
	2	A453 N	62	103	40	39	50	57
	3	M1/A42 S	1018	513	-504	52	59	37
M1 J24	11	M1 SB Off Slip	462	1253	791	160	180	189
	12	Remembrance Way	851	1290	440	1073	1286	381
	13	Deby Road	106	144	37	67	66	63
	14	M1 NB Off Slip to A50	426	469	43	100	151	0
	15	A453 S	82	106	24	136	156	93
	16	Hilton Hotel Lane	99	135	36	58	56	30
	17	M1 NB South of Slip	0	1085	1085	0	0	0
	20	M1 NB Off Slip	429	608	179	82	95	72
EMG Access	24	Kegworth By-Pass	819	474	-345	407	257	219
	25	A453 S	1272	360	-912	151	254	90
	26	Wilders Way	153	121	-33	33	33	29
	28	A453 S Left turn	95	149	53	67	69	81
	29	Kegworth By-Pass Left Turn	543	473	-70	235	240	219
	30	A453 N	188	218	30	75	74	55

3.19 **Table 13** and **14** sets the average and max queues for the 2038 without and with development scenarios.

Table 13: 2038 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WoD	WoD	WD	WD - WoD
Finger Farm Roundabout	1	A453 W	35	65	30	23	765	742
	2	A453 N	3	2	-1	2	2	0
	3	M1/A42 S	18	341	324	2	4	2
M1 J24	11	M1 SB Off Slip	92	194	101	39	47	8
	12	Remembrance Way	1023	1475	452	1265	1352	87
	13	Deby Road	28	19	-9	14	12	-2
	14	M1 NB Off Slip to A50	384	651	267	29	33	4
	15	A453 S	29	28	-1	30	41	10
	16	Hilton Hotel Lane	11	9	-2	138	156	18
	17	M1 NB South of Slip	0	436	436	0	0	0
EMG Access	20	M1 NB Off Slip	378	649	271	46	27	-19
	24	Kegworth By-Pass	83	308	225	76	93	16
	25	A453 S	392	112	-279	39	52	12
	26	Wilders Way	6	5	-1	2	1	-1
	28	A453 S Left turn	17	16	-1	8	6	-2
	29	Kegworth By-Pass Left Turn	63	281	218	51	72	21
	30	A453 N	52	40	-12	12	11	-1

Table 14: 2038 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD	WD - WoD	WoD	WD	WD - WoD
Finger Farm Roundabout	1	A453 W	230	435	205	348	1135	53
	2	A453 N	60	44	-16	46	51	60
	3	M1/A42 S	179	779	599	44	63	39
M1 J24	11	M1 SB Off Slip	383	577	194	165	219	237
	12	Remembrance Way	1351	2010	659	2010	2010	327
	13	Deby Road	107	81	-26	79	71	96
	14	M1 NB Off Slip to A50	629	2005	1376	141	158	0
	15	A453 S	99	112	13	107	147	154
	16	Hilton Hotel Lane	53	64	11	235	235	128
	17	M1 NB South of Slip	37	1919	1882	0	0	0
EMG Access	20	M1 NB Off Slip	632	2008	1376	305	145	80
	24	Kegworth By-Pass	463	905	442	480	627	460
	25	A453 S	913	388	-525	236	262	176
	26	Wilders Way	60	66	6	30	22	55
	28	A453 S Left turn	105	86	-18	88	54	62
	29	Kegworth By-Pass Left Turn	463	905	442	480	626	460
	30	A453 N	146	147	1	121	83	118

Network Performance

3.20 **Table 15** sets out the network performance comparison on all scenarios for 2028.

Table 15: 2028 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	100	42.5	20995	53
	WD	121	39.7	21804	5
	WD - WoD	21	-2.8	809	-48
PM	WoD	72	46.9	21265	12
	WD	104	42.0	21856	325
	WD - WoD	32	-4.9	591	313

3.21 When comparing the with development against the base WoD scenario, the results show that the average delay increases and the Latent Demand also increases.

3.22 **Table 16** below sets out the network performance comparison for all scenarios at the 2038 future year.

Table 16: 2038 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	108	41.5	22392	1
	WD	142	37.6	22860	38
	WD - WoD	34	-3.9	468	36
PM	WoD	106	42.4	22374	261
	WD	138	38.4	22864	719
	WD - WoD	31	-4.0	490	458

3.23 Similar to the 2028 assessment year results, **Table 16** shows that the average delay increase, the amount of vehicles that enter the model increases and Latent Demand increases.

3.24 This scenario was undertaken once the proposed highway mitigation had been confirmed as a result of the Stage 1A modelling but the overall conclusion is similar to Stage 1A and therefore been assessed for completeness.

National Highway's Review

3.25 All the forecast VISSIM modelling inputs and model have yet to be accepted and signed off by NH and so are potentially subject to change. As a result of this, this forecasting report will be revised once NH and any other highway authorities have accepted and approved the VISSIM model and inputs.

4. MITIGATION

- 4.1 As a result of the VISSIM modelling, it has shown that mitigation is required to increase capacity on the highway network particularly at M1 Junction 24 plus some slight mitigation proposals at Finger Farm Roundabout and EMG1 gyratory.
- 4.2 It should be noted that implementing mitigation measures, particularly at roundabouts, can have knock-on effects on other approach arms due to increased circulatory flow resulting. As such, an iterative process was undertaken in VISSIM to identify a highway solution that delivers overall improvements to the network. The proposed highway works are shown on Highways Plans and the Components of the Proposed Development Plan which are included within the Transport Assessment (**BWB Reference EMG2-BWB-GEN-XX-RP-TR-0002**).
- 4.3 The proposed highways works are described further as follows:
- A453/EMG2 Main Site access junction – providing access to the EMG2 Main Site via a new arm from the A453/Hunter Road roundabout.
 - M1 Junction 24 improvements comprising:
 - Construction of a new free-flow link road from the M1 northbound at J24 to provide a direct link to the A50 westbound, which will cross over the A453, and will include the A50 westbound merge alterations (DCO Works Nos. 9 and 10);
 - Widening of the A50 eastbound link at J24 and other related works and traffic management measures in this location (DCO Works No. 11);
 - Alteration of the west side of the J24 roundabout to provide three lanes from the M1 northbound to A453 northbound through the junction, two lanes from the A453 northbound to the M1 northbound through the junction and removal of the segregated left-turn lane from the A453 northbound to the A50 westbound post feedback from NH (DCO Works No. 12a);
 - Signing and lining amendments on the east side of the J24 roundabout and the A453 southbound approach (DCO Works No. 12b);
 - Provision of new M1 northbound exit to the A50 and associated improvements to gantries signage, signals and road markings on the M1 (DCO Works No. 8); and
 - Changes to the signage on the M1 northbound before J23A to sign the A50 via the new M1 J24 link road rather than via J23A as at present (DCO Works No. 16).
 - EMG1 Access Improvements providing widening at the EMG1 roundabout to increase junction capacity (DCO Works No. 13).
 - Works to the A42/Finger Farm roundabout (DCO Works No 18).
- 4.4 The above mitigation packages have therefore been coded into VISSIM to determine how the highway improvements would affect journey times and queues.

Stage 1A VISSIM Mitigation Results

Journey Time Comparison

- 4.5 **Table 117** and **18** below shows the journey time comparison between the without development and with development + mitigation scenarios for the modelling years 2028 and 2038 respectively.

Table 17: 2028 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	WD + Mit – WoD	WoD	WD + Mit	WD + Mit – WoD
Route 1	354	348	-6	327	336	9
Route 2	356	347	-9	323	325	2
Route 3	313	317	4	459	476	17
Route 4	309	314	5	285	296	11
Route 5	341	336	-5	318	321	3
Route 6	302	320	18	268	303	35
Route 7	398	430	32	422	453	31
Route 8	303	313	10	268	301	33
Route 9	309	314	5	290	299	9
Route 10	468	343	-125	291	351	60
Route 11	371	361	-10	368	362	-6
Route 12	468	294	-174	379	326	-53
Route 13	368	332	-36	383	378	-5
Route 14	651	484	-167	407	412	5
Route 15	428	321	-107	291	0	-291
Route 16	786	440	-346	384	412	28
Route 17	540	389	-151	342	335	-7
Route 18	542	375	-167	361	370	9
Route 19	547	389	-158	412	414	2
Route 20	546	385	-161	407	413	6

Table 18: 2038 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	WD + Mit – WoD	WoD	WD + Mit	WD + Mit – WoD
Route 1	426	402	-24	330	338	8
Route 2	364	356	-8	326	329	3
Route 3	510	504	-6	1004	948	-56
Route 4	339	338	-1	318	312	-6
Route 5	344	341	-3	322	325	3
Route 6	336	428	92	277	326	49
Route 7	760	757	-3	880	835	-45
Route 8	336	436	100	275	320	45
Route 9	346	342	-4	322	320	-2
Route 10	477	326	-151	0	350	350
Route 11	399	391	-8	374	370	-4
Route 12	583	296	-287	391	341	-50
Route 13	500	345	-155	402	395	-7
Route 14	734	486	-248	427	423	-4
Route 15	463	299	-164	302	0	-302
Route 16	910	467	-443	444	463	19
Route 17	550	363	-187	354	338	-16
Route 18	1035	611	-424	381	407	26
Route 19	952	626	-326	441	453	12
Route 20	970	631	-339	443	458	15

- 4.6 The results show that the proposed highway mitigation provides significant improvements to journey times, particularly on routes along the M1 northbound and A453 northbound. This benefit is primarily due to the proposed link road from the M1 northbound to the A50 westbound, which allows vehicles to remain on the M1 mainline and utilise the new link, thereby reducing the volume of traffic passing through M1 J24 and along the A453 corridor that runs parallel. However, the mitigation also enables all vehicles on the M1 northbound slip road, previously waiting to turn onto Remembrance Way and Derby Road, to now use J24 directly. This increases circulatory traffic at J24 but reduces the number of vehicles diverting from the M1 or A42 via the A453, consequently easing congestion at Finger Farm Roundabout and allowing improved access to the junction from other approaches.
- 4.7 This shift has knock-on effects on the Remembrance Way approach and the M1 southbound slip road. It is important to note that Stage 1A includes draft Local Plan allocations such as the Uniper site (in addition to what can currently come forward under the LDO without further approval), which generates significant traffic to and from Remembrance Way. However, no mitigation measures have been included in the current scheme for this development or any other draft Local Plan allocations. Nonetheless, the reduction in diverted traffic via the A453 continues to relieve pressure on the Finger Farm Roundabout, improving access for other arms of the junction.

Network Performance

4.8 **Table 19** below sets out the network performance comparison on all scenarios for 2028.

Table 19: 2028 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	126	39.5	20826	127
	WD	198	32.8	21083	290
	WD Mit	91	43.3	21427	79
	WD - WoD	72	-6.7	257	163
	Mit - WoD	-35	3.8	601	-48
PM	WoD	68	47.3	21314	6
	WD	101	42.4	22018	269
	WD Mit	72	46.5	22226	4
	WD - WoD	33	-4.9	704	263
	Mit - WoD	4	-0.8	912	-2

4.9 When comparing the mitigation scheme against the base without development scenario, the results show that the average delay reduces, the amount of vehicles that enter the model increases and Latent Demand reduces. This shows that the mitigation provides an overall betterment to the highway network.

4.10 **Table 20** below sets out the network performance comparison on all scenarios for 2038.

Table 20: 2038 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	225	31.2	21747	313
	WD	266	28.3	22112	541
	WD Mit	154	36.6	22619	180
	WD - WoD	41	-3	365	228
	Mit - WoD	-71	5	872	-133
PM	WoD	133	39.5	22220	508
	WD	161	36.2	22648	1171
	WD Mit	41	39	23061	550
	WD - WoD	28	-3	428	663
	Mit - WoD	-92	0	841	42

4.11 Similarly to the 2028 assessment year results, **Table 20** shows that the average delay reduces, the amount of vehicles that enter the model increases and Latent Demand reduces in the AM.

4.12 In the evening peak hour latent demand slightly increases but the model accommodates circa 841 additional vehicles so therefore the mitigation still provides positive benefits.

- 4.13 Once the Stage 1 modelling testing the proposed highway mitigation was complete, the scheme drawings were sent to AECOM to undertake Stage 2 PRTM modelling to see how it the proposed highway mitigation would affect traffic routing in the around the local highway network with the increase in capacity at M1 J24. The following section presents the results of the Stage 2 modelling.

5. STAGE 2 VISSIM MODELLING

Introduction

- 5.1 AECOM provided the Stage 2A/B modelling outputs which showed that the mitigation is drawing traffic back onto the Strategic Road Network due to the increased capacity at J24.
- 5.2 As a result this section sets out the results of the stage 2A and 2B PRTM modelling output traffic flows to determine if the mitigation scheme can still accommodate the re-routing of traffic.

Initial Runs

- 5.3 The initial runs in VISSIM showed that with the increase if traffic due to the re-routing of traffic resulted in the need for further mitigation at M1 J24. This included the removal of the segregated left turn lane from the A453 northbound to A50 westbound and also at the southwest corner of M1 J24.
- 5.4 **Figure 5** shows an extract of the changes made at the southwest corner of M1 J24.

Figure 5. M1 Junction 24 Highway Mitigation changes



- 5.5 The following section summarises the proposed highway mitigation and presents the results of the strategic highway modelling under Stages 2A and 2B as well as revised VISSIM modelling to show the benefits of the proposed highway mitigation.

Stage 2A VISSIM Results

Journey Time Comparison

- 5.6 **Table 1** and **22** below shows the journey time comparison between the without development and with development + Mitigation scenarios for the modelling years 2028 and 2038 respectively.

Table 21: 2028 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	(WD + Mit) - WoD	WoD	WD + Mit	(WD + Mit) - WoD
Route 1	354	356	2	327	330	4
Route 2	356	354	-2	323	324	1
Route 3	313	317	4	459	447	-12
Route 4	309	297	-13	285	302	18
Route 5	341	342	1	318	319	1
Route 6	302	317	15	268	268	0
Route 7	398	396	-1	422	501	79
Route 8	303	306	3	268	269	1
Route 9	309	298	-11	290	299	10
Route 10	468	322	-146	291	336	45
Route 11	371	356	-15	368	368	1
Route 12	468	316	-152	379	342	-37
Route 13	368	358	-10	383	405	22
Route 14	651	438	-213	407	416	9
Route 15	428	294	-135	291	295	3
Route 16	786	409	-377	384	401	17
Route 17	540	401	-140	342	364	22
Route 18	542	402	-140	361	380	19
Route 19	547	397	-150	412	425	13
Route 20	546	402	-144	407	429	22

Table 22: 2038 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	(WD + Mit) - WoD	WoD	WD + Mit	(WD + Mit) - WoD
Route 1	426	397	-29	330	336	6
Route 2	364	382	19	326	330	3
Route 3	510	527	17	1004	714	-290
Route 4	339	313	-27	318	308	-10
Route 5	344	363	18	322	324	2
Route 6	336	585	249	277	282	5
Route 7	760	662	-98	880	804	-76
Route 8	336	590	254	275	277	2
Route 9	346	315	-31	322	310	-12
Route 10	477	324	-154	352	342	-10
Route 11	399	404	5	374	376	2
Route 12	583	348	-235	391	340	-51
Route 13	500	392	-108	402	408	6
Route 14	734	683	-52	427	423	-4
Route 15	463	294	-169	302	0	-6
Route 16	910	653	-256	444	421	-23
Route 17	550	436	-115	354	364	10
Route 18	1035	633	-402	381	410	29
Route 19	952	622	-331	441	426	-15
Route 20	970	653	-318	443	442	-1

- 5.7 **Tables 21** and **22** show that there are significant reductions in journey times between scenario 2038 without development and 2038 with development + mitigation particularly at Finger Farm roundabout, EMG1 Gyratory and M1 J24 in the morning peak hour.
- 5.8 A review of the VISSIM simulation indicates that in the morning peak period the M1 northbound off-slip becomes significantly less congested with slight queuing back onto the mainline but still allows vehicles to access the proposed link road.
- 5.9 There are also reductions in journey times in the evening peak hour scenarios which overall show that the mitigation provides significant benefit to the Strategic Road Network.
- 5.10 This is shown in **Table 23** and **24** which sets the average and max queues for the 2028 without and with development scenarios.

Table 23: 2028 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	551	6	-544	12	5	-6
	2	A453 N	1	4	3	1	3	2
	3	M1/A42 S	352	12	-340	2	1	0
M1 J24	11	M1 SB Off Slip	101	234	132	34	0	-34
	12	Remembrance Way	22	23	1	479	46	-432
	13	Deby Road	24	22	-2	12	403	391
	14	M1 NB Off Slip to A50	193	0	-193	27	0	-27
	15	A453 S	46	31	-15	33	14	-19
	16	Hilton Hotel Lane	780	10	-769	18	29	11
	17	M1 NB South of Slip	14	0	-14	0	3	3
	20	M1 NB Off Slip	324	27	-298	22	21	-1
EMG Access	24	Kegworth By-Pass	56	55	-1	49	76	27
	25	A453 S	588	23	-565	30	22	-8
	26	Wilders Way	0	0	0	1	2	1
	28	A453 S Left turn	17	15	-2	8	11	3
	29	Kegworth By-Pass Left Turn	21	43	23	34	59	25
	30	A453 N	20	17	-3	8	12	4

Table 24: 2028 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	1142	57	-1085	67	117	50
	2	A453 N	45	80	35	30	46	16
	3	M1/A42 S	1678	169	-1509	45	34	-10
M1 J24	11	M1 SB Off Slip	451	609	158	193	197	4
	12	Remembrance Way	107	85	-23	757	666	-91
	13	Deby Road	96	100	3	64	70	6
	14	M1 NB Off Slip to A50	607	0	-607	118	0	-118
	15	A453 S	337	115	-222	138	110	-28
	16	Hilton Hotel Lane	1184	53	-1131	76	30	-47
	17	M1 NB South of Slip	534	0	-534	0	0	0
	20	M1 NB Off Slip	610	101	-510	86	77	-8
EMG Access	24	Kegworth By-Pass	385	529	143	342	623	281
	25	A453 S	1272	110	-1162	137	134	-3
	26	Wilders Way	30	16	-14	32	41	9
	28	A453 S Left turn	106	94	-11	73	68	-5
	29	Kegworth By-Pass Left Turn	197	467	270	341	620	279
	30	A453 N	109	88	-21	82	86	5

5.11 **Table 25** and **26** which sets the average and max queues for the 2038 without and with development traffic.

Table 25: 2038 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	462	9	-453	177	9	-168
	2	A453 N	1	3	2	3	3	1
	3	M1/A42 S	30	12	-18	2	1	-1
M1 J24	11	M1 SB Off Slip	1581	1225	-356	46	65	19
	12	Remembrance Way	797	727	-70	1753	1259	-494
	13	Deby Road	25	37	12	18	20	2
	14	M1 NB Off Slip to A50	557	0	-557	30	0	-30
	15	A453 S	423	435	12	48	31	-17
	16	Hilton Hotel Lane	1321	301	-1021	145	7	-138
	17	M1 NB South of Slip	1530	68	-1462	0	0	0
EMG Access	20	M1 NB Off Slip	560	254	-306	33	24	-9
	24	Kegworth By-Pass	199	139	-60	135	118	-17
	25	A453 S	746	29	-716	39	24	-15
	26	Wilders Way	1	0	0	1	2	1
	28	A453 S Left turn	19	13	-6	9	8	-1
	29	Kegworth By-Pass Left Turn	185	136	-49	114	113	-1
	30	A453 N	20	17	-3	10	8	-2

Table 26: 2038 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	1142	88	-1054	522	144	-378
	2	A453 N	52	213	162	76	56	-20
	3	M1/A42 S	193	209	16	80	30	-50
M1 J24	11	M1 SB Off Slip	2010	1694	-316	209	215	5
	12	Remembrance Way	1263	1125	-138	2010	1734	-276
	13	Deby Road	86	225	139	100	87	-14
	14	M1 NB Off Slip to A50	607	0	-607	147	0	-147
	15	A453 S	1050	852	-198	290	137	-153
	16	Hilton Hotel Lane	1645	527	-1118	272	46	-226
	17	M1 NB South of Slip	2010	1016	-994	0	0	0
EMG Access	20	M1 NB Off Slip	610	748	138	124	78	-46
	24	Kegworth By-Pass	759	964	205	849	731	-118
	25	A453 S	1234	160	-1075	150	120	-31
	26	Wilders Way	35	17	-18	31	37	6
	28	A453 S Left turn	104	101	-3	100	61	-39
	29	Kegworth By-Pass Left Turn	759	964	205	849	676	-173
	30	A453 N	91	114	24	76	66	-9

Network Performance

5.12 **Table 27** below sets out the network performance comparison on all scenarios for 2028.

Table 27: 2028 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	126	39.5	20826	127
	WD	198	32.8	21083	290
	WD Mit	68	46.4	22308	2
	WD - WoD	72	-6.7	257	164
	Mit - WoD	-58	6.9	1482	-125
PM	WoD	68	47.3	21314	6
	WD	101	42.4	22018	269
	WD Mit	79	45.6	22742	5
	WD - WoD	32	-4.9	704	263
	Mit - WoD	10	-1.7	1428	-1

5.13 When comparing the results with the proposed highway mitigation scenario against the without development scenario, they show that the average delay reduces, the amount of vehicles that enter the model increases and Latent Demand reduces. This shows that the mitigation provides significant betterment to the Strategic Road Network.

5.14 **Table 28** below sets out the network performance comparison on all scenarios for 2038.

Table 28: 2038 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	225	31.2	21747	313
	WD	266	28.3	22112	541
	WD Mit	156	36.4	23139	2
	WD - WoD	41	-2.9	365	228
	Mit - WoD	-69	5.1	1392	-311
PM	WoD	133	39.5	22220	508
	WD	161	36.2	22648	1171
	WD Mit	112	41.5	23379	10
	WD - WoD	28	-3.3	428	663
	Mit - WoD	-21	2.0	1159	-498

5.15 Similarly to the 2028 assessment year results, **Table 28** shows that the average delay decrease, the amount of vehicles that enter the model increases and Latent Demand decrease meaning that vehicle have less of a issue entering the model.

5.16 Therefore the results show that the proposed mitigation scheme provides a sufficient benefit for the Strategic Road Network especially at M1 J24.

Stage 2B VISSIM Results

Journey Time Comparison

- 5.17 **Table 1** and **30** below show the journey time comparison between the without development and with development + mitigation scenarios for the modelling years of 2028 and 2038 respectively.

Table 29: 2028 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	WD + Mit – WoD	WoD	WD + Mit	WD + Mit – WoD
Route 1	359	354	-5	325	328	4
Route 2	355	349	-7	321	324	3
Route 3	335	332	-3	503	345	-158
Route 4	325	307	-18	294	283	-11
Route 5	336	333	-3	317	319	3
Route 6	297	288	-9	265	271	6
Route 7	514	411	-103	447	377	-70
Route 8	290	282	-8	266	266	0
Route 9	332	316	-15	292	284	-8
Route 10	451	331	-120	337	332	-5
Route 11	382	356	-26	361	361	0
Route 12	454	310	-144	378	344	-34
Route 13	359	350	-9	380	404	24
Route 14	540	450	-90	407	407	0
Route 15	435	298	-137	311	283	-28
Route 16	621	427	-194	385	390	5
Route 17	456	420	-35	344	357	14
Route 18	494	374	-121	356	380	24
Route 19	503	389	-115	407	423	15
Route 20	504	393	-111	408	432	24

Table 30: 2038 Journey Time Comparison

Route	AM			PM		
	WoD	WD + Mit	WD + Mit – WoD	WoD	WD + Mit	WD + Mit – WoD
Route 1	365	362	-3	329	338	8
Route 2	358	352	-7	326	331	6
Route 3	529	493	-36	765	346	-419
Route 4	321	313	-8	301	295	-6
Route 5	339	337	-2	321	325	4
Route 6	298	354	56	274	292	18

	AM			PM		
Route	WoD	WD + Mit	WD + Mit – WoD	WoD	WD + Mit	WD + Mit – WoD
Route 7	778	636	-142	656	403	-253
Route 8	292	324	32	273	278	5
Route 9	324	314	-10	299	295	-4
Route 10	428	354	-75	380	339	-41
Route 11	387	378	-9	379	379	1
Route 12	423	314	-109	392	345	-47
Route 13	352	360	8	398	414	16
Route 14	537	473	-64	433	453	20
Route 15	380	321	-59	310	316	6
Route 16	572	431	-140	416	409	-6
Route 17	456	438	-19	349	392	43
Route 18	460	419	-41	407	453	46
Route 19	480	421	-59	464	431	-33
Route 20	486	455	-31	470	449	-20

5.18 Simialr to the Stage 2A scenario, **Tables 29** and **30** show that in Stage 2B there are significant decreases in journey times between Scenario 2038 without development and 2038 withdevelopment particularly at Finger Farm roundabout, EMG1 Gyratory and M1 J24.

5.19 This is shown in **Tables 31** and **32** which sets the average and max queues for the 2028 without and with development traffic.

Table 31: 2028 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	619	6	-614	13	4	-10
	2	A453 N	1	4	4	1	2	2
	3	M1/A42 S	305	21	-284	2	1	0
M1 J24	11	M1 SB Off Slip	85	141	56	33	47	15
	12	Remembrance Way	446	59	-387	573	106	-468
	13	Deby Road	25	23	-2	11	13	2
	14	M1 NB Off Slip to A50	99	0	-99	27	0	-27
	15	A453 S	24	37	13	25	26	1
	16	Hilton Hotel Lane	39	8	-31	12	3	-9
	17	M1 NB South of Slip	0	0	0	0	0	0
	20	M1 NB Off Slip	114	25	-89	20	19	-1
EMG Access	24	Kegworth By-Pass	182	105	-77	45	27	-18
	25	A453 S	903	41	-862	30	18	-13
	26	Wilders Way	27	1	-26	1	1	0
	28	A453 S Left turn	21	30	9	7	9	2
	29	Kegworth By-Pass Left Turn	75	99	23	15	16	1
	30	A453 N	55	14	-40	8	7	-1

Table 32: 2028 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	1136	85	-1052	103	74	-28
	2	A453 N	62	76	13	39	57	19
	3	M1/A42 S	1018	202	-816	52	37	-15
M1 J24	11	M1 SB Off Slip	462	353	-109	160	189	29
	12	Remembrance Way	851	215	-636	1073	381	-692
	13	Deby Road	106	104	-2	67	63	-4
	14	M1 NB Off Slip to A50	426	0	-426	100	0	-100
	15	A453 S	82	180	98	136	93	-43
	16	Hilton Hotel Lane	99	51	-48	58	30	-29
	17	M1 NB South of Slip	0	5	5	0	0	0
	20	M1 NB Off Slip	429	83	-346	82	72	-10
EMG Access	24	Kegworth By-Pass	819	766	-53	407	219	-188
	25	A453 S	1272	285	-987	151	90	-61
	26	Wilders Way	153	47	-107	33	29	-4
	28	A453 S Left turn	95	232	137	67	81	14
	29	Kegworth By-Pass Left Turn	543	766	223	235	219	-16
	30	A453 N	188	96	-92	75	55	-19

5.20 **Table 33** and **34** which sets the average and max queues for the 2038 without and with development traffic.

Table 33: 2038 Average Queue Comparison

	Average							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	35	6	-29	23	5	-18
	2	A453 N	3	5	1	2	3	2
	3	M1/A42 S	18	77	60	2	2	0
M1 J24	11	M1 SB Off Slip	92	361	268	39	70	31
	12	Remembrance Way	1023	666	-357	1265	111	-1154
	13	Deby Road	28	25	-4	14	19	5
	14	M1 NB Off Slip to A50	384	0	-384	29	0	-29
	15	A453 S	29	44	15	30	35	5
	16	Hilton Hotel Lane	11	152	141	138	42	-96
	17	M1 NB South of Slip	0	0	0	0	0	0
	20	M1 NB Off Slip	378	32	-346	46	24	-22
EMG Access	24	Kegworth By-Pass	83	116	33	76	40	-36
	25	A453 S	392	25	-367	39	22	-17
	26	Wilders Way	6	0	-6	2	3	1
	28	A453 S Left turn	17	22	5	8	9	0
	29	Kegworth By-Pass Left Turn	63	85	23	51	31	-21
	30	A453 N	52	14	-38	12	12	0

Table 34: 2038 Max Queue Comparison

	Max							
	IDs	Arm	AM			PM		
			WoD	WD Mit	Mit - WoD	WoD	WD Mit	Mit - WoD
Finger Farm Roundabout	1	A453 W	230	109	-120	348	53	-295
	2	A453 N	60	65	4	46	60	13
	3	M1/A42 S	179	345	166	44	39	-5
M1 J24	11	M1 SB Off Slip	383	730	347	165	237	72
	12	Remembrance Way	1351	1044	-307	2010	327	-1684
	13	Deby Road	107	94	-14	79	96	17
	14	M1 NB Off Slip to A50	629	0	-629	141	0	-141
	15	A453 S	99	135	35	107	154	47
	16	Hilton Hotel Lane	53	267	215	235	128	-107
	17	M1 NB South of Slip	37	0	-37	0	0	0
	20	M1 NB Off Slip	632	98	-534	305	80	-225
EMG Access	24	Kegworth By-Pass	463	822	358	480	460	-20
	25	A453 S	913	167	-747	236	176	-61
	26	Wilders Way	60	23	-37	30	55	25
	28	A453 S Left turn	105	176	72	88	62	-26
	29	Kegworth By-Pass Left Turn	463	724	261	480	460	-20
	30	A453 N	146	93	-54	121	118	-2

Network Performance

5.21 **Table 35** below sets out the network performance comparison for all scenarios at the 2028 future year.

Table 35: 2028 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	100	42.5	20995	53
	WD	121	39.7	21804	5
	WD Mit	64	46.8	22364	1
	WD - WoD	21	-2.8	809	-48
	Mit - WoD	-36	4.3	1369	-52
PM	WoD	72	46.9	21265	12
	WD	104	42.0	21856	325
	WD Mit	68	47.3	22461	47
	WD - WoD	32	-4.9	591	313
	Mit - WoD	-4	0.4	1196	35

5.22 **Table 36** below sets out the network performance comparison for all scenarios at the 2038 future year.

Table 36: 2038 Network Performance Comparison

		Delay	Speed	Veh Arr	Latent D
AM	WoD	108	41.5	22392	1
	WD	142	37.6	22860	38
	WD Mit	97	42.5	23425	26
	WD - WoD	34	-3.9	468	36
	Mit - WoD	-11	1.0	1033	25
PM	WoD	106	42.4	22374	261
	WD	138	38.4	22864	719
	WD Mit	84	45.0	23596	0
	WD - WoD	31	-4.0	490	458
	Mit - WoD	-23	2.6	1222	-261

5.23 In summary, the results show that, with the comprehensive mitigation strategy included for the highway network within the VISSIM model, extending from the EMG2 site access to M1 Junction 24, would, overall, provide significant benefit. When considered the key areas within the network in greater detail, in summary:

- i) A453/Hunter Road/EMG2 site access roundabout – traffic would be able to safely enter and exit the EMG2 site in any given scenario; vehicles would struggle to exit Hunter Road without the mitigation measures included for; hence the proposals provide betterment on said arm.
- ii) Toucan crossing on the A453 – this operates within capacity when called, without any negative blocking back to either roundabout east or west.
- iii) Finger Farm – the gyratory works well once the in mitigation is in place, as there are far less vehicles wanting to use the A453 when comparing to the base scenarios once the new M1 to A50 link road is included for.

- iv) A453/Kegworth Bypass/EMG1 site access gyratory – while there is not an inherent capacity issue at EMG1 site access gyratory, the addition of a second right turn lane from the A453 southbound into EMG1 in affect future proofs the junction by increasing storage capacity within it and should also help alleviate the potential collision issue raised, as and the extra lane will help prevent vehicles from trying to manoeuvre around any queuing vehicles to enter the preceding two lane section into EMG1.
- v) M1 Junction 24 diverge slip roads - in the base scenarios there is severe queuing forecast on both the M1 diverge slip road approaches, with vehicles queuing back onto the mainline to M1 Junction 23A to the south in the morning peak hour in particular, With the mitigation strategy included for, there is still queuing back onto the M1 mainline, but this is vastly improved, especially on the northbound approach, where the queue does not prejudice the operation of the proposed M1 northbound to A50 westbound link road and allows vehicles to access it. It is also worth reminding that the Stage 2A assessment work includes for all of the Ratcliffe on Soar Power Station redevelopment traffic in the baseline but not any mitigation, because it is unknown at this stage of the process. Either way, the improved operation will help improve the PIC record observed on the M1 northbound diverge slip road.
- vi) M1 Junction 24 circulatory links – the inclusion of the additional lane on the western side of the junction increases capacity as it allows for more vehicles to access the junction and manoeuvre through it quicker. This in turn allows the MOVA at the junction to assign more green time to the busier arms (M1 southbound/A50, A453 Remembrance Way, and M1 northbound approaches), allowing for additional vehicles to enter the model. For the avoidance of doubt, the mitigation does not go as far as resolving all capacity issues at M1 Junction 24, especially on the A453 Remembrance Way arm and M1 southbound and A50 approach, but neither does it prejudice its operation either, over and above the congestion anticipated if the Ratcliffe on Soar Power Station is fully redeveloped in Stage 2A but without any further mitigation included for at this stage of the process (because it is not currently known).
- vii) New M1 to A50 link road – whilst this introduces another conflict point, as result the removal of the current two to one merge on the exit from M1 Junction 24 to provide two full lanes, and the merge with the separated left turn lane, it reduces the number of conflict points overall. This in turn helps the A50 heading west from M1 Junction 24, including for the new link road merge, to operate safely and within capacity.

7. SUMMARY & CONCLUSIONS

- 7.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of a DCO application for the Phase 2 Expansion of East Midlands Gateway (EMG) site.
- 7.2 The EMG2 Project comprises a second phase to Segro's EMG1 logistics park and Rail Freight Interchange and comprises the following three components:
- **EMG2 Main Site** – A new logistics and advanced manufacturing employment park located south of East Midlands Airport and the A453, and west of the M1 motorway. This part of the site falls within the 'East Midlands Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022. It comprises 300,000sqm of B2/B8 use (assessed as 60,000sqm B2 and 240,000sqm B8 as set out in Section 7 below), plus an allowance for 200,000sqm of B8 mezzanine floorspace.
 - **Highways Works** – Highways works to the SRN including improvements at Junction 24 of the M1 motorway and the road network interacting with that junction; and
 - **EMG1 Works** – Additional warehousing of 26,500sqm plus a mezzanine allowance for 3,500 sq.m (Use Class B8) at Plot 16 together with works to increase the permitted height of the cranes at the rail freight terminal, improvements to the EMG1 public transport interchange and site management building.
- 7.3 A VISSIM model had been developed for the M1 J24 corridor and it was agreed with the TWG that the following five junctions are tested using microsimulation VISSIM modelling because of their proximity to the SRN
- i. Junction 1: A453/Site Access Roundabout
 - ii. Junction 2: A453/Hunter Road Roundabout
 - iii. Junction 3: Finger Farm Roundabout
 - iv. Junction 4: A453/EMGP1 Signal Gyratory
 - v. Junction 5: M1 Junction 24
- 7.4 Junction modelling assessments for the core Stage 1A and 1B forecast year scenarios using VISSIM.
- 7.5 The VISSIM showed that in the forecast assessment year the corridor of junctions set out above would have capacity issues and as a result a mitigation scheme has been proposed.
- 7.6 The proposed highways works are described further as follows:
- A453/EMG2 Main Site access junction – providing access to the EMG2 Main Site via a new arm from the A453/Hunter Road roundabout.
 - M1 Junction 24 improvements comprising:

- Construction of a new free-flow link road from the M1 northbound at J24 to provide a direct link to the A50 westbound, which will cross over the A453, and will include the A50 westbound merge alterations (DCO Works Nos. 9 and 10);
 - Widening of the A50 eastbound link at J24 and other related works and traffic management measures in this location (DCO Works No. 11);
 - Alteration of the west side of the J24 roundabout to provide three lanes from the M1 northbound to A453 northbound through the junction, two lanes from the A453 northbound to the M1 northbound through the junction and removal of the segregated left-turn lane from the A453 northbound to the A50 westbound post feedback from NH (DCO Works No. 12a);
 - Signing and lining amendments on the east side of the J24 roundabout and the A453 southbound approach (DCO Works No. 12b);
 - Provision of new M1 northbound exit to the A50 and associated improvements to gantries signage, signals and road markings on the M1 (DCO Works No. 8); and
 - Changes to the signage on the M1 northbound before J23A to sign the A50 via the new M1 J24 link road rather than via J23A as at present (DCO Works No. 16).
- EMG1 Access Improvements providing widening at the EMG1 roundabout to increase junction capacity (DCO Works No. 13).
 - Works to the A42/Finger Farm roundabout (DCO Works No 18).
- 7.7 The mitigation scheme showed that it would provide major benefits especially at M1 J24 when comparing journey times. The mitigation package was then coded into PRTM to see how it would affect the rerouting of traffic around the local area.
- 7.8 PRTM showed that the mitigation scheme would draw vehicles back onto the SRN and as a result AECOM provided Stage 2a/b modelling outputs to allow the new level of traffic to be tested in VISSIM to determine if the mitigation scheme can still accommodate the re-routing of traffic.
- 7.9 The initial runs in VISSIM showed that with the increase in traffic due to the re-routing of traffic resulted in the need for further mitigation at M1 J24. This included the removal of the segregated left turn lane from the A453 northbound to A50 westbound and also at the southwest corner of M1 J24.
- 7.10 With the further mitigation measures, the overall mitigation scheme still provides a major benefit to the SRN.
- 7.11 As mentioned, the all the forecast models and inputs are still under review by NH and as a result could be subject to change.

APPENDICES

APPENDIX 1: EMG2-BWB-GEN-XX-RP-TR-0006_VISSIM_LMVR-S2-P4

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

East Midlands Gateway, Phase 2
Local Model Validation Report (LMVR)

TRANSPORT & INFRASTRUCTURE PLANNING

SEGRO

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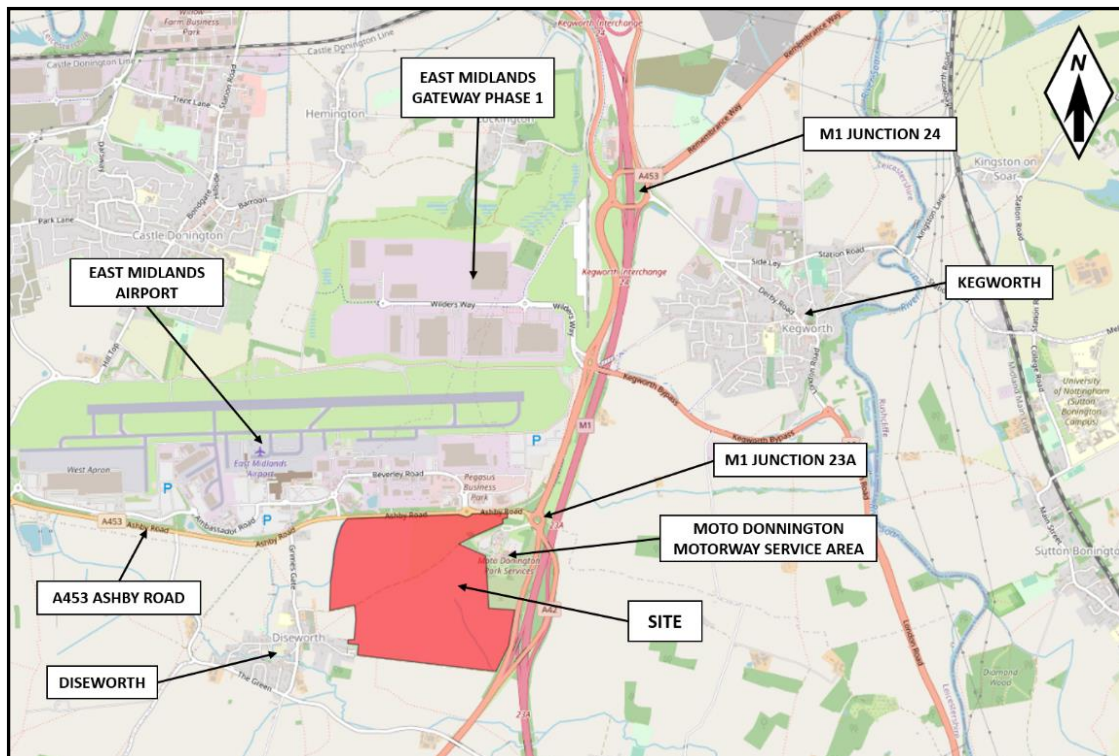
APPENDICES

APPENDIX 1: TURNING COUNT CALIBRATION

1. INTRODUCTION

- 1.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of East Midlands Gateway (EMG) site.
- 1.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use. The location of the proposed development is show in **Figure 1**.

Figure 1. Site Location



- 1.3 As part of East Midlands Gateway Phase 1, BWB obtained a copy of the M1 J24 VISSIM model network from National Highways in 2014. The model was validated and calibrated by AECOM to a base year of 2012. This model was utilised by BWB to assess the proposed highway network changes including improvements to M1 J24 as part of the EMG Phase 1. However, the model is now outdated and the proposed mitigation as well as the scheme have been constructed on site since and is operational.
- 1.4 Therefore, to assess the impact of EMG Phase 2, a revalidation of the base model was required, this technical note has been produced to outline the modelling methodology undertaken as well as provide details of model calibration and validation.

Report Structure

- 1.5 Following this introduction, the remainder of this report is structured as follows:

- **Section 2:** Network Development, sets out the modelling parameters associated with the baseline model;
- **Section 3:** Model calibration, including comparison of manual turning count data against modelled flows.
- **Section 4:** Model validation comparing surveyed journey times with modelled journey times.
- **Section 5:** Summary and Conclusions.

2. NETWORK DEVELOPMENT

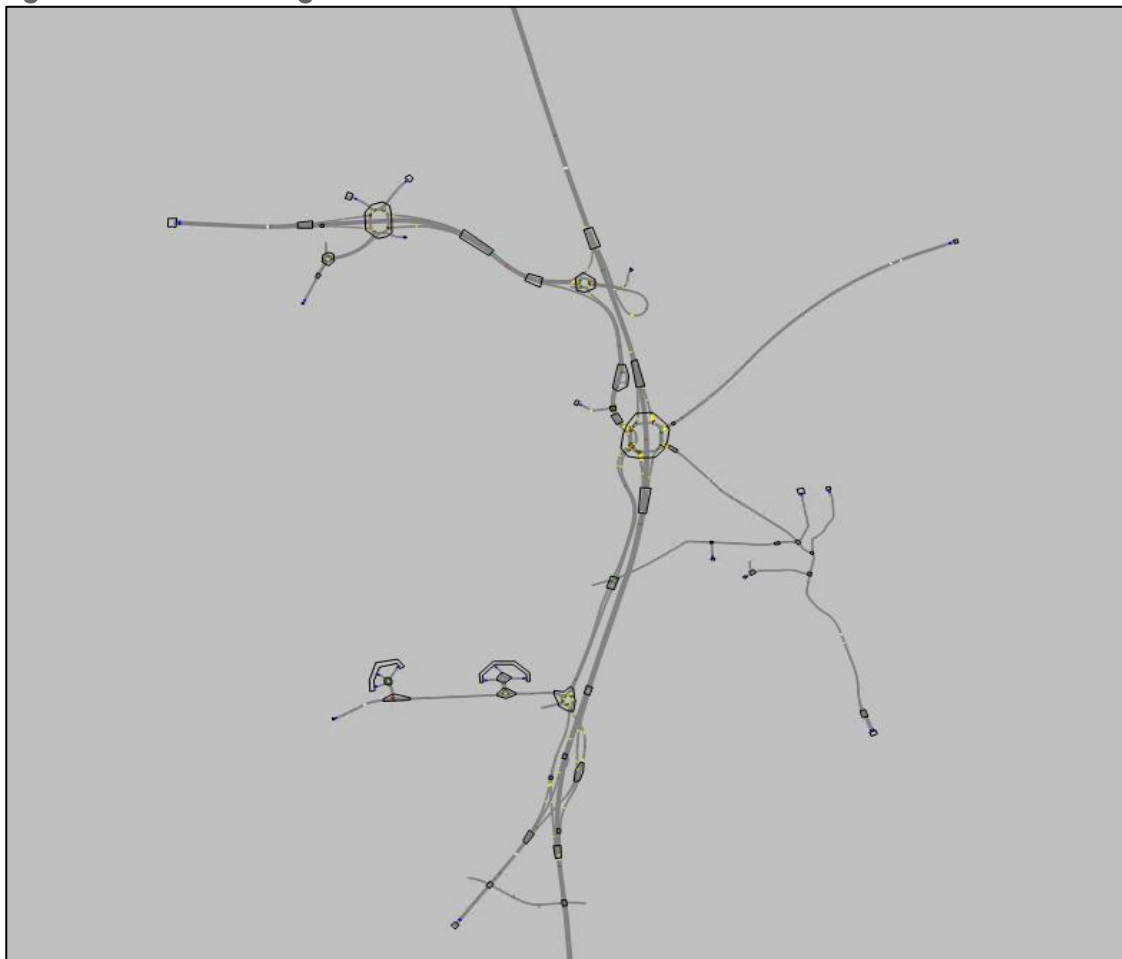
Model Approach

- 2.1 The PTV software package VISSIM is a microscopic, time-step, behaviour-based simulation tool developed to model traffic and public transport operations. VISSIM models individual vehicles and presents these movements visually, assisting in model validation and in the assessment of the performance of network improvement options.
- 2.2 VISSIM provides output information such as queues, delays, and journey times on identified routes and other specific information. VISSIM also enables 3D videos to be produced providing a powerful visual simulation of the highway network.
- 2.3 The existing VISSIM model has utilised dynamics assignment for traffic flow input, therefore the this has been retained.

Model Coverage

- 2.4 The extents of the existing VISSIM model has been illustrated in **Figure 2** below.

Figure 2 Model Coverage



2.5 The existing model comprises of the following junctions.

- i. A50 junction 1 Sawley Interchange;
- ii. M1 J24a;
- iii. M1 J24;
- iv. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- v. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- vi. A453/Hunter Road/minor EMG Phase 2 access roundabout
- vii. A453 East Midlands airport internal roundabouts.

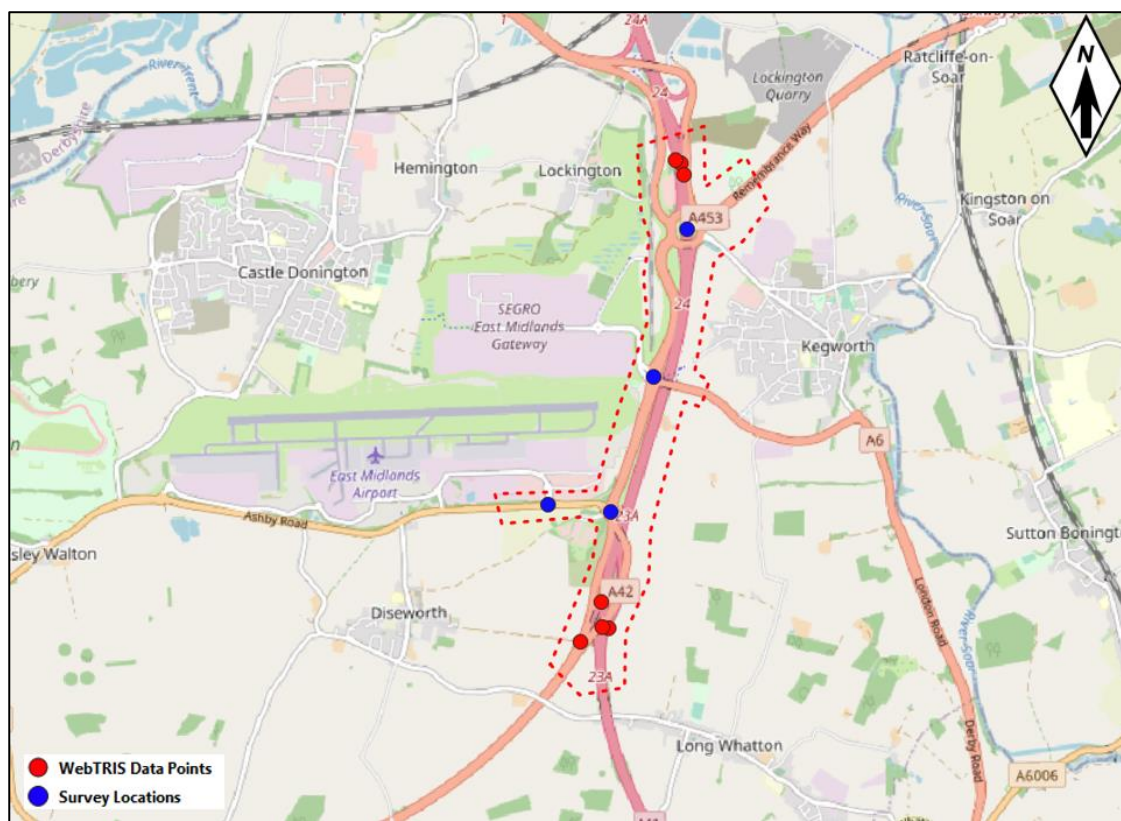
2.6 Following discussions with NH, it was agreed that the model will be cordoned off to the following junctions:

- i. M1 J24;
- ii. M1 J24a southbound merge onto the M1 and M1 junction 24;
- iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- v. A453/Hunter Road/minor EMG Phase 2 access roundabout;
- vi. A453/EMG Phase 2 site access roundabout.

Survey Data

2.7 Manual turning count surveys were undertaken on 3rd November 2023 for all junctions outlined in Paragraph 2.4. with the exception of the A453/Kegworth Bypass junction which was undertaken on 23rd November 2023. **Figure 3** illustrates locations of surveys undertaken and data points that are available on the WebTRIS website.

Figure 3: Survey and WebTRIS Data Locations



2.8 The survey data has been compared to a neutral month which was obtained from the Webtris website for a number of available data points around J24. The **Tables 1** and **2** sets out the GEH comparison between the survey data and the Webtris data.

Table 1: Survey Comparison AM

Approach/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1876	1811	1859	1.51	0.39
M1 S Exit	655	689	691	1.31	1.39
A453 Exit Towards EMG1	944	954	1014	0.32	2.24

Table 2: Survey Comparison PM

Approach/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1712	1715	1769	0.07	1.37
M1 S Exit	955	984	1002	0.93	1.50
A453 Exit Towards EMG1	615	666	699	2.02	3.28

- 2.9 The tables above illustrate that the survey data is within a GEH 5 when comparing the neutral month from webtris and therefore, the survey data is acceptable.
- 2.10 The network peak hours were calculated as 0730-0830 and 1700-1800 in the morning and evening period respectively.
- 2.11 TomTom journey time data was obtained for all neutral days within the month of November 2022. This has been utilised for journey time validation purposes.

Model Time Periods

- 2.12 The modelled time periods include half an hour warm up and cool down period either side of the peak hours. Subsequently, the model covers the following time periods:
- Weekday morning period from 0700-0900; and
 - Weekday evening period from 1630-1830.

Traffic Flow Calculations

- 2.13 The traffic survey were utilised to generate traffic flow diagrams for each 15 minute interval with the time periods set out above for both light and heavy vehicles respectively. As the EMG gyratory junction was surveyed on a different day, there were significant discrepancies in flows northbound/southbound along the A453 therefore the flows have factored in accordance with flows approaching M1 J24 and Finger Farm Roundabout to ensure consistency for OD matrix estimation
- 2.14 The flows for the ahead and merge/diverge proportions have been calculated using counts that are available on the WebTRIS website. **Tables 1** and **2** illustrate the calculations undertaken to derive the flows along the motorway as well as the split of traffic at the merges and diverges.

Table 3: Hourly WebTRIS Flows

Time Periods	WebTRIS				Divided By 4 (each 15 interval)			
	Northbound		Southbound		Northbound		Southbound	
	Lights	Heavies	Lights	Heavies	Lights	Heavies	Lights	Heavies
07:00-08:00	2275	605	4471	643	569	151	1118	161
08:00-09:00	2463	442	4069	581	616	111	1017	145
16:00-17:00	4132	502	3740	518	1033	126	935	130
17:00-18:00	4127	416	3863	491	1032	104	966	123
18:00-19:00	3307	290	3113	410	827	73	778	103

Table 4: 15-minute WebTRIS Flows

Time Periods	WebTRIS				% Split				Inputs into VISSIM			
	Northbound		Southbound		Northbound		Southbound		B-G	B-H	G-B	H-B
	A42	M1	A42	M1	A42	M1	A42	M1				
07:00 - 07:15	463	942	446	1028	33%	67%	30%	70%	780	338	381	187
07:15 - 07:30	441	895	477	1024	33%	67%	32%	68%	763	355	381	188
07:30 - 07:45	466	926	455	937	33%	67%	33%	67%	752	365	378	190
07:45 - 08:00	428	794	455	921	35%	65%	33%	67%	748	370	370	199
08:00 - 08:15	374	777	432	790	32%	68%	35%	65%	658	360	416	200
08:15 - 08:30	360	727	388	714	33%	67%	35%	65%	659	358	412	204
08:30 - 08:45	368	688	395	760	35%	65%	34%	66%	669	348	401	215
08:45 - 09:00	358	645	371	719	36%	64%	34%	66%	671	346	396	220
16:30 - 16:45	646	1148	547	902	36%	64%	38%	62%	582	353	661	372
16:45 - 17:00	525	1079	517	945	33%	67%	35%	65%	604	331	695	338
17:00 - 17:15	545	1145	542	944	32%	68%	36%	64%	614	352	699	333
17:15 - 17:30	571	1196	539	974	32%	68%	36%	64%	622	344	698	333
17:30 - 17:45	497	1301	579	887	28%	72%	39%	61%	584	381	747	285
17:45 - 18:00	615	1140	494	829	35%	65%	37%	63%	605	361	670	362
18:00 - 18:15	524	1040	442	795	34%	66%	36%	64%	500	278	550	277
18:15 - 18:30	464	945	417	718	33%	67%	37%	63%	492	286	554	272

HGVs												
Time Periods	WebTRIS				% Split				Inputs into VISSIM			
	Northbound		Southbound		Northbound		Southbound		B-G	B-H	G-B	H-B
	A42	M1	A42	M1	A42	M1	A42	M1				
07:00 - 07:15	75	102	68	96	42%	58%	41%	59%	94	67	87	64
07:15 - 07:30	62	115	66	105	35%	65%	39%	61%	99	62	98	53
07:30 - 07:45	57	119	56	115	32%	68%	33%	67%	108	53	102	49
07:45 - 08:00	65	102	54	112	39%	61%	33%	67%	108	52	92	59
08:00 - 08:15	40	120	58	129	25%	75%	31%	69%	100	45	83	28
08:15 - 08:30	55	108	60	125	34%	66%	32%	68%	98	47	73	37
08:30 - 08:45	58	121	85	123	32%	68%	41%	59%	86	59	75	36
08:45 - 09:00	80	103	71	104	44%	56%	41%	59%	86	59	62	48
16:30 - 16:45	80	107	64	89	43%	57%	42%	58%	75	54	72	54
16:45 - 17:00	55	88	55	81	38%	62%	40%	60%	77	52	77	48
17:00 - 17:15	49	108	54	116	31%	69%	32%	68%	84	39	72	32
17:15 - 17:30	41	92	45	117	31%	69%	28%	72%	89	34	72	32
17:30 - 17:45	47	83	50	89	36%	64%	36%	64%	79	44	66	38
17:45 - 18:00	43	91	57	104	32%	68%	35%	65%	79	43	71	33
18:00 - 18:15	36	59	58	88	38%	62%	40%	60%	62	41	45	27
18:15 - 18:30	49	51	40	77	49%	51%	34%	66%	67	35	37	36

- 2.15 Each 15-minute interval has been inputted into a skeleton LinSig model of the assessment area for both lights and heavies vehicles to allow LinSig's matrix estimation function to generate OD matrices that can be inputted into VISSIM.

Traffic Signals

- 2.16 A copy of the MOVA files for M1 J24 and the EMG gyratory were obtained from NH and the model has been updated to utilise the latest files.
- 2.17 PCMOVA has been utilised to replicate the the signal operation of the M1 J24 and EMG gyratory. The video footage of the junction was compared with the signal operation in VISSIM and it was concluded that this was reflective of on site behaviour.
- 2.18 MOVA data sets were not available for EMG West Steam 3, East Stream 3 and M1 J24 West Stream 4, therefore, VisVAP program has been utilised to set up the exit/crossing signal controllers and subsequently link them to the respective MOVA junctions using detectors.

3. Network Development

- 3.1 A number of changes have been made to the original base model to ensure calibration & validation of the model. These include changes to reduced speed areas, desired speed distributions, priority rules, conflict area and link/flare usage. Details of these have been provided below.

Desired Speed Distribution And Reduced Speed Area

- 3.2 Initial review of the desired speed distributions utilised in the EMG Phase 1 model had been undertaken and it was noted that the speed distributions for 30, 60 and 70mph were affecting the journey times of vehicles in the model. Therefore, DfT data for the most recent year available (2021) has been obtained and new desired speed distributions have been calculated in coded into VISSIM.
- 3.3 Reduced speed areas have been retained and checked in accordance streetview, from the initial model apart from the road that connects the A50 to the M1/M1 J24. The TomTom Journey Data has been review and it was noted that the average speed traveling along this link is lower than what is sign posted and therefore amended to reflect this in the model.
- 3.4 A number of reduced speed area have been coded on to EMG gyratory around the bus stops.

Priority Rules & Conflict Areas

M1 J24

- 3.5 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the M1 J24 on the M1 northbound Off-Slip entry. The priority rules that have been amended are as follows:

- 495, 496, 497, 498

- 3.6 A few priority rules have been added on the M1 southbound Off-Slip entry. The priority rules that have been added are as follows:

- 501, 502, 502, 504

EMG Gyratory

- 3.7 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the EMG gyratory. The priority rules that have been amended are as follows:

- 469, 489, 509

- 3.8 The above alterations have been undertaken to ensure no overrunning of vehicles along the circulatory carriageway.

Public Transport

3.9 A number of bus services were identified within the study area therefore these have been coded into VISSIM in accordance with the respective timetables and route maps. The following services are included within the model:

- EMG Shuttle Bus
- 9 – EMA – Queens Hospital
- Skylink Derby – Leicester – Derby
- Skylink Derby – Derby – Leicester
- Skylink Nottingham – Nottingham – Loughborough
- Skylink Nottingham – Loughborough – Nottingham
- Skylink Express – Nottingham – EMA
- Skylink Express – Nottingham – EMA

4. Model Changes

- 4.1 A copy of the VISSIM model was submitted to National Highways on 31 March 2023 subsequently comments were received on 3 May 2023. Following this, a revised copy of the VISSIM models were submitted on 11 July 2023 to ensure network parameters were acceptable prior to rerunning the models for validation. Details of the changes made are provided below.

Comment 1: "Driver behaviour parameter should retain default values unless a reasonable justification for the changes made is provided."

Amendment 1: The driver behaviour parameters have been reverted back to default

Comment 2: "It is considered that Wiedemann 74 is not suitable for use on motorway, or even dual carriageway links (away from junctions) and that a behaviour type based on Wiedemann 99 should be used."

Amendment 2: Motorway link and dual carriageway links have been amended to Wiedemann 99

Comment 3: "The Behaviour at Amber/Red Signal for Driver Behaviour types should be changed to 'stop' rather than 'go' as current modelled."

Amendment 3: Behaviour at Amber/Red Signal for Driver Behaviour types set to 'stop'

Comment 4: "The various discrepancies between the on-street highway layout and that in the model should be reviewed and corrected."

Amendment 4: Link arrangements have been reviewed and amended to reflect exactly what's on the ground.

Comment 5: "The coded vehicle entry speed from Parking Lots and DSDs throughout the network need to be revised to ensure consistent implied vehicle speeds on the same stretch of highway."

Amendment 5: All Parking Lots and DSD have been reviewed and amended where needed to provide more realistic vehicle speeds throughout the network.

Comment 6: "The omission of RDAs in the locations listed in this review should be investigated and appropriate RDAs added to the network."

Amendment 6: RDAs have been reviewed and added/amended throughout the network

Comment 7: "All discrepancies between the controller information and the modelled controller parameters, in particular the inter-green values, should be checked and corrected as appropriate."

Amendment 7: All Signal spec checked and amended where required including intergreens

Comment 8: "There appears to be differences in the call/cancel times between the controller information and those used in the model. These should be checked and corrected as appropriate."

Amendment 8: call/cancel times have been amended

Comment 9: "The dummy connector on the AS453 eastbound entry to Hunter Roundabout should be deleted, mainly to ensure vehicles entering the roundabout correctly give-way."

Amendment 9: call/cancel times have been amended

- 4.2 Further to the above, some slight modifications were requested for the models, and these changes have been incorporated into the updated VISSIM model.

5. ADDITIONAL MODEL CHANGES

- 5.1 Initial runs of the forecast modelling indicated some calibration issues, therefore, additional changes have been made to the base model. These amendments are set out below.

VISSIM Version

- 5.2 VISSIM base model revalidated in VISSIM 24. VISSIM 24 utilises all cores therefore this will reduce computation time of forecast modelling runs.

Links

M1 J24

- 5.3 M1 NB exit altered (Link 10079) to one lane to reflect existing layout.
- 5.4 Altered the M1 south approach circulatory from 2 x 2-lane links (Link 17 & Link 194) to 1 x 4-lane link (Link 17). This allows better lane utilisation.
- 5.5 M1 N approach lane connectors (Link 10016) to A453 Remembrance Way from 1 lane connectors to a 2-lane connector to reflect video observation as well as road markings.

EMG Gyratory

- 5.6 Altered the EMG approach from 2x2-lane links to 1x4-lane link as the former caused convergence issues in the forecast modelling scenarios.

- Links Amended: 48, 70, 83, 576, 10481, 10482, 10487

Flare lengths

- 5.7 Flare lengths and alignments have also been reviewed and amended, the northbound approach to Finger Farm Roundabout (Link 136) and the eastbound approach to Hunters Road Roundabout (Link 212).

Signals

- 5.8 MOVA changes at M1 J24 special conditioning amended from call/cancel to delay/persistence. Signal linkage issues were noted in the forecast modelling scenarios.

A review of the video footage indicated that the call/cancel special conditioning did not reflect the signal operation well, particularly on the southwestern quadrant of the junction. Therefore special conditioning was amended to delay/persistence which reflected the operation better.

- 5.9 BWB have had discussions with a MOVA engineer who indicated that typically if links are set to simple traffic, these are not utilised on-site. Therefore detectors associated with simple traffic at the EMG gyratory have been removed.

Priority Rules

- 5.10 Some of the priority were slightly misaligned at the Finger Farm Roundabout causing vehicles to change lanes at the approach to the circulatory. Therefore, these have been repositioned to ensure no unnecessary lane changes.

Route Closures

- 5.11 When undertaking the forecast modelling a calibration issue presented itself where traffic coming from the M1 south would come off the M1 travel up the A453 to Junction 24 in the AM. This is not realistic and therefore a route closure has been added to stop vehicles doing this movement. This route closure will be used in all AM forecast modelling to remain consistent.

Route Costs

- 5.12 There are 2 routes to access the A50 via Junction 24 for vehicles travelling northbound from the the M1 and the A42, one route is to travel up the M1 and the other route is via the A453. As the model is a dynamic model and when running the models for calibration VISSIM assigns flows to each of these routes depending on where delay is in the model.
- 5.13 The GEH at Junction 24 for the 2 routes were unbalanced where VISSIM was assigning too many vehicles to use the A453 compared to the M1 and therefore, as a result a cost has been assigned to link number 184 of 75/km. this value provides the best split of traffic between the 2 routes and provides a cohesive GEH at J24. The will remain consistent between all forecast modelling scenarios.

6. MODEL CALIBRATION

Traffic Data

- 6.1 A skeleton LinSig model of the VISSIM network was built and Lights/Heavies turning movements were input into LinSig at 15-minute intervals. LinSig matrix estimation was subsequently used to generate synthetic OD matrices for input into the VISSIM model.

Convergence

- 6.2 The base model has been developed using dynamic assignment therefore models have been converged prior to extracting results from the model. TfL traffic modelling guidelines indicates that a model is converged if:
- 95% of all path traffic volumes change by less than 5% for at least four consecutive iterations; and
 - 95% of travel times on all paths change by less than 20% for at least four consecutive iterations.
- 6.3 A summary of the convergence is presented in **Table 5** below.

Table 5: Model Convergence Summary

Sim Run	Traffic Volume		Travel Time on Paths	
	AM	PM	AM	PM
1	96%	99%	98%	98%
2	96%	98%	98%	97%
3	97%	98%	97%	96%
4	96%	97%	96%	95%
5	98%	96%	95%	97%
6	96%	95%	99%	96%
7	99%	98%	98%	98%
8	98%	99%	97%	99%
9	98%	97%	98%	99%
10	99%	98%	97%	99%

- 6.4 Based on the above, it is considered that both morning and evening peak hour models are converged.

Simulation

- 6.5 Ten iterations of each of the models were run starting at a random seed of 42 and increasing by 5 each interaction. The network performance parameter 'average delay per vehicle' was obtained for each run. The mean of the 10 runs was found for each option and the average was selected for calibration. The results of this process are presented in **Table 6** below.

Table 6: Network Performance

Seed Value	AM PEAK	PM PEAK
	Average Delay per Vehicle	Average Delay per Vehicle
42	52.774	43.351
47	49.629	42.303
52	50.065	44.313
57	52.982	46.324
62	54.638	42.574
67	53.609	41.910
72	54.941	42.829
77	52.246	41.791
82	50.938	41.322
87	52.155	42.929
Average	52.40	42.96
SD	1.70	1.38
Confidence	1.05	0.86

6.6 The stability of the models was judged using the Chi2 goodness of fit test which seeks to demonstrate that statistically the different model runs pass the goodness of fit null hypothesis that there is no significant difference in average delays between the seed values, thus demonstrating stability.

6.7 **Table 7** below demonstrate that, using the Chi2 distribution, in the morning and evening peak models pass the Chi2 goodness of fit test for respective degrees of freedom. The models therefore exhibit suitable stability/repeatability and are fit for purpose.

Table 7: Summary of Seed Stability Assessment

Seed	MORNING PEAK					EVENING PEAK				
	Observed	Expected	o-e	(o-e)2	(o-e)2/e	Observed	Expected	o-e	(o-e)2	(o-e)2/e
42	52.774	52.398	0.376	0	0.003	43.351	42.965	0.387	0.149	0.003
47	49.629	52.398	-2.769	8	0.146	42.303	42.965	-0.662	0.438	0.010
52	50.065	52.398	-2.333	5	0.104	44.313	42.965	1.349	1.819	0.042
57	52.982	52.398	0.584	0	0.007	46.324	42.965	3.360	11.287	0.263
62	54.638	52.398	2.241	5	0.096	42.574	42.965	-0.391	0.153	0.004
67	53.609	52.398	1.211	1	0.028	41.910	42.965	-1.055	1.113	0.026
72	54.941	52.398	2.544	6	0.124	42.829	42.965	-0.136	0.018	0.000
77	52.246	52.398	-0.152	0	0.000	41.791	42.965	-1.173	1.377	0.032
82	50.938	52.398	-1.459	2	0.041	41.322	42.965	-1.643	2.698	0.063
87	52.155	52.398	-0.243	0	0.001	42.929	42.965	-0.036	0.001	0.000
					0.549					0.443
chi critical					0.05	chi critical				0.05
DF					(n-1)	DF				(n-1)
9					=	9				=
16.919						16.919				

Pass as 0.549 is less than 16.919

Pass as 0.443 is less than 16.919

Network Performance

6.8 **Table 8** presents a summary of the average Network Performance information.

Table 8: Network Performance

	AM	PM
Average Delay (s)	52	43
Average Speed (mph)	49	51
Vehicles Arrived	18194	18535
Latent Demand	1	0.6

- 6.9 **Table 8** illustrates that there is minimal latent demand in the morning peak hour period however a review of the error logs indicate that by the end of the cool down period, all vehicles are able to enter the VISSIM network.

Calibration Methodology

- 6.10 The Design Manual for Roads and Bridges (DMRB) defines model calibration as “the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives”. The model calibration process ensures that model has the ability to exhibit characteristics that accurately compare with observed data.
- 6.11 The model calibration has been undertaken over a model period of 1.0 hour in the morning peak (07:30 – 08:30) and 1 hour in the evening peak (17:00 – 18:00). These periods of calibration do not include the ‘warm up’ and ‘cool down’ period before and after the identified 07:30 – 08:30 and 17:00 – 18:00 morning and evening peak hours.

Traffic Flow Calibration

- 6.12 The Design Manual for Roads and Bridges (DMRB) defines model calibration as “the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives”. The model calibration process ensures that the model has the ability to exhibit characteristics that accurately compare with observed data.
- 6.13 DfT Transport Analysis Guidance (TAG) states that the calibration of traffic data in a model should be based on the Geoffrey E.Havers (GEH) statistic, and states that modelled flows must have a GEH value of less than 5 in at least 85% of the cases.
- 6.14 The turning count calibration for the base model has been based on the average of all simulation runs. **Table 9** provides a summary of the comparison between the observed and modelled total turning movements within the model.

Table 9: Summary of Traffic Flow Calibration

	Total Turns	Counts GEH<5
Morning Peak	59	92%
Evening Peak	59	93%

- 3.1 The above table represent a pass rate of over 85% for a GEH of less than 5 in both peak hour periods. The model is therefore considered to be fit for purpose. A copy of the full output is presented in **Appendix 1**.

7. MODEL VALIDATION

Introduction

- 7.1 TAG Unit M3.1 states that “for journey time calibration, the measure which should be used is: the percentage difference between modelled and observed journey times, subject to an absolute maximum difference”. Subsequently, Table 3 of TAG states that the “modelled times along routes should be within 15% of surveyed times or 1 minute, if higher than 15%.”

Travel Time Survey

- 7.2 TomTom journey time survey was obtained at 15 minute intervals for the neutral days within the month of November 2023 during the peak hours.
- 7.3 **Figure 4** and **5** provides routes utilised for journey time validation.

Figure 4: Journey Time Routes (1 - 10)

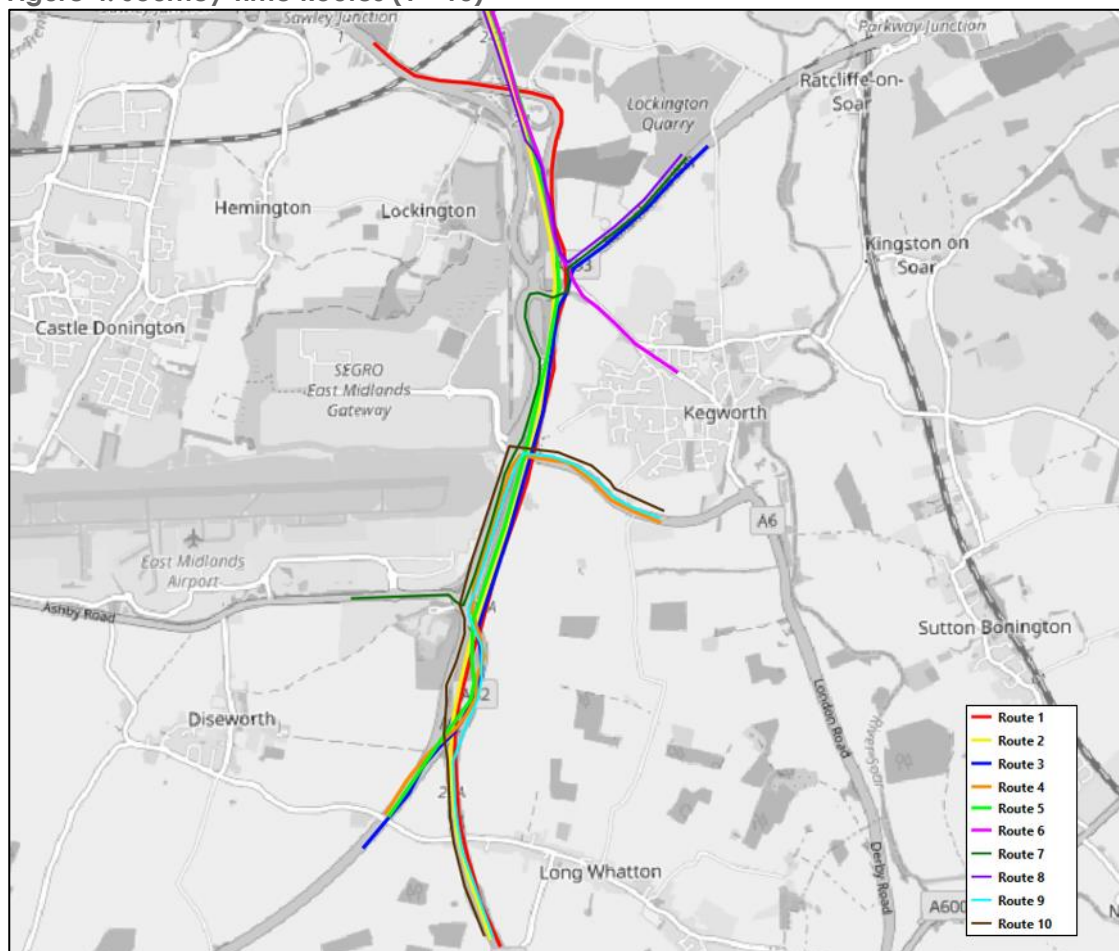
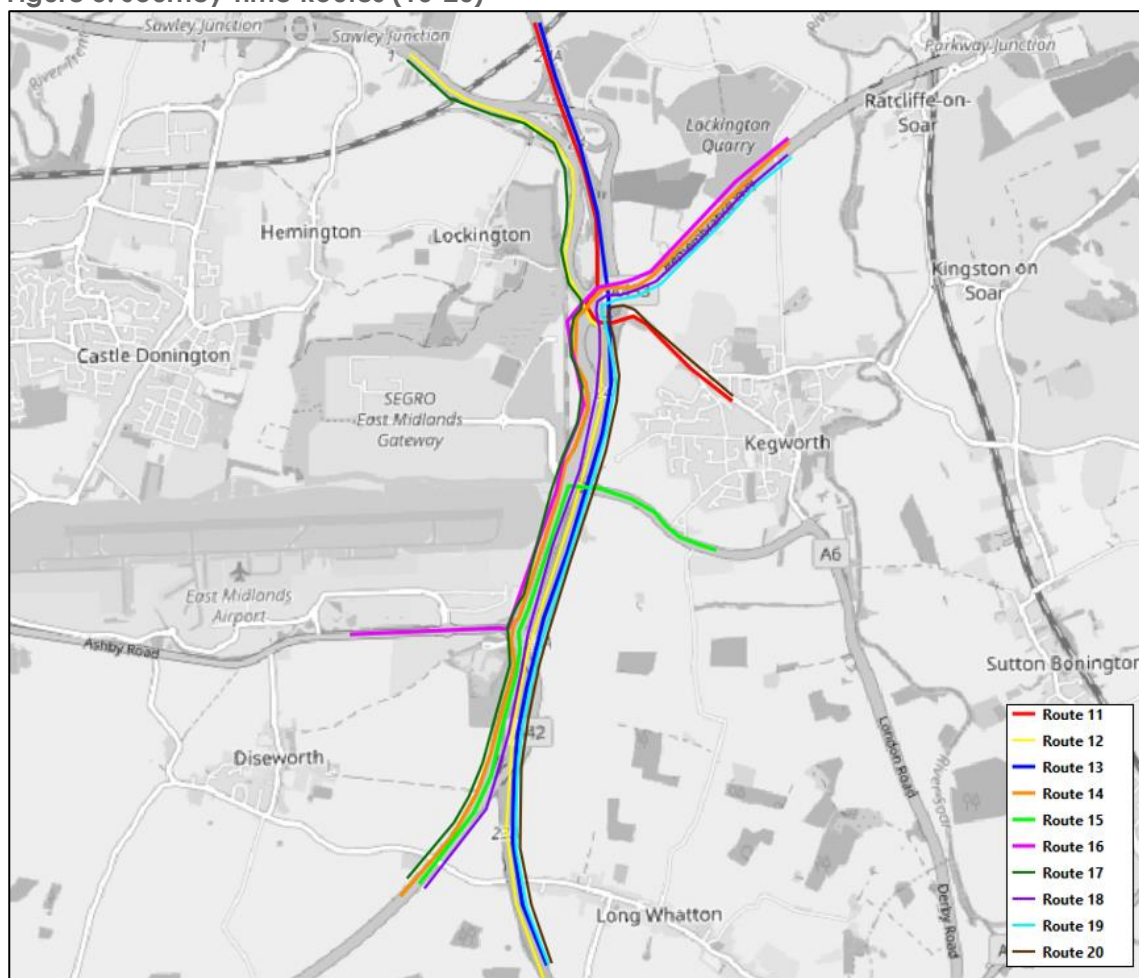


Figure 5: Journey Time Routes (10-20)



7.4 Details of the origin and destination of the routes identified above is provided below:

- Route 1 – A50 to M1 South
- Route 2 – M1 North to M1 South
- Route 3 – A453 Remembrance Way to A42
- Route 4 – Kegworth Bypass to A42
- Route 5 - M1 North to A42
- Route 6 – M1 North to Derby Road
- Route 7 – A453 Remembrance Way to A453 EMA
- Route 8 – M1 North to A453 Remembrance Way
- Route 9 – Kegworth Bypass to M1 South
- Route 10 - M1 South to Kegworth Bypass
- Route 11 – Derby Road to M1 North
- Route 12 – M1 South to A50
- Route 13 – M1 South to M1 North
- Route 14 – A42 to A453 Remembrance Way via A453

- Route 15 - A42 to Kegworth Bypass
- Route 16 – A453 EMA to A453 Remembrance Way
- Route 17 – A42 to A50 via A453
- Route 18 – A42 to A453 Remembrance Way via M1
- Route 19 – M1 South to A453 Remembrance Way via M1
- Route 20 - M1 South to Derby Road via M1

Validation Results

7.5 Model validation has been undertaken using 10 simulation seed runs as illustrated in **Table 7**. The average journey time for each full route has been compared with the surveyed journey times and the resultant output is presented in **Table 10** below.

Table 10: Travel Time Validation

Route	AM			PM		
	Observed	Modelled	% Difference	Observed	Modelled	% Difference
1	489	349	-28.6%	413	321	-22.4%
2	358	333	-6.9%	352	315	-10.4%
3	318	310	-2.5%	353	305	-13.6%
4	271	308	13.5%	269	288	7.2%
5	377	324	-14.0%	359	312	-13.0%
6	311	285	-8.5%	299	260	-12.9%
7	397	389	-1.9%	445	367	-17.4%
8	271	278	2.7%	255	258	1.4%
9	293	305	4.2%	294	291	-1.1%
10	318	338	6.4%	338	337	-0.4%
11	325	343	5.7%	394	339	-13.9%
12	374	348	-7.0%	408	361	-11.5%
13	331	327	-1.3%	397	356	-10.2%
14	393	424	7.9%	427	392	-8.2%
15	293	324	10.4%	314	297	-5.5%
16	389	400	2.8%	443	412	-6.9%
17	343	353	2.8%	414	441	6.5%
18	372	360	-3.2%	370	339	-8.4%
19	393	375	-4.7%	394	376	-4.5%
20	433	373	-13.8%	438	377	-13.9%

Table 11: Travel Time Validation Summary

	<15%	
	AM	PM
Fail	1	2
Pass	19	18
Total	20	20
%	95%	90%

7.6 **Table 8** illustrates that the over 85% of the journey times validate within 15% therefore it is considered the model is fit for purpose for future year assessment.

8. SUMMARY & CONCLUSIONS

- 8.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of the East Midlands Gateway (EMG) site.
- 8.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use.
- 8.3 Traffic surveys were undertaken in November 2022 and subsequently a base VISSIM model of the study area has been developed by BWB.
- 8.4 The model was calibrated using observed and modelled turning movements during the peak hours at a 15-minute interval. These were assessed against DfT modelling guidelines and it was concluded that the base model satisfies both criterias.
- 8.5 Modelled journey times indicate that over 85% of these validate within 15% of observed data therefore it is considered the model is 'fit for purpose'.

APPENDICES

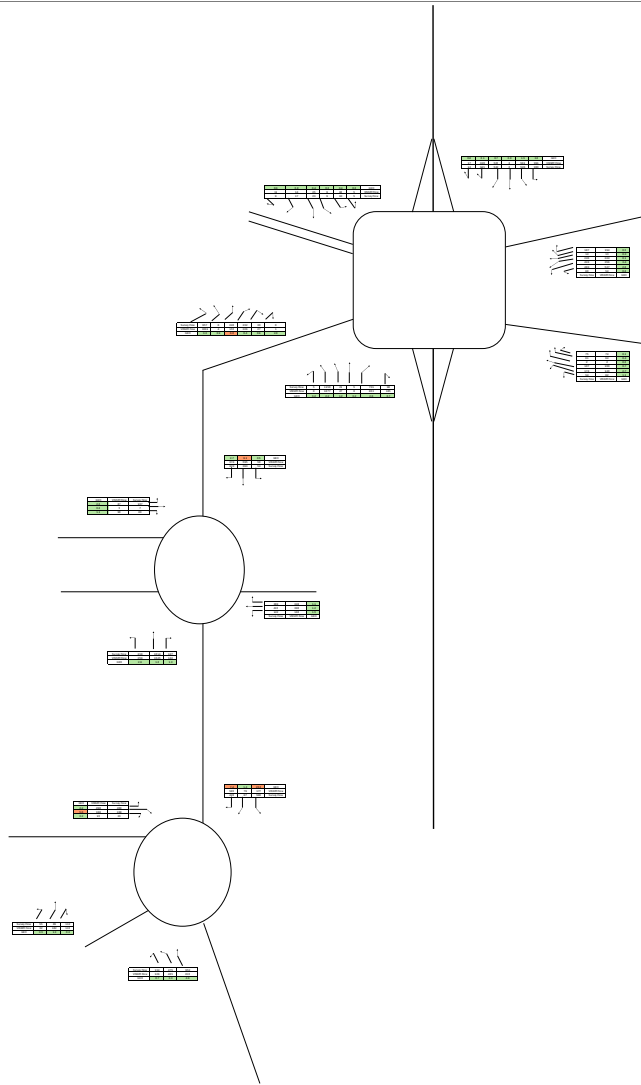
APPENDIX 1: TURNING COUNT CALIBRATION

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	560	177	383	216%	19.95	Fail
Junction 1	A453 (N)	Donington Services Access	67	79	-12	-15%	1.40	Pass
Junction 1	A453 (N)	A453 (W)	420	585	-165	-28%	7.36	Fail
Junction 1	M1 J23A Access	Donington Services Access	134	126	8	6%	0.70	Pass
Junction 1	M1 J23A Access	A453 (W)	475	405	70	17%	3.34	Pass
Junction 1	M1 J23A Access	A453 (N)	952	815	137	17%	4.61	Pass
Junction 1	Donington Services Access	A453 (W)	55	32	23	72%	3.49	Pass
Junction 1	Donington Services Access	A453 (N)	89	102	-13	-13%	1.33	Pass
Junction 1	Donington Services Access	M1 J23A Access	112	115	-3	-3%	0.28	Pass
Junction 1	A453 (W)	A453 (N)	408	498	-90	-18%	4.23	Pass
Junction 1	A453 (W)	M1 J23A Access	249	168	81	48%	5.61	Fail
Junction 1	A453 (W)	Donington Services Access	23	10	13	130%	3.20	Pass
Junction 2	M1 J24 (N)	A453 (N)	900	991	-91	-9%	2.96	Pass
Junction 2	M1 J24 (N)	To Derby Road	526	561	-35	-6%	1.50	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (N)	A453 (S)	542	525	17	3%	0.74	Pass
Junction 2	M1 J24 (N)	A50	321	320	1	0%	0.06	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	14	17	-3	-18%	0.76	Pass
Junction 2	A453 (N)	Derby Road	60	54	6	11%	0.79	Pass
Junction 2	A453 (N)	M1 J24 (S)	483	547	-64	-12%	2.82	Pass
Junction 2	A453 (N)	A453 (S)	424	356	68	19%	3.44	Pass
Junction 2	A453 (N)	A50	246	244	2	1%	0.13	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	14	13	1	8%	0.27	Pass
Junction 2	A453 (N)	M1 J24 (N)	187	194	-7	-4%	0.51	Pass
Junction 2	Derby Road	M1 J24 (S)	54	62	-8	-13%	1.05	Pass
Junction 2	Derby Road	A453 (S)	174	140	34	24%	2.71	Pass
Junction 2	Derby Road	A50	107	100	7	7%	0.69	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	61	64	-3	-5%	0.38	Pass
Junction 2	Derby Road	A453 (N)	75	74	1	1%	0.12	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A50	1150	1077	73	7%	2.19	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	21	27	-6	-22%	1.22	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A453 (N)	731	803	-72	-9%	2.60	Pass
Junction 2	M1 J24 (S)	Derby Road	98	105	-7	-7%	0.69	Pass
Junction 2	A453 (S)	A50	957	1061	-104	-10%	3.27	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	6	4	2	50%	0.89	Pass
Junction 2	A453 (S)	M1 J24 (N)	240	155	85	55%	6.05	Fail
Junction 2	A453 (S)	A453 (N)	232	226	6	3%	0.40	Pass
Junction 2	A453 (S)	Derby Road	30	27	3	11%	0.56	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	5	5	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	63	60	3	5%	0.38	Pass
Junction 2	Hilton Hotel Lane	Derby Road	9	9	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	23	25	-2	-8%	0.41	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	17	14	3	21%	0.76	Pass
Junction 2	Hilton Hotel Lane	A50	9	11	-2	-18%	0.63	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	54	58	-4	-7%	0.53	Pass
Junction 3	A453 (N)	A453 (S)	393	595	-202	-34%	9.09	Fail
Junction 3	A453 (N)	Wilders Way	323	374	-51	-14%	2.73	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	142	160	-18	-11%	1.46	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	415	390	25	6%	1.25	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	369	348	21	6%	1.11	Pass
Junction 3	A453 (S)	Wilders Way	219	259	-40	-15%	2.59	Pass
Junction 3	A453 (S)	A453 (N)	1014	1045	-31	-3%	0.97	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	127	142	-15	-11%	1.29	Pass
Junction 3	Wilders Way	A453 (N)	107	87	20	23%	2.03	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	7	5	2	40%	0.82	Pass
Junction 3	Wilders Way	A453 (S)	80	90	-10	-11%	1.08	Pass

	<5
Fail	5
Pass	54
Total	59
%	92%

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	367	189	178	94%	10.68	Fail
Junction 1	A453 (N)	Donington Services Access	88	82	6	7%	0.65	Pass
Junction 1	A453 (N)	A453 (W)	178	189	-11	-6%	0.81	Pass
Junction 1	M1 J23A Access	Donington Services Access	138	133	5	4%	0.43	Pass
Junction 1	M1 J23A Access	A453 (W)	420	393	27	7%	1.34	Pass
Junction 1	M1 J23A Access	A453 (N)	771	733	38	5%	1.39	Pass
Junction 1	Donington Services Access	A453 (W)	53	58	-5	-9%	0.67	Pass
Junction 1	Donington Services Access	A453 (N)	88	73	15	21%	1.67	Pass
Junction 1	Donington Services Access	M1 J23A Access	124	123	1	1%	0.09	Pass
Junction 1	A453 (W)	A453 (N)	587	498	89	18%	3.82	Pass
Junction 1	A453 (W)	M1 J23A Access	253	282	-29	-10%	1.77	Pass
Junction 1	A453 (W)	Donington Services Access	51	61	-10	-16%	1.34	Pass
Junction 2	M1 J24 (N)	A453 (N)	907	883	24	3%	0.80	Pass
Junction 2	M1 J24 (N)	To Derby Road	545	524	21	4%	0.91	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	4	0	4	0%	2.83	Pass
Junction 2	M1 J24 (N)	A453 (S)	182	110	72	65%	5.96	Fail
Junction 2	M1 J24 (N)	A50	240	198	42	21%	2.84	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	10	10	0	0%	0.00	Pass
Junction 2	A453 (N)	Derby Road	74	70	4	6%	0.47	Pass
Junction 2	A453 (N)	M1 J24 (S)	813	865	-52	-6%	1.80	Pass
Junction 2	A453 (N)	A453 (S)	294	356	-62	-17%	3.44	Pass
Junction 2	A453 (N)	A50	405	342	63	18%	3.26	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	11	11	0	0%	0.00	Pass
Junction 2	A453 (N)	M1 J24 (N)	263	258	5	2%	0.31	Pass
Junction 2	Derby Road	M1 J24 (S)	51	57	-6	-11%	0.82	Pass
Junction 2	Derby Road	A453 (S)	88	86	2	2%	0.21	Pass
Junction 2	Derby Road	A50	135	123	12	10%	1.06	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	87	89	-2	-2%	0.21	Pass
Junction 2	Derby Road	A453 (N)	57	58	-1	-2%	0.13	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A50	1089	1051	38	4%	1.16	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	14	14	0	0%	0.00	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (S)	A453 (N)	528	666	-138	-21%	5.65	Fail
Junction 2	M1 J24 (S)	Derby Road	76	90	-14	-16%	1.54	Pass
Junction 2	A453 (S)	A50	999	943	56	6%	1.80	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	5	3	2	67%	1.00	Pass
Junction 2	A453 (S)	M1 J24 (N)	323	346	-23	-7%	1.26	Pass
Junction 2	A453 (S)	A453 (N)	256	210	46	22%	3.01	Pass
Junction 2	A453 (S)	Derby Road	41	33	8	24%	1.32	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	15	16	-1	-6%	0.25	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	20	22	-2	-9%	0.44	Pass
Junction 2	Hilton Hotel Lane	Derby Road	10	9	1	11%	0.32	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	8	8	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	4	3	1	33%	0.53	Pass
Junction 2	Hilton Hotel Lane	A50	11	10	1	10%	0.31	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	77	75	2	3%	0.23	Pass
Junction 3	A453 (N)	A453 (S)	305	189	116	61%	7.38	Fail
Junction 3	A453 (N)	Wilders Way	243	206	37	18%	2.47	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	132	130	2	2%	0.17	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	402	389	13	3%	0.65	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	389	382	7	2%	0.36	Pass
Junction 3	A453 (S)	Wilders Way	90	120	-30	-25%	2.93	Pass
Junction 3	A453 (S)	A453 (N)	1026	942	84	9%	2.68	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	187	237	-50	-21%	3.43	Pass
Junction 3	Wilders Way	A453 (N)	221	206	15	7%	1.03	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	19	19	0	0%	0.00	Pass
Junction 3	Wilders Way	A453 (S)	140	137	3	2%	0.25	Pass

	<5
Fail	4
Pass	55
Total	59
%	93%



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Project

East Midlands Gateway Phase 2

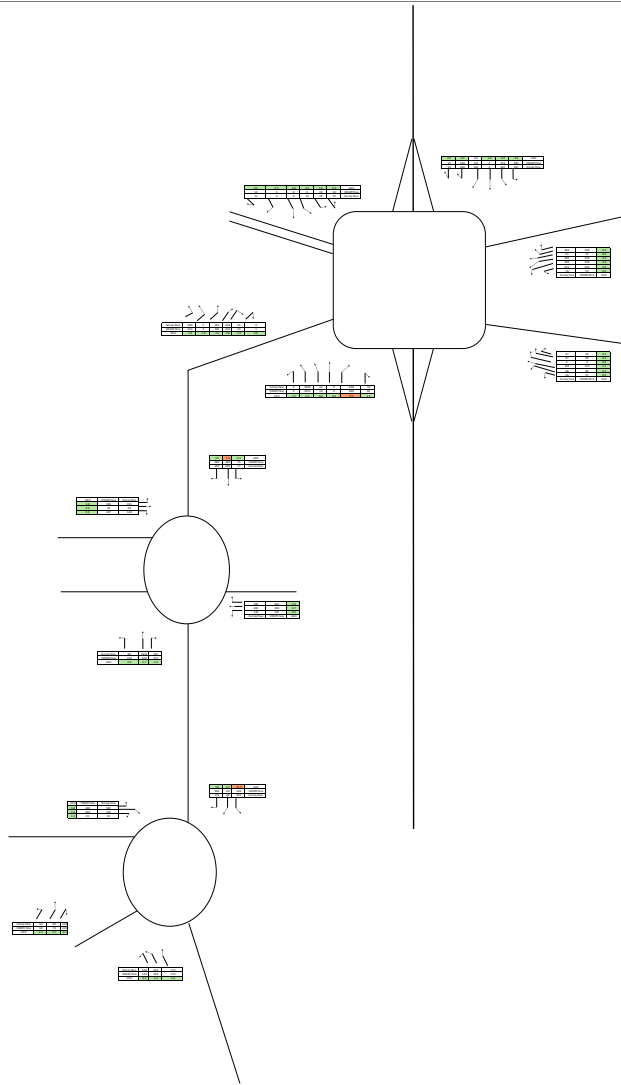
Drawing Title

GEM Comparison AM

Drawn	CC	Approved	VD
Checked	CC	Date	26.06.25

Project Number

220500



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East Midlands Gateway Phase 2

Drawing Title

GEM Comparison PM

Drawn	CC	Approved	VD
Checked	CC	Date	26.06.25

Project Number

220500

**APPENDIX 2: EMG2-BWB-GEN-XX-RP-TR-0017_TA ES Chapter Assessment
Methodology-S2-P4**

PROJECT NAME	East Midlands Gateway Phase 2 – TA & ES Chapter Assessment Methodology		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0017	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Simon Hilditch	REVISION	P4
APPROVED	Paul Wilson	DATE	28/04/25

1. INTRODUCTION

- 1.1 BWB Consulting Ltd (BWB) is working with the Transport Working Group (TWG) consisting of key statutory highway authorities, including National Highways, Leicestershire County Council and Nottinghamshire County Council on the East Midlands Gateway 2 (EMG2) project.
- 1.2 Transport modelling has been undertaken using Leicestershire's Pan Regional Transport Model (PRTM) to assess the impacts of EMG2. In agreement with the TWG, forecast years of 2028 and 2038 have been adopted, which reflect the year of opening and post 10 years.
- 1.3 The forecast year PRTM modelling has been undertaken in two stages, referred to as 'Stage 1a modelling' and 'Stage 1b modelling'. This was to separate the scenarios required by the highway authorities for the Transport Assessment from those needed for environmental assessment purposes because there are differences in the planning data assumptions and developments included in the baseline traffic, as summarised below:
 - **Stage 1a modelling** (Proforma v14, Uncertainty Log v7) = 2028/2038 forecast years with and without EMG2, including, consented and committed sites as well as draft Local Plan allocation sites and Ratcliffe on Soar power station, which is authorised by a Local Development Order (LDO).
 - **Stage 1b modelling** (Proforma v14a, Uncertainty Log v7a) = 2028/2038 forecast years with and without EMG2, including consented and committed sites but excluding the draft Local Plan allocation sites and Ratcliffe on Soar power station (beyond the element of Ratcliffe power station development which is currently able to proceed under the LDO).
- 1.4 The difference between Stage 1a and 1b is the inclusion or exclusion of the Ratcliffe Power Station and the draft Local Plan allocation sites, which represent the following projects:
 - Isley Woodhouse (W1)
 - Land North and South of Park Lane, Castle Donington (CD10)
 - Land West of Hilltop Farm, Castle Donington (EMP89)
 - Land North of J11/M42 (EMP82)
 - Land North of Remembrance Way, Kegworth (EMP73)
 - Land North of Derby Road, Kegworth (EMP73)

- 1.5 This note sets out the basis for the two stage approach to modelling and the policy context for it.

2. POLICY REQUIREMENTS

Department for Transport TAG M4 'Forecasting and Uncertainty' Guidance

- 2.1 The Department for Transport TAG M4 Forecasting and Uncertainty guidance is primarily used for the appraisal of new transport schemes. This is arguably applicable to the highway works element of the EMG2 scheme, particularly given they are focussed on the Strategic Road Network.
- 2.2 Accordingly, Stage 1a modelling is based on the application of TAG M4.
- 2.3 Paragraph 3.2.4 of M4 refers to four categories of sites for consideration for inclusion in the core scenario¹, being:
- **Near certain:** The outcome will happen or there is a high probability that it will occur
 - **More than likely:** The outcome is likely to happen, but there is some uncertainty
 - **Reasonably foreseeable:** The outcome may occur, but there is significant uncertainty surrounding it
 - **Hypothetical:** There is considerable uncertainty whether the outcome will ever happen
- 2.4 Paragraph 3.2.4 states:
- "Local sources of uncertainty categorised as **near certain** should be included in the core scenario, whilst all sources categorised as **hypothetical** should be excluded. Between these two categories an element of judgement may be required but usually it would be expected that those inputs categorised as **more than likely** will be included in the core scenario, whilst those categorised as **reasonably foreseeable** will be excluded.*
- 2.5 Whilst it could be argued that not all the draft allocated sites meet the criteria of "more than likely" and some could be considered to fall within the "reasonably foreseeable" category, the highway authorities, applying their judgement, require that all the sites be treated the same and be included in the core scenario. The Applicant has agreed to this.
- 2.6 The forecasting/profiling of these draft Local Plan allocations and the Ratcliffe power station within Uncertainty Log v7 has been agreed with the relevant local highway and planning authorities, based on their judgement and expectations for them receiving planning permission and being built out.
- 2.7 Although the anticipated traffic from the draft Local Plan allocations is being included, any associated highway mitigation is not included. This is with the exception of the

¹ Table A2 Appendix 2 M4 defines these terms

proposed realignment of the A453 around the Isley Woodhouse draft allocation, which is included in the agreed Uncertainty Log v7 for Stage 1a modelling because it forms part of the access strategy for that development.

- 2.8 The Uncertainty Log v7 does include committed highway network changes, the list of which has been agreed with the local highway and planning authorities and are included in both Stage 1a and 1b modelling. This is in accordance with Paragraph 7.4.15 of TAG M4, which requires the without scheme scenario to include *“physical changes to highway or public transport networks, including new links and removal of existing links...”*
- 2.9 Since it is not possible to include additional off-site mitigation that is likely to be required to accommodate the draft Local Plan allocations, the inclusion of those sites in the Stage 1a scenario will provide a robust and worse than worst-case assessment of future impacts on the highway network. Therefore, it has been agreed that Stage 1a modelling outputs (i.e. including draft Local Plan allocations) are adopted as the core scenario within the Transport Assessment. As agreed with the TWG, this will also form the cumulative scenario for the transport modelling.
- 2.10 The Stage 1a modelling therefore reflects the above approach.

Department for Transport Circular 01/2022 ‘Strategic Road Network and the Delivery of Sustainable Development’

- 2.11 Circular 01/2022 sets out the Secretary of State's national policy requirements for the Strategic Road Network (SRN). Paragraph 49 covers details on the ‘assessment of development proposals’ and states:

“A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments [footnote 21] that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered [footnote 22].”

- 2.12 Footnote 21 describes committed developments as:

“Where development proposals are consistent with an up-to-date plan or strategy (or where there is no up-to-date plan or strategy), this should include all relevant development that is consented or allocated where there is a reasonable degree of certainty will proceed within the next 3 years and include the full amount of development to be built. Where development proposals are not consistent with an up-to-date plan or strategy, this should include all relevant development that is

consented or allocated over the entirety of the plan period. In some instances, due regard should be had to permissions and allocations in neighbouring authorities. The inclusion or exclusion of specific developments should be agreed with the local planning authority at pre-application stage."

2.13 The key difference with Circular 01/2022 policy from the TAG M4 Guidance is that to comply with 01/22, the core scenario should only include consented or allocated sites and their associated mitigation, i.e. it does not include draft allocations.

2.14 The Stage 1b modelling is therefore compliant with the Circular 01/2022 policy.

HEMA Guidelines: Environmental Assessment of Traffic and Movement

2.15 The EMG2 development triggers the requirement for an EIA. The guidance for Environmental Assessment is set out in the IEMA Guidelines: Environmental Assessment of Traffic and Movement (July 2023).

2.16 Paragraph 2.23 states that:

"Different traffic forecasts may have to be produced for each stage, which may also require the estimation of the changing patterns of general traffic levels in order to provide estimates of different baseline conditions. Use should be made of available datasets (e.g. Local Plan Traffic Models, Department for Transport Trip End Model Presentation Program (TEMPro) and National Traffic Model). It may also be necessary to make an assumption with regard to other existing and/or approved projects and forecasted changes in the highway network that could occur over the time period. These assumptions will need to be based on best judgement taken in consultation with the local planning authority. Any changes in ambient environmental characteristics should also be taken into account."

2.17 Paragraph 2.24 of the IEMA Guidelines states:

"Transport Assessments are principally interested in evaluating a situation when traffic flows are at their greatest. This may involve looking at a period sometime in the future when traffic from the project is added to traffic flows on the surrounding network, which has itself increased due to natural traffic growth. Such a situation clearly presents the critical traffic pattern, but the natural increase of traffic will generally have the effect of diluting the environmental impact of a project. The greatest environmental change will generally be when the project traffic is at the largest proportion of the total flow. It is therefore recommended that the environmental assessment should be undertaken at the construction/decommissioning phase, year of opening of the project or the first full year of its operation."

2.18 Paragraph 2.29 discusses the baseline assessment and states the following:

"Future baseline and cumulative assessment should not be confused. They are two different considerations within the environmental assessment process. Derived forecast traffic growth (e.g. TEMPro) should be utilised to derive future year baseline

traffic conditions. However, discrete projects within the agreed study area that are existing, approved or likely to come forward (where sufficient certainty and relevant information about the project exists) should not be added to the baseline scenario and should be considered in the cumulative scenario. The competent traffic and movement expert should exercise care to ensure:

- *'Double counting' is avoided when applying growth factors to the baseline that may have been influenced by approved projects that are being considered in the cumulative scenario,*
- *The proposed transport model has adequate scope to model cumulative scenarios (as they may differ from those required in the Transport Assessment).*

2.19 The words underlined above demonstrate the difference between the approach taken by the highway authorities in the application of the TAG M4 guidance and the approach required to comply with IEMA Guidelines.

2.20 The Stage 1b modelling is compliant with the IEMA Guidance for the core scenario, whilst Stage 1a modelling is compliant for the cumulative scenario.

3. ASSESSMENT METHODOLOGY

3.1 In accordance with the above consideration of the relevant policies, the modelling and related assessment is being undertaken on the following basis:

- i Stage 1a modelling to comply with the highway authorities interpretation of the TAG M4 Guidance
- ii Stage 1b modelling to comply with the guidance in Circular 01/22 and IEMA

3.2 The Stage 1a modelling will also provide the cumulative assessment required for the IEMA assessment.

4. SUMMARY

4.1 The assessment methodology follows detailed discussions with the Transport Working Group. The above review of current adopted policy within the Department for Transport's TAG M4, Circular 01/2022 and IEMA Guidelines documents explains how the agreed assessment methodology, and in particular the modelling being undertaken, is compliant with those policies.

4.2 The key difference in policy requirements is the forecast year baseline position and the developments that should be included in the core scenarios.

4.3 Taking this into account, the following methodology is adopted for the Transport Assessment and Transport ES Chapter:

- **Transport Assessment** – core scenario adopts the Stage 1a modelling, inclusive of draft Local Plan allocation sites, with a sensitivity test using the Stage 1b modelling excluding the draft Local Plan allocation sites due to the lack of mitigation measures included within the Stage 1a modelling associated with the draft Local Plan allocations.
- **Transport ES Chapter** – core scenario adopts the Stage 1b modelling with cumulative assessment based on Stage 1a.

4.4 The above approach should ensure that a robust assessment of EMG2 is undertaken within the Transport Assessment and Transport ES Chapter, in accordance with adopted planning policy and assessment requirements.

APPENDIX 3: EMG2-BWB-GEN-XX-RP-TR-0004_S2-P6_Modelling Furnessing Approach

Project Name	East Midlands Gateway, Phase 2		
Document Number	EMG2-BWB-GEN-XX-RP-TR-0004	BWB Ref	220500
Author	Matt Corner	Status	S2
Checked	Vibeeshan Devaharan	Revision	P6
Approved	Paul Wilson	Date	04.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd have been appointed by SEGRO ("the Applicant") to provide highways and transport planning advice on a proposed Phase 2 Expansion of the East Midlands Gateway (EMG) site. The site comprises 430,000sqm of industrial development across the following sites:

- 400,000sqm of B2/B8 industrial development on EMG2, including 100,000sqm of B8 mezzanine floorspace.
- 30,000sqm of B8 industrial development on Plot 16 of EMG1.

1.2 It has been agreed with the Transport Working Group for the development impacts to be assessed using the East Midlands Freeport Model (PRTM) – a cordon of the wider Pan Regional Transport Model (PRTM). This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment. It therefore facilitates the transition from strategic to local junction modelling.

1.3 This revision of the Technical Note (Revision P4) follows the completion of an update of the PRTM base and future forecast modelling scenarios and output information. It therefore adopts the following structure:

- **Section 2: Proposed Methodology** – sets out the furnessing methodology options and the strategy that will be undertaken to determine the most appropriate methodology to derive the future forecast traffic flows.
- **Section 3: Future Forecast Traffic Flows** – provides more detail on the methodology used to derive future forecast traffic flows.
- **Section 4: Development Traffic** – sets out how the development traffic will be accounted for in the VISSIM modelling
- **Section 5: Committed Traffic** – sets out how the East Midlands Point committed development traffic will be accounted for in the VISSIM modelling
- **Section 6: Traffic Flow Data Set** – sets out the various dataset outputs provided from the PRTM and explains the dataset used in the furnessing calculations.
- **Section 7: VISSIM Modelling** – sets out the methodology of extracting PRTM cordon matrices for the VISSIM modelling work.

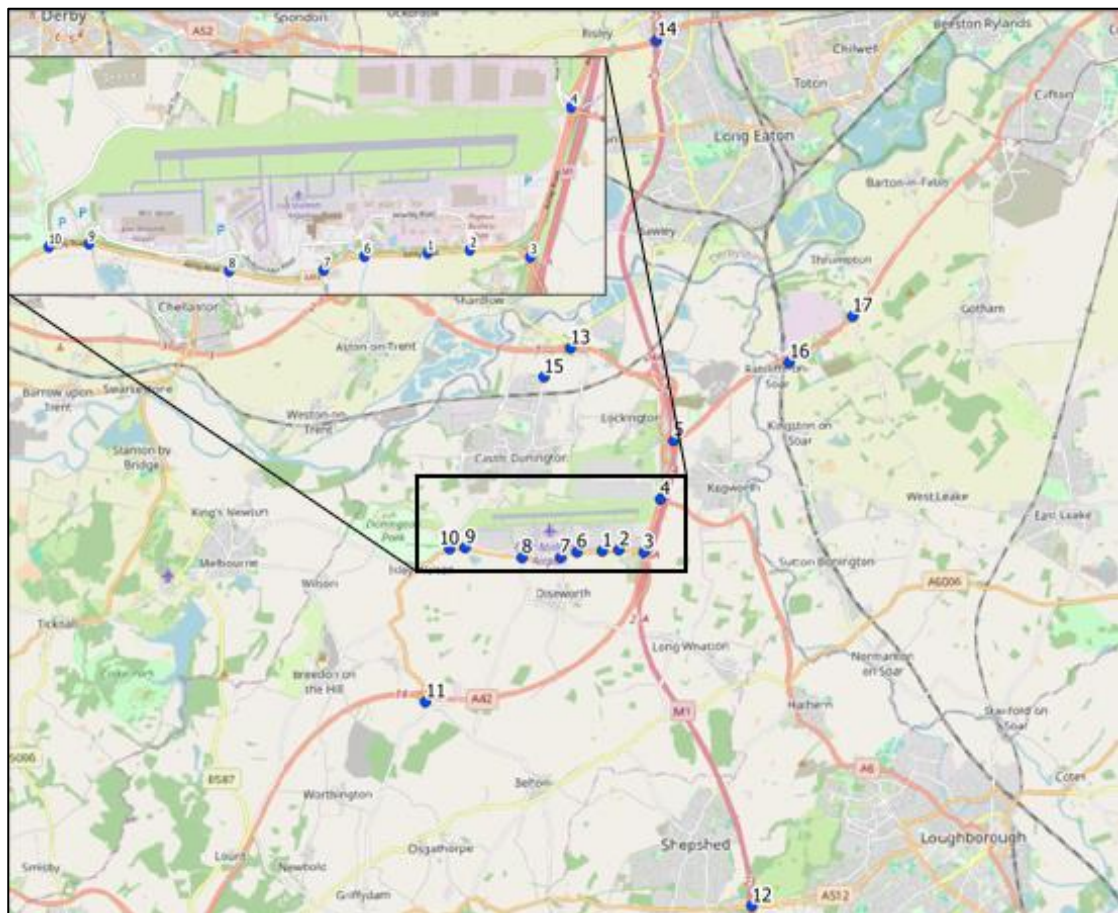
- **Section 8: Traffic Flow Furnessing** – sets out the future forecast traffic flows derived using the preferred methodology and for input into the detailed junction models. It also includes an example as to how the flows have been furnessed.
- **Section 9: Summary** – summarises the key conclusions of this Technical Note.

2. PROPOSED METHODOLOGY

Traffic Data and Model Outputs

- 2.1 Manual classified turning counts were commissioned in November 2022 and May 2023 at 16 junctions across the highway network (with the proposed site access roundabout on the A453 forming the 10th junction). These surveys therefore provide observed turning movements which will be used as part of the furnessing procedure to derive future forecast traffic flows and are listed below. The raw survey data for the 16 existing junctions is also appended at the corresponding locations as set out below, whilst the locations are shown at **Figure 1**.

Figure 1. Study Area



November 2023 Surveys

- Junction 2: A453/Hunter Road roundabout (**Appendix 1**)

- Junction 3: Finger Farm roundabout (**Appendix 2**)
- Junction 4: EMGP1 gyratory (**Appendix 3**)
- Junction 5: M1 Junction 24 (**Appendix 4**)
- Junction 6: A453/Grimes Gate priority junction (**Appendix 5**)
- Junction 7: A453/The Green priority junction (**Appendix 6**)
- Junction 8: A453/East Midlands Airport signal junction (**Appendix 7**)
- Junction 9: A453/East Midlands Airport roundabout (**Appendix 8**)
- Junction 10: A453/Walton Hill signal junction (**Appendix 9**)
- Junction 12: M1 Junction 23 (**Appendix 10**)

May 2023 Surveys

- Junction 11: A42 Junction 14 on-slip/A453/Top Brand/Gelscoe Lane Roundabout (**Appendix 11**)
- Junction 13: A50 Junction 1 (**Appendix 12**)
- Junction 14: M1 Junction 25 (**Appendix 13**)
- Junction 15: Station Road/Broad Rushes Roundabout (**Appendix 14**)
- Junction 16: A453/Kegworth Road Roundabouts (**Appendix 15**)
- Junction 17: A453/Barton Lane/West Leake dumbbell Roundabouts (**Appendix 16**)

- 2.2 The EMFM was updated to a 2019 base year and outputs are being provided for 2022, 2023, 2024, 2028 and 2038 scenarios. Hence, an initial comparison will be undertaken between the 2022 observed counts and 2022 flows from the PRTM to understand turning count validation, details of which are provided in the next section.

Traffic Flow Validation

- 2.3 The first step in understanding the most appropriate furnessing methodology is to compare the 2022 traffic flows from the PRTM against observed counts to provide an indication of the statistical significance of any differences. This has been undertaken using the GEH Statistics formula. The formula is set out below where M is the hourly traffic volume of the PRTM and C is the hourly traffic volume from the observed count.

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

- 2.4 It is generally accepted that a GEH value below 5 represents a good correlation between the two datasets. Details of the analysis for all 10 junctions highlighted in Paragraph 2.1 has been presented in Section 3.

Traffic Flow Furnessing Options

- 2.5 Originally, four possible methodologies for furnessing the PRTM model outputs to derive future forecast traffic flows were being considered. The following details provide a brief overview of each option, highlighting the benefits and potential downfalls of each one.

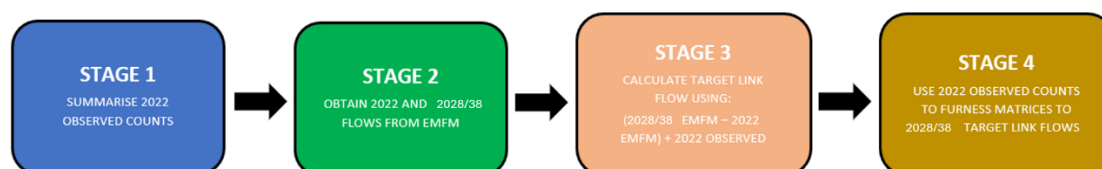
Option 1 – Extraction of target entry and exit flows directly from PRTM

- 2.6 Option 1 involves taking the future year traffic flows directly from the PRTM. This option would only be suitable if the 2022 turning counts compare well against the PRTM base year flows i.e. GEH less than 5.
- 2.7 The benefit of this method is the reduced number of assumptions applied to derive the target trip ends. Notwithstanding this, during a meeting with the Transport Working Group on 12 January 2023, Leicestershire County Council raised concern with this methodology suggesting that whilst the PRTM is well validated against observed link data, it is not calibrated/validated against individual turning movements and hence this option would unlikely be acceptable.

Option 2 – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts

- 2.8 Option 2 involves calculating the percentage difference between the 2022 base and 2028/2038 future PRTM flows and applying the percentage growth directly to the 2022 observed counts at turning movement level. This option has the potential to significantly exacerbate future traffic flows and hence will need to be undertaken alongside a manual assessment.
- 2.9 For example, should the PRTM traffic flows show a turning movement of 1 vehicle in the base year (2022) increasing to 5 movements in the future year (2038), then this equates to a 500% increase. If the 500% increase is applied to a turning movement of 20 vehicles recorded from an observed count then this would result in 100 movements at the future year, which could be a significant overestimate. The four stage methodology involved with Option 2 is shown in **Figure 2**.

Figure 2: Option 2 Furnessing Methodology

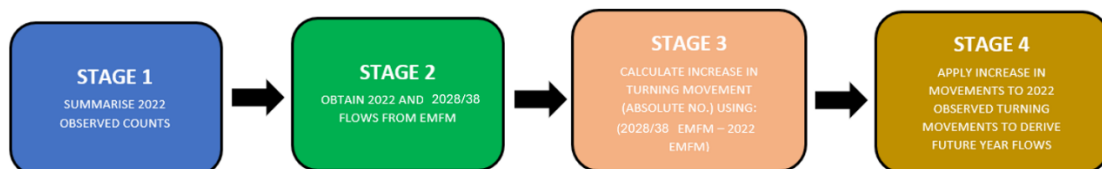


Option 3 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts

- 2.10 Option 3 calculates the difference between the 2022 base and 2028/2038 future PRTM flows in absolute numbers and applies the increase directly to the 2022 observed counts. This option would only be suitable if the 2022 observed counts show good levels of

correlation against the 2022 PRTM base flows using the GEH Statistics formula. The four stage furnessing methodology for Option 3 is shown in **Figure 3**.

Figure 3: Option 3 Furnessing Methodology



Option 4 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase proportionately to the 2022 observed turning counts

- 2.11 Option 4 involves adding the difference in link flows between the 2022 base and 2028/38 future PRTM to the 2022 observed link flows to derive a target link flow. The target link flow is applied proportionally in accordance with the observed turning movements to derive forecast traffic flow matrices. The four stage furnessing methodology for Option 4 is shown in **Figure 4**.

Figure 4: Option 4 Furnessing Methodology



3. FUTURE FORECAST TRAFFIC FLOWS

GEH Statistics

- 3.1 To start with, a comparison was made between the latest received 2022 PRTM flows and the 2022 observed counts to understand the statistical significance of any differences. This was undertaken for Junctions 1 to 9 which formed the original study area. To do this, an Excel spreadsheet was sent separately comparing light and heavy goods vehicle turning movements for both peak hours. The formula set out at Paragraph 2.3 was then applied to compare the two datasets.
- 3.2 A copy of the calculations is included at **Appendix 17**, which shows that all junctions have turning movements with a GEH value in excess of 5 and hence outside of the criteria for where there is a good level of correlation. On this basis, the furnessing options 1 and 3 detailed in Section 2 have been disregarded.

- 3.3 The percentage growth between PRTM base and forecast years were calculated; however, this resulted in large overestimations as described in Paragraph 2.11. Option 4 has however still been utilised to furnish forecast traffic flow matrices.

Furnessing Methodology

- 3.4 The furnessing approach for Option 4 has been built using an MS Excel macro using VBA to ensure an extensive spreadsheet is not required to display every iteration of the furnessing. This also ensures that the methodology is consistent between all furnished matrices. A summary of the process undertaken by the macros is provided below.
- Column adjustment: calculate turning counts across columns using survey data proportions in combination with the target link flow out of each arm.
 - Sum row: calculate the sum of each arm row total.
 - Row adjustment: calculate turning counts across rows using survey data proportions in combination with the target link flow into each arm.
 - Sum column: calculate the sum of each column.
 - Round all values in the matrix to the closest integer.
 - Update sums for column and row total.
 - Repeat the above 'x' number of iterations until the flows converge.
- 3.5 The macro has been built to run the furnessing 20 times for each matrix, however it should be noted that every time the macro is executed, it runs an additional 20 times. The furnessing spreadsheet therefore has been run for at least 20 iterations. The furnessing methodology has been double constrained, i.e. both origin and destination and the traffic flow matrices are furnished until link flows are within a GEH of 5.
- 3.6 Additional matrices are provided to calculate the absolute difference and percentage difference between the forecast and furnished link flows for each scenario respectively. A review of these indicates that this is considered to be convergent with the accepted furnessing methodology.
- 3.7 For certain turning movements there is expected to be negative growth. The PRTM assigns vehicle routes based on delays and cost of journey and therefore some movements may experience a reduction in flows. The negative growth forecast by PRTM will also be taken into account during furnessing as excluding this would overestimate impacts at junctions.
- 3.8 Due to high volumes of traffic that travel on the motorways and key A-roads there is the potential for these numbers to affect the furnessing outputs. As the furnessing process is based on turning proportions, the large motorway flows could cause the furnessing to assign traffic that would use the junctions to the motorway mainline movements instead.
- 3.9 Therefore, the M1 and A42 mainline flows have been removed and furnished separately to avoid any re assignment.

National Highway's Review

- 3.10 All the forecast modelling inputs have yet to be accepted and signed off by National Highway (NH) and therefore, are potentially subject to change. As a result of this, this Furnessing Approach report will be revised once NH and any other highway authority have accepted and signed off the modelling inputs methodology with the agreed information.

4. DEVELOPMENT TRAFFIC

- 4.1 Strategic models reroute traffic in response to congestion within the network. To ensure the true impact of the development is modelled and mitigation is provided along the main routes that the development traffic would take, rather than rerouting via smaller junctions. The distribution of development traffic was extracted from the PRTM model, and it is proposed that the assignment of development traffic is assigned manually to exclude for any rerouting of traffic as a result the proposed development.
- 4.2 It was noticed that in the latest PRTM outputs that 7% of development car trips are originating/travelling to East Midlands Airport. This was queried this with AECOM/LCC NDI and it is because EMA is a zone in PRTM. Therefore, it is proposed to proportionately distribute the 7% of traffic to/from EMA along the seven highest other routes as set out to the TWG.

5. COMMITTED DEVELOPMENT TRAFFIC

- 5.1 The East Midlands Point committed development off Finger Farm roundabout has been included in the PRTM modelling however as the development is not operational, there are no surveyed flows associated with the development. As such, the forecast traffic flows associated with the development has been directly extracted from the PRTM VISSIM cordon matrices and will be utilised for assessment in VISSIM.

6. TRAFFIC FLOW DATA SET

- 6.1 BWB was provided a copy of both 'Actual' and 'Demand' flow datasets by AECOM. Demand flow within SATURN does not assume a fully unconstrained network, both demand and actual flow account for all network constraints i.e. congestion, etc. and include for rerouting within the network.
- 6.2 Demand flow can be considered as the flow from the model assignment within the modelled period, independent of when the flow arrives i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900, demand flow will be displayed as 100.
- 6.3 On the contrary, actual flows can be considered as the flow that reaches a particular link or turn during the simulated time, i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900 however 20 vehicles are unable to get to the link within the modelled time due to constraints elsewhere in the network, actual flows will be displayed as 80 vehicles.

- 6.4 Discussions were held with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised within the modelling therefore all furnessing has been undertaken utilising 'Actual' flow data.

7. VISSIM MODELLING

- 7.1 A VISSIM model has been developed for the following junctions.
- i. M1 J24;
 - ii. M1 J24a southbound merge onto the M1 and M1 junction 24;
 - iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
 - iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
 - v. A453/Hunter Road/minor EMG Phase 2 access roundabout;
 - vi. A453/EMG Phase 2 site access roundabout.
- 7.2 Subsequently cordoned model flows have been obtained from AECOM to furnish the traffic flows for each of the junctions in the VISSIM network in line with furnessing methodology Option 4 to derive forecast modelling traffic flow matrices.

Post Stage 1a Modelling

- 7.3 Stage 1a modelling comprises of 2028/38 forecast years with committed development, proposed development and Local Plan allocations
- 7.4 Upon receiving the Stage 1a VISSIM Cordon modelling outputs from AECOM, a review of the data was undertaken to determine if the PRTM model outputs were coherent and that there was no unforeseen increase/decrease in flows on the links within the VISSIM network.
- 7.5 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously. A proportion of the reduction in flows between the 2022 datasets were as a result of lower traffic flows accessing/egressing the EMG 1 site having previously considered such informatio in greater detail. The EMG1 traffic flows are more in line with that set out in the planning application. However, in addition to this, reduction in flows were noted primarily on the A42 and M1 S approach arms.
- 7.6 The agreed furnessing methodology, Option 4, calculates the flow difference between 2022 base and forecast modelling scenarios and adds the increase/decrease in traffic to the observed link flows. Therefore a lower 2022 base would provide a higher furnessed link flow to be modelled in VISSIM.
- 7.7 Whilst this approach has been retained, an additional comparison has been undertaken between the furnessed link flows and PRTM link flows by way of considering flows forecast to travel along each link in 2038. This is illustrated in **Table 1** below.

Link No	Link Name	AM Origin Total			PM Origin Total		
		Furnished Target Flows	2038 Raw Link Flows	Diff	Furnished Target Flows	2038 Raw Link Flows	Diff
1	A50	2720	2650	-70	1926	2884	+958
2	M1 North	5957	4558	-1399	5309	4011	-1298
3	A453 Remembrance Way	1769	2163	+394	2112	2364	+252
4	Derby Road	684	857	+173	639	938	+299
5	Hilton Lane	493	524	+31	342	446	+104
6	Keg Worth Bypass	1028	1008	-20	1045	1083	+38
7	M1 South	5253	5160	-93	5710	5286	-424
8	A42	2895	2793	-102	2164	2547	+383
9	A453	614	670	+56	948	959	+11
10	Wilders Way	217	202	-15	655	842	+187
11	Services	259	0	-259	268	0	-268
12	Hunter Road	107	106	-1	263	411	+148

- 7.8 Therefore, the scenarios will be tested within VISSIM to determine if the mitigation still provides the benefits envisaged within the internal testing.

Post Stage 2 Modelling

- 7.9 Stage 2 modelling comprises of 2028/38 forecast years with committed development, proposed development and Local Plan allocations with the proposed mitigation scheme that have been determined as a result of the Stage 1 VISSIM Modelling.
- 7.10 Upon receiving the Stage 2 outputs, the outputs were furnished using option 4 methodology but as option 4 is based on the survey turning proportions it was not encapsulating the rerouting of traffic due to the mitigation strategy and provided unrealistic O-D Matrices.
- 7.11 Therefore, a alternative methodology has been applied to Stage 2 furnishing which is instead of the target flows being just the total of each link proportioned against the survey, each turning movement is to be the target flow using the formula (Forecast PRTM – 2022 PRTM Base) + 2022 Survey based on the cordon VISSIM output O-D for each forecast assessment year.

8. TRAFFIC FLOW FURNESSING

- 8.1 Future forecast traffic flows for the 2028 and 2038 assessment years have been derived in line with the Option 4 methodology, using outputs from the PRTM and the survey data (noting the junctions included in VISSIM have used separate outputs from the cordon model flows).
- 8.2 A copy of the furnishing spreadsheet has been issued separately which show that the vast majority of link flows are converged so that furnished link flows are within a GEH of 5 of calculated link flows. In calculating the final Passenger Car Unit (PCU) flows, a PCU

factor of 2.0 has been applied to all HGVs and 1.0 for light vehicles, which mirrors the PRTM for consistency.

- 8.3 A worked example of how the traffic flows have been furnished is shown on the 'Furness Process' tab within the spreadsheets.

9. SUMMARY

- 9.1 This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment.
- 9.2 To understand how the 2022 PRTM flows compare to the 2022 observed counts at each junction, the GEH Statistics formula has been used to provide an indication of the statistical significance of any differences. This will then provide a gauge as to which of the four furnessing methodologies considered up until this point is most appropriate, which are summarised below:
- **Option 1** – Extraction of target entry and exit flows directly from PRTM
 - **Option 2** – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts
 - **Option 3** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts
 - **Option 4** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase proportionately to the 2022 observed turning counts
- 9.3 A comparison of GEH indicated that several movements for all surveyed junctions did not meet the GEH threshold therefore Options 1 and 3 had been discounted.
- 9.4 Furthermore, a review of the percentage increase between PRTM base and forecast traffic flow matrices was calculated however this resulted in a significant overestimate of traffic flow movements in some instances therefore Option 2 has also been discounted.
- 9.5 Based on the above, it is considered that Option 4 is the most appropriate furnessing methodology to be utilised in this instance.
- 9.6 Discussions were undertaken with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised in the forecast modelling scenarios.
- 9.7 Additionally, NH was consulted on the approach to utilise forecast flows within the VISSIM modelling and it was concluded that a cordon of the VISSIM extent should be used to extract OD flows from PRTM. Subsequently Option 4 furnessing methodology will be used to derive forecast traffic flow matrices.
- 9.8 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously.

The agreed Option 4 furnessing methodology would provide a higher furnessed link flow to be modelled in VISSIM as a result.

- 9.9 A alternative methodology has been applied to Stage 2 furnessing which is instead of the target flows being just the total of each link proportioned against the survey, each turning movement is to be the target flow.
- 9.10 The scenarios will be tested within VISSIM to determine if the suggested mitigation still provides significant benefits. The final furnessed traffic flows at this stage of the process for the forecast years have been provided within separate spreadsheets.

National Highway's Review

- 9.11 All the forecast modelling inputs have yet to be accepted and signed off by National Highway (NH) and therefore, are potentially subject to change. As a result of this, this Furnessing Approach report will be revised once NH and any other highway authority have accepted and signed off the modelling inputs methodology with the agreed information.

APPENDIX 1 – A453/Hunter Road Roundabout Turning Count Results

East Midlands Gateway

Thursday 3rd November 2022

Junction: 3

Approach: Hunter Road

TIME	Left to A453 (E)									Right to A453 (W)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	23	1	0	1	3	28	32.3	0	0	6	0	1	0	0	7	7.5
07:15 - 07:30	0	0	16	0	2	1	0	19	21.3	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	17	4	4	0	4	29	35.0	0	0	6	0	0	0	0	6	6.0
07:45 - 08:00	0	0	16	0	0	0	1	17	18.0	0	0	3	2	0	0	0	5	5.0
Hourly Total	0	0	72	5	6	2	8	93	106.6	0	0	17	2	1	0	0	20	20.5
08:00 - 08:15	0	0	23	3	2	3	2	33	39.9	0	0	6	4	0	0	0	10	10.0
08:15 - 08:30	0	0	19	7	0	1	1	28	30.3	0	0	5	0	0	0	0	5	5.0
08:30 - 08:45	0	0	28	4	2	0	2	36	39.0	0	0	5	1	0	0	0	6	6.0
08:45 - 09:00	0	0	9	3	2	2	2	18	23.6	0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	79	17	6	6	7	115	132.8	0	0	16	6	0	0	0	22	22.0
09:00 - 09:15	0	0	4	1	1	2	2	10	15.1	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	11	5	2	0	3	21	25.0	0	0	2	2	2	0	0	6	7.0
09:30 - 09:45	0	0	13	6	2	0	1	22	24.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	5	3	1	0	4	13	17.5	0	0	2	0	0	1	0	3	4.3
Hourly Total	0	0	33	15	6	2	10	66	81.6	0	0	8	3	2	1	0	14	16.3

TOTAL	0	0	184	37	18	10	25	274	321.0	0	0	41	11	3	1	0	56	58.8
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16:00 - 16:15	0	0	118	6	0	3	4	131	138.9	0	0	20	0	0	0	0	20	20.0
16:15 - 16:30	0	0	70	4	1	3	1	79	84.4	0	0	6	0	0	0	1	7	8.0
16:30 - 16:45	0	0	80	7	0	1	1	89	91.3	0	0	12	0	0	0	0	12	12.0
16:45 - 17:00	0	0	64	1	1	1	3	70	74.8	0	0	6	0	0	0	1	7	8.0
Hourly Total	0	0	332	18	2	8	9	369	389.4	0	0	44	0	0	0	2	46	48.0
17:00 - 17:15	0	0	101	3	1	1	2	108	111.8	0	0	14	0	0	0	0	14	14.0
17:15 - 17:30	0	0	85	7	2	2	1	97	101.6	0	0	7	1	0	0	0	8	8.0
17:30 - 17:45	0	0	60	7	2	2	1	72	76.6	0	0	5	0	0	0	0	5	5.0
17:45 - 18:00	0	0	64	8	1	4	0	77	82.7	0	0	7	0	1	0	0	8	8.5
Hourly Total	0	0	310	25	6	9	4	354	372.7	0	0	33	1	1	0	0	35	35.5
18:00 - 18:15	0	0	41	2	0	0	3	46	49.0	0	0	7	0	0	0	0	7	7.0
18:15 - 18:30	0	0	38	3	0	1	2	44	47.3	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	29	0	2	8	1	40	52.4	0	0	1	1	0	0	0	2	2.0
18:45 - 19:00	0	0	23	0	1	2	3	29	35.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	131	5	3	11	9	159	183.8	0	0	9	1	0	0	0	10	10.0

TOTAL	0	0	773	48	11	28	22	882	945.9	0	0	86	2	1	0	2	91	93.5
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 3
Approach: A453 East

	Ahead to A453 (W)									Right to Hunter Road								U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	118	18	6	4	0	146	154.2	0	1	29	1	0	3	1	35	39.3	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	99	28	6	3	0	136	142.9	0	0	38	0	2	1	2	43	47.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	135	15	2	7	0	169	169.1	0	0	54	4	1	3	3	65	72.4	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	101	14	5	5	1	126	136.0	0	0	102	3	1	2	2	110	115.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	453	75	19	19	1	567	602.2	0	1	223	8	4	9	8	253	274.1	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	102	15	3	5	0	125	133.0	0	1	81	8	2	0	1	93	94.4	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	127	16	3	9	0	155	168.2	0	0	108	6	1	0	1	116	117.5	0	0	0	1	0	0	0	1	1.0
08:30 - 08:45	0	0	122	19	8	6	2	157	170.8	0	0	96	5	0	0	2	103	105.0	0	0	2	1	0	0	0	3	3.0
08:45 - 09:00	0	0	97	16	4	4	0	121	128.2	0	0	82	4	1	1	0	88	89.8	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	448	66	18	24	2	558	600.2	0	1	367	23	4	1	4	400	406.7	0	0	3	2	0	0	0	5	5.0
09:00 - 09:15	0	0	77	11	7	4	1	100	109.7	0	1	78	6	1	3	3	92	98.8	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	58	13	5	5	0	81	90.0	0	0	68	4	1	2	2	77	82.1	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	1	53	8	4	7	0	73	83.5	0	0	31	4	3	2	2	42	48.1	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	2	41	12	6	9	1	71	85.5	0	0	31	7	1	1	2	42	45.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	3	229	44	22	25	2	325	368.7	0	1	208	21	6	8	9	253	274.8	0	0	8	1	0	0	0	9	9.0
TOTAL	0	3	1130	185	59	68	5	1450	1571.1	0	3	798	52	14	18	21	906	955.6	0	0	11	3	0	0	0	14	14.0
16:00 - 16:15	0	0	92	14	3	7	0	116	126.6	0	0	18	2	1	1	3	25	29.8	0	0	3	1	1	0	0	5	5.5
16:15 - 16:30	0	0	83	13	1	8	0	105	115.9	0	0	21	3	4	2	2	32	38.6	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	92	24	3	4	0	123	129.7	0	0	16	2	0	1	1	20	22.3	0	0	1	2	0	0	0	3	3.0
16:45 - 17:00	0	0	122	27	2	3	1	155	160.9	0	0	18	2	0	2	2	24	28.6	0	0	2	2	0	0	0	4	4.0
Hourly Total	0	0	389	78	9	22	1	499	533.1	0	0	73	9	5	6	8	101	119.3	0	0	7	5	1	0	0	13	13.5
17:00 - 17:15	0	2	120	12	4	2	0	140	143.4	0	0	15	4	2	1	1	23	26.3	0	0	3	0	1	0	0	4	4.5
17:15 - 17:30	0	0	112	15	6	5	0	138	147.5	0	0	27	3	0	3	3	36	42.9	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	102	14	3	2	0	121	125.1	0	0	26	2	1	0	2	31	33.5	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	98	13	3	1	0	115	117.8	0	0	29	4	1	2	0	36	39.1	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	2	432	54	16	10	0	514	533.8	0	0	97	13	4	6	6	126	141.8	0	0	10	0	1	0	0	11	11.5
18:00 - 18:15	0	0	92	12	2	3	0	109	113.9	0	0	19	4	0	2	2	27	31.6	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	103	10	3	2	0	119	122.5	0	0	24	2	0	6	3	35	45.8	0	0	2	0	0	0	0	2	2.0
18:30 - 18:45	0	2	77	6	2	2	0	89	91.4	0	0	13	1	1	1	0	16	17.8	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	69	5	2	5	0	81	88.5	0	0	27	3	2	1	3	36	41.3	0	0	0	0	0	1	0	1	2.3
Hourly Total	0	3	341	33	9	12	0	398	416.3	0	0	83	10	3	10	8	114	136.5	0	0	6	0	0	1	0	7	8.3
TOTAL	0	5	1162	165	34	44	1	1411	1483.2	0	0	253	32	12	22	22	341	397.6	0	0	23	5	2	1	0	31	33.3

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 3

Approach: A453 West

	Left to Hunter Road									Ahead to A453 (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	3	1	1	0	0	5	5.5	0	0	64	11	2	9	0	86	98.7
07:15 - 07:30	0	0	9	1	0	0	0	10	10.0	0	2	99	21	6	7	0	135	145.9
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	1	100	17	5	14	0	137	157.1
07:45 - 08:00	0	0	25	0	1	0	0	26	26.5	0	0	103	17	4	5	1	130	139.5
Hourly Total	0	0	40	2	2	0	0	44	45.0	0	3	366	66	17	35	1	488	541.2
08:00 - 08:15	0	0	10	0	0	0	0	10	10.0	0	0	103	26	3	8	1	141	153.9
08:15 - 08:30	0	0	12	0	0	0	0	12	12.0	0	0	117	28	6	12	1	164	183.6
08:30 - 08:45	0	0	7	1	0	0	0	8	8.0	0	0	66	19	5	12	1	103	122.1
08:45 - 09:00	0	0	8	1	0	0	0	9	9.0	0	0	65	9	4	14	1	93	114.2
Hourly Total	0	0	37	2	0	0	0	39	39.0	0	0	351	82	18	46	4	501	573.8
09:00 - 09:15	0	0	11	1	0	0	0	12	12.0	0	0	48	7	9	7	0	71	84.6
09:15 - 09:30	0	0	3	0	0	0	0	3	3.0	0	1	38	11	4	6	1	61	71.2
09:30 - 09:45	0	0	2	0	0	0	0	2	2.0	0	0	27	11	6	5	1	50	60.5
09:45 - 10:00	0	0	6	0	0	0	0	6	6.0	0	0	37	10	2	7	0	56	66.1
Hourly Total	0	0	22	1	0	0	0	23	23.0	0	1	150	39	21	25	2	238	282.4

TOTAL	0	0	99	5	2	0	0	106	107.0	0	4	867	187	56	106	7	1227	1397.4
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16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	0	110	18	5	8	0	141	153.9
16:15 - 16:30	0	0	2	0	0	0	0	2	2.0	0	0	98	17	5	1	0	121	124.8
16:30 - 16:45	0	0	4	0	0	0	0	4	4.0	0	0	122	17	2	3	0	144	148.9
16:45 - 17:00	0	0	3	2	0	0	0	5	5.0	0	0	125	15	0	2	1	143	146.6
Hourly Total	0	0	11	2	0	0	0	13	13.0	0	0	455	67	12	14	1	549	574.2
17:00 - 17:15	0	0	6	0	0	0	0	6	6.0	0	0	136	11	1	3	1	152	157.4
17:15 - 17:30	0	0	8	0	0	0	0	8	8.0	0	0	73	4	1	3	0	81	85.4
17:30 - 17:45	0	0	5	3	0	0	0	8	8.0	0	0	135	9	2	3	1	150	155.9
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	0	134	7	1	1	0	143	144.8
Hourly Total	0	0	25	3	0	0	0	28	28.0	0	0	478	31	5	10	2	526	543.5
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	94	9	1	2	0	106	109.1
18:15 - 18:30	0	0	6	0	0	0	0	6	6.0	0	0	79	8	2	1	0	90	92.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	1	62	6	0	1	0	70	70.7
18:45 - 19:00	0	0	5	1	0	0	0	6	6.0	0	0	55	6	1	2	0	64	67.1
Hourly Total	0	0	17	1	0	0	0	18	18.0	0	1	290	29	4	6	0	330	339.2

TOTAL	0	0	53	6	0	0	0	59	59.0	0	1	1223	127	21	30	3	1405	1456.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 2 – Finger Farm Roundabout Turning Count Results

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 4
 Approach: A453 North

	To M1 J23A Access									To Donington Services Access									To A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	47	13	4	10	0	74	89.0	0	0	4	5	4	11	0	24	40.3	0	1	78	4	2	1	1	87	89.7
07:15 - 07:30	0	0	41	10	1	0	1	53	54.5	0	0	7	0	3	4	0	14	20.7	0	0	77	10	3	3	2	95	102.4
07:30 - 07:45	0	0	63	23	7	12	0	105	124.1	0	1	5	3	0	0	0	9	8.4	0	0	93	6	1	3	3	106	113.4
07:45 - 08:00	0	0	119	42	6	18	0	185	211.4	0	0	9	2	0	3	0	14	17.9	0	0	73	4	2	4	3	86	95.2
Hourly Total	0	0	270	88	18	40	1	417	479.0	0	1	25	10	7	18	0	61	87.3	0	1	321	24	8	11	9	374	400.7
08:00 - 08:15	0	0	122	30	4	10	0	166	181.0	0	0	12	7	1	4	0	24	29.7	0	1	82	9	1	2	1	96	99.5
08:15 - 08:30	0	0	67	20	2	15	0	104	124.5	0	0	16	2	0	2	0	20	22.6	0	0	117	10	2	2	1	132	136.6
08:30 - 08:45	0	0	48	15	7	12	1	83	103.1	0	0	13	2	0	4	0	19	24.2	0	0	122	11	0	2	3	138	143.6
08:45 - 09:00	0	0	49	9	3	12	1	74	92.1	0	0	18	3	0	4	0	25	30.2	0	0	76	12	0	1	0	89	90.3
Hourly Total	0	0	286	74	16	49	2	427	500.7	0	0	59	14	1	14	0	88	106.7	0	1	397	42	3	7	5	455	470.0
09:00 - 09:15	0	0	18	4	8	11	0	41	59.3	0	0	14	4	1	2	0	21	24.1	0	1	81	6	3	3	4	98	106.8
09:15 - 09:30	0	0	28	5	4	9	0	46	59.7	0	0	18	4	2	5	1	30	38.5	0	0	77	8	1	1	1	88	90.8
09:30 - 09:45	0	0	11	4	6	7	0	28	40.1	0	0	19	2	3	6	0	30	39.3	0	1	44	7	0	4	2	58	64.6
09:45 - 10:00	0	0	12	7	3	11	1	34	50.8	0	1	14	5	2	3	0	25	29.3	0	2	37	6	5	4	2	56	64.5
Hourly Total	0	0	69	20	21	38	1	149	209.9	0	1	65	15	8	16	1	106	131.2	0	4	239	27	9	12	9	300	326.7
TOTAL	0	0	625	182	55	127	4	993	1189.6	0	2	149	39	16	48	1	255	325.2	0	6	957	93	20	30	23	1129	1197.4
16:00 - 16:15	0	0	72	14	2	10	0	98	112.0	0	0	12	4	4	5	0	25	33.5	0	0	21	8	0	1	2	32	35.3
16:15 - 16:30	0	0	78	18	4	11	0	111	127.3	0	0	9	5	0	3	0	17	20.9	0	0	39	6	0	1	2	48	51.3
16:30 - 16:45	0	0	81	11	0	6	1	99	107.8	0	0	12	2	0	4	0	18	23.2	0	0	9	9	2	2	1	23	27.6
16:45 - 17:00	0	0	67	6	2	7	0	82	92.1	0	0	14	3	0	3	0	20	23.9	0	0	28	14	0	1	3	46	50.3
Hourly Total	0	0	298	49	8	34	1	390	439.2	0	0	47	14	4	15	0	80	101.5	0	0	97	37	2	5	8	149	164.5
17:00 - 17:15	0	0	95	4	1	3	0	103	107.4	0	0	9	2	3	6	0	20	29.3	0	1	24	6	5	2	1	39	44.5
17:15 - 17:30	0	0	64	5	3	7	0	79	89.6	0	0	12	2	0	5	0	19	25.5	0	0	50	12	3	1	3	69	74.8
17:30 - 17:45	0	0	72	7	1	7	0	87	96.6	0	0	13	0	0	4	0	17	22.2	0	0	21	7	2	2	2	34	39.6
17:45 - 18:00	0	0	77	8	3	10	0	98	112.5	0	0	19	5	0	8	0	32	42.4	0	0	29	4	1	2	0	36	39.1
Hourly Total	0	0	308	24	8	27	0	367	406.1	0	0	53	9	3	23	0	88	119.4	0	1	124	29	11	7	6	178	198.0
18:00 - 18:15	0	0	105	6	2	7	1	121	132.1	0	0	11	0	2	4	0	17	23.2	0	0	40	11	0	4	2	57	64.2
18:15 - 18:30	0	0	58	2	3	5	1	69	78.0	0	1	10	1	1	3	0	16	19.8	0	1	79	9	1	3	3	96	102.8
18:30 - 18:45	0	0	78	3	2	5	0	88	95.5	0	0	11	2	0	2	0	15	17.6	0	1	58	3	2	0	0	64	64.4
18:45 - 19:00	0	0	34	2	1	5	0	42	49.0	0	0	16	6	0	4	0	26	31.2	0	0	47	5	3	1	3	59	64.8
Hourly Total	0	0	275	13	8	22	2	320	354.6	0	1	48	9	3	13	0	74	91.8	0	2	224	28	6	8	8	276	296.2
TOTAL	0	0	881	86	24	83	3	1077	1199.9	0	1	148	32	10	51	0	242	312.7	0	3	445	94	19	20	22	603	658.7

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022

Junction: 4
Approach: M1 J23A Access

TIME	To Donington Services Access									To A453 (W)									To A453 (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	16	6	3	5	0	30	38.0	0	0	60	14	2	6	0	82	90.8	0	0	97	28	7	27	2	161	201.6
07:15 - 07:30	0	0	13	6	4	5	0	28	36.5	0	0	53	17	3	1	0	74	76.8	0	0	172	29	8	19	0	228	256.7
07:30 - 07:45	0	0	11	7	2	7	1	28	39.1	0	0	89	10	2	7	0	108	118.1	0	0	184	38	10	23	2	257	293.9
07:45 - 08:00	0	0	21	11	2	3	0	37	41.9	0	0	121	12	2	2	0	137	140.6	0	1	199	28	9	22	0	259	291.5
Hourly Total	0	0	61	30	11	20	1	123	155.5	0	0	323	53	9	16	0	401	426.3	0	1	652	123	34	91	4	905	1043.7
08:00 - 08:15	0	0	19	3	2	3	0	27	31.9	0	0	89	12	3	3	0	107	112.4	0	0	152	29	8	13	0	202	222.9
08:15 - 08:30	0	0	17	13	4	8	0	42	54.4	0	0	107	8	1	7	0	123	132.6	0	0	163	34	15	22	0	234	270.1
08:30 - 08:45	0	0	20	7	2	7	0	36	46.1	0	0	85	13	6	4	1	109	118.2	0	0	102	15	8	25	1	151	188.5
08:45 - 09:00	0	0	22	5	0	6	0	33	40.8	0	0	90	6	3	4	0	103	109.7	0	0	106	21	10	15	0	152	176.5
Hourly Total	0	0	78	28	8	24	0	138	173.2	0	0	371	39	13	18	1	442	472.9	0	0	523	99	41	75	1	739	858.0
09:00 - 09:15	0	0	24	8	3	9	0	44	57.2	0	0	69	8	5	4	0	86	93.7	0	0	108	18	8	19	0	153	181.7
09:15 - 09:30	0	0	19	7	1	9	0	36	48.2	0	0	40	8	4	5	1	58	67.5	0	0	67	20	6	19	0	112	139.7
09:30 - 09:45	0	0	22	6	2	10	0	40	54.0	0	0	31	3	6	5	0	45	54.5	0	0	74	17	7	9	1	108	124.2
09:45 - 10:00	0	0	16	6	2	6	0	30	38.8	0	0	30	11	1	6	0	48	56.3	0	0	56	15	9	16	0	96	121.3
Hourly Total	0	0	81	27	8	34	0	150	198.2	0	0	170	30	16	20	1	237	272.0	0	0	305	70	30	63	1	469	566.9
TOTAL	0	0	220	85	27	78	1	411	526.9	0	0	864	122	38	54	2	1080	1171.2	0	1	1480	292	105	229	6	2113	2468.6
16:00 - 16:15	0	0	27	5	2	9	0	43	55.7	0	0	79	5	4	6	1	95	105.8	0	0	81	35	9	13	0	138	159.4
16:15 - 16:30	0	0	20	5	2	3	0	30	34.9	0	0	59	9	4	8	0	80	92.4	0	0	97	36	2	16	2	153	176.8
16:30 - 16:45	0	0	25	6	1	5	0	37	44.0	0	0	85	17	1	3	0	106	110.4	0	1	110	27	5	16	0	159	181.7
16:45 - 17:00	0	0	26	13	2	4	0	45	51.2	0	0	101	16	2	4	0	123	129.2	0	1	101	23	4	0	0	129	130.4
Hourly Total	0	0	98	29	7	21	0	155	185.8	0	0	324	47	11	21	1	404	437.8	0	2	389	121	20	45	2	579	648.3
17:00 - 17:15	0	0	19	6	4	7	0	36	47.1	0	1	105	7	2	1	0	116	117.7	0	0	141	19	6	18	0	184	210.4
17:15 - 17:30	0	0	26	5	0	4	0	35	40.2	0	0	84	5	2	7	0	98	108.1	0	0	194	20	7	17	0	238	263.6
17:30 - 17:45	0	0	17	12	0	6	0	35	42.8	0	0	95	6	2	0	0	103	104.0	0	0	174	15	2	11	0	202	217.3
17:45 - 18:00	0	0	24	2	3	3	0	32	37.4	0	0	88	11	3	1	0	103	105.8	0	0	130	7	0	9	1	147	159.7
Hourly Total	0	0	86	25	7	20	0	138	167.5	0	1	372	29	9	9	0	420	435.6	0	0	639	61	15	55	1	771	851.0
18:00 - 18:15	0	0	23	2	1	6	0	32	40.3	0	0	60	3	1	0	0	64	64.5	0	0	105	3	6	14	0	128	149.2
18:15 - 18:30	0	0	12	4	0	2	0	18	20.6	0	0	38	1	1	4	0	44	49.7	0	0	76	6	1	7	0	90	99.6
18:30 - 18:45	0	0	3	1	1	0	0	5	5.5	0	0	25	4	1	2	0	32	35.1	0	0	26	1	1	4	0	32	37.7
18:45 - 19:00	0	0	32	7	2	4	0	45	51.2	0	0	39	3	1	6	0	49	57.3	0	0	93	8	3	9	0	113	126.2
Hourly Total	0	0	70	14	4	12	0	100	117.6	0	0	162	11	4	12	0	189	206.6	0	0	300	18	11	34	0	363	412.7
TOTAL	0	0	254	68	18	53	0	393	470.9	0	1	858	87	24	42	1	1013	1080.0	0	2	1328	200	46	134	3	1713	1912.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 4

Approach: Donington Services Access

	To A453 (W)									To A453 (N)									To M1 J23A Access								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	9	1	2	0	0	12	13.0	0	0	8	10	3	8	0	29	40.9	0	0	8	3	1	7	0	19	28.6
07:15 - 07:30	0	0	7	1	2	0	0	10	11.0	0	0	10	8	3	2	0	23	27.1	0	0	9	4	4	6	0	23	32.8
07:30 - 07:45	0	0	7	3	0	0	0	10	10.0	0	0	7	8	2	10	0	27	41.0	0	0	6	2	2	3	0	13	17.9
07:45 - 08:00	0	0	9	1	2	1	0	13	15.3	0	0	8	5	5	14	0	32	52.7	0	0	14	5	0	5	0	24	30.5
Hourly Total	0	0	32	6	6	1	0	45	49.3	0	0	33	31	13	34	0	111	161.7	0	0	37	14	7	21	0	79	109.8
08:00 - 08:15	0	0	12	2	1	0	0	15	15.5	0	0	1	4	3	5	0	13	21.0	0	0	24	5	2	4	0	35	41.2
08:15 - 08:30	0	0	11	5	1	0	0	17	17.5	0	0	4	4	2	7	0	17	27.1	0	0	23	10	1	6	0	40	48.3
08:30 - 08:45	0	0	13	1	2	0	0	16	17.0	0	0	5	7	3	3	0	18	23.4	0	0	21	6	2	6	0	35	43.8
08:45 - 09:00	0	0	14	2	2	0	0	18	19.0	0	0	0	2	1	3	1	7	12.4	0	0	19	3	3	3	0	28	33.4
Hourly Total	0	0	50	10	6	0	0	66	69.0	0	0	10	17	9	18	1	55	83.9	0	0	87	24	8	19	0	138	166.7
09:00 - 09:15	0	0	6	3	0	0	0	9	9.0	0	0	7	6	1	7	0	21	30.6	0	0	27	3	2	5	0	37	44.5
09:15 - 09:30	0	0	10	2	1	1	0	14	15.8	0	0	20	5	3	6	0	34	43.3	0	0	16	7	2	4	0	29	35.2
09:30 - 09:45	0	0	12	2	1	0	0	15	15.5	0	0	10	2	0	6	0	18	25.8	0	0	20	5	4	3	0	32	37.9
09:45 - 10:00	0	0	8	2	1	0	1	12	13.5	0	0	13	8	0	11	0	32	46.3	0	0	12	4	1	6	0	23	31.3
Hourly Total	0	0	36	9	3	1	1	50	53.8	0	0	50	21	4	30	0	105	146.0	0	0	75	19	9	18	0	121	148.9
TOTAL	0	0	118	25	15	2	1	161	172.1	0	0	93	69	26	82	1	271	391.6	0	0	199	57	24	58	0	338	425.4
16:00 - 16:15	0	0	13	4	1	1	0	19	20.8	0	0	23	2	0	5	0	30	36.5	0	0	18	5	2	5	0	30	37.5
16:15 - 16:30	0	0	7	1	1	1	0	10	11.8	0	0	15	4	2	4	0	25	31.2	0	0	21	3	1	6	0	31	39.3
16:30 - 16:45	0	0	15	2	0	0	0	17	17.0	0	1	25	1	5	7	0	39	50.0	0	0	20	5	3	5	0	33	41.0
16:45 - 17:00	0	0	13	1	0	0	0	14	14.0	0	0	10	2	2	4	0	18	24.2	0	0	22	5	0	3	0	30	33.9
Hourly Total	0	0	48	8	2	2	0	60	63.6	0	1	73	9	9	20	0	112	141.9	0	0	81	18	6	19	0	124	151.7
17:00 - 17:15	0	0	9	3	0	0	0	12	12.0	0	0	9	7	0	5	0	21	27.5	0	0	31	4	0	2	0	37	39.6
17:15 - 17:30	0	0	8	1	1	0	0	10	10.5	0	0	21	1	2	1	0	25	27.3	0	0	19	8	2	4	0	33	39.2
17:30 - 17:45	0	0	13	3	0	0	0	16	16.0	0	0	13	0	0	1	0	14	15.3	0	0	22	2	0	4	0	28	33.2
17:45 - 18:00	0	0	13	2	0	0	0	15	15.0	0	0	17	8	0	3	0	28	31.9	0	0	21	2	0	3	0	26	29.9
Hourly Total	0	0	43	9	1	0	0	53	53.5	0	0	60	16	2	10	0	88	102.0	0	0	93	16	2	13	0	124	141.9
18:00 - 18:15	0	0	13	2	1	1	0	17	18.8	0	0	26	4	0	3	0	33	36.9	0	0	12	2	1	5	0	20	27.0
18:15 - 18:30	0	0	12	2	1	1	0	16	17.8	0	0	15	2	0	2	0	19	21.6	0	0	11	3	3	4	0	21	27.7
18:30 - 18:45	0	1	9	0	0	1	0	11	11.7	0	0	17	2	0	4	0	23	28.2	0	0	9	0	0	1	0	10	11.3
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	14	2	0	0	0	16	16.0	0	0	13	1	1	3	0	18	22.4
Hourly Total	0	1	44	4	2	3	0	54	58.3	0	0	72	10	0	9	0	91	102.7	0	0	45	6	5	13	0	69	88.4
TOTAL	0	1	135	21	5	5	0	167	175.4	0	1	205	35	11	39	0	291	346.6	0	0	219	40	13	45	0	317	382.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 4
 Approach: A453 West

	To A453 (N)									To M1 J23A Access								To Donington Services Access									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	46	10	0	6	3	65	75.8	0	0	29	1	2	4	0	36	42.2	0	0	12	1	0	0	0	13	13.0
07:15 - 07:30	0	0	85	16	2	6	0	109	117.8	0	1	25	3	5	2	0	36	40.5	0	1	5	2	1	0	0	9	8.9
07:30 - 07:45	0	1	81	11	5	8	3	109	124.3	0	0	32	10	4	6	1	53	63.8	0	0	4	0	0	0	0	4	4.0
07:45 - 08:00	0	0	77	12	0	2	0	91	93.6	0	0	35	5	4	3	2	49	56.9	0	0	7	0	0	0	0	7	7.0
Hourly Total	0	1	289	49	7	22	6	374	411.5	0	1	121	19	15	15	3	174	203.4	0	1	28	3	1	0	0	33	32.9
08:00 - 08:15	0	0	76	12	4	6	2	100	111.8	0	0	48	16	1	5	1	71	79.0	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	81	17	3	5	2	108	118.0	0	0	48	19	1	8	0	76	86.9	0	0	7	0	2	0	0	9	10.0
08:30 - 08:45	0	0	60	15	4	7	2	88	101.1	0	0	30	8	3	5	1	47	56.0	0	0	6	1	0	0	0	7	7.0
08:45 - 09:00	0	0	48	7	3	8	3	69	83.9	0	0	24	3	3	7	0	37	47.6	0	0	3	2	0	1	0	6	7.3
Hourly Total	0	0	265	51	14	26	9	365	414.8	0	0	150	46	8	25	2	231	269.5	0	0	18	4	2	1	0	25	27.3
09:00 - 09:15	0	0	26	3	5	8	2	44	58.9	0	0	20	4	4	1	0	29	32.3	0	0	7	1	1	0	0	9	9.5
09:15 - 09:30	0	1	25	9	6	2	4	47	56.0	0	0	21	4	0	4	0	29	34.2	0	0	4	4	0	0	0	8	8.0
09:30 - 09:45	0	0	24	11	7	1	2	45	51.8	0	0	12	3	1	3	0	19	23.4	0	0	7	3	0	1	0	11	12.3
09:45 - 10:00	0	0	31	8	2	4	4	49	59.2	0	0	9	5	0	2	0	16	18.6	0	0	5	0	1	1	0	7	8.8
Hourly Total	0	1	106	31	20	15	12	185	225.9	0	0	62	16	5	10	0	93	108.5	0	0	23	8	2	2	0	35	38.6
TOTAL	0	2	660	131	41	63	27	924	1052.2	0	1	333	81	28	50	5	498	581.4	0	1	69	15	5	3	0	93	98.8
16:00 - 16:15	0	0	161	12	2	3	3	181	188.9	0	0	66	11	2	8	1	88	100.4	0	0	4	2	2	0	0	8	9.0
16:15 - 16:30	0	0	136	12	3	2	1	154	159.1	0	0	25	7	3	2	0	37	41.1	0	0	8	2	0	0	0	10	10.0
16:30 - 16:45	0	0	126	9	0	2	1	138	141.6	0	0	68	15	0	2	0	85	87.6	0	0	9	2	2	0	0	13	14.0
16:45 - 17:00	0	0	133	16	0	1	3	153	157.3	0	0	48	1	1	2	1	53	57.1	0	0	10	1	0	0	0	11	11.0
Hourly Total	0	0	556	49	5	8	8	626	646.9	0	0	207	34	6	14	2	263	286.2	0	0	31	7	4	0	0	42	44.0
17:00 - 17:15	0	0	132	8	2	4	3	149	158.2	0	0	97	4	0	0	0	101	101.0	0	0	11	2	1	0	0	14	14.5
17:15 - 17:30	0	0	113	2	2	1	1	119	122.3	0	0	36	9	1	3	0	49	53.4	0	0	12	0	0	1	0	13	14.3
17:30 - 17:45	0	0	154	8	0	2	2	166	170.6	0	0	30	6	2	3	0	41	45.9	0	0	12	2	2	0	0	16	17.0
17:45 - 18:00	0	0	143	8	1	1	0	153	154.8	0	0	51	6	1	4	0	62	67.7	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	542	26	5	8	6	587	605.9	0	0	214	25	4	10	0	253	268.0	0	0	42	5	3	1	0	51	53.8
18:00 - 18:15	0	0	88	7	0	0	3	98	101.0	0	0	41	3	1	2	0	47	50.1	0	0	8	1	0	0	0	9	9.0
18:15 - 18:30	0	0	83	7	1	1	2	94	97.8	0	0	28	4	1	1	0	34	35.8	0	0	8	0	0	0	0	8	8.0
18:30 - 18:45	0	1	74	4	0	7	1	87	96.5	0	0	16	2	1	2	0	21	24.1	0	0	3	0	1	0	0	4	4.5
18:45 - 19:00	0	0	57	3	2	2	3	67	73.6	0	0	16	2	0	3	0	21	24.9	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	1	302	21	3	10	9	346	368.9	0	0	101	11	3	8	0	123	134.9	0	0	24	2	1	0	0	27	27.5
TOTAL	0	1	1400	96	13	26	23	1559	1621.7	0	0	522	70	13	32	2	639	689.1	0	0	97	14	8	1	0	120	125.3

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 3 – A453/EMGP1 Gyrotory Turning Count Results

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 North

	Left to A6 Kegworth Bypass										Ahead to A453 (S)										Right to Wilders Way										U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	2	4	0	1	0	7	8.3	0	0	70	10	4	7	1	92	104.1	0	0	90	5	3	7	1	105	115.6	0	0	0	0	0	0	0	0	0	0.0			
07:15 - 07:30	0	0	15	2	2	1	0	20	22.3	0	0	66	12	2	7	0	87	97.1	0	0	107	5	1	7	1	121	131.6	0	0	1	0	0	0	0	0	1	1.0			
07:30 - 07:45	0	0	5	2	2	2	0	11	14.6	0	0	65	8	0	6	0	79	86.8	0	1	106	5	2	5	0	119	125.9	0	0	1	1	0	0	0	0	2	2.0			
07:45 - 08:00	0	0	8	0	2	6	0	16	24.8	0	0	88	12	1	4	0	105	110.7	0	0	83	2	1	7	1	94	104.6	0	0	1	0	0	0	0	0	1	1.0			
Hourly Total	0	0	30	8	6	10	0	54	70.0	0	0	289	42	7	24	1	363	398.7	0	1	386	17	7	26	2	439	477.7	0	0	3	1	0	0	0	0	4	4.0			
08:00 - 08:15	0	0	9	2	5	3	0	19	25.4	0	0	95	7	1	5	0	108	115.0	0	0	42	11	5	5	0	63	72.0	0	0	0	0	0	0	0	0	0	0.0			
08:15 - 08:30	0	0	6	1	1	0	0	8	8.5	0	0	91	4	3	3	0	101	106.4	0	0	35	4	3	5	0	47	55.0	0	0	3	0	1	0	0	0	4	4.5			
08:30 - 08:45	0	0	7	1	1	1	0	10	11.8	0	0	107	7	4	0	0	118	120.0	0	1	28	9	1	10	1	50	63.9	0	0	0	0	0	1	0	1	2.3				
08:45 - 09:00	0	1	5	3	4	5	0	18	25.9	0	0	87	10	4	5	0	106	114.5	0	0	40	5	1	3	1	50	55.4	0	0	2	0	0	0	0	0	2	2.0			
Hourly Total	0	1	27	7	11	9	0	55	71.6	0	0	380	28	12	13	0	433	455.9	0	1	145	29	10	23	2	210	246.3	0	0	5	0	1	1	0	7	8.8				
09:00 - 09:15	0	0	3	1	1	5	0	10	17.0	0	0	87	4	6	5	0	102	111.5	0	0	48	9	0	6	0	63	70.8	0	0	1	0	0	0	0	0	1	1.0			
09:15 - 09:30	0	0	6	1	0	0	0	7	7.0	0	0	74	6	3	14	0	97	116.7	0	0	52	11	3	5	0	71	79.0	0	0	1	1	0	0	0	0	2	2.0			
09:30 - 09:45	0	0	4	3	3	4	0	14	20.7	0	0	56	3	6	8	0	73	86.4	0	0	55	15	0	9	2	81	94.7	0	0	0	0	0	0	0	0	0	0.0			
09:45 - 10:00	0	0	2	2	2	2	0	8	11.6	0	0	54	6	2	5	0	67	74.5	0	0	66	20	1	9	0	96	108.2	0	0	2	0	0	0	0	0	2	2.0			
Hourly Total	0	0	15	7	6	11	0	39	56.3	0	0	271	19	17	32	0	339	389.1	0	0	221	55	4	29	2	311	352.7	0	0	4	1	0	0	0	0	5	5.0			
TOTAL	0	1	72	22	23	30	0	148	197.9	0	0	940	89	36	69	1	1135	1243.7	0	2	752	101	21	78	6	960	1076.7	0	0	12	2	1	1	0	16	17.8				
16:00 - 16:15	0	0	9	2	1	1	0	13	14.8	0	0	54	11	2	6	1	74	83.8	0	0	10	5	1	3	0	19	23.4	0	0	0	0	0	0	0	0	0	0.0			
16:15 - 16:30	0	0	19	3	2	1	0	25	27.3	0	0	45	14	3	3	0	65	70.4	0	0	10	9	0	4	1	24	30.2	0	0	1	0	0	0	0	0	1	1.0			
16:30 - 16:45	0	0	15	4	1	0	0	20	20.5	0	0	41	8	3	11	0	63	78.8	0	0	16	3	0	4	0	23	28.2	0	0	2	0	0	0	0	0	2	2.0			
16:45 - 17:00	0	1	15	0	1	0	0	17	16.9	0	0	40	6	4	3	0	53	58.9	0	0	15	7	0	6	1	29	37.8	0	0	3	1	0	0	0	0	4	4.0			
Hourly Total	0	1	58	9	5	2	0	75	79.5	0	0	180	39	12	23	1	255	291.9	0	0	51	24	1	17	2	95	119.6	0	0	6	1	0	0	0	0	7	7.0			
17:00 - 17:15	0	0	13	2	0	0	0	15	15.0	0	0	45	8	4	8	1	66	79.4	0	0	19	13	0	4	0	36	41.2	0	0	1	0	0	0	0	0	1	1.0			
17:15 - 17:30	0	0	22	1	1	1	0	25	26.8	0	1	58	1	3	10	0	73	86.9	0	1	31	13	0	6	1	52	60.2	0	0	3	0	0	0	0	0	3	3.0			
17:30 - 17:45	0	1	17	0	2	1	0	21	22.7	0	0	73	4	3	4	0	84	90.7	0	3	54	11	0	4	0	72	75.4	0	0	2	0	0	0	0	0	2	2.0			
17:45 - 18:00	0	0	11	5	0	0	0	16	16.0	0	0	70	2	3	7	0	82	92.6	0	0	66	14	0	3	0	83	86.9	0	0	0	0	0	0	0	0	0	0.0			
Hourly Total	0	1	63	8	3	2	0	77	80.5	0	1	246	15	13	29	1	305	349.6	0	4	170	51	0	17	1	243	263.7	0	0	6	0	0	0	0	0	6	6.0			
18:00 - 18:15	0	0	7	0	0	2	0	9	11.6	0	0	42	3	2	7	0	54	64.1	0	1	103	10	0	3	0	117	120.3	0	0	2	0	0	0	0	0	2	2.0			
18:15 - 18:30	0	0	12	3	0	0	0	15	15.0	0	1	59	3	0	4	0	67	71.6	0	1	103	14	0	2	1	121	124.0	0	0	1	0	0	0	0	0	1	1.0			
18:30 - 18:45	0	0	10	0	1	1	0	12	13.8	0	0	84	0	4	4	0	92	99.2	0	0	54	12	0	4	0	70	75.2	0	0	0	0	0	1	0	1	2.3				
18:45 - 19:00	0	0	10	0	0	2	0	12	14.6	0	0	80	1	1	4	0	86	91.7	0	0	43	9	0	4	1	57	63.2	0	0	0	0	0	0	0	0	0	0.0			
Hourly Total	0	0	39	3	1	5	0	48	55.0	0	1	265	7	7	19	0	299	326.6	0	2	303	45	0	13	2	365	382.7	0	0	3	0	0	1	0	4	5.3				
TOTAL	0	2	160	20	9	9	0	200	215.0	0	2	691	61	32	71	2	859	968.1	0	6	524	120	1	47	5	703	766.0	0	0	15	1	0	1	0	17	18.3				

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A6 Kegworth Bypass

	Left to A453 (S)									Ahead to Wilders Way									Right to A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	2	15	3	0	0	0	20	18.8	0	1	87	11	10	2	0	111	118.0	0	0	74	10	8	3	2	97	106.9
07:15 - 07:30	0	0	26	2	1	0	0	29	29.5	0	1	101	16	4	1	1	124	127.7	0	1	65	18	5	0	0	89	90.9
07:30 - 07:45	0	0	29	3	1	0	1	34	35.5	0	0	76	10	2	0	2	90	93.0	0	0	61	10	1	0	0	72	72.5
07:45 - 08:00	0	0	29	5	0	1	0	35	36.3	0	0	109	21	3	3	1	137	143.4	0	0	92	21	4	2	0	119	123.6
Hourly Total	0	2	99	13	2	1	1	118	120.1	0	2	373	58	19	6	4	462	482.1	0	1	292	59	18	5	2	377	393.9
08:00 - 08:15	0	0	35	1	0	0	0	36	36.0	1	0	74	15	3	1	1	95	98.0	0	0	73	13	3	1	0	90	92.8
08:15 - 08:30	0	0	30	2	2	2	1	37	41.6	0	3	69	19	2	1	0	94	94.5	0	3	66	16	1	2	0	88	89.3
08:30 - 08:45	0	1	41	7	1	3	0	53	56.8	0	1	46	14	3	1	1	66	69.2	0	1	43	12	2	2	0	60	63.0
08:45 - 09:00	0	0	31	0	4	0	0	35	37.0	0	0	54	11	6	3	0	74	80.9	0	0	51	10	6	3	0	70	76.9
Hourly Total	0	1	137	10	7	5	1	161	171.4	1	4	243	59	14	6	2	329	342.6	0	4	233	51	12	8	0	308	322.0
09:00 - 09:15	0	0	24	5	0	1	0	30	31.3	0	0	61	13	6	3	3	86	95.9	0	0	54	12	7	3	1	77	85.4
09:15 - 09:30	0	0	17	4	1	0	0	22	22.5	0	0	34	12	3	4	1	54	61.7	0	0	32	12	4	4	0	52	59.2
09:30 - 09:45	0	0	17	5	0	1	0	23	24.3	0	0	30	12	1	2	0	45	48.1	0	0	28	9	1	1	0	39	40.8
09:45 - 10:00	0	0	9	4	0	1	1	15	17.3	0	0	37	19	3	3	0	62	67.4	0	0	26	16	4	3	0	49	54.9
Hourly Total	0	0	67	18	1	3	1	90	95.4	0	0	162	56	13	12	4	247	273.1	0	0	140	49	16	11	1	217	240.3

TOTAL	0	3	303	41	10	9	3	369	386.9	1	6	778	173	46	24	10	1038	1097.8	0	5	665	159	46	24	3	902	956.2
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16:00 - 16:15	0	0	20	6	0	0	1	27	28.0	0	0	50	9	7	4	0	70	78.7	0	0	47	13	7	4	0	71	79.7
16:15 - 16:30	0	0	16	5	2	0	0	23	24.0	0	0	77	17	2	5	1	102	110.5	0	1	67	16	2	5	0	91	97.9
16:30 - 16:45	0	0	28	9	0	1	1	39	41.3	0	0	74	20	1	1	2	98	101.8	0	0	76	21	1	1	0	99	100.8
16:45 - 17:00	0	0	17	4	0	0	0	21	21.0	0	0	85	15	2	0	1	103	105.0	0	0	88	16	1	1	0	106	107.8
Hourly Total	0	0	81	24	2	1	2	110	114.3	0	0	286	61	12	10	4	373	396.0	0	1	278	66	11	11	0	367	386.2
17:00 - 17:15	0	0	25	4	2	0	0	31	32.0	0	0	80	13	2	4	1	100	107.2	0	0	76	16	2	2	0	96	99.6
17:15 - 17:30	0	0	33	3	1	0	0	37	37.5	0	0	94	8	2	0	0	104	105.0	0	0	88	9	2	0	0	99	100.0
17:30 - 17:45	0	0	28	3	1	1	0	33	34.8	0	0	90	15	2	0	1	108	110.0	0	1	87	16	2	0	0	106	106.4
17:45 - 18:00	0	0	26	2	3	0	0	31	32.5	0	0	81	6	2	0	1	90	92.0	0	0	81	6	1	0	0	88	88.5
Hourly Total	0	0	112	12	7	1	0	132	136.8	0	0	345	42	8	4	3	402	414.2	0	1	332	47	7	2	0	389	394.5
18:00 - 18:15	0	0	24	4	1	0	0	29	29.5	0	0	71	2	1	1	0	75	76.8	0	0	55	4	1	1	0	61	62.8
18:15 - 18:30	0	0	14	3	0	0	0	17	17.0	0	1	55	6	1	0	2	65	66.9	0	0	45	8	1	0	0	54	54.5
18:30 - 18:45	0	0	24	2	0	0	1	27	28.0	0	0	47	7	0	0	1	55	56.0	0	0	37	6	0	0	0	43	43.0
18:45 - 19:00	0	0	14	3	0	1	0	18	19.3	0	1	30	2	0	0	0	33	32.4	0	1	24	4	0	0	0	29	28.4
Hourly Total	0	0	76	12	1	1	1	91	93.8	0	2	203	17	2	1	3	228	232.1	0	1	161	22	2	1	0	187	188.7

TOTAL	0	0	269	48	10	3	3	333	344.9	0	2	834	120	22	15	10	1003	1042.3	0	3	771	135	20	14	0	943	969.4
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PCU Factors:

CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 South

	Left to Wilders Way										Ahead to A453 (N)										Right to A6 Kegworth Bypass										U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	36	1	3	5	2	47	57.0	0	0	102	22	5	8	0	137	149.9	0	0	13	2	1	1	0	17	18.8	0	0	0	0	0	0	0	0	0	0.0			
07:15 - 07:30	0	0	102	3	3	11	1	120	136.8	0	0	143	24	4	15	0	186	207.5	0	0	17	11	1	1	1	31	33.8	0	0	2	0	0	0	0	2	2.0				
07:30 - 07:45	0	0	66	2	1	7	3	79	91.6	0	2	162	35	5	19	1	224	251.0	0	0	21	6	1	1	0	29	30.8	0	0	2	0	0	0	0	2	2.0				
07:45 - 08:00	0	0	57	2	1	9	1	70	83.2	0	0	184	43	8	20	0	255	285.0	0	0	26	10	1	0	1	38	39.5	0	0	0	0	0	0	0	0	0.0				
Hourly Total	0	0	261	8	8	32	7	316	368.6	0	2	591	124	22	62	1	802	893.4	0	0	77	29	4	3	2	115	122.9	0	0	4	0	0	0	0	4	4.0				
08:00 - 08:15	0	0	25	4	1	4	1	35	41.7	0	0	215	40	9	2	1	267	275.1	0	0	24	5	3	0	0	32	33.5	0	0	0	0	0	0	0	0	0.0				
08:15 - 08:30	0	0	15	2	3	12	3	35	55.1	0	0	191	49	9	18	1	268	296.9	0	0	17	11	0	0	0	28	28.0	0	0	2	0	0	0	0	2	2.0				
08:30 - 08:45	0	0	16	2	1	11	1	31	46.8	0	1	143	30	8	31	0	213	256.7	0	0	17	10	4	2	1	34	39.6	0	0	0	0	0	0	0	0	0.0				
08:45 - 09:00	0	0	27	6	1	9	2	45	59.2	0	0	92	24	6	19	0	141	168.7	0	0	23	2	0	0	0	25	25.0	0	0	1	0	0	0	0	1	1.0				
Hourly Total	0	0	83	14	6	36	7	146	202.8	0	1	641	143	32	70	2	889	997.4	0	0	81	28	7	2	1	119	126.1	0	0	3	0	0	0	0	3	3.0				
09:00 - 09:15	0	0	18	3	3	5	2	31	41.0	0	0	86	28	5	25	0	144	179.0	0	0	18	7	1	1	0	27	28.8	0	0	2	0	0	0	0	2	2.0				
09:15 - 09:30	0	0	20	6	1	7	1	35	45.6	0	0	88	22	11	19	0	140	170.2	0	0	26	6	0	2	0	34	36.6	0	0	1	0	0	0	0	1	1.0				
09:30 - 09:45	0	0	28	12	1	2	3	46	52.1	0	0	81	19	4	21	0	125	154.3	0	0	22	2	3	1	0	28	30.8	0	0	0	0	0	0	0	0	0.0				
09:45 - 10:00	0	0	21	12	2	7	2	44	56.1	0	0	76	17	14	11	0	118	139.3	0	0	7	6	0	1	0	14	15.3	0	0	1	0	0	0	0	1	1.0				
Hourly Total	0	0	87	33	7	21	8	156	194.8	0	0	331	86	34	76	0	527	642.8	0	0	73	21	4	5	0	103	111.5	0	0	4	0	0	0	0	4	4.0				

TOTAL	0	0	431	55	21	89	22	618	766.2	0	3	1563	353	88	208	3	2218	2533.6	0	0	231	78	15	10	3	337	360.5	0	0	11	0	0	0	0	11	11.0
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16:00 - 16:15	0	0	3	2	1	6	4	16	28.3		0	0	205	50	10	20	0	285	316.0		0	0	26	8	0	0	0	34	34.0		0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	4	3	0	3	1	11	15.9		0	0	153	37	4	15	0	209	230.5		0	0	31	2	2	1	0	36	38.3		0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	1	8	0	2	5	1	17	24.9		0	1	198	39	10	15	0	263	286.9		0	0	28	6	2	0	1	37	39.0		0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	1	5	2	14	23.0		0	1	203	38	9	21	0	272	303.2		0	0	35	5	1	1	0	42	43.8		0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	21	5	4	19	8	58	92.1		0	2	759	164	33	71	0	1029	1136.6		0	0	120	21	5	2	1	149	155.1		0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	8	0	1	9	2	20	34.2		0	1	243	30	10	23	0	307	341.3		0	0	29	7	1	0	0	37	37.5		0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	13	0	3	3	3	22	30.4		0	0	206	19	5	17	1	248	273.6		0	0	46	7	1	0	0	54	54.5		0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	0	4	6	1	21	31.8		0	0	211	27	8	11	0	257	275.3		0	0	53	2	0	0	0	55	55.0		0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	18	1	1	5	2	27	36.0		0	0	179	23	2	10	0	214	228.0		0	1	36	1	1	2	0	41	43.5		0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	49	1	9	23	8	90	132.4		0	1	839	99	25	61	1	1026	1118.2		0	1	164	17	3	2	0	187	190.5		0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	34	1	1	2	3	41	47.1		0	1	156	23	3	14	1	198	218.1		0	0	30	5	0	1	1	37	39.3		0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	1	51	0	0	2	0	54	56.0		0	0	154	9	6	8	0	177	190.4		0	0	24	3	1	0	0	28	28.5		0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	28	0	0	3	1	32	36.9		0	0	91	6	6	13	0	116	135.9		0	0	23	7	1	0	0	31	31.5		0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	24	0	0	8	1	33	44.4		0	0	98	10	4	7	0	119	130.1		0	1	27	2	0	1	0	31	31.7		0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	137	1	1	15	5	160	184.4		0	1	499	48	19	42	1	610	674.5		0	1	104	17	2	2	1	127	131.0		0	0	0	0	0	0	0	0	0.0

TOTAL	0	2	207	7	14	57	21	308	408.9	0	4	2097	311	77	174	2	2665	2929.3	0	2	388	55	10	6	2	463	476.6	0	0	0	0	0	0	0	0	0	0.0
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PCU/Factor	
PCU/F	0.5
NET/PCU	0.4
LCR	1.0
CRP	1.0
ORR	1.0
ORR	1.0
RR	1.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: Wilders Way

TIME	Left to A453 (N)									Ahead to A6 Kegworth Bypass									Right to A453 (S)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	30	0	2	5	0	37	44.5	0	0	2	0	0	0	0	2	2.0	0	1	12	1	0	7	0	21	29.5
07:15 - 07:30	0	0	8	1	1	5	0	15	22.0	0	0	2	1	1	1	0	5	6.8	0	0	4	1	0	9	0	14	25.7
07:30 - 07:45	0	0	18	1	1	9	0	29	41.2	0	0	2	0	0	2	0	4	6.6	0	0	9	0	3	5	0	17	25.0
07:45 - 08:00	0	0	22	2	0	5	0	29	35.5	0	0	0	0	0	0	0	0	0.0	0	0	13	1	2	6	0	22	30.8
Hourly Total	0	0	78	4	4	24	0	110	143.2	0	0	6	1	1	3	0	11	15.4	0	1	38	3	5	27	0	74	111.0
08:00 - 08:15	0	0	23	3	1	5	0	32	39.0	0	0	0	0	0	0	0	0	0.0	0	0	11	3	0	5	0	19	25.5
08:15 - 08:30	0	0	11	1	2	3	0	17	21.9	0	0	2	1	0	0	0	3	3.0	0	0	13	1	1	7	0	22	31.6
08:30 - 08:45	0	0	8	3	3	6	0	20	29.3	0	0	1	1	0	0	0	2	2.0	0	0	7	1	1	6	0	15	23.3
08:45 - 09:00	0	0	5	2	0	10	0	17	30.0	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	6	0	10	17.8
Hourly Total	0	0	47	9	6	24	0	86	120.2	0	0	4	2	0	0	0	6	6.0	0	0	33	7	2	24	0	66	98.2
09:00 - 09:15	0	0	3	2	0	8	0	13	23.4	0	0	3	0	0	1	0	4	5.3	0	0	2	1	1	6	1	11	20.3
09:15 - 09:30	0	0	7	1	2	6	0	16	24.8	0	0	0	0	0	0	0	0	0.0	0	0	2	2	1	8	0	13	23.9
09:30 - 09:45	0	0	12	2	0	8	0	22	32.4	0	0	0	1	1	1	0	3	4.8	0	0	3	2	0	9	0	14	25.7
09:45 - 10:00	0	0	31	48	2	6	1	88	97.8	0	0	6	1	1	0	0	8	8.5	0	0	6	6	1	7	2	22	33.6
Hourly Total	0	0	53	53	4	28	1	139	178.4	0	0	9	2	2	2	0	15	18.6	0	0	13	11	3	30	3	60	103.5

TOTAL	0	0	178	66	14	76	1	335	441.8	0	0	19	5	3	5	0	32	40.0	0	1	84	21	10	81	3	200	312.7
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16:00 - 16:15	0	1	76	9	1	5	0	92	98.4	0	0	8	0	2	0	0	10	11.0	0	0	27	2	3	5	0	37	45.0
16:15 - 16:30	0	1	54	2	2	2	0	61	64.0	0	0	2	1	0	1	0	4	5.3	0	0	21	2	3	3	0	29	34.4
16:30 - 16:45	0	0	65	6	1	1	0	73	74.8	0	0	9	0	0	0	0	9	9.0	0	0	14	5	0	6	0	25	32.8
16:45 - 17:00	0	0	47	3	4	2	0	56	60.6	0	1	1	3	0	0	0	5	4.4	0	0	19	2	1	5	0	27	34.0
Hourly Total	0	2	242	20	8	10	0	282	297.8	0	1	20	4	2	1	0	28	29.7	0	0	81	11	7	19	0	118	146.2
17:00 - 17:15	0	0	40	7	1	5	0	53	60.0	0	0	2	0	0	0	0	2	2.0	0	0	25	2	3	10	1	41	56.5
17:15 - 17:30	0	0	42	8	0	4	0	54	59.2	0	0	4	1	0	1	0	6	7.3	0	1	26	2	2	5	0	36	42.9
17:30 - 17:45	0	0	58	4	0	7	0	69	78.1	0	1	2	1	0	0	0	4	3.4	0	0	21	2	3	7	0	33	43.6
17:45 - 18:00	0	0	33	4	4	4	0	45	52.2	0	0	6	0	1	0	0	7	7.5	0	1	16	4	3	6	0	30	38.7
Hourly Total	0	0	173	23	5	20	0	221	249.5	0	1	14	2	1	1	0	19	20.2	0	2	88	10	11	28	1	140	181.7
18:00 - 18:15	0	0	203	9	1	2	0	215	218.1	0	0	24	1	0	0	0	25	25.0	0	0	74	1	4	6	1	86	96.8
18:15 - 18:30	0	1	59	2	2	2	0	66	69.0	0	0	10	0	0	0	0	10	10.0	0	0	31	2	1	7	0	41	50.6
18:30 - 18:45	0	2	170	3	2	2	0	179	181.4	0	0	24	2	1	0	0	27	27.5	0	0	63	1	1	4	0	69	74.7
18:45 - 19:00	0	0	49	4	1	0	0	54	54.5	0	0	9	1	0	0	0	10	10.0	0	0	13	3	1	1	0	18	19.8
Hourly Total	0	3	481	18	6	6	0	514	523.0	0	0	67	4	1	0	0	72	72.5	0	0	181	7	7	18	1	214	241.9

TOTAL	0	5	896	61	19	36	0	1017	1070.3	0	2	101	10	4	2	0	119	122.4	0	2	350	28	25	65	2	472	569.8
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

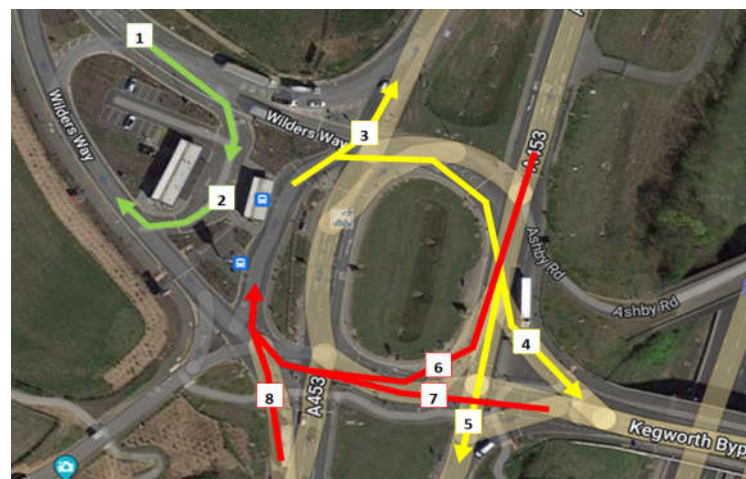
East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Bus Moves

TIME	Bus Moves							
	Move 1	Move 2	Move 3	Move 4	Move 5	Move 6	Move 7	Move 8
07:00 - 07:15	1	1	0	1	1	0	0	2
07:15 - 07:30	2	3	1	0	3	1	2	1
07:30 - 07:45	1	2	1	1	2	0	2	2
07:45 - 08:00	2	2	0	2	2	1	1	2
Hourly Total	6	8	2	4	8	2	5	7
08:00 - 08:15	1	1	1	0	1	0	1	1
08:15 - 08:30	2	1	0	1	1	0	0	2
08:30 - 08:45	1	3	0	1	3	1	1	1
08:45 - 09:00	2	0	1	1	0	1	0	2
Hourly Total	6	5	2	3	5	2	2	6
09:00 - 09:15	1	2	1	1	2	0	2	2
09:15 - 09:30	2	1	0	1	1	0	1	1
09:30 - 09:45	1	2	0	1	2	1	0	3
09:45 - 10:00	2	1	1	1	1	0	0	2
Hourly Total	6	6	2	4	6	1	3	8

TOTAL	18	19	6	11	19	5	10	21
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16:00 - 16:15	1	2	1	2	2	0	0	3
16:15 - 16:30	2	2	0	1	2	1	1	1
16:30 - 16:45	1	2	1	0	2	0	2	1
16:45 - 17:00	2	1	0	1	1	1	1	2
Hourly Total	6	7	2	4	7	2	4	7
17:00 - 17:15	1	1	1	1	1	0	1	2
17:15 - 17:30	2	3	1	1	3	1	0	3
17:30 - 17:45	1	1	1	0	1	0	1	1
17:45 - 18:00	2	0	0	1	0	0	1	1
Hourly Total	6	5	3	3	5	1	3	7
18:00 - 18:15	1	1	0	2	1	0	0	3
18:15 - 18:30	2	3	0	1	3	1	2	1
18:30 - 18:45	1	2	0	1	2	0	1	2
18:45 - 19:00	2	1	1	0	1	1	0	1
Hourly Total	6	7	1	4	7	2	3	7

TOTAL	18	19	6	11	19	5	10	21
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APPENDIX 4 – M1 Junction 24 Turning Count Results

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A50

	To Hilton Hotel Lane									To M1 J24 (N)									To A453 (N)									To Derby Road									To M1 J24 (S)									To A453 (S)								
TIME	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs						
07:00 - 07:15	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
07:45 - 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
08:00 - 08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
08:15 - 08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
08:30 - 08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
08:45 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
09:00 - 09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0					

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: Hilton Hotel Lane

TIME	To M1 J24 (N)								To A453 (N)								To Derby Road								To M1 J24 (S)								To A453 (S)								To A50							
	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	2	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0
07:15 - 07:30	0	0	1	0	0	0	1	1.0	0	0	1	1	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	2	2.0	0	0	3	0	0	0	3	3.0	0	0	1	1	0	0	2	2.0
07:30 - 07:45	0	0	1	0	0	0	1	1.0	0	0	15	0	0	0	15	15.0	0	0	1	0	0	0	1	1.0	0	0	5	0	0	0	5	5.0	0	0	5	0	0	0	5	5.0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	2	0	0	0	2	2.0	0	0	10	3	0	0	13	13.0	0	0	2	1	0	0	3	3.0	0	0	4	0	0	0	4	4.0	0	0	2	1	0	0	3	3.0	0	0	1	1	0	0	2	2.0
Hourly Total	0	0	4	2	0	0	6	6.0	0	0	27	4	0	0	31	31.0	0	0	4	1	0	0	5	5.0	0	0	12	0	0	0	12	12.0	0	0	11	1	0	0	12	12.0	0	0	3	2	0	0	5	5.0
08:00 - 08:15	0	0	1	0	0	0	1	1.0	0	0	20	1	0	0	21	21.0	0	0	3	1	0	0	4	4.0	0	0	7	1	0	0	8	8.0	0	0	2	1	0	0	3	3.0	0	0	2	1	0	0	3	3.0
08:15 - 08:30	0	0	1	0	0	0	1	1.0	0	1	10	3	0	0	14	13.4	0	0	1	0	0	0	1	1.0	0	0	5	1	0	0	6	6.0	0	0	6	0	0	0	6	6.0	0	0	2	2	0	0	4	4.0
08:30 - 08:45	0	0	1	0	0	0	1	1.0	0	0	9	0	0	0	9	9.0	0	0	1	0	0	0	1	1.0	0	0	3	0	0	0	3	3.0	0	0	3	0	0	0	3	3.0	0	0	2	5	0	0	7	7.0
08:45 - 09:00	0	0	2	2	0	0	4	4.0	0	0	1	1	0	0	2	2.0	0	1	2	0	0	0	3	2.4	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0	0	0	1	1	0	0	2	2.0
Hourly Total	0	0	5	2	0	0	7	7.0	0	1	40	5	0	0	46	45.4	0	1	7	1	0	0	9	8.4	0	0	16	2	0	0	18	18.0	0	0	13	1	0	0	14	14.0	0	0	7	9	0	0	16	16.0
09:00 - 09:15	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0
09:15 - 09:30	0	0	0	0	0	0	0	0.0	0	0	1	1	1	0	3	3.5	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	1	1.0
09:30 - 09:45	0	0	2	0	0	0	2	2.0	0	0	1	1	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	3	3.0	0	0	1	0	0	0	1	1.0
09:45 - 10:00	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	3	0	0	0	3	3.0	0	0	5	2	1	0	8	8.5	0	0	2	0	0	0	2	2.0	0	0	4	0	0	0	4	4.0	0	0	6	0	0	0	6	6.0	0	0	5	0	0	0	5	5.0
TOTAL	0	0	12	4	0	0	16	16.0	0	1	72	11	1	0	85	84.9	0	1	13	2	0	0	16	15.4	0	0	32	2	0	0	34	34.0	0	0	30	2	0	0	32	32.0	0	0	15	11	0	0	26	26.0

16:00 - 16:15	0	0	8	1	0	0	9	9.0	0	0	5	0	0	0	5	5.0	0	0	4	0	0	0	4	4.0	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0	0	0	1	1	0	0	2	2.0
16:15 - 16:30	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0
16:30 - 16:45	0	0	6	0	0	0	6	6.0	0	0	12	0	0	0	12	12.0	0	0	2	0	0	0	2	2.0	0	0	4	0	0	0	4	4.0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	5	1	0	0	6	6.0	0	0	9	0	0	0	9	9.0	0	0	4	0	0	0	4	4.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0
Hourly Total	0	0	21	2	0	0	23	23.0	0	0	28	0	0	0	28	28.0	0	0	12	0	0	0	12	12.0	0	0	9	0	0	0	9	9.0	0	0	7	0	0	0	7	7.0	0	0	5	1	0	0	6	6.0
17:00 - 17:15	0	0	7	0	0	0	7	7.0	0	0	9	0	0	0	9	9.0	0	0	3	0	0	0	3	3.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0
17:15 - 17:30	0	0	4	1	0	0	5	5.0	0	0	6	1	0	0	7	7.0	0	0	1	0	0	0	1	1.0	0	0	3	0	0	0	3	3.0	0	0	2	0	0	0	2	2.0	0	0	2	1	0	0	3	3.0
17:30 - 17:45	0	0	3	0	0	0	3	3.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	2	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	5	5.0
17:45 - 18:00	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	2	2.0	0	0	4	0	0	0	4	4.0	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	14	1	0	0	15	15.0	0	0	19	1	0	0	20	20.0	0	0	10	0	0	0	10	10.0	0	0	8	0	0	0	8	8.0	0	0	4	0	0	0	4	4.0	0	0	10	1	0	0	11	11.0
18:00 - 18:15	0	0	3	0	0	0	3	3.0	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	3	0	0	0	3	3.0	0	0	2	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	3	3.0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	1	1	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	9	1	0	0	10	10.0	0	0	5	0	0	0	5	5.0	0	0	2	0	0	0	2	2.0	0	0	6	0	0	0	6	6.0	0	0	5	0	0	0	5	5.0	0	0	1	0	0	0	1	1.0
TOTAL	0	0	44	4	0	0	48	48.0	0	0	52	1	0	0	53	53.0	0	0	24	0	0	0	24	24.0	0	0	23	0	0	0	23	23.0	0	0	16	0	0	0	16	16.0	0	0	16	2	0	0	18	18.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 5 – A453/Grimes Gate Priority Junction Turning Count Results

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: A453 East

TIME	To Grimes Gate				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	4	0	4	4.0	50	7	57	66.1
07:15 - 07:30	2	1	3	4.3	55	8	63	73.4
07:30 - 07:45	5	0	5	5.0	53	5	58	64.5
07:45 - 08:00	6	0	6	6.0	63	11	74	88.3
Hourly Total	17	1	18	19.3	221	31	252	292.3
08:00 - 08:15	4	0	4	4.0	61	9	70	81.7
08:15 - 08:30	5	0	5	5.0	57	6	63	70.8
08:30 - 08:45	7	1	8	9.3	92	11	103	117.3
08:45 - 09:00	3	1	4	5.3	75	6	81	88.8
Hourly Total	19	2	21	23.6	285	32	317	358.6
09:00 - 09:15	7	0	7	7.0	46	7	53	62.1
09:15 - 09:30	6	0	6	6.0	53	6	59	66.8
09:30 - 09:45	7	1	8	9.3	31	5	36	42.5
09:45 - 10:00	2	1	3	4.3	41	9	50	61.7
Hourly Total	22	2	24	26.6	171	27	198	233.1

TOTAL	58	5	63	69.5	677	90	767	884.0
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16:00 - 16:15	21	0	21	21.0	86	9	95	106.7
16:15 - 16:30	12	0	12	12.0	63	7	70	79.1
16:30 - 16:45	9	0	9	9.0	75	4	79	84.2
16:45 - 17:00	9	2	11	13.6	78	7	85	94.1
Hourly Total	51	2	53	55.6	302	27	329	364.1
17:00 - 17:15	15	2	17	19.6	80	6	86	93.8
17:15 - 17:30	20	0	20	20.0	90	6	96	103.8
17:30 - 17:45	20	0	20	20.0	98	6	104	111.8
17:45 - 18:00	15	0	15	15.0	92	6	98	105.8
Hourly Total	70	2	72	74.6	360	24	384	415.2
18:00 - 18:15	8	1	9	10.3	78	2	80	82.6
18:15 - 18:30	16	0	16	16.0	79	4	83	88.2
18:30 - 18:45	7	1	8	9.3	99	5	104	110.5
18:45 - 19:00	11	0	11	11.0	77	3	80	83.9
Hourly Total	42	2	44	46.6	333	14	347	365.2

TOTAL	163	6	169	176.8	995	65	1060	1144.5
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: Grimes Gate

TIME	To A453 (W)				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	0	0	0	0.0	12	0	12	12.0
07:15 - 07:30	0	0	0	0.0	15	1	16	17.3
07:30 - 07:45	1	0	1	1.0	15	0	15	15.0
07:45 - 08:00	4	0	4	4.0	21	1	22	23.3
Hourly Total	5	0	5	5.0	63	2	65	67.6
08:00 - 08:15	0	0	0	0.0	9	0	9	9.0
08:15 - 08:30	1	0	1	1.0	17	0	17	17.0
08:30 - 08:45	2	0	2	2.0	15	1	16	17.3
08:45 - 09:00	7	0	7	7.0	14	0	14	14.0
Hourly Total	10	0	10	10.0	55	1	56	57.3
09:00 - 09:15	1	0	1	1.0	5	0	5	5.0
09:15 - 09:30	3	0	3	3.0	11	0	11	11.0
09:30 - 09:45	1	0	1	1.0	8	1	9	10.3
09:45 - 10:00	1	1	2	3.3	5	2	7	9.6
Hourly Total	6	1	7	8.3	29	3	32	35.9

TOTAL	21	1	22	23.3	147	6	153	160.8
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16:00 - 16:15	1	0	1	1.0	5	0	5	5.0
16:15 - 16:30	3	0	3	3.0	4	0	4	4.0
16:30 - 16:45	0	0	0	0.0	3	0	3	3.0
16:45 - 17:00	1	0	1	1.0	9	1	10	11.3
Hourly Total	5	0	5	5.0	21	1	22	23.3
17:00 - 17:15	2	0	2	2.0	7	0	7	7.0
17:15 - 17:30	3	0	3	3.0	4	0	4	4.0
17:30 - 17:45	3	0	3	3.0	11	0	11	11.0
17:45 - 18:00	1	0	1	1.0	6	0	6	6.0
Hourly Total	9	0	9	9.0	28	0	28	28.0
18:00 - 18:15	1	0	1	1.0	10	1	11	12.3
18:15 - 18:30	3	0	3	3.0	6	0	6	6.0
18:30 - 18:45	1	0	1	1.0	7	0	7	7.0
18:45 - 19:00	2	0	2	2.0	4	0	4	4.0
Hourly Total	7	0	7	7.0	27	1	28	29.3

TOTAL	21	0	21	21.0	76	2	78	80.6
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 3
 Approach: A453 West

TIME	To A453 (E)				To Grimes Gate			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	67	12	79	94.6	1	0	1	1.0
07:15 - 07:30	99	16	115	135.8	0	0	0	0.0
07:30 - 07:45	121	13	134	150.9	2	0	2	2.0
07:45 - 08:00	132	8	140	150.4	1	0	1	1.0
Hourly Total	419	49	468	531.7	4	0	4	4.0
08:00 - 08:15	116	9	125	136.7	3	0	3	3.0
08:15 - 08:30	98	10	108	121.0	1	0	1	1.0
08:30 - 08:45	80	16	96	116.8	7	0	7	7.0
08:45 - 09:00	74	9	83	94.7	2	0	2	2.0
Hourly Total	368	44	412	469.2	13	0	13	13.0
09:00 - 09:15	61	8	69	79.4	0	0	0	0.0
09:15 - 09:30	42	13	55	71.9	0	0	0	0.0
09:30 - 09:45	38	15	53	72.5	2	0	2	2.0
09:45 - 10:00	42	8	50	60.4	1	0	1	1.0
Hourly Total	183	44	227	284.2	3	0	3	3.0

TOTAL	970	137	1107	1285.1	20	0	20	20.0
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16:00 - 16:15	69	8	77	87.4	3	0	3	3.0
16:15 - 16:30	60	5	65	71.5	3	0	3	3.0
16:30 - 16:45	93	2	95	97.6	3	0	3	3.0
16:45 - 17:00	45	2	47	49.6	3	0	3	3.0
Hourly Total	267	17	284	306.1	12	0	12	12.0
17:00 - 17:15	76	2	78	80.6	5	0	5	5.0
17:15 - 17:30	52	7	59	68.1	1	0	1	1.0
17:30 - 17:45	97	4	101	106.2	3	0	3	3.0
17:45 - 18:00	63	2	65	67.6	3	0	3	3.0
Hourly Total	288	15	303	322.5	12	0	12	12.0
18:00 - 18:15	51	3	54	57.9	1	0	1	1.0
18:15 - 18:30	40	2	42	44.6	2	0	2	2.0
18:30 - 18:45	32	5	37	43.5	1	0	1	1.0
18:45 - 19:00	32	2	34	36.6	3	0	3	3.0
Hourly Total	155	12	167	182.6	7	0	7	7.0

TOTAL	710	44	754	811.2	31	0	31	31.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 6 – A453/The Green Priority Junction Turning Count Results

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: A453 East

TIME	To The Green				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	3	0	3	3.0	47	7	54	63.1
07:15 - 07:30	1	0	1	1.0	54	8	62	72.4
07:30 - 07:45	0	0	0	0.0	54	5	59	65.5
07:45 - 08:00	0	1	1	2.3	67	10	77	90.0
Hourly Total	4	1	5	6.3	222	30	252	291.0
08:00 - 08:15	2	0	2	2.0	59	9	68	79.7
08:15 - 08:30	8	0	8	8.0	50	6	56	63.8
08:30 - 08:45	11	0	11	11.0	83	11	94	108.3
08:45 - 09:00	4	0	4	4.0	78	6	84	91.8
Hourly Total	25	0	25	25.0	270	32	302	343.6
09:00 - 09:15	2	0	2	2.0	45	7	52	61.1
09:15 - 09:30	4	0	4	4.0	52	6	58	65.8
09:30 - 09:45	0	0	0	0.0	32	5	37	43.5
09:45 - 10:00	3	0	3	3.0	39	10	49	62.0
Hourly Total	9	0	9	9.0	168	28	196	232.4

TOTAL	38	1	39	40.3	660	90	750	867.0
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16:00 - 16:15	7	0	7	7.0	80	9	89	100.7
16:15 - 16:30	0	1	1	2.3	66	6	72	79.8
16:30 - 16:45	3	0	3	3.0	72	4	76	81.2
16:45 - 17:00	5	0	5	5.0	74	7	81	90.1
Hourly Total	15	1	16	17.3	292	26	318	351.8
17:00 - 17:15	2	0	2	2.0	80	6	86	93.8
17:15 - 17:30	4	0	4	4.0	89	6	95	102.8
17:30 - 17:45	3	0	3	3.0	98	6	104	111.8
17:45 - 18:00	3	0	3	3.0	90	6	96	103.8
Hourly Total	12	0	12	12.0	357	24	381	412.2
18:00 - 18:15	3	0	3	3.0	76	2	78	80.6
18:15 - 18:30	0	0	0	0.0	82	4	86	91.2
18:30 - 18:45	1	0	1	1.0	99	5	104	110.5
18:45 - 19:00	3	0	3	3.0	76	3	79	82.9
Hourly Total	7	0	7	7.0	333	14	347	365.2

TOTAL	34	1	35	36.3	982	64	1046	1129.2
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: The Green

TIME	To A453 (W)				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	6	1	7	8.3	2	0	2	2.0
07:15 - 07:30	10	0	10	10.0	3	0	3	3.0
07:30 - 07:45	17	0	17	17.0	6	0	6	6.0
07:45 - 08:00	18	0	18	18.0	2	1	3	4.3
Hourly Total	51	1	52	53.3	13	1	14	15.3
08:00 - 08:15	16	0	16	16.0	3	0	3	3.0
08:15 - 08:30	34	0	34	34.0	5	0	5	5.0
08:30 - 08:45	23	2	25	27.6	2	0	2	2.0
08:45 - 09:00	22	0	22	22.0	3	0	3	3.0
Hourly Total	95	2	97	99.6	13	0	13	13.0
09:00 - 09:15	10	1	11	12.3	1	0	1	1.0
09:15 - 09:30	9	0	9	9.0	2	0	2	2.0
09:30 - 09:45	6	0	6	6.0	1	0	1	1.0
09:45 - 10:00	11	2	13	15.6	2	0	2	2.0
Hourly Total	36	3	39	42.9	6	0	6	6.0

TOTAL	182	6	188	195.8	32	1	33	34.3
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16:00 - 16:15	20	0	20	20.0	2	0	2	2.0
16:15 - 16:30	16	0	16	16.0	2	0	2	2.0
16:30 - 16:45	16	0	16	16.0	4	0	4	4.0
16:45 - 17:00	19	1	20	21.3	1	0	1	1.0
Hourly Total	71	1	72	73.3	9	0	9	9.0
17:00 - 17:15	11	0	11	11.0	5	0	5	5.0
17:15 - 17:30	14	0	14	14.0	2	0	2	2.0
17:30 - 17:45	15	0	15	15.0	3	0	3	3.0
17:45 - 18:00	18	0	18	18.0	4	0	4	4.0
Hourly Total	58	0	58	58.0	14	0	14	14.0
18:00 - 18:15	13	1	14	15.3	2	0	2	2.0
18:15 - 18:30	8	0	8	8.0	2	0	2	2.0
18:30 - 18:45	10	0	10	10.0	1	0	1	1.0
18:45 - 19:00	9	0	9	9.0	2	0	2	2.0
Hourly Total	40	1	41	42.3	7	0	7	7.0

TOTAL	169	2	171	173.6	30	0	30	30.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway

Wednesday 23rd November 2022

Junction: 2

Approach: A453 West

	To A453 (E)				To The Green			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	66	12	78	93.6	10	1	11	12.3
07:15 - 07:30	96	16	112	132.8	27	0	27	27.0
07:30 - 07:45	117	13	130	146.9	17	0	17	17.0
07:45 - 08:00	131	7	138	147.1	16	1	17	18.3
Hourly Total	410	48	458	520.4	70	2	72	74.6
08:00 - 08:15	116	9	125	136.7	14	1	15	16.3
08:15 - 08:30	94	10	104	117.0	22	0	22	22.0
08:30 - 08:45	85	16	101	121.8	12	0	12	12.0
08:45 - 09:00	73	9	82	93.7	18	1	19	20.3
Hourly Total	368	44	412	469.2	66	2	68	70.6
09:00 - 09:15	60	8	68	78.4	7	0	7	7.0
09:15 - 09:30	40	13	53	69.9	6	0	6	6.0
09:30 - 09:45	39	15	54	73.5	6	0	6	6.0
09:45 - 10:00	41	8	49	59.4	4	1	5	6.3
Hourly Total	180	44	224	281.2	23	1	24	25.3

TOTAL	958	136	1094	1270.8	159	5	164	170.5
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16:00 - 16:15	70	8	78	88.4	33	0	33	33.0
16:15 - 16:30	61	5	66	72.5	15	0	15	15.0
16:30 - 16:45	92	2	94	96.6	30	0	30	30.0
16:45 - 17:00	47	2	49	51.6	28	0	28	28.0
Hourly Total	270	17	287	309.1	106	0	106	106.0
17:00 - 17:15	76	2	78	80.6	28	0	28	28.0
17:15 - 17:30	51	7	58	67.1	22	0	22	22.0
17:30 - 17:45	97	4	101	106.2	37	0	37	37.0
17:45 - 18:00	62	2	64	66.6	17	0	17	17.0
Hourly Total	286	15	301	320.5	104	0	104	104.0
18:00 - 18:15	50	3	53	56.9	14	0	14	14.0
18:15 - 18:30	40	2	42	44.6	9	0	9	9.0
18:30 - 18:45	32	5	37	43.5	5	0	5	5.0
18:45 - 19:00	33	2	35	37.6	8	0	8	8.0
Hourly Total	155	12	167	182.6	36	0	36	36.0

TOTAL	711	44	755	812.2	246	0	246	246.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 7 – A453/East Midlands Airport Signal Junction Turning Count Results

East Midlands Gateway

Thursday 3rd November 2022

Junction: 2

Approach: East Midlands Airport Access

	Left to A453 (E)									Right to A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	33	0	0	0	0	33	33.0	0	0	9	5	0	0	0	14	14.0
07:15 - 07:30	0	0	34	4	1	0	0	39	39.5	0	0	7	1	1	0	1	10	11.5
07:30 - 07:45	0	0	19	0	0	0	0	19	19.0	0	0	6	3	0	0	0	9	9.0
07:45 - 08:00	0	0	17	3	1	1	0	22	23.8	0	0	6	4	0	0	0	10	10.0
Hourly Total	0	0	103	7	2	1	0	113	115.3	0	0	28	13	1	0	1	43	44.5
08:00 - 08:15	0	0	23	4	1	0	0	28	28.5	0	0	10	1	0	0	0	11	11.0
08:15 - 08:30	0	0	35	3	1	1	0	40	41.8	0	0	3	2	0	1	1	7	9.3
08:30 - 08:45	0	0	23	1	0	0	1	25	26.0	0	0	4	1	1	0	0	6	6.5
08:45 - 09:00	0	0	14	2	0	1	1	18	20.3	0	0	2	0	0	1	0	3	4.3
Hourly Total	0	0	95	10	2	2	2	111	116.6	0	0	19	4	1	2	1	27	31.1
09:00 - 09:15	0	0	9	0	1	0	0	10	10.5	0	0	5	0	0	0	0	5	5.0
09:15 - 09:30	0	0	5	0	1	0	0	6	6.5	0	0	3	2	0	0	1	6	7.0
09:30 - 09:45	0	0	7	2	1	0	0	10	10.5	0	0	2	0	1	1	0	4	5.8
09:45 - 10:00	0	0	8	3	0	0	0	11	11.0	0	0	1	2	0	1	0	4	5.3
Hourly Total	0	0	29	5	3	0	0	37	38.5	0	0	11	4	1	2	1	19	23.1

TOTAL	0	0	227	22	7	3	2	261	270.4	0	0	58	21	3	4	3	89	98.7
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16:00 - 16:15	0	0	66	4	1	0	0	71	71.5	0	0	25	4	1	0	0	30	30.5
16:15 - 16:30	0	0	55	5	0	0	0	60	60.0	0	0	18	6	0	0	0	24	24.0
16:30 - 16:45	0	0	60	5	0	0	0	65	65.0	0	0	26	2	0	0	1	29	30.0
16:45 - 17:00	0	0	69	7	0	0	1	77	78.0	0	0	8	2	0	0	0	10	10.0
Hourly Total	0	0	250	21	1	0	1	273	274.5	0	0	77	14	1	0	1	93	94.5
17:00 - 17:15	0	0	57	3	0	0	1	61	62.0	0	0	18	4	0	0	0	22	22.0
17:15 - 17:30	0	0	27	0	1	0	0	28	28.5	0	0	15	2	0	0	0	17	17.0
17:30 - 17:45	0	0	64	6	0	0	0	70	70.0	0	0	15	0	0	0	0	15	15.0
17:45 - 18:00	0	0	59	4	0	0	0	63	63.0	0	0	10	1	0	0	0	11	11.0
Hourly Total	0	0	207	13	1	0	1	222	223.5	0	0	58	7	0	0	0	65	65.0
18:00 - 18:15	0	0	49	5	0	0	0	54	54.0	0	1	12	2	0	0	1	16	16.4
18:15 - 18:30	0	0	47	6	0	0	0	53	53.0	0	0	6	1	0	0	0	7	7.0
18:30 - 18:45	0	0	44	6	0	0	0	50	50.0	0	0	4	1	0	0	1	6	7.0
18:45 - 19:00	0	0	20	0	0	1	0	21	22.3	0	0	10	2	1	0	0	13	13.5
Hourly Total	0	0	160	17	0	1	0	178	179.3	0	1	32	6	1	0	2	42	43.9

TOTAL	0	0	617	51	2	1	2	673	677.3	0	1	167	27	2	0	3	200	203.4
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
 Thursday 3rd November 2022
 Junction: 2
 Approach: A453 East

TIME	Ahead to A453 (W)									Right to East Midlands Airport Access								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	59	12	6	4	0	81	89.2	0	0	65	6	1	0	0	72	72.5
07:15 - 07:30	0	0	36	16	5	3	0	60	66.4	0	0	65	12	1	0	0	78	78.5
07:30 - 07:45	0	0	78	10	2	7	0	97	107.1	0	0	63	5	0	0	0	68	68.0
07:45 - 08:00	0	0	47	10	5	5	1	68	78.0	0	0	57	6	0	0	0	63	63.0
Hourly Total	0	0	220	48	18	19	1	306	340.7	0	0	250	29	2	0	0	281	282.0
08:00 - 08:15	0	0	56	16	3	5	0	80	88.0	0	0	52	3	0	0	0	55	55.0
08:15 - 08:30	0	0	81	14	2	9	0	106	118.7	0	0	51	2	1	0	0	54	54.5
08:30 - 08:45	0	0	72	18	7	4	0	101	109.7	0	0	55	2	1	2	2	62	67.1
08:45 - 09:00	0	0	67	15	4	4	0	90	97.2	0	0	30	2	0	0	0	32	32.0
Hourly Total	0	0	276	63	16	22	0	377	413.6	0	0	188	9	2	2	2	203	208.6
09:00 - 09:15	0	0	55	8	7	4	1	75	84.7	0	0	22	3	0	0	0	25	25.0
09:15 - 09:30	0	0	37	11	6	3	0	57	63.9	0	0	23	4	1	2	0	30	33.1
09:30 - 09:45	0	1	25	8	4	7	0	45	55.5	0	0	32	1	0	0	0	33	33.0
09:45 - 10:00	0	2	22	10	5	9	1	49	63.0	0	0	21	2	1	1	0	25	26.8
Hourly Total	0	3	139	37	22	23	2	226	267.1	0	0	98	10	2	3	0	113	117.9

TOTAL	0	3	635	148	56	64	3	909	1021.4	0	0	536	48	6	5	2	597	608.5
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16:00 - 16:15	0	0	75	9	2	7	0	93	103.1	0	0	37	5	1	0	0	43	43.5
16:15 - 16:30	0	0	62	10	1	8	0	81	91.9	0	0	27	3	0	0	1	31	32.0
16:30 - 16:45	0	0	74	21	3	4	0	102	108.7	0	0	30	3	0	0	0	33	33.0
16:45 - 17:00	0	0	86	19	2	3	0	110	114.9	0	0	42	8	0	0	2	52	54.0
Hourly Total	0	0	297	59	8	22	0	386	418.6	0	0	136	19	1	0	3	159	162.5
17:00 - 17:15	0	2	102	11	4	2	0	121	124.4	0	0	32	1	0	0	0	33	33.0
17:15 - 17:30	0	0	87	15	5	4	0	111	118.7	0	0	32	1	1	1	0	35	36.8
17:30 - 17:45	0	0	86	12	2	2	0	102	105.6	0	0	21	2	1	0	0	24	24.5
17:45 - 18:00	0	0	73	9	3	1	0	86	88.8	0	0	32	4	1	0	0	37	37.5
Hourly Total	0	2	348	47	14	9	0	420	437.5	0	0	117	8	3	1	0	129	131.8
18:00 - 18:15	0	0	78	8	2	3	0	91	95.9	0	0	21	4	0	0	0	25	25.0
18:15 - 18:30	0	1	68	8	3	2	0	82	85.5	0	0	36	2	0	0	0	38	38.0
18:30 - 18:45	0	2	51	3	2	2	0	60	62.4	0	0	27	4	0	0	0	31	31.0
18:45 - 19:00	0	0	50	2	2	5	0	59	66.5	0	0	19	3	0	0	0	22	22.0
Hourly Total	0	3	247	21	9	12	0	292	310.3	0	0	103	13	0	0	0	116	116.0

TOTAL	0	5	892	127	31	43	0	1098	1166.4	0	0	356	40	4	1	3	404	410.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 2
Approach: A453 West

Left to East Midlands Airport Access										Ahead to A453 (E				
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1
07:00 - 07:15	0	0	18	2	0	0	0	20	20.0	0	0	34	12	3
07:15 - 07:30	0	0	18	1	0	0	1	20	21.0	0	2	74	18	5
07:30 - 07:45	0	0	26	5	0	0	0	31	31.0	0	1	84	17	5
07:45 - 08:00	0	0	31	6	0	1	0	38	39.3	0	0	111	14	4
Hourly Total	0	0	93	14	0	1	1	109	111.3	0	3	303	61	17
08:00 - 08:15	0	0	24	6	0	0	0	30	30.0	0	0	90	22	2
08:15 - 08:30	0	0	28	1	0	0	0	29	29.0	0	0	94	25	5
08:30 - 08:45	0	0	20	1	2	0	1	24	26.0	0	0	50	19	5
08:45 - 09:00	0	0	18	1	0	0	0	19	19.0	0	0	59	8	4
Hourly Total	0	0	90	9	2	0	1	102	104.0	0	0	293	74	16
09:00 - 09:15	0	0	11	0	0	0	0	11	11.0	0	0	50	8	8
09:15 - 09:30	0	0	7	1	0	1	0	9	10.3	0	1	36	11	3
09:30 - 09:45	0	0	4	2	1	0	1	8	9.5	0	0	22	9	5
09:45 - 10:00	0	0	9	3	0	0	0	12	12.0	0	0	35	7	2
Hourly Total	0	0	31	6	1	1	1	40	42.8	0	1	143	35	18
TOTAL	0	0	214	29	3	2	3	251	258.1	0	4	739	170	51
16:00 - 16:15	0	0	6	1	1	0	0	8	8.5	0	0	46	14	4
16:15 - 16:30	0	0	11	3	0	0	0	14	14.0	0	0	45	12	5
16:30 - 16:45	0	0	10	2	1	0	0	13	13.5	0	0	66	12	2
16:45 - 17:00	0	0	8	3	0	0	1	12	13.0	0	0	59	10	0
Hourly Total	0	0	35	9	2	0	1	47	49.0	0	0	216	48	11
17:00 - 17:15	0	0	9	0	0	0	0	9	9.0	0	0	85	8	1
17:15 - 17:30	0	0	6	1	0	0	0	7	7.0	0	0	54	4	0
17:30 - 17:45	0	0	9	0	0	0	1	10	11.0	0	0	76	6	2
17:45 - 18:00	0	0	11	1	0	0	1	13	14.0	0	0	81	3	1
Hourly Total	0	0	35	2	0	0	2	39	41.0	0	0	296	21	4
18:00 - 18:15	0	0	6	0	0	0	0	6	6.0	0	0	50	4	1
18:15 - 18:30	0	0	6	2	0	0	0	8	8.0	0	0	38	2	2
18:30 - 18:45	0	0	6	1	0	0	0	7	7.0	0	1	19	0	0
18:45 - 19:00	0	0	9	2	1	0	0	12	12.5	0	0	40	7	1
Hourly Total	0	0	27	5	1	0	0	33	33.5	0	1	147	13	4
TOTAL	0	0	97	16	3	0	3	119	123.5	0	1	659	82	19

APPENDIX 8 – A453/East Midlands Airport Roundabout Turning Count Results

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: Northern Arm

TIME	To A453 (E)				To A453 (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	21	3	24	27.9	13	4	17	22.2
07:15 - 07:30	10	3	13	16.9	12	1	13	14.3
07:30 - 07:45	8	4	12	17.2	4	6	10	17.8
07:45 - 08:00	11	4	15	20.2	7	5	12	18.5
Hourly Total	50	14	64	82.2	36	16	52	72.8
08:00 - 08:15	13	1	14	15.3	13	2	15	17.6
08:15 - 08:30	10	2	12	14.6	4	3	7	10.9
08:30 - 08:45	5	3	8	11.9	9	4	13	18.2
08:45 - 09:00	5	2	7	9.6	8	4	12	17.2
Hourly Total	33	8	41	51.4	34	13	47	63.9
09:00 - 09:15	5	2	7	9.6	5	4	9	14.2
09:15 - 09:30	1	5	6	12.5	6	1	7	8.3
09:30 - 09:45	5	5	10	16.5	10	2	12	14.6
09:45 - 10:00	5	3	8	11.9	7	2	9	11.6
Hourly Total	16	15	31	50.5	28	9	37	48.7

TOTAL	99	37	136	184.1	98	38	136	185.4
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16:00 - 16:15	22	6	28	35.8	55	2	57	59.6
16:15 - 16:30	5	4	9	14.2	40	2	42	44.6
16:30 - 16:45	50	1	51	52.3	64	3	67	70.9
16:45 - 17:00	29	1	30	31.3	47	3	50	53.9
Hourly Total	106	12	118	133.6	206	10	216	229.0
17:00 - 17:15	31	1	32	33.3	62	1	63	64.3
17:15 - 17:30	18	3	21	24.9	18	3	21	24.9
17:30 - 17:45	67	3	70	73.9	88	2	90	92.6
17:45 - 18:00	28	2	30	32.6	39	1	40	41.3
Hourly Total	144	9	153	164.7	207	7	214	223.1
18:00 - 18:15	16	2	18	20.6	25	1	26	27.3
18:15 - 18:30	9	1	10	11.3	12	2	14	16.6
18:30 - 18:45	10	2	12	14.6	24	5	29	35.5
18:45 - 19:00	9	2	11	13.6	11	2	13	15.6
Hourly Total	44	7	51	60.1	72	10	82	95.0

TOTAL	294	28	322	358.4	485	27	512	547.1
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: A453 East

TIME	To A453 (W)				To Northern Arm			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	32	3	35	38.9	19	5	24	30.5
07:15 - 07:30	31	5	36	42.5	31	3	34	37.9
07:30 - 07:45	43	4	47	52.2	28	1	29	30.3
07:45 - 08:00	47	8	55	65.4	38	2	40	42.6
Hourly Total	153	20	173	199.0	116	11	127	141.3
08:00 - 08:15	48	6	54	61.8	27	3	30	33.9
08:15 - 08:30	67	5	72	78.5	17	1	18	19.3
08:30 - 08:45	62	10	72	85.0	44	3	47	50.9
08:45 - 09:00	67	4	71	76.2	33	2	35	37.6
Hourly Total	244	25	269	301.5	121	9	130	141.7
09:00 - 09:15	44	4	48	53.2	11	4	15	20.2
09:15 - 09:30	42	4	46	51.2	19	2	21	23.6
09:30 - 09:45	27	1	28	29.3	11	4	15	20.2
09:45 - 10:00	39	7	46	55.1	11	5	16	22.5
Hourly Total	152	16	168	188.8	52	15	67	86.5

TOTAL	549	61	610	689.3	289	35	324	369.5
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16:00 - 16:15	94	4	98	103.2	6	5	11	17.5
16:15 - 16:30	69	4	73	78.2	11	2	13	15.6
16:30 - 16:45	74	1	75	76.3	12	3	15	18.9
16:45 - 17:00	75	6	81	88.8	14	2	16	18.6
Hourly Total	312	15	327	346.5	43	12	55	70.6
17:00 - 17:15	77	2	79	81.6	12	4	16	21.2
17:15 - 17:30	92	4	96	101.2	11	2	13	15.6
17:30 - 17:45	85	2	87	89.6	24	4	28	33.2
17:45 - 18:00	88	3	91	94.9	20	3	23	26.9
Hourly Total	342	11	353	367.3	67	13	80	96.9
18:00 - 18:15	65	2	67	69.6	22	1	23	24.3
18:15 - 18:30	46	1	47	48.3	44	3	47	50.9
18:30 - 18:45	58	0	58	58.0	51	5	56	62.5
18:45 - 19:00	40	0	40	40.0	45	3	48	51.9
Hourly Total	209	3	212	215.9	162	12	174	189.6

TOTAL	863	29	892	929.7	272	37	309	357.1
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

East Midlands Gateway
 Wednesday 23rd November 2022
 Junction: 1
 Approach: A453 West

TIME	To Northern Arm				To A453 (E)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	41	3	44	47.9	55	10	65	78.0
07:15 - 07:30	40	4	44	49.2	113	13	126	142.9
07:30 - 07:45	62	5	67	73.5	126	9	135	146.7
07:45 - 08:00	51	3	54	57.9	136	4	140	145.2
Hourly Total	194	15	209	228.5	430	36	466	512.8
08:00 - 08:15	35	2	37	39.6	117	9	126	137.7
08:15 - 08:30	60	6	66	73.8	106	8	114	124.4
08:30 - 08:45	88	5	93	99.5	92	13	105	121.9
08:45 - 09:00	57	2	59	61.6	86	8	94	104.4
Hourly Total	240	15	255	274.5	401	38	439	488.4
09:00 - 09:15	31	4	35	40.2	62	6	68	75.8
09:15 - 09:30	19	1	20	21.3	45	8	53	63.4
09:30 - 09:45	24	4	28	33.2	40	10	50	63.0
09:45 - 10:00	13	3	16	19.9	40	6	46	53.8
Hourly Total	87	12	99	114.6	187	30	217	256.0

TOTAL	521	42	563	617.6	1018	104	1122	1257.2
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16:00 - 16:15	8	1	9	10.3	81	2	83	85.6
16:15 - 16:30	13	0	13	13.0	71	1	72	73.3
16:30 - 16:45	9	4	13	18.2	72	1	73	74.3
16:45 - 17:00	15	4	19	24.2	46	1	47	48.3
Hourly Total	45	9	54	65.7	270	5	275	281.5
17:00 - 17:15	17	3	20	23.9	73	1	74	75.3
17:15 - 17:30	32	1	33	34.3	55	4	59	64.2
17:30 - 17:45	34	1	35	36.3	67	1	68	69.3
17:45 - 18:00	27	7	34	43.1	51	0	51	51.0
Hourly Total	110	12	122	137.6	246	6	252	259.8
18:00 - 18:15	27	3	30	33.9	48	1	49	50.3
18:15 - 18:30	35	3	38	41.9	40	1	41	42.3
18:30 - 18:45	69	2	71	73.6	27	3	30	33.9
18:45 - 19:00	49	4	53	58.2	32	0	32	32.0
Hourly Total	180	12	192	207.6	147	5	152	158.5

TOTAL	335	33	368	410.9	663	16	679	699.8
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 9 – A453/Walton Hill Signal Junction Turning Count Results

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: Northern Arm

TIME	Left to A453									Right to Walton Hill								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	1	66	9	6	0	1	84	86.6	0	2	27	4	1	0	0	34	33.3
07:15 - 07:30	0	2	66	9	1	0	1	79	79.3	0	0	37	7	1	1	0	46	47.8
07:30 - 07:45	0	1	107	8	2	2	4	124	131.0	0	1	43	12	7	2	0	65	70.5
07:45 - 08:00	0	0	97	12	5	2	3	119	127.1	0	0	48	6	2	1	0	57	59.3
Hourly Total	1	4	336	38	14	4	9	406	424.0	0	3	155	29	11	4	0	202	210.9
08:00 - 08:15	0	0	90	16	3	2	2	113	119.1	0	1	55	13	3	2	0	74	77.5
08:15 - 08:30	0	0	92	7	11	8	1	119	135.9	0	0	51	11	1	5	0	68	75.0
08:30 - 08:45	0	0	86	9	7	3	3	108	118.4	0	1	50	7	2	1	0	61	62.7
08:45 - 09:00	0	1	65	10	1	1	3	81	85.2	0	4	33	5	5	4	0	51	56.3
Hourly Total	0	1	333	42	22	14	9	421	458.6	0	6	189	36	11	12	0	254	271.5
09:00 - 09:15	1	0	26	6	4	1	4	42	48.5	0	0	37	8	4	3	0	52	57.9
09:15 - 09:30	0	1	33	5	2	1	1	43	45.7	2	0	28	7	2	4	0	43	47.6
09:30 - 09:45	0	0	22	3	2	3	3	33	40.9	0	0	28	9	0	1	0	38	39.3
09:45 - 10:00	0	0	19	2	2	0	3	26	30.0	0	0	25	8	4	1	0	38	41.3
Hourly Total	1	1	100	16	10	5	11	144	165.1	2	0	118	32	10	9	0	171	186.1

TOTAL	2	6	769	96	46	23	29	971	1047.7	2	9	462	97	32	25	0	627	668.5
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16:00 - 16:15	0	2	42	8	2	2	2	58	62.4	0	0	62	15	5	2	0	84	89.1
16:15 - 16:30	0	2	39	11	2	1	1	56	58.1	1	1	59	12	0	0	0	73	71.6
16:30 - 16:45	0	0	35	5	2	2	1	45	49.6	0	0	68	10	0	1	0	79	80.3
16:45 - 17:00	1	3	37	5	1	1	2	50	51.2	0	1	41	8	0	2	1	53	56.0
Hourly Total	1	7	153	29	7	6	6	209	221.3	1	2	230	45	5	5	1	289	297.0
17:00 - 17:15	0	0	51	9	1	2	2	65	70.1	0	0	81	4	1	2	0	88	91.1
17:15 - 17:30	0	0	43	10	0	1	1	55	57.3	0	0	67	5	0	1	0	73	74.3
17:30 - 17:45	0	0	47	4	0	0	0	51	51.0	1	2	51	9	0	1	0	64	63.3
17:45 - 18:00	1	0	43	1	0	0	3	48	50.2	0	0	56	2	1	0	0	59	59.5
Hourly Total	1	0	184	24	1	3	6	219	228.6	1	2	255	20	2	4	0	284	288.2
18:00 - 18:15	0	0	49	1	0	0	2	52	54.0	0	0	53	4	0	0	0	57	57.0
18:15 - 18:30	0	1	49	9	0	1	2	62	64.7	0	0	45	1	0	0	0	46	46.0
18:30 - 18:45	1	2	64	4	1	1	2	75	76.8	0	0	17	2	2	0	0	21	22.0
18:45 - 19:00	0	0	52	4	1	1	2	60	63.8	0	0	39	3	1	0	0	43	43.5
Hourly Total	1	3	214	18	2	3	8	249	259.3	0	0	154	10	3	0	0	167	168.5

TOTAL	3	10	551	71	10	12	20	677	709.2	2	4	639	75	10	9	1	740	753.7
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: A453

TIME	Ahead to Walton Hill									Right to Northern Arm								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	20	4	1	3	0	28	32.4	0	0	19	5	1	0	3	28	31.5
07:15 - 07:30	0	0	25	7	1	3	0	36	40.4	0	0	21	7	4	1	0	33	36.3
07:30 - 07:45	0	0	23	9	4	3	1	40	46.9	0	0	27	5	1	1	2	36	39.8
07:45 - 08:00	0	0	24	8	2	4	0	38	44.2	0	0	35	10	2	3	2	52	58.9
Hourly Total	0	0	92	28	8	13	1	142	163.9	0	0	102	27	8	5	7	149	166.5
08:00 - 08:15	0	0	27	3	1	3	0	34	38.4	0	1	29	14	3	2	3	52	58.5
08:15 - 08:30	0	0	35	4	2	8	0	49	60.4	0	0	34	10	2	3	1	50	55.9
08:30 - 08:45	0	0	38	5	1	4	0	48	53.7	0	1	25	6	3	1	1	37	40.2
08:45 - 09:00	0	0	19	5	1	4	0	29	34.7	0	0	30	10	1	3	2	46	52.4
Hourly Total	0	0	119	17	5	19	0	160	187.2	0	2	118	40	9	9	7	185	207.0
09:00 - 09:15	0	0	28	7	1	3	0	39	43.4	0	0	19	5	5	1	1	31	35.8
09:15 - 09:30	0	0	13	5	4	1	0	23	26.3	0	0	15	5	2	2	2	26	31.6
09:30 - 09:45	0	0	17	3	1	4	0	25	30.7	0	0	25	6	4	0	1	36	39.0
09:45 - 10:00	0	0	10	6	1	6	1	24	33.3	0	2	21	6	2	1	1	33	35.1
Hourly Total	0	0	68	21	7	14	1	111	133.7	0	2	80	22	13	4	5	126	141.5

TOTAL	0	0	279	66	20	46	2	413	484.8	0	4	300	89	30	18	19	460	515.0
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16:00 - 16:15	0	1	63	3	3	5	0	75	82.4	0	0	62	4	0	2	2	70	74.6
16:15 - 16:30	0	0	60	7	2	3	1	73	78.9	0	0	57	9	0	2	3	71	76.6
16:30 - 16:45	0	0	92	13	2	3	0	110	114.9	1	0	61	5	1	1	1	70	72.0
16:45 - 17:00	0	0	62	8	0	0	0	70	70.0	0	1	65	3	0	0	2	71	72.4
Hourly Total	0	1	277	31	7	11	1	328	346.2	1	1	245	21	1	5	8	282	295.6
17:00 - 17:15	0	0	78	3	2	1	0	84	86.3	0	2	85	7	0	0	1	95	94.8
17:15 - 17:30	0	0	56	5	0	1	1	63	65.3	0	0	62	8	2	0	2	74	77.0
17:30 - 17:45	0	0	72	0	1	3	0	76	80.4	1	1	78	5	0	0	1	86	85.6
17:45 - 18:00	0	0	53	3	0	0	0	56	56.0	0	0	74	3	0	0	3	80	83.0
Hourly Total	0	0	259	11	3	5	1	279	288.0	1	3	299	23	2	0	7	335	340.4
18:00 - 18:15	0	0	49	2	0	0	0	51	51.0	0	1	37	1	0	1	1	41	42.7
18:15 - 18:30	0	2	36	0	1	0	0	39	38.3	0	2	38	6	0	1	2	49	51.1
18:30 - 18:45	0	2	30	1	0	0	1	34	33.8	0	0	27	4	1	0	0	32	32.5
18:45 - 19:00	0	0	29	1	2	0	0	32	33.0	0	0	26	2	0	0	0	28	28.0
Hourly Total	0	4	144	4	3	0	1	156	156.1	0	3	128	13	1	2	3	150	154.3

TOTAL	0	5	680	46	13	16	3	763	790.3	2	7	672	57	4	7	18	767	790.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway

Thursday 3rd November 2022

Junction: 1

Approach: Walton Hill

TIME	Left to Northern Arm									Ahead to A453								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	33	12	2	0	0	48	48.2	0	0	45	6	1	6	1	59	68.3
07:15 - 07:30	1	0	45	12	1	1	0	60	61.0	0	1	64	8	2	5	0	80	86.9
07:30 - 07:45	0	0	49	10	4	1	0	64	67.3	0	0	81	8	3	9	0	101	114.2
07:45 - 08:00	0	0	60	20	1	3	0	84	88.4	0	0	90	6	1	4	0	101	106.7
Hourly Total	2	0	187	54	8	5	0	256	264.9	0	1	280	28	7	24	1	341	376.1
08:00 - 08:15	0	0	54	8	2	0	0	64	65.0	0	0	70	7	2	5	0	84	91.5
08:15 - 08:30	0	0	74	9	3	1	0	87	89.8	0	0	62	16	5	3	1	87	94.4
08:30 - 08:45	0	0	58	4	3	2	1	68	73.1	0	0	57	3	3	6	0	69	78.3
08:45 - 09:00	0	0	49	3	3	3	0	58	63.4	0	0	66	4	4	6	0	80	89.8
Hourly Total	0	0	235	24	11	6	1	277	291.3	0	0	255	30	14	20	1	320	354.0
09:00 - 09:15	0	0	28	3	6	3	0	40	46.9	0	0	47	10	4	6	0	67	76.8
09:15 - 09:30	0	0	36	3	3	2	0	44	48.1	0	0	31	6	3	2	2	44	50.1
09:30 - 09:45	0	1	30	5	5	0	0	41	42.9	0	0	25	6	1	2	0	34	37.1
09:45 - 10:00	0	1	38	5	1	3	0	48	51.8	0	0	31	5	2	3	0	41	45.9
Hourly Total	0	2	132	16	15	8	0	173	189.7	0	0	134	27	10	13	2	186	209.9

TOTAL	2	2	554	94	34	19	1	706	745.9	0	1	669	85	31	57	4	847	940.0
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16:00 - 16:15	0	0	37	9	0	2	0	48	50.6	0	0	33	6	1	1	0	41	42.8
16:15 - 16:30	0	1	47	6	0	1	0	55	55.7	0	0	25	12	3	0	0	40	41.5
16:30 - 16:45	0	2	36	7	0	0	0	45	43.8	0	0	23	11	0	0	0	34	34.0
16:45 - 17:00	0	0	57	7	0	1	0	65	66.3	0	0	30	5	0	0	1	36	37.0
Hourly Total	0	3	177	29	0	4	0	213	216.4	0	0	111	34	4	1	1	151	155.3
17:00 - 17:15	0	1	49	1	1	0	0	52	51.9	0	0	41	3	0	0	0	44	44.0
17:15 - 17:30	0	0	51	3	1	1	0	56	57.8	0	0	35	1	0	0	0	36	36.0
17:30 - 17:45	0	0	50	6	2	0	0	58	59.0	0	1	54	3	0	1	1	60	61.7
17:45 - 18:00	0	1	45	6	2	0	0	54	54.4	0	0	41	2	1	0	0	44	44.5
Hourly Total	0	2	195	16	6	1	0	220	223.1	0	1	171	9	1	1	1	184	186.2
18:00 - 18:15	0	0	36	2	1	0	0	39	39.5	0	0	29	2	2	0	1	34	36.0
18:15 - 18:30	0	0	32	4	0	1	0	37	38.3	0	0	23	0	0	0	0	23	23.0
18:30 - 18:45	0	1	27	3	1	0	0	32	31.9	0	0	39	2	1	1	0	43	44.8
18:45 - 19:00	0	0	28	1	0	0	0	29	29.0	0	0	39	4	0	0	0	43	43.0
Hourly Total	0	1	123	10	2	1	0	137	138.7	0	0	130	8	3	1	1	143	146.8

TOTAL	0	6	495	55	8	6	0	570	578.2	0	1	412	51	8	3	3	478	488.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 10 – M1 Junction 23 Turning Count Results

	To A512									To M1 J23 Slip Road (S)									To Ashby Road East								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	41	28	1	1	2	73	76.8	0	0	0	0	0	0	0	0	0.0	0	0	26	9	0	4	0	39	44.2
07:15 - 07:30	0	0	59	16	6	2	0	83	88.6	0	0	0	0	0	0	0	0	0.0	0	0	27	22	2	1	0	52	54.3
07:30 - 07:45	0	0	115	19	2	0	0	136	137.0	0	0	0	0	0	0	0	0	0.0	0	0	33	17	7	0	0	57	60.5
07:45 - 08:00	0	1	189	31	6	1	0	228	231.7	0	0	0	0	0	0	0	0	0.0	0	0	68	18	9	4	0	99	108.7
Hourly Total	0	1	404	94	15	4	2	520	534.1	0	0	0	0	0	0	0	0	0.0	0	0	154	66	18	9	0	247	267.7
08:00 - 08:15	0	0	153	39	8	3	0	203	210.9	0	0	0	0	0	0	0	0	0.0	0	0	53	24	6	3	0	86	92.9
08:15 - 08:30	0	1	170	23	2	5	0	201	207.9	0	0	0	0	0	0	0	0	0.0	0	0	58	18	7	8	0	91	104.9
08:30 - 08:45	0	0	165	24	9	8	0	206	220.9	0	0	0	0	0	0	0	0	0.0	0	0	39	16	9	2	0	66	73.1
08:45 - 09:00	0	0	131	17	0	3	0	151	154.9	0	0	0	0	0	0	0	0	0.0	0	0	61	17	1	4	1	84	90.7
Hourly Total	0	1	619	103	19	19	0	761	794.6	0	0	0	0	0	0	0	0	0.0	0	0	211	75	23	17	1	327	361.6
09:00 - 09:15	0	0	92	17	2	6	2	119	129.8	0	0	0	0	0	0	0	0	0.0	0	0	42	10	4	5	0	61	69.5
09:15 - 09:30	0	0	84	13	7	4	3	111	122.7	0	0	0	0	0	0	0	0	0.0	0	0	46	16	2	7	0	71	81.1
09:30 - 09:45	0	0	83	16	5	1	0	105	108.8	0	0	0	0	0	0	0	0	0.0	0	0	25	12	2	7	0	46	56.1
09:45 - 10:00	0	0	74	20	5	3	1	103	110.4	0	0	0	0	0	0	0	0	0.0	0	0	25	4	4	4	0	37	44.2
Hourly Total	0	0	333	66	19	14	6	438	471.7	0	0	0	0	0	0	0	0	0.0	0	0	138	42	12	23	0	215	250.9

TOTAL	0	2	1356	263	53	37	8	1719	1800.4	0	0	0	0	0	0	0	0	0.0	0	0	503	183	53	49	1	789	880.2
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16:00 - 16:15	0	0	58	11	3	3	1	76	82.4	0	0	0	0	0	0	0	0	0.0	0	0	28	8	1	3	1	41	46.4
16:15 - 16:30	0	0	83	17	2	0	0	102	103.0	0	0	0	0	0	0	0	0	0.0	0	0	30	17	2	5	0	54	61.5
16:30 - 16:45	0	1	88	20	3	1	0	113	115.2	0	0	0	0	0	0	0	0	0.0	0	0	44	12	5	5	0	66	75.0
16:45 - 17:00	0	1	100	11	2	1	1	116	118.7	0	0	0	0	0	0	0	0	0.0	0	1	36	10	2	4	0	53	58.6
Hourly Total	0	2	329	59	10	5	2	407	419.3	0	0	0	0	0	0	0	0	0.0	0	1	138	47	10	17	1	214	241.5
17:00 - 17:15	0	0	91	14	0	2	0	107	109.6	0	0	0	0	0	0	0	0	0.0	0	0	36	9	0	1	0	46	47.3
17:15 - 17:30	0	0	107	12	1	0	0	120	120.5	0	0	0	0	0	0	0	0	0.0	0	0	37	6	2	7	0	52	62.1
17:30 - 17:45	0	0	70	8	1	1	0	80	81.8	0	0	0	0	0	0	0	0	0.0	0	0	38	5	0	3	0	46	49.9
17:45 - 18:00	0	0	83	9	0	2	0	94	96.6	0	0	0	0	0	0	0	0	0.0	0	0	22	2	1	2	0	27	30.1
Hourly Total	0	0	351	43	2	5	0	401	408.5	0	0	0	0	0	0	0	0	0.0	0	0	133	22	3	13	0	171	189.4
18:00 - 18:15	0	0	71	12	1	1	0	85	86.8	0	0	0	0	0	0	0	0	0.0	0	0	33	5	2	1	0	41	43.3
18:15 - 18:30	0	0	99	6	1	0	1	107	108.5	0	0	0	0	0	0	0	0	0.0	0	0	59	1	2	3	0	65	69.9
18:30 - 18:45	0	0	65	7	0	1	0	73	74.3	0	0	0	0	0	0	0	0	0.0	0	0	41	6	3	4	0	54	60.7
18:45 - 19:00	0	0	84	6	2	0	1	93	95.0	0	0	0	0	0	0	0	0	0.0	0	0	34	11	1	3	0	49	53.4
Hourly Total	0	0	319	31	4	2	2	358	364.6	0	0	0	0	0	0	0	0	0.0	0	0	167	23	8	11	0	209	227.3

TOTAL	0	2	999	133	16	12	4	1166	1192.4	0	0	0	0	0	0	0	0	0.0	0	1	438	92	21	41	1	594	658.2
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To M1 J23 Slip Road (S)									To Ashby Road East									To M1 J23 Slip Road (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	42	7	4	1	0	54	57.3	0	1	39	11	3	0	1	55	56.9	0	0	90	20	2	4	0	116	122.2
07:15 - 07:30	0	0	28	9	2	0	0	39	40.0	0	1	52	14	3	1	0	71	73.2	0	0	106	24	3	4	0	137	143.7
07:30 - 07:45	0	0	30	5	2	1	0	38	40.3	0	0	65	8	4	4	1	82	90.2	0	1	121	13	4	1	0	140	142.7
07:45 - 08:00	0	0	21	7	1	2	1	32	36.1	0	0	79	14	2	1	2	98	102.3	0	0	100	14	3	5	0	122	130.0
Hourly Total	0	0	121	28	9	4	1	163	173.7	0	2	235	47	12	6	4	306	322.6	0	1	417	71	12	14	0	515	538.6
08:00 - 08:15	0	0	35	3	2	3	0	43	47.9	0	0	101	12	5	0	0	118	120.5	0	1	82	10	3	4	0	100	106.1
08:15 - 08:30	0	0	22	4	4	1	0	31	34.3	0	0	51	8	0	0	1	60	61.0	0	0	90	12	3	2	0	107	111.1
08:30 - 08:45	0	0	19	7	2	6	3	37	48.8	0	0	72	14	2	4	0	92	98.2	0	0	81	7	1	3	1	93	98.4
08:45 - 09:00	0	0	19	7	3	3	1	33	39.4	0	0	59	18	0	0	2	79	81.0	0	1	70	9	2	3	0	85	89.3
Hourly Total	0	0	95	21	11	13	4	144	170.4	0	0	283	52	7	4	3	349	360.7	0	2	323	38	9	12	1	385	404.9
09:00 - 09:15	0	0	19	12	3	2	1	37	42.1	0	0	45	20	3	2	1	71	76.1	0	1	76	15	3	1	0	96	98.2
09:15 - 09:30	0	0	19	2	6	2	0	29	34.6	0	0	45	14	3	0	2	64	67.5	0	0	57	11	2	5	0	75	82.5
09:30 - 09:45	0	0	28	7	7	4	2	48	58.7	0	0	42	14	1	3	0	60	64.4	0	0	64	12	4	5	0	85	93.5
09:45 - 10:00	0	0	22	9	3	2	0	36	40.1	0	0	46	13	4	1	1	65	69.3	0	1	53	10	6	2	0	72	77.0
Hourly Total	0	0	88	30	19	10	3	150	175.5	0	0	178	61	11	6	4	260	277.3	0	2	250	48	15	13	0	328	351.2

TOTAL	0	0	304	79	39	27	8	457	519.6	0	2	696	160	30	16	11	915	960.6	0	5	990	157	36	39	1	1228	1294.7
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16:00 - 16:15	0	0	102	14	2	1	0	119	121.3	0	0	127	16	2	1	2	148	152.3	0	0	102	16	3	0	3	124	128.5
16:15 - 16:30	0	1	99	12	0	1	1	114	115.7	0	0	113	10	2	2	2	129	134.6	0	0	121	11	4	2	1	139	144.6
16:30 - 16:45	0	0	79	16	1	3	0	99	103.4	1	1	121	14	1	1	0	139	139.4	0	0	120	22	1	1	0	144	145.8
16:45 - 17:00	0	1	95	12	0	0	0	108	107.4	0	2	134	15	1	2	0	154	155.9	0	0	126	18	2	2	2	150	155.6
Hourly Total	0	2	375	54	3	5	1	440	447.8	1	3	495	55	6	6	4	570	582.2	0	0	469	67	10	5	6	557	574.5
17:00 - 17:15	0	0	90	11	0	0	1	102	103.0	0	0	162	13	0	1	3	179	183.3	0	0	112	16	1	2	1	132	136.1
17:15 - 17:30	0	0	87	8	1	1	1	98	100.8	0	1	92	10	0	0	0	103	102.4	0	0	135	14	1	3	1	154	159.4
17:30 - 17:45	0	0	78	4	1	0	0	83	83.5	0	0	124	13	1	3	1	142	147.4	0	0	91	4	1	0	0	96	96.5
17:45 - 18:00	0	0	53	10	0	0	0	63	63.0	0	0	72	9	0	0	3	84	87.0	0	0	91	6	1	0	0	98	98.5
Hourly Total	0	0	308	33	2	1	2	346	350.3	0	1	450	45	1	4	7	508	520.1	0	0	429	40	4	5	2	480	490.5
18:00 - 18:15	0	0	52	3	0	0	0	55	55.0	0	7	83	17	1	3	2	113	115.2	0	1	62	6	0	0	0	69	68.4
18:15 - 18:30	0	0	38	4	0	1	3	46	50.3	0	0	104	15	0	0	2	121	123.0	0	1	48	4	3	0	0	56	56.9
18:30 - 18:45	0	0	40	2	2	0	0	44	45.0	0	0	61	9	0	0	1	71	72.0	0	1	50	6	0	1	0	58	58.7
18:45 - 19:00	0	0	24	2	0	0	1	27	28.0	0	0	56	7	0	1	1	65	67.3	0	0	47	5	1	1	1	55	57.8
Hourly Total	0	0	154	11	2	1	4	172	178.3	0	7	304	48	1	4	6	370	377.5	0	3	207	21	4	2	1	238	241.8

TOTAL	0	2	837	98	7	7	7	958	976.4	1	11	1249	148	8	14	17	1448	1479.8	0	3	1105	128	18	12	9	1275	1306.8
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To Ashby Road East									To M1 J23 Slip Road (N)									To A512								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	15	2	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	30	9	3	0	0	42	43.5
07:15 - 07:30	0	1	24	7	1	0	0	33	32.9	0	0	0	0	0	0	0	0	0.0	0	0	49	6	6	0	0	61	64.0
07:30 - 07:45	0	0	34	8	2	2	0	46	49.6	0	0	0	0	0	0	0	0	0.0	0	0	60	10	6	3	0	79	85.9
07:45 - 08:00	0	0	37	7	1	3	0	48	52.4	0	0	0	0	0	0	0	0	0.0	0	1	74	8	2	2	0	87	90.0
Hourly Total	0	1	110	24	6	9	0	150	164.1	0	0	0	0	0	0	0	0	0.0	0	1	213	33	17	5	0	269	283.4
08:00 - 08:15	0	0	33	9	5	4	0	51	58.7	0	0	0	0	0	0	0	0	0.0	0	0	92	13	2	2	0	109	112.6
08:15 - 08:30	0	0	21	11	1	4	0	37	42.7	0	0	0	0	0	0	0	0	0.0	0	0	109	16	2	1	0	128	130.3
08:30 - 08:45	0	0	17	7	1	4	0	29	34.7	0	0	0	0	0	0	0	0	0.0	0	0	105	6	2	2	1	116	120.6
08:45 - 09:00	0	0	19	5	1	2	0	27	30.1	0	0	0	0	0	0	0	0	0.0	0	0	80	8	3	1	0	92	94.8
Hourly Total	0	0	90	32	8	14	0	144	166.2	0	0	0	0	0	0	0	0	0.0	0	0	386	43	9	6	1	445	458.3
09:00 - 09:15	0	0	16	9	3	3	0	31	36.4	0	0	0	0	0	0	0	0	0.0	0	0	76	5	4	0	0	85	87.0
09:15 - 09:30	0	0	13	10	2	2	0	27	30.6	0	0	0	0	0	0	0	0	0.0	0	0	55	7	3	1	0	66	68.8
09:30 - 09:45	0	0	14	3	1	1	1	20	22.8	0	0	0	0	0	0	0	0	0.0	0	0	36	6	4	3	1	50	56.9
09:45 - 10:00	0	0	18	5	0	2	0	25	27.6	0	0	0	0	0	0	0	0	0.0	0	0	34	8	2	4	0	48	54.2
Hourly Total	0	0	61	27	6	8	1	103	117.4	0	0	0	0	0	0	0	0	0.0	0	0	201	26	13	8	1	249	266.9

TOTAL	0	1	261	83	20	31	1	397	447.7	0	0	0	0	0	0	0	0	0.0	0	1	800	102	39	19	2	963	1008.6
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16:00 - 16:15	0	0	12	5	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	28	2	2	0	1	33	35.0
16:15 - 16:30	0	0	34	7	2	4	0	47	53.2	0	0	0	0	0	0	0	0	0.0	0	0	28	10	2	1	0	41	43.3
16:30 - 16:45	0	0	32	7	3	2	0	44	48.1	0	0	0	0	0	0	0	0	0.0	0	0	47	5	0	4	0	56	61.2
16:45 - 17:00	0	0	22	3	2	1	0	28	30.3	0	0	0	0	0	0	0	0	0.0	0	0	28	3	1	0	0	32	32.5
Hourly Total	0	0	100	22	9	11	0	142	160.8	0	0	0	0	0	0	0	0	0.0	0	0	131	20	5	5	1	162	172.0
17:00 - 17:15	0	0	17	3	1	6	0	27	35.3	0	0	0	0	0	0	0	0	0.0	0	0	47	3	1	0	1	52	53.5
17:15 - 17:30	0	0	38	4	3	5	0	50	58.0	0	0	0	0	0	0	0	0	0.0	0	0	50	4	1	1	0	56	57.8
17:30 - 17:45	0	0	30	4	1	2	0	37	40.1	0	0	0	0	0	0	0	0	0.0	0	0	44	2	2	1	0	49	51.3
17:45 - 18:00	0	0	24	2	3	2	0	31	35.1	0	0	0	0	0	0	0	0	0.0	0	0	32	3	2	0	0	37	38.0
Hourly Total	0	0	109	13	8	15	0	145	168.5	0	0	0	0	0	0	0	0	0.0	0	0	173	12	6	2	1	194	200.6
18:00 - 18:15	0	0	20	6	2	2	0	30	33.6	0	0	0	0	0	0	0	0	0.0	0	0	41	0	1	1	0	43	44.8
18:15 - 18:30	0	0	31	3	2	1	0	37	39.3	0	0	0	0	0	0	0	0	0.0	0	0	34	3	0	0	0	37	37.0
18:30 - 18:45	0	0	29	3	1	3	0	36	40.4	0	0	0	0	0	0	0	0	0.0	0	0	23	4	0	0	0	27	27.0
18:45 - 19:00	0	0	24	0	1	1	0	26	27.8	0	0	0	0	0	0	0	0	0.0	0	0	22	3	1	0	0	26	26.5
Hourly Total	0	0	104	12	6	7	0	129	141.1	0	0	0	0	0	0	0	0	0.0	0	0	120	10	2	1	0	133	135.3

TOTAL	0	0	313	47	23	33	0	416	470.4	0	0	0	0	0	0	0	0	0.0	0	0	424	42	13	8	2	489	507.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To M1 J23 Slip Road (N)									To A512									To M1 J23 Slip Road (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	58	23	2	8	0	92	102.8	0	0	74	13	1	1	1	90	92.8	0	0	38	11	1	2	0	52	55.1
07:15 - 07:30	0	0	55	13	2	10	0	80	94.0	0	1	75	21	2	2	1	102	106.0	0	0	28	7	1	3	0	39	43.4
07:30 - 07:45	0	0	70	17	2	7	0	96	106.1	0	1	135	17	5	1	1	160	164.2	0	0	27	9	0	1	0	37	38.3
07:45 - 08:00	0	0	52	9	1	3	0	65	69.4	0	1	165	15	4	1	2	188	192.7	0	0	20	9	4	3	0	36	41.9
Hourly Total	0	1	235	62	7	28	0	333	372.3	0	3	449	66	12	5	5	540	555.7	0	0	113	36	6	9	0	164	178.7
08:00 - 08:15	0	0	44	10	6	1	0	61	65.3	0	0	137	15	0	0	4	156	160.0	0	0	21	2	2	1	0	26	28.3
08:15 - 08:30	0	0	30	10	3	1	0	44	46.8	0	2	162	21	6	6	2	199	210.6	0	0	16	4	0	1	0	21	22.3
08:30 - 08:45	0	0	31	7	2	1	0	41	43.3	0	0	149	13	5	8	1	176	189.9	0	0	15	3	2	4	0	24	30.2
08:45 - 09:00	0	0	39	8	2	2	0	51	54.6	0	0	114	15	6	1	1	137	142.3	0	1	19	1	4	4	0	29	35.6
Hourly Total	0	0	144	35	13	5	0	197	210.0	0	2	562	64	17	15	8	668	702.8	0	1	71	10	8	10	0	100	116.4
09:00 - 09:15	0	0	27	6	3	6	0	42	51.3	0	1	102	15	5	2	0	125	129.5	0	0	15	1	2	2	0	20	23.6
09:15 - 09:30	0	1	15	6	1	5	1	29	36.4	1	0	88	13	8	3	1	114	122.1	0	0	10	5	1	2	0	18	21.1
09:30 - 09:45	0	0	30	6	2	4	0	42	48.2	0	1	95	11	6	1	1	115	119.7	0	0	12	3	1	4	0	20	25.7
09:45 - 10:00	0	0	7	8	5	2	0	22	27.1	0	1	109	16	0	1	1	128	129.7	0	0	10	6	2	6	0	24	32.8
Hourly Total	0	1	79	26	11	17	1	135	163.0	1	3	394	55	19	7	3	482	501.0	0	0	47	15	6	14	0	82	103.2

TOTAL	0	2	458	123	31	50	1	665	745.3	1	8	1405	185	48	27	16	1690	1759.5	0	1	231	61	20	33	0	346	398.3
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16:00 - 16:15	0	0	55	15	3	1	0	74	76.8	0	0	85	11	1	0	1	98	99.5	0	0	34	8	1	1	0	44	45.8
16:15 - 16:30	0	1	44	9	1	3	0	58	61.8	1	0	84	17	0	0	1	103	103.2	0	0	33	9	0	1	0	43	44.3
16:30 - 16:45	0	0	38	15	1	1	1	56	58.8	0	0	88	10	0	0	0	98	98.0	0	0	31	10	2	5	0	48	55.5
16:45 - 17:00	0	0	31	7	3	0	0	41	42.5	0	0	79	11	0	0	1	91	92.0	0	0	24	7	1	2	0	34	37.1
Hourly Total	0	1	168	46	8	5	1	229	239.9	1	0	336	49	1	0	3	390	392.7	0	0	122	34	4	9	0	169	182.7
17:00 - 17:15	0	0	47	9	1	1	0	58	59.8	0	1	89	11	0	0	1	102	102.4	0	0	28	5	2	0	0	35	36.0
17:15 - 17:30	0	0	49	8	2	1	0	60	62.3	0	1	104	13	0	1	0	119	119.7	0	0	28	2	0	0	0	30	30.0
17:30 - 17:45	0	0	41	8	0	0	0	49	49.0	0	0	74	5	0	0	3	82	85.0	0	0	29	4	0	0	0	33	33.0
17:45 - 18:00	0	0	35	7	0	2	0	44	46.6	0	0	72	3	2	1	0	78	80.3	0	0	17	1	0	0	0	18	18.0
Hourly Total	0	0	172	32	3	4	0	211	217.7	0	2	339	32	2	2	4	381	387.4	0	0	102	12	2	0	0	116	117.0
18:00 - 18:15	0	0	25	4	1	2	0	32	35.1	0	0	72	14	0	1	1	88	90.3	0	0	20	2	1	1	0	24	25.8
18:15 - 18:30	0	0	23	3	0	0	0	26	26.0	0	1	55	5	0	0	3	64	66.4	0	0	16	3	0	2	0	21	23.6
18:30 - 18:45	0	0	17	0	0	0	0	17	17.0	0	0	84	9	0	0	2	95	97.0	0	0	10	3	0	1	1	15	17.3
18:45 - 19:00	0	0	18	1	1	0	0	20	20.5	0	0	75	7	1	0	0	83	83.5	0	0	10	2	0	1	0	13	14.3
Hourly Total	0	0	83	8	2	2	0	95	98.6	0	1	286	35	1	1	6	330	337.2	0	0	56	10	1	5	1	73	81.0

TOTAL	0	1	423	86	13	11	1	535	556.2	1	3	961	116	4	3	13	1101	1117.3	0	0	280	56	7	14	1	358	380.7
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 11 – A42/A453A/Top Brand Junction Turning Count Results

	To Gelscoe Lane										To Top Brand										To A42 Entry Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	3	0	0	0	0	3	3.0	0	0	10	0	0	1	0	11	12.3	0	0	6	5	2	1	0	14	16.3			
07:15 - 07:30	1	0	11	1	0	0	0	13	12.2	0	1	7	3	0	8	0	19	28.8	0	0	18	2	1	0	0	21	21.5			
07:30 - 07:45	0	0	11	2	1	0	0	14	14.5	0	1	14	5	0	4	0	24	28.6	0	0	9	1	1	0	0	11	11.5			
07:45 - 08:00	0	0	11	2	0	0	0	13	13.0	0	0	12	2	0	6	0	20	27.8	0	0	17	2	1	0	0	20	20.5			
Hourly Total	1	0	36	5	1	0	0	43	42.7	0	2	43	10	0	19	0	74	97.5	0	0	50	10	5	1	0	66	69.8			
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	0	9	2	0	10	0	21	34.0	0	0	10	1	2	2	0	15	18.6			
08:15 - 08:30	0	0	9	0	0	0	0	9	9.0	0	0	18	5	1	8	0	32	42.9	0	0	18	3	1	1	0	23	24.8			
08:30 - 08:45	0	0	8	3	1	0	0	12	12.5	0	0	10	5	1	11	0	27	41.8	0	0	7	4	0	1	0	12	13.3			
08:45 - 09:00	0	0	6	2	0	0	0	8	8.0	0	0	5	3	0	6	0	14	21.8	0	0	12	1	1	1	0	15	16.8			
Hourly Total	0	0	28	6	1	0	0	35	35.5	0	0	42	15	2	35	0	94	140.5	0	0	47	9	4	5	0	65	73.5			
09:00 - 09:15	0	0	6	1	0	0	0	7	7.0	0	0	7	2	0	6	0	15	22.8	0	0	8	3	0	0	0	11	11.0			
09:15 - 09:30	0	0	3	2	0	1	0	6	7.3	0	0	5	2	0	7	0	14	23.1	0	0	1	1	0	1	0	3	4.3			
09:30 - 09:45	0	0	3	4	2	0	0	9	10.0	0	0	4	2	1	6	0	13	21.3	0	0	8	1	1	0	0	10	10.5			
09:45 - 10:00	1	0	3	0	0	0	0	4	3.2	0	0	5	0	0	15	0	20	39.5	0	0	3	2	1	2	0	8	11.1			
Hourly Total	1	0	15	7	2	1	0	26	27.5	0	0	21	6	1	34	0	62	106.7	0	0	20	7	2	3	0	32	36.9			

TOTAL	2	0	79	18	4	1	0	104	105.7	0	2	106	31	3	88	0	230	344.7	0	0	117	26	11	9	0	163	180.2
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16:00 - 16:15	0	0	8	0	0	0	0	8	8.0	0	0	15	4	0	3	0	22	25.9	0	0	23	5	0	0	0	28	28.0
16:15 - 16:30	0	0	4	3	0	0	0	7	7.0	0	0	12	4	1	3	0	20	24.4	0	0	22	4	1	1	0	28	29.8
16:30 - 16:45	0	0	7	3	0	0	0	10	10.0	0	0	23	1	1	0	0	25	25.5	0	0	31	5	1	0	1	38	39.5
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	7	8	0	1	0	16	17.3	0	0	16	2	1	0	0	19	19.5
Hourly Total	0	0	22	6	0	0	0	28	28.0	0	0	57	17	2	7	0	83	93.1	0	0	92	16	3	1	1	113	116.8
17:00 - 17:15	0	0	11	1	0	0	0	12	12.0	0	1	26	2	0	0	0	29	28.4	0	0	18	10	0	0	0	28	28.0
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	24	0	0	0	0	24	24.0	0	0	33	4	1	0	0	38	38.5
17:30 - 17:45	0	0	8	1	0	0	0	9	9.0	0	0	20	4	0	0	0	24	24.0	0	0	21	2	0	1	0	24	25.3
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	1	12	1	0	0	0	14	13.4	0	0	11	3	0	0	0	14	14.0
Hourly Total	0	0	29	2	0	0	0	31	31.0	0	2	82	7	0	0	0	91	89.8	0	0	83	19	1	1	0	104	105.8
18:00 - 18:15	0	0	10	2	0	0	0	12	12.0	0	0	20	0	0	1	0	21	22.3	0	0	22	4	0	2	0	28	30.6
18:15 - 18:30	0	0	8	0	0	0	0	8	8.0	0	0	9	0	0	1	0	10	11.3	0	0	10	2	0	1	0	13	14.3
18:30 - 18:45	0	0	10	2	0	0	0	12	12.0	0	0	16	2	0	0	0	18	18.0	0	0	9	1	2	1	0	13	15.3
18:45 - 19:00	0	0	8	1	0	0	0	9	9.0	0	0	8	0	0	1	0	9	10.3	0	0	11	0	0	1	0	12	13.3
Hourly Total	0	0	36	5	0	0	0	41	41.0	0	0	53	2	0	3	0	58	61.9	0	0	52	7	2	5	0	66	73.5

TOTAL	0	0	87	13	0	0	0	100	100.0	0	2	192	26	2	10	0	232	244.8	0	0	227	42	6	7	1	283	296.1
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: Gelscoe Lane

	To Top Brand									To A42 Entry Slip Road									To A453								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	5	0	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	5	0	1	0	0	6	6.5	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	0	9	0	0	0	0	9	9.0	0	0	3	1	0	0	0	4	4.0
07:45 - 08:00	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	0	0	9	0	1	0	0	10	10.5	0	0	22	0	1	0	0	23	23.5	0	0	12	1	0	0	0	13	13.0
08:00 - 08:15	0	0	3	0	0	0	0	3	3.0	0	0	4	0	2	0	0	6	7.0	0	0	5	0	0	0	0	5	5.0
08:15 - 08:30	0	0	0	1	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
08:30 - 08:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	7	0	0	0	0	7	7.0
Hourly Total	0	0	6	1	0	0	0	7	7.0	0	0	12	0	3	0	0	15	16.5	0	0	20	1	0	0	0	21	21.0
09:00 - 09:15	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	4	0	0	0	0	4	4.0	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	5	1	0	0	0	6	6.0	0	0	13	1	1	0	0	15	15.5	0	0	12	1	0	0	0	13	13.0

TOTAL	0	0	20	2	1	0	0	23	23.5	0	0	47	1	5	0	0	53	55.5	0	0	44	3	0	0	0	47	47.0
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16:00 - 16:15	0	0	6	2	0	0	0	8	8.0	0	0	4	0	0	0	0	4	4.0	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	0	0	6	0	0	0	0	6	6.0	0	0	1	1	0	0	0	2	2.0	0	1	4	2	0	0	0	7	6.4
16:30 - 16:45	0	0	6	0	0	0	0	6	6.0	0	0	6	1	0	0	0	7	7.0	0	0	5	1	0	0	0	6	6.0
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	0	1	0	0	0	1	1.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	0	0	21	2	0	0	0	23	23.0	0	0	11	3	0	0	0	14	14.0	0	1	18	5	0	0	0	24	23.4
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	7	1	0	0	0	8	8.0	1	0	9	0	0	0	0	10	9.2
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	4	1	0	0	0	5	5.0	0	0	6	2	0	0	0	8	8.0
17:30 - 17:45	0	0	2	0	0	0	0	2	2.0	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
17:45 - 18:00	0	0	2	1	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0
Hourly Total	0	0	12	1	0	0	0	13	13.0	0	0	16	3	0	0	0	19	19.0	1	0	20	3	0	0	0	24	23.2
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	1	2	0	0	0	3	3.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	1	1	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	0	0	4	1	0	0	0	5	5.0	0	0	8	3	0	0	0	11	11.0	0	0	17	1	0	0	0	18	18.0

TOTAL	0	0	37	4	0	0	0	41	41.0	0	0	35	9	0	0	0	44	44.0	1	1	55	9	0	0	0	66	64.6
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To A42 Entry Slip Road									To A453									To Gelscoe Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	0	0	6	0	7	14.8	0	0	9	2	1	4	0	16	21.7	0	0	2	0	0	1	0	3	4.3
07:15 - 07:30	0	0	0	2	0	6	0	8	15.8	0	0	18	4	2	9	0	33	45.7	0	0	9	2	0	0	0	11	11.0
07:30 - 07:45	0	0	0	0	0	2	0	2	4.6	0	0	31	2	0	13	0	46	62.9	0	0	5	0	0	0	0	5	5.0
07:45 - 08:00	0	0	1	0	0	7	0	8	17.1	0	0	23	4	0	6	1	34	42.8	0	0	5	2	0	0	0	7	7.0
Hourly Total	0	0	2	2	0	21	0	25	52.3	0	0	81	12	3	32	1	129	173.1	0	0	21	4	0	1	0	26	27.3
08:00 - 08:15	0	0	0	0	0	4	0	4	9.2	0	0	22	2	1	4	0	29	34.7	0	0	7	0	0	0	0	7	7.0
08:15 - 08:30	0	0	1	0	1	5	0	7	14.0	0	1	15	1	1	7	1	26	36.0	0	0	3	1	0	0	0	4	4.0
08:30 - 08:45	0	0	0	0	1	3	0	4	8.4	0	0	13	3	2	5	0	23	30.5	0	0	4	0	0	0	0	4	4.0
08:45 - 09:00	0	0	0	0	0	8	0	8	18.4	0	0	20	4	0	4	0	28	33.2	0	0	2	1	0	0	0	3	3.0
Hourly Total	0	0	1	0	2	20	0	23	50.0	0	1	70	10	4	20	1	106	134.4	0	0	16	2	0	0	0	18	18.0
09:00 - 09:15	0	0	0	0	0	1	0	1	2.3	0	0	6	1	0	3	0	10	13.9	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	0	0	0	6	0	6	13.8	0	0	8	4	0	5	0	17	23.5	0	0	4	0	0	0	0	4	4.0
09:30 - 09:45	0	0	0	0	0	4	0	4	9.2	0	0	7	2	0	2	0	11	13.6	0	0	7	0	0	0	0	7	7.0
09:45 - 10:00	0	0	0	0	0	5	0	5	11.5	0	0	7	1	0	1	0	9	10.3	0	0	4	0	0	0	0	4	4.0
Hourly Total	0	0	0	0	0	16	0	16	36.8	0	0	28	8	0	11	0	47	61.3	0	0	16	0	0	0	0	16	16.0

TOTAL	0	0	3	2	2	57	0	64	139.1	0	1	179	30	7	63	2	282	368.8	0	0	53	6	0	1	0	60	61.3
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16:00 - 16:15	0	0	2	0	0	1	0	3	4.3	0	0	10	2	0	0	0	12	12.0	0	0	4	0	2	0	0	6	7.0
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	0	0	14	14.5	0	0	3	1	0	0	0	4	4.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	15	1	0	0	0	16	16.0	0	0	5	2	0	0	0	7	7.0
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	0	1	7	0	0	0	0	8	7.4	0	0	1	2	0	0	0	3	3.0
Hourly Total	0	0	6	0	0	1	0	7	8.3	0	1	43	5	1	0	0	50	49.9	0	0	13	5	2	0	0	20	21.0
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	1	0	14	3	0	1	0	19	19.5	0	0	1	0	0	0	0	1	1.0
17:15 - 17:30	0	0	1	0	0	0	0	1	1.0	0	0	12	1	0	0	0	13	13.0	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	1	0	12	13.3	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	0	0	11	11.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	1	0	48	4	0	2	0	55	56.8	0	0	7	0	0	0	0	7	7.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	13	0	0	2	0	15	17.6	0	0	3	1	0	0	0	4	4.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	1	12	1	0	0	0	14	13.4	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	1	5	1	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	12	1	0	2	0	15	17.6	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	0	2	42	3	0	4	0	51	55.0	0	0	4	1	0	0	0	5	5.0

TOTAL	0	0	9	0	0	1	0	10	11.3	1	3	133	12	1	6	0	156	161.7	0	0	24	6	2	0	0	32	33.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To A453									To Gelscoe Lane									To Top Brand								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 12 – A50 Junction 1 Turning Count Results

	To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	1	0	1	0	0	3	2.9	0	0	19	8	0	0	0	27	27.0	0	0	1	0	0	0	0	1	1.0	0	0	10	1	0	0	1	12	13.0	0	0	11	2	0	0	0	13	13.0
07:15 - 07:30	0	0	3	1	0	0	0	4	4.0	0	0	14	7	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0	0	0	12	2	0	0	1	15	16.0	0	0	13	2	0	0	0	15	15.0
07:30 - 07:45	0	0	13	3	0	0	0	16	16.0	0	0	19	4	0	0	0	23	23.0	0	0	1	0	0	0	0	1	1.0	0	1	17	5	0	0	0	23	22.4	0	0	16	4	0	0	0	20	20.0
07:45 - 08:00	0	0	9	4	0	0	0	13	13.0	0	0	12	4	1	0	0	17	17.5	0	0	1	0	0	0	0	1	1.0	0	1	22	2	1	0	1	27	27.9	0	0	16	2	0	0	0	18	18.0
Hourly Total	0	1	26	8	1	0	0	36	35.9	0	0	64	23	1	0	0	88	88.5	0	0	3	0	0	0	0	3	3.0	0	2	61	10	1	0	3	77	79.3	0	0	56	10	0	0	0	66	66.0
08:00 - 08:15	0	0	12	2	1	0	2	17	19.5	0	0	24	2	0	0	0	26	26.0	0	0	1	0	0	0	0	1	1.0	0	1	13	1	0	0	1	16	16.4	0	0	11	5	0	0	0	16	16.0
08:15 - 08:30	0	1	11	4	0	0	0	16	15.4	0	0	18	3	0	0	0	21	21.0	0	0	2	0	0	0	0	2	2.0	0	0	20	4	0	0	1	25	26.0	0	0	16	2	0	0	0	18	18.0
08:30 - 08:45	0	0	12	5	0	0	0	17	17.0	0	0	14	1	0	0	0	15	15.0	0	0	2	0	0	0	0	2	2.0	0	0	17	0	0	0	0	17	17.0	0	0	11	1	0	0	0	12	12.0
08:45 - 09:00	0	0	12	3	1	0	0	16	16.5	0	0	15	2	0	0	0	17	17.0	0	0	1	0	0	0	0	1	1.0	0	0	14	2	0	0	1	17	18.0	0	0	10	0	0	0	0	10	10.0
Hourly Total	0	1	47	14	2	0	2	66	68.4	0	0	71	8	0	0	0	79	79.0	0	0	6	0	0	0	0	6	6.0	0	1	64	7	0	0	3	75	77.4	0	0	48	8	0	0	0	56	56.0
09:00 - 09:15	0	0	12	2	1	0	0	15	15.5	0	0	11	8	1	0	0	20	20.5	0	0	2	0	0	0	0	2	2.0	0	0	11	1	1	0	0	13	13.5	0	0	8	1	0	0	0	9	9.0
09:15 - 09:30	0	0	8	1	0	0	0	9	9.0	0	0	10	3	1	0	0	14	14.5	0	0	1	0	0	0	0	1	1.0	0	0	9	3	1	0	2	15	17.5	0	0	4	2	0	0	0	6	6.0
09:30 - 09:45	0	1	14	4	0	0	0	19	18.4	0	0	11	5	1	0	0	17	17.5	0	0	1	0	0	0	0	1	1.0	0	0	10	1	1	0	0	12	12.5	0	0	8	1	0	0	0	9	9.0
09:45 - 10:00	0	0	16	5	0	0	0	21	21.0	0	0	9	3	1	0	0	13	13.5	1	0	1	0	0	0	0	2	1.2	0	0	7	1	0	0	0	8	8.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	0	1	50	12	1	0	0	64	63.9	0	0	41	19	4	0	0	64	66.0	1	0	5	0	0	0	0	6	5.2	0	0	37	6	3	0	2	48	51.5	0	0	26	5	0	0	0	31	31.0

TOTAL	0	3	123	34	4	0	2	166	168.2	0	0	176	50	5	0	0	231	233.5	1	0	14	0	0	0	0	15	14.2	0	3	162	23	4	0	8	200	208.2	0	0	130	23	0	0	0	153	153.0
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16:00 - 16:15	0	0	13	3	0	0	0	16	16.0	0	0	24	4	0	0	0	28	28.0	1	0	0	0	0	0	0	1	0.2	0	0	15	2	0	0	0	17	17.0	0	0	14	2	0	0	0	16	16.0
16:15 - 16:30	0	0	17	0	0	0	0	17	17.0	0	0	18	3	0	0	0	21	21.0	0	0	1	0	0	0	0	1	1.0	0	2	15	2	0	0	2	21	21.8	0	0	12	1	0	0	0	13	13.0
16:30 - 16:45	0	0	11	0	2	0	0	13	14.0	0	0	15	2	0	0	0	17	17.0	0	0	1	0	0	0	0	1	1.0	0	1	14	2	1	0	1	19	19.9	0	0	17	3	0	0	0	20	20.0
16:45 - 17:00	0	1	9	3	0	0	0	13	12.4	0	0	16	2	0	0	0	18	18.0	0	0	1	0	0	0	0	1	1.0	0	0	15	1	0	0	1	17	18.0	0	0	16	1	0	0	0	17	17.0
Hourly Total	0	1	50	6	2	0	0	59	59.4	0	0	73	11	0	0	0	84	84.0	1	0	3	0	0	0	0	4	3.2	0	3	59	7	1	0	4	74	76.7	0	0	59	7	0	0	0	66	66.0
17:00 - 17:15	0	1	7	3	0	0	0	11	10.4	0	0	14	4	0	0	0	18	18.0	0	0	1	0	0	0	0	1	1.0	0	0	15	3	0	0	0	18	18.0	0	0	30	3	0	0	0	33	33.0
17:15 - 17:30	0	0	12	1	0	0	0	13	13.0	0	0	13	1	0	0	0	14	14.0	0	0	1	0	0	0	0	1	1.0	0	0	11	1	0	0	0	12	12.0	0	0	12	1	0	0	0	13	13.0
17:30 - 17:45	0	0	12	4	0	0	0	16	16.0	0	0	13	4	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0	0	0	13	2	1	0	0	16	16.5	0	1	14	3	0	0	0	18	17.4
17:45 - 18:00	0	0	9	2	0	0	0	11	11.0	0	0	9	3	0	0	0	12	12.0	0	0	1	0	0	0	0	1	1.0	0	0	11	3	1	0	1	16	17.5	0	0	11	4	0	0	0	15	15.0
Hourly Total	0	1	40	10	0	0	0	51	50.4	0	0	49	12	0	0	0	61	61.0	0	0	3	0	0	0	0	3	3.0	0	0	50	9	2	0	1	62	64.0	0	1	67	11	0	0	0	79	78.4
18:00 - 18:15	0	2	10	3	0	0	0	15	13.8	0	0	17	2	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	0	18	1	0	0	2	21	23.0	0	0	13	1	0	0	0	14	14.0
18:15 - 18:30	0	0	7	1	0	0	0	8	8.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	0	0	10	2	0	0	0	12	12.0	0	0	5	1	0	0	0	6	6.0
18:30 - 18:45	0	0	16	2	0	0	0	18	18.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	9	1	0	0	0	10	10.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	7	2	0	0	0	9	9.0	0	0	1	0	0	0	0	1	1.0	0	0	10	0	0	0	0	10	10.0	0	0	8	0	0	0	0	8	8.0
Hourly Total	0	2	43	6	0	0	0	51	49.8	0	0	38	6	0	0	0	44	44.0	0	0	1	0	0	0	0	1	1.0	0	0	47	4	0	0	2	53	55.0	0	0	31	3	0	0	0	34	34.0

TOTAL	0	4	133	22	2	0	0	161	159.6	0	0	160	29	0	0	0	189	189.0	1	0	7	0	0	0	0	8	7.2	0	3	156	20	3	0	7	189	195.7	0	1	157	21	0	0	0	179	178.4
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PCU Factors:

CYCLE 0.2

M/CYCLE 0.4

CAR 1.0

LGV 1.0

OGV1 1.5

OGV2 2.3

BUS 2.0

	To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)									To B5010								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	11	1	5	0	53	60.0	0	0	1	0	0	0	0	1	1.0	0	6	31	3	0	0	2	42	40.4	0	0	39	10	2	4	0	55	61.2	0	1	6	1	0	0	0	8	7.4
07:15 - 07:30	0	1	65	15	2	7	0	90	99.5	0	0	2	0	0	0	0	2	2.0	0	1	40	4	2	1	2	50	53.7	0	0	48	5	2	2	0	57	60.6	0	0	6	1	0	0	0	7	7.0
07:30 - 07:45	0	1	66	13	1	3	0	84	87.8	0	0	3	0	0	0	0	3	3.0	0	2	51	6	1	0	1	61	61.3	0	0	49	2	1	2	0	54	57.1	0	0	10	0	0	0	0	10	10.0
07:45 - 08:00	0	1	56	18	4	1	0	80	82.7	0	0	2	0	0	0	0	2	2.0	0	2	47	5	2	0	0	56	55.8	0	0	31	9	0	0	0	40	40.0	0	0	8	3	0	0	0	11	11.0
Hourly Total	0	3	223	57	8	16	0	307	330.0	0	0	8	0	0	0	0	8	8.0	0	11	169	18	5	1	5	209	211.2	0	0	167	26	5	8	0	206	218.9	0	1	30	5	0	0	0	36	35.4
08:00 - 08:15	0	1	59	8	5	2	0	75	79.5	0	0	3	0	0	0	0	3	3.0	0	1	44	2	0	1	0	48	48.7	0	0	29	7	0	2	0	38	40.6	0	0	5	1	0	0	0	6	6.0
08:15 - 08:30	0	0	41	5	4	3	0	53	58.9	0	0	3	0	0	0	0	3	3.0	0	0	55	8	1	0	1	65	66.5	0	0	43	6	3	3	0	55	60.4	0	0	8	2	0	0	0	10	10.0
08:30 - 08:45	0	0	43	8	4	1	0	56	59.3	0	0	3	1	0	0	0	4	4.0	0	0	58	2	0	2	0	62	64.6	0	0	34	10	0	0	1	45	46.0	0	0	10	1	0	0	0	11	11.0
08:45 - 09:00	0	0	27	14	2	5	0	48	55.5	0	0	3	1	0	0	0	4	4.0	0	0	40	7	2	0	1	50	52.0	0	0	28	6	0	2	0	36	38.6	0	0	5	3	0	0	1	9	10.0
Hourly Total	0	1	170	35	15	11	0	232	253.2	0	0	12	2	0	0	0	14	14.0	0	1	197	19	3	3	2	225	231.8	0	0	134	29	3	7	1	174	185.6	0	0	28	7	0	0	1	36	37.0
09:00 - 09:15	0	0	39	2	1	3	0	45	49.4	0	0	5	1	0	0	0	6	6.0	0	0	33	3	1	1	1	39	41.8	0	0	29	7	2	2	0	40	43.6	0	0	4	1	0	0	0	5	5.0
09:15 - 09:30	0	0	21	9	2	4	0	36	42.2	0	0	3	0	0	0	0	3	3.0	0	0	39	8	2	0	2	51	54.0	0	0	18	6	0	2	0	26	28.6	0	0	8	4	0	0	0	12	12.0
09:30 - 09:45	0	1	26	15	3	0	0	45	45.9	0	0	2	1	0	0	0	3	3.0	0	0	24	7	2	2	1	36	40.6	0	0	21	8	0	7	0	36	45.1	0	0	7	2	0	0	1	10	11.0
09:45 - 10:00	0	0	19	6	1	6	0	32	40.3	0	0	2	0	0	0	0	2	2.0	0	0	20	2	2	0	1	25	27.0	0	1	22	6	0	3	0	32	35.3	0	0	8	1	0	0	0	9	9.0
Hourly Total	0	1	105	32	7	13	0	158	177.8	0	0	12	2	0	0	0	14	14.0	0	0	116	20	7	3	5	151	163.4	0	1	90	27	2	14	0	134	152.6	0	0	27	8	0	0	1	36	37.0

TOTAL	0	5	498	124	30	40	0	697	761.0	0	0	32	4	0	0	0	36	36.0	0	12	482	57	15	7	12	585	606.4	0	1	391	82	10	29	1	514	557.1	0	1	85	20	0	0	2	108	109.4
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16:00 - 16:15	0	0	36	8	1	6	0	51	59.3	0	0	1	1	0	0	0	2	2.0	0	1	27	6	0	2	3	39	44.0	0	1	26	8	0	2	0	37	39.0	0	0	8	2	0	0	0	10	10.0
16:15 - 16:30	0	1	33	8	2	6	0	50	58.2	0	0	2	1	0	0	0	3	3.0	0	1	36	4	1	1	0	43	44.2	0	0	32	6	0	1	0	39	40.3	0	0	14	2	0	0	0	16	16.0
16:30 - 16:45	0	0	34	5	1	4	0	44	49.7	0	0	2	0	0	0	0	2	2.0	0	0	36	9	0	1	0	46	47.3	0	0	41	8	0	4	0	53	58.2	0	0	11	2	0	0	0	13	13.0
16:45 - 17:00	0	1	42	8	3	6	0	60	68.7	0	0	3	0	0	0	0	3	3.0	0	0	45	4	0	0	2	51	53.0	0	1	46	2	0	0	0	49	48.4	0	1	17	3	0	0	0	21	20.4
Hourly Total	0	2	145	29	7	22	0	205	235.9	0	0	8	2	0	0	0	10	10.0	0	2	144	23	1	4	5	179	188.5	0	2	145	24	0	7	0	178	185.9	0	1	50	9	0	0	0	60	59.4
17:00 - 17:15	0	2	55	9	0	6	1	73	80.6	0	0	2	0	0	0	0	2	2.0	0	1	28	4	1	1	2	37	40.2	0	2	41	5	0	1	0	49	49.1	0	1	14	2	0	0	0	17	16.4
17:15 - 17:30	0	0	44	2	2	2	0	50	53.6	0	0	2	1	0	0	0	3	3.0	0	2	38	4	0	2	2	48	51.4	0	2	40	6	0	2	0	50	51.4	0	0	12	4	0	0	0	16	16.0
17:30 - 17:45	0	0	62	5	0	5	0	72	78.5	0	0	0	0	0	0	0	0	0.0	0	2	29	3	1	1	0	36	36.6	0	2	34	4	0	0	0	40	38.8	0	1	18	1	0	0	0	20	19.4
17:45 - 18:00	0	0	39	3	0	4	0	46	51.2	0	0	1	0	0	0	0	1	1.0	0	0	35	3	0	1	1	40	42.3	0	0	34	4	0	1	0	39	40.3	0	0	12	4	0	0	0	16	16.0
Hourly Total	0	2	200	19	2	17	1	241	263.9	0	0	5	1	0	0	0	6	6.0	0	5	130	14	2	5	5	161	170.5	0	6	149	19	0	4	0	178	179.6	0	2	56	11	0	0	0	69	67.8
18:00 - 18:15	0	0	48	6	0	6	0	60	67.8	0	0	0	0	0	0	0	0	0.0	0	3	35	7	0	0	2	47	47.2	0	0	26	1	0	0	0	27	27.0	0	0	12	2	0	0	0	14	14.0
18:15 - 18:30	0	0	31	7	1	3	1	43	48.4	0	0	1	1	0	0	0	2	2.0	0	0	42	5	0	0	1	48	49.0	0	0	25	2	0	0	0	27	27.0	0	0	16	6	0	0	0	22	22.0
18:30 - 18:45	0	0	31	4	0	3	0	38	41.9	0	0	1	0	0	0	0	1	1.0	0	0	47	2	0	1	2	52	55.3	0	0	22	1	0	0	0	23	23.0	0	0	13	1	0	0	0	14	14.0
18:45 - 19:00	0	0	27	8	0	4	0	39	44.2	0	0	1	0	0	0	0	1	1.0	0	1	34	6	0	1	1	43	44.7	0	0	25	3	0	1	0	29	30.3	0	1	11	2	0	0	0	14	13.4
Hourly Total	0	0	137	25	1	16	1	180	202.3	0	0	3	1	0	0	0	4	4.0	0	4	158	20	0	2	6	190	196.2	0	0	98	7	0	1	0	106	107.3	0	1	52	11	0	0	0	64	63.4

TOTAL	0	4	482	73	10	55	2	626	702.1	0	0	16	4	0	0	0	20	20.0	0	11	432	57	3	11	16	530	555.2	0	8	392	50	0	12	0	462	472.8	0	4	158	31	0	0	0	193	190.6
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PCU Factors:

CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)									To B5010									To B6540									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	0	0	1	0	0	1	1.5	0	0	41	17	2	1	1	62	65.3	0	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9.0	0	0	25	7	1	4	0	37	42.7
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	57	11	7	1	0	77	81.2	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	8.0	0	0	39	7	1	4	0	51	56.7	
07:30 - 07:45	0	0	4	1	0	0	0	5	5.0	0	0	43	16	2	5	2	68	77.5	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	11	11.0	0	0	33	5	3	2	0	43	47.1		
07:45 - 08:00	0	0	3	1	0	0	0	4	4.0	0	0	84	24	4	3	1	116	122.9	0	0	0	0	0	0	0	0	0	0	14	5	2	0	0	21	22.0	0	0	55	7	2	5	0	69	76.5		
Hourly Total	0	0	7	2	1	0	0	10	10.5	0	1	225	68	15	10	4	323	346.9	0	0	0	0	0	0	0	0	0	0	0	35	12	2	0	0	49	50.0	0	0	152	26	7	15	0	200	223.0	
08:00 - 08:15	0	0	1	0	0	0	0	1	1.0	0	1	79	18	5	2	0	105	109.5	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13.0	0	0	39	4	2	10	0	55	69.0		
08:15 - 08:30	0	0	3	0	0	0	0	3	3.0	0	0	77	9	5	4	1	96	104.7	0	0	0	0	0	0	0	0	0	0	10	5	1	0	0	16	16.5	0	0	46	10	5	6	0	67	77.3		
08:30 - 08:45	0	0	3	0	0	0	0	3	3.0	0	0	75	16	1	8	0	100	110.9	0	0	0	0	0	0	0	0	0	0	16	7	0	1	0	24	25.3	0	1	45	5	2	5	0	58	64.9		
08:45 - 09:00	0	0	5	1	0	0	1	7	8.0	0	0	73	14	7	6	0	100	111.3	0	0	0	0	0	0	0	0	0	0	13	4	1	0	0	18	18.5	0	0	48	10	2	6	0	66	74.8		
Hourly Total	0	0	12	1	0	0	1	14	15.0	0	1	304	57	18	20	1	401	436.4	0	0	0	0	0	0	0	0	0	0	50	18	2	1	0	71	73.3	0	1	178	29	11	27	0	246	286.0		
09:00 - 09:15	0	0	4	1	0	0	0	5	5.0	0	0	60	16	6	4	0	86	94.2	0	0	0	0	0	0	0	0	0	0	6	4	1	0	0	11	11.5	0	0	45	19	0	4	0	68	73.2		
09:15 - 09:30	0	0	4	0	1	0	0	5	5.5	0	0	32	10	9	3	0	54	62.4	0	0	0	0	0	0	0	0	0	0	9	4	0	0	0	13	13.0	0	0	53	13	2	5	0	73	80.5		
09:30 - 09:45	0	0	2	1	0	0	0	3	3.0	0	0	36	6	9	6	0	57	69.3	0	0	0	0	0	0	0	0	0	0	13	2	1	0	0	16	16.5	0	0	40	11	5	4	0	60	67.7		
09:45 - 10:00	0	0	1	1	0	0	0	2	2.0	0	0	25	11	2	0	1	39	41.0	0	0	0	0	0	0	0	0	0	0	10	5	0	0	0	15	15.0	0	1	34	4	4	7	0	50	60.5		
Hourly Total	0	0	11	3	1	0	0	15	15.5	0	0	153	43	26	13	1	236	266.9	0	0	0	0	0	0	0	0	0	0	38	15	2	0	0	55	56.0	0	1	172	47	11	20	0	251	281.9		

TOTAL	0	0	30	6	2	0	1	39	41.0	0	2	682	168	59	43	6	960	1050.2	0	0	0	0	0	0	0	0	0	0	0	123	45	6	1	0	175	179.3	0	2	502	102	29	62	0	697	790.9
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16:00 - 16:15	0	0	4	0	0	1	0	5	6.3	0	0	37	11	2	8	0	58	69.4	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	15	15.0	0	0	39	10	1	5	0	55	62.0		
16:15 - 16:30	0	0	1	1	0	0	0	2	2.0	0	0	49	8	4	6	0	67	76.8	0	0	0	0	0	0	0	0	0	0	20	4	0	0	0	24	24.0	0	1	47	12	2	3	0	65	69.3		
16:30 - 16:45	0	0	2	1	0	1	0	4	5.3	0	1	59	13	3	5	0	81	88.4	0	0	0	0	0	0	0	0	0	0	18	4	1	0	0	23	23.5	0	3	50	10	4	3	0	70	74.1		
16:45 - 17:00	0	0	1	0	0	0	0	1	1.0	0	0	59	6	4	1	0	70	73.3	0	0	0	0	0	0	0	0	0	0	22	5	0	0	0	27	27.0	0	0	57	9	0	4	0	70	75.2		
Hourly Total	0	0	8	2	0	2	0	12	14.6	0	1	204	38	13	20	0	276	307.9	0	0	0	0	0	0	0	0	0	0	71	17	1	0	0	89	89.5	0	4	193	41	7	15	0	260	280.6		
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	0	0	48	11	6	1	0	66	70.3	0	0	0	0	0	0	0	0	0	0	27	3	0	0	0	30	30.0	0	0	52	3	2	1	0	58	60.3		
17:15 - 17:30	0	0	3	0	0	1	0	4	5.3	0	0	61	9	2	5	0	77	84.5	0	0	0	0	0	0	0	0	0	0	21	4	0	0	0	25	25.0	0	0	57	6	0	5	0	68	74.5		
17:30 - 17:45	0	0	3	0	0	0	0	3	3.0	0	0	53	11	3	5	0	72	80.0	0	0	0	0	0	0	0	0	0	0	27	4	0	0	0	31	31.0	0	0	66	4	0	3	0	73	76.9		
17:45 - 18:00	0	0	4	1	1	0	0	6	6.5	0	0	64	5	2	8	2	81	94.4	0	0	0	0	0	0	0	0	0	0	25	6	2	0	0	33	34.0	0	0	50	9	1	4	0	64	69.7		
Hourly Total	0	0	11	1	1	1	0	14	15.8	0	0	226	36	13	19	2	296	329.2	0	0	0	0	0	0	0	0	0	0	100	17	2	0	0	119	120.0	0	0	225	22	3	13	0	263	281.4		
18:00 - 18:15	0	0	4	0	0	0	0	4	4.0	0	1	64	4	4	1	0	74	76.7	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21.0	0	0	45	13	1	4	0	63	68.7		
18:15 - 18:30	0	0	4	0	0	0	0	4	4.0	0	0	37	4	0	4	0	45	50.2	0	0	0	0	0	0	0	0	0	0	14	4	0	0	0	18	18.0	0	0	44	5	0	7	0	56	65.1		
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	50	4	4	2	0	60	64.6	0	0	0	0	0	0	0	0	0	0	1	14	2	0	0	0	17	16.4	0	0	26	2	1	2	0	31	34.1	
18:45 - 19:00	0	0	1	1	0	0	0	2	2.0	0	0	35	4	2	1	0	42	44.3	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	13.0	0	0	31	2	2	2	0	37	40.6		
Hourly Total	0	0	10	1	0	0	0	11	11.0	0	1	186	16	10	8	0	221	235.8	0	0	0	0	0	0	0	0	0	0	0	1	59	9	0	0	0	69	68.4	0	0	146	22	4	15	0	187	208.5

TOTAL	0	0	29	4	1	3	0	37	41.4	0	2	616	90	36	47	2	793	872.9	0	0	0	0	0	0	0	0	0	0	0	1	230	43	3	0	0	277	277.9	0	4	564	85	14	43	0	710	770.5
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PCU Factors:

CYCLE 0.2

M/CYCLE 0.4

CAR 1.0

LGV 1.0

OGV1 1.5

OGV2 2.3

BUS 2.0

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: Rycroft Road

	To Trent Lane									To A50 J1 Slip Road (W)									To B5010									To B6540									To A50 J1 Slip Road (E)									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	2	1	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.0	0	0	3	2	0	0	0	5	5.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	
07:30 - 07:45	0	0	1	1	0	0	1	3	4.0	0	0	4	1	0	0	0	5	5.0	0	0	1	0	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0
07:45 - 08:00	0	0	2	1	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0	0	0	1	0	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	4	1	0	0	0	5	5.0
Hourly Total	0	0	5	3	0	0	1	9	10.0	0	0	9	3	0	0	0	12	12.0	0	0	2	0	0	0	0	2	2.0	0	0	9	2	0	0	0	11	11.0	0	0	12	4	0	0	0	16	16.0	
08:00 - 08:15	0	0	2	0	0	0	0	2	2.0	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	
08:15 - 08:30	0	0	6	0	0	0	0	6	6.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0
08:30 - 08:45	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	
08:45 - 09:00	0	0	2	2	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	4	1	0	0	0	5	5.0	
Hourly Total	0	0	12	2	0	0	0	14	14.0	0	0	6	2	0	0	0	8	8.0	0	0	2	1	0	0	0	3	3.0	0	0	6	2	0	0	0	8	8.0	0	0	11	2	0	0	0	13	13.0	
09:00 - 09:15	0	0	1	0	0	1	0	2	3.3	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	3	1	0	0	0	4	4.0	
09:15 - 09:30	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0	0	0	4	2	0	0	0	6	6.0	0	0	3	0	0	0	0	3	3.0	
09:30 - 09:45	0	0	2	1	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	
09:45 - 10:00	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	
Hourly Total	0	0	7	1	0	1	0	9	10.3	0	0	8	2	0	0	0	10	10.0	0	0	4	1	0	0	0	5	5.0	0	0	12	3	0	0	0	15	15.0	0	0	9	2	0	0	0	11	11.0	

TOTAL	0	0	24	6	0	1	1	32	34.3	0	0	23	7	0	0	0	30	30.0	0	0	8	2	0	0	0	10	10.0	0	0	27	7	0	0	0	34	34.0	0	0	32	8	0	0	0	40	40.0
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16:00 - 16:15	0	0	3	1	0	0	0	4	4.0	0	0	5	1	0	0	0	6	6.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	0	0	5	0	0	0	0	5	5.0	0	0	2	1	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0
16:45 - 17:00	0	0	1	1	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	0	0	10	2	0	0	0	12	12.0	0	0	13	3	0	0	0	16	16.0	0	0	6	0	0	0	0	6	6.0	0	0	12	2	0	0	0	14	14.0	0	0	14	2	0	0	0	16	16.0
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	0	0	6	0	0	0	0	6	6.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	6	1	0	0	0	7	7.0
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	3	2	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0
17:30 - 17:45	0	0	4	1	0	1	0	6	7.3	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	1	0	0	0	3	3.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	0	0	8	1	0	1	0	10	11.3	0	0	15	0	0	0	0	15	15.0	0	0	5	0	0	0	0	5	5.0	0	0	11	4	0	0	0	15	15.0	0	0	16	1	0	0	0	17	17.0
18:00 - 18:15	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	2	0	4	0	0	0	0	6	4.4	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	2	1	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	1	0	0	3	3.5
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	6	1	0	0	0	7	7.0	0	0	10	2	0	0	0	12	12.0	0	0	5	1	0	0	0	6	6.0	2	0	10	1	0	0	0	13	11.4	0	0	10	0	1	0	0	11	11.5

TOTAL	0	0	24	4	0	1	0	29	30.3	0	0	38	5	0	0	0	43	43.0	0	0	16	1	0	0	0	17	17.0	2	0	33	7	0	0	0	42	40.4	0	0	40	3	1	0	0	44	44.5
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PCU Factors:

CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To A50 J1 Slip Road (W)									To B5010									To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road								
	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	38	14	2	4	0	58	64.2	0	0	5	1	0	0	0	6	6.0	0	0	15	2	0	1	1	19	21.3	0	0	38	8	2	3	0	51	55.9	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	44	12	8	7	0	71	84.1	0	0	4	1	0	0	1	6	7.0	0	0	13	2	1	1	1	18	20.8	0	0	43	7	4	2	0	56	60.6	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	0	70	13	6	1	0	90	94.3	0	0	8	1	1	0	1	11	12.5	0	0	26	4	2	0	1	33	35.0	0	0	57	10	7	0	0	74	77.5	0	0	3	0	0	0	0	3	3.0
07:45 - 08:00	0	0	62	15	3	3	0	83	88.4	0	0	8	2	2	0	0	12	13.0	0	0	30	3	2	1	1	37	40.3	0	0	45	8	4	3	0	60	65.9	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	214	54	19	15	0	302	331.0	0	0	25	5	3	0	2	35	38.5	0	0	84	11	5	3	4	107	117.4	0	0	183	33	17	8	0	241	259.9	0	0	7	0	0	0	0	7	7.0
08:00 - 08:15	0	0	69	4	1	3	0	77	81.4	0	0	7	1	0	0	2	10	12.0	1	0	19	10	1	1	2	34	37.0	0	0	59	5	6	7	0	77	89.1	0	0	4	1	0	0	0	5	5.0
08:15 - 08:30	0	0	55	11	4	3	0	73	78.9	0	0	5	3	1	0	0	9	9.5	0	0	19	6	1	0	2	28	30.5	0	0	38	8	4	0	0	50	52.0	0	0	2	0	0	0	0	2	2.0
08:30 - 08:45	0	0	37	5	2	2	0	46	49.6	0	0	8	3	0	0	0	11	11.0	0	0	18	3	1	1	0	23	24.8	0	0	33	9	4	2	0	48	52.6	0	0	3	1	0	0	0	4	4.0
08:45 - 09:00	0	0	40	5	2	2	0	49	52.6	0	0	6	3	1	0	2	12	14.5	0	1	18	6	0	1	0	26	26.7	0	0	45	8	2	4	0	59	65.2	0	0	4	0	0	0	0	4	4.0
Hourly Total	0	0	201	25	9	10	0	245	262.5	0	0	26	10	2	0	4	42	47.0	1	1	74	25	3	3	4	111	119.0	0	0	175	30	16	13	0	234	258.9	0	0	13	2	0	0	0	15	15.0
09:00 - 09:15	0	1	33	13	2	2	0	51	54.0	0	0	4	0	1	0	0	5	5.5	0	1	27	0	0	1	0	29	29.7	0	0	36	3	5	5	0	49	58.0	0	0	5	0	0	0	0	5	5.0
09:15 - 09:30	0	0	28	8	1	1	0	38	39.8	0	0	4	2	0	0	3	9	12.0	0	1	17	6	0	1	0	25	25.7	0	0	26	5	5	5	0	41	50.0	0	0	3	1	0	0	0	4	4.0
09:30 - 09:45	0	0	32	10	0	3	0	45	48.9	0	0	7	1	1	0	1	10	11.5	0	0	17	3	1	1	2	24	27.8	0	0	31	13	7	4	0	55	63.7	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	0	27	7	3	1	0	38	40.8	0	0	5	2	0	0	0	7	7.0	0	0	15	2	1	1	1	20	22.8	0	0	21	9	7	7	0	44	56.6	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	1	120	38	6	7	0	172	183.5	0	0	20	5	2	0	4	31	36.0	0	2	76	11	2	4	3	98	106.0	0	0	114	30	24	21	0	189	228.3	0	0	13	1	0	0	0	14	14.0

TOTAL	0	1	535	117	34	32	0	719	777.0	0	0	71	20	7	0	10	108	121.5	1	3	234	47	10	10	11	316	342.4	0	0	472	93	57	42	0	664	747.1	0	0	33	3	0	0	0	36	36.0
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16:00 - 16:15	0	0	99	18	4	3	0	124	129.9	0	1	17	2	0	0	0	20	19.4	0	2	53	4	0	2	3	64	68.4	0	0	98	20	3	2	0	123	127.1	0	0	4	2	0	0	0	6	6.0
16:15 - 16:30	0	0	67	8	3	2	0	80	84.1	0	0	19	3	0	0	0	22	22.0	0	4	43	6	1	0	0	54	52.1	0	0	66	15	4	3	0	88	93.9	0	0	4	0	0	0	0	4	4.0
16:30 - 16:45	0	1	84	14	1	2	0	102	104.5	0	0	22	3	0	0	0	25	25.0	0	3	57	5	0	0	0	65	63.2	0	0	88	13	0	1	0	102	103.3	0	0	4	0	0	0	0	4	4.0
16:45 - 17:00	0	1	82	8	1	2	0	94	96.5	0	1	19	3	0	0	3	26	28.4	0	4	44	3	2	1	3	57	59.9	0	0	66	11	2	3	0	82	86.9	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	2	332	48	9	9	0	400	415.0	0	2	77	11	0	0	3	93	94.8	0	13	197	18	3	3	6	240	243.6	0	0	318	59	9	9	0	395	411.2	0	0	17	3	0	0	0	20	20.0
17:00 - 17:15	0	0	137	5	3	5	0	150	158.0	0	1	29	2	0	0	0	32	31.4	0	4	62	3	0	1	0	70	68.9	0	0	119	7	2	2	0	130	133.6	0	0	5	2	0	0	0	7	7.0
17:15 - 17:30	0	1	92	6	2	2	0	103	106.0	0	0	20	5	0	0	0	25	25.0	0	2	49	7	0	1	1	60	61.1	0	0	87	10	4	3	0	104	109.9	0	0	4	0	0	0	0	4	4.0
17:30 - 17:45	0	2	120	3	1	0	0	126	125.3	0	2	24	2	0	0	0	28	26.8	0	1	56	4	0	0	2	63	64.4	0	0	90	7	1	2	0	100	103.1	0	0	2	1	0	0	0	3	3.0
17:45 - 18:00	0	0	92	11	0	3	0	106	109.9	0	1	18	3	0	0	0	22	21.4	0	0	33	4	0	0	0	37	37.0	0	0	57	6	0	2	0	65	67.6	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	3	441	25	6	10	0	485	499.2	0	4	91	12	0	0	0	107	104.6	0	7	200	18	0	2	3	230	231.4	0	0	353	30	7	9	0	399	414.2	0	0	14	3	0	0	0	17	17.0
18:00 - 18:15	0	2	101	6	2	1	0	112	113.1	0	0	23	1	0	0	3	27	30.0	0	3	47	2	1	0	2	55	55.7	0	0	73	3	0	0	1	77	78.0	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	2	62	6	0	1	0	71	71.1	0	0	15	3	0	0	0	18	18.0	0	3	38	3	1	1	0	46	46.0	0	1	70	6	1	2	0	80	82.5	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	99	5	1	2	0	107	110.1	0	1	22	2	0	0	1	26	26.4	0	2	35	2	0	1	1	41	42.1	0	0	54	2	2	1	0	59	61.3	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	38	6	1	1	0	46	47.8	0	0	11	0	0	0	0	11	11.0	0	2	29	0	0	0	1	32	31.8	0	0	37	0	2	0	0	39	40.0	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	4	300	23	4	5	0	336	342.1	0	1	71	6	0	0	4	82	85.4	0	10	149	7	2	2	4	174	175.6	0	1	234	11	5	3	1	255	261.8	0	0	8	0	0	0	0	8	8.0

TOTAL	0	9	1073	96	19	24	0	1221	1256.3	0	7	239	29	0	0	7	282	284.8	0	30	546	43	5	7	13	644	650.6	0	1	905	100	21	21	1	1049	1087.2	0	0	39	6	0	0	0	45	45.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To B5010									To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	27	9	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0	0	0	1	1.0	0	0	40	10	4	3	0	57	62.9					
07:15 - 07:30	0	0	0	1	0	0	0	1	1.0	0	0	33	8	1	2	0	44	47.1	0	0	0	0	0	0	0	0	0	0	2	2.0	0	0	76	12	3	3	0	94	99.4						
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	47	4	2	6	0	59	67.8	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.0	0	1	79	14	3	6	0	103	111.7	
07:45 - 08:00	0	0	4	2	0	0	0	6	6.0	0	0	35	7	1	4	0	47	52.7	0	0	0	0	0	0	0	0	0	0	3	3.0	0	0	91	10	3	1	0	105	107.8						
Hourly Total	0	0	6	3	0	0	0	9	9.0	0	0	142	28	5	13	0	188	207.4	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11.0	0	1	286	46	13	13	0	359	381.8	
08:00 - 08:15	0	0	3	1	0	0	0	4	4.0	0	0	40	11	2	9	0	62	74.7	0	0	0	0	0	0	0	0	0	0	4	4.0	0	0	72	14	4	3	0	93	98.9						
08:15 - 08:30	0	0	4	0	0	0	0	4	4.0	0	0	37	8	1	3	0	49	53.4	0	0	0	0	0	0	0	0	0	0	3	3.0	0	0	88	16	6	6	0	116	126.8						
08:30 - 08:45	0	0	7	3	0	0	0	10	10.0	0	0	39	7	1	2	0	49	52.1	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.0	0	0	90	8	3	2	0	103	107.1	
08:45 - 09:00	0	0	1	1	0	0	0	2	2.0	0	0	44	6	0	5	0	55	61.5	0	0	0	0	0	0	0	0	0	0	6	1	0	1	0	8	9.3	0	0	84	6	4	5	0	99	107.5	
Hourly Total	0	0	15	5	0	0	0	20	20.0	0	0	160	32	4	19	0	215	241.7	0	0	0	0	0	0	0	0	0	0	17	2	0	1	0	20	21.3	0	0	334	44	17	16	0	411	440.3	
09:00 - 09:15	0	0	0	2	0	0	0	2	2.0	0	0	28	3	3	1	0	35	37.8	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.0	0	0	34	11	5	5	0	55	64.0	
09:15 - 09:30	0	0	4	1	0	0	0	5	5.0	0	0	23	8	0	7	0	38	47.1	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.0	0	0	42	7	3	7	0	59	69.6	
09:30 - 09:45	0	0	4	1	0	0	0	5	5.0	0	0	20	8	1	2	0	31	34.1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3.0	0	0	32	9	2	4	0	47	53.2	
09:45 - 10:00	0	0	4	2	0	0	0	6	6.0	0	1	30	10	1	4	0	46	51.1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.0	0	0	31	5	1	2	0	39	42.1	
Hourly Total	0	0	12	6	0	0	0	18	18.0	0	1	101	29	5	14	0	150	170.1	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16.0	0	0	139	32	11	18	0	200	228.9	

TOTAL	0	0	33	14	0	0	0	47	47.0	0	1	403	89	14	46	0	553	619.2	0	0	0	0	0	0	0	0	0	0	40	6	0	1	0	47	48.3	0	1	759	122	41	47	0	970	1051.0
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16:00 - 16:15	0	0	6	0	0	0	0	6	6.0	0	0	45	8	2	0	0	55	56.0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2.0	0	0	53	7	2	4	0	66	72.2
16:15 - 16:30	0	0	5	0	0	0	0	5	5.0	0	0	41	8	1	3	0	53	57.4	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.0	0	0	52	11	4	5	0	72	80.5
16:30 - 16:45	0	0	5	1	0	0	0	6	6.0	0	1	38	7	0	1	0	47	47.7	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6.0	0	0	57	7	3	3	0	70	75.4
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	37	6	0	1	0	44	45.3	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4.0	0	0	55	9	1	4	0	69	74.7
Hourly Total	0	0	21	1	0	0	0	22	22.0	0	1	161	29	3	5	0	199	206.4	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	15	15.0	0	0	217	34	10	16	0	277	302.8
17:00 - 17:15	0	0	4	2	0	0	0	6	6.0	0	1	31	7	1	1	0	41	42.2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4.0	0	0	74	8	4	3	0	89	94.9
17:15 - 17:30	0	1	4	0	0	0	0	5	4.4	0	1	41	7	0	2	0	51	53.0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4.0	0	0	63	10	0	2	0	75	77.6
17:30 - 17:45	0	0	5	0	0	0	0	5	5.0	0	0	50	7	0	1	0	58	59.3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2.0	0	2	95	4	1	2	0	104	105.9
17:45 - 18:00	0	0	4	0	0	0	0	4	4.0	0	0	36	6	0	1	0	43	44.3	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4.0	0	0	85	6	3	3	0	97	102.4
Hourly Total	0	1	17	2	0	0	0	20	19.4	0	2	158	27	1	5	0	193	198.8	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14.0	0	2	317	28	8	10	0	365	380.8
18:00 - 18:15	0	0	6	1	0	0	0	7	7.0	0	0	43	4	0	2	0	49	51.6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2.0	0	3	67	4	0	2	0	76	76.8
18:15 - 18:30	0	0	3	0	0	0	0	3	3.0	0	0	25	2	2	0	0	29	30.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1.0	0	2	62	4	0	0	0	68	66.8
18:30 - 18:45	0	0	5	0	0	0	0	5	5.0	0	2	31	1	0	1	0	35	35.1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2.0	0	0	58	3	0	3	0	64	67.9
18:45 - 19:00	0	0	6	0	0	0	0	6	6.0	0	1	18	2	0	0	0	21	20.4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1.0	0	0	49	2	0	0	0	51	51.0
Hourly Total	0	0	20	1	0	0	0	21	21.0	0	3	117	9	2	3	0	134	137.1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6.0	0	5	236	13	0	5	0	259	262.5

TOTAL	0	1	58	4	0	0	0	63	62.4	0	6	436	65	6	13	0	526	542.3	0	0	0	0	0	0	0	0	0	0	29	6	0	0	0	35	35.0	0	7	770	75	18	31	0	901	946.1
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 13 – M1 Junction 25 Turning Count Results

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TOTAL	0	4	566	107	14	7	0	698	711.7	0	1	564	109	10	12	1	697	718.0	0	0	0	0	0	0	0	0	0	0	0	0	624	129	15	21	2	791	827.8	0	1	269	87	19	11	0	387	410.2
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 14 – Station Road/Broad Rushes Roundabout Junction Turning Count
Results

	Ahead to Station Road (S)									Right to Broad Rushes								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	50	23	3	1	2	80	84.2	0	0	44	13	6	4	0	67	75.2
07:15 - 07:30	0	0	85	19	4	1	3	112	118.3	0	1	67	7	4	11	0	90	105.7
07:30 - 07:45	0	2	102	24	6	0	1	135	137.8	0	0	78	11	2	4	0	95	101.2
07:45 - 08:00	1	2	120	13	9	3	4	152	162.4	0	0	98	11	5	7	0	121	132.6
Hourly Total	1	5	357	79	22	5	10	479	502.7	0	1	287	42	17	26	0	373	414.7
08:00 - 08:15	2	2	106	25	4	4	2	145	151.4	0	1	80	17	6	5	0	109	117.9
08:15 - 08:30	0	0	135	15	3	1	3	157	162.8	0	0	111	11	5	7	0	134	145.6
08:30 - 08:45	0	0	103	20	4	1	0	128	131.3	0	1	91	15	7	8	0	122	135.3
08:45 - 09:00	0	1	85	23	2	1	3	115	119.7	0	1	96	12	5	11	0	125	141.2
Hourly Total	2	3	429	83	13	7	8	545	565.2	0	3	378	55	23	31	0	490	540.0
09:00 - 09:15	0	3	74	20	3	2	2	104	108.3	0	2	47	12	6	9	0	76	89.5
09:15 - 09:30	0	1	76	19	2	1	3	102	106.7	0	0	28	10	4	8	0	50	62.4
09:30 - 09:45	0	0	67	19	6	4	0	96	104.2	0	0	35	6	5	12	0	58	76.1
09:45 - 10:00	0	1	73	12	4	0	3	93	97.4	0	2	39	5	6	10	0	62	76.8
Hourly Total	0	5	290	70	15	7	8	395	416.6	0	4	149	33	21	39	0	246	304.8

TOTAL	3	13	1076	232	50	19	26	1419	1484.5	0	8	814	130	61	96	0	1109	1259.5
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16:00 - 16:15	0	0	95	12	5	1	2	115	120.8	0	0	36	15	5	5	0	61	70.0
16:15 - 16:30	0	0	97	12	4	1	1	115	119.3	0	0	46	7	2	7	0	62	72.1
16:30 - 16:45	0	1	91	11	5	1	2	111	116.2	0	3	50	16	0	9	0	78	87.9
16:45 - 17:00	0	2	104	13	1	2	3	125	129.9	0	0	60	7	2	8	0	77	88.4
Hourly Total	0	3	387	48	15	5	8	466	486.2	0	3	192	45	9	29	0	278	318.4
17:00 - 17:15	0	0	112	14	1	0	1	128	129.5	0	0	70	11	2	5	0	88	95.5
17:15 - 17:30	0	0	189	7	0	0	3	199	202.0	0	3	80	4	2	3	0	92	95.1
17:30 - 17:45	0	2	99	6	1	1	1	110	111.6	0	0	119	5	1	4	0	129	134.7
17:45 - 18:00	0	2	86	10	1	0	3	102	104.3	0	1	95	8	1	4	0	109	114.1
Hourly Total	0	4	486	37	3	1	8	539	547.4	0	4	364	28	6	16	0	418	439.4
18:00 - 18:15	0	4	80	7	0	0	1	92	90.6	0	1	85	3	3	2	0	94	97.5
18:15 - 18:30	0	1	74	9	3	0	3	90	93.9	0	0	57	9	1	4	0	71	76.7
18:30 - 18:45	0	0	103	6	1	0	1	111	112.5	0	0	49	4	0	11	0	64	78.3
18:45 - 19:00	0	0	68	6	1	1	1	77	79.8	0	0	32	4	0	2	0	38	40.6
Hourly Total	0	5	325	28	5	1	6	370	376.8	0	1	223	20	4	19	0	267	293.1

TOTAL	0	12	1198	113	23	7	22	1375	1410.4	0	8	779	93	19	64	0	963	1050.9
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	Left to Broad Rushes									Ahead to Station Road (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	1	0	0	0	3	3.0	0	0	40	10	2	3	0	55	59.9
07:15 - 07:30	0	0	2	1	0	0	0	3	3.0	0	0	33	13	4	0	2	52	56.0
07:30 - 07:45	0	0	4	0	0	0	0	4	4.0	0	0	73	14	3	0	2	92	95.5
07:45 - 08:00	0	0	2	2	0	0	0	4	4.0	0	0	53	15	4	0	1	73	76.0
Hourly Total	0	0	10	4	0	0	0	14	14.0	0	0	199	52	13	3	5	272	287.4
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	1	51	10	4	0	4	70	75.4
08:15 - 08:30	0	0	5	1	0	1	0	7	8.3	0	0	64	12	8	2	0	86	92.6
08:30 - 08:45	0	0	6	1	0	0	0	7	7.0	0	0	51	10	4	3	2	70	77.9
08:45 - 09:00	0	0	4	2	0	0	0	6	6.0	0	0	64	16	6	1	3	90	97.3
Hourly Total	0	0	20	5	0	1	0	26	27.3	0	1	230	48	22	6	9	316	343.2
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	51	13	2	2	1	69	73.6
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	5	0	56	19	3	4	2	89	93.7
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	1	56	17	2	0	4	80	84.4
09:45 - 10:00	0	0	2	2	0	0	0	4	4.0	0	0	59	11	6	0	0	76	79.0
Hourly Total	0	0	4	3	0	0	0	7	7.0	5	1	222	60	13	6	7	314	330.7

TOTAL	0	0	34	12	0	1	0	47	48.3	5	2	651	160	48	15	21	902	961.3
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16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	2	122	10	3	0	3	140	143.3
16:15 - 16:30	0	0	2	1	0	0	0	3	3.0	0	0	115	24	5	0	1	145	148.5
16:30 - 16:45	0	0	0	0	1	0	0	1	1.5	2	1	125	17	2	0	2	149	149.8
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	1	3	95	9	4	0	2	114	115.4
Hourly Total	0	0	6	1	1	0	0	8	8.5	3	6	457	60	14	0	8	548	557.0
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	1	2	195	23	1	0	2	224	224.5
17:15 - 17:30	0	0	4	1	0	0	0	5	5.0	0	0	119	10	1	1	2	133	136.8
17:30 - 17:45	0	1	1	2	0	0	0	4	3.4	1	3	97	11	0	0	3	115	115.4
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	2	99	13	0	0	1	115	114.8
Hourly Total	0	1	8	3	0	0	0	12	11.4	2	7	510	57	2	1	8	587	591.5
18:00 - 18:15	0	0	2	1	0	0	0	3	3.0	0	4	89	10	0	0	3	106	106.6
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	5	86	5	0	0	0	96	93.0
18:30 - 18:45	0	0	2	0	0	0	0	2	2.0	0	6	64	3	1	0	3	77	76.9
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	66	2	1	0	1	70	71.5
Hourly Total	0	0	6	1	0	0	0	7	7.0	0	15	305	20	2	0	7	349	348.0

TOTAL	0	1	20	5	1	0	0	27	26.9	5	28	1272	137	18	1	23	1484	1496.5
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PCU Factors:

CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 27th September 2023
Junction: 2
Approach: Broad Rushes

TIME	Left to Station Road (N)									Right to Station Road (S)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	4	6	4	0	50	58.2	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	59	17	10	6	0	92	104.8	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	72	12	4	10	0	98	113.0	0	0	3	0	1	0	0	4	4.5
07:45 - 08:00	0	0	75	9	5	10	0	99	114.5	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	242	42	25	30	0	339	390.5	0	0	4	0	1	0	0	5	5.5
08:00 - 08:15	0	0	79	8	1	10	0	98	111.5	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	42	11	9	4	0	66	75.7	0	0	3	0	0	0	0	3	3.0
08:30 - 08:45	0	0	54	7	1	9	0	71	83.2	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	51	13	6	6	0	76	86.8	0	0	5	1	1	0	0	7	7.5
Hourly Total	0	0	226	39	17	29	0	311	357.2	0	0	14	3	1	0	0	18	18.5
09:00 - 09:15	0	0	39	8	5	7	0	59	70.6	0	0	2	0	1	0	0	3	3.5
09:15 - 09:30	0	0	31	16	4	6	0	57	66.8	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	33	6	8	10	0	57	74.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	37	8	5	6	0	56	66.3	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	140	38	22	29	0	229	277.7	0	0	8	2	1	0	0	11	11.5

TOTAL	0	0	608	119	64	88	0	879	1025.4	0	0	26	5	3	0	0	34	35.5
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16:00 - 16:15	0	4	130	17	1	10	0	162	173.1	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	1	3	87	8	3	9	0	111	121.6	0	0	3	0	0	0	0	3	3.0
16:30 - 16:45	0	3	85	11	1	3	0	103	105.6	0	0	3	0	0	0	0	3	3.0
16:45 - 17:00	0	2	90	7	5	5	0	109	116.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	1	12	392	43	10	27	0	485	517.1	0	0	12	1	0	0	0	13	13.0
17:00 - 17:15	0	2	132	12	0	3	0	149	151.7	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	1	90	3	2	2	0	98	101.0	0	0	3	1	0	0	0	4	4.0
17:30 - 17:45	0	0	130	7	2	5	0	144	151.5	0	0	10	0	0	0	0	10	10.0
17:45 - 18:00	0	0	73	6	1	2	0	82	85.1	0	0	4	0	0	0	0	4	4.0
Hourly Total	0	3	425	28	5	12	0	473	489.3	0	0	20	1	0	0	0	21	21.0
18:00 - 18:15	1	4	175	8	1	2	0	191	190.9	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	66	2	4	2	0	75	79.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	2	108	4	1	4	0	119	123.5	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	45	5	0	3	0	53	56.9	0	0	1	0	0	0	0	1	1.0
Hourly Total	1	7	394	19	6	11	0	438	450.3	0	0	8	0	0	0	0	8	8.0

TOTAL	2	22	1211	90	21	50	0	1396	1456.7	0	0	40	2	0	0	0	42	42.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 15 – A453/Kegworth Road Roundabout Junction Turning Count Results

TIME	To Kegworth Road (E)									To Kegworth Road (S)									To A453 Entry Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	14	4	0	0	0	18	18.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	11	2	0	0	0	13	13.0	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	11	0	0	0	0	11	11.0	0	0	7	0	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	10	1	0	0	0	11	11.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	46	7	0	0	0	53	53.0	0	0	17	3	0	1	0	21	22.3	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	8	2	1	0	0	11	11.5	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	5	0	0	0	0	5	5.0	0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	4	0	0	1	0	5	6.3	0	0	2	3	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	5	0	0	0	0	5	5.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	22	2	1	1	0	26	27.8	0	0	14	6	2	0	0	22	23.0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	1	3	4.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	5	2	0	0	0	7	7.0	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	2	3	0	0	0	5	5.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	12	5	0	0	0	17	17.0	0	0	5	1	0	1	1	8	10.3	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	80	14	1	1	0	96	97.8	0	0	36	10	2	2	1	51	55.6	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	1	1	0	0	0	2	2.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	1	0	0	0	4	4.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	5	0	0	0	0	5	5.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	0	0	0	6	6.0	0	0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	15	2	0	0	0	17	17.0	0	0	28	6	1	0	0	35	35.5	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	1	1	0	0	0	2	2.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	1	2	3.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	6	2	0	0	1	9	10.0	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	11	3	0	0	2	16	18.0	0	0	31	5	0	0	0	36	36.0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	3	1	0	0	0	4	4.0	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	9	1	0	0	0	10	10.0	0	0	16	1	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	35	6	0	0	2	43	45.0	0	0	75	12	1	0	0	88	88.5	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To Kegworth Road (S)									To A453 Entry Slip Road									To A453 Exit Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	1	0	0	0	1	1.0	0	0	5	2	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	1	3	0	0	0	4	4.0	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	6	0	0	0	0	6	6.0	0	0	13	0	0	0	0	13	13.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	10	5	0	0	0	15	15.0	0	1	24	2	0	0	0	27	26.4	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	6	1	0	0	0	7	7.0	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	1	2	0	0	0	3	3.0	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	2	1	0	0	0	3	3.0	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	1	1	0	0	0	2	2.0	0	0	6	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	10	5	0	0	0	15	15.0	0	0	16	2	3	1	0	22	24.8	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	1	0	0	1	0	0	0	2	1.2	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	1	1	0	0	0	2	2.0	0	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	4	3	0	0	0	8	7.2	0	0	18	1	0	1	0	20	21.3	0	0	0	0	0	0	0	0	0.0

TOTAL	1	0	24	13	0	0	0	38	37.2	0	1	58	5	3	2	0	69	72.5	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	3	3	2	0	0	0	8	6.2	0	0	32	2	0	0	0	34	34.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	0	0	0	0	3	3.0	0	0	14	2	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	2	1	0	0	0	3	3.0	0	1	13	5	0	0	0	19	18.4	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	33	2	0	0	0	35	35.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	3	13	3	0	0	0	19	17.2	0	1	92	11	0	0	0	104	103.4	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	30	1	0	0	0	31	31.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	1	0	8	0	0	0	0	9	8.2	0	0	7	2	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	5	1	0	0	2	8	10.0	0	0	13	2	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	18	1	0	0	2	22	23.2	0	0	61	7	1	2	0	71	74.1	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	1	1	2.0	0	0	20	1	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	5	1	0	0	0	6	6.0	0	0	22	1	1	0	1	25	26.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	4	0	0	0	0	4	4.0	0	0	5	2	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	1	3	4.0	0	0	27	1	0	0	0	28	28.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	11	1	0	0	2	14	16.0	0	0	74	5	2	0	1	82	84.0	0	0	0	0	0	0	0	0	0.0

TOTAL	1	3	42	5	0	0	4	55	56.4	0	1	227	23	3	2	1	257	261.5	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TOTAL	0	0	10	4	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	2	0	88	18	2	0	1	111	111.4
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APPENDIX 16 – A453/Barton Lane/West Leake Lane Roundabouts Junction Turning
Count Results

	To A453 Entry Slip Road									To Barton Lane (S)									To A453 Exit Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	5	1	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	2	0	0	1	4	5.0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	9	4	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	6	5	1	1	0	13	14.8	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	0	0	21	12	2	3	1	39	44.9	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	8	1	1	0	1	11	12.5	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	10	3	0	3	0	16	19.9	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	10	3	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	2	0	8	10.6	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	33	8	2	5	1	49	57.5	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	1	1	1	1	0	4	5.8	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	5	2	0	0	1	8	9.0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	13	6	1	1	1	22	24.8	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	2	0	0	0	0	2	2.0	0	0	67	26	5	9	3	110	127.2	0	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	3	0	0	0	0	3	3.0	0	0	7	1	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	9	1	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	1	0	3	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	4	0	0	0	0	4	4.0	1	0	23	2	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	1	0	5	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	1	5	6.0	0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	1	0	0	0	0	1	1.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	1	0	13	3	0	0	1	18	18.2	0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	0	0	14	2	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	7	0	0	0	0	7	7.0	2	0	50	7	0	0	1	60	59.4	0	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To Barton Lane (S)									To A453 Exit Slip Road									To Barton Lane (N)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0

16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

TIME	To A453 Exit Slip Road									To Barton Lane (N)									To A453 Entry Slip Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	5	1	1	0	0	7	7.5	0	0	2	0	2	1	0	5	7.3
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	1	1	1	0	9	10.8
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	13	1	0	2	1	17	20.6
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	11	1	0	4	0	16	21.2
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	2	1	0	0	12	12.5	0	0	32	3	3	8	1	47	59.9
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	2	0	3	5.6	0	0	15	3	0	0	0	18	18.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	13	0	0	0	1	14	15.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	10	0	0	0	0	10	10.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3	0	0	9	1	0	0	1	11	12.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	2	0	4	0	15	20.2	0	0	47	4	0	0	2	53	55.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	3	0	1	0	1	5	6.5
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	1	0	3	4.3	0	0	5	0	0	0	0	5	5.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	1	3	4.5	0	0	4	0	0	2	0	6	8.6
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	7	1	1	2	1	12	16.1	0	0	16	1	1	2	1	21	25.1

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	25	5	2	6	1	39	48.8	0	0	95	8	4	10	4	121	140.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	3	1	1	0	0	5	5.5	0	0	6	4	0	0	0	10	10.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	1	8	2	0	0	1	12	12.4
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0	0	1	7	0	0	1	0	9	9.7
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	7	2	1	0	0	10	10.5	0	2	28	7	0	1	1	39	40.1
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	2	0	0	0	2	2.0	0	0	13	1	0	1	1	16	18.3
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	15	2	0	0	1	18	19.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	13	1	0	0	0	14	14.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	5	3	0	0	0	8	8.0	0	0	47	4	0	1	2	54	57.3
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	5	1	0	1	1	8	10.3
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	4	1	0	1	0	6	7.3
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	9	0	0	0	0	9	9.0	0	0	15	3	0	2	1	21	24.6

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	21	5	1	0	0	27	27.5	0	2	90	14	0	4	4	114	122.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: A453 Exit Slip Road

	To Barton Lane (N)									To A453 Entry Slip Road									To Barton Lane (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	4	1	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0.0	0	0	24	14	2	5	0	45	52.5
07:15 - 07:30	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	1	25	13	3	5	0	47	54.4
07:30 - 07:45	0	0	1	4	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	30	11	1	3	0	45	49.4
07:45 - 08:00	0	0	4	2	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0.0	0	0	28	17	2	5	0	52	59.5
Hourly Total	0	0	13	7	1	5	0	26	33.0	0	0	0	0	0	0	0	0	0.0	0	1	107	55	8	18	0	189	215.8
08:00 - 08:15	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	39	11	1	5	0	56	63.0
08:15 - 08:30	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0	0	0	49	9	7	8	0	73	86.9
08:30 - 08:45	0	0	10	4	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0.0	0	0	42	6	3	7	0	58	68.6
08:45 - 09:00	0	0	8	5	2	1	0	16	18.3	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	3	0	61	67.4
Hourly Total	0	0	25	11	4	1	0	41	44.3	0	0	0	0	0	0	0	0	0.0	0	0	170	39	16	23	0	248	285.9
09:00 - 09:15	0	0	28	8	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0.0	0	0	34	12	2	7	0	55	65.1
09:15 - 09:30	0	0	5	5	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0.0	0	0	26	7	2	5	0	40	47.5
09:30 - 09:45	0	0	7	2	2	0	0	11	12.0	0	0	0	0	0	0	0	0	0.0	0	0	8	2	1	1	0	12	13.8
09:45 - 10:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	5	5	0	3	0	13	16.9
Hourly Total	0	0	44	15	4	2	0	65	69.6	0	0	0	0	0	0	0	0	0.0	0	0	73	26	5	16	0	120	143.3

TOTAL	0	0	82	33	9	8	0	132	146.9	0	0	0	0	0	0	0	0	0.0	0	1	350	120	29	57	0	557	645.0
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16:00 - 16:15	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	17	5	0	5	1	28	35.5
16:15 - 16:30	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	1	30	4	0	3	0	38	41.3
16:30 - 16:45	0	0	4	1	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	36	2	1	4	0	43	48.7
16:45 - 17:00	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	50	8	0	4	0	62	67.2
Hourly Total	0	1	9	4	0	0	0	14	13.4	0	0	0	0	0	0	0	0	0.0	0	1	133	19	1	16	1	171	192.7
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	34	8	0	1	0	43	44.3
17:15 - 17:30	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	47	5	1	1	0	54	55.8
17:30 - 17:45	0	0	2	1	0	0	1	4	5.0	0	0	0	0	0	0	0	0	0.0	0	0	45	2	0	2	0	49	51.6
17:45 - 18:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	38	3	0	0	0	41	41.0
Hourly Total	0	1	9	1	0	0	1	12	12.4	0	0	0	0	0	0	0	0	0.0	0	0	164	18	1	4	0	187	192.7
18:00 - 18:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	23	3	0	0	0	26	26.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	27	2	0	1	0	30	31.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	13	3	1	2	0	19	22.1
18:45 - 19:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	17	2	0	4	0	23	28.2
Hourly Total	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0	0	0	80	10	1	7	0	98	107.6

TOTAL	0	2	27	5	0	0	1	35	34.8	0	0	0	0	0	0	0	0	0.0	0	1	377	47	3	27	1	456	493.0
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PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: Barton Lane

	To A453 Exit Slip Road										To West Leake Lane										To A453 Entry Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	28	12	2	5	0	47	54.5	0	0	1	3	0	0	0	4	4.0			
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	20	13	1	5	1	41	48.4	0	0	6	2	2	0	0	10	11.0			
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	35	10	2	4	0	51	57.2	0	0	4	5	0	1	0	10	11.3			
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	29	21	1	6	0	57	65.3	0	0	5	1	2	0	0	8	9.0			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	1	112	56	6	20	1	196	225.4	0	0	16	11	4	1	0	32	35.3			
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	41	11	2	5	1	60	68.5	0	0	6	1	0	0	0	7	7.0			
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	47	11	6	7	0	71	83.1	0	0	12	1	1	4	0	18	23.7			
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	41	9	2	6	0	58	66.8	0	0	11	0	2	1	0	14	16.3			
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	4	0	62	69.7	0	0	5	1	0	1	0	7	8.3			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	169	44	15	22	1	251	288.1	0	0	34	3	3	6	0	46	55.3			
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	25	10	1	8	0	44	54.9	0	0	10	3	2	0	0	15	16.0			
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	23	9	2	5	0	39	46.5	0	0	7	0	0	0	0	7	7.0			
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	1	8	10.3	0	0	8	3	1	0	0	12	12.5			
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	5	3	0	3	0	11	14.9	0	0	3	3	0	0	0	6	6.0			
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	58	23	3	17	1	102	126.6	0	0	28	9	3	0	0	40	41.5			

TOTAL	0	0	0	0	0	0	0	0	0.0	0	1	339	123	24	59	3	549	640.1	0	0	78	23	10	7	0	118	132.1
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	20	5	0	5	1	31	38.5	0	0	4	1	0	0	0	5	5.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	1	35	4	0	3	0	43	46.3	0	0	4	1	0	0	0	5	5.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	1	0	38	1	1	4	0	45	49.9	0	0	1	1	0	0	0	2	2.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	51	8	0	4	0	63	68.2	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	1	144	18	1	16	1	182	202.9	0	0	12	3	0	0	0	15	15.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	32	8	0	1	0	41	42.3	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	1	0	50	3	1	1	0	56	57.0	0	0	2	2	0	0	0	4	4.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	44	2	0	2	1	49	52.6	0	0	4	1	0	0	0	5	5.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	39	5	0	0	0	44	44.0	0	0	3	0	0	0	0	3	3.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	165	18	1	4	1	190	195.9	0	0	12	3	0	0	0	15	15.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	24	3	0	0	0	27	27.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	27	3	0	1	0	31	32.3	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	13	4	1	2	0	20	23.1	0	0	3	0	0	0	0	3	3.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	20	1	0	4	0	25	30.2	0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	84	11	1	7	0	103	112.6	0	0	10	1	0	0	0	11	11.0

TOTAL	0	0	0	0	0	0	0	0	0.0	2	1	393	47	3	27	2	475	511.4	0	0	34	7	0	0	0	41	41.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Exit Slip Road

	To West Leake Lane									To A453 Entry Slip Road									To Barton Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0
07:15 - 07:30	0	0	4	2	2	1	0	9	11.3	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	0	2	2.5
07:30 - 07:45	0	1	3	3	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
07:45 - 08:00	0	0	8	4	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	1	16	11	2	2	0	32	35.0	0	0	0	0	0	0	0	0	0.0	0	0	8	2	1	0	0	11	11.5
08:00 - 08:15	0	0	14	0	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	8	1	0	0	2	11	13.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	5	3	1	0	1	10	11.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	38	5	2	0	3	48	52.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:00 - 09:15	0	0	12	2	0	1	0	15	16.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	6	3	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:30 - 09:45	0	0	7	4	1	2	0	14	17.1	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	4	2	1	0	1	8	9.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	29	11	3	4	2	49	57.7	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0

TOTAL	0	1	83	27	7	6	5	129	144.7	0	0	0	0	0	0	0	0	0.0	0	0	12	2	1	0	0	15	15.5
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16:00 - 16:15	0	0	1	2	0	1	1	5	7.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
16:15 - 16:30	0	0	10	2	0	2	0	14	16.6	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
16:30 - 16:45	0	0	5	4	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	18	1	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	34	9	1	4	2	50	57.7	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
17:00 - 17:15	0	0	13	1	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
17:15 - 17:30	0	0	13	0	0	0	1	14	15.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	11	1	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	47	3	0	1	1	52	54.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0
18:00 - 18:15	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	11	0	0	1	1	13	15.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3
18:30 - 18:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	30	1	0	3	1	35	39.9	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	0	7	8.3

TOTAL	0	0	111	13	1	8	4	137	151.9	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	1	0	14	15.3
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

	To A453 Entry Slip Road									To Barton Lane									To A453 Exit Slip Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	35	4	3	3	0	45	50.4	0	0	4	0	3	1	0	8	10.8	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	25	5	0	5	0	35	41.5	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	34	13	1	3	0	51	55.4	0	0	11	1	0	2	1	15	18.6	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	1	57	4	0	8	0	70	79.8	0	0	11	2	0	4	0	17	22.2	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	151	26	4	19	0	201	227.1	0	0	33	3	3	8	1	48	60.9	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	63	7	2	8	0	80	91.4	0	0	16	3	0	2	0	21	23.6	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	36	6	0	3	0	45	48.9	0	0	15	1	0	0	1	17	18.0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	1	40	7	0	6	0	54	61.2	0	0	13	0	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	1	31	8	2	4	0	46	51.6	0	0	10	2	0	1	1	14	16.3	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	2	170	28	4	21	0	225	253.1	0	0	54	6	0	4	2	66	73.2	0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	32	6	0	7	0	45	54.1	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	22	7	1	6	0	36	44.3	0	0	4	0	1	1	1	7	9.8	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	25	2	0	6	0	33	40.8	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	18	6	2	6	0	32	40.8	0	0	4	1	1	2	1	9	13.1	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	97	21	3	25	0	146	180.0	0	0	21	2	2	4	2	31	39.2	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	3	418	75	11	65	0	572	660.2	0	0	108	11	5	16	5	145	173.3	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	37	16	3	0	0	56	57.5	0	0	8	5	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	39	13	2	3	0	57	61.9	0	1	6	2	0	0	1	10	10.4	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	37	11	2	2	0	52	55.6	0	1	8	1	0	1	0	11	11.7	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	1	36	5	0	5	0	47	52.9	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	149	45	7	10	0	212	227.9	0	2	32	9	1	1	1	46	47.6	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	37	16	1	1	0	55	56.8	0	0	12	2	0	1	1	16	18.3	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	37	4	1	2	0	44	47.1	0	0	17	3	0	0	1	21	22.0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	38	2	0	2	0	42	44.6	0	0	14	1	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	33	8	1	4	0	46	51.7	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	145	30	3	9	0	187	200.2	0	0	49	6	0	1	2	58	61.3	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	1	24	0	0	0	0	25	24.4	0	0	8	1	0	1	1	11	13.3	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	13	1	3	5	0	22	30.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	1	8	2	0	2	0	13	15.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	12	1	0	2	0	15	17.6	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	2	57	4	3	9	0	75	87.0	0	0	19	2	0	1	1	23	25.3	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	3	351	79	13	28	0	474	515.1	0	2	100	17	1	3	4	127	134.2	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Entry Slip Road

	To Barton Lane										To A453 Exit Slip Road										To West Leake Lane									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs			
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0		

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
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16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0

TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0
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PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 17 – GEH Comparison

Junction Arm		2022 Observed Flows (Lights AM)				2022 Satum Actual Flows (Lights AM)				GEH Comparison										
J1 - A453 / Walton Hill	A	Northern Arm				A	B	C		A	B	C								
	B	A453			A	0	430	241	A	0	12	6								
	C	Walton Hill			B	165	0	133	B	3	0	7								
				C	284	340	0	C	399	320	0	C	6	1	0					
J2 - A453 / East Midland Airport Access	A	East Midlands Airport Access				A	B	C		A	B	C								
	B	A453 (E)			A	0	104	35	A	0	14	4								
	C	A453(W)			B	239	0	312	B	15	0	1								
				C	127	458	0	C	267	776	0	C	10	13	0					
J3 - A453 / Hunter Road	A	Hunter Road				A	B	C		A	B	C								
	B	A453 (E)			A	0	89	26	A	0	6	7								
	C	A453 (W)			B	367	0	525	B	8	0	12								
				C	50	512	0	C	0	578	0	C	10	3	0					
J4 - A453 / M1 J23A Access/ Donnington Services	A	A453 (N)				A	B	C	D		A	B	C	D						
	B	M1 J23A Access			A	0	486	57	395	A	0	19	11	11						
	C	Donnington Services Access			B	828	0	102	448	B	14	0	14	7						
	D	A453 (W)			C	41	89	0	50	C	9	13	0	10						
				D	368	213	21	0	D	351	381	0	0	D	1	10	6	0		
J5 - A453 / Derby Road / M1 J24 / A50	A	M1 J24 (N)				A	B	C	D	E	F	G		A	B	C	D	E	F	G
	B	A453 (N)			A	0	820	505	0	491	287	14	A	0	15	1	0	24	24	5
	C	Derby Road			B	162	0	59	423	381	212	14	B	2	0	11	10	21	16	8
	D	M1 J24 (S)			C	61	73	0	49	173	94	2	C	11	12	0	8	19	18	5
	E	A453 (S)			D	5	661	87	0	3	957	21	D	3	5	0	0	1	15	8
	F	A50			E	204	211	27	38	0	846	6	E	3	10	7	9	0	6	0
	G	Hilton Hotel Lane			F						0		F	0	0	0	0	0	0	0
					G	5	63	9	23	17	9	0	G	3	12	16	2	5	4	0
J6 - A453 / Northern Arm	A	Northern Arm				A	B	C		A	B	C								
	B	A453 (E)			A	0	42	28	A	0	119	77								
	C	A453 (W)			B	205	0	110	B	118	0	164								
				C	208	485	0	C	344	458	0	C	8	1	0					
J7 - A453 / The Green	A	A453 (E)				A	B	C		A	B	C								
	B	The Green			A	0	10	230	A	0	33	172								
	C	A453 (W)			B	16	0	85	B	200	0	177								
				C	458	69	0	C	560	219	0	C	5	13	0					
J8 - A453 / Grimes Gate	A	A453 (E)				A	B	C		A	B	C								
	B	Grimes Gate			A	0	20	234	A	0	36	205								
	C	A453 (W)			B	62	0	6	B	43	0	0								
				C	467	7	0	C	760	0	0	C	12	4	0					
J9 - A453 / A6 Kegworth Bypass / Wilders Way	A	A453 (N)				A	B	C	D		A	B	C	D						
	B	A6 Kegworth Bypass			A	0	26	275	250	A	0	6	9	22						
	C	A453 (S)			B	270	0	102	305	B	6	0	7	2						
	D	Wilders Way			C	681	92	2	156	C	14	6	0	13						
				D	69	2	37	0	D	20	15	29	0	D	7	4	1	0		
J10 - M1 J23 Slip Road / A512 / Ashby Road East	A	M1 J23 Slip Road (N)				A	B	C	D		A	B	C	D						
	B	A512			A	0	741	0	289	A	0	217	0	431						
	C	M1 J23 Slip Road (S)			B	444	0	127	338	B	155	0	124	713						
	D	Ashby Road (E)			C	0	383	0	0	C	0	125	0	337						
				D	242	671	108	0	D	312	219	215	0	D	4	21	8	0		

	Junction Arm	2022 Observed Flows (Lights PM)	2022 Saturn Actual Flows (Lights PM)	GEH Comparison
J1 - A453 / Walton Hill	A Northern Arm B A453 C Walton Hill	A B C A 0 208 277 B 325 0 270 C 213 181 0	A B C A 0 245 353 B 382 0 284 C 322 193 0	A B C A 0 2 4 B 3 0 1 C 7 1 0
J2 - A453 / East Midland Airport Access	A East Midlands Airport Access B A453 (E) C A453(W)	A B C A 0 220 65 B 125 0 397 C 37 317 0	A B C A 0 57 252 B 10 0 415 C 95 337 0	A B C A 0 14 15 B 14 0 1 C 7 1 0
J3 - A453 / Hunter Road	A Hunter Road B A453 (E) C A453 (W)	A B C A 0 335 34 B 110 0 488 C 28 509 0	A B C A 0 476 0 B 136 0 447 C 0 582 0	A B C A 0 7 8 B 2 0 2 C 7 3 0
J4 - A453 / M1 Donnington Services	A A453 (N) B M1 J23A Access C Donnington Services Access D A453 (W)	A B C D A 0 332 62 154 B 700 0 111 402 C 76 109 0 52 D 568 239 47 0	A B C D A 0 385 0 209 B 1201 0 0 338 C 0 0 0 0 D 491 566 0 0	A B C D A 0 3 11 4 B 16 0 15 3 C 0 15 0 10 D 3 16 10 0
J5 - A453 / Derby Road / M1 J24 / A50	A M1 J24 (N) B A453 (N) C Derby Road D M1 J24 (S) E A453 (S) F A50 G Hilton Hotel Lane	A B C D E F G A 0 857 530 4 160 218 10 B 247 0 73 777 270 379 11 C 87 56 0 50 86 129 2 D 0 489 67 0 4 978 14 E 309 242 40 35 0 926 5 F 0 0 0 0 0 0 0 G 15 20 10 8 4 11 0	A B C D E F G A 0 754 578 0 233 0 0 B 138 0 0 936 164 644 68 C 285 0 0 0 0 347 22 D 0 662 112 0 83 584 55 E 271 116 24 81 0 1156 19 F 0 0 0 0 0 0 0 G 39 58 21 27 8 0 0	A B C D E F G A 0 4 2 3 5 21 4 B 8 0 12 5 7 12 9 C 15 11 0 10 13 14 6 D 0 7 5 0 12 14 7 E 2 9 3 6 0 7 4 F 0 0 0 0 0 0 0 G 5 6 3 5 2 5 0
J6 - A453 / Northern Arm	A Northern Arm B A453 (E) C A453 (W)	A B C A 0 144 207 B 67 0 342 C 110 246 0	A B C A 0 46 309 B 110 0 273 C 332 116 0	A B C A 0 10 6 B 5 0 4 C 15 10 0
J7 - A453 / The Green	A A453 (E) B The Green C A453 (W)	A B C A 0 12 357 B 14 0 58 C 286 104 0	A B C A 0 130 285 B 97 0 139 C 241 153 0	A B C A 0 14 4 B 11 0 8 C 3 4 0
J8 - A453 / Grimes Gate	A A453 (E) B Grimes Gate C A453 (W)	A B C A 0 70 360 B 28 0 9 C 288 12 0	A B C A 0 27 415 B 17 0 0 C 338 0 0	A B C A 0 6 3 B 2 0 4 C 3 5 0
J9 - A453 / A6 Kegworth Bypass / Wildens Way	A A453 (N) B A6 Kegworth Bypass C A453 (S) D Wildens Way	A B C D A 5 57 209 193 B 288 0 95 294 C 665 146 0 42 D 149 15 73 0	A B C D A 0 238 198 42 B 393 0 355 27 C 1516 61 0 87 D 373 126 173 0	A B C D A 0 15 1 14 B 6 0 17 21 C 26 8 0 6 D 14 13 9 0
J10 - M1 J23 A512 / Ashby Road East	A M1 J23 Slip Road (N) B A512 C M1 J23 Slip Road (S) D Ashby Road (E)	A B C D A 0 394 0 155 B 469 0 341 496 C 0 185 0 122 D 204 373 114 0	A B C D A 0 305 0 348 B 258 0 119 401 C 0 182 0 243 D 311 467 340 0	A B C D A 0 5 0 12 B 11 0 15 4 C 0 0 0 9 D 7 5 15 0

Junction Arm			2022 Observed Flows (Heavies AM)				2022 Saturn Actual Flows (Heavies AM)				GEH Comparison							
J1 - A453 / Walton Hill	A	Northern Arm		A	B	C		A	B	C		A	B	C				
	B	A453	A	0	45	23	A	0	0	4	A	0	9	5				
	C	Walton Hill	B	25	0	28	B	0	0	20	B	7	0	2				
			C	15	33	0	C	1	40	0	C	5	1	0				
J2 - A453 / East Midlands Airport Access	A	East Midlands Airport Access		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	5	2	A	0	0	3	A	0	3	1				
	C	A453(W)	B	1	0	39	B	0	0	17	B	1	0	4				
			C	1	1	0	C	8	32	0	C	3	8	0				
J3 - A453 / Hunter Road	A	Hunter Road		A	B	C		A	B	C		A	B	C				
	B	A453 (E)	A	0	18	0	A	0	8	0	A	0	3	####				
	C	A453 (W)	B	17	0	40	B	36	0	39	B	4	0	0				
			C	1	60	0	C	0	34	0	C	1	4	0				
J4 - A453 / M1 J23A Access / Donnington	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	M1 J23A Access	A	0	74	10	25	A	0	65	0	20	A	0	1	4	1	
	C	Donnington Services Access	B	124	0	32	27	B	362	0	0	54	B	15	0	8	4	
	D	A453 (W)	C	48	23	0	5	C	0	0	0	0	C	10	7	0	3	
			D	40	36	2	0	D	39	3	0	0	D	0	7	2	0	
J5 - A453 / Derby Road / M1 J24 / A50	A	M1 J24 (N)		A	B	C	D	E	F	G		A	B	C	D	E	F	G
	B	A453 (N)	A	0	80	21	0	51	34	0	A	0	103	3	0	306	0	2
	C	Derby Road	B	25	0	1	60	43	34	0	B	11	0	0	75	80	87	0
	D	M1 J24 (S)	C	0	2	0	5	1	13	0	C	0	0	0	0	0	0	0
	E	A453 (S)	D	0	70	11	0	2	193	0	D	0	90	0	0	0	109	3
	F	A50	E	36	21	3	19	0	111	0	E	177	50	0	0	0	169	2
	G	Hilton Hotel Lane	F						0		F	0	0	0	0	0	0	0
			G	0	0	0	0	0	0	0	G	0	0	0	1	1	1	0
J6 - A453 / Northern Arm	A	Northern Arm		A	B	C		A	B	C		A	B	C		A	B	C
	B	A453 (E)	A	0	11	16	A	0	3	29	A	0	3	3				
	C	A453 (W)	B	7	0	23	B	0	0	5	B	4	0	5				
			C	16	30	0	C	17	22	0	C	0	2	0				
J7 - A453 / The Green	A	A453 (E)		A	B	C		A	B	C		A	B	C		A	B	C
	B	The Green	A	0	1	30	A	0	0	17	A	0	1	3				
	C	A453 (W)	B	1	0	0	B	0	0	0	B	1	0	0				
			C	39	2	0	C	32	0	0	C	1	2	0				
J8 - A453 / Grimes Gate	A	A453 (E)		A	B	C		A	B	C		A	B	C		A	B	C
	B	Grimes Gate	A	0	0	31	A	0	0	17	A	0	0	3				
	C	A453 (W)	B	1	0	0	B	0	0	0	B	1	0	0				
			C	40	0	0	C	32	0	0	C	1	0	0				
J9 - A453 / A6 Kegworth Bypass / Wilders Way	A	A453 (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A6 Kegworth Bypass	A	3	20	17	26	A	0	25	18	326	A	0	1	0	23	
	C	A453 (S)	B	11	0	3	16	B	54	0	3	22	B	8	0	0	1	
	D	Wilders Way	C	65	7	0	28	C	45	33	0	323	C	3	6	0	22	
			D	21	2	21	0	D	308	66	68	0	D	22	11	7	0	
J10 - M1 J23 Slip Road / A512 / Ashby Road East	A	M1 J23 Slip Road (N)		A	B	C	D		A	B	C	D		A	B	C	D	
	B	A512	A	0	27	0	44	A	0	6	0	103	A	0	5	0	7	
	C	M1 J23 Slip Road (S)	B	25	0	17	20	B	12	0	2	47	B	3	0	0	5	
	D	Ashby Road (E)	C	0	20	0	22	C	0	2	0	14	C	0	5	0	2	
			D	24	32	12	0	D	13	47	15	0	D	3	2	1	0	

	Junction Arm	2022 Observed Flows (Heavies PM)	2022 Saturn Actual Flows (Heavies PM)	GEH Comparison																																																																																																																																																																																																
J1 - A453 / Walton Hill	A Northern Arm B A453 C Walton Hill	<table><tr><th></th><th>A</th><th>B</th><th>C</th></tr><tr><td>A</td><td>0</td><td>10</td><td>6</td></tr><tr><td>B</td><td>9</td><td>0</td><td>9</td></tr><tr><td>C</td><td>7</td><td>3</td><td>0</td></tr></table>		A	B	C	A	0	10	6	B	9	0	9	C	7	3	0	<table><tr><th></th><th>A</th><th>B</th><th>C</th></tr><tr><td>A</td><td>0</td><td>0</td><td>0</td></tr><tr><td>B</td><td>0</td><td>0</td><td>20</td></tr><tr><td>C</td><td>0</td><td>11</td><td>0</td></tr></table>		A	B	C	A	0	0	0	B	0	0	20	C	0	11	0	<table><tr><th></th><th>A</th><th>B</th><th>C</th></tr><tr><td>A</td><td>0</td><td>4</td><td>3</td></tr><tr><td>B</td><td>4</td><td>0</td><td>3</td></tr><tr><td>C</td><td>4</td><td>3</td><td>0</td></tr></table>		A	B	C	A	0	4	3	B	4	0	3	C	4	3	0																																																																																																																																																
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J10 - M1 J23 Slip Road / A512 / Ashby Road East	A M1 J23 Slip Road (N) B A512 C M1 J23 Slip Road (S) D Ashby Road (E)	<table><tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th></tr><tr><td>A</td><td>0</td><td>7</td><td>0</td><td>16</td></tr><tr><td>B</td><td>11</td><td>0</td><td>5</td><td>12</td></tr><tr><td>C</td><td>0</td><td>9</td><td>0</td><td>23</td></tr><tr><td>D</td><td>7</td><td>8</td><td>2</td><td>0</td></tr></table>		A	B	C	D	A	0	7	0	16	B	11	0	5	12	C	0	9	0	23	D	7	8	2	0	<table><tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th></tr><tr><td>A</td><td>0</td><td>5</td><td>0</td><td>17</td></tr><tr><td>B</td><td>9</td><td>0</td><td>0</td><td>26</td></tr><tr><td>C</td><td>0</td><td>3</td><td>0</td><td>5</td></tr><tr><td>D</td><td>16</td><td>22</td><td>4</td><td>0</td></tr></table>		A	B	C	D	A	0	5	0	17	B	9	0	0	26	C	0	3	0	5	D	16	22	4	0	<table><tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th></tr><tr><td>A</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>B</td><td>1</td><td>0</td><td>3</td><td>3</td></tr><tr><td>C</td><td>0</td><td>2</td><td>0</td><td>5</td></tr><tr><td>D</td><td>3</td><td>4</td><td>1</td><td>0</td></tr></table>		A	B	C	D	A	0	1	0	0	B	1	0	3	3	C	0	2	0	5	D	3	4	1	0																																																																																																																					
	A	B	C	D																																																																																																																																																																																																
A	0	7	0	16																																																																																																																																																																																																
B	11	0	5	12																																																																																																																																																																																																
C	0	9	0	23																																																																																																																																																																																																
D	7	8	2	0																																																																																																																																																																																																
	A	B	C	D																																																																																																																																																																																																
A	0	5	0	17																																																																																																																																																																																																
B	9	0	0	26																																																																																																																																																																																																
C	0	3	0	5																																																																																																																																																																																																
D	16	22	4	0																																																																																																																																																																																																
	A	B	C	D																																																																																																																																																																																																
A	0	1	0	0																																																																																																																																																																																																
B	1	0	3	3																																																																																																																																																																																																
C	0	2	0	5																																																																																																																																																																																																
D	3	4	1	0																																																																																																																																																																																																

90174

1

		TARGET LINK FLOW																
		2028 Wed																
1	AM LV	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
		1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2	0							2934	1106							2198
		3																634
		4																1537
		5																674
		6																291
		7																914
		8																2251
		9																1135
		10																609
		11																128
		12																178
		13																116
		14																0
		15																0
		T	2736	536	2038	794	99	185	1507	729	634	851	177	407	0	0	0	10695

		2028 Wed																
645	AM HV	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2	0							425	271							233
		3																34
		4																221
		5																19
		6																0
		7																29
		8																318
		9																167
		10																53
		11																118
		12																71
		13																16
		14																0
		15																0
		T	225	70	351	23	0	37	229	97	40	149	43	14	0	0	0	1279

		2028 Wed																
2873	PM LV	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2	0							1741	1854							1574
		3																2041
		4																575
		5																178
		6																912
		7																2573
		8																434
		9																618
		10																304
		11																239
		12																368
		13																4
		14																0
		15																0
		T	2411	775	2043	760	159	407	1377	626	439	658	221	148	0	0	0	10025

		2028 Wed																
432	PM HV	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2	0							135	2174							77
		3																46
		4																116
		5																9
		6																0
		7																33
		8																227
		9																128
		10																15
		11																114
		12																25
		13																20
		14																0
		15																0
		T	121	46	213	16	1	6	114	60	24	141	54	13	0	0	0	0

809

		GEM Comparison																
		2028 Wed																
92		93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109
		1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2																0.0
		3																0.0
		4																0.0
		5																0.0
		6																0.0
		7																0.0
		8																0.0
		9																0.0
		10																0.0
		11																0.0
		12																0.0
		13																#DIV/0!
		14																#DIV/0!
		15																#DIV/0!
		T	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

		2028 Wed																
3576.4		93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109
		1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
		2																0.0
		3																0.0
		4																0.0
		5																0.0
		6																0.0
		7																0.0
		8																0.0
		9																0.0
		10																0.0
		11																0.0
		12																0.0
		13																#DIV/0!
		14																#DIV/0!
		15																#DIV/0!
		T	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

		2028 Wed																
4896		93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109
		1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T

TARGET LINK FLOW														
1	2028 WD													
	57	58	59	60	61	62	63	64	65	66	67	68	69	70
1	0	1	2	3	4	5	6	7	8	9	10	11	12	13
2	0	0	0	301	205	7	14	2922	1623	37	48	15	29	0
3	235	247	0	54	57	0	367	245	106	97	25	66	0	0
4	193	130	75	0	25	3	56	34	49	44	11	35	0	0
5	12	6	65	29	0	0	19	10	4	3	0	5	0	0
6	297	62	40	4	0	0	128	56	11	391	0	7	0	0
7	888	1936	557	71	67	102	0	0	171	167	74	128	0	0
8	616	970	275	67	15	38	0	0	32	44	17	141	0	0
9	272	87	72	9	4	2	125	23	0	55	9	35	0	0
10	59	8	6	0	0	5	42	13	0	0	0	0	0	0
11	53	10	8	0	0	0	66	13	17	0	0	11	0	0
12	55	13	11	0	0	0	18	23	19	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	2680	3469	2086	846	185	170	4419	2394	539	940	177	505	0	0

AM LV	2028 WD													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0	0	105	16	0	4	46	30	7	29	3	2	0	0
2	0	0	10	4	0	5	407	215	0	14	0	0	0	0
3	68	23	0	1	0	5	58	39	4	18	2	1	0	0
4	12	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	33	5	6	0	0	0	9	3	0	14	0	0	0	0
7	78	355	106	1	0	8	0	0	21	65	32	9	0	0
8	48	197	95	1	0	1	0	5	12	5	1	0	0	0
9	2	3	7	0	0	0	33	8	0	0	1	0	0	0
10	20	31	15	0	0	12	38	9	0	0	0	0	0	0
11	8	9	12	0	1	0	32	5	3	0	0	1	0	0
12	0	2	2	0	0	0	10	2	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	269	625	359	23	1	35	637	313	40	152	43	14	0	0

AM HV	2028 WD													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0	0	0	849	514	10	8	205	94	6	35	12	2	0
2	0	0	182	107	0	8	2715	1685	88	7	1	2	0	0
3	311	322	0	71	47	60	600	360	72	124	32	13	0	0
4	171	155	57	0	16	9	53	32	22	44	7	3	0	0
5	10	19	28	19	0	0	6	4	0	1	0	0	0	0
6	177	165	56	13	31	0	89	37	30	373	6	7	0	0
7	1423	3401	476	83	96	11	0	0	270	3	101	74	0	0
8	8	1560	334	49	4	18	0	0	4	0	5	0	0	0
9	113	84	31	3	1	82	127	39	0	40	38	31	0	0
10	65	85	32	15	2	56	59	23	18	0	5	4	0	0
11	5	9	2	1	0	37	86	22	49	10	0	8	0	0
12	3	29	10	1	0	121	85	0	39	30	19	0	0	0
13	0	0	0	0	0	0	4	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	2154	1036	2118	872	236	414	1580	564	597	671	221	143	0	0

PM LV	2028 WD													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0	0	0	12	9	0	4	335	173	6	21	2	0	0
2	0	0	0	0	0	1	47	28	0	10	2	0	0	0
3	21	6	0	1	0	0	3	0	0	0	0	0	0	0
4	5	0	1	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	7	0	0	0	0	5	1	0	23	0	0	0	0
7	76	265	40	0	0	2	0	0	13	60	30	8	0	0
8	3	141	116	0	0	4	0	0	0	6	0	0	0	0
9	0	3	0	0	0	0	4	2	0	4	2	0	0	0
10	19	26	25	0	1	4	22	7	6	0	13	3	0	0
11	0	4	0	0	0	0	11	4	1	5	0	0	0	0
12	0	3	0	0	0	1	6	3	1	4	2	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	138	77	257	21	1	13	134	97	31	144	54	13	0	0

980

GEN Comparison														
74	2028 WD													
	93	94	95	96	97	98	99	100	101	102	103	104	105	106
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!	#DIV/0!

74	2028 WD													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!	#DIV/0!

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T
1																0.0
2																0.0
3																0.0
4																0.0
5																0.0
6																0.0
7																0.0
8																0.0
9																0.0
10																0.0
11																0.0
12																0.0
13																0.0
14																0.0
15																0.0
T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

		TARGET LINK FLOW																			
		2038 WD																			
		57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73			
AM LV	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
	2	0	0	0	614	0	15	870	0	0	0	0	0	0	0	0	0	0	0	3603	
	3	0	0	0	310	125	7	10	2931	1643	40	39	15	31	0	0	0	0	0	5151	
	4	264	413	0	53	78	0	352	257	113	86	25	72	0	0	0	0	0	0	1713	
	5	180	136	49	0	32	3	54	42	50	43	11	35	0	0	0	0	0	0	635	
	5	12	7	133	138	0	0	19	13	5	18	0	5	0	0	0	0	0	0	200	
	6	276	131	1	4	15	0	136	84	58	38	0	18	0	0	0	0	0	0	1111	
	7	655	211	593	71	148	102	0	0	0	171	139	139	0	0	0	0	0	0	4438	
	8	655	1101	343	79	17	54	0	0	12	49	17	83	0	0	0	0	0	0	2430	
	9	276	101	70	8	5	33	123	23	0	51	9	35	0	0	0	0	0	0	734	
	10	57	8	6	0	1	6	41	13	0	0	0	0	0	0	0	0	0	0	132	
	11	53	10	8	0	0	0	66	13	17	0	0	11	0	0	0	0	0	0	178	
	12	35	15	10	0	23	2	23	15	19	0	0	0	0	0	0	0	0	0	139	
	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	T	2493	1864	2154	922	313	209	1798	1011	591	865	177	326	0	0	0	0	0	0	12723	
AM HV	1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T			
	2	0	0	0	116	16	1	2	72	31	7	29	3	2	0	0	0	0	279		
	3	73	32	0	10	4	0	6	353	245	6	10	0	0	0	0	0	0	634		
	4	12	0	1	0	0	0	0	4	2	0	0	0	0	0	0	0	0	19		
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6	34	5	6	0	0	0	0	9	1	0	13	13	0	0	0	0	0	70		
	7	77	396	106	1	0	0	8	0	0	19	65	32	8	0	0	0	0	712		
	8	49	272	91	1	0	1	0	0	0											

[illegible]

Furnaced Flow																
2038 WD																
75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T	
2	631	444	3	0	0	0	873	26	33	76	31	0	0	0	2623	
2	272	0	310	123	7	10	2931	1643	40	39	15	31	0	0	5423	
3	264	413	0	53	78	0	352	257	113	86	25	72	0	0	1713	
4	180	136	49	0	32	3	54	52	150	43	11	35	0	0	635	
5	12	7	133	138	0	0	19	13	5	18	0	5	0	0	350	
6	276	137	43	4	15	0	136	84	58	388	0	18	0	0	1111	
7	645	645	193	749	149	110	2931	1643	40	39	15	74	139	0	0	1339
8	655	1151	343	79	17	54	0	0	32	49	17	83	0	0	2430	
9	276	101	70	8	5	33	123	23	0	51	9	35	0	0	734	
10	57	8	6	0	1	6	41	13	0	0	0	0	0	0	132	
11	53	10	8	0	0	0	66	13	17	0	0	11	0	0	0	178
12	55	15	10	0	0	0	23	10	0	0	0	0	0	0	0	139
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	2765	4233	2154	922	313	225	4615	2495	591	921	177	475	0	0	0	19886

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T	
1	0	0	116	16	1	2	72	31	7	29	3	2	0	0	0	279
2	62	0	10	4	0	6	553	745	6	10	0	0	0	0	0	696
3	73	32	0	1	0	4	38	36	4	16	2	1	0	0	0	227
4	12	0	1	0	0	0	4	2	0	0	0	0	0	0	0	19
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	34	34	4	0	0	0	0	0	13	0	0	0	0	0	0	64
7	77	396	106	1	0	8	0	0	19	65	32	8	0	0	0	712
8	49	275	91	1	0	1	4	0	5	12	5	1	0	0	0	441
9	13	3	7	0	0	0	32	8	0	0	1	0	0	0	0	64
10	28	22	15	0	0	12	38	10	0	0	0	0	0	0	0	125
11	8	5	12	0	0	0	3	0	0	0	0	0	0	0	0	47
12	0	0	0	0	0	0	10	3	0	0	0	0	0	0	0	10
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T	356	741	366	23	2	33	612	343	44	145	43	13	0	0	0	2721

1	2	3	4	5	6	7</
---	---	---	---	---	---	-----

**APPENDIX 48: Junction 6: A453/East Midlands Airport signal junction Stage 1A/2A
Modelling Results**

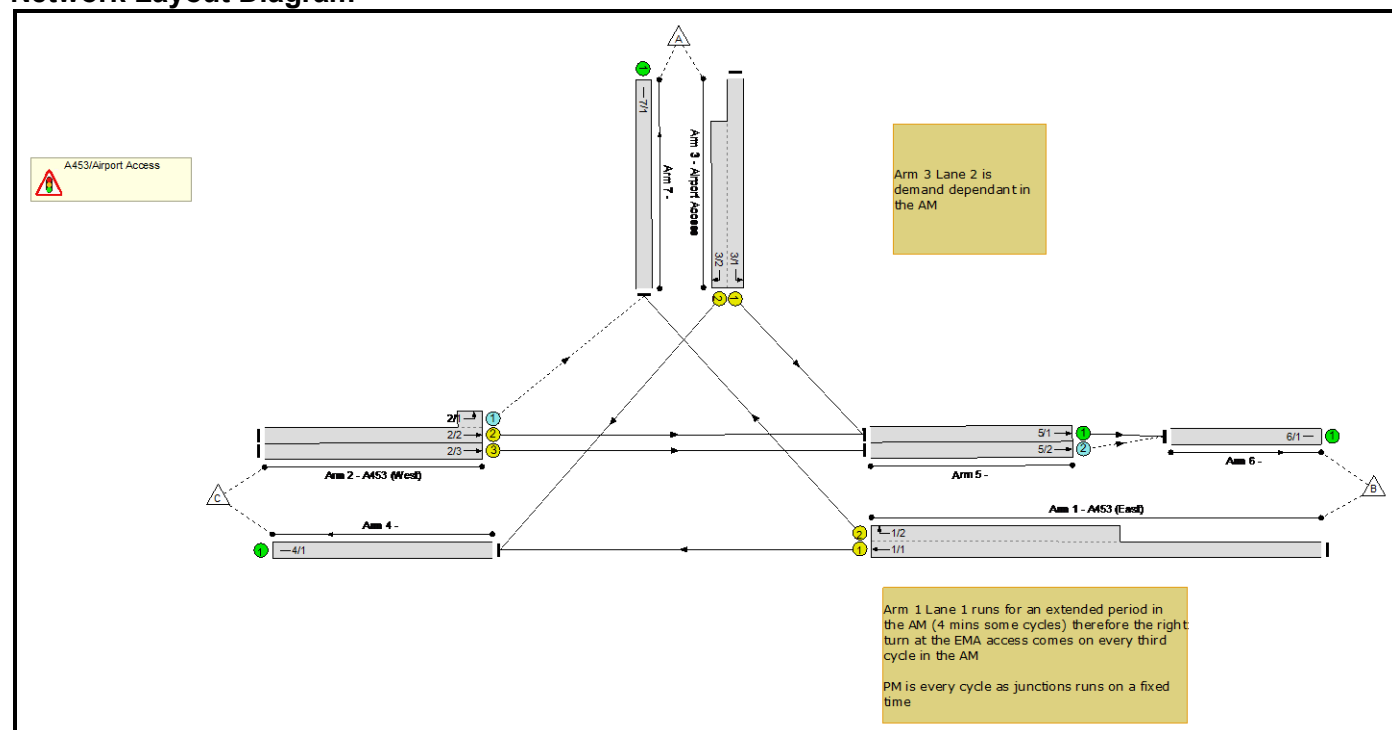
Full Input Data And Results

Full Input Data And Results

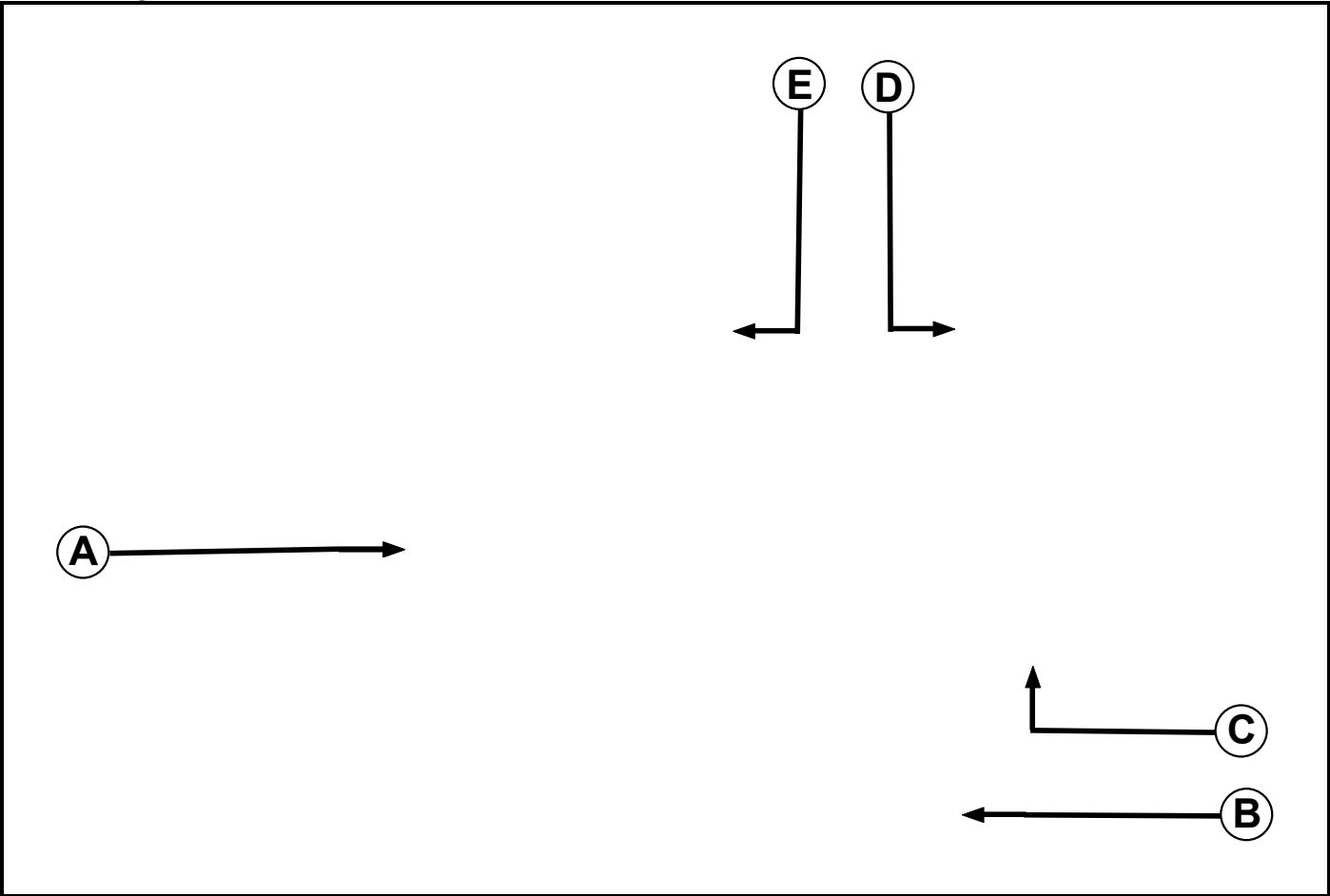
User and Project Details

Project:	East Midlands Gateway Phase 2
Title:	A453/EMA Junction
Location:	
Client:	SEGRO
Site Ref(s):	Junction 6
Checked By:	Vibeeshan Devaharan
Checked By Date:	27/03/24
Additional detail:	
File name:	250619_A453_Airport Access Signal Junction_Stage 1a+2a.lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		6	6
C	Traffic		7	7
D	Traffic		6	6
E	Traffic		7	7

Full Input Data And Results

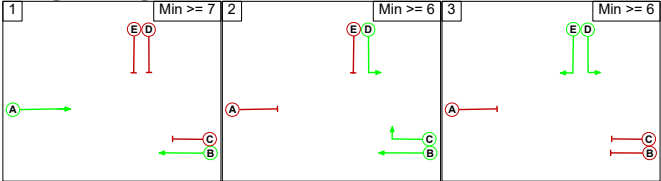
Phase Intergreens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		-	6	7	6
	B	-		-	-	5
	C	7	-		-	6
	D	5	-	-		-
	E	6	6	6	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	B C D
3	D E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		7	7
	2	7		6
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A453/Airport Access											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (A453 (West))	7/1 (Left)	715	0	1/2	0.22	All	-	-	-	-	-
5/2	6/1 (Ahead)	715	0	5/1	0.22	All	-	-	-	-	-

Lane Input Data

Junction: A453/Airport Access												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A453 (East))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
1/2 (A453 (East))	U	C	2	3	23.5	Geom	-	3.50	0.00	Y	Arm 7 Right	25.00
2/1 (A453 (West))	O		2	3	2.3	User	1439	-	-	-	-	-
2/2 (A453 (West))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
2/3 (A453 (West))	U	A	2	3	13.0	Geom	-	3.50	0.00	N	Arm 5 Ahead	Inf
3/1 (Airport Access)	U	D	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left	20.00
3/2 (Airport Access)	U	E	2	3	15.7	Geom	-	3.25	0.00	Y	Arm 4 Right	25.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	9.6	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
5/2	O		2	3	9.6	Geom	-	3.50	0.00	N	Arm 6 Ahead	Inf
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Observed (AM)'	07:45	08:45	01:00	
2: '2022 Observed (PM)'	17:00	18:00	01:00	
3: '1a 2028 Forecast Year Without Development (AM)'	07:45	08:45	01:00	
4: '1a 2028 Forecast Year Without Development (PM)'	17:00	18:00	01:00	
5: '1a 2028 Forecast Year With Development (AM)'	07:45	08:45	01:00	
6: '1a 2028 Forecast Year With Development (PM)'	17:00	18:00	01:00	
7: '1a 2038 Forecast Year Without Development (AM)'	07:45	08:45	01:00	
8: '1a 2038 Forecast Year Without Development (PM)'	17:00	18:00	01:00	
9: '1a 2038 Forecast Year With Development (AM)'	07:45	08:45	01:00	
10: '1a 2038 Forecast Year With Development (PM)'	17:00	18:00	01:00	
11: '2a 2028 Forecast Year With Development (AM)'	07:45	08:45	01:00	
12: '2a 2028 Forecast Year With Development (PM)'	17:00	18:00	01:00	
13: '2a 2038 Forecast Year With Development (AM)'	07:45	08:45	01:00	
14: '2a 2038 Forecast Year With Development (PM)'	17:00	18:00	01:00	

Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	114	39	153
	B	241	0	390	631
	C	129	460	0	589
	Tot.	370	574	429	1373

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Observed (AM)
Junction: A453/Airport Access	
1/1 (with short)	631(In) 390(Out)
1/2 (short)	241
2/1 (short)	129
2/2 (with short)	476(In) 347(Out)
2/3	113
3/1 (with short)	153(In) 114(Out)
3/2 (short)	39
4/1	429
5/1	461
5/2	113
6/1	574
7/1	370

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	224	65	289
	B	133	0	443	576
	C	41	347	0	388
	Tot.	174	571	508	1253

Traffic Lane Flows

Lane	Scenario 2: 2022 Observed (PM)
Junction: A453/Airport Access	
1/1 (with short)	576(In) 443(Out)
1/2 (short)	133
2/1 (short)	41
2/2 (with short)	314(In) 273(Out)
2/3	74
3/1 (with short)	289(In) 224(Out)
3/2 (short)	65
4/1	508
5/1	497
5/2	74
6/1	571
7/1	174

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '1a 2028 Forecast Year Without Development (AM)' (FG3: '1a 2028 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	167	75	242
	B	276	0	394	670
	C	252	535	0	787
	Tot.	528	702	469	1699

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 1a 2028 Forecast Year Without Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	670(In) 394(Out)
1/2 (short)	276
2/1 (short)	252
2/2 (with short)	628(In) 376(Out)
2/3	159
3/1 (with short)	242(In) 167(Out)
3/2 (short)	75
4/1	469
5/1	543
5/2	159
6/1	702
7/1	528

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '1a 2028 Forecast Year Without Development (PM)' (FG4: '1a 2028 Forecast Year Without Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	324	143	467
	B	147	0	461	608
	C	78	426	0	504
	Tot.	225	750	604	1579

Traffic Lane Flows

Lane	Scenario 4: 1a 2028 Forecast Year Without Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	608(In) 461(Out)
1/2 (short)	147
2/1 (short)	78
2/2 (with short)	402(In) 324(Out)
2/3	102
3/1 (with short)	467(In) 324(Out)
3/2 (short)	143
4/1	604
5/1	648
5/2	102
6/1	750
7/1	225

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '1a 2028 Forecast Year With Development (AM)' (FG5: '1a 2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	176	83	259
	B	272	0	319	591
	C	412	645	0	1057
	Tot.	684	821	402	1907

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 1a 2028 Forecast Year With Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	591(In) 319(Out)
1/2 (short)	272
2/1 (short)	412
2/2 (with short)	828(In) 416(Out)
2/3	229
3/1 (with short)	259(In) 176(Out)
3/2 (short)	83
4/1	402
5/1	592
5/2	229
6/1	821
7/1	684

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '1a 2028 Forecast Year With Development (PM)' (FG6: '1a 2028 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	286	204	490
	B	134	0	569	703
	C	82	397	0	479
	Tot.	216	683	773	1672

Traffic Lane Flows

Lane	Scenario 6: 1a 2028 Forecast Year With Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	703(In) 569(Out)
1/2 (short)	134
2/1 (short)	82
2/2 (with short)	379(In) 297(Out)
2/3	100
3/1 (with short)	490(In) 286(Out)
3/2 (short)	204
4/1	773
5/1	583
5/2	100
6/1	683
7/1	216

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '1a 2038 Forecast Year Without Development (AM)' (FG7: '1a 2038 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	170	161	331
	B	295	0	426	721
	C	369	484	0	853
	Tot.	664	654	587	1905

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 1a 2038 Forecast Year Without Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	721(In) 426(Out)
1/2 (short)	295
2/1 (short)	369
2/2 (with short)	663(In) 294(Out)
2/3	190
3/1 (with short)	331(In) 170(Out)
3/2 (short)	161
4/1	587
5/1	464
5/2	190
6/1	654
7/1	664

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '1a 2038 Forecast Year Without Development (PM)' (FG8: '1a 2038 Forecast Year Without Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	388	215	603
	B	152	0	486	638
	C	126	588	0	714
	Tot.	278	976	701	1955

Traffic Lane Flows

Lane	Scenario 8: 1a 2038 Forecast Year Without Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	638(In) 486(Out)
1/2 (short)	152
2/1 (short)	126
2/2 (with short)	566(In) 440(Out)
2/3	148
3/1 (with short)	603(In) 388(Out)
3/2 (short)	215
4/1	701
5/1	828
5/2	148
6/1	976
7/1	278

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: '1a 2038 Forecast Year With Development (AM)' (FG9: '1a 2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
	A	B	C	Tot.	
Origin	A	0	169	165	334
	B	278	0	331	609
	C	544	566	0	1110
	Tot.	822	735	496	2053

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 1a 2038 Forecast Year With Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	609(In) 331(Out)
1/2 (short)	278
2/1 (short)	544
2/2 (with short)	759(In) 215(Out)
2/3	351
3/1 (with short)	334(In) 169(Out)
3/2 (short)	165
4/1	496
5/1	384
5/2	351
6/1	735
7/1	822

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: '1a 2038 Forecast Year With Development (PM)' (FG10: '1a 2038 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	365	320	685
	B	169	0	651	820
	C	134	476	0	610
	Tot.	303	841	971	2115

Traffic Lane Flows

Lane	Scenario 10: 1a 2038 Forecast Year With Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	820(In) 651(Out)
1/2 (short)	169
2/1 (short)	134
2/2 (with short)	469(In) 335(Out)
2/3	141
3/1 (with short)	685(In) 365(Out)
3/2 (short)	320
4/1	971
5/1	700
5/2	141
6/1	841
7/1	303

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2a 2028 Forecast Year With Development (AM)' (FG11: '2a 2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
		A	B	C	Tot.
Origin	A	0	178	68	246
	B	267	0	361	628
	C	291	691	0	982
	Tot.	558	869	429	1856

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2a 2028 Forecast Year With Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	628(In) 361(Out)
1/2 (short)	267
2/1 (short)	291
2/2 (with short)	774(In) 483(Out)
2/3	208
3/1 (with short)	246(In) 178(Out)
3/2 (short)	68
4/1	429
5/1	661
5/2	208
6/1	869
7/1	558

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 12: '2a 2028 Forecast Year With Development (PM)' (FG12: '2a 2028 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	287	224	511
	B	122	0	573	695
	C	82	413	0	495
	Tot.	204	700	797	1701

Traffic Lane Flows

Lane	Scenario 12: 2a 2028 Forecast Year With Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	695(In) 573(Out)
1/2 (short)	122
2/1 (short)	82
2/2 (with short)	385(In) 303(Out)
2/3	110
3/1 (with short)	511(In) 287(Out)
3/2 (short)	224
4/1	797
5/1	590
5/2	110
6/1	700
7/1	204

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2a 2038 Forecast Year With Development (AM)' (FG13: '2a 2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
		A	B	C	Tot.
Origin	A	0	209	121	330
	B	281	0	361	642
	C	374	734	0	1108
	Tot.	655	943	482	2080

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: 2a 2038 Forecast Year With Development (AM)
Junction: A453/Airport Access	
1/1 (with short)	642(In) 361(Out)
1/2 (short)	281
2/1 (short)	374
2/2 (with short)	865(In) 491(Out)
2/3	243
3/1 (with short)	330(In) 209(Out)
3/2 (short)	121
4/1	482
5/1	700
5/2	243
6/1	943
7/1	655

Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 14: '2a 2038 Forecast Year With Development (PM)' (FG14: '2a 2038 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

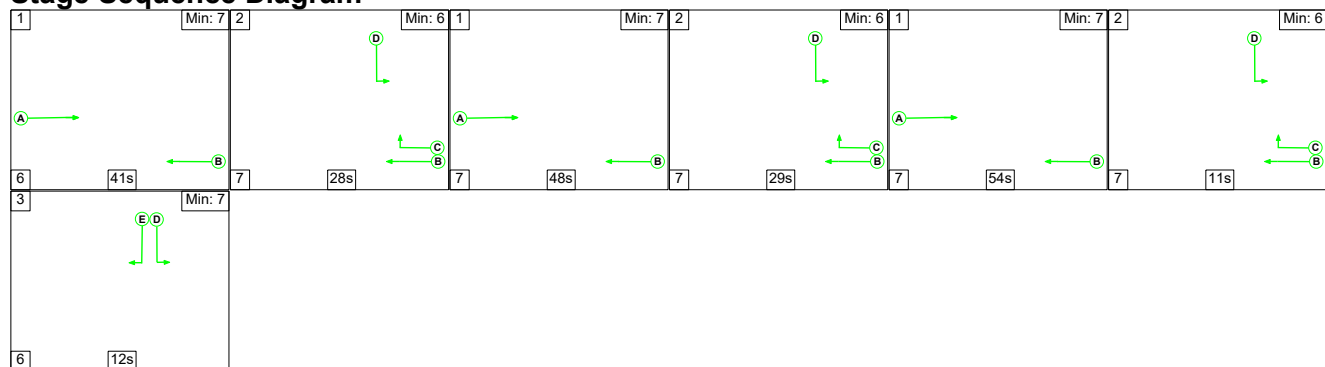
Origin	Destination				
		A	B	C	Tot.
	A	0	365	316	681
	B	157	0	680	837
	C	117	484	0	601
	Tot.	274	849	996	2119

Traffic Lane Flows

Lane	Scenario 14: 2a 2038 Forecast Year With Development (PM)
Junction: A453/Airport Access	
1/1 (with short)	837(In) 680(Out)
1/2 (short)	157
2/1 (short)	117
2/2 (with short)	477(In) 360(Out)
2/3	124
3/1 (with short)	681(In) 365(Out)
3/2 (short)	316
4/1	996
5/1	725
5/2	124
6/1	849
7/1	274

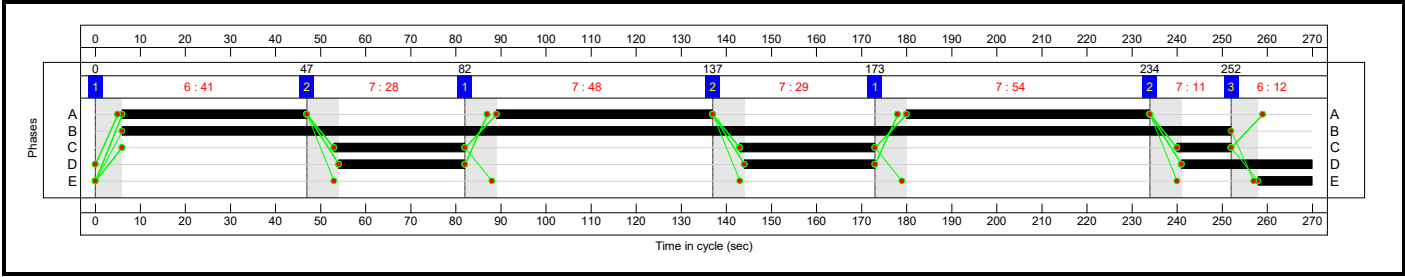
Lane Saturation Flows

Junction: A453/Airport Access								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
2/1 (A453 (West) Lane 1)	This lane uses a directly entered Saturation Flow						1439	1439
2/2 (A453 (West))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/3 (A453 (West))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/1 (Airport Access)	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
3/2 (Airport Access)	3.25	0.00	Y	Arm 4 Right	25.00	100.0 %	1830	1830
4/1	Infinite Saturation Flow						Inf	Inf
5/1	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
5/2	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM)', Plan 1: 'Network Control Plan 1')**Stage Sequence Diagram****Stage Timings**

Stage	1	2	1	2	1	2	3
Duration	41	28	48	29	54	11	12
Change Point	0	47	82	137	173	234	252

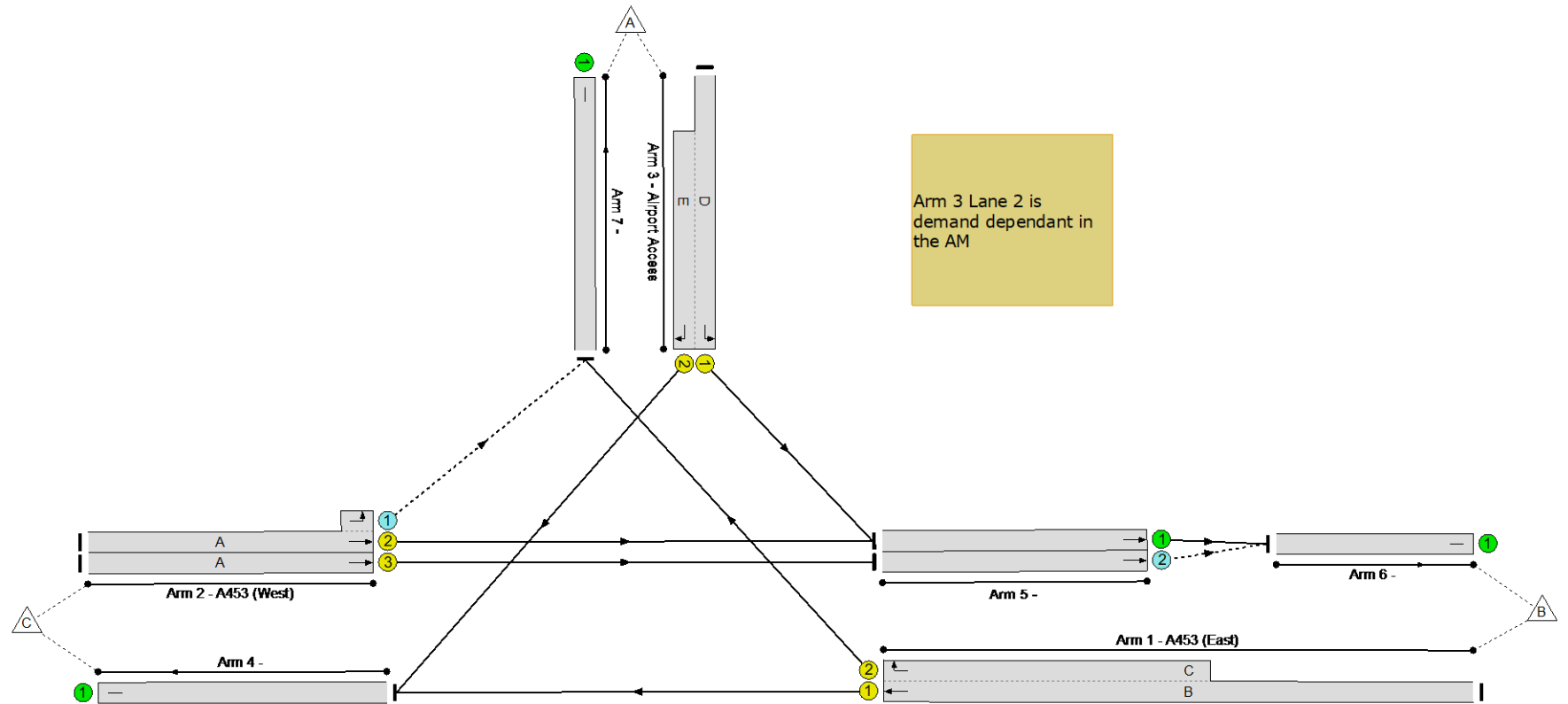
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 89.8 %
Total Traffic Delay: 7.2 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	47.4%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	47.4%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	246:71	-	631	1965:1854	822+508	47.4 : 47.4%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	143	-	476	1965:1439	736+273	47.2 : 47.2%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	143	-	113	2105	1138	9.9%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	86:12	-	153	1805:1830	258+88	44.3 : 44.3%
4/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	461	1965	1965	23.5%
5/2	Ahead	O	N/A	N/A	-		-	-	-	113	2105	614	18.4%
6/1		U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%

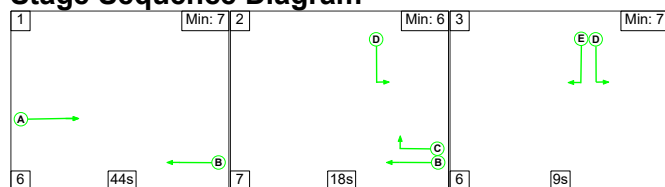
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	135	107	0	5.6	1.6	0.0	7.2	-	-	-	-
A453/Airport Access	-	-	135	107	0	5.6	1.6	0.0	7.2	-	-	-	-
1/1+1/2	631	631	-	-	-	2.0	0.5	-	2.4 (0.4+2.0)	13.8 (3.8:29.9)	5.4	0.5	5.8
2/2+2/1	476	476	22	107	0	1.3	0.4	-	1.7 (1.5+0.2)	13.0 (15.3:6.9)	6.4	0.4	6.8
2/3	113	113	-	-	-	0.3	0.1	-	0.4	11.8	1.4	0.1	1.4
3/1+3/2	153	153	-	-	-	2.0	0.4	-	2.4 (1.0+1.5)	57.4 (31.1:134.3)	2.8	0.4	3.2
4/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	461	461	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
5/2	113	113	113	0	0	0.0	0.1	-	0.1	4.7	1.6	0.1	1.7
6/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 89.8 Total Delay for Signalled Lanes (pcuHr): 6.95 Cycle Time (s): 270 PRC Over All Lanes (%): 89.8 Total Delay Over All Lanes(pcuHr): 7.25													

Full Input Data And Results

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 2: 'Network Control Plan 2')

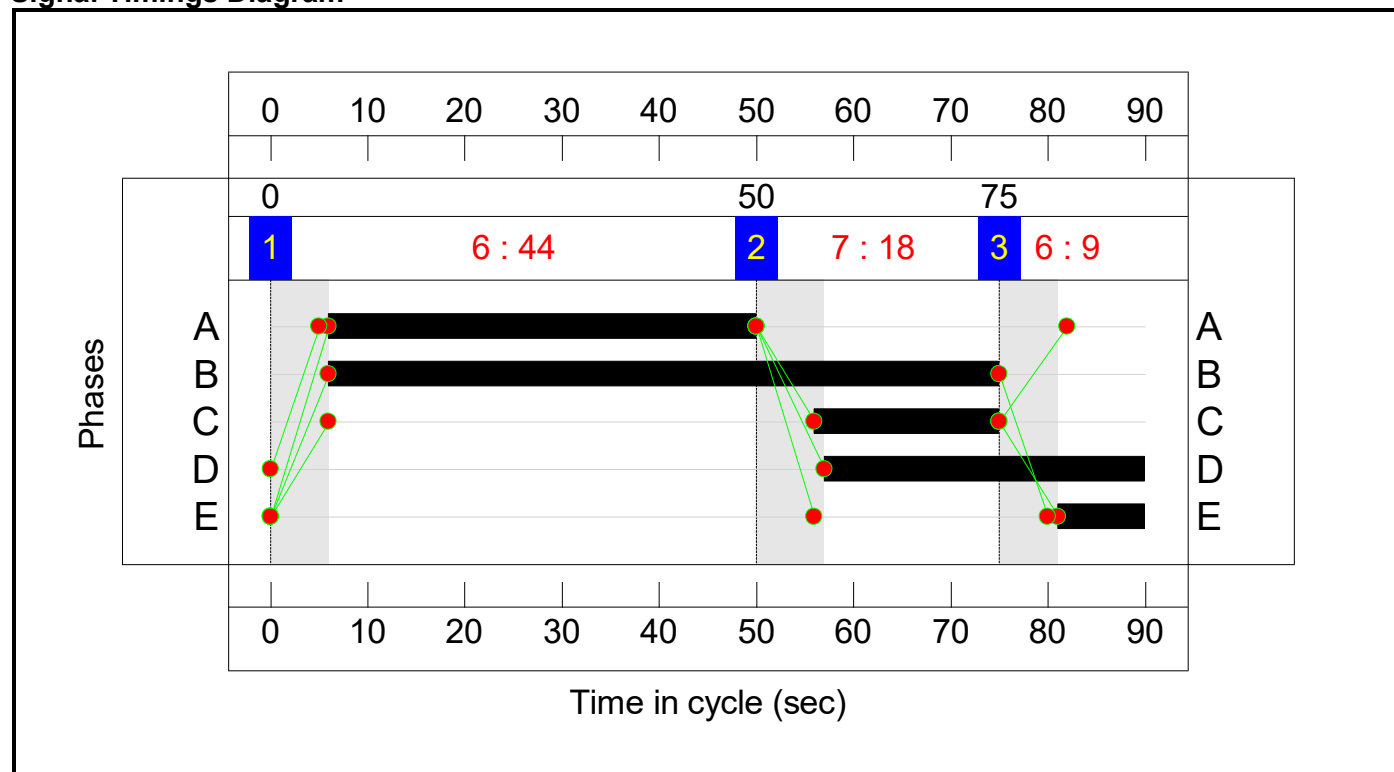
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	44	18	9
Change Point	0	50	75

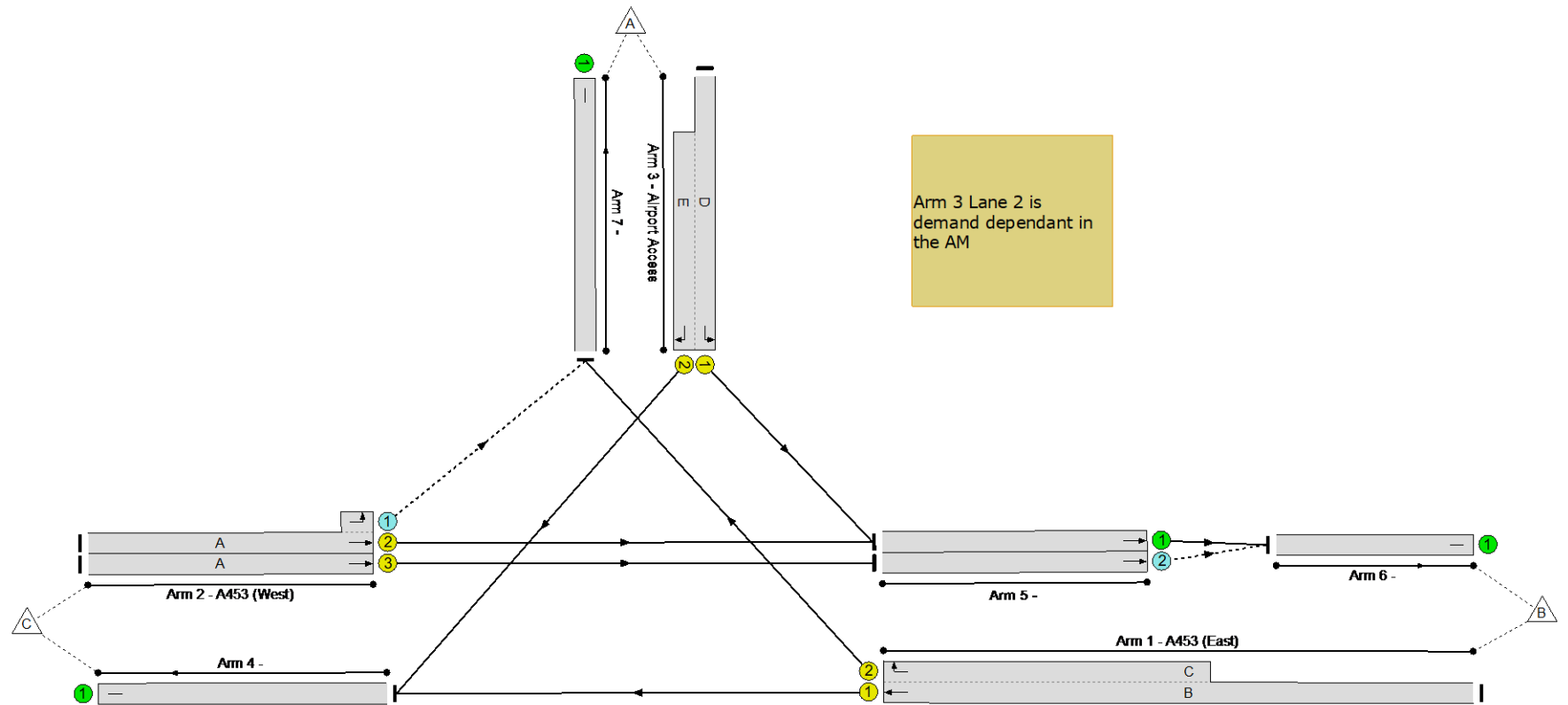
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 173.3 %
Total Traffic Delay: 5.6 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junction runs on a fixed time

Full Input Data And Results

Network Results

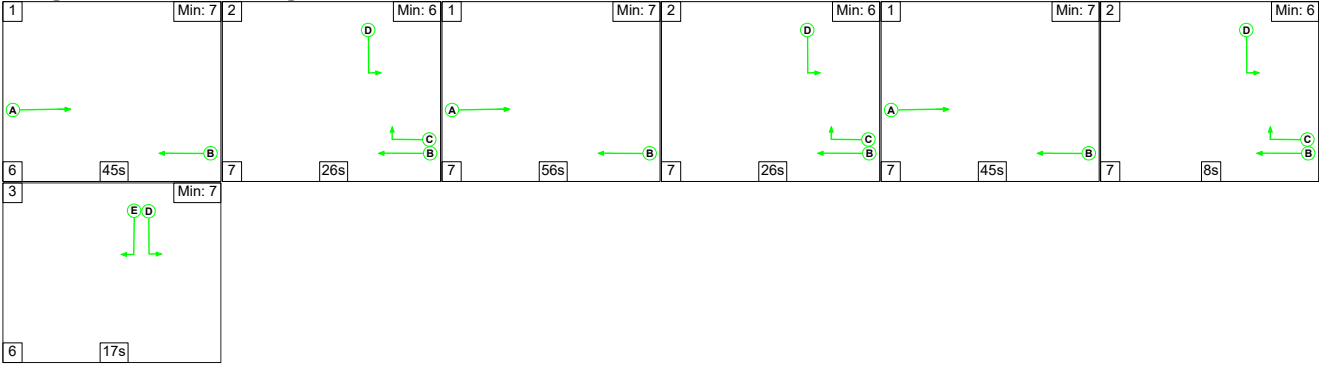
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	32.9%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	32.9%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	69:19	-	576	1965:1854	1397+412	31.7 : 32.3%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	44	-	314	1965:1439	830+125	32.9 : 32.9%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	44	-	74	2105	1052	7.0%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	33:9	-	289	1805:1830	680+197	32.9 : 32.9%
4/1		U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	497	1965	1965	25.3%
5/2	Ahead	O	N/A	N/A	-		-	-	-	74	2105	606	12.2%
6/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	174	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	83	32	0	4.6	1.0	0.0	5.6	-	-	-	-
A453/Airport Access	-	-	83	32	0	4.6	1.0	0.0	5.6	-	-	-	-
1/1+1/2	576	576	-	-	-	1.4	0.2	-	1.7 (0.5+1.1)	10.4 (4.3:30.8)	3.1	0.2	3.3
2/2+2/1	314	314	9	32	0	1.0	0.2	-	1.3 (1.2+0.1)	14.6 (16.0:5.2)	4.3	0.2	4.6
2/3	74	74	-	-	-	0.2	0.0	-	0.3	13.5	0.9	0.0	1.0
3/1+3/2	289	289	-	-	-	1.9	0.2	-	2.1 (1.4+0.7)	26.8 (22.9:39.9)	3.9	0.2	4.2
4/1	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	497	497	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
5/2	74	74	74	0	0	0.0	0.1	-	0.1	3.6	1.0	0.1	1.1
6/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	174	174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 173.3 Total Delay for Signalled Lanes (pcuHr): 5.37 Cycle Time (s): 90 PRC Over All Lanes (%): 173.3 Total Delay Over All Lanes(pcuHr): 5.61													

Full Input Data And Results
Scenario 3: '1a 2028 Forecast Year Without Development (AM)' (FG3: '1a 2028 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

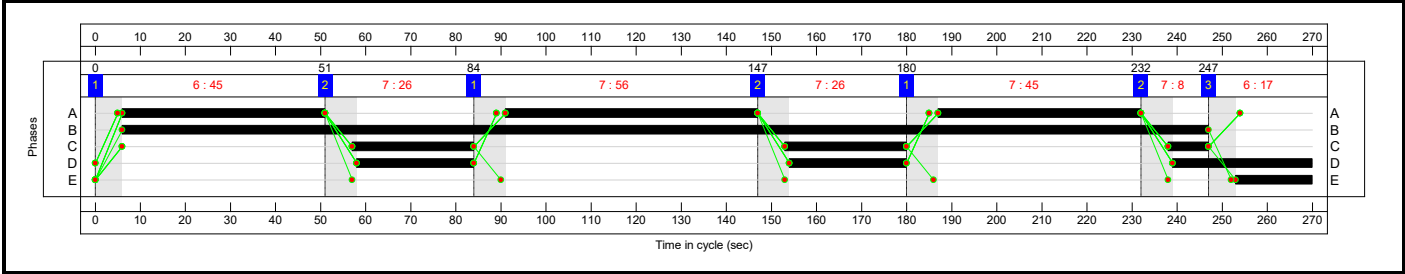
Stage Sequence Diagram



Stage Timings

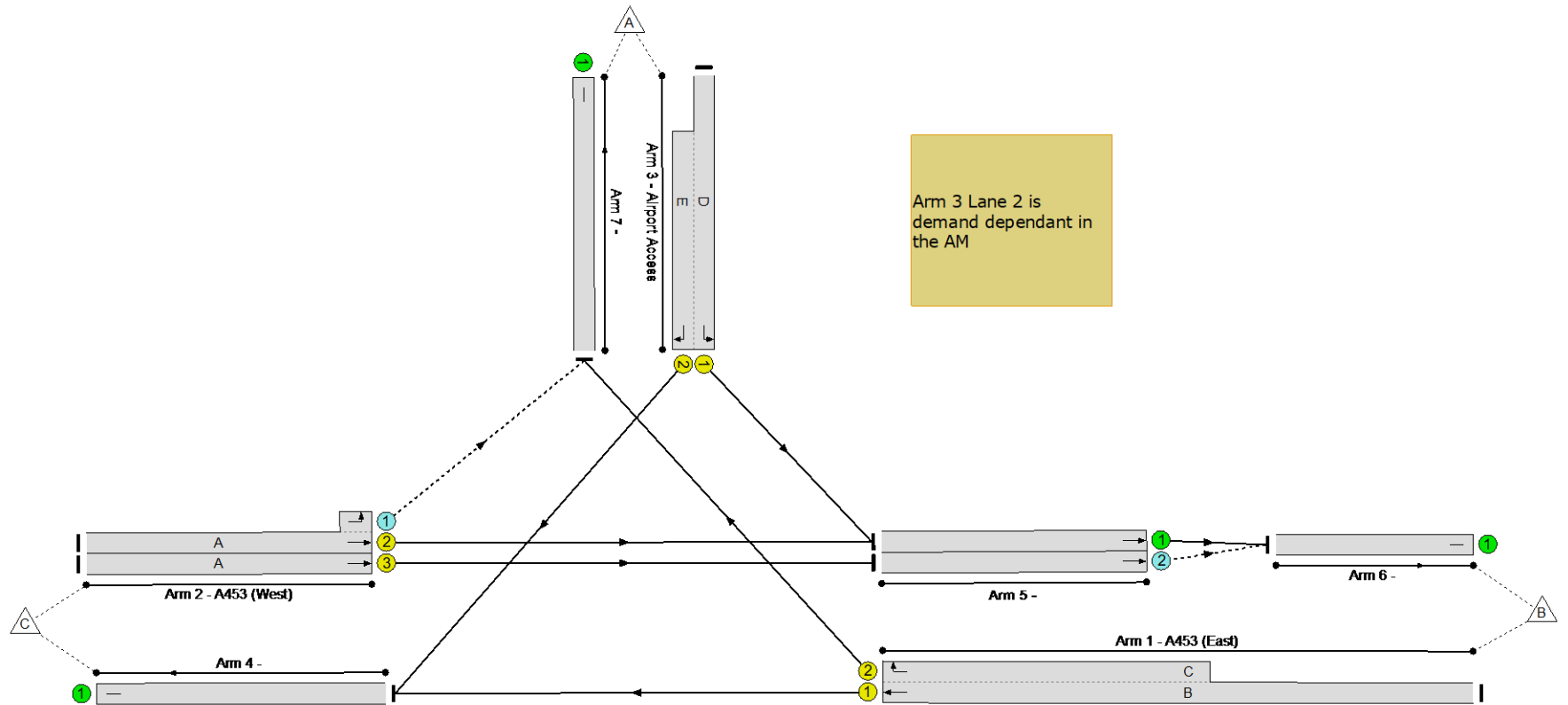
Stage	1	2	1	2	1	2	3
Duration	45	26	56	26	45	8	17
Change Point	0	51	84	147	180	232	247

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

A453/Airport Access
PRC: 46.1 %
Total Traffic Delay: 11.1 pcuHr



Arm 3 Lane 2 is
demand dependant in
the AM

Arm 1 Lane 1 runs for an extended period in
the AM (4 mins some cycles) therefore the right
turn at the EMA access comes on every third
cycle in the AM

PM is every cycle as junctions runs on a fixed
time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	61.6%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	61.6%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	241:63	-	670	1965:1854	647+453	60.9 : 60.9%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	146	-	628	1965:1439	611+409	61.6 : 61.6%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	146	-	159	2105	1162	13.7%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	83:17	-	242	1805:1830	272+122	61.5 : 61.5%
4/1		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	543	1965	1965	27.6%
5/2	Ahead	O	N/A	N/A	-		-	-	-	159	2105	595	26.7%
6/1		U	N/A	N/A	-		-	-	-	702	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%

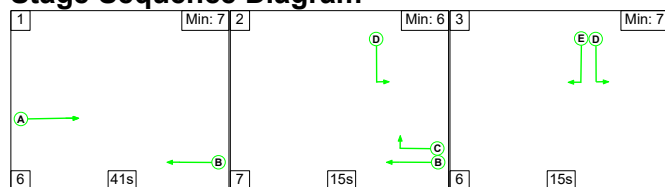
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	196	215	0	8.3	2.8	0.0	11.1	-	-	-	-
A453/Airport Access	-	-	196	215	0	8.3	2.8	0.0	11.1	-	-	-	-
1/1+1/2	670	670	-	-	-	2.6	0.8	-	3.3 (0.7+2.7)	17.9 (6.0:34.9)	7.1	0.8	7.8
2/2+2/1	628	628	37	215	0	1.6	0.8	-	2.4 (1.7+0.6)	13.7 (16.7:9.0)	9.3	0.8	10.1
2/3	159	159	-	-	-	0.4	0.1	-	0.5	11.6	2.0	0.1	2.1
3/1+3/2	242	242	-	-	-	3.6	0.8	-	4.4 (1.6+2.8)	65.8 (35.0:134.4)	5.5	0.8	6.2
4/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	543	543	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/2	159	159	159	0	0	0.1	0.2	-	0.3	6.5	2.7	0.2	2.8
6/1	702	702	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	528	528	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 46.1 Total Delay for Signalled Lanes (pcuHr): 10.64 Cycle Time (s): 270 PRC Over All Lanes (%): 46.1 Total Delay Over All Lanes(pcuHr): 11.12													

Full Input Data And Results

Scenario 4: '1a 2028 Forecast Year Without Development (PM)' (FG4: '1a 2028 Forecast Year Without Development (PM)', Plan 2: 'Network Control Plan 2')

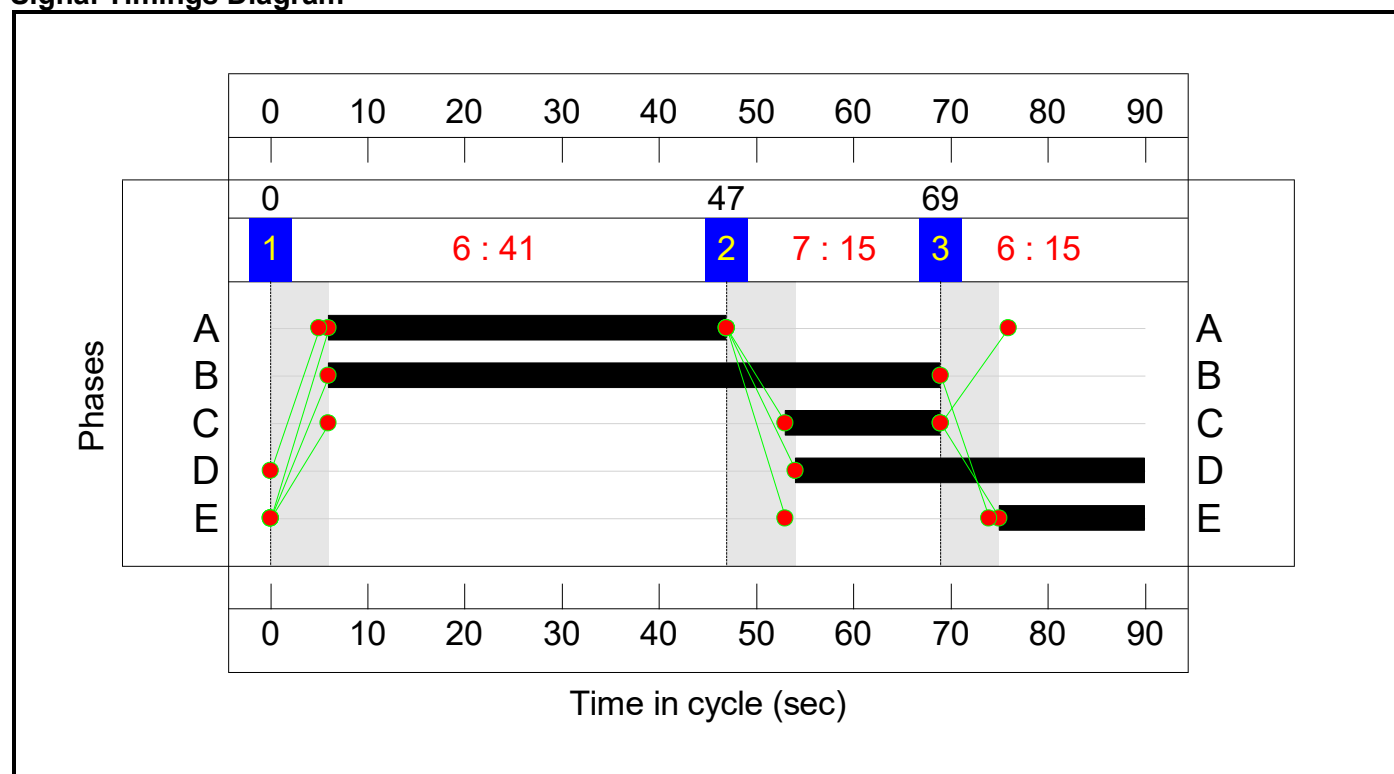
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	41	15	15
Change Point	0	47	69

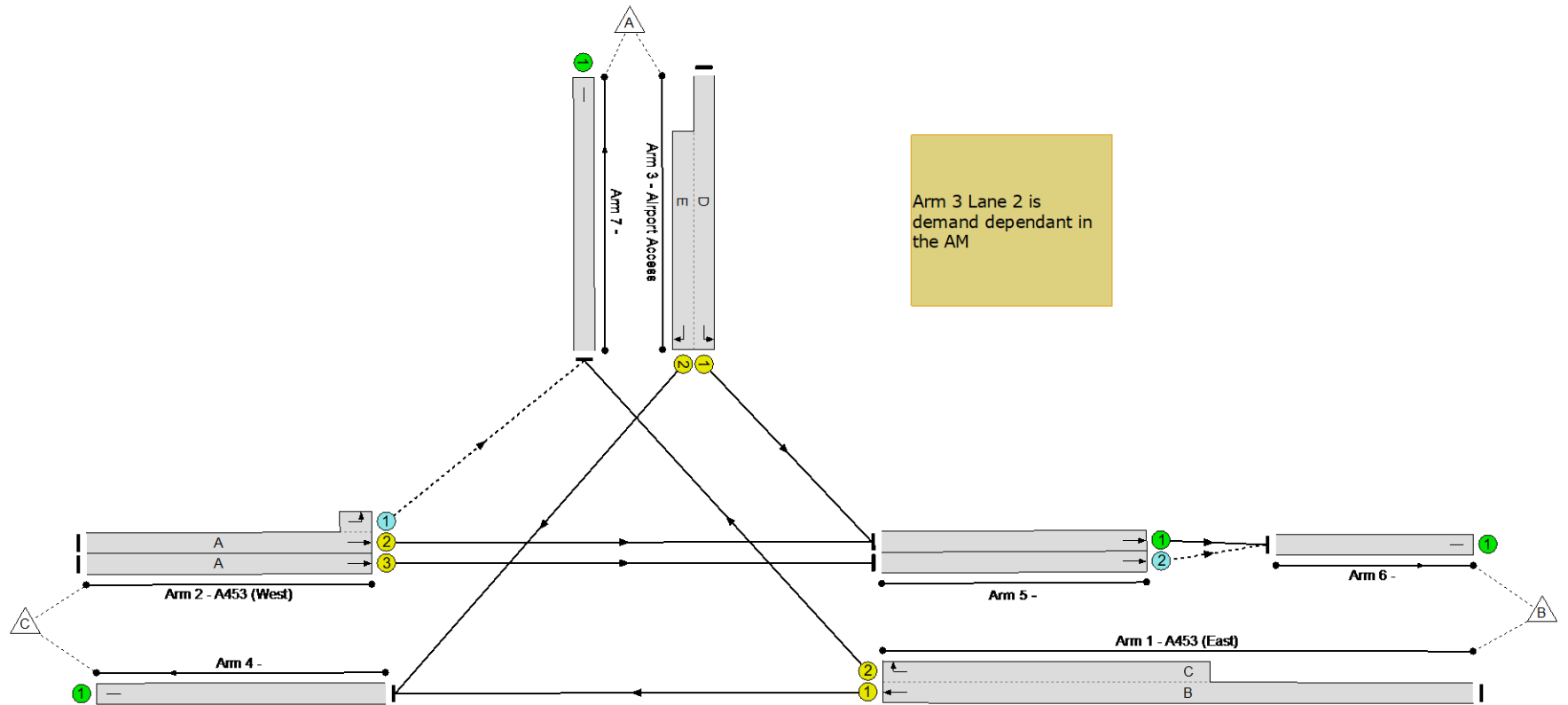
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 97.9 %
Total Traffic Delay: 8.4 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	45.5%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	45.5%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	63:16	-	608	1965:1854	1292+350	35.7 : 42.0%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	41	-	402	1965:1439	712+172	45.5 : 45.5%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	41	-	102	2105	982	10.4%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	36:15	-	467	1805:1830	717+317	45.2 : 45.2%
4/1		U	N/A	N/A	-		-	-	-	604	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	648	1965	1965	33.0%
5/2	Ahead	O	N/A	N/A	-		-	-	-	102	2105	572	17.8%
6/1		U	N/A	N/A	-		-	-	-	750	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%

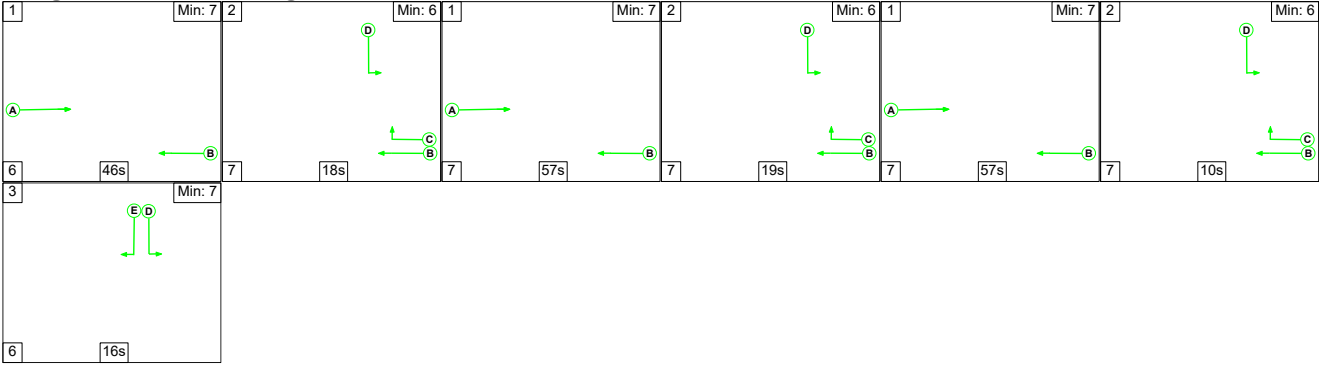
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	117	63	0	6.9	1.5	0.0	8.4	-	-	-	-
A453/Airport Access	-	-	117	63	0	6.9	1.5	0.0	8.4	-	-	-	-
1/1+1/2	608	608	-	-	-	1.9	0.3	-	2.2 (0.9+1.4)	13.2 (6.6:33.9)	4.2	0.3	4.5
2/2+2/1	402	402	15	63	0	1.5	0.4	-	1.9 (1.7+0.2)	17.3 (19.4:8.8)	6.1	0.4	6.5
2/3	102	102	-	-	-	0.4	0.1	-	0.4	15.5	1.4	0.1	1.5
3/1+3/2	467	467	-	-	-	3.0	0.4	-	3.4 (2.0+1.4)	26.5 (22.2:36.2)	5.8	0.4	6.2
4/1	604	604	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	648	648	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
5/2	102	102	102	0	0	0.0	0.1	-	0.1	5.3	1.7	0.1	1.8
6/1	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 97.9 Total Delay for Signalled Lanes (pcuHr): 8.05 Cycle Time (s): 90 PRC Over All Lanes (%): 97.9 Total Delay Over All Lanes(pcuHr): 8.44													

Full Input Data And Results

Scenario 5: '1a 2028 Forecast Year With Development (AM)' (FG5: '1a 2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

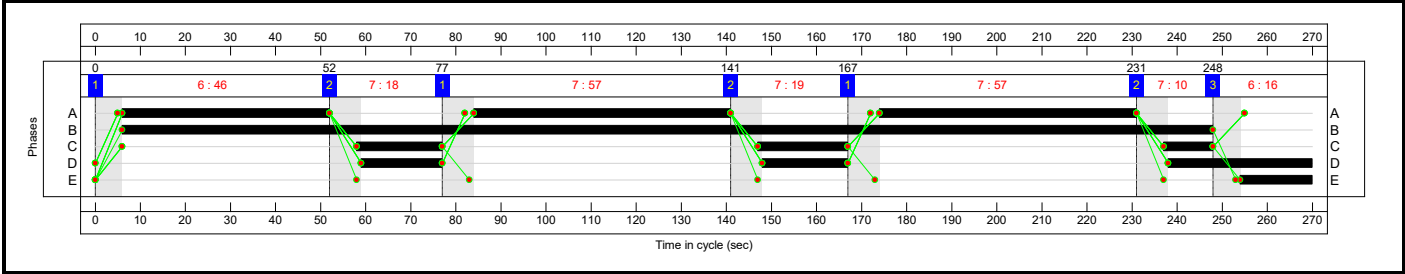
Stage Sequence Diagram



Stage Timings

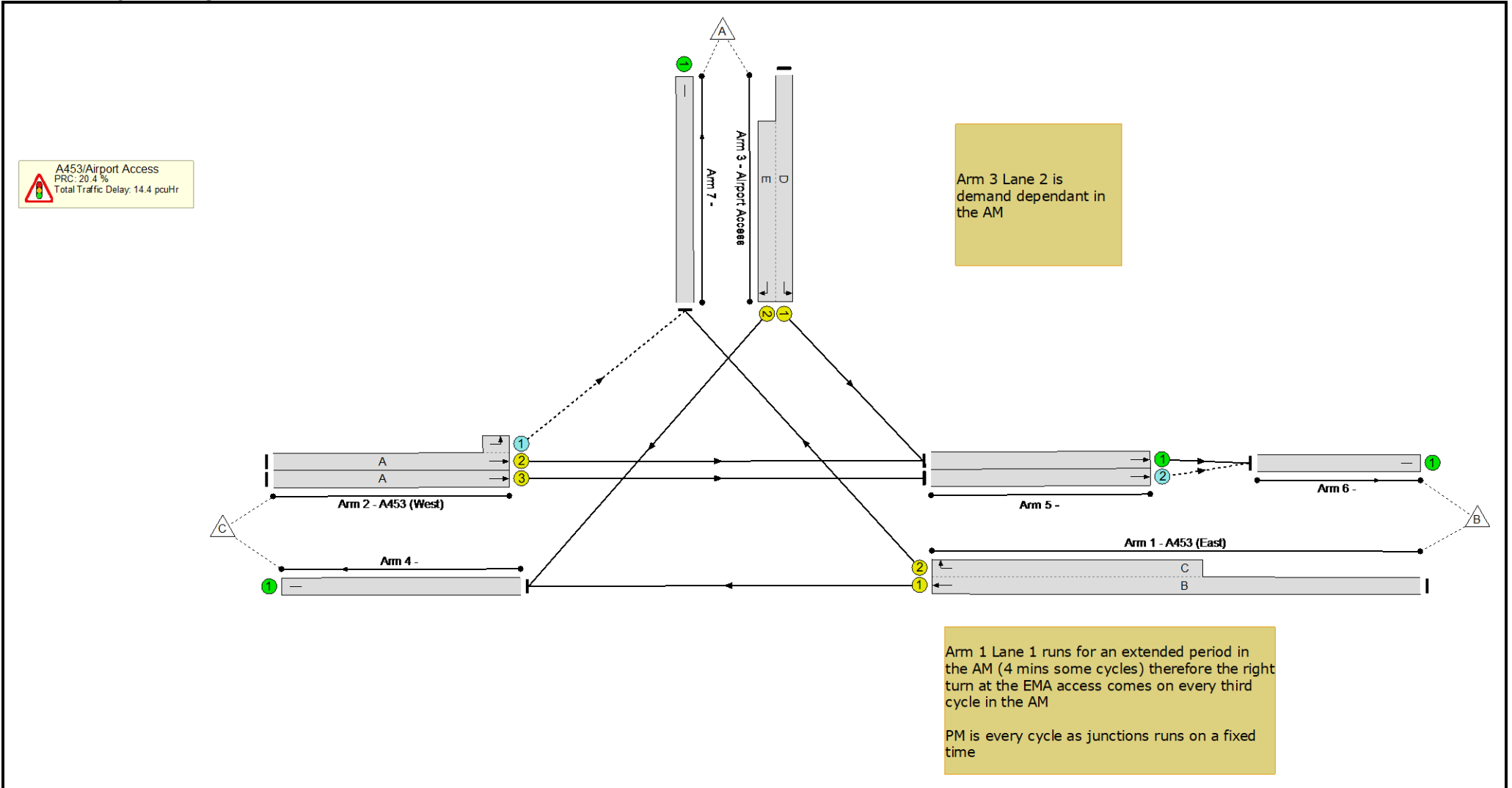
Stage	1	2	1	2	1	2	3
Duration	46	18	57	19	57	10	16
Change Point	0	52	77	141	167	231	248

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

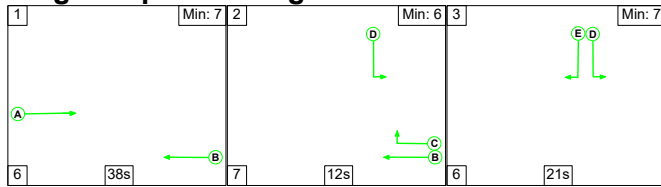
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	74.7%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	74.7%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	242:50	-	591	1965:1854	427+364	74.7 : 74.7%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	160	-	828	1965:1439	558+552	74.6 : 74.6%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	160	-	229	2105	1271	18.0%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	69:16	-	259	1805:1830	244+115	72.0 : 72.0%
4/1		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	592	1965	1965	30.1%
5/2	Ahead	O	N/A	N/A	-		-	-	-	229	2105	585	39.2%
6/1		U	N/A	N/A	-		-	-	-	821	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%

Full Input Data And Results

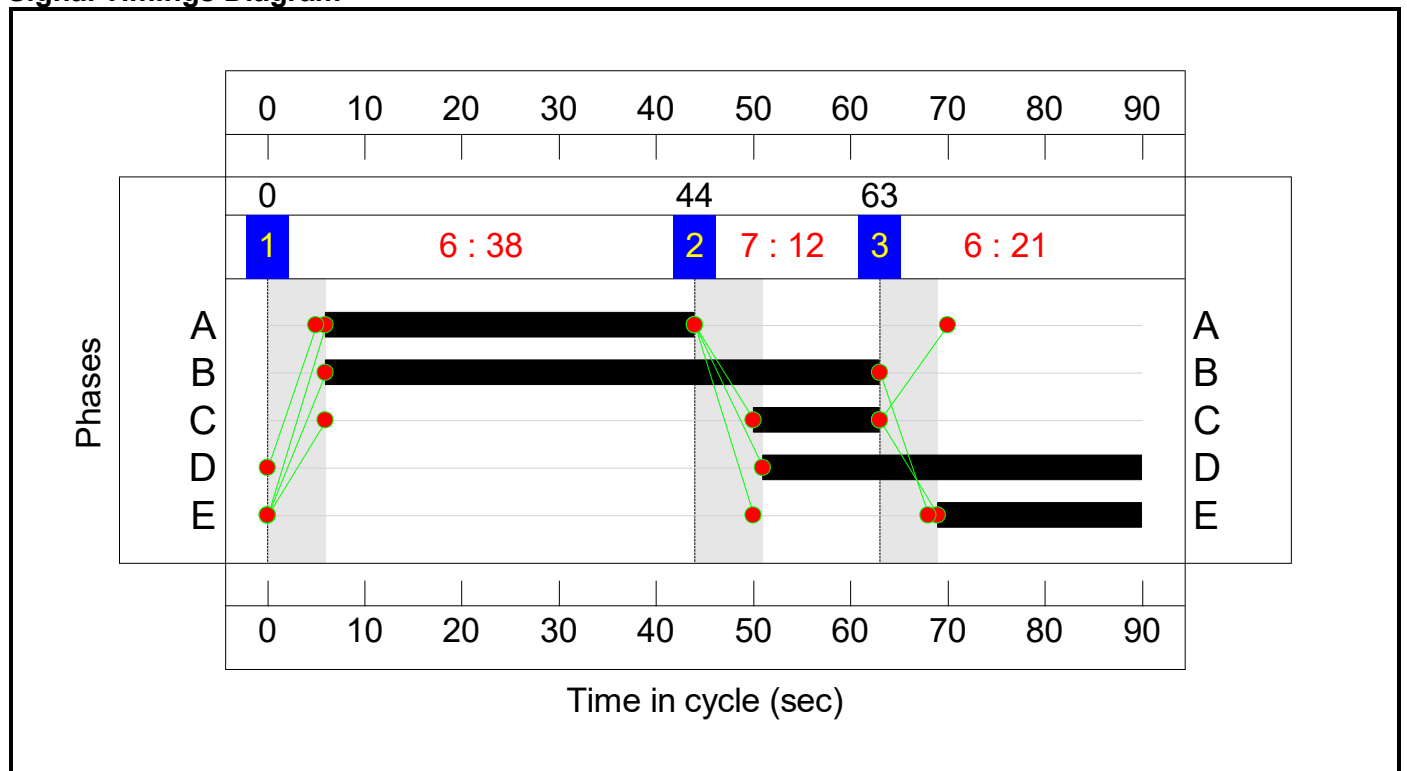
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	282	359	0	9.6	4.8	0.0	14.4	-	-	-	-
A453/Airport Access	-	-	282	359	0	9.6	4.8	0.0	14.4	-	-	-	-
1/1+1/2	591	591	-	-	-	2.7	1.5	-	4.2 (0.9+3.3)	25.5 (10.5:43.1)	7.0	1.5	8.4
2/2+2/1	828	828	53	359	0	1.9	1.5	-	3.4 (2.0+1.4)	14.7 (17.2:12.2)	15.4	1.5	16.9
2/3	229	229	-	-	-	0.5	0.1	-	0.6	9.9	3.1	0.1	3.2
3/1+3/2	259	259	-	-	-	4.2	1.3	-	5.4 (2.2+3.3)	75.6 (44.5:141.6)	6.1	1.3	7.4
4/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	592	592	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/2	229	229	229	0	0	0.2	0.3	-	0.6	8.8	4.8	0.3	5.1
6/1	821	821	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 20.4 Total Delay for Signalled Lanes (pcuHr): 13.64 Cycle Time (s): 270 PRC Over All Lanes (%): 20.4 Total Delay Over All Lanes(pcuHr): 14.41													

Stage Sequence Diagram



Stage	1	2	3
Duration	38	12	21
Change Point	0	44	63

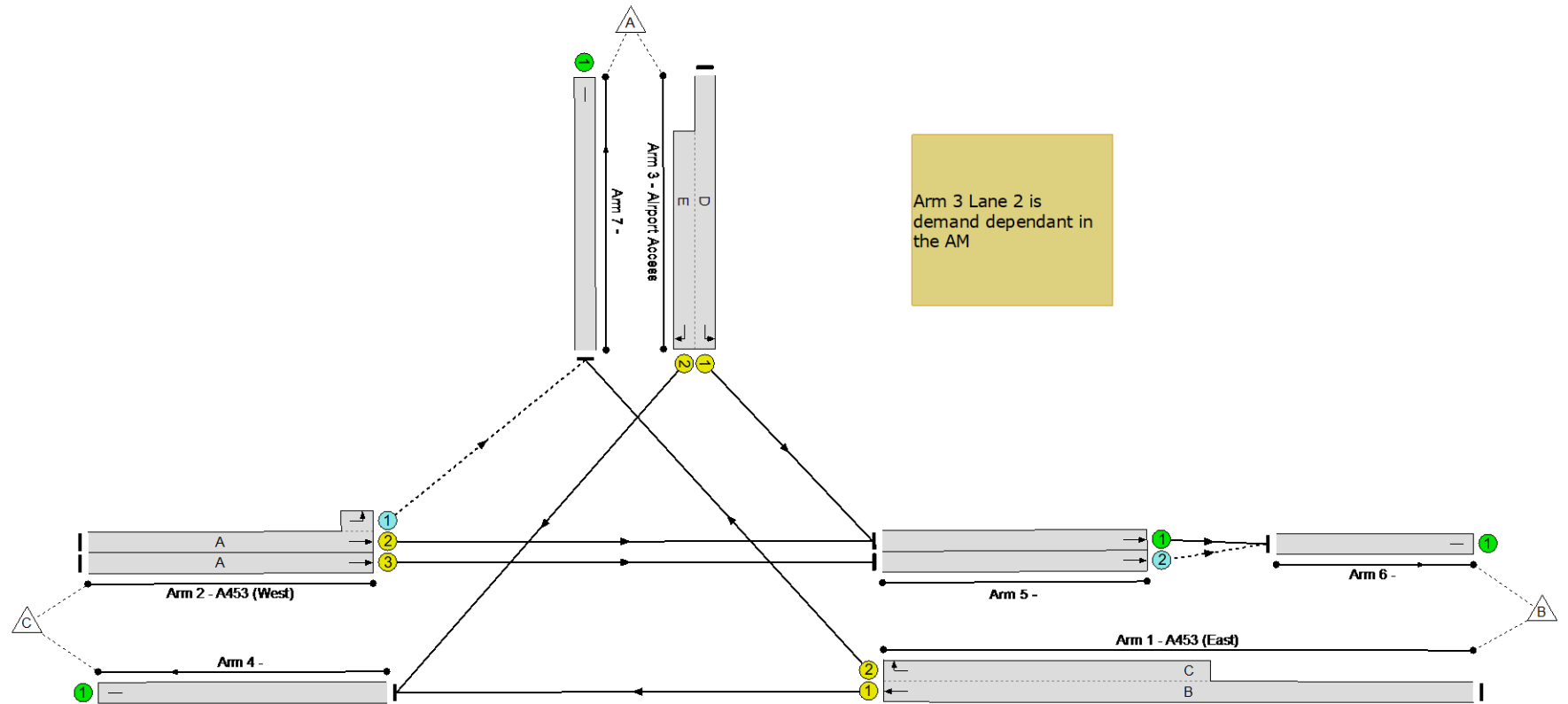
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 91.7 %
Total Traffic Delay: 9.1 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	47.0%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	47.0%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	57:13	-	703	1965:1854	1212+285	47.0 : 47.0%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	38	-	379	1965:1439	643+178	46.2 : 46.2%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	38	-	100	2105	912	11.0%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	39:21	-	490	1805:1830	692+447	41.3 : 45.6%
4/1		U	N/A	N/A	-		-	-	-	773	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	583	1965	1965	29.7%
5/2	Ahead	O	N/A	N/A	-		-	-	-	100	2105	587	17.0%
6/1		U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%

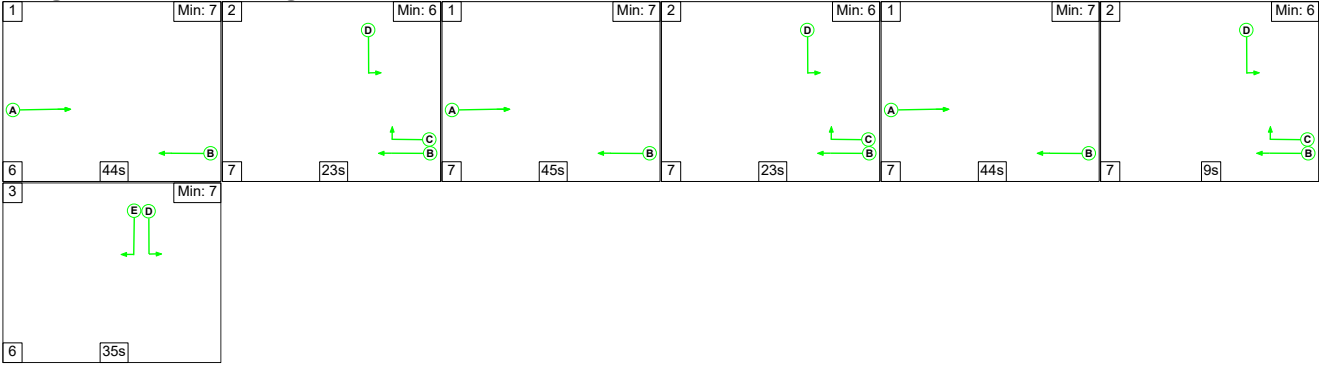
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	113	69	0	7.5	1.6	0.0	9.1	-	-	-	-
A453/Airport Access	-	-	113	69	0	7.5	1.6	0.0	9.1	-	-	-	-
1/1+1/2	703	703	-	-	-	2.6	0.4	-	3.0 (1.6+1.4)	15.3 (10.3:36.9)	7.1	0.4	7.6
2/2+2/1	379	379	13	69	0	1.6	0.4	-	2.0 (1.8+0.2)	18.8 (21.5:9.3)	6.0	0.4	6.4
2/3	100	100	-	-	-	0.4	0.1	-	0.5	17.4	1.5	0.1	1.5
3/1+3/2	490	490	-	-	-	3.0	0.4	-	3.3 (1.5+1.8)	24.4 (19.3:31.7)	4.7	0.4	5.1
4/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	583	583	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/2	100	100	100	0	0	0.0	0.1	-	0.1	5.3	1.7	0.1	1.8
6/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 91.7 Total Delay for Signalled Lanes (pcuHr): 8.79 Cycle Time (s): 90 PRC Over All Lanes (%): 91.7 Total Delay Over All Lanes(pcuHr): 9.15													

Full Input Data And Results

Scenario 7: '1a 2038 Forecast Year Without Development (AM)' (FG7: '1a 2038 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

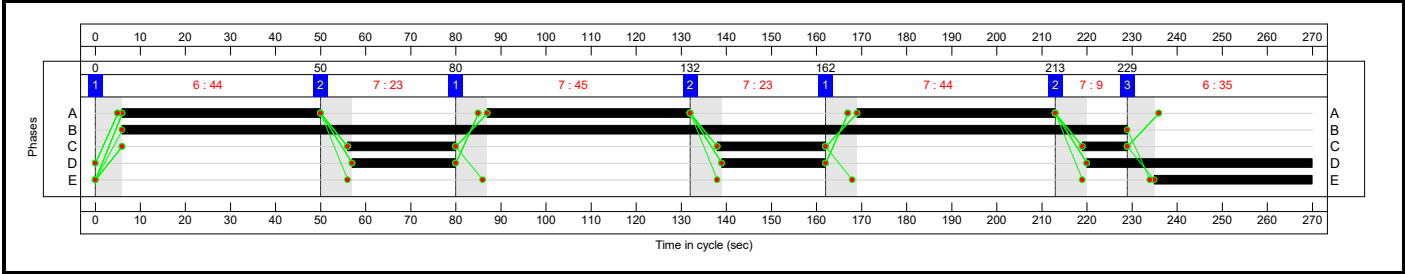
Stage Sequence Diagram



Stage Timings

Stage	1	2	1	2	1	2	3
Duration	44	23	45	23	44	9	35
Change Point	0	50	80	132	162	213	229

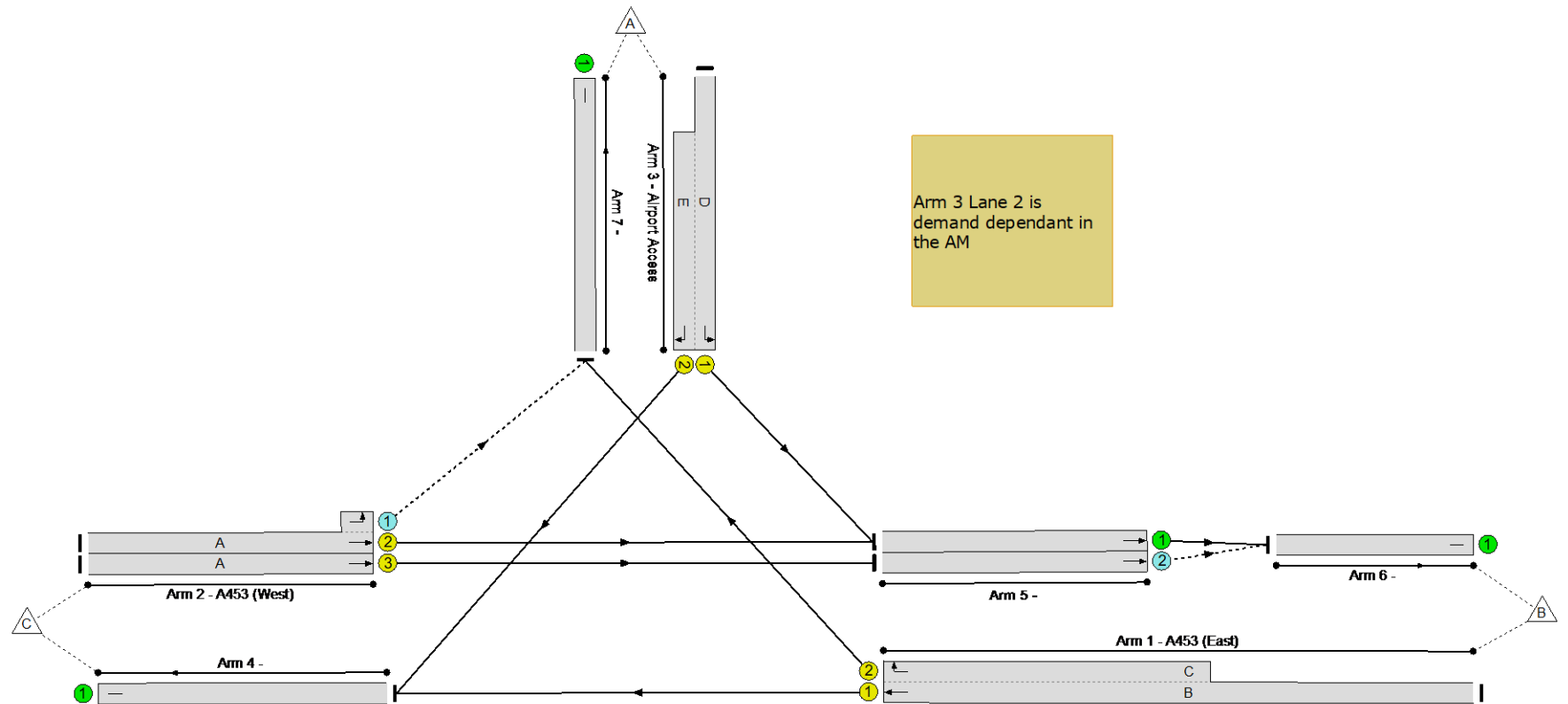
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 26.0 %
Total Traffic Delay: 16.3 pcuHr



Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	71.4%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	71.4%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	223:58	-	721	1965:1854	605+419	70.4 : 70.4%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	133	-	663	1965:1439	412+517	71.4 : 71.4%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	133	-	190	2105	1060	17.9%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	96:35	-	331	1805:1830	240+227	70.9 : 70.9%
4/1		U	N/A	N/A	-		-	-	-	587	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	464	1965	1965	23.6%
5/2	Ahead	O	N/A	N/A	-		-	-	-	190	2105	613	31.0%
6/1		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	664	Inf	Inf	0.0%

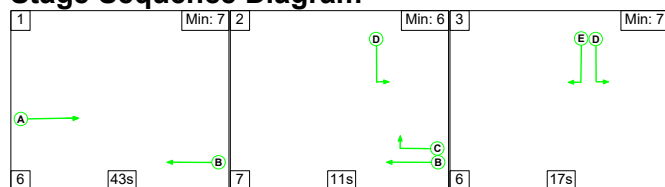
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 8: '1a 2038 Forecast Year Without Development (PM)' (FG8: '1a 2038 Forecast Year Without Development (PM)', Plan 2: 'Network Control Plan 2')

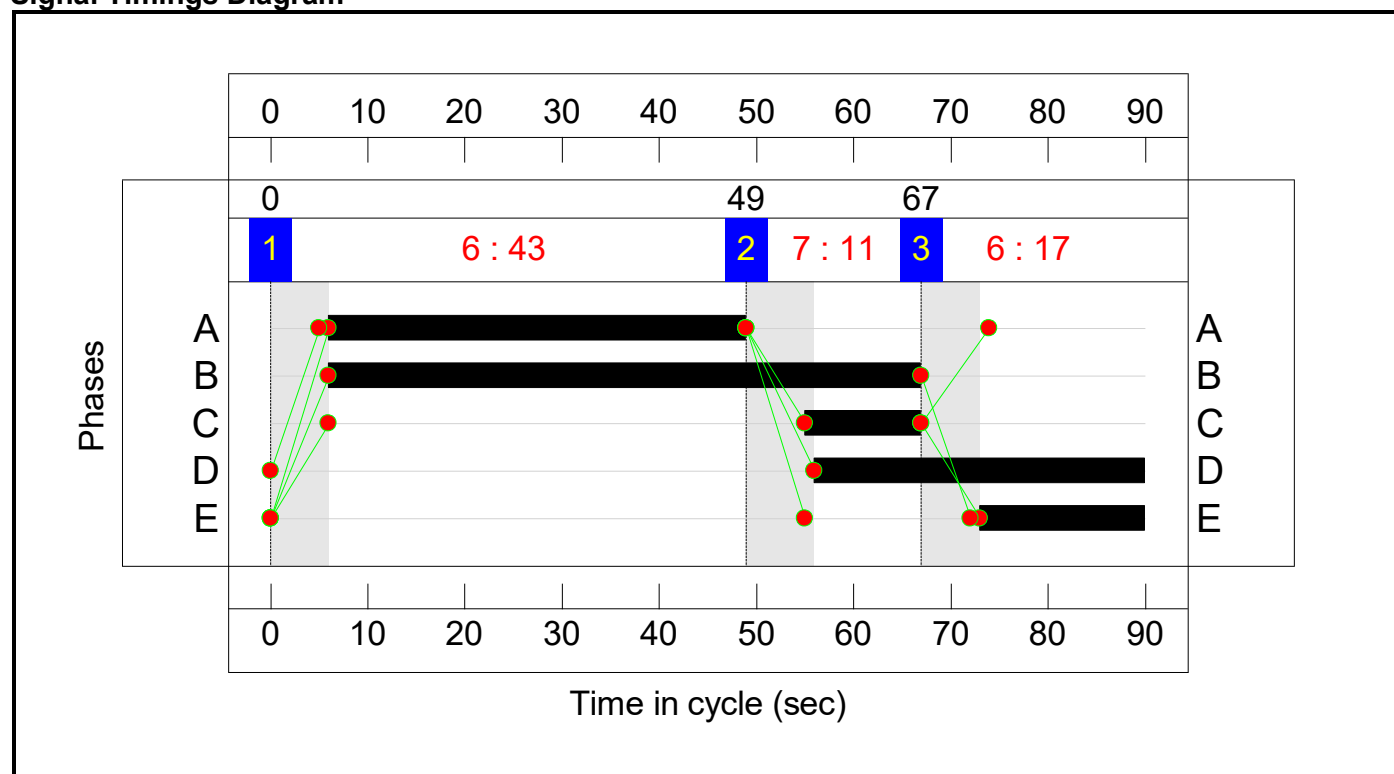
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	43	11	17
Change Point	0	49	67

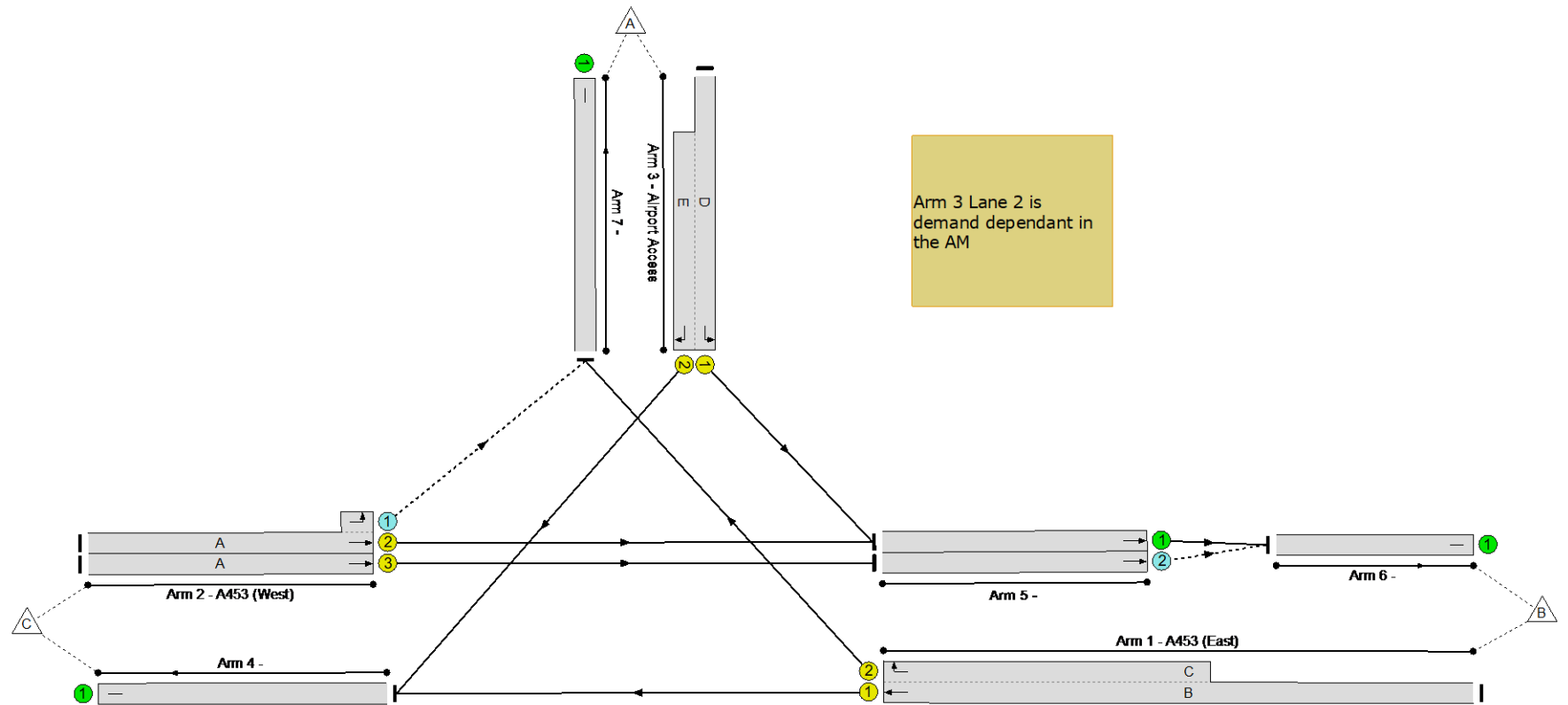
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 46.5 %
Total Traffic Delay: 11.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	61.4%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	61.4%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	61:12	-	638	1965:1854	1261+268	38.5 : 56.8%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	43	-	566	1965:1439	716+205	61.4 : 61.4%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	43	-	148	2105	1029	14.4%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	34:17	-	603	1805:1830	685+366	56.6 : 58.7%
4/1		U	N/A	N/A	-		-	-	-	701	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	828	1965	1965	42.1%
5/2	Ahead	O	N/A	N/A	-		-	-	-	148	2105	533	27.8%
6/1		U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%

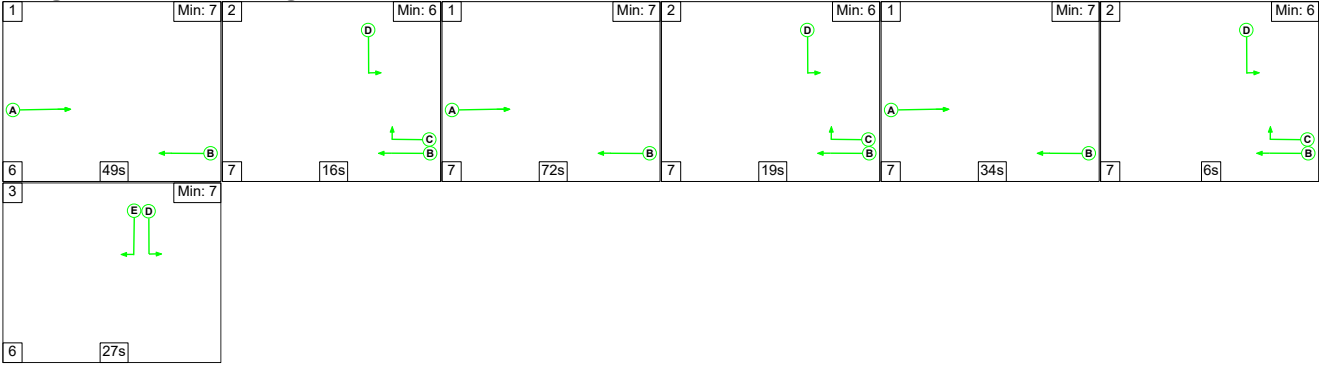
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 9: '1a 2038 Forecast Year With Development (AM)' (FG9: '1a 2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

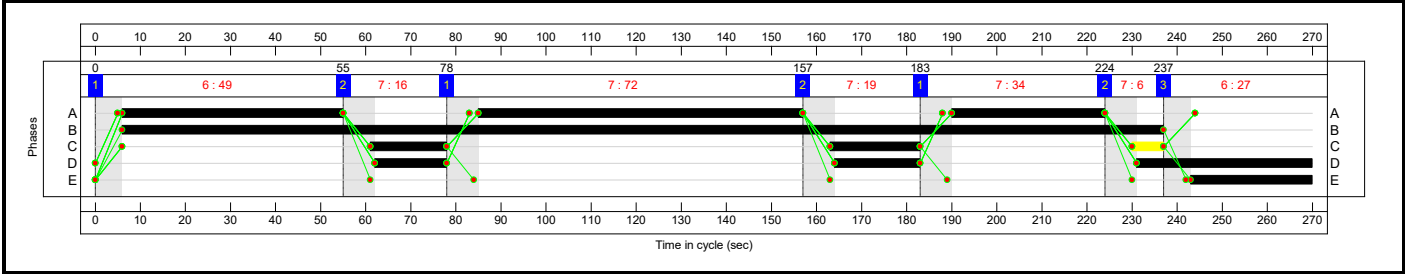
Stage Sequence Diagram



Stage Timings

Stage	1	2	1	2	1	2	3
Duration	49	16	72	19	34	6	27
Change Point	0	55	78	157	183	224	237

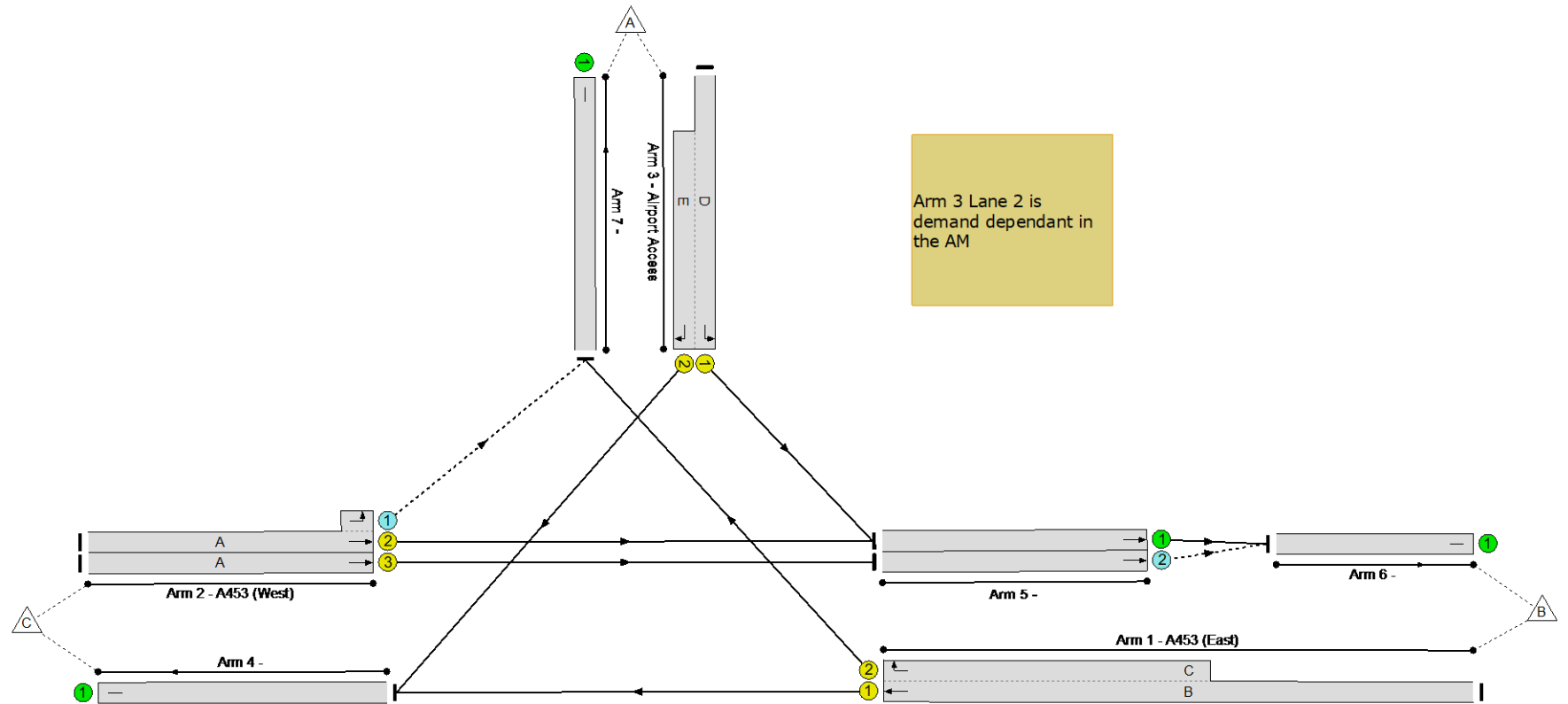
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 3.0 %
Total Traffic Delay: 23.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.3%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	87.3%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	231:44	-	609	1965:1854	384+323	86.1 : 86.1%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	155	-	759	1965:1439	246+623	87.3 : 87.3%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	155	-	351	2105	1232	28.5%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	74:27	-	334	1805:1830	194+190	86.9 : 86.9%
4/1		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	384	1965	1965	19.5%
5/2	Ahead	O	N/A	N/A	-		-	-	-	351	2105	630	55.7%
6/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	822	Inf	Inf	0.0%

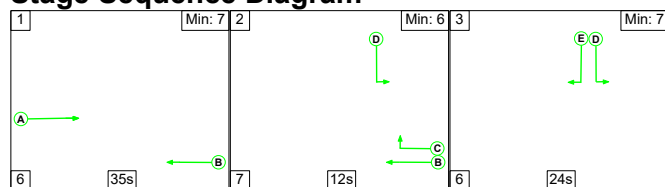
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	414	481	0	12.8	10.1	0.0	23.0	-	-	-	-
A453/Airport Access	-	-	414	481	0	12.8	10.1	0.0	23.0	-	-	-	-
1/1+1/2	609	609	-	-	-	3.3	2.9	-	6.2 (1.9+4.4)	36.9 (20.5:56.4)	8.5	2.9	11.4
2/2+2/1	759	759	63	481	0	1.1	3.3	-	4.3 (1.5+2.8)	20.5 (25.2:18.7)	10.3	3.3	13.6
2/3	351	351	-	-	-	1.0	0.2	-	1.2	12.0	5.9	0.2	6.1
3/1+3/2	334	334	-	-	-	6.7	3.0	-	9.7 (2.8+6.9)	104.6 (59.0:151.3)	12.1	3.0	15.1
4/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	384	384	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	351	351	351	0	0	0.8	0.6	-	1.4	14.2	9.8	0.6	10.5
6/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	822	822	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 3.0 Total Delay for Signalled Lanes (pcuHr): 21.44 Cycle Time (s): 270 PRC Over All Lanes (%): 3.0 Total Delay Over All Lanes(pcuHr): 22.95													

Full Input Data And Results

Scenario 10: '1a 2038 Forecast Year With Development (PM)' (FG10: '1a 2038 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

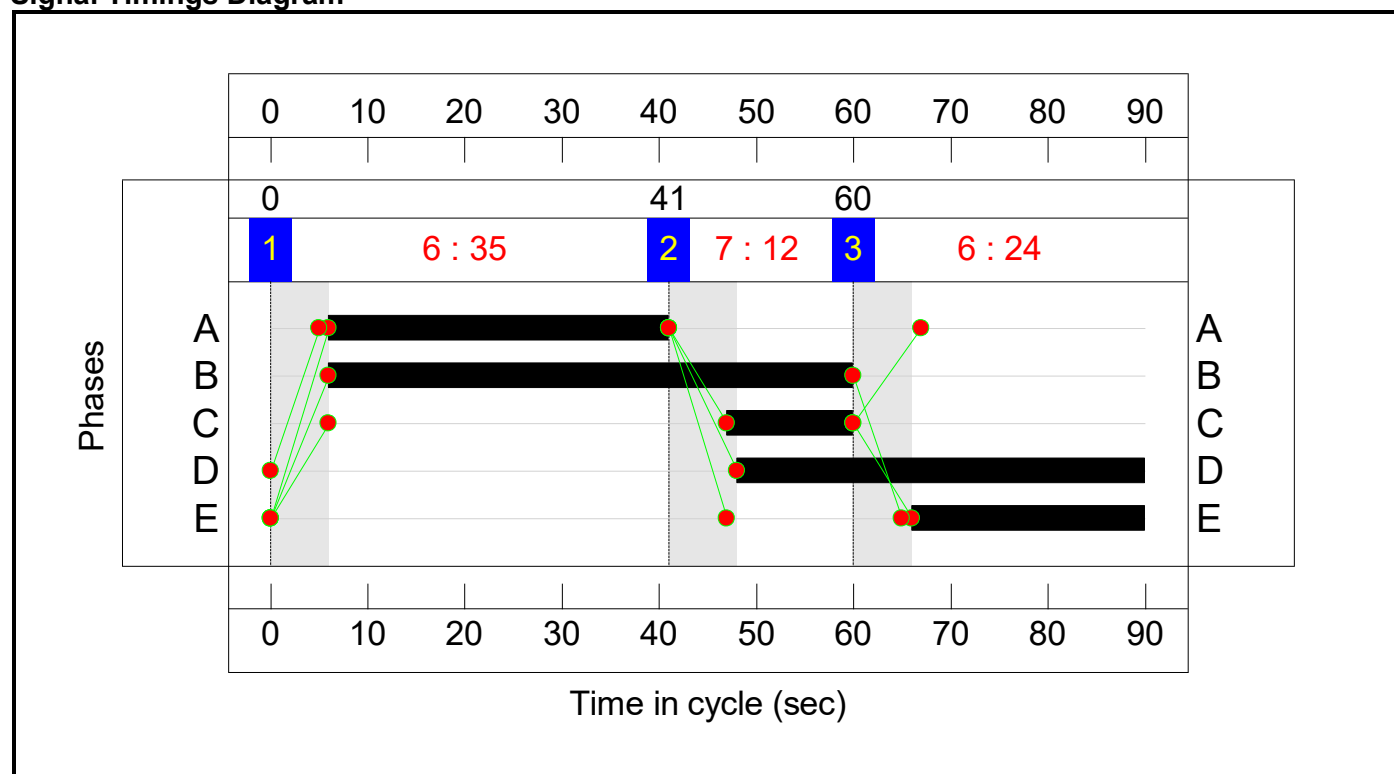
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	12	24
Change Point	0	41	60

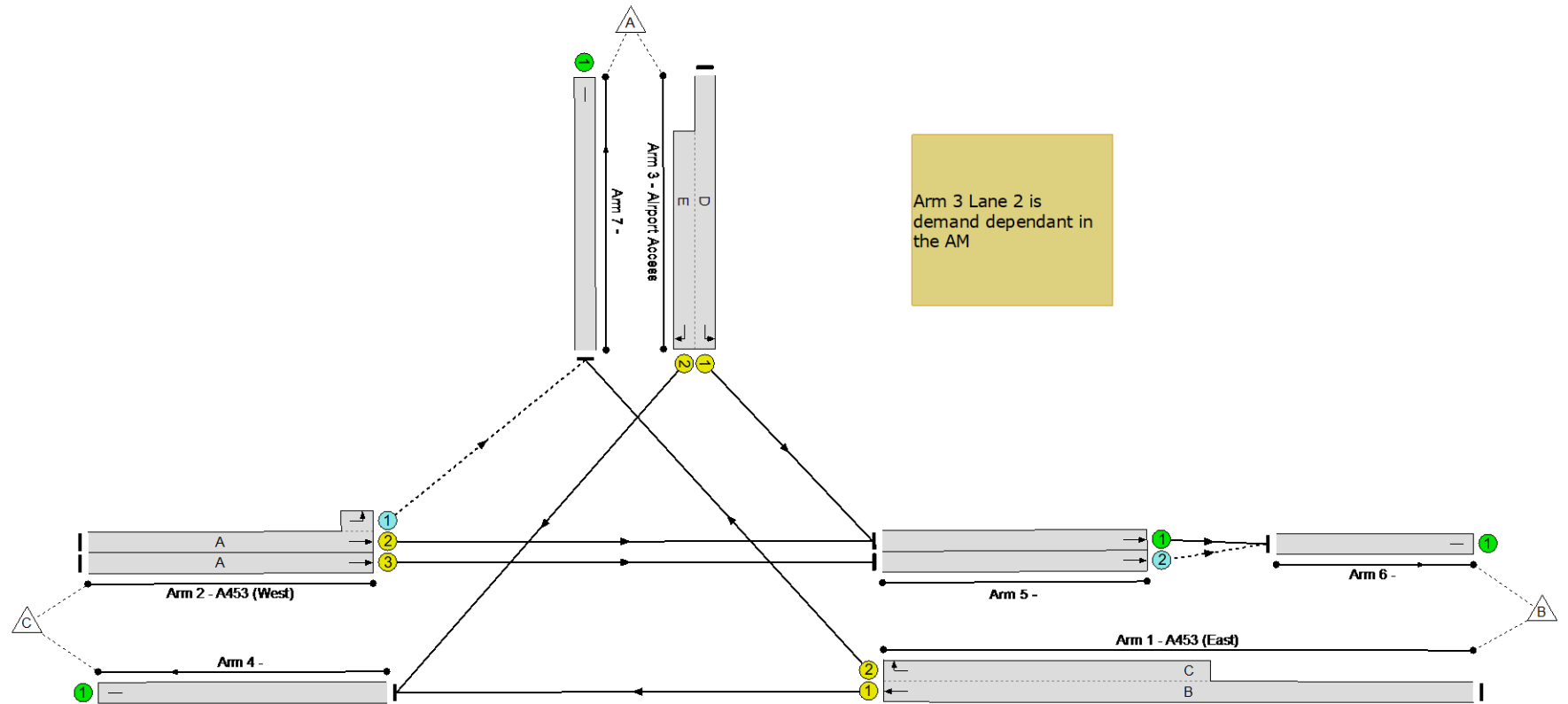
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 43.0 %
Total Traffic Delay: 13.5 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	63.0%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	63.0%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	54:13	-	820	1965:1854	1155+288	56.4 : 58.6%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	35	-	469	1965:1439	541+216	61.9 : 61.9%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	35	-	141	2105	842	16.7%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	42:24	-	685	1805:1830	580+508	63.0 : 63.0%
4/1		U	N/A	N/A	-		-	-	-	971	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	700	1965	1965	35.6%
5/2	Ahead	O	N/A	N/A	-		-	-	-	141	2105	561	25.1%
6/1		U	N/A	N/A	-		-	-	-	841	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%

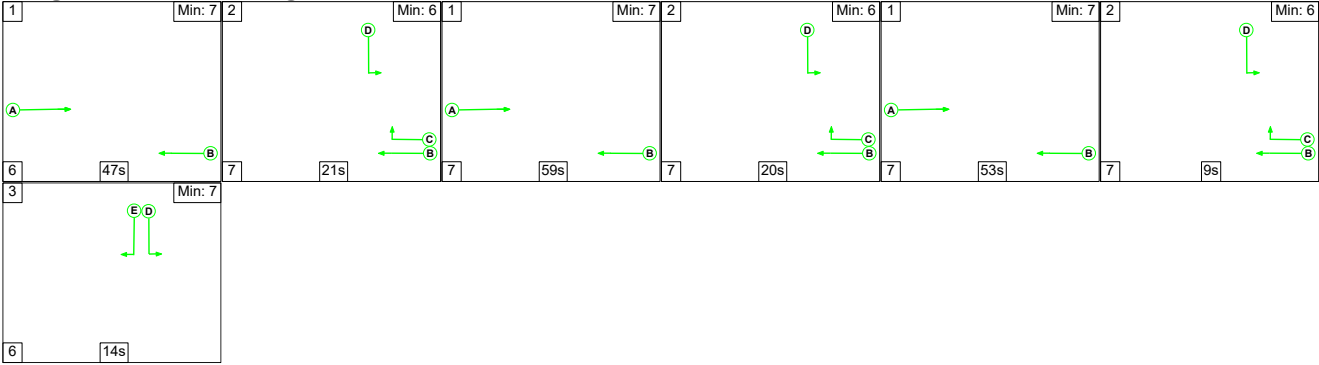
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	162	113	0	10.7	2.9	0.0	13.5	-	-	-	-
A453/Airport Access	-	-	162	113	0	10.7	2.9	0.0	13.5	-	-	-	-
1/1+1/2	820	820	-	-	-	3.5	0.7	-	4.2 (2.4+1.8)	18.2 (13.1:38.2)	9.4	0.7	10.1
2/2+2/1	469	469	21	113	0	2.2	0.8	-	3.0 (2.5+0.5)	23.3 (26.7:14.7)	8.3	0.8	9.1
2/3	141	141	-	-	-	0.7	0.1	-	0.8	19.9	2.2	0.1	2.3
3/1+3/2	685	685	-	-	-	4.1	0.8	-	4.9 (2.0+2.9)	25.9 (19.8:32.9)	6.9	0.8	7.8
4/1	971	971	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	700	700	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
5/2	141	141	141	0	0	0.2	0.2	-	0.3	8.4	2.9	0.2	3.1
6/1	841	841	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 43.0 Total Delay for Signalled Lanes (pcuHr): 12.90 Cycle Time (s): 90 PRC Over All Lanes (%): 43.0 Total Delay Over All Lanes(pcuHr): 13.51													

Full Input Data And Results

Scenario 11: '2a 2028 Forecast Year With Development (AM)' (FG11: '2a 2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

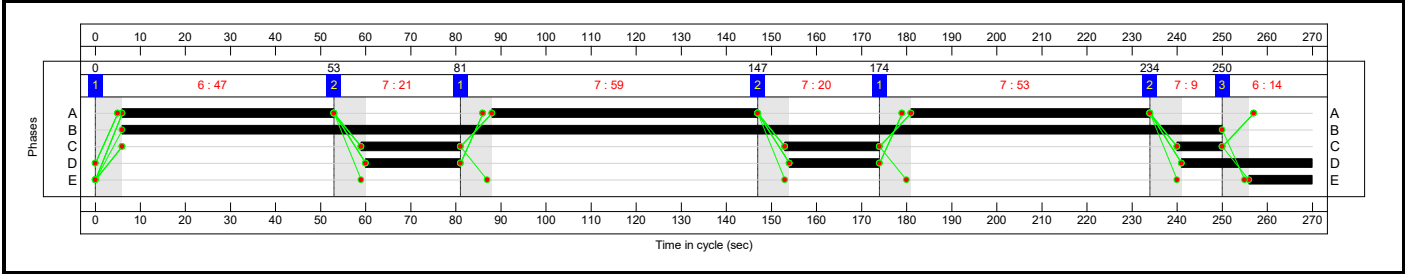
Stage Sequence Diagram



Stage Timings

Stage	1	2	1	2	1	2	3
Duration	47	21	59	20	53	9	14
Change Point	0	53	81	147	174	234	250

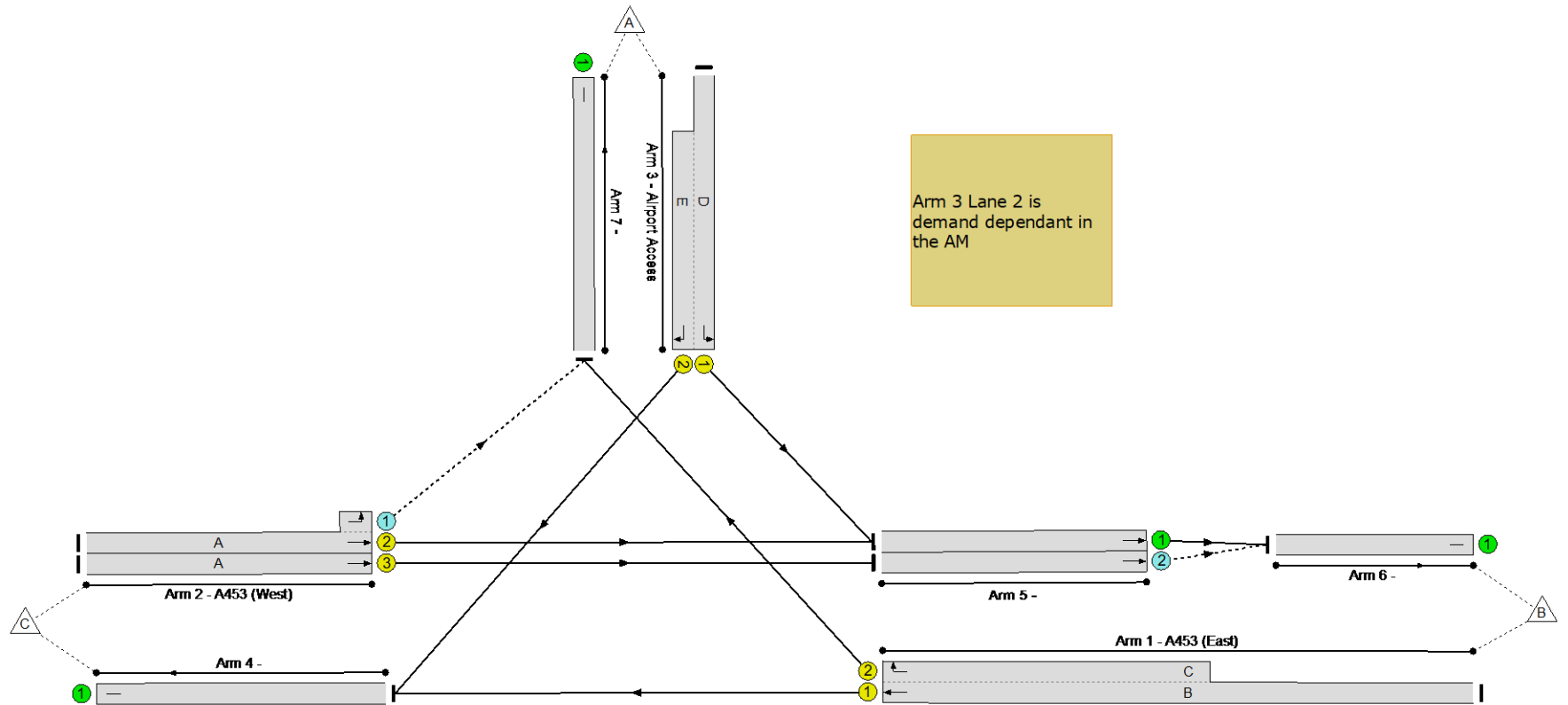
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 28.3 %
Total Traffic Delay: 12.8 pcuHr



Arm 3 Lane 2 is
demand dependant in
the AM

Arm 1 Lane 1 runs for an extended period in
the AM (4 mins some cycles) therefore the right
turn at the EMA access comes on every third
cycle in the AM

PM is every cycle as junctions runs on a fixed
time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	70.1%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	70.1%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	244:53	-	628	1965:1854	520+385	69.4 : 69.4%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	159	-	774	1965:1439	689+415	70.1 : 70.1%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	159	-	208	2105	1263	16.5%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	70:14	-	246	1805:1830	266+102	66.9 : 66.9%
4/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	661	1965	1965	33.6%
5/2	Ahead	O	N/A	N/A	-		-	-	-	208	2105	570	36.5%
6/1		U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	558	Inf	Inf	0.0%

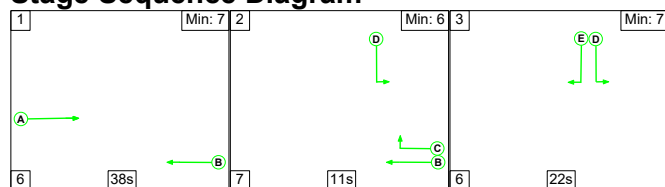
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	241	258	0	8.9	3.9	0.0	12.8	-	-	-	-
A453/Airport Access	-	-	241	258	0	8.9	3.9	0.0	12.8	-	-	-	-
1/1+1/2	628	628	-	-	-	2.6	1.1	-	3.7 (0.8+2.9)	21.4 (7.9:39.7)	6.7	1.1	7.9
2/2+2/1	774	774	33	258	0	1.9	1.2	-	3.1 (2.2+0.9)	14.4 (16.5:10.9)	13.3	1.2	14.4
2/3	208	208	-	-	-	0.5	0.1	-	0.6	9.8	2.6	0.1	2.7
3/1+3/2	246	246	-	-	-	3.7	1.0	-	4.7 (2.0+2.6)	68.5 (41.3:139.6)	5.0	1.0	6.0
4/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	661	661	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
5/2	208	208	208	0	0	0.2	0.3	-	0.5	8.4	3.9	0.3	4.2
6/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	558	558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 28.3 Total Delay for Signalled Lanes (pcuHr): 12.08 Cycle Time (s): 270 PRC Over All Lanes (%): 28.3 Total Delay Over All Lanes(pcuHr): 12.81													

Full Input Data And Results

Scenario 12: '2a 2028 Forecast Year With Development (PM)' (FG12: '2a 2028 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

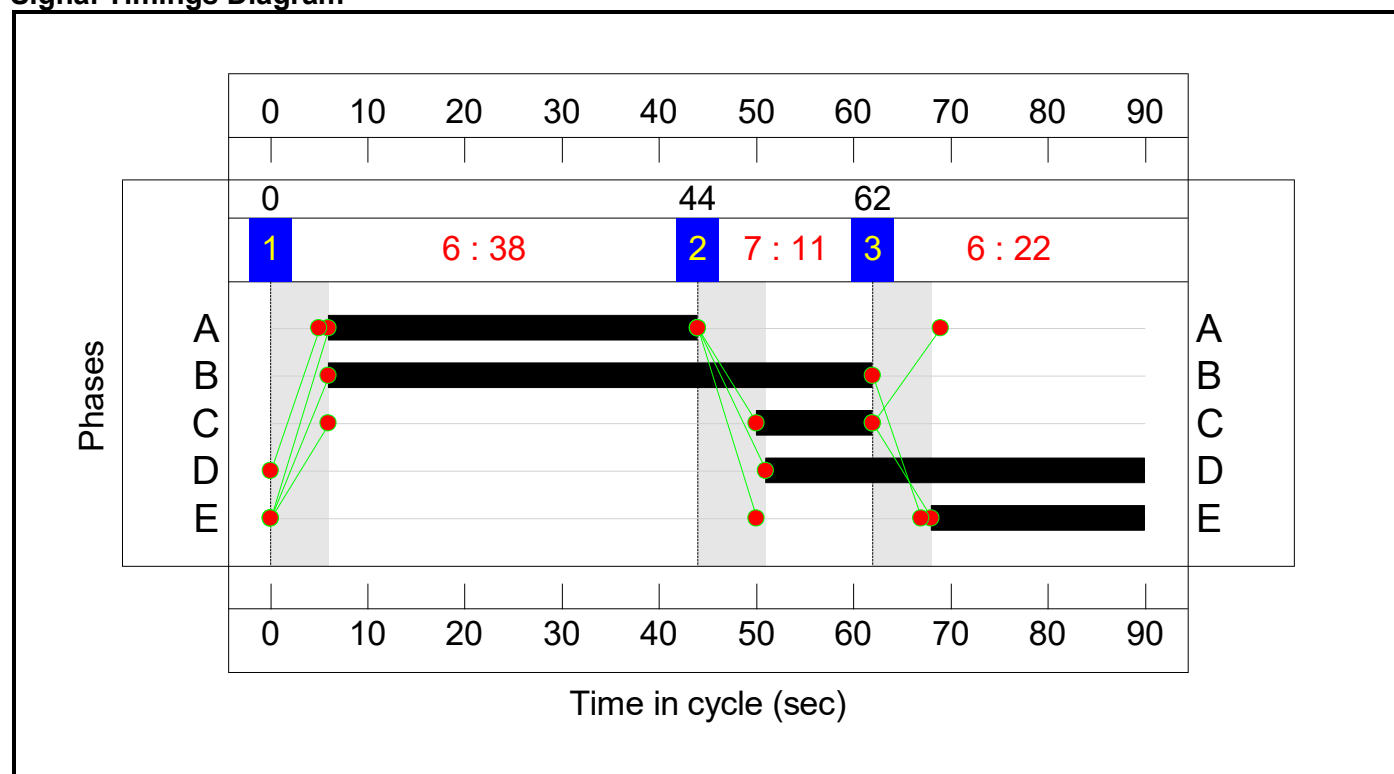
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	38	11	22
Change Point	0	44	62

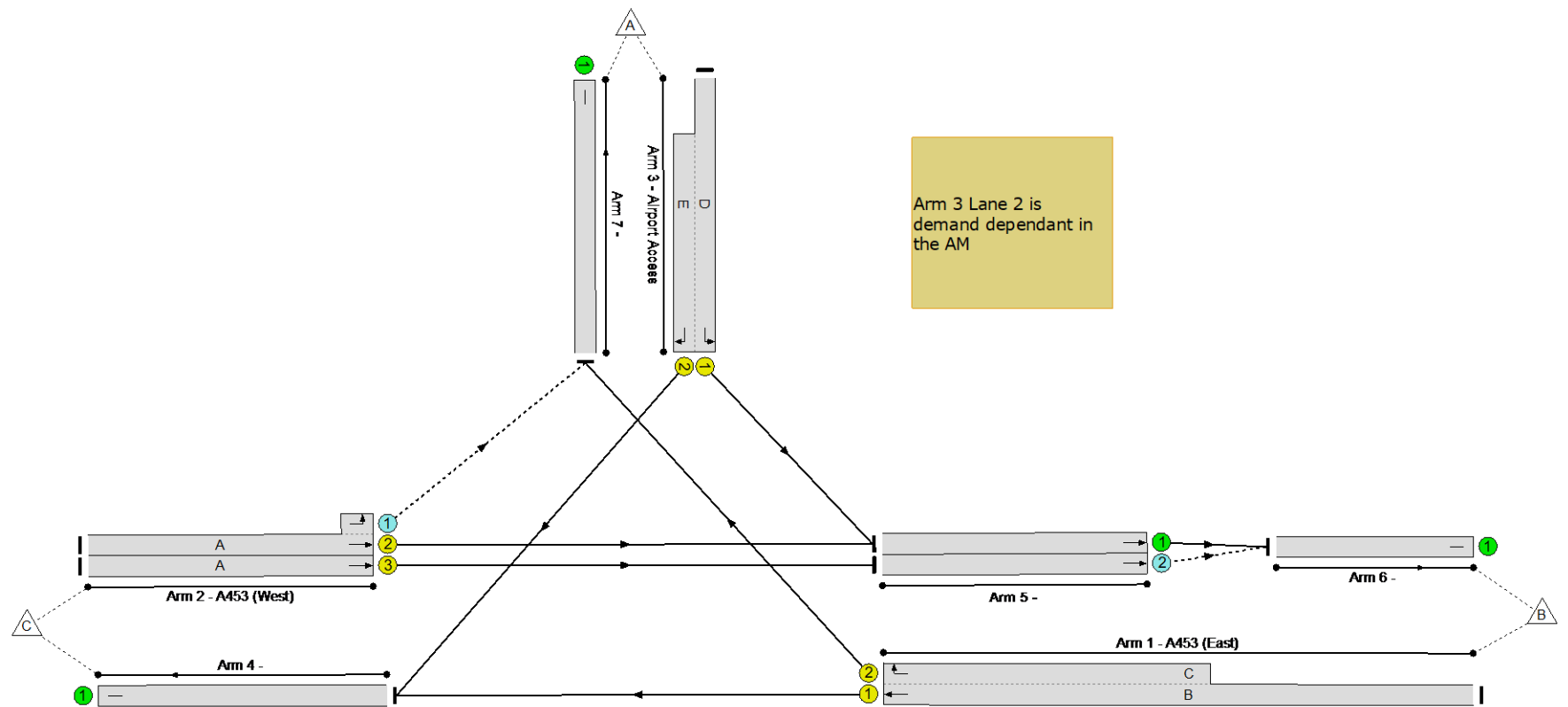
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 87.9 %
Total Traffic Delay: 9.5 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	47.9%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	47.9%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	56:12	-	695	1965:1854	1199+255	47.8 : 47.8%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	38	-	385	1965:1439	646+175	46.9 : 46.9%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	38	-	110	2105	912	12.1%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	39:22	-	511	1805:1830	599+468	47.9 : 47.9%
4/1		U	N/A	N/A	-		-	-	-	797	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	590	1965	1965	30.0%
5/2	Ahead	O	N/A	N/A	-		-	-	-	110	2105	585	18.8%
6/1		U	N/A	N/A	-		-	-	-	700	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%

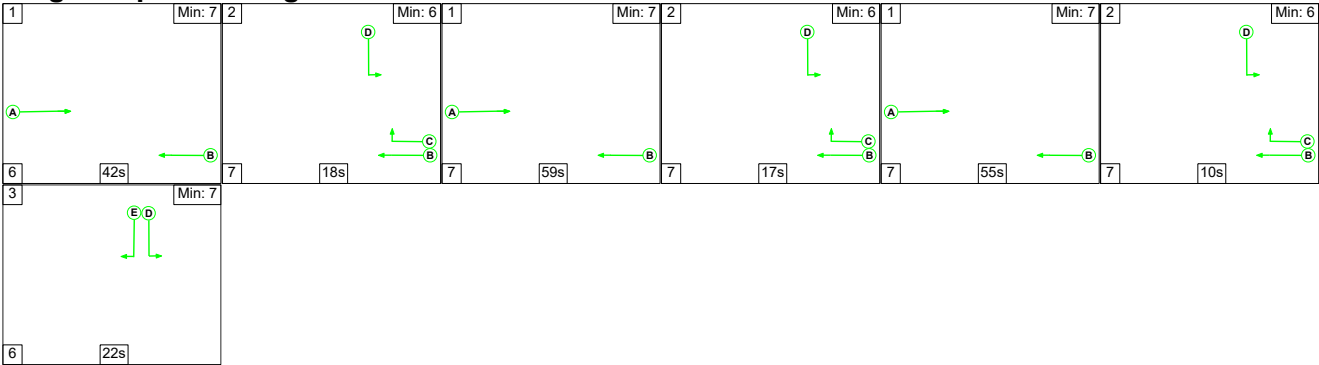
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	122	70	0	7.8	1.8	0.0	9.5	-	-	-	-
A453/Airport Access	-	-	122	70	0	7.8	1.8	0.0	9.5	-	-	-	-
1/1+1/2	695	695	-	-	-	2.6	0.5	-	3.0 (1.7+1.3)	15.6 (10.9:37.6)	7.3	0.5	7.8
2/2+2/1	385	385	12	70	0	1.6	0.4	-	2.0 (1.8+0.2)	19.0 (21.6:9.6)	6.0	0.4	6.5
2/3	110	110	-	-	-	0.5	0.1	-	0.5	17.5	1.6	0.1	1.7
3/1+3/2	511	511	-	-	-	3.1	0.5	-	3.5 (1.6+2.0)	25.0 (19.8:31.7)	4.7	0.5	5.2
4/1	797	797	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	590	590	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/2	110	110	110	0	0	0.1	0.1	-	0.2	5.9	2.0	0.1	2.1
6/1	700	700	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 87.9 Total Delay for Signalled Lanes (pcuHr): 9.13 Cycle Time (s): 90 PRC Over All Lanes (%): 87.9 Total Delay Over All Lanes(pcuHr): 9.52													

Full Input Data And Results

Scenario 13: '2a 2038 Forecast Year With Development (AM)' (FG13: '2a 2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

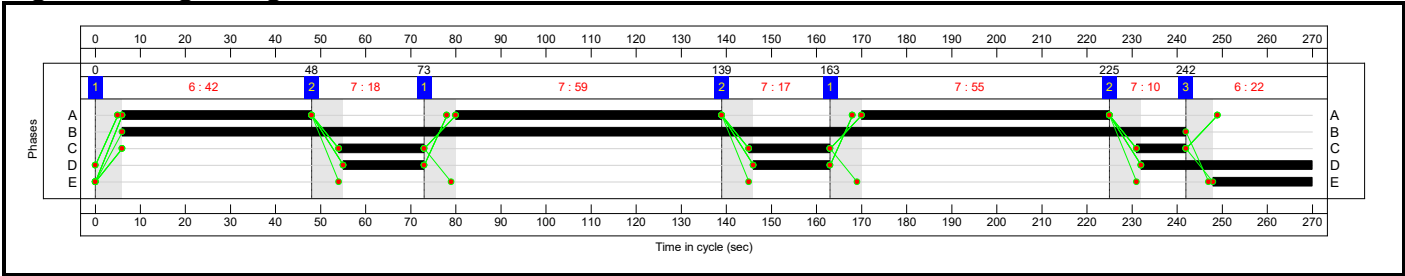
Stage Sequence Diagram



Stage Timings

Stage	1	2	1	2	1	2	3
Duration	42	18	59	17	55	10	22
Change Point	0	48	73	139	163	225	242

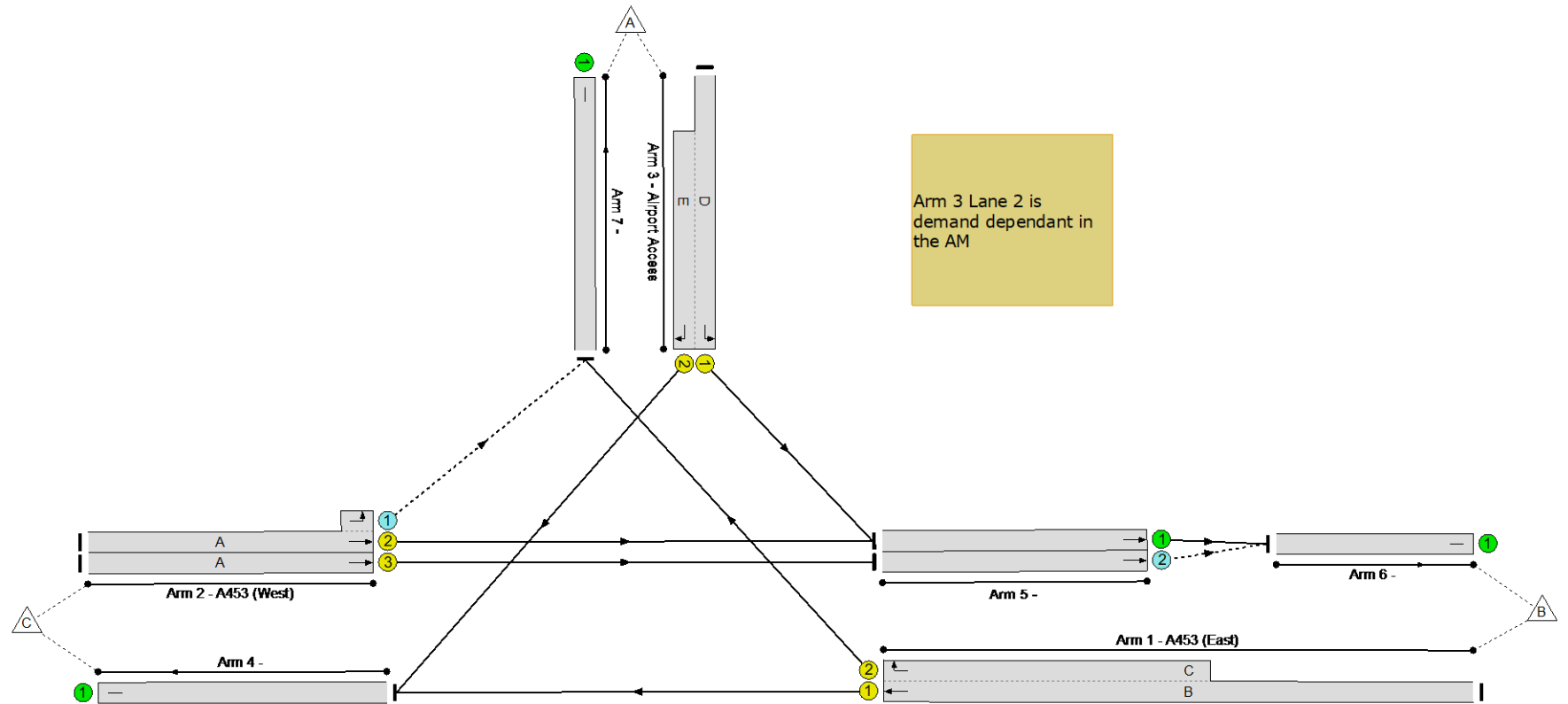
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A453/Airport Access
PRC: 12.2 %
Total Traffic Delay: 18.6 pcuHr



Arm 3 Lane 2 is demand dependant in the AM

Arm 1 Lane 1 runs for an extended period in the AM (4 mins some cycles) therefore the right turn at the EMA access comes on every third cycle in the AM

PM is every cycle as junctions runs on a fixed time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1:3	236:48	-	642	1965:1854	450+350	80.2 : 80.2%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		3	156	-	865	1965:1439	615+468	79.9 : 79.9%
2/3	A453 (West) Ahead	U	N/A	N/A	A		3	156	-	243	2105	1240	19.6%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		3:1	73:22	-	330	1805:1830	269+156	77.6 : 77.6%
4/1		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	700	1965	1965	35.6%
5/2	Ahead	O	N/A	N/A	-		-	-	-	243	2105	561	43.3%
6/1		U	N/A	N/A	-		-	-	-	943	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%

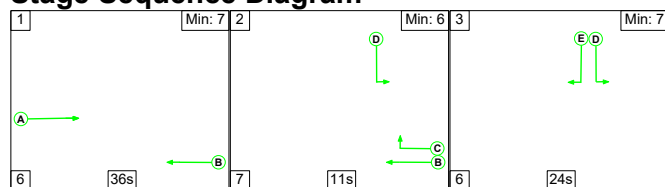
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	284	333	0	12.2	6.4	0.0	18.6	-	-	-	-
A453/Airport Access	-	-	284	333	0	12.2	6.4	0.0	18.6	-	-	-	-
1/1+1/2	642	642	-	-	-	3.0	2.0	-	5.0 (1.4+3.6)	27.9 (13.6:46.2)	7.4	2.0	9.4
2/2+2/1	865	865	41	333	0	2.7	2.0	-	4.6 (2.9+1.7)	19.2 (21.5:16.1)	20.6	2.0	22.5
2/3	243	243	-	-	-	0.6	0.1	-	0.7	10.9	3.8	0.1	3.9
3/1+3/2	330	330	-	-	-	5.6	1.7	-	7.3 (2.6+4.7)	79.5 (44.9:139.3)	8.9	1.7	10.5
4/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	700	700	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
5/2	243	243	243	0	0	0.4	0.4	-	0.7	10.9	6.2	0.4	6.6
6/1	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 12.2 Total Delay for Signalled Lanes (pcuHr): 17.61 Cycle Time (s): 270 PRC Over All Lanes (%): 12.2 Total Delay Over All Lanes(pcuHr): 18.62													

Full Input Data And Results

Scenario 14: '2a 2038 Forecast Year With Development (PM)' (FG14: '2a 2038 Forecast Year With Development (PM)', Plan 2: 'Network Control Plan 2')

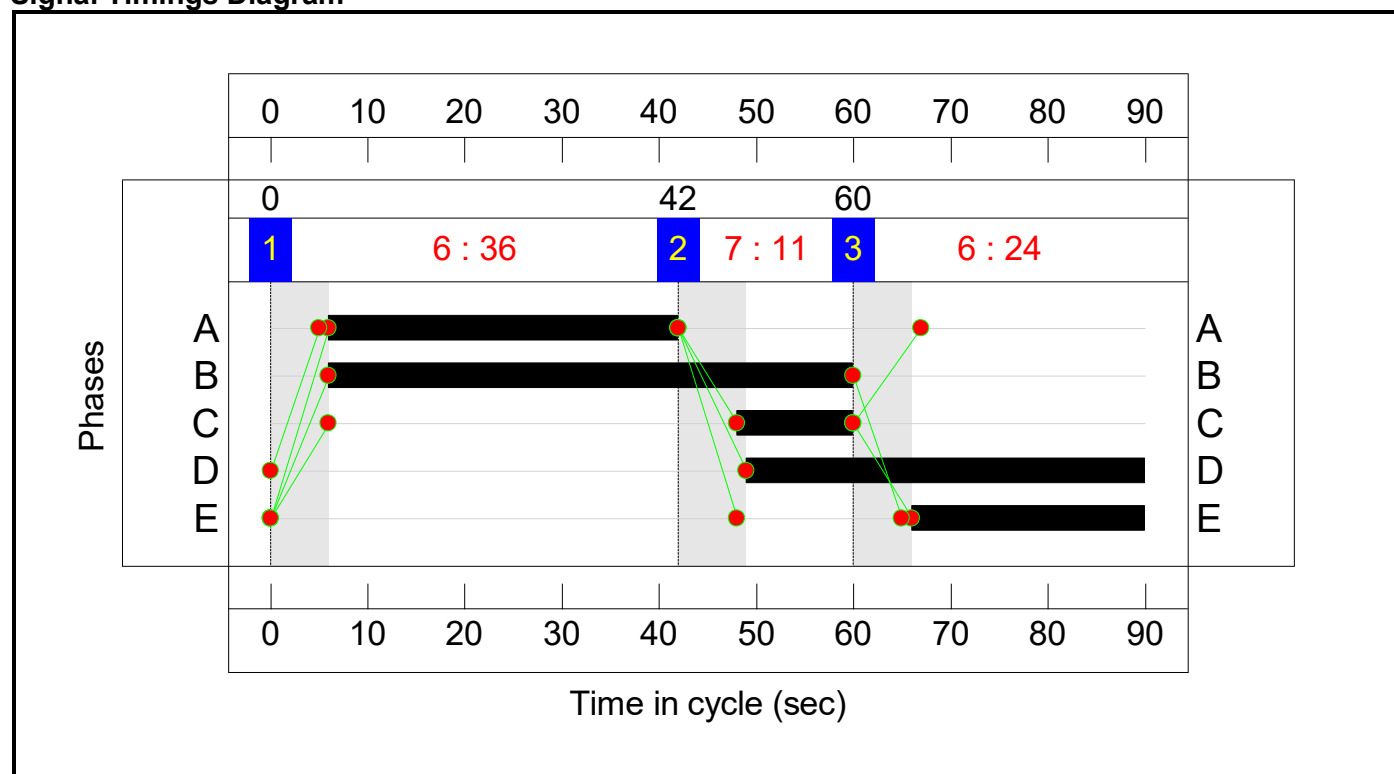
Stage Sequence Diagram



Stage Timings

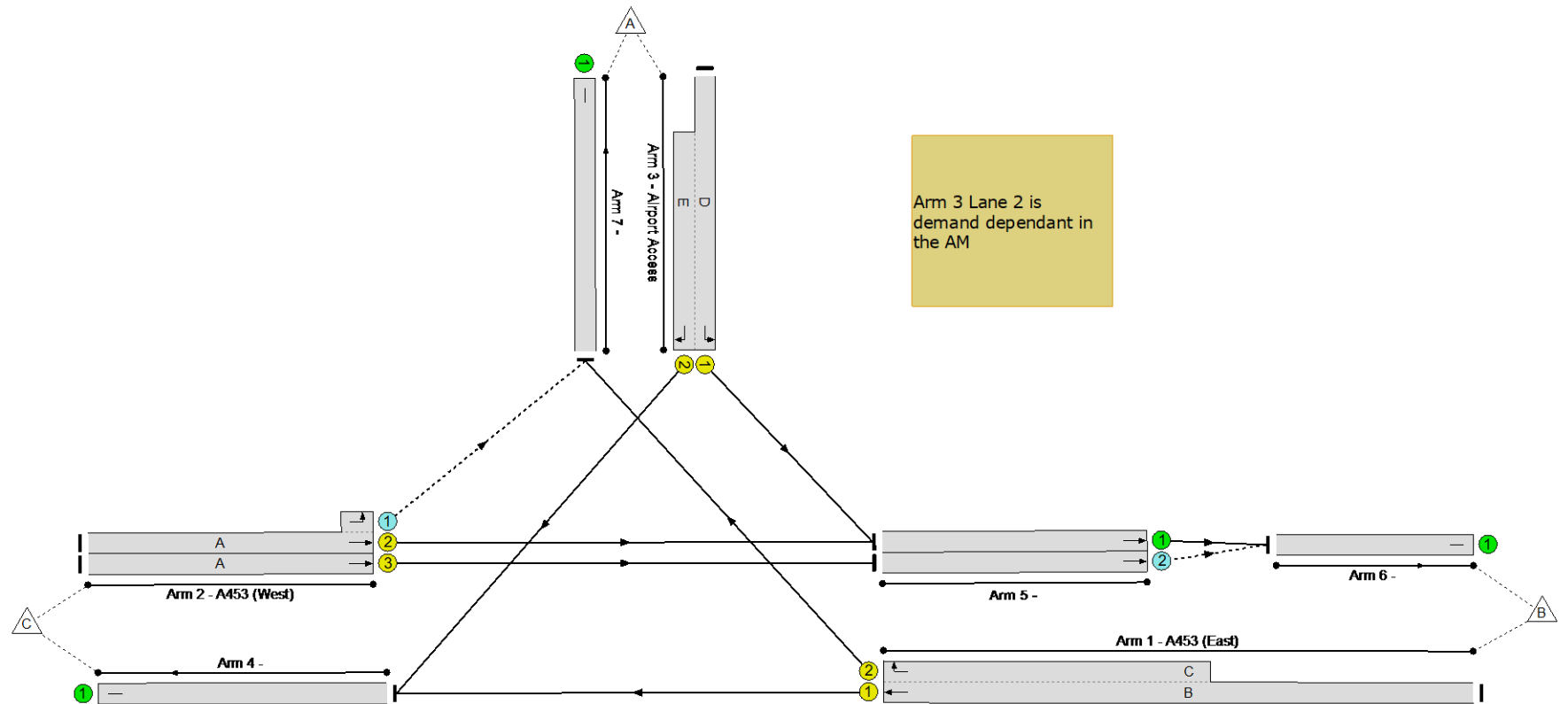
Stage	1	2	3
Duration	36	11	24
Change Point	0	42	60

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

A453/Airport Access
PRC: 44.8 %
Total Traffic Delay: 13.5 pcuHr



Arm 3 Lane 2 is
demand dependant in
the AM

Arm 1 Lane 1 runs for an extended period in
the AM (4 mins some cycles) therefore the right
turn at the EMA access comes on every third
cycle in the AM

PM is every cycle as junctions runs on a fixed
time

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A453/EMA Junction	-	-	N/A	-	-		-	-	-	-	-	-	62.2%
A453/Airport Access	-	-	N/A	-	-		-	-	-	-	-	-	62.2%
1/1+1/2	A453 (East) Ahead Right	U	N/A	N/A	B C		1	54:12	-	837	1965:1854	1160+268	58.6 : 58.6%
2/2+2/1	A453 (West) Ahead Left	U+O	N/A	N/A	A -		1	36	-	477	1965:1439	588+191	61.3 : 61.3%
2/3	A453 (West) Ahead	U	N/A	N/A	A		1	36	-	124	2105	865	14.3%
3/1+3/2	Airport Access Right Left	U	N/A	N/A	D E		1	41:24	-	681	1805:1830	587+508	62.2 : 62.2%
4/1		U	N/A	N/A	-		-	-	-	996	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	725	1965	1965	36.9%
5/2	Ahead	O	N/A	N/A	-		-	-	-	124	2105	555	22.3%
6/1		U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A453/EMA Junction	-	-	141	100	0	10.6	2.8	0.0	13.5	-	-	-	-
A453/Airport Access	-	-	141	100	0	10.6	2.8	0.0	13.5	-	-	-	-
1/1+1/2	837	837	-	-	-	3.5	0.7	-	4.2 (2.5+1.7)	18.2 (13.4:39.0)	10.0	0.7	10.7
2/2+2/1	477	477	17	100	0	2.3	0.8	-	3.1 (2.6+0.5)	23.2 (25.9:14.8)	8.5	0.8	9.3
2/3	124	124	-	-	-	0.6	0.1	-	0.7	19.0	1.9	0.1	2.0
3/1+3/2	681	681	-	-	-	4.1	0.8	-	4.9 (2.1+2.9)	26.1 (20.4:32.7)	6.8	0.8	7.7
4/1	996	996	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	725	725	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/2	124	124	124	0	0	0.1	0.1	-	0.3	7.3	2.4	0.1	2.6
6/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 44.8 Total Delay for Signalled Lanes (pcuHr): 12.91 Cycle Time (s): 90 PRC Over All Lanes (%): 44.8 Total Delay Over All Lanes(pcuHr): 13.45													

APPENDIX 49: Junction 7: A453/Grimes Gate Priority Junction Stage 1A/2A Modelling Results

Junctions 11	
PICADY 11 - Priority Intersection Module	
Version: 11.0.0.2177	
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Filename: 250619_A453_Grimes Gate PICADY Model_Stage 1a+2a.j11

Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\7. A453_Grimes Gate

Report generation date: 20/06/2025 15:56:06

»2022 | Observed | AM
 »2022 | Observed | PM
 »2028 | WoD Flows | AM
 »2028 | WoD Flows | PM
 »2028 | WD Flows | AM
 »2028 | WD Flows | PM
 »2038 | WoD Flows | AM
 »2038 | WoD Flows | PM
 »2038 | WD Flows | AM
 »2038 | WD Flows | PM
 »2028 | 2a WD Flows | AM
 »2028 | 2a WD Flows | PM
 »2038 | 2a WD Flows | AM
 »2038 | 2a WD Flows | PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2022 - Observed															
Stream B-C	D1	0.0	6.14	0.01	A	0.67	A	114 %	D2	0.0	6.42	0.02	A	0.43	A	147 %
Stream B-A		0.2	8.25	0.14	A			[Stream B-A]		0.1	7.54	0.06	A			[Stream B-A]
Stream C-AB		0.0	4.07	0.02	A					0.0	4.85	0.03	A			
	2028 - 2a WD Flows															
Stream B-C	D11	0.0	6.75	0.01	A	1.40	A	43 %	D12	0.0	7.51	0.03	A	0.49	A	68 %
Stream B-A		0.5	12.52	0.34	B			[Stream B-A]		0.1	10.08	0.10	B			[Stream B-A]
Stream C-AB		0.0	3.57	0.03	A					0.1	4.96	0.05	A			
	2028 - WD Flows															
Stream B-C	D5	0.0	6.74	0.01	A	1.45	A	39 %	D6	0.0	7.34	0.03	A	0.51	A	74 %
Stream B-A		0.6	13.05	0.36	B			[Stream B-A]		0.1	9.72	0.10	A			[Stream B-A]
Stream C-AB		0.0	3.45	0.03	A					0.1	5.00	0.05	A			
	2028 - WoD Flows															
Stream B-C	D3	0.0	6.51	0.02	A	1.01	A	65 %	D4	0.0	6.75	0.02	A	0.47	A	100 %
Stream B-A		0.3	10.36	0.24	B			[Stream B-A]		0.1	8.63	0.08	A			[Stream B-A]
Stream C-AB		0.0	3.89	0.02	A					0.1	4.75	0.04	A			
	2038 - 2a WD Flows															
Stream B-C	D13	0.0	7.55	0.02	A	1.81	A	25 %	D14	0.0	8.54	0.04	A	0.61	A	35 %
Stream B-A		0.8	15.93	0.44	C			[Stream B-A]		0.2	13.58	0.16	B			[Stream B-A]
Stream C-AB		0.0	3.40	0.02	A					0.1	4.85	0.06	A			
	2038 - WD Flows															
Stream B-C	D9	0.0	7.79	0.03	A	2.08	A	22 %	D10	0.0	8.44	0.04	A	0.64	A	36 %
Stream B-A		0.9	16.82	0.47	C			[Stream B-A]		0.2	13.42	0.17	B			[Stream B-A]
Stream C-AB		0.1	3.48	0.04	A					0.1	4.82	0.06	A			
	2038 - WoD Flows															
Stream B-C	D7	0.0	7.27	0.03	A	1.32	A	40 %	D8	0.0	7.36	0.03	A	0.70	A	52 %
Stream B-A		0.5	12.77	0.33	B			[Stream B-A]		0.2	11.35	0.17	B			[Stream B-A]
Stream C-AB		0.0	3.88	0.02	A					0.1	4.29	0.06	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/Grimes Gate
Site number	
Date	06/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	Observed	AM	ONE HOUR	08:00	09:30	15
D2	2022	Observed	PM	ONE HOUR	17:00	18:30	15
D3	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15
D4	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15
D5	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15
D6	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15
D7	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15
D8	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15
D9	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15
D10	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15
D11	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15
D12	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15
D13	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15
D14	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 | Observed | AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.67	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	114	Stream B-A	0.67	A

Arms

Arms

Arm	Name	Description	Arm type
A	A453 (E)		Major
B	Grimes Gate		Minor
C	A453 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.80			190.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	8.25	7.50	7.40	4.30	3.80		1.00	215	153

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	732	0.123	0.311	0.195	0.444
B-C	700	0.099	0.250	-	-
C-B	684	0.244	0.244	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	Observed	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	316	100.000
B		✓	70	100.000
C		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	20	296
	B	64	0	6
	C	547	7	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.14	0.0	A
B-A	0.14	8.25	0.2	A
C-AB	0.02	4.07	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	629	0.007	4	0.0	5.764	A
B-A	48	0.00	578	0.083	48	0.1	6.784	A
C-AB	10	0.00	895	0.011	10	0.0	4.068	A
C-A	407	0.00			407			
A-B	15	0.00			15			
A-C	223	0.00			223			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	614	0.009	5	0.0	5.912	A
B-A	58	0.00	548	0.105	57	0.1	7.332	A
C-AB	13	0.00	938	0.014	13	0.0	3.890	A
C-A	485	0.00			485			
A-B	18	0.00			18			
A-C	266	0.00			266			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	593	0.011	7	0.0	6.137	A
B-A	70	0.00	507	0.139	70	0.2	8.241	A
C-AB	19	0.00	1001	0.019	19	0.0	3.667	A
C-A	591	0.00			591			
A-B	22	0.00			22			
A-C	326	0.00			326			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	593	0.011	7	0.0	6.137	A
B-A	70	0.00	507	0.139	70	0.2	8.248	A
C-AB	19	0.00	1001	0.019	19	0.0	3.667	A
C-A	591	0.00			591			
A-B	22	0.00			22			
A-C	326	0.00			326			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	614	0.009	5	0.0	5.913	A
B-A	58	0.00	548	0.105	58	0.1	7.341	A
C-AB	13	0.00	938	0.014	13	0.0	3.892	A
C-A	485	0.00			485			
A-B	18	0.00			18			
A-C	266	0.00			266			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	629	0.007	5	0.0	5.768	A
B-A	48	0.00	578	0.083	48	0.1	6.795	A
C-AB	10	0.00	895	0.011	10	0.0	4.068	A
C-A	407	0.00			407			
A-B	15	0.00			15			
A-C	223	0.00			223			

2022 | Observed | PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.43	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	147	Stream B-A	0.43	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022	Observed	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	482	100.000
B		✓	37	100.000
C		✓	330	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From	A	B	C	
	0	74	408	
	28	0	9	
	318	12	0	

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	6.42	0.0	A
B-A	0.06	7.54	0.1	A
C-AB	0.03	4.85	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	612	0.011	7	0.0	5.948	A
B-A	21	0.00	579	0.036	21	0.0	6.450	A
C-AB	13	0.00	756	0.018	13	0.0	4.848	A
C-A	235	0.00			235			
A-B	56	0.00			56			
A-C	307	0.00			307			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	595	0.014	8	0.0	6.137	A
B-A	25	0.00	549	0.046	25	0.0	6.869	A
C-AB	17	0.00	772	0.022	17	0.0	4.767	A
C-A	280	0.00			280			
A-B	67	0.00			67			
A-C	367	0.00			367			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	571	0.017	10	0.0	6.420	A
B-A	31	0.00	508	0.061	31	0.1	7.541	A
C-AB	24	0.00	797	0.030	24	0.0	4.656	A
C-A	340	0.00			340			
A-B	81	0.00			81			
A-C	449	0.00			449			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	571	0.017	10	0.0	6.420	A
B-A	31	0.00	508	0.061	31	0.1	7.541	A
C-AB	24	0.00	797	0.030	24	0.0	4.656	A
C-A	340	0.00			340			
A-B	81	0.00			81			
A-C	449	0.00			449			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	595	0.014	8	0.0	6.140	A
B-A	25	0.00	549	0.046	25	0.0	6.871	A
C-AB	17	0.00	772	0.022	17	0.0	4.769	A
C-A	279	0.00			279			
A-B	67	0.00			67			
A-C	367	0.00			367			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	612	0.011	7	0.0	5.951	A
B-A	21	0.00	579	0.036	21	0.0	6.456	A
C-AB	13	0.00	756	0.018	13	0.0	4.849	A
C-A	235	0.00			235			
A-B	56	0.00			56			
A-C	307	0.00			307			

2028 | WoD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		1.01	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	65	Stream B-A	1.01	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	353	100.000
B		✓	109	100.000
C		✓	704	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	21	332
	B	101	0	8
	C	697	7	0

Vehicle Mix

Heavy Vehicle %

	To			
	A	B	C	
From	A	0	0	12
	B	1	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	6.51	0.0	A
B-A	0.24	10.36	0.3	B
C-AB	0.02	3.89	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	0.00	612	0.010	6	0.0	5.938	A
B-A	76	0.00	548	0.139	75	0.2	7.692	A
C-AB	12	0.00	963	0.012	12	0.0	3.882	A
C-A	518	0.00			518			
A-B	16	0.00			16			
A-C	250	0.00			250			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	592	0.012	7	0.0	6.151	A
B-A	91	0.00	512	0.177	91	0.2	8.629	A
C-AB	16	0.00	1022	0.016	16	0.0	3.681	A
C-A	617	0.00			617			
A-B	19	0.00			19			
A-C	298	0.00			298			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	562	0.016	9	0.0	6.509	A
B-A	111	0.00	462	0.241	111	0.3	10.337	B
C-AB	25	0.00	1105	0.023	25	0.0	3.440	A
C-A	750	0.00			750			
A-B	23	0.00			23			
A-C	366	0.00			366			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	562	0.016	9	0.0	6.512	A
B-A	111	0.00	462	0.241	111	0.3	10.359	B
C-AB	25	0.00	1105	0.023	25	0.0	3.446	A
C-A	750	0.00			750			
A-B	23	0.00			23			
A-C	366	0.00			366			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	592	0.012	7	0.0	6.154	A
B-A	91	0.00	512	0.177	91	0.2	8.654	A
C-AB	16	0.00	1022	0.016	16	0.0	3.698	A
C-A	617	0.00			617			
A-B	19	0.00			19			
A-C	298	0.00			298			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	0.00	612	0.010	6	0.0	5.941	A
B-A	76	0.00	547	0.139	76	0.2	7.720	A
C-AB	12	0.00	963	0.012	12	0.0	3.891	A
C-A	518	0.00			518			
A-B	16	0.00			16			
A-C	250	0.00			250			

2028 | WoD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.47	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	100	Stream B-A	0.47	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	575	100.000
B		✓	45	100.000
C		✓	439	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	90	485
	B	35	0	10
	C	425	14	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	2	9
	B	0	0	0
	C	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	6.75	0.0	A
B-A	0.08	8.63	0.1	A
C-AB	0.04	4.75	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	595	0.013	7	0.0	6.132	A
B-A	26	0.00	543	0.049	26	0.1	6.965	A
C-AB	18	0.00	795	0.022	18	0.0	4.735	A
C-A	313	0.00			313			
A-B	68	0.00			68			
A-C	365	0.00			365			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	574	0.016	9	0.0	6.375	A
B-A	31	0.00	506	0.062	31	0.1	7.580	A
C-AB	24	0.00	821	0.029	24	0.0	4.626	A
C-A	371	0.00			371			
A-B	81	0.00			81			
A-C	436	0.00			436			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	544	0.020	11	0.0	6.748	A
B-A	39	0.00	456	0.085	38	0.1	8.627	A
C-AB	34	0.00	860	0.039	34	0.1	4.489	A
C-A	449	0.00			449			
A-B	99	0.00			99			
A-C	534	0.00			534			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	544	0.020	11	0.0	6.748	A
B-A	39	0.00	456	0.085	39	0.1	8.631	A
C-AB	34	0.00	860	0.039	34	0.1	4.498	A
C-A	449	0.00			449			
A-B	99	0.00			99			
A-C	534	0.00			534			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	574	0.016	9	0.0	6.378	A
B-A	31	0.00	506	0.062	32	0.1	7.583	A
C-AB	24	0.00	822	0.029	24	0.0	4.648	A
C-A	371	0.00			371			
A-B	81	0.00			81			
A-C	436	0.00			436			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	594	0.013	8	0.0	6.133	A
B-A	26	0.00	543	0.049	26	0.1	6.971	A
C-AB	18	0.00	795	0.022	18	0.0	4.747	A
C-A	313	0.00			313			
A-B	68	0.00			68			
A-C	365	0.00			365			

2028 | WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		1.45	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	39	Stream B-A	1.45	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	285	100.000
B		✓	149	100.000
C		✓	933	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	19	266
	B	143	0	6
	C	927	6	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	0	14
	B	1	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.74	0.0	A
B-A	0.36	13.05	0.6	B
C-AB	0.03	3.45	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	610	0.007	4	0.0	5.940	A
B-A	108	0.00	530	0.203	107	0.3	8.575	A
C-AB	13	0.00	1085	0.012	13	0.0	3.442	A
C-A	690	0.00			690			
A-B	14	0.00			14			
A-C	200	0.00			200			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	586	0.009	5	0.0	6.204	A
B-A	129	0.00	490	0.262	128	0.4	10.027	B
C-AB	19	0.00	1167	0.016	19	0.0	3.219	A
C-A	820	0.00			820			
A-B	17	0.00			17			
A-C	239	0.00			239			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	541	0.012	7	0.0	6.735	A
B-A	157	0.00	436	0.361	157	0.6	12.974	B
C-AB	32	0.00	1284	0.025	32	0.0	2.963	A
C-A	995	0.00			995			
A-B	21	0.00			21			
A-C	293	0.00			293			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	0.00	540	0.012	7	0.0	6.744	A
B-A	157	0.00	436	0.361	157	0.6	13.048	B
C-AB	32	0.00	1284	0.025	32	0.0	2.969	A
C-A	995	0.00			995			
A-B	21	0.00			21			
A-C	293	0.00			293			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	585	0.009	5	0.0	6.212	A
B-A	129	0.00	490	0.262	129	0.4	10.096	B
C-AB	19	0.00	1167	0.016	19	0.0	3.232	A
C-A	820	0.00			820			
A-B	17	0.00			17			
A-C	239	0.00			239			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	610	0.007	5	0.0	5.949	A
B-A	108	0.00	530	0.203	108	0.3	8.633	A
C-AB	13	0.00	1085	0.012	13	0.0	3.451	A
C-A	690	0.00			690			
A-B	14	0.00			14			
A-C	200	0.00			200			

2028 | WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.51	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	74	Stream B-A	0.51	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	746	100.000
B		✓	49	100.000
C		✓	411	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	133	613
	B	37	0	12
	C	394	17	0

Vehicle Mix

Heavy Vehicle %

		To		
From		A	B	C
	A	0	2	4
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	7.34	0.0	A
B-A	0.10	9.72	0.1	A
C-AB	0.05	5.00	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	567	0.016	9	0.0	6.454	A
B-A	28	0.00	513	0.054	28	0.1	7.418	A
C-AB	21	0.00	753	0.028	21	0.0	4.991	A
C-A	288	0.00			288			
A-B	100	0.00			100			
A-C	461	0.00			461			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	540	0.020	11	0.0	6.797	A
B-A	33	0.00	470	0.071	33	0.1	8.239	A
C-AB	28	0.00	772	0.037	28	0.1	4.921	A
C-A	341	0.00			341			
A-B	120	0.00			120			
A-C	551	0.00			551			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	503	0.026	13	0.0	7.344	A
B-A	41	0.00	411	0.099	41	0.1	9.711	A
C-AB	41	0.00	801	0.051	41	0.1	4.832	A
C-A	412	0.00			412			
A-B	146	0.00			146			
A-C	675	0.00			675			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	503	0.026	13	0.0	7.344	A
B-A	41	0.00	411	0.099	41	0.1	9.718	A
C-AB	41	0.00	801	0.051	41	0.1	4.842	A
C-A	411	0.00			411			
A-B	146	0.00			146			
A-C	675	0.00			675			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	540	0.020	11	0.0	6.799	A
B-A	33	0.00	470	0.071	33	0.1	8.248	A
C-AB	28	0.00	772	0.037	28	0.1	4.940	A
C-A	341	0.00			341			
A-B	120	0.00			120			
A-C	551	0.00			551			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	0.00	567	0.016	9	0.0	6.458	A
B-A	28	0.00	513	0.054	28	0.1	7.427	A
C-AB	21	0.00	753	0.028	21	0.0	5.000	A
C-A	288	0.00			288			
A-B	100	0.00			100			
A-C	461	0.00			461			

2038 | WoD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		1.32	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	40	Stream B-A	1.32	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	465	100.000
B		✓	138	100.000
C		✓	731	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	23	442
	B	124	0	14
	C	724	7	0

Vehicle Mix

Heavy Vehicle %

	To			
	A	B	C	
From	A	0	0	5
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	7.27	0.0	A
B-A	0.33	12.77	0.5	B
C-AB	0.02	3.88	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	584	0.018	10	0.0	6.276	A
B-A	93	0.00	518	0.180	92	0.2	8.451	A
C-AB	12	0.00	962	0.013	12	0.0	3.872	A
C-A	538	0.00			538			
A-B	17	0.00			17			
A-C	333	0.00			333			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	556	0.023	13	0.0	6.620	A
B-A	111	0.00	476	0.234	111	0.3	9.858	A
C-AB	17	0.00	1022	0.017	17	0.0	3.666	A
C-A	640	0.00			640			
A-B	21	0.00			21			
A-C	397	0.00			397			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	0.00	511	0.030	15	0.0	7.266	A
B-A	137	0.00	418	0.326	136	0.5	12.708	B
C-AB	28	0.00	1109	0.025	27	0.0	3.419	A
C-A	777	0.00			777			
A-B	25	0.00			25			
A-C	487	0.00			487			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	0.00	510	0.030	15	0.0	7.273	A
B-A	137	0.00	418	0.326	137	0.5	12.769	B
C-AB	28	0.00	1109	0.025	28	0.0	3.424	A
C-A	777	0.00			777			
A-B	25	0.00			25			
A-C	487	0.00			487			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	556	0.023	13	0.0	6.627	A
B-A	111	0.00	476	0.234	112	0.3	9.913	A
C-AB	17	0.00	1022	0.017	17	0.0	3.681	A
C-A	640	0.00			640			
A-B	21	0.00			21			
A-C	397	0.00			397			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	584	0.018	11	0.0	6.284	A
B-A	93	0.00	518	0.180	94	0.2	8.501	A
C-AB	12	0.00	962	0.013	12	0.0	3.879	A
C-A	538	0.00			538			
A-B	17	0.00			17			
A-C	333	0.00			333			

2038 | WoD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.70	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	52	Stream B-A	0.70	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	676	100.000
B		✓	74	100.000
C		✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	99	577
	B	60	0	14
	C	604	16	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	2	4
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	7.36	0.0	A
B-A	0.17	11.35	0.2	B
C-AB	0.06	4.29	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	570	0.018	10	0.0	6.432	A
B-A	45	0.00	494	0.092	45	0.1	8.012	A
C-AB	25	0.00	873	0.029	25	0.0	4.289	A
C-A	442	0.00			442			
A-B	75	0.00			75			
A-C	434	0.00			434			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	543	0.023	13	0.0	6.780	A
B-A	54	0.00	447	0.121	54	0.1	9.144	A
C-AB	35	0.00	917	0.039	35	0.1	4.128	A
C-A	522	0.00			522			
A-B	89	0.00			89			
A-C	519	0.00			519			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	0.00	505	0.031	15	0.0	7.354	A
B-A	66	0.00	383	0.172	66	0.2	11.324	B
C-AB	55	0.00	982	0.056	55	0.1	3.932	A
C-A	628	0.00			628			
A-B	109	0.00			109			
A-C	635	0.00			635			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	0.00	505	0.031	15	0.0	7.356	A
B-A	66	0.00	383	0.172	66	0.2	11.345	B
C-AB	55	0.00	982	0.056	55	0.1	3.936	A
C-A	628	0.00			628			
A-B	109	0.00			109			
A-C	635	0.00			635			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	543	0.023	13	0.0	6.785	A
B-A	54	0.00	447	0.121	54	0.1	9.165	A
C-AB	35	0.00	917	0.039	36	0.1	4.138	A
C-A	522	0.00			522			
A-B	89	0.00			89			
A-C	519	0.00			519			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	570	0.018	11	0.0	6.434	A
B-A	45	0.00	494	0.092	45	0.1	8.032	A
C-AB	25	0.00	873	0.029	25	0.0	4.294	A
C-A	442	0.00			442			
A-B	75	0.00			75			
A-C	434	0.00			434			

2038 | WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		2.08	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	22	Stream B-A	2.08	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	375	100.000
B		✓	184	100.000
C		✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	33	342
	B	173	0	11
	C	935	10	0

Vehicle Mix

Heavy Vehicle %

	To			
	A	B	C	
From	A	0	0	6
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	7.79	0.0	A
B-A	0.47	16.82	0.9	C
C-AB	0.04	3.48	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	583	0.014	8	0.0	6.263	A
B-A	130	0.00	508	0.256	129	0.3	9.461	A
C-AB	22	0.00	1078	0.020	22	0.0	3.471	A
C-A	690	0.00			690			
A-B	25	0.00			25			
A-C	257	0.00			257			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	547	0.018	10	0.0	6.703	A
B-A	156	0.00	465	0.335	155	0.5	11.604	B
C-AB	33	0.00	1161	0.028	33	0.0	3.254	A
C-A	817	0.00			817			
A-B	30	0.00			30			
A-C	307	0.00			307			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	476	0.025	12	0.0	7.764	A
B-A	190	0.00	404	0.471	189	0.9	16.603	C
C-AB	57	0.00	1279	0.044	56	0.1	3.011	A
C-A	984	0.00			984			
A-B	36	0.00			36			
A-C	377	0.00			377			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	474	0.026	12	0.0	7.794	A
B-A	190	0.00	404	0.471	190	0.9	16.815	C
C-AB	57	0.00	1279	0.044	57	0.1	3.017	A
C-A	984	0.00			984			
A-B	36	0.00			36			
A-C	377	0.00			377			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	545	0.018	10	0.0	6.727	A
B-A	156	0.00	464	0.335	157	0.5	11.762	B
C-AB	33	0.00	1161	0.028	33	0.0	3.263	A
C-A	817	0.00			817			
A-B	30	0.00			30			
A-C	307	0.00			307			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	582	0.014	8	0.0	6.278	A
B-A	130	0.00	508	0.256	131	0.3	9.562	A
C-AB	22	0.00	1079	0.020	22	0.0	3.476	A
C-A	690	0.00			690			
A-B	25	0.00			25			
A-C	257	0.00			257			

2038 | WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.64	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	36	Stream B-A	0.64	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	944	100.000
B		✓	64	100.000
C		✓	525	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	149	795
	B	49	0	15
	C	508	17	0

Vehicle Mix

Heavy Vehicle %

	To			
	A	B	C	
From	A	0	1	3
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.44	0.0	A
B-A	0.17	13.42	0.2	B
C-AB	0.06	4.82	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	528	0.021	11	0.0	6.967	A
B-A	37	0.00	452	0.082	37	0.1	8.661	A
C-AB	25	0.00	784	0.032	25	0.0	4.808	A
C-A	370	0.00			370			
A-B	112	0.00			112			
A-C	599	0.00			599			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	493	0.027	13	0.0	7.503	A
B-A	44	0.00	397	0.111	44	0.1	10.178	B
C-AB	35	0.00	813	0.043	35	0.1	4.702	A
C-A	437	0.00			437			
A-B	134	0.00			134			
A-C	715	0.00			715			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	0.00	443	0.037	16	0.0	8.432	A
B-A	54	0.00	322	0.167	54	0.2	13.390	B
C-AB	54	0.00	856	0.063	54	0.1	4.572	A
C-A	524	0.00			524			
A-B	164	0.00			164			
A-C	875	0.00			875			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	0.00	443	0.037	17	0.0	8.437	A
B-A	54	0.00	322	0.167	54	0.2	13.421	B
C-AB	54	0.00	856	0.063	54	0.1	4.579	A
C-A	524	0.00			524			
A-B	164	0.00			164			
A-C	875	0.00			875			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	493	0.027	14	0.0	7.507	A
B-A	44	0.00	397	0.111	44	0.1	10.207	B
C-AB	35	0.00	813	0.043	35	0.1	4.719	A
C-A	437	0.00			437			
A-B	134	0.00			134			
A-C	715	0.00			715			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	528	0.021	11	0.0	6.973	A
B-A	37	0.00	452	0.082	37	0.1	8.682	A
C-AB	25	0.00	785	0.032	25	0.0	4.818	A
C-A	370	0.00			370			
A-B	112	0.00			112			
A-C	599	0.00			599			

2028 | 2a WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		1.40	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	43	Stream B-A	1.40	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	313	100.000
B		✓	144	100.000
C		✓	865	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	21	292
	B	137	0	7
	C	858	7	0

Vehicle Mix

Heavy Vehicle %

	To			
From		A	B	C
	A	0	0	13
	B	1	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.75	0.0	A
B-A	0.34	12.52	0.5	B
C-AB	0.03	3.57	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	608	0.009	5	0.0	5.972	A
B-A	103	0.00	533	0.193	102	0.2	8.418	A
C-AB	14	0.00	1048	0.013	14	0.0	3.565	A
C-A	637	0.00			637			
A-B	16	0.00			16			
A-C	220	0.00			220			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	0.00	584	0.011	6	0.0	6.234	A
B-A	123	0.00	495	0.249	123	0.3	9.769	A
C-AB	20	0.00	1123	0.018	20	0.0	3.348	A
C-A	757	0.00			757			
A-B	19	0.00			19			
A-C	263	0.00			263			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	542	0.014	8	0.0	6.741	A
B-A	151	0.00	441	0.342	150	0.5	12.457	B
C-AB	33	0.00	1230	0.027	33	0.0	3.096	A
C-A	919	0.00			919			
A-B	23	0.00			23			
A-C	321	0.00			321			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	541	0.014	8	0.0	6.748	A
B-A	151	0.00	441	0.342	151	0.5	12.519	B
C-AB	33	0.00	1230	0.027	33	0.0	3.102	A
C-A	919	0.00			919			
A-B	23	0.00			23			
A-C	321	0.00			321			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	0.00	583	0.011	6	0.0	6.241	A
B-A	123	0.00	495	0.249	124	0.3	9.827	A
C-AB	20	0.00	1123	0.018	20	0.0	3.359	A
C-A	757	0.00			757			
A-B	19	0.00			19			
A-C	263	0.00			263			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	0.00	607	0.009	5	0.0	5.980	A
B-A	103	0.00	533	0.193	104	0.2	8.471	A
C-AB	14	0.00	1048	0.013	14	0.0	3.572	A
C-A	637	0.00			637			
A-B	16	0.00			16			
A-C	220	0.00			220			

2028 | 2a WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.49	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	68	Stream B-A	0.49	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	769	100.000
B		✓	48	100.000
C		✓	426	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	111	658
	B	35	0	13
	C	410	16	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	2	4
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	7.51	0.0	A
B-A	0.10	10.08	0.1	B
C-AB	0.05	4.96	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	560	0.017	10	0.0	6.539	A
B-A	26	0.00	502	0.052	26	0.1	7.558	A
C-AB	20	0.00	758	0.027	20	0.0	4.955	A
C-A	300	0.00			300			
A-B	84	0.00			84			
A-C	495	0.00			495			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	533	0.022	12	0.0	6.910	A
B-A	31	0.00	458	0.069	31	0.1	8.447	A
C-AB	27	0.00	778	0.035	27	0.0	4.877	A
C-A	356	0.00			356			
A-B	100	0.00			100			
A-C	592	0.00			592			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	0.00	494	0.029	14	0.0	7.506	A
B-A	39	0.00	396	0.097	38	0.1	10.069	B
C-AB	40	0.00	809	0.049	40	0.1	4.777	A
C-A	429	0.00			429			
A-B	122	0.00			122			
A-C	724	0.00			724			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	0.00	494	0.029	14	0.0	7.507	A
B-A	39	0.00	396	0.097	39	0.1	10.076	B
C-AB	40	0.00	809	0.049	40	0.1	4.786	A
C-A	429	0.00			429			
A-B	122	0.00			122			
A-C	724	0.00			724			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	533	0.022	12	0.0	6.914	A
B-A	31	0.00	457	0.069	32	0.1	8.455	A
C-AB	27	0.00	778	0.035	28	0.0	4.896	A
C-A	356	0.00			356			
A-B	100	0.00			100			
A-C	592	0.00			592			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	560	0.017	10	0.0	6.540	A
B-A	26	0.00	502	0.052	26	0.1	7.568	A
C-AB	20	0.00	758	0.027	20	0.0	4.965	A
C-A	300	0.00			300			
A-B	84	0.00			84			
A-C	495	0.00			495			

2038 | 2a WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		1.81	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	25	Stream B-A	1.81	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	363	100.000
B		✓	172	100.000
C		✓	957	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	11	352
	B	161	0	11
	C	953	4	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	0	6
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	7.55	0.0	A
B-A	0.44	15.93	0.8	C
C-AB	0.02	3.40	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	587	0.014	8	0.0	6.217	A
B-A	121	0.00	507	0.239	120	0.3	9.270	A
C-AB	9	0.00	1089	0.008	9	0.0	3.398	A
C-A	712	0.00			712			
A-B	8	0.00			8			
A-C	265	0.00			265			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	554	0.018	10	0.0	6.616	A
B-A	145	0.00	463	0.312	144	0.4	11.258	B
C-AB	13	0.00	1173	0.011	13	0.0	3.167	A
C-A	847	0.00			847			
A-B	10	0.00			10			
A-C	316	0.00			316			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	490	0.025	12	0.0	7.530	A
B-A	177	0.00	403	0.440	176	0.8	15.768	C
C-AB	23	0.00	1294	0.018	23	0.0	2.898	A
C-A	1030	0.00			1030			
A-B	12	0.00			12			
A-C	388	0.00			388			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	0.00	489	0.025	12	0.0	7.552	A
B-A	177	0.00	403	0.440	177	0.8	15.935	C
C-AB	23	0.00	1294	0.018	23	0.0	2.901	A
C-A	1030	0.00			1030			
A-B	12	0.00			12			
A-C	388	0.00			388			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	0.00	553	0.018	10	0.0	6.634	A
B-A	145	0.00	463	0.312	146	0.5	11.384	B
C-AB	13	0.00	1173	0.011	13	0.0	3.177	A
C-A	847	0.00			847			
A-B	10	0.00			10			
A-C	316	0.00			316			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	0.00	586	0.014	8	0.0	6.230	A
B-A	121	0.00	507	0.239	122	0.3	9.359	A
C-AB	9	0.00	1089	0.008	9	0.0	3.402	A
C-A	712	0.00			712			
A-B	8	0.00			8			
A-C	265	0.00			265			

2038 | 2a WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.61	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	35	Stream B-A	0.61	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	970	100.000
B		✓	61	100.000
C		✓	518	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	152	818
	B	46	0	15
	C	502	16	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	1	3
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.54	0.0	A
B-A	0.16	13.58	0.2	B
C-AB	0.06	4.85	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	524	0.022	11	0.0	7.020	A
B-A	35	0.00	447	0.077	34	0.1	8.706	A
C-AB	23	0.00	777	0.030	23	0.0	4.843	A
C-A	367	0.00			367			
A-B	114	0.00			114			
A-C	616	0.00			616			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	489	0.028	13	0.0	7.575	A
B-A	41	0.00	392	0.105	41	0.1	10.259	B
C-AB	33	0.00	804	0.041	33	0.1	4.739	A
C-A	433	0.00			433			
A-B	137	0.00			137			
A-C	735	0.00			735			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	0.00	438	0.038	16	0.0	8.539	A
B-A	51	0.00	316	0.160	50	0.2	13.550	B
C-AB	51	0.00	846	0.060	51	0.1	4.610	A
C-A	519	0.00			519			
A-B	167	0.00			167			
A-C	901	0.00			901			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	0.00	438	0.038	17	0.0	8.543	A
B-A	51	0.00	316	0.160	51	0.2	13.582	B
C-AB	51	0.00	846	0.060	51	0.1	4.619	A
C-A	519	0.00			519			
A-B	167	0.00			167			
A-C	901	0.00			901			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	0.00	489	0.028	14	0.0	7.581	A
B-A	41	0.00	392	0.105	42	0.1	10.280	B
C-AB	33	0.00	804	0.041	33	0.1	4.756	A
C-A	433	0.00			433			
A-B	137	0.00			137			
A-C	735	0.00			735			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	0.00	524	0.022	11	0.0	7.022	A
B-A	35	0.00	447	0.077	35	0.1	8.729	A
C-AB	24	0.00	777	0.030	24	0.0	4.853	A
C-A	366	0.00			366			
A-B	114	0.00			114			
A-C	616	0.00			616			

APPENDIX 50: Junction 8: A453/The Green Priority Junction Stage 1A/2A Modelling Results

Junctions 11	
PICADY 11 - Priority Intersection Module	
Version: 11.0.0.2177	
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Filename: 250619_A453_The Green_Stage 1a+2a.j11

Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\8. A453_The Green Junction

Report generation date: 20/06/2025 16:00:32

»2028 | WoD Flows | AM
 »2028 | WoD Flows | PM
 »2028 | WD Flows | AM
 »2028 | WD Flows | PM
 »2038 | WoD Flows | AM
 »2038 | WoD Flows | PM
 »2038 | WD Flows | AM
 »2038 | WD Flows | PM
 »2028 | 2a WD Flows | AM
 »2028 | 2a WD Flows | PM
 »2038 | 2a WD Flows | AM
 »2038 | 2a WD Flows | PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2028 - 2a WD Flows															
Stream B-AC	D9	40.2	243.49	1.13	F	82.07	F	-21 %	D10	1.2	20.55	0.56	C	4.72	A	14 %
Stream C-AB		0.7	4.53	0.24	A			[Stream B-AC]		1.1	8.27	0.42	A			[Stream B-AC]
	2028 - WD Flows															
Stream B-AC	D3	122.9	800.13	1.39	F	313.52	F	-33 %	D4	1.1	17.92	0.53	C	3.97	A	20 %
Stream C-AB		0.6	4.58	0.24	A			[Stream B-AC]		0.6	6.78	0.30	A			[Stream B-AC]
	2028 - WoD Flows															
Stream B-AC	D1	5.9	49.47	0.88	E	15.37	C	-5 %	D2	1.0	14.84	0.50	B	3.65	A	30 %
Stream C-AB		0.7	4.88	0.25	A			[Stream B-AC]		0.5	5.92	0.25	A			[Stream B-AC]
	2038 - 2a WD Flows															
Stream B-AC	D11	72.9	505.43	1.28	F	163.77	F	-28 %	D12	25.2	276.97	1.18	F	88.90	F	-16 %
Stream C-AB		0.7	4.37	0.22	A			[Stream B-AC]		31.0	129.44	1.03	F			[Stream B-AC]
	2038 - WD Flows															
Stream B-AC	D7	172.0	1153.41	1.54	F	428.30	F	-37 %	D8	28.8	321.69	1.26	F	128.11	F	-16 %
Stream C-AB		1.2	5.76	0.39	A			[Stream B-AC]		53.0	204.22	1.11	F			[Stream B-AC]
	2038 - WoD Flows															
Stream B-AC	D5	6.1	56.79	0.88	F	15.05	C	-7 %	D6	5.3	60.80	0.87	F	21.04	C	-7 %
Stream C-AB		1.2	5.92	0.38	A			[Stream B-AC]		7.9	26.89	0.85	D			[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/The Green T-Junction
Site number	
Date	06/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15
D2	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15
D3	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15
D4	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15
D5	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15
D6	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15
D7	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15
D8	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15
D9	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15
D10	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15
D11	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15
D12	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 | WoD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		15.37	C

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-5	Stream B-AC	15.37	C

Arms

Arms

Arm	Name	Description	Arm type
A	A453 (E)		Major
B	The Green		Minor
C	A453 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.60	119	135

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	621	0.108	0.273	0.172	0.390
B-C	752	0.110	0.279	-	-
C-B	719	0.266	0.266	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	338	100.000
B		✓	418	100.000
C		✓	653	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	33	305
	B	141	0	277
	C	562	91	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
	A	0	3	13
	B	1	0	0
	C	6	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.88	49.47	5.9	E
C-AB	0.25	4.88	0.7	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	315	0.00	586	0.537	310	1.1	12.918	B
C-AB	127	0.00	921	0.138	126	0.3	4.696	A
C-A	365	0.00			365			
A-B	25	0.00			25			
A-C	230	0.00			230			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	376	0.00	561	0.670	373	1.9	18.859	C
C-AB	173	0.00	964	0.179	172	0.4	4.729	A
C-A	414	0.00			414			
A-B	30	0.00			30			
A-C	274	0.00			274			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	460	0.00	525	0.876	447	5.2	40.535	E
C-AB	254	0.00	1026	0.248	253	0.6	4.864	A
C-A	465	0.00			465			
A-B	36	0.00			36			
A-C	336	0.00			336			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	460	0.00	525	0.876	458	5.9	49.466	E
C-AB	254	0.00	1026	0.248	254	0.7	4.882	A
C-A	465	0.00			465			
A-B	36	0.00			36			
A-C	336	0.00			336			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	376	0.00	561	0.670	391	2.2	22.834	C
C-AB	173	0.00	965	0.179	174	0.4	4.761	A
C-A	414	0.00			414			
A-B	30	0.00			30			
A-C	274	0.00			274			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	315	0.00	585	0.538	319	1.2	13.729	B
C-AB	127	0.00	922	0.138	128	0.3	4.725	A
C-A	364	0.00			364			
A-B	25	0.00			25			
A-C	230	0.00			230			

2028 | WoD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		3.65	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	30	Stream B-AC	3.65	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	492	100.000
B		✓	217	100.000
C		✓	452	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	31	461
	B	87	0	130
	C	351	101	0

Vehicle Mix

Heavy Vehicle %

		To		
From		A	B	C
	A	0	0	9
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.50	14.84	1.0	B
C-AB	0.25	5.92	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	163	0.00	552	0.296	162	0.4	9.196	A
C-AB	114	0.00	793	0.144	113	0.2	5.422	A
C-A	226	0.00			226			
A-B	23	0.00			23			
A-C	347	0.00			347			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	195	0.00	523	0.373	194	0.6	10.949	B
C-AB	149	0.00	811	0.184	149	0.3	5.585	A
C-A	257	0.00			257			
A-B	28	0.00			28			
A-C	414	0.00			414			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	239	0.00	481	0.496	237	1.0	14.668	B
C-AB	207	0.00	838	0.247	206	0.5	5.892	A
C-A	290	0.00			290			
A-B	34	0.00			34			
A-C	508	0.00			508			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	239	0.00	481	0.496	239	1.0	14.844	B
C-AB	208	0.00	838	0.248	207	0.5	5.924	A
C-A	290	0.00			290			
A-B	34	0.00			34			
A-C	508	0.00			508			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	195	0.00	522	0.374	197	0.6	11.100	B
C-AB	149	0.00	812	0.184	150	0.4	5.639	A
C-A	257	0.00			257			
A-B	28	0.00			28			
A-C	414	0.00			414			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	163	0.00	551	0.296	164	0.4	9.315	A
C-AB	114	0.00	794	0.144	115	0.3	5.464	A
C-A	226	0.00			226			
A-B	23	0.00			23			
A-C	347	0.00			347			

2028 | WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		313.52	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-33	Stream B-AC	313.52	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	273	100.000
B		✓	625	100.000
C		✓	700	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	41	232
	B	319	0	306
	C	614	86	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	3	16
	B	0	0	0
	C	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.39	800.13	122.9	F
C-AB	0.24	4.58	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	471	0.00	556	0.846	453	4.4	31.029	D
C-AB	125	0.00	956	0.131	124	0.3	4.478	A
C-A	402	0.00			402			
A-B	31	0.00			31			
A-C	175	0.00			175			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	562	0.00	530	1.059	511	17.2	95.975	F
C-AB	172	0.00	1005	0.171	172	0.4	4.476	A
C-A	457	0.00			457			
A-B	37	0.00			37			
A-C	209	0.00			209			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	688	0.00	494	1.394	492	66.1	320.321	F
C-AB	257	0.00	1075	0.239	256	0.6	4.565	A
C-A	514	0.00			514			
A-B	45	0.00			45			
A-C	255	0.00			255			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	688	0.00	493	1.394	493	114.8	652.304	F
C-AB	257	0.00	1076	0.239	257	0.6	4.581	A
C-A	514	0.00			514			
A-B	45	0.00			45			
A-C	255	0.00			255			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	562	0.00	530	1.060	530	122.9	800.133	F
C-AB	173	0.00	1006	0.172	174	0.4	4.503	A
C-A	456	0.00			456			
A-B	37	0.00			37			
A-C	209	0.00			209			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	471	0.00	556	0.846	551	102.7	737.341	F
C-AB	126	0.00	956	0.132	127	0.3	4.503	A
C-A	401	0.00			401			
A-B	31	0.00			31			
A-C	175	0.00			175			

2028 | WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		3.97	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	20	Stream B-AC	3.97	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	618	100.000
B		✓	204	100.000
C		✓	420	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	85	533
	B	106	0	98
	C	303	117	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.53	17.92	1.1	C
C-AB	0.30	6.78	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	0.00	509	0.302	152	0.4	10.047	B
C-AB	127	0.00	748	0.170	126	0.3	5.870	A
C-A	189	0.00			189			
A-B	64	0.00			64			
A-C	401	0.00			401			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	183	0.00	474	0.387	183	0.6	12.319	B
C-AB	165	0.00	757	0.218	164	0.4	6.175	A
C-A	213	0.00			213			
A-B	76	0.00			76			
A-C	479	0.00			479			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	225	0.00	425	0.528	223	1.1	17.603	C
C-AB	228	0.00	772	0.295	227	0.6	6.741	A
C-A	235	0.00			235			
A-B	94	0.00			94			
A-C	587	0.00			587			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	225	0.00	425	0.528	225	1.1	17.917	C
C-AB	228	0.00	772	0.295	228	0.6	6.775	A
C-A	234	0.00			234			
A-B	94	0.00			94			
A-C	587	0.00			587			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	183	0.00	474	0.387	185	0.6	12.551	B
C-AB	165	0.00	758	0.218	166	0.4	6.232	A
C-A	212	0.00			212			
A-B	76	0.00			76			
A-C	479	0.00			479			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	0.00	508	0.302	154	0.4	10.198	B
C-AB	127	0.00	748	0.170	128	0.3	5.911	A
C-A	189	0.00			189			
A-B	64	0.00			64			
A-C	401	0.00			401			

2038 | WoD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		15.05	C

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-7	Stream B-AC	15.05	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	448	100.000
B		✓	378	100.000
C		✓	721	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	69	379
	B	139	0	239
	C	592	129	0

Vehicle Mix

Heavy Vehicle %

		To		
From		A	B	C
	A	0	1	6
	B	1	0	0
	C	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.88	56.79	6.1	F
C-AB	0.38	5.92	1.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	285	0.00	550	0.518	280	1.0	13.222	B
C-AB	189	0.00	919	0.205	187	0.4	5.084	A
C-A	354	0.00			354			
A-B	52	0.00			52			
A-C	285	0.00			285			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	340	0.00	518	0.656	337	1.8	19.631	C
C-AB	261	0.00	963	0.270	260	0.7	5.304	A
C-A	388	0.00			388			
A-B	62	0.00			62			
A-C	341	0.00			341			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	416	0.00	471	0.883	402	5.3	45.234	E
C-AB	392	0.00	1027	0.381	390	1.2	5.875	A
C-A	402	0.00			402			
A-B	76	0.00			76			
A-C	417	0.00			417			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	416	0.00	471	0.884	413	6.1	56.787	F
C-AB	393	0.00	1028	0.382	393	1.2	5.920	A
C-A	401	0.00			401			
A-B	76	0.00			76			
A-C	417	0.00			417			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	340	0.00	517	0.657	356	2.0	24.321	C
C-AB	262	0.00	965	0.271	264	0.7	5.364	A
C-A	386	0.00			386			
A-B	62	0.00			62			
A-C	341	0.00			341			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	285	0.00	549	0.518	288	1.1	14.036	B
C-AB	190	0.00	920	0.206	191	0.5	5.131	A
C-A	353	0.00			353			
A-B	52	0.00			52			
A-C	285	0.00			285			

2038 | WoD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		21.04	C

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-7	Stream B-AC	21.04	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	583	100.000
B		✓	305	100.000
C		✓	803	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	52	531
	B	99	0	206
	C	519	284	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.87	60.80	5.3	F
C-AB	0.85	26.89	7.9	D
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	230	0.00	507	0.453	226	0.8	12.693	B
C-AB	391	0.00	862	0.454	386	1.2	7.641	A
C-A	213	0.00			213			
A-B	39	0.00			39			
A-C	400	0.00			400			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	274	0.00	461	0.595	272	1.4	18.789	C
C-AB	536	0.00	897	0.598	532	2.2	10.046	B
C-A	186	0.00			186			
A-B	47	0.00			47			
A-C	477	0.00			477			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	336	0.00	391	0.859	324	4.4	47.010	E
C-AB	799	0.00	948	0.842	780	7.0	21.512	C
C-A	85	0.00			85			
A-B	57	0.00			57			
A-C	585	0.00			585			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	336	0.00	386	0.869	333	5.3	60.805	F
C-AB	814	0.00	957	0.851	810	7.9	26.894	D
C-A	70	0.00			70			
A-B	57	0.00			57			
A-C	585	0.00			585			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	274	0.00	456	0.601	289	1.6	23.200	C
C-AB	551	0.00	909	0.606	572	2.5	11.825	B
C-A	171	0.00			171			
A-B	47	0.00			47			
A-C	477	0.00			477			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	230	0.00	505	0.455	233	0.9	13.345	B
C-AB	396	0.00	865	0.457	400	1.3	7.999	A
C-A	209	0.00			209			
A-B	39	0.00			39			
A-C	400	0.00			400			

2038 | WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		428.30	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-37	Stream B-AC	428.30	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	346	100.000
B		✓	646	100.000
C		✓	752	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	83	263
	B	328	0	318
	C	618	134	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	1	7
	B	0	0	0
	C	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.54	1153.41	172.0	F
C-AB	0.39	5.76	1.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	486	0.00	536	0.908	461	6.2	40.303	E
C-AB	198	0.00	947	0.210	197	0.5	4.962	A
C-A	368	0.00			368			
A-B	62	0.00			62			
A-C	198	0.00			198			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	581	0.00	505	1.150	496	27.4	143.731	F
C-AB	274	0.00	996	0.275	273	0.7	5.167	A
C-A	402	0.00			402			
A-B	75	0.00			75			
A-C	236	0.00			236			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	711	0.00	461	1.543	460	90.1	473.860	F
C-AB	411	0.00	1065	0.386	409	1.2	5.715	A
C-A	416	0.00			416			
A-B	91	0.00			91			
A-C	290	0.00			290			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	711	0.00	460	1.545	460	152.8	914.665	F
C-AB	413	0.00	1066	0.387	413	1.2	5.758	A
C-A	415	0.00			415			
A-B	91	0.00			91			
A-C	290	0.00			290			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	581	0.00	504	1.151	504	172.0	1153.408	F
C-AB	275	0.00	997	0.276	277	0.7	5.226	A
C-A	401	0.00			401			
A-B	75	0.00			75			
A-C	236	0.00			236			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	486	0.00	535	0.909	532	160.5	1125.196	F
C-AB	200	0.00	948	0.211	201	0.5	5.010	A
C-A	366	0.00			366			
A-B	62	0.00			62			
A-C	198	0.00			198			

2038 | WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		128.11	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-16	Stream B-AC	128.11	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	801	100.000
B		✓	273	100.000
C		✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	169	632
	B	118	0	155
	C	406	376	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.26	321.69	28.8	F
C-AB	1.11	204.22	53.0	F
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	206	0.00	432	0.476	202	0.9	15.444	C
C-AB	470	0.00	769	0.611	462	2.0	11.750	B
C-A	119	0.00			119			
A-B	127	0.00			127			
A-C	476	0.00			476			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	0.00	370	0.663	242	1.8	27.248	D
C-AB	637	0.00	787	0.809	625	5.1	22.103	C
C-A	66	0.00			66			
A-B	152	0.00			152			
A-C	568	0.00			568			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	301	0.00	273	1.100	258	12.6	130.737	F
C-AB	861	0.00	779	1.105	756	31.3	97.079	F
C-A	0	0.00			0			
A-B	186	0.00			186			
A-C	696	0.00			696			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	301	0.00	238	1.265	236	28.8	321.690	F
C-AB	861	0.00	780	1.104	774	53.0	204.223	F
C-A	0	0.00			0			
A-B	186	0.00			186			
A-C	696	0.00			696			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	245	0.00	313	0.784	302	14.6	260.133	F
C-AB	703	0.00	833	0.844	811	26.1	175.233	F
C-A	0	0.00			0			
A-B	152	0.00			152			
A-C	568	0.00			568			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	206	0.00	407	0.505	259	1.1	33.467	D
C-AB	511	0.00	806	0.634	606	2.5	28.512	D
C-A	78	0.00			78			
A-B	127	0.00			127			
A-C	476	0.00			476			

2028 | 2a WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		82.07	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	Stream B-AC	82.07	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	298	100.000
B		✓	513	100.000
C		✓	722	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	35	263
	B	225	0	288
	C	640	82	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	3	14
	B	0	0	0
	C	5	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.13	243.49	40.2	F
C-AB	0.24	4.53	0.7	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	386	0.00	565	0.684	378	2.0	18.544	C
C-AB	123	0.00	964	0.128	122	0.3	4.445	A
C-A	420	0.00			420			
A-B	26	0.00			26			
A-C	198	0.00			198			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	461	0.00	539	0.856	451	4.7	36.866	E
C-AB	171	0.00	1016	0.168	170	0.4	4.435	A
C-A	478	0.00			478			
A-B	31	0.00			31			
A-C	236	0.00			236			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	565	0.00	501	1.127	489	23.6	123.835	F
C-AB	257	0.00	1089	0.236	256	0.7	4.511	A
C-A	538	0.00			538			
A-B	39	0.00			39			
A-C	290	0.00			290			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	565	0.00	501	1.127	498	40.2	243.494	F
C-AB	258	0.00	1090	0.237	258	0.7	4.527	A
C-A	537	0.00			537			
A-B	39	0.00			39			
A-C	290	0.00			290			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	461	0.00	539	0.856	526	24.1	223.307	F
C-AB	171	0.00	1017	0.169	172	0.4	4.456	A
C-A	478	0.00			478			
A-B	31	0.00			31			
A-C	236	0.00			236			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	386	0.00	565	0.684	473	2.4	63.201	F
C-AB	124	0.00	965	0.129	125	0.3	4.466	A
C-A	419	0.00			419			
A-B	26	0.00			26			
A-C	198	0.00			198			

2028 | 2a WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		4.72	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	14	Stream B-AC	4.72	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	664	100.000
B		✓	201	100.000
C		✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	117	547
	B	106	0	95
	C	320	161	0

Vehicle Mix

Heavy Vehicle %

		To		
From		A	B	C
	A	0	0	4
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.56	20.55	1.2	C
C-AB	0.42	8.27	1.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	0.00	490	0.309	150	0.4	10.519	B
C-AB	179	0.00	748	0.239	177	0.4	6.393	A
C-A	183	0.00			183			
A-B	88	0.00			88			
A-C	412	0.00			412			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	181	0.00	451	0.400	180	0.7	13.214	B
C-AB	234	0.00	758	0.309	233	0.6	6.979	A
C-A	198	0.00			198			
A-B	105	0.00			105			
A-C	492	0.00			492			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	221	0.00	396	0.558	219	1.2	20.043	C
C-AB	327	0.00	774	0.422	325	1.1	8.185	A
C-A	203	0.00			203			
A-B	129	0.00			129			
A-C	602	0.00			602			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	221	0.00	396	0.559	221	1.2	20.550	C
C-AB	328	0.00	775	0.423	328	1.1	8.272	A
C-A	202	0.00			202			
A-B	129	0.00			129			
A-C	602	0.00			602			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	181	0.00	451	0.401	183	0.7	13.542	B
C-AB	235	0.00	759	0.309	237	0.7	7.080	A
C-A	198	0.00			198			
A-B	105	0.00			105			
A-C	492	0.00			492			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	0.00	490	0.309	152	0.5	10.704	B
C-AB	180	0.00	749	0.240	180	0.4	6.469	A
C-A	183	0.00			183			
A-B	88	0.00			88			
A-C	412	0.00			412			

2038 | 2a WD Flows | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		163.77	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	Stream B-AC	163.77	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	361	100.000
B		✓	533	100.000
C		✓	756	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	47	314
	B	273	0	260
	C	684	72	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	2	6
	B	0	0	0
	C	5	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.28	505.43	72.9	F
C-AB	0.22	4.37	0.7	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	401	0.00	534	0.752	390	2.7	23.581	C
C-AB	115	0.00	976	0.117	114	0.3	4.341	A
C-A	454	0.00			454			
A-B	35	0.00			35			
A-C	236	0.00			236			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	479	0.00	503	0.952	457	8.3	59.226	F
C-AB	161	0.00	1032	0.156	161	0.4	4.308	A
C-A	518	0.00			518			
A-B	42	0.00			42			
A-C	282	0.00			282			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	587	0.00	460	1.276	456	40.9	213.329	F
C-AB	248	0.00	1110	0.224	247	0.6	4.360	A
C-A	584	0.00			584			
A-B	52	0.00			52			
A-C	346	0.00			346			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	587	0.00	460	1.277	459	72.9	447.846	F
C-AB	249	0.00	1111	0.224	249	0.7	4.372	A
C-A	584	0.00			584			
A-B	52	0.00			52			
A-C	346	0.00			346			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	479	0.00	503	0.952	496	68.6	505.431	F
C-AB	162	0.00	1032	0.157	163	0.4	4.330	A
C-A	518	0.00			518			
A-B	42	0.00			42			
A-C	282	0.00			282			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	401	0.00	534	0.752	526	37.4	366.167	F
C-AB	115	0.00	977	0.118	116	0.3	4.362	A
C-A	454	0.00			454			
A-B	35	0.00			35			
A-C	236	0.00			236			

2038 | 2a WD Flows | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		88.90	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-16	Stream B-AC	88.90	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	825	100.000
B		✓	278	100.000
C		✓	730	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	197	628
	B	132	0	146
	C	385	345	0

Vehicle Mix

Heavy Vehicle %

	To			
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	1.18	276.97	25.2	F
C-AB	1.03	129.44	31.0	F
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	0.00	428	0.489	206	0.9	15.919	C
C-AB	422	0.00	754	0.560	415	1.7	10.687	B
C-A	128	0.00			128			
A-B	148	0.00			148			
A-C	473	0.00			473			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	0.00	369	0.677	246	1.9	28.307	D
C-AB	569	0.00	769	0.740	561	3.6	17.505	C
C-A	87	0.00			87			
A-B	177	0.00			177			
A-C	565	0.00			565			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	0.00	279	1.095	264	12.6	127.612	F
C-AB	804	0.00	777	1.034	737	20.4	67.620	F
C-A	0	0.00			0			
A-B	217	0.00			217			
A-C	691	0.00			691			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	306	0.00	259	1.184	256	25.2	276.967	F
C-AB	804	0.00	779	1.032	762	31.0	129.436	F
C-A	0	0.00			0			
A-B	217	0.00			217			
A-C	691	0.00			691			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	0.00	338	0.739	325	6.3	185.303	F
C-AB	628	0.00	814	0.771	729	5.7	68.517	F
C-A	29	0.00			29			
A-B	177	0.00			177			
A-C	565	0.00			565			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	0.00	423	0.495	230	1.0	20.605	C
C-AB	430	0.00	762	0.565	446	1.8	12.313	B
C-A	119	0.00			119			
A-B	148	0.00			148			
A-C	473	0.00			473			

APPENDIX 51: Junction 9: A453/East Midlands Airport Roundabout Stage 1A/2A Modelling Results

Junctions 11	
ARCADY 11 - Roundabout Module	
Version: 11.0.0.2177	
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Filename: 250619 A453_EMA Roundabout ARCADY Model (Lane Sim)_Stage 1a+2a.j11

Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\9. A453_EMA Roundabout

Report generation date: 20/06/2025 16:11:17

»2022 | Base Flows | AM
 »2022 | Base Flows | PM
 »2028 | WoD Flows | AM
 »2028 | WoD Flows | PM
 »2028 | WD Flows | AM
 »2028 | WD Flows | PM
 »2038 | WoD Flows | AM
 »2038 | WoD Flows | PM
 »2038 | WD Flows | AM
 »2038 | WD Flows | PM
 »2028 | 2a WD Flows | AM
 »2028 | 2a WD Flows | PM
 »2038 | 2a WD Flows | AM
 »2038 | 2a WD Flows | PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	[Lane Simulation] - 2022 - Base Flows															
Arm 1	D1	0.2	4.22	0.14	A	7.50	A	% []	D2	0.4	4.72	0.25	A	5.45	A	% []
Arm 2		1.1	4.95	0.35	A					1.0	4.78	0.32	A			
Arm 3		2.0	11.14	0.58	B					0.9	6.98	0.33	A			
	[Lane Simulation] - 2028 - 2a WD Flows															
Arm 1	D11	0.2	4.82	0.12	A	34.74	D	% []	D12	1.2	5.05	0.35	A	6.80	A	% []
Arm 2		1.0	5.44	0.33	A					1.4	6.02	0.39	A			
Arm 3		16.7	57.19	0.95	F					1.1	9.46	0.52	A			
	[Lane Simulation] - 2028 - WD Flows															
Arm 1	D5	0.3	4.77	0.13	A	50.75	F	% []	D6	0.6	4.90	0.35	A	6.29	A	% []
Arm 2		1.0	5.54	0.31	A					1.4	5.97	0.40	A			
Arm 3		25.9	84.01	0.99	F					1.2	8.31	0.45	A			
	[Lane Simulation] - 2028 - WoD Flows															
Arm 1	D3	0.2	4.69	0.12	A	19.78	C	% []	D4	0.7	5.00	0.35	A	7.17	A	% []
Arm 2		1.0	5.41	0.34	A					1.3	6.27	0.35	A			
Arm 3		8.0	32.18	0.89	D					1.5	10.47	0.51	B			
	[Lane Simulation] - 2038 - 2a WD Flows															
Arm 1	D13	0.3	4.79	0.15	A	118.62	F	% []	D14	1.0	6.34	0.44	A	11.70	B	% []
Arm 2		0.9	5.18	0.33	A					1.4	6.43	0.43	A			
Arm 3		69.9	196.36	1.12	F					4.7	19.71	0.79	C			
	[Lane Simulation] - 2038 - WD Flows															
Arm 1	D9	0.4	4.84	0.17	A	135.07	F	% []	D10	1.0	6.50	0.46	A	13.62	B	% []
Arm 2		0.8	5.28	0.33	A					1.6	6.60	0.45	A			
Arm 3		74.3	229.49	1.15	F					6.1	23.86	0.84	C			
	[Lane Simulation] - 2038 - WoD Flows															
Arm 1	D7	0.4	4.85	0.16	A	95.46	F	% []	D8	1.1	6.34	0.44	A	14.10	B	% []
Arm 2		1.1	5.47	0.35	A					1.6	6.23	0.42	A			
Arm 3		56.3	166.82	1.11	F					6.3	24.50	0.84	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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/EMA Roundabout
Site number	
Date	24/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
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	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					✓	Delay	0.85	36.00	20.00		

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Calculate RFCs	Relaxation factor for capacity/RFC runs	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
Delay	1.00	100000	100000	Calculate for all arms	3.00	-1	3	1	60	✓			298314417	52

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	Base Flows	AM	ONE HOUR	08:00	09:30	15	✓
D2	2022	Base Flows	PM	ONE HOUR	17:00	18:30	15	✓
D3	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D4	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15	✓
D5	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D6	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15	✓
D7	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D8	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15	✓
D9	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D10	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15	✓
D11	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D12	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15	✓
D13	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15	✓
D14	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2022 | Base Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	7.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.50	A

Arms

Arms

Arm	Name	Description	No give-way line
1	EMA Access		
2	A453 (E)		
3	A453 (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	6.13	8.46	8.0	20.5	50.0	21.0		
2	3.77	8.05	49.0	13.3	50.0	35.0		
3	3.89	6.48	6.5	24.5	50.0	27.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.730	2295
2	0.666	2065
3	0.586	1553

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1	Evenly split	10.00
2	Evenly split	50.00
3	Evenly split	50.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1	Entry	1	1	2	✓	3.00			0	99999	
			2	1, 3	✓	3.00			0	99999	
	Exit	1	1	(1, 2, 3)		Infinity					
			1			Infinity					
2	Entry	1	1	3	✓	11.00			0	99999	
			2	1, 2, (3)	✓	11.00			0	99999	
	Exit	1	1	(1, 2, 3)		Infinity					
			1			Infinity					
3	Entry	1	1	1, 2	✓	14.00			0	99999	
			2	(2), 3	✓	14.00			0	99999	
	Exit	1	1	(1, 2, 3)		Infinity					
			1			Infinity					

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1	Entry	1	1	0.365	1147
			2	0.365	1147
2	Entry	1	1	0.333	1033
			2	0.333	1033
3	Entry	1	1	0.293	777
			2	0.293	777

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			1	2	3
1	1	1		✓	
		2	✓		✓
2	1	1			✓
		2	✓	✓	
3	1	1	✓	✓	
		2			✓
3	2	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			1	2	3
1	1	1			
		2			
2	1	1			
		2			✓
3	1	1			
		2		✓	
3	2	1			

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	Base Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	153	100.000
2		ONE HOUR	✓	631	100.000
3		ONE HOUR	✓	589	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	1	0	114	39
	2	241	0	390
From	3	129	460	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

	To			
		1	2	3
	1	0	0	0
	2	0	0	0
From	3	0	0	0

Cyclist %

	To			
		1	2	3
	1	0	0	0
	2	0	0	0
From	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.14	4.22	0.2	A	145	217
2	0.35	4.95	1.1	A	583	874
3	0.58	11.14	2.0	B	539	809

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	31	327	1335	0.092	123	119	282	0.0	0.2	3.849	A
2	488	122	33	2041	0.239	486	479	417	0.0	0.6	4.279	A
3	423	106	185	1180	0.359	424	431	334	0.0	1.0	7.454	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	135	34	413	1324	0.102	135	140	328	0.2	0.1	3.763	A
2	556	139	35	2051	0.271	558	572	514	0.6	0.7	4.384	A
3	534	133	209	1197	0.446	532	525	384	1.0	1.2	8.714	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	168	42	506	1283	0.131	168	172	425	0.1	0.1	4.225	A
2	713	178	44	2032	0.351	716	711	630	0.7	0.8	4.903	A
3	655	164	279	1139	0.575	651	650	480	1.2	2.0	11.138	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	181	45	511	1277	0.142	182	179	426	0.1	0.2	4.203	A
2	698	174	47	2032	0.344	700	707	646	0.8	1.1	4.949	A
3	658	164	277	1165	0.565	660	665	470	2.0	1.6	10.164	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	143	36	413	1307	0.110	143	147	329	0.2	0.2	3.860	A
2	552	138	36	1980	0.279	553	569	520	1.1	0.7	4.535	A
3	530	132	214	1127	0.470	528	537	376	1.6	1.8	8.937	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	118	29	333	1337	0.088	118	121	280	0.2	0.1	3.808	A
2	489	122	30	2091	0.234	489	495	421	0.7	0.6	4.387	A
3	435	109	182	1152	0.378	432	449	337	1.8	0.9	7.415	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	90	1028	0.088	90	90	0.0	0.1	3.910	A
			2	1, 3	33	1028	0.033	33	30	0.0	0.1	3.661	A
	Exit	1	1	(1, 2, 3)	123			123	120	0.0	0.0	0.001	A
2	Entry	1	1	3	233	1022	0.228	232	224	0.0	0.2	4.301	A
			2	1, 2, (3)	255	1022	0.249	254	255	0.0	0.3	4.260	A
	Exit	1	1	(1, 2, 3)	488			488	482	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	314	722	0.434	313	317	0.0	0.9	8.146	A
			2	(2), 3	109	722	0.151	111	114	0.0	0.1	5.523	A
	Exit	1	1	(1, 2, 3)	423			423	435	0.0	0.0	0.000	A
	Exit	1	1		334			334	324	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	Entry	1	1	2	100	997	0.100	101	104	0.1	0.1	3.784	A
			2	1, 3	35	997	0.035	35	37	0.1	0.0	3.700	A
	Exit	1	1	(1, 2, 3)	135			135	140	0.0	0.0	0.001	A
			1		328			328	339	0.0	0.0	0.000	A
2	Entry	1	1	3	267	1021	0.261	268	268	0.2	0.4	4.251	A
			2	1, 2, (3)	290	1021	0.284	291	304	0.3	0.3	4.502	A
	Exit	1	1	(1, 2, 3)	556			556	573	0.0	0.0	0.000	A
			1		514			514	512	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	395	715	0.552	394	384	0.9	1.0	9.746	A
			2	(2), 3	139	715	0.194	138	141	0.1	0.2	5.913	A
	Exit	1	1	(1, 2, 3)	534			534	526	0.0	0.0	0.000	A
			1		384			384	386	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	Entry	1	1	2	124	963	0.129	124	128	0.1	0.1	4.313	A
			2	1, 3	45	963	0.046	44	43	0.0	0.0	3.950	A
	Exit	1	1	(1, 2, 3)	168			168	172	0.0	0.0	0.003	A
			1		425			425	417	0.0	0.0	0.000	A
2	Entry	1	1	3	333	1018	0.327	333	331	0.4	0.4	4.717	A
			2	1, 2, (3)	379	1018	0.373	382	380	0.3	0.4	5.064	A
	Exit	1	1	(1, 2, 3)	713			713	712	0.0	0.0	0.000	A
			1		630			630	634	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	466	695	0.671	462	461	1.0	1.8	13.020	B
			2	(2), 3	189	695	0.272	189	189	0.2	0.2	6.533	A
	Exit	1	1	(1, 2, 3)	655			655	653	0.0	0.0	0.000	A
			1		480			480	481	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	Entry	1	1	2	134	961	0.140	135	135	0.1	0.1	4.325	A
			2	1, 3	46	961	0.048	47	44	0.0	0.0	3.820	A
	Exit	1	1	(1, 2, 3)	181			181	179	0.0	0.0	0.002	A
			1		426			426	421	0.0	0.0	0.000	A
2	Entry	1	1	3	321	1017	0.316	321	328	0.4	0.5	4.875	A
			2	1, 2, (3)	377	1017	0.370	379	379	0.4	0.5	5.013	A
	Exit	1	1	(1, 2, 3)	698			698	708	0.0	0.0	0.000	A
			1		646			646	654	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	470	695	0.676	474	474	1.8	1.2	11.562	B
			2	(2), 3	188	695	0.270	186	191	0.2	0.4	6.730	A
	Exit	1	1	(1, 2, 3)	658			658	663	0.0	0.0	0.000	A
			1		470			470	476	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	Entry	1	1	2	108	997	0.108	107	111	0.1	0.2	3.863	A
			2	1, 3	36	997	0.036	36	36	0.0	0.0	3.841	A
	Exit	1	1	(1, 2, 3)	143			143	147	0.0	0.0	0.002	A
			1		329			329	337	0.0	0.0	0.000	A
2	Entry	1	1	3	256	1021	0.251	257	265	0.5	0.4	4.502	A
			2	1, 2, (3)	296	1021	0.290	297	304	0.5	0.3	4.565	A
	Exit	1	1	(1, 2, 3)	552			552	567	0.0	0.0	0.000	A
			1		520			520	529	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	387	714	0.542	386	389	1.2	1.5	10.054	B
			2	(2), 3	143	714	0.200	142	148	0.4	0.3	5.970	A
	Exit	1	1	(1, 2, 3)	530			530	537	0.0	0.0	0.000	A
			1		376			376	387	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	88	1026	0.086	88	89	0.2	0.1	3.900	A
			2	1, 3	30	1026	0.029	30	32	0.0	0.0	3.546	A
	Exit	1	1	(1, 2, 3)	118			118	120	0.0	0.0	0.001	A
			1		280			280	282	0.0	0.0	0.000	A
2	Entry	1	1	3	235	1023	0.230	234	235	0.4	0.3	4.199	A
			2	1, 2, (3)	254	1023	0.248	255	260	0.3	0.3	4.556	A
	Exit	1	1	(1, 2, 3)	489			489	494	0.0	0.0	0.000	A
			1		421			421	441	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	325	723	0.449	323	334	1.5	0.7	8.085	A
			2	(2), 3	110	723	0.153	109	115	0.3	0.2	5.486	A
	Exit	1	1	(1, 2, 3)	435			435	445	0.0	0.0	0.000	A
			1		337			337	341	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	90	23	1147	1027	0.088	90	90	0.0	0.1	3.910	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	33	8	1147	1028	0.033	33	30	0.0	0.1	3.661	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	90	23	-	-	-	90	90	0.0	0.0	0.001	A
				3	33	8	-	-	-	33	30	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	233	58	1033	1022	0.228	232	224	0.0	0.2	4.301	A
			2	1	186	46	1033	1022	0.182	185	185	0.0	0.3	4.463	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	69	17	1033	1021	0.068	69	70	0.0	0.1	3.723	A
		2	1	1	186	46	-	-	-	186	186	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	302	76	-	-	-	302	295	0.0	0.0	0.000	A
3	Entry	1	1	1	97	24	777	721	0.134	97	96	0.0	0.2	8.853	A
				2	217	54	777	722	0.300	216	221	0.0	0.7	7.839	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	109	27	777	720	0.152	111	114	0.0	0.1	5.523	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	97	24	-	-	-	97	97	0.0	0.0	0.000	A
				2	326	82	-	-	-	326	338	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	100	25	1147	999	0.100	101	104	0.1	0.1	3.784	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	1147	994	0.035	35	37	0.1	0.0	3.700	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	100	25	-	-	-	100	104	0.0	0.0	0.001	A
				3	35	9	-	-	-	35	36	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	267	67	1033	1021	0.261	268	268	0.2	0.4	4.251	A
			2	1	208	52	1033	1021	0.204	209	222	0.3	0.2	4.790	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	81	20	1033	1022	0.080	82	82	0.1	0.1	3.722	A
		2	1	1	208	52	-	-	-	208	222	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	348	87	-	-	-	348	350	0.0	0.0	0.000	A
3	Entry	1	1	1	121	30	777	715	0.169	119	117	0.2	0.4	10.564	B
				2	274	68	777	716	0.382	275	267	0.7	0.6	9.387	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	139	35	777	715	0.194	138	141	0.1	0.2	5.913	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	121	30	-	-	-	121	117	0.0	0.0	0.000	A
				2	412	103	-	-	-	412	409	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	124	31	1147	962	0.129	124	128	0.1	0.1	4.313	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	45	11	1147	964	0.046	44	43	0.0	0.0	3.950	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	124	31	-	-	-	124	129	0.0	0.0	0.005	A
				3	45	11	-	-	-	45	43	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	333	83	1033	1018	0.327	333	331	0.4	0.4	4.717	A
			2	1	278	69	1033	1018	0.273	279	273	0.2	0.3	5.452	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	102	25	1033	1018	0.100	103	107	0.1	0.1	4.071	A
		2	1	1	278	69	-	-	-	278	273	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	435	109	-	-	-	435	438	0.0	0.0	0.000	A
3	Entry	1	1	1	146	37	777	694	0.210	145	144	0.4	0.6	14.149	B
				2	320	80	777	695	0.461	317	316	0.6	1.2	12.504	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	189	47	777	695	0.272	189	189	0.2	0.2	6.533	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	146	37	-	-	-	146	145	0.0	0.0	0.000	A
				2	509	127	-	-	-	509	508	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	134	34	1147	960	0.140	135	135	0.1	0.1	4.325	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	1147	960	0.048	47	44	0.0	0.0	3.820	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	134	34	-	-	-	134	135	0.0	0.0	0.003	A
				3	46	12	-	-	-	46	44	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	321	80	1033	1017	0.316	321	328	0.4	0.5	4.875	A
			2	1	274	69	1033	1017	0.270	277	275	0.3	0.4	5.372	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	102	26	1033	1018	0.100	102	105	0.1	0.1	4.071	A
		2	1	1	274	69	-	-	-	274	275	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	423	106	-	-	-	423	433	0.0	0.0	0.000	A
3	Entry	1	1	1	148	37	777	696	0.213	149	146	0.6	0.4	11.886	B
				2	322	80	777	696	0.462	324	328	1.2	0.8	11.418	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	188	47	777	696	0.270	186	191	0.2	0.4	6.730	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	148	37	-	-	-	148	145	0.0	0.0	0.000	A
				2	510	127	-	-	-	510	518	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	108	27	1147	996	0.108	107	111	0.1	0.2	3.863	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	36	9	1147	998	0.036	36	36	0.0	0.0	3.841	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	108	27	-	-	-	108	111	0.0	0.0	0.003	A
				3	36	9	-	-	-	36	36	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	256	64	1033	1021	0.251	257	265	0.5	0.4	4.502	A
			2	1	213	53	1033	1021	0.208	214	218	0.4	0.2	4.856	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	83	21	1033	1021	0.082	83	86	0.1	0.1	3.832	A
		2	1	1	213	53	-	-	-	213	217	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	340	85	-	-	-	340	350	0.0	0.0	0.000	A
3	Entry	1	1	1	113	28	777	713	0.159	115	119	0.4	0.4	10.744	B
				2	274	68	777	714	0.384	271	270	0.8	1.1	9.751	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	777	714	0.200	142	148	0.4	0.3	5.970	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	113	28	-	-	-	113	119	0.0	0.0	0.000	A
				2	417	104	-	-	-	417	418	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	88	22	1147	1025	0.086	88	89	0.2	0.1	3.900	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	8	1147	1026	0.029	30	32	0.0	0.0	3.546	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	88	22	-	-	-	88	89	0.0	0.0	0.002	A
				3	30	8	-	-	-	30	32	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	235	59	1033	1023	0.230	234	235	0.4	0.3	4.199	A
			2	1	181	45	1033	1023	0.177	182	185	0.2	0.2	4.806	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	72	18	1033	1022	0.071	73	75	0.1	0.1	3.940	A
		2	1	1	181	45	-	-	-	181	185	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	307	77	-	-	-	307	309	0.0	0.0	0.000	A
3	Entry	1	1	1	99	25	777	723	0.137	99	97	0.4	0.2	8.644	A
				2	226	56	777	723	0.312	224	237	1.1	0.5	7.856	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	110	28	777	723	0.153	109	115	0.3	0.2	5.486	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	99	25	-	-	-	99	96	0.0	0.0	0.000	A
				2	336	84	-	-	-	336	349	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2022 | Base Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	5.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.45	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022	Base Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	289	100.000
2		ONE HOUR	✓	576	100.000
3		ONE HOUR	✓	388	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	From	1	0	224
		2	133	0
		3	41	347
				0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.25	4.72	0.4	A	263	395
2	0.32	4.78	1.0	A	523	785
3	0.33	6.98	0.9	A	353	529

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	217	54	266	1316	0.165	216	218	126	0.0	0.1	3.887	A
2	421	105	48	1993	0.211	421	435	435	0.0	0.5	4.246	A
3	296	74	94	1284	0.231	299	285	375	0.0	0.4	5.954	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	252	63	298	1326	0.190	252	260	163	0.1	0.3	4.086	A
2	528	132	48	2055	0.257	529	525	502	0.5	0.7	4.360	A
3	336	84	123	1315	0.256	337	349	454	0.4	0.6	6.092	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	325	81	368	1278	0.255	326	335	194	0.3	0.4	4.616	A
2	624	156	69	1978	0.316	629	648	625	0.7	0.8	4.780	A
3	410	102	153	1263	0.325	409	426	545	0.6	0.9	6.809	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	312	78	379	1241	0.251	314	324	185	0.4	0.4	4.722	A
2	621	155	70	1950	0.318	619	638	623	0.8	1.0	4.696	A
3	421	105	139	1294	0.325	425	429	550	0.9	0.5	6.981	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	251	63	315	1313	0.191	249	262	169	0.4	0.4	4.317	A
2	538	134	52	2020	0.266	539	533	512	1.0	0.5	4.397	A
3	355	89	129	1285	0.276	355	363	462	0.5	0.6	6.240	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	222	55	266	1364	0.162	222	225	125	0.4	0.2	3.977	A
2	407	102	50	1980	0.205	405	434	439	0.5	0.6	4.183	A
3	298	75	97	1303	0.229	294	304	358	0.6	0.6	6.050	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	169	1050	0.161	168	173	0.0	0.1	3.999	A
			2	1, 3	48	1050	0.045	48	46	0.0	0.0	3.421	A
	Exit	2	1	(1, 2, 3)	217			217	219	0.0	0.0	0.009	A
			1		126			126	126	0.0	0.0	0.000	A
2	Entry	1	1	3	232	1017	0.228	232	250	0.0	0.3	4.394	A
			2	1, 2, (3)	189	1017	0.185	189	185	0.0	0.2	4.045	A
	Exit	2	1	(1, 2, 3)	421			421	437	0.0	0.0	0.000	A
			1		435			435	428	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	217	749	0.290	219	210	0.0	0.3	6.284	A
			2	(2), 3	79	749	0.105	79	75	0.0	0.1	5.033	A
	Exit	2	1	(1, 2, 3)	296			296	287	0.0	0.0	0.000	A
			1		375			375	385	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	Entry	1	1	2	204	1039	0.197	204	204	0.1	0.3	4.156	A
			2	1, 3	48	1039	0.046	48	56	0.0	0.0	3.719	A
	Exit	2	1	(1, 2, 3)	252			252	261	0.0	0.0	0.025	A
			1		163			163	160	0.0	0.0	0.000	A
2	Entry	1	1	3	300	1017	0.295	300	295	0.3	0.4	4.585	A
			2	1, 2, (3)	229	1017	0.225	229	231	0.2	0.2	4.072	A
	Exit	2	1	(1, 2, 3)	528			528	526	0.0	0.0	0.000	A
			1		502			502	514	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	245	740	0.331	247	253	0.3	0.4	6.492	A
			2	(2), 3	91	740	0.123	91	96	0.1	0.1	5.035	A
	Exit	2	1	(1, 2, 3)	336			336	349	0.0	0.0	0.000	A
			1		454			454	459	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	Entry	1	1	2	256	1013	0.252	257	262	0.3	0.3	4.727	A
			2	1, 3	70	1013	0.069	69	73	0.0	0.1	3.863	A
	Exit	1	1	(1, 2, 3)	325			325	335	0.0	0.0	0.078	A
			1		194			194	197	0.0	0.0	0.000	A
2	Entry	1	1	3	349	1010	0.346	353	360	0.4	0.4	4.980	A
			2	1, 2, (3)	275	1010	0.272	276	288	0.2	0.4	4.530	A
	Exit	1	1	(1, 2, 3)	624			624	648	0.0	0.0	0.000	A
			1		625			625	643	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	296	732	0.404	295	306	0.4	0.8	7.371	A
			2	(2), 3	114	732	0.156	114	119	0.1	0.1	5.357	A
	Exit	1	1	(1, 2, 3)	410			410	427	0.0	0.0	0.000	A
			1		545			545	568	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	Entry	1	1	2	243	1009	0.241	244	253	0.3	0.3	4.784	A
			2	1, 3	69	1009	0.069	70	72	0.1	0.0	4.146	A
	Exit	1	1	(1, 2, 3)	312			312	324	0.0	0.0	0.077	A
			1		185			185	192	0.0	0.0	0.000	A
2	Entry	1	1	3	348	1010	0.344	345	354	0.4	0.7	4.832	A
			2	1, 2, (3)	273	1010	0.270	275	283	0.4	0.3	4.524	A
	Exit	1	1	(1, 2, 3)	621			621	638	0.0	0.0	0.000	A
			1		623			623	635	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	299	736	0.406	304	305	0.8	0.4	7.703	A
			2	(2), 3	122	736	0.165	121	124	0.1	0.1	5.221	A
	Exit	1	1	(1, 2, 3)	421			421	427	0.0	0.0	0.000	A
			1		550			550	564	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	Entry	1	1	2	199	1032	0.193	197	203	0.3	0.4	4.434	A
			2	1, 3	52	1032	0.050	52	59	0.0	0.0	3.753	A
	Exit	1	1	(1, 2, 3)	251			251	262	0.0	0.0	0.038	A
			1		169			169	162	0.0	0.0	0.000	A
2	Entry	1	1	3	301	1015	0.297	300	303	0.7	0.3	4.558	A
			2	1, 2, (3)	236	1015	0.233	239	230	0.3	0.1	4.186	A
	Exit	1	1	(1, 2, 3)	538			538	531	0.0	0.0	0.000	A
			1		512			512	526	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	254	739	0.343	253	262	0.4	0.5	6.656	A
			2	(2), 3	101	739	0.137	102	101	0.1	0.1	5.153	A
	Exit	1	1	(1, 2, 3)	355			355	363	0.0	0.0	0.000	A
			1		462			462	470	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	172	1050	0.164	172	176	0.4	0.1	4.011	A
			2	1, 3	50	1050	0.047	50	49	0.0	0.0	3.779	A
	Exit	1	1	(1, 2, 3)	222			222	224	0.0	0.0	0.017	A
			1		125			125	132	0.0	0.0	0.000	A
2	Entry	1	1	3	228	1016	0.224	227	242	0.3	0.5	4.441	A
			2	1, 2, (3)	179	1016	0.176	178	191	0.1	0.1	3.856	A
	Exit	1	1	(1, 2, 3)	407			407	434	0.0	0.0	0.000	A
			1		439			439	448	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	217	748	0.290	214	224	0.5	0.6	6.394	A
			2	(2), 3	81	748	0.108	80	80	0.1	0.1	5.083	A
	Exit	1	1	(1, 2, 3)	298			298	304	0.0	0.0	0.000	A
			1		358			358	383	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	169	42	1147	1050	0.161	168	173	0.0	0.1	3.999	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	48	12	1147	1053	0.045	48	46	0.0	0.0	3.421	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	169	42	-	-	-	169	173	0.0	0.0	0.011	A
				3	48	12	-	-	-	48	46	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	232	58	1033	1017	0.228	232	250	0.0	0.3	4.394	A
			2	1	93	23	1033	1017	0.091	94	96	0.0	0.1	4.316	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	96	24	1033	1017	0.094	95	89	0.0	0.1	3.752	A
		2	1	1	93	23	-	-	-	93	97	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	328	82	-	-	-	328	340	0.0	0.0	0.000	A
3	Entry	1	1	1	31	8	777	747	0.041	32	30	0.0	0.0	6.966	A
				2	186	47	777	750	0.249	187	180	0.0	0.3	6.171	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	777	748	0.105	79	75	0.0	0.1	5.033	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	31	8	-	-	-	31	30	0.0	0.0	0.000	A
				2	265	66	-	-	-	265	257	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	204	51	1147	1041	0.197	204	204	0.1	0.3	4.156	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	48	12	1147	1038	0.046	48	56	0.0	0.0	3.719	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	204	51	-	-	-	204	204	0.0	0.0	0.032	A
				3	48	12	-	-	-	48	56	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	300	75	1033	1016	0.295	300	295	0.3	0.4	4.585	A
			2	1	123	31	1033	1016	0.121	123	122	0.1	0.1	4.339	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	106	26	1033	1016	0.104	106	108	0.1	0.1	3.770	A
		2	1	1	123	31	-	-	-	123	122	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	405	101	-	-	-	405	404	0.0	0.0	0.000	A
3	Entry	1	1	1	39	10	777	740	0.053	40	38	0.0	0.1	6.253	A
				2	206	51	777	740	0.278	207	215	0.3	0.3	6.535	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	91	23	777	740	0.123	91	96	0.1	0.1	5.035	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	39	10	-	-	-	39	38	0.0	0.0	0.000	A
				2	297	74	-	-	-	297	311	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	256	64	1147	1012	0.253	257	262	0.3	0.3	4.727	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	70	17	1147	1012	0.069	69	73	0.0	0.1	3.863	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	256	64	-	-	-	256	262	0.0	0.0	0.088	A
				3	70	17	-	-	-	70	74	0.0	0.0	0.046	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	349	87	1033	1010	0.346	353	360	0.4	0.4	4.980	A
			2	1	151	38	1033	1010	0.149	153	153	0.1	0.2	4.947	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	124	31	1033	1009	0.123	124	135	0.1	0.2	4.055	A
		2	1	1	151	38	-	-	-	151	153	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	474	118	-	-	-	474	495	0.0	0.0	0.000	A
3	Entry	1	1	1	42	10	777	734	0.057	41	44	0.1	0.1	7.965	A
				2	254	63	777	732	0.347	254	262	0.3	0.7	7.271	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	114	29	777	732	0.156	114	119	0.1	0.1	5.357	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	42	10	-	-	-	42	44	0.0	0.0	0.000	A
				2	368	92	-	-	-	368	383	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	243	61	1147	1009	0.241	244	253	0.3	0.3	4.784	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	69	17	1147	1012	0.068	70	72	0.1	0.0	4.146	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	242	61	-	-	-	243	253	0.0	0.0	0.095	A
				3	69	17	-	-	-	69	72	0.0	0.0	0.014	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	348	87	1033	1010	0.344	345	354	0.4	0.7	4.832	A
			2	1	138	35	1033	1010	0.137	139	145	0.2	0.2	4.923	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	135	34	1033	1009	0.133	135	138	0.2	0.1	4.102	A
		2	1	1	138	35	-	-	-	138	145	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	482	121	-	-	-	482	493	0.0	0.0	0.000	A
3	Entry	1	1	1	46	11	777	734	0.062	46	47	0.1	0.1	8.910	A
				2	253	63	777	736	0.344	258	258	0.7	0.3	7.484	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	122	30	777	735	0.166	121	124	0.1	0.1	5.221	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	46	11	-	-	-	46	47	0.0	0.0	0.000	A
				2	375	94	-	-	-	375	380	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	1147	1032	0.193	197	203	0.3	0.4	4.434	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	52	13	1147	1030	0.050	52	59	0.0	0.0	3.753	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	-	-	-	199	203	0.0	0.0	0.042	A
				3	52	13	-	-	-	52	59	0.0	0.0	0.027	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	301	75	1033	1015	0.297	300	303	0.7	0.3	4.558	A
			2	1	128	32	1033	1016	0.126	129	122	0.2	0.1	4.406	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	108	27	1033	1016	0.107	109	108	0.1	0.1	3.937	A
		2	1	1	128	32	-	-	-	128	121	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	410	102	-	-	-	410	410	0.0	0.0	0.000	A
3	Entry	1	1	1	40	10	777	739	0.055	40	40	0.1	0.1	6.847	A
				2	213	53	777	740	0.288	213	223	0.3	0.4	6.622	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	101	25	777	739	0.137	102	101	0.1	0.1	5.153	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	40	10	-	-	-	40	40	0.0	0.0	0.000	A
				2	314	79	-	-	-	314	324	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	172	43	1147	1049	0.164	172	176	0.4	0.1	4.011	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	50	12	1147	1050	0.047	50	49	0.0	0.0	3.779	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	172	43	-	-	-	172	175	0.0	0.0	0.021	A
				3	50	12	-	-	-	50	49	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	228	57	1033	1016	0.224	227	242	0.3	0.5	4.441	A
			2	1	97	24	1033	1016	0.096	97	99	0.1	0.1	4.032	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	82	20	1033	1016	0.080	82	92	0.1	0.0	3.665	A
		2	1	1	97	24	-	-	-	97	100	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	309	77	-	-	-	309	335	0.0	0.0	0.000	A
3	Entry	1	1	1	28	7	777	748	0.038	28	33	0.1	0.1	6.796	A
				2	189	47	777	748	0.253	186	191	0.4	0.5	6.325	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	81	20	777	746	0.108	80	80	0.1	0.1	5.083	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	28	7	-	-	-	28	33	0.0	0.0	0.000	A
				2	270	67	-	-	-	270	271	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | WoD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	19.78	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.78	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028	WoD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	144	100.000
2		ONE HOUR	✓	581	100.000
3		ONE HOUR	✓	847	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	60	84
	2	266	0	315
	3	255	592	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	10	4
	2	1	0	15
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.12	4.69	0.2	A	130	196
2	0.34	5.41	1.0	A	533	799
3	0.89	32.18	8.0	D	777	1165

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	106	26	447	1456	0.073	106	111	388	0.0	0.1	4.025	A
2	433	108	61	1938	0.223	430	437	492	0.0	0.8	4.663	A
3	635	159	200	1087	0.584	635	629	291	0.0	1.8	10.285	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	129	32	537	1388	0.093	129	137	476	0.1	0.2	4.401	A
2	536	134	75	1844	0.290	535	541	592	0.8	0.9	5.023	A
3	778	194	242	1073	0.725	771	763	368	1.8	3.6	14.422	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	155	39	642	1330	0.116	156	163	563	0.2	0.2	4.694	A
2	635	159	92	1878	0.338	637	644	707	0.9	0.9	5.412	A
3	915	229	291	1029	0.889	913	920	437	3.6	8.0	29.021	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	159	40	665	1308	0.121	159	164	564	0.2	0.1	4.601	A
2	631	158	92	1915	0.329	630	640	732	0.9	1.0	5.403	A
3	932	233	288	1082	0.861	940	935	434	8.0	7.5	32.177	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	126	32	545	1404	0.090	126	137	470	0.1	0.2	4.502	A
2	516	129	74	1971	0.262	516	528	598	1.0	0.8	5.060	A
3	774	194	241	1057	0.732	775	787	348	7.5	3.2	17.742	C

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	109	27	443	1454	0.075	109	115	389	0.2	0.1	4.469	A
2	445	111	62	1969	0.226	446	446	490	0.8	0.6	4.864	A
3	626	156	203	1091	0.573	628	650	304	3.2	1.8	11.097	B

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	45	984	0.045	44	47	0.0	0.1	4.168	A
			2	1, 3	61	984	0.062	61	64	0.0	0.1	3.924	A
	Exit	2	1	(1, 2, 3)	106			106	111	0.0	0.0	0.000	A
			1		388			388	387	0.0	0.0	0.000	A
2	Entry	1	1	3	181	1012	0.179	180	184	0.0	0.3	4.631	A
			2	1, 2, (3)	251	1012	0.248	250	253	0.0	0.4	4.684	A
	Exit	2	1	(1, 2, 3)	433			433	440	0.0	0.0	0.000	A
			1		492			492	489	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	469	718	0.654	471	464	0.0	1.5	11.765	B
			2	(2), 3	165	718	0.230	164	165	0.0	0.3	6.109	A
	Exit	2	1	(1, 2, 3)	635			635	637	0.0	0.0	0.001	A
			1		291			291	301	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	Entry	1	1	2	54	951	0.057	54	58	0.1	0.0	4.299	A
			2	1, 3	75	951	0.079	75	79	0.1	0.1	4.420	A
	Exit	2	1	(1, 2, 3)	129			129	137	0.0	0.0	0.031	A
			1		476			476	478	0.0	0.0	0.000	A
2	Entry	1	1	3	225	1008	0.223	224	227	0.3	0.4	4.967	A
			2	1, 2, (3)	310	1008	0.308	311	314	0.4	0.5	5.059	A
	Exit	2	1	(1, 2, 3)	536			536	542	0.0	0.0	0.000	A
			1		592			592	590	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	555	706	0.787	550	545	1.5	3.1	17.378	C
			2	(2), 3	222	706	0.315	221	218	0.3	0.5	6.899	A
	Exit	2	1	(1, 2, 3)	778			777	770	0.0	0.0	0.012	A
			1		368			368	374	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	Entry	1	1	2	65	913	0.071	65	67	0.0	0.1	4.737	A
			2	1, 3	90	913	0.098	92	96	0.1	0.1	4.626	A
	Exit	1	1	(1, 2, 3)	155			155	163	0.0	0.0	0.024	A
			1		563			563	574	0.0	0.0	0.000	A
2	Entry	1	1	3	269	1002	0.268	271	270	0.4	0.4	5.237	A
			2	1, 2, (3)	366	1002	0.366	366	374	0.5	0.6	5.526	A
	Exit	1	1	(1, 2, 3)	635			635	645	0.0	0.0	0.000	A
			1		707			707	709	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	629	691	0.910	626	626	3.1	5.9	33.036	D
			2	(2), 3	283	691	0.410	287	293	0.5	0.6	8.957	A
	Exit	1	1	(1, 2, 3)	915			912	931	0.0	1.4	3.402	A
			1		437			437	444	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	Entry	1	1	2	67	905	0.074	67	68	0.1	0.1	4.627	A
			2	1, 3	92	905	0.101	92	96	0.1	0.1	4.563	A
	Exit	1	1	(1, 2, 3)	159			159	164	0.0	0.0	0.013	A
			1		564			564	575	0.0	0.0	0.000	A
2	Entry	1	1	3	265	1002	0.264	266	270	0.4	0.3	5.421	A
			2	1, 2, (3)	366	1002	0.366	364	370	0.6	0.7	5.391	A
	Exit	1	1	(1, 2, 3)	631			631	640	0.0	0.0	0.000	A
			1		732			732	720	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	637	692	0.920	639	635	5.9	6.2	36.386	E
			2	(2), 3	299	692	0.433	301	300	0.6	0.6	9.883	A
	Exit	1	1	(1, 2, 3)	932			936	936	1.4	0.7	4.380	A
			1		434			434	443	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	Entry	1	1	2	52	948	0.055	52	57	0.1	0.1	4.798	A
			2	1, 3	74	948	0.078	74	80	0.1	0.1	4.262	A
	Exit	1	1	(1, 2, 3)	126			126	137	0.0	0.0	0.024	A
			1		470			470	484	0.0	0.0	0.000	A
2	Entry	1	1	3	211	1008	0.209	210	218	0.3	0.3	4.850	A
			2	1, 2, (3)	306	1008	0.303	306	310	0.7	0.5	5.194	A
	Exit	1	1	(1, 2, 3)	516			516	527	0.0	0.0	0.000	A
			1		598			598	606	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	552	706	0.782	554	563	6.2	2.8	21.466	C
			2	(2), 3	223	706	0.315	222	224	0.6	0.5	7.135	A
	Exit	1	1	(1, 2, 3)	774			775	773	0.7	0.0	0.541	A
			1		348			348	363	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	47	986	0.048	47	49	0.1	0.0	4.476	A
			2	1, 3	62	986	0.062	62	66	0.1	0.1	4.454	A
	Exit	1	1	(1, 2, 3)	109			109	115	0.0	0.0	0.005	A
			1		389			389	400	0.0	0.0	0.000	A
2	Entry	1	1	3	188	1012	0.186	190	185	0.3	0.2	4.880	A
			2	1, 2, (3)	256	1012	0.253	256	261	0.5	0.3	4.854	A
	Exit	1	1	(1, 2, 3)	445			445	445	0.0	0.0	0.000	A
			1		490			490	506	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	458	717	0.639	460	475	2.8	1.5	12.862	B
			2	(2), 3	168	717	0.234	168	175	0.5	0.3	6.166	A
	Exit	1	1	(1, 2, 3)	626			626	644	0.0	0.0	0.046	A
			1		304			304	305	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	45	11	1147	986	0.045	44	47	0.0	0.1	4.168	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	61	15	1147	985	0.062	61	64	0.0	0.1	3.924	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	45	11	-	-	-	45	47	0.0	0.0	0.000	A
				3	61	15	-	-	-	61	64	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	181	45	1033	1012	0.179	180	184	0.0	0.3	4.631	A
			2	1	201	50	1033	1012	0.199	200	200	0.0	0.3	4.775	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	50	13	1033	1012	0.050	50	53	0.0	0.1	4.292	A
		2	1	1	201	50	-	-	-	201	201	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	232	58	-	-	-	232	239	0.0	0.0	0.000	A
3	Entry	1	1	1	188	47	777	717	0.263	188	187	0.0	0.7	12.545	B
				2	281	70	777	718	0.392	283	277	0.0	0.8	11.236	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	165	41	777	718	0.230	164	165	0.0	0.3	6.109	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	188	47	-	-	-	188	190	0.0	0.0	0.000	A
				2	446	112	-	-	-	446	447	0.0	0.0	0.001	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	14	1147	953	0.057	54	58	0.1	0.0	4.299	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	75	19	1147	955	0.078	75	79	0.1	0.1	4.420	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	14	-	-	-	54	58	0.0	0.0	0.044	A
				3	75	19	-	-	-	75	79	0.0	0.0	0.022	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	225	56	1033	1008	0.223	224	227	0.3	0.4	4.967	A
			2	1	242	61	1033	1008	0.240	242	246	0.3	0.4	5.188	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	68	17	1033	1008	0.068	69	68	0.1	0.0	4.529	A
		2	1	1	242	61	-	-	-	242	247	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	293	73	-	-	-	293	295	0.0	0.0	0.000	A
3	Entry	1	1	1	237	59	777	705	0.336	234	231	0.7	1.5	18.532	C
				2	318	79	777	706	0.450	316	314	0.8	1.6	16.525	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	222	56	777	705	0.315	221	218	0.3	0.5	6.899	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	238	59	-	-	-	237	234	0.0	0.0	0.013	A
				2	540	135	-	-	-	540	536	0.0	0.0	0.011	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	1147	911	0.071	65	67	0.0	0.1	4.737	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	90	22	1147	913	0.098	92	96	0.1	0.1	4.626	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	-	-	-	65	68	0.0	0.0	0.023	A
				3	90	22	-	-	-	90	96	0.0	0.0	0.025	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	269	67	1033	1002	0.268	271	270	0.4	0.4	5.237	A
			2	1	291	73	1033	1002	0.291	291	296	0.4	0.4	5.732	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	75	19	1033	1002	0.075	75	78	0.0	0.1	4.637	A
		2	1	1	291	73	-	-	-	291	296	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	-	-	-	344	348	0.0	0.0	0.000	A
3	Entry	1	1	1	274	69	777	691	0.396	271	278	1.5	2.7	34.358	D
				2	355	89	777	691	0.514	355	348	1.6	3.2	31.982	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	283	71	777	691	0.410	287	293	0.5	0.6	8.957	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	275	69	-	-	-	274	283	0.0	0.4	3.867	A
				2	640	160	-	-	-	638	649	0.0	1.0	3.199	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	67	17	1147	906	0.074	67	68	0.1	0.1	4.627	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	92	23	1147	909	0.101	92	96	0.1	0.1	4.563	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	67	17	-	-	-	67	68	0.0	0.0	0.016	A
				3	92	23	-	-	-	92	96	0.0	0.0	0.010	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	265	66	1033	1002	0.265	266	270	0.4	0.3	5.421	A
			2	1	290	73	1033	1002	0.289	288	293	0.4	0.6	5.564	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	76	19	1033	1001	0.076	76	77	0.1	0.1	4.640	A
		2	1	1	290	73	-	-	-	290	294	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	341	85	-	-	-	341	346	0.0	0.0	0.000	A
3	Entry	1	1	1	276	69	777	692	0.398	275	282	2.7	2.8	37.292	E
				2	361	90	777	692	0.522	364	353	3.2	3.4	35.663	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	299	75	777	692	0.433	301	300	0.6	0.6	9.883	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	275	69	-	-	-	276	282	0.4	0.2	4.624	A
				2	658	164	-	-	-	660	653	1.0	0.5	4.274	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	1147	949	0.055	52	57	0.1	0.1	4.798	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	74	18	1147	950	0.078	74	80	0.1	0.1	4.262	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	-	-	-	52	57	0.0	0.0	0.030	A
				3	74	18	-	-	-	74	80	0.0	0.0	0.019	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	211	53	1033	1008	0.209	210	218	0.3	0.3	4.850	A
			2	1	241	60	1033	1008	0.239	241	245	0.6	0.4	5.311	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	65	16	1033	1008	0.064	65	65	0.1	0.1	4.698	A
		2	1	1	241	60	-	-	-	241	244	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	275	69	-	-	-	275	283	0.0	0.0	0.000	A
3	Entry	1	1	1	229	57	777	706	0.324	230	239	2.8	1.2	23.160	C
				2	323	81	777	706	0.458	324	324	3.4	1.6	20.224	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	223	56	777	706	0.315	222	224	0.6	0.5	7.135	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	229	57	-	-	-	229	232	0.2	0.0	0.613	A
				2	546	136	-	-	-	546	541	0.5	0.0	0.510	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	1147	983	0.048	47	49	0.1	0.0	4.476	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	62	15	1147	985	0.063	62	66	0.1	0.1	4.454	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	-	-	-	47	49	0.0	0.0	0.000	A
				3	62	15	-	-	-	62	66	0.0	0.0	0.009	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	188	47	1033	1012	0.186	190	185	0.3	0.2	4.880	A
			2	1	203	51	1033	1012	0.201	203	206	0.4	0.2	4.924	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	53	13	1033	1012	0.053	53	55	0.1	0.1	4.554	A
		2	1	1	203	51	-	-	-	203	205	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	242	60	-	-	-	242	239	0.0	0.0	0.000	A
3	Entry	1	1	1	182	46	777	717	0.255	185	194	1.2	0.6	13.886	B
				2	275	69	777	717	0.384	275	281	1.6	0.9	12.158	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	168	42	777	717	0.234	168	175	0.5	0.3	6.166	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	182	46	-	-	-	182	191	0.0	0.0	0.039	A
				2	443	111	-	-	-	443	453	0.0	0.0	0.049	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | WoD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	7.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.17	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028	WoD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	470	100.000
2		ONE HOUR	✓	585	100.000
3		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	179	291
	2	117	0	468
	3	183	273	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	10	0
	2	20	0	10
	3	6	6	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.35	5.00	0.7	A	426	638
2	0.35	6.27	1.3	A	533	799
3	0.51	10.47	1.5	B	424	636

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	344	86	194	1524	0.225	341	349	230	0.0	0.5	4.164	A
2	440	110	218	1828	0.241	441	450	317	0.0	0.5	5.062	A
3	336	84	84	1057	0.317	340	348	576	0.0	0.7	7.185	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	421	105	254	1595	0.264	422	424	268	0.5	0.4	4.701	A
2	504	126	257	1849	0.273	508	531	418	0.5	0.8	5.514	A
3	425	106	100	1112	0.382	423	413	665	0.7	1.1	8.434	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	513	128	308	1510	0.340	517	516	328	0.4	0.5	4.907	A
2	642	161	315	1820	0.353	642	656	510	0.8	1.2	6.147	A
3	507	127	125	1066	0.476	511	503	832	1.1	1.4	9.346	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	522	131	301	1506	0.347	521	514	342	0.5	0.7	4.998	A
2	645	161	330	1842	0.350	646	666	492	1.2	1.3	6.267	A
3	515	129	130	1002	0.514	513	511	846	1.4	1.5	10.473	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	419	105	252	1517	0.276	419	425	286	0.7	0.4	4.629	A
2	522	130	266	1845	0.283	523	533	406	1.3	0.8	5.406	A
3	420	105	116	1096	0.383	423	426	674	1.5	0.7	7.839	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	336	84	212	1561	0.215	335	354	214	0.4	0.5	4.313	A
2	445	111	208	1825	0.244	443	444	339	0.8	0.7	5.135	A
3	340	85	89	1052	0.323	337	346	562	0.7	0.8	7.232	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	125	1077	0.116	123	130	0.0	0.2	4.173	A
			2	1, 3	219	1077	0.203	218	219	0.0	0.3	4.041	A
	Exit	1	1	(1, 2, 3)	344			344	351	0.0	0.0	0.076	A
			1		230			230	227	0.0	0.0	0.000	A
2	Entry	1	1	3	257	960	0.268	257	265	0.0	0.3	5.116	A
			2	1, 2, (3)	183	960	0.190	184	184	0.0	0.2	4.982	A
	Exit	1	1	(1, 2, 3)	440			440	452	0.0	0.0	0.000	A
			1		317			317	336	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	271	752	0.360	276	280	0.0	0.6	7.670	A
			2	(2), 3	64	752	0.086	65	68	0.0	0.1	5.169	A
	Exit	1	1	(1, 2, 3)	336			336	351	0.0	0.0	0.000	A
			1		576			576	582	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	Entry	1	1	2	163	1055	0.155	164	162	0.2	0.2	4.517	A
			2	1, 3	258	1055	0.244	257	261	0.3	0.2	4.628	A
	Exit	1	1	(1, 2, 3)	421			421	423	0.0	0.0	0.113	A
			1		268			268	273	0.0	0.0	0.000	A
2	Entry	1	1	3	295	947	0.312	298	307	0.3	0.5	5.785	A
			2	1, 2, (3)	208	947	0.220	209	224	0.2	0.3	5.130	A
	Exit	1	1	(1, 2, 3)	504			504	532	0.0	0.0	0.000	A
			1		418			418	412	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	341	747	0.456	338	329	0.6	1.1	9.169	A
			2	(2), 3	84	747	0.113	85	84	0.1	0.0	5.508	A
	Exit	1	1	(1, 2, 3)	425			425	415	0.0	0.0	0.000	A
			1		665			665	683	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	Entry	1	1	2	200	1035	0.193	202	202	0.2	0.2	4.666	A
			2	1, 3	313	1035	0.303	315	315	0.2	0.3	4.713	A
	Exit	1	1	(1, 2, 3)	513			513	516	0.0	0.0	0.211	A
			1		328			328	335	0.0	0.0	0.000	A
2	Entry	1	1	3	377	928	0.407	377	382	0.5	0.7	6.356	A
			2	1, 2, (3)	265	928	0.285	265	274	0.3	0.5	5.844	A
	Exit	1	1	(1, 2, 3)	642			642	657	0.0	0.0	0.000	A
			1		510			510	501	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	393	740	0.531	395	395	1.1	1.3	10.368	B
			2	(2), 3	114	740	0.154	116	108	0.0	0.1	5.647	A
	Exit	1	1	(1, 2, 3)	507			507	504	0.0	0.0	0.000	A
			1		832			832	839	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	Entry	1	1	2	192	1038	0.185	191	192	0.2	0.3	4.791	A
			2	1, 3	330	1038	0.318	330	322	0.3	0.4	4.894	A
	Exit	1	1	(1, 2, 3)	522			522	515	0.0	0.0	0.139	A
			1		342			342	343	0.0	0.0	0.000	A
2	Entry	1	1	3	375	923	0.406	372	382	0.7	0.9	6.700	A
			2	1, 2, (3)	270	923	0.293	273	284	0.5	0.3	5.642	A
	Exit	1	1	(1, 2, 3)	645			645	666	0.0	0.0	0.009	A
			1		492			492	495	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	399	739	0.540	398	400	1.3	1.2	11.829	B
			2	(2), 3	117	739	0.158	115	110	0.1	0.3	5.606	A
	Exit	1	1	(1, 2, 3)	515			515	511	0.0	0.0	0.000	A
			1		846			846	853	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	Entry	1	1	2	154	1055	0.146	153	155	0.3	0.2	4.490	A
			2	1, 3	265	1055	0.251	266	269	0.4	0.3	4.611	A
	Exit	1	1	(1, 2, 3)	419			419	424	0.0	0.0	0.060	A
			1		286			286	282	0.0	0.0	0.000	A
2	Entry	1	1	3	301	944	0.318	302	309	0.9	0.5	5.570	A
			2	1, 2, (3)	221	944	0.234	221	225	0.3	0.3	5.170	A
	Exit	1	1	(1, 2, 3)	522			522	532	0.0	0.0	0.000	A
			1		406			406	410	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	335	743	0.451	338	338	1.2	0.6	8.463	A
			2	(2), 3	85	743	0.114	85	88	0.3	0.1	5.429	A
	Exit	1	1	(1, 2, 3)	420			420	423	0.0	0.0	0.000	A
			1		674			674	692	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	128	1070	0.119	127	128	0.2	0.3	4.290	A
			2	1, 3	208	1070	0.195	208	226	0.3	0.2	4.267	A
	Exit	1	1	(1, 2, 3)	336			336	354	0.0	0.0	0.039	A
			1		214			214	221	0.0	0.0	0.000	A
2	Entry	1	1	3	264	963	0.274	262	260	0.5	0.5	5.298	A
			2	1, 2, (3)	181	963	0.188	181	184	0.3	0.3	4.897	A
	Exit	1	1	(1, 2, 3)	445			445	444	0.0	0.0	0.000	A
			1		339			339	342	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	271	750	0.362	269	272	0.6	0.8	7.729	A
			2	(2), 3	68	750	0.091	69	73	0.1	0.1	5.362	A
	Exit	1	1	(1, 2, 3)	340			340	346	0.0	0.0	0.000	A
			1		562			562	582	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	1147	1075	0.116	123	130	0.0	0.2	4.173	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	219	55	1147	1076	0.203	218	219	0.0	0.3	4.041	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	-	-	-	125	131	0.0	0.0	0.080	A
				3	219	55	-	-	-	219	220	0.0	0.0	0.074	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	257	64	1033	959	0.268	257	265	0.0	0.3	5.116	A
			2	1	84	21	1033	960	0.087	84	86	0.0	0.2	5.581	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	100	25	1033	961	0.104	101	98	0.0	0.1	4.488	A
		2	1	1	84	21	-	-	-	84	87	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	357	89	-	-	-	357	365	0.0	0.0	0.000	A
3	Entry	1	1	1	144	36	777	753	0.191	147	141	0.0	0.3	7.980	A
				2	128	32	777	752	0.170	129	139	0.0	0.3	7.359	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	64	16	777	751	0.086	65	68	0.0	0.1	5.169	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	144	36	-	-	-	144	142	0.0	0.0	0.000	A
				2	192	48	-	-	-	192	208	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	163	41	1147	1055	0.155	164	162	0.2	0.2	4.517	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	258	64	1147	1056	0.244	257	261	0.3	0.2	4.628	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	163	41	-	-	-	163	162	0.0	0.0	0.138	A
				3	258	64	-	-	-	258	261	0.0	0.0	0.100	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	295	74	1033	946	0.312	298	307	0.3	0.5	5.785	A
			2	1	98	24	1033	948	0.103	100	109	0.2	0.2	5.877	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	111	28	1033	945	0.117	110	115	0.1	0.1	4.480	A
		2	1	1	98	24	-	-	-	98	109	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	406	102	-	-	-	406	423	0.0	0.0	0.000	A
3	Entry	1	1	1	173	43	777	747	0.231	168	164	0.3	0.7	9.730	A
				2	168	42	777	747	0.225	170	165	0.3	0.4	8.609	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	84	21	777	746	0.113	85	84	0.1	0.0	5.508	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	173	43	-	-	-	173	166	0.0	0.0	0.000	A
				2	252	63	-	-	-	252	249	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	200	50	1147	1036	0.193	202	202	0.2	0.2	4.666	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	313	78	1147	1037	0.302	315	315	0.2	0.3	4.713	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	200	50	-	-	-	200	202	0.0	0.0	0.219	A
				3	313	78	-	-	-	313	315	0.0	0.0	0.207	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	377	94	1033	927	0.407	377	382	0.5	0.7	6.356	A
			2	1	125	31	1033	928	0.134	125	131	0.2	0.2	6.766	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	140	35	1033	926	0.151	140	143	0.1	0.3	5.091	A
		2	1	1	125	31	-	-	-	125	132	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	517	129	-	-	-	517	526	0.0	0.0	0.000	A
3	Entry	1	1	1	204	51	777	741	0.275	203	203	0.7	0.7	11.100	B
				2	189	47	777	740	0.255	192	191	0.4	0.6	9.603	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	114	29	777	741	0.154	116	108	0.0	0.1	5.647	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	204	51	-	-	-	204	203	0.0	0.0	0.000	A
				2	303	76	-	-	-	303	301	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	192	48	1147	1038	0.185	191	192	0.2	0.3	4.791	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	82	1147	1037	0.318	330	322	0.3	0.4	4.894	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	192	48	-	-	-	192	192	0.0	0.0	0.133	A
				3	330	82	-	-	-	330	323	0.0	0.0	0.143	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	375	94	1033	924	0.406	372	382	0.7	0.9	6.700	A
			2	1	128	32	1033	923	0.139	130	135	0.2	0.1	6.482	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	142	36	1033	925	0.154	144	149	0.3	0.2	4.945	A
		2	1	1	128	32	-	-	-	128	135	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	517	129	-	-	-	517	531	0.0	0.0	0.011	A
3	Entry	1	1	1	212	53	777	738	0.287	212	208	0.7	0.7	12.484	B
				2	186	46	777	738	0.252	186	192	0.6	0.5	11.122	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	117	29	777	739	0.158	115	110	0.1	0.3	5.606	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	212	53	-	-	-	212	208	0.0	0.0	0.000	A
				2	303	76	-	-	-	303	303	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	154	38	1147	1055	0.146	153	155	0.3	0.2	4.490	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	265	66	1147	1054	0.252	266	269	0.4	0.3	4.611	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	154	38	-	-	-	154	155	0.0	0.0	0.040	A
				3	265	66	-	-	-	265	269	0.0	0.0	0.071	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	301	75	1033	943	0.319	302	309	0.9	0.5	5.570	A
			2	1	116	29	1033	943	0.123	116	111	0.1	0.2	5.843	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	1033	943	0.111	106	114	0.2	0.1	4.557	A
		2	1	1	116	29	-	-	-	116	111	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	405	101	-	-	-	405	420	0.0	0.0	0.000	A
3	Entry	1	1	1	167	42	777	743	0.225	171	171	0.7	0.3	8.978	A
				2	168	42	777	743	0.226	168	167	0.5	0.4	7.927	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	85	21	777	744	0.114	85	88	0.3	0.1	5.429	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	167	42	-	-	-	167	170	0.0	0.0	0.000	A
				2	253	63	-	-	-	253	253	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	1147	1070	0.119	127	128	0.2	0.3	4.290	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	208	52	1147	1070	0.195	208	226	0.3	0.2	4.267	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	-	-	-	128	129	0.0	0.0	0.048	A
				3	208	52	-	-	-	208	225	0.0	0.0	0.034	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	264	66	1033	964	0.274	262	260	0.5	0.5	5.298	A
			2	1	90	22	1033	962	0.093	89	88	0.2	0.2	5.556	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	92	23	1033	964	0.095	92	96	0.1	0.0	4.338	A
		2	1	1	90	22	-	-	-	90	88	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	356	89	-	-	-	356	356	0.0	0.0	0.000	A
3	Entry	1	1	1	127	32	777	749	0.170	125	132	0.3	0.4	8.136	A
				2	144	36	777	750	0.192	144	140	0.4	0.4	7.345	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	68	17	777	751	0.091	69	73	0.1	0.1	5.362	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	133	0.0	0.0	0.000	A
				2	212	53	-	-	-	212	213	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	50.75	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	50.75	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2028	WD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	149	100.000
2		ONE HOUR	✓	537	100.000
3		ONE HOUR	✓	936	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	From	1	0	66
		2	263	0
		3	301	635

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	9	4
	2	2	0	18
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.13	4.77	0.3	A	138	206
2	0.31	5.54	1.0	A	488	733
3	0.99	84.01	25.9	F	854	1281

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	112	28	474	1453	0.077	112	115	417	0.0	0.2	3.969	A
2	400	100	63	1894	0.211	398	399	522	0.0	0.7	4.832	A
3	699	175	190	1063	0.657	701	695	271	0.0	2.3	12.092	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	140	35	567	1398	0.100	141	143	499	0.2	0.2	4.470	A
2	474	119	78	1860	0.255	474	486	630	0.7	0.6	5.020	A
3	830	208	233	1090	0.761	833	833	320	2.3	4.3	19.368	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	164	41	674	1333	0.123	165	171	599	0.2	0.1	4.515	A
2	580	145	91	1863	0.311	579	592	747	0.6	1.0	5.537	A
3	1028	257	280	1062	0.968	992	980	390	4.3	17.5	47.062	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	168	42	690	1306	0.129	168	171	603	0.1	0.3	4.771	A
2	583	146	95	1860	0.313	583	600	763	1.0	0.9	5.528	A
3	1024	256	289	1031	0.994	1005	1001	390	17.5	25.9	84.013	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	133	33	607	1367	0.097	133	140	522	0.3	0.2	4.582	A
2	482	121	75	1885	0.256	482	489	665	0.9	0.7	5.003	A
3	842	211	238	1105	0.762	891	915	318	25.9	8.5	59.010	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	108	27	476	1423	0.076	110	117	421	0.2	0.1	4.203	A
2	412	103	63	1879	0.219	413	418	523	0.7	0.6	4.870	A
3	702	176	199	1106	0.635	698	735	276	8.5	2.7	17.696	C

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	49	974	0.050	49	50	0.0	0.1	3.987	A
			2	1, 3	63	974	0.065	63	65	0.0	0.1	3.955	A
	Exit	2	1	(1, 2, 3)	112			112	116	0.0	0.0	0.000	A
			1		417			417	418	0.0	0.0	0.000	A
2	Entry	1	1	3	161	1012	0.159	161	158	0.0	0.2	4.865	A
			2	1, 2, (3)	238	1012	0.236	237	241	0.0	0.5	4.813	A
	Exit	2	1	(1, 2, 3)	400			400	402	0.0	0.0	0.000	A
			1		522			522	522	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	513	721	0.712	513	508	0.0	2.0	14.155	B
			2	(2), 3	186	721	0.258	187	187	0.0	0.3	6.288	A
	Exit	2	1	(1, 2, 3)	699			699	704	0.0	0.0	0.037	A
			1		271			271	270	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	Entry	1	1	2	62	940	0.066	63	63	0.1	0.0	4.432	A
			2	1, 3	78	940	0.083	78	80	0.1	0.1	4.487	A
	Exit	2	1	(1, 2, 3)	140			140	143	0.0	0.0	0.007	A
			1		499			499	505	0.0	0.0	0.000	A
2	Entry	1	1	3	187	1007	0.186	187	192	0.2	0.3	5.036	A
			2	1, 2, (3)	287	1007	0.285	287	294	0.5	0.3	5.011	A
	Exit	2	1	(1, 2, 3)	474			474	486	0.0	0.0	0.000	A
			1		630			630	631	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	582	708	0.821	585	587	2.0	3.7	23.397	C
			2	(2), 3	247	708	0.349	248	245	0.3	0.4	7.630	A
	Exit	2	1	(1, 2, 3)	830			829	840	0.0	0.2	0.548	A
			1		320			320	326	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	Entry	1	1	2	74	901	0.082	74	76	0.0	0.1	4.586	A
			2	1, 3	90	901	0.100	91	96	0.1	0.1	4.437	A
	Exit	2	1	(1, 2, 3)	164			164	171	0.0	0.0	0.014	A
2	Entry	1	1	3	233	1002	0.232	233	238	0.3	0.4	5.295	A
			2	1, 2, (3)	347	1002	0.346	347	355	0.3	0.6	5.681	A
		2	1	(1, 2, 3)	580			580	594	0.0	0.0	0.000	A
	Exit	1	1		747			747	745	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	681	694	0.981	669	663	3.7	9.9	44.571	E
			2	(2), 3	323	694	0.465	323	317	0.4	1.0	10.520	B
		2	1	(1, 2, 3)	1028			1004	1007	0.2	6.7	12.863	B
	Exit	1	1		390			390	399	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	Entry	1	1	2	73	895	0.081	73	76	0.1	0.1	4.925	A
			2	1, 3	96	895	0.107	95	95	0.1	0.2	4.639	A
	Exit	2	1	(1, 2, 3)	168			168	171	0.0	0.0	0.009	A
2	Entry	1	1	3	228	1001	0.228	228	237	0.4	0.4	5.314	A
			2	1, 2, (3)	354	1001	0.354	355	363	0.6	0.5	5.653	A
		2	1	(1, 2, 3)	583			583	599	0.0	0.0	0.000	A
	Exit	1	1		763			763	758	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	673	692	0.973	671	670	9.9	10.7	57.244	F
			2	(2), 3	334	692	0.483	334	331	1.0	1.1	11.899	B
		2	1	(1, 2, 3)	1024			1007	1004	6.7	14.1	41.358	E
	Exit	1	1		390			390	399	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	Entry	1	1	2	58	926	0.063	58	62	0.1	0.1	4.498	A
			2	1, 3	75	926	0.081	75	77	0.2	0.1	4.644	A
	Exit	2	1	(1, 2, 3)	133			133	139	0.0	0.0	0.002	A
2	Entry	1	1	3	191	1008	0.189	190	190	0.4	0.3	4.927	A
			2	1, 2, (3)	291	1008	0.289	292	300	0.5	0.4	5.045	A
		2	1	(1, 2, 3)	482			482	489	0.0	0.0	0.000	A
	Exit	1	1		665			665	684	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	614	707	0.869	627	635	10.7	5.6	42.955	E
			2	(2), 3	261	707	0.369	264	280	1.1	0.6	10.018	B
		2	1	(1, 2, 3)	842			875	893	14.1	2.3	27.522	D
	Exit	1	1		318			318	324	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	46	973	0.047	47	52	0.1	0.0	4.331	A
			2	1, 3	63	973	0.064	63	65	0.1	0.0	4.092	A
	Exit	1	1	(1, 2, 3)	108			108	117	0.0	0.0	0.008	A
			1		421			421	441	0.0	0.0	0.000	A
2	Entry	1	1	3	164	1012	0.162	166	167	0.3	0.2	4.891	A
			2	1, 2, (3)	248	1012	0.245	247	251	0.4	0.5	4.857	A
	Exit	1	1	(1, 2, 3)	412			412	417	0.0	0.0	0.000	A
			1		523			523	549	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	513	718	0.714	509	534	5.6	2.4	19.436	C
			2	(2), 3	189	718	0.264	189	200	0.6	0.4	7.029	A
	Exit	1	1	(1, 2, 3)	702			702	721	2.3	0.0	2.132	A
			1		276			276	280	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	1147	973	0.050	49	50	0.0	0.1	3.987	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	63	16	1147	973	0.065	63	65	0.0	0.1	3.955	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	-	-	-	49	50	0.0	0.0	0.000	A
				3	63	16	-	-	-	63	65	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	161	40	1033	1011	0.159	161	158	0.0	0.2	4.865	A
			2	1	191	48	1033	1011	0.189	190	194	0.0	0.4	4.864	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	47	12	1033	1013	0.047	47	47	0.0	0.1	4.567	A
		2	1	1	191	48	-	-	-	191	196	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	209	52	-	-	-	209	206	0.0	0.0	0.000	A
3	Entry	1	1	1	226	56	777	721	0.314	227	223	0.0	0.9	14.921	B
				2	287	72	777	721	0.398	287	285	0.0	1.1	13.554	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	186	47	777	721	0.259	187	187	0.0	0.3	6.288	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	226	56	-	-	-	226	227	0.0	0.0	0.036	A
				2	473	118	-	-	-	473	477	0.0	0.0	0.037	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	62	16	1147	941	0.066	63	63	0.1	0.0	4.432	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	78	19	1147	942	0.083	78	80	0.1	0.1	4.487	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	62	16	-	-	-	62	63	0.0	0.0	0.007	A
				3	78	19	-	-	-	78	80	0.0	0.0	0.007	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	187	47	1033	1007	0.186	187	192	0.2	0.3	5.036	A
			2	1	232	58	1033	1007	0.231	233	240	0.4	0.3	5.109	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	54	14	1033	1006	0.054	55	55	0.1	0.1	4.515	A
		2	1	1	232	58	-	-	-	232	239	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	242	60	-	-	-	242	247	0.0	0.0	0.000	A
3	Entry	1	1	1	267	67	777	708	0.377	266	265	0.9	1.9	24.844	C
				2	315	79	777	708	0.445	319	322	1.1	1.8	22.200	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	247	62	777	708	0.349	248	245	0.3	0.4	7.630	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	268	67	-	-	-	267	269	0.0	0.1	0.691	A
				2	563	141	-	-	-	562	571	0.0	0.1	0.480	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	74	18	1147	901	0.082	74	76	0.0	0.1	4.586	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	90	23	1147	902	0.100	91	96	0.1	0.1	4.437	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	74	18	-	-	-	74	76	0.0	0.0	0.013	A
				3	90	23	-	-	-	90	95	0.0	0.0	0.014	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	233	58	1033	1002	0.232	233	238	0.3	0.4	5.295	A
			2	1	280	70	1033	1002	0.280	280	289	0.3	0.5	5.843	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	66	17	1033	1003	0.066	66	66	0.1	0.1	4.855	A
		2	1	1	280	70	-	-	-	280	289	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	300	75	-	-	-	300	305	0.0	0.0	0.000	A
3	Entry	1	1	1	324	81	777	694	0.467	318	310	1.9	4.8	45.881	E
				2	357	89	777	695	0.514	351	352	1.8	5.1	43.416	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	323	81	777	694	0.466	323	317	0.4	1.0	10.520	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	335	84	-	-	-	324	322	0.1	2.4	13.786	B
				2	692	173	-	-	-	680	685	0.1	4.3	12.427	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	1147	896	0.081	73	76	0.1	0.1	4.925	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	96	24	1147	895	0.107	95	95	0.1	0.2	4.639	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	-	-	-	73	76	0.0	0.0	0.007	A
				3	96	24	-	-	-	96	95	0.0	0.0	0.011	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	228	57	1033	1001	0.228	228	237	0.4	0.4	5.314	A
			2	1	288	72	1033	1001	0.288	289	295	0.5	0.4	5.825	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	66	16	1033	1001	0.066	66	68	0.1	0.1	4.790	A
		2	1	1	288	72	-	-	-	288	295	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	294	74	-	-	-	294	304	0.0	0.0	0.000	A
3	Entry	1	1	1	315	79	777	692	0.456	314	318	4.8	5.2	57.895	F
				2	357	89	777	692	0.517	357	352	5.1	5.5	56.654	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	334	84	777	692	0.483	334	331	1.0	1.1	11.899	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	324	81	-	-	-	315	320	2.4	4.6	41.967	E
				2	701	175	-	-	-	692	685	4.3	9.5	41.075	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	58	14	1147	925	0.063	58	62	0.1	0.1	4.498	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	75	19	1147	925	0.081	75	77	0.2	0.1	4.644	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	58	14	-	-	-	58	62	0.0	0.0	0.002	A
				3	75	19	-	-	-	75	77	0.0	0.0	0.002	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	191	48	1033	1008	0.189	190	190	0.4	0.3	4.927	A
			2	1	237	59	1033	1008	0.235	238	243	0.4	0.3	5.123	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	54	14	1033	1007	0.054	54	57	0.1	0.1	4.665	A
		2	1	1	237	59	-	-	-	237	242	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	245	61	-	-	-	245	247	0.0	0.0	0.000	A
3	Entry	1	1	1	279	70	777	707	0.395	284	293	5.2	2.6	44.495	E
				2	335	84	777	707	0.475	343	341	5.5	3.0	41.638	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	261	65	777	706	0.369	264	280	1.1	0.6	10.018	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	268	67	-	-	-	279	283	4.6	0.7	27.841	D
				2	574	144	-	-	-	596	610	9.5	1.6	27.375	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	1147	972	0.047	47	52	0.1	0.0	4.331	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	63	16	1147	971	0.064	63	65	0.1	0.0	4.092	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	-	-	-	46	52	0.0	0.0	0.007	A
				3	63	16	-	-	-	63	65	0.0	0.0	0.008	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	164	41	1033	1012	0.162	166	167	0.3	0.2	4.891	A
			2	1	200	50	1033	1012	0.198	199	203	0.3	0.4	4.958	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	48	12	1033	1012	0.047	48	47	0.1	0.1	4.352	A
		2	1	1	200	50	-	-	-	200	204	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	212	53	-	-	-	212	214	0.0	0.0	0.000	A
3	Entry	1	1	1	225	56	777	718	0.314	222	237	2.6	1.2	20.686	C
				2	287	72	777	718	0.400	288	297	3.0	1.2	18.439	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	189	47	777	718	0.264	189	200	0.6	0.4	7.029	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	225	56	-	-	-	225	232	0.7	0.0	2.338	A
				2	477	119	-	-	-	477	489	1.6	0.0	2.034	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	6.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.29	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2028	WD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	468	100.000
2		ONE HOUR	✓	624	100.000
3		ONE HOUR	✓	419	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	173	295
	2	128	0	496
	3	172	247	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	3	0
	2	10	0	4
	3	4	4	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.35	4.90	0.6	A	431	647
2	0.40	5.97	1.4	A	572	858
3	0.45	8.31	1.2	A	388	582

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	368	92	189	1574	0.234	367	363	209	0.0	0.4	4.198	A
2	446	112	238	1925	0.232	448	471	318	0.0	0.6	4.791	A
3	316	79	84	1063	0.297	314	312	602	0.0	0.7	7.164	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	430	108	226	1525	0.282	432	428	274	0.4	0.5	4.449	A
2	560	140	263	1849	0.303	560	569	395	0.6	0.8	5.285	A
3	382	96	115	1139	0.335	385	383	709	0.7	0.7	7.498	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	532	133	273	1524	0.349	535	529	324	0.5	0.6	4.863	A
2	691	173	336	1829	0.378	689	691	472	0.8	1.3	5.911	A
3	454	114	142	1057	0.430	455	459	883	0.7	0.9	8.192	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	491	123	266	1519	0.324	497	518	330	0.6	0.5	4.898	A
2	707	177	319	1786	0.396	707	702	445	1.3	1.4	5.968	A
3	457	114	143	1006	0.454	453	464	883	0.9	1.2	8.312	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	412	103	220	1520	0.271	411	417	279	0.5	0.4	4.418	A
2	565	141	259	1880	0.301	562	569	372	1.4	0.7	5.570	A
3	383	96	114	1047	0.366	385	384	707	1.2	0.5	7.489	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	354	89	202	1580	0.224	355	364	237	0.4	0.4	4.105	A
2	463	116	222	1919	0.241	460	478	336	0.7	0.7	5.087	A
3	337	84	100	1038	0.325	339	330	582	0.5	0.6	6.909	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	127	1078	0.118	129	132	0.0	0.1	3.908	A
			2	1, 3	240	1078	0.223	238	230	0.0	0.3	4.240	A
	Exit	2	1	(1, 2, 3)	368			368	364	0.0	0.0	0.076	A
			1		209			209	224	0.0	0.0	0.000	A
2	Entry	1	1	3	264	953	0.277	264	272	0.0	0.3	4.941	A
			2	1, 2, (3)	183	953	0.192	184	198	0.0	0.2	4.580	A
	Exit	2	1	(1, 2, 3)	446			446	473	0.0	0.0	0.000	A
			1		318			318	316	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	256	752	0.341	253	257	0.0	0.7	7.536	A
			2	(2), 3	60	752	0.080	61	55	0.0	0.0	5.411	A
	Exit	2	1	(1, 2, 3)	316			316	315	0.0	0.0	0.000	A
			1		602			602	605	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	Entry	1	1	2	170	1065	0.160	169	161	0.1	0.2	4.067	A
			2	1, 3	261	1065	0.245	263	268	0.3	0.3	4.506	A
	Exit	2	1	(1, 2, 3)	430			431	429	0.0	0.0	0.105	A
			1		274			274	278	0.0	0.0	0.000	A
2	Entry	1	1	3	330	945	0.350	332	330	0.3	0.4	5.479	A
			2	1, 2, (3)	230	945	0.243	229	238	0.2	0.5	5.009	A
	Exit	2	1	(1, 2, 3)	560			560	570	0.0	0.0	0.000	A
			1		395			395	383	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	307	743	0.413	310	311	0.7	0.5	7.982	A
			2	(2), 3	76	743	0.102	75	72	0.0	0.2	5.425	A
	Exit	2	1	(1, 2, 3)	382			382	383	0.0	0.0	0.000	A
			1		709			709	719	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	Entry	1	1	2	198	1048	0.189	200	187	0.2	0.2	4.305	A
			2	1, 3	335	1048	0.319	336	342	0.3	0.4	4.855	A
	Exit	1	1	(1, 2, 3)	532			533	530	0.0	0.0	0.199	A
			1		324			324	328	0.0	0.0	0.000	A
2	Entry	1	1	3	395	921	0.429	395	394	0.4	0.7	6.347	A
			2	1, 2, (3)	296	921	0.321	294	297	0.5	0.6	5.317	A
	Exit	1	1	(1, 2, 3)	691			691	693	0.0	0.0	0.000	A
			1		472			472	460	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	364	735	0.495	365	366	0.5	0.8	8.880	A
			2	(2), 3	91	735	0.124	90	94	0.2	0.2	5.513	A
	Exit	1	1	(1, 2, 3)	454			454	460	0.0	0.0	0.000	A
			1		883			883	892	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	Entry	1	1	2	178	1050	0.170	179	184	0.2	0.2	4.277	A
			2	1, 3	315	1050	0.300	319	334	0.4	0.3	4.889	A
	Exit	1	1	(1, 2, 3)	491			493	518	0.0	0.0	0.223	A
			1		330			330	339	0.0	0.0	0.000	A
2	Entry	1	1	3	404	927	0.436	403	402	0.7	0.8	6.261	A
			2	1, 2, (3)	303	927	0.327	303	299	0.6	0.5	5.566	A
	Exit	1	1	(1, 2, 3)	707			707	702	0.0	0.0	0.000	A
			1		445			445	453	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	361	735	0.492	358	370	0.8	1.0	9.092	A
			2	(2), 3	96	735	0.130	95	95	0.2	0.2	5.286	A
	Exit	1	1	(1, 2, 3)	457			457	465	0.0	0.0	0.000	A
			1		883			883	892	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	Entry	1	1	2	152	1067	0.142	152	153	0.2	0.1	4.072	A
			2	1, 3	260	1067	0.244	259	263	0.3	0.3	4.543	A
	Exit	1	1	(1, 2, 3)	412			412	417	0.0	0.0	0.045	A
			1		279			279	272	0.0	0.0	0.000	A
2	Entry	1	1	3	333	946	0.352	331	332	0.8	0.5	5.818	A
			2	1, 2, (3)	232	946	0.245	232	237	0.5	0.2	5.216	A
	Exit	1	1	(1, 2, 3)	565			565	566	0.0	0.0	0.000	A
			1		372			372	377	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	314	743	0.422	315	308	1.0	0.4	7.965	A
			2	(2), 3	70	743	0.094	70	77	0.2	0.1	5.581	A
	Exit	1	1	(1, 2, 3)	383			383	382	0.0	0.0	0.000	A
			1		707			707	721	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	134	1074	0.125	134	130	0.1	0.1	3.870	A
			2	1, 3	220	1074	0.205	222	234	0.3	0.3	4.209	A
	Exit	1	1	(1, 2, 3)	354			354	364	0.0	0.0	0.016	A
			1		237			237	235	0.0	0.0	0.000	A
2	Entry	1	1	3	266	959	0.278	267	272	0.5	0.4	5.508	A
			2	1, 2, (3)	195	959	0.204	194	206	0.2	0.3	4.513	A
	Exit	1	1	(1, 2, 3)	463			463	478	0.0	0.0	0.000	A
			1		336			336	327	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	268	747	0.359	269	266	0.4	0.5	7.392	A
			2	(2), 3	69	747	0.093	69	64	0.1	0.1	4.926	A
	Exit	1	1	(1, 2, 3)	337			337	331	0.0	0.0	0.000	A
			1		582			582	611	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	1147	1078	0.118	129	132	0.0	0.1	3.908	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	240	60	1147	1078	0.223	238	230	0.0	0.3	4.240	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	-	-	-	127	133	0.0	0.0	0.044	A
				3	240	60	-	-	-	240	232	0.0	0.0	0.093	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	264	66	1033	954	0.277	264	272	0.0	0.3	4.941	A
			2	1	85	21	1033	956	0.089	84	95	0.0	0.2	5.016	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	98	24	1033	956	0.102	99	103	0.0	0.0	4.199	A
		2	1	1	85	21	-	-	-	85	96	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	362	90	-	-	-	362	377	0.0	0.0	0.000	A
3	Entry	1	1	1	128	32	777	751	0.170	125	128	0.0	0.4	7.821	A
				2	129	32	777	752	0.171	128	129	0.0	0.3	7.245	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	777	750	0.080	61	55	0.0	0.0	5.411	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	128	32	-	-	-	128	130	0.0	0.0	0.000	A
				2	189	47	-	-	-	189	185	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	170	43	1147	1065	0.160	169	161	0.1	0.2	4.067	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	261	65	1147	1065	0.245	263	268	0.3	0.3	4.506	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	170	43	-	-	-	170	161	0.0	0.0	0.086	A
				3	260	65	-	-	-	261	268	0.0	0.0	0.117	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	83	1033	945	0.350	332	330	0.3	0.4	5.479	A
			2	1	116	29	1033	943	0.123	115	118	0.2	0.3	5.583	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	114	29	1033	944	0.121	114	121	0.0	0.2	4.490	A
		2	1	1	116	29	-	-	-	116	118	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	445	111	-	-	-	445	452	0.0	0.0	0.000	A
3	Entry	1	1	1	157	39	777	743	0.211	159	161	0.4	0.3	8.367	A
				2	149	37	777	743	0.201	151	150	0.3	0.2	7.569	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	76	19	777	742	0.102	75	72	0.0	0.2	5.425	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	157	39	-	-	-	157	160	0.0	0.0	0.000	A
				2	225	56	-	-	-	225	222	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	198	50	1147	1050	0.189	200	187	0.2	0.2	4.305	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	335	84	1147	1048	0.319	336	342	0.3	0.4	4.855	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	198	50	-	-	-	198	187	0.0	0.0	0.202	A
				3	334	84	-	-	-	335	343	0.0	0.0	0.197	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	395	99	1033	921	0.429	395	394	0.4	0.7	6.347	A
			2	1	143	36	1033	922	0.155	142	141	0.3	0.3	5.895	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	153	38	1033	923	0.166	153	156	0.2	0.2	4.820	A
		2	1	1	143	36	-	-	-	143	141	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	548	137	-	-	-	548	552	0.0	0.0	0.000	A
3	Entry	1	1	1	181	45	777	735	0.246	183	187	0.3	0.4	9.437	A
				2	183	46	777	735	0.249	183	179	0.2	0.4	8.291	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	91	23	777	736	0.123	90	94	0.2	0.2	5.513	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	181	45	-	-	-	181	187	0.0	0.0	0.000	A
				2	274	68	-	-	-	274	273	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	178	45	1147	1050	0.170	179	184	0.2	0.2	4.277	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	315	79	1147	1050	0.300	319	334	0.4	0.3	4.889	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	178	45	-	-	-	178	184	0.0	0.0	0.209	A
				3	313	78	-	-	-	315	334	0.0	0.0	0.230	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	404	101	1033	927	0.435	403	402	0.7	0.8	6.261	A
			2	1	141	35	1033	926	0.152	143	143	0.3	0.2	6.175	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	162	41	1033	925	0.175	161	156	0.2	0.3	5.039	A
		2	1	1	141	35	-	-	-	141	143	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	566	142	-	-	-	566	559	0.0	0.0	0.000	A
3	Entry	1	1	1	189	47	777	734	0.258	188	195	0.4	0.6	9.609	A
				2	172	43	777	734	0.234	171	174	0.4	0.4	8.509	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	96	24	777	735	0.130	95	95	0.2	0.2	5.286	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	189	47	-	-	-	189	196	0.0	0.0	0.000	A
				2	268	67	-	-	-	268	269	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	152	38	1147	1069	0.142	152	153	0.2	0.1	4.072	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	260	65	1147	1068	0.243	259	263	0.3	0.3	4.543	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	152	38	-	-	-	152	153	0.0	0.0	0.042	A
				3	260	65	-	-	-	260	263	0.0	0.0	0.047	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	333	83	1033	945	0.353	331	332	0.8	0.5	5.818	A
			2	1	115	29	1033	944	0.121	114	112	0.2	0.1	5.654	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	117	29	1033	944	0.124	117	125	0.3	0.2	4.839	A
		2	1	1	115	29	-	-	-	115	111	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	451	113	-	-	-	451	455	0.0	0.0	0.000	A
3	Entry	1	1	1	165	41	777	743	0.223	165	160	0.6	0.3	8.694	A
				2	148	37	777	742	0.199	150	147	0.4	0.2	7.176	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	70	17	777	742	0.094	70	77	0.2	0.1	5.581	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	165	41	-	-	-	165	159	0.0	0.0	0.000	A
				2	218	54	-	-	-	218	223	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	134	34	1147	1075	0.125	134	130	0.1	0.1	3.870	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	220	55	1147	1075	0.205	222	234	0.3	0.3	4.209	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	134	34	-	-	-	134	130	0.0	0.0	0.010	A
				3	220	55	-	-	-	220	234	0.0	0.0	0.019	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	266	67	1033	960	0.278	267	272	0.5	0.4	5.508	A
			2	1	100	25	1033	962	0.104	100	101	0.1	0.1	5.029	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	96	24	1033	959	0.100	94	105	0.2	0.2	4.049	A
		2	1	1	100	25	-	-	-	100	101	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	362	91	-	-	-	362	377	0.0	0.0	0.000	A
3	Entry	1	1	1	137	34	777	747	0.183	137	134	0.3	0.3	7.727	A
				2	131	33	777	747	0.176	133	132	0.2	0.2	7.052	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	777	747	0.093	69	64	0.1	0.1	4.926	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	137	34	-	-	-	137	135	0.0	0.0	0.000	A
				2	201	50	-	-	-	201	196	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | WoD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	95.46	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	95.46	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2038	WoD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	174	100.000
2		ONE HOUR	✓	605	100.000
3		ONE HOUR	✓	988	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	48	126
	2	213	0	392
	3	398	590	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	6	6
	2	4	0	8
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.16	4.85	0.4	A	161	241
2	0.35	5.47	1.1	A	555	832
3	1.11	166.82	56.3	F	904	1355

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	440	1265	0.104	132	131	455	0.0	0.1	4.093	A
2	455	114	91	1965	0.232	458	464	481	0.0	0.5	4.723	A
3	735	184	162	1018	0.722	732	726	387	0.0	3.2	14.086	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	148	37	526	1273	0.116	149	160	548	0.1	0.1	4.469	A
2	536	134	107	1953	0.274	538	549	568	0.5	0.7	4.894	A
3	886	222	187	1035	0.856	886	876	457	3.2	6.5	25.289	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	201	50	596	1233	0.163	200	201	632	0.1	0.2	4.797	A
2	670	167	145	1913	0.350	669	673	651	0.7	1.1	5.387	A
3	1085	271	236	978	1.110	991	984	577	6.5	31.5	74.606	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	193	48	605	1254	0.154	191	198	649	0.2	0.4	4.853	A
2	664	166	138	1951	0.340	665	674	658	1.1	1.0	5.474	A
3	1098	274	240	1013	1.083	1014	1002	563	31.5	56.3	166.816	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	158	39	591	1244	0.127	158	160	592	0.4	0.2	4.647	A
2	547	137	116	1947	0.281	546	555	633	1.0	0.8	5.141	A
3	884	221	189	1024	0.863	993	1000	473	56.3	31.3	160.648	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	133	33	463	1329	0.100	132	138	482	0.2	0.2	4.563	A
2	457	114	95	1967	0.232	455	458	500	0.8	0.8	4.603	A
3	734	184	162	1066	0.689	783	843	388	31.3	6.7	58.730	F

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	42	987	0.042	42	37	0.0	0.1	4.009	A
			2	1, 3	90	987	0.091	91	94	0.0	0.1	4.120	A
	Exit	2	1	(1, 2, 3)	131			131	132	0.0	0.0	0.004	A
			1		455			455	454	0.0	0.0	0.000	A
2	Entry	1	1	3	223	1002	0.222	224	226	0.0	0.3	4.728	A
			2	1, 2, (3)	233	1002	0.232	234	238	0.0	0.2	4.718	A
	Exit	2	1	(1, 2, 3)	455			455	466	0.0	0.0	0.000	A
			1		481			481	473	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	557	729	0.763	552	545	0.0	2.9	16.411	C
			2	(2), 3	179	729	0.246	180	180	0.0	0.3	6.302	A
	Exit	2	1	(1, 2, 3)	735			736	738	0.0	0.0	0.160	A
			1		387			387	395	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	Entry	1	1	2	42	955	0.044	43	45	0.1	0.0	4.367	A
			2	1, 3	106	955	0.111	107	115	0.1	0.1	4.468	A
	Exit	2	1	(1, 2, 3)	148			148	160	0.0	0.0	0.030	A
			1		548			548	545	0.0	0.0	0.000	A
2	Entry	1	1	3	259	997	0.260	262	268	0.3	0.3	4.909	A
			2	1, 2, (3)	276	997	0.277	276	281	0.2	0.3	4.880	A
	Exit	2	1	(1, 2, 3)	536			536	550	0.0	0.0	0.000	A
			1		568			568	569	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	657	722	0.911	656	641	2.9	5.4	28.775	D
			2	(2), 3	231	722	0.320	230	234	0.3	0.5	7.073	A
	Exit	2	1	(1, 2, 3)	886			888	887	0.0	0.5	2.173	A
			1		457			457	471	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	Entry	1	1	2	55	930	0.059	55	55	0.0	0.1	4.498	A
			2	1, 3	145	930	0.156	145	146	0.1	0.1	4.820	A
	Exit	1	1	(1, 2, 3)	201			201	201	0.0	0.0	0.064	A
			1		632			632	630	0.0	0.0	0.000	A
2	Entry	1	1	3	328	984	0.333	328	328	0.3	0.6	5.343	A
			2	1, 2, (3)	342	984	0.347	341	345	0.3	0.6	5.428	A
	Exit	1	1	(1, 2, 3)	670			670	675	0.0	0.0	0.000	A
			1		651			651	649	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	702	707	0.993	690	687	5.4	12.5	54.758	F
			2	(2), 3	303	707	0.428	301	297	0.5	0.9	10.068	B
	Exit	1	1	(1, 2, 3)	1085			1005	1014	0.5	18.1	32.232	D
			1		577			577	579	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	Entry	1	1	2	54	927	0.059	53	54	0.1	0.2	4.601	A
			2	1, 3	139	927	0.150	138	144	0.1	0.2	4.893	A
	Exit	1	1	(1, 2, 3)	193			193	199	0.0	0.0	0.040	A
			1		649			649	642	0.0	0.0	0.000	A
2	Entry	1	1	3	319	987	0.324	319	326	0.6	0.5	5.385	A
			2	1, 2, (3)	345	987	0.349	346	348	0.6	0.5	5.555	A
	Exit	1	1	(1, 2, 3)	664			664	674	0.0	0.0	0.000	A
			1		658			658	652	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	710	706	1.006	707	704	12.5	13.4	66.671	F
			2	(2), 3	311	706	0.440	307	298	0.9	1.2	11.103	B
	Exit	1	1	(1, 2, 3)	1098			1021	1006	18.1	41.7	116.412	F
			1		563			563	579	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	Entry	1	1	2	42	932	0.045	42	44	0.2	0.0	4.364	A
			2	1, 3	116	932	0.124	116	116	0.2	0.2	4.724	A
	Exit	1	1	(1, 2, 3)	158			158	159	0.0	0.0	0.020	A
			1		592			592	596	0.0	0.0	0.000	A
2	Entry	1	1	3	268	994	0.270	268	271	0.5	0.4	5.138	A
			2	1, 2, (3)	279	994	0.281	278	284	0.5	0.4	5.145	A
	Exit	1	1	(1, 2, 3)	547			547	554	0.0	0.0	0.000	A
			1		633			633	641	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	689	721	0.955	707	709	13.4	10.6	62.460	F
			2	(2), 3	283	721	0.393	287	292	1.2	0.6	11.388	B
	Exit	1	1	(1, 2, 3)	884			972	987	41.7	20.1	113.903	F
			1		473			473	478	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	38	978	0.039	37	38	0.0	0.1	4.033	A
			2	1, 3	95	978	0.097	95	100	0.2	0.2	4.708	A
	Exit	1	1	(1, 2, 3)	133			133	138	0.0	0.0	0.042	A
			1		482			482	502	0.0	0.0	0.000	A
2	Entry	1	1	3	225	1001	0.225	224	226	0.4	0.5	4.675	A
			2	1, 2, (3)	232	1001	0.232	231	233	0.4	0.3	4.534	A
	Exit	1	1	(1, 2, 3)	457			457	458	0.0	0.0	0.000	A
			1		500			500	537	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	574	729	0.787	589	622	10.6	3.8	37.087	E
			2	(2), 3	194	729	0.266	194	220	0.6	0.4	8.520	A
	Exit	1	1	(1, 2, 3)	734			768	814	20.1	2.5	31.711	D
			1		388			388	399	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	10	1147	987	0.042	42	37	0.0	0.1	4.009	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	90	22	1147	988	0.091	91	94	0.0	0.1	4.120	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	10	-	-	-	42	38	0.0	0.0	0.000	A
				3	90	22	-	-	-	90	94	0.0	0.0	0.006	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	223	56	1033	1002	0.222	224	226	0.0	0.3	4.728	A
			2	1	161	40	1033	1003	0.160	162	163	0.0	0.2	4.992	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	72	18	1033	1003	0.072	72	75	0.0	0.1	4.105	A
		2	1	1	161	40	-	-	-	161	164	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	295	74	-	-	-	295	303	0.0	0.0	0.000	A
3	Entry	1	1	1	296	74	777	729	0.406	293	290	0.0	1.7	17.290	C
				2	260	65	777	729	0.357	259	255	0.0	1.1	15.404	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	179	45	777	729	0.246	180	180	0.0	0.3	6.302	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	296	74	-	-	-	296	297	0.0	0.0	0.181	A
				2	439	110	-	-	-	439	441	0.0	0.0	0.146	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	11	1147	956	0.044	43	45	0.1	0.0	4.367	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	106	27	1147	956	0.111	107	115	0.1	0.1	4.468	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	11	-	-	-	42	45	0.0	0.0	0.012	A
				3	106	27	-	-	-	106	115	0.0	0.0	0.036	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	259	65	1033	997	0.260	262	268	0.3	0.3	4.909	A
			2	1	187	47	1033	997	0.188	187	193	0.2	0.3	5.110	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	89	22	1033	996	0.089	89	88	0.1	0.1	4.351	A
		2	1	1	187	47	-	-	-	187	193	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	349	87	-	-	-	349	356	0.0	0.0	0.000	A
3	Entry	1	1	1	364	91	777	722	0.505	361	352	1.7	3.1	29.378	D
				2	293	73	777	722	0.406	296	289	1.1	2.3	28.042	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	231	58	777	722	0.319	230	234	0.3	0.5	7.073	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	364	91	-	-	-	364	358	0.0	0.2	2.128	A
				2	522	131	-	-	-	524	529	0.0	0.3	2.203	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	1147	929	0.059	55	55	0.0	0.1	4.498	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	145	36	1147	930	0.156	145	146	0.1	0.1	4.820	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	-	-	-	55	55	0.0	0.0	0.019	A
				3	145	36	-	-	-	145	146	0.0	0.0	0.081	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	328	82	1033	985	0.333	328	328	0.3	0.6	5.343	A
			2	1	237	59	1033	985	0.241	236	240	0.3	0.4	5.748	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	1033	984	0.106	105	105	0.1	0.1	4.670	A
		2	1	1	237	59	-	-	-	237	241	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	433	108	-	-	-	433	434	0.0	0.0	0.000	A
3	Entry	1	1	1	402	100	777	707	0.568	396	390	3.1	7.3	55.396	F
				2	300	75	777	707	0.424	295	297	2.3	5.2	53.916	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	303	76	777	707	0.428	301	297	0.5	0.9	10.068	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	436	109	-	-	-	402	407	0.2	7.5	33.315	D
				2	650	162	-	-	-	603	607	0.3	10.6	31.504	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	14	1147	927	0.059	53	54	0.1	0.2	4.601	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	139	35	1147	924	0.150	138	144	0.1	0.2	4.893	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	14	-	-	-	54	54	0.0	0.0	0.049	A
				3	139	35	-	-	-	139	144	0.0	0.0	0.037	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	319	80	1033	987	0.324	319	326	0.6	0.5	5.385	A
			2	1	240	60	1033	987	0.243	240	239	0.4	0.4	5.955	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	1033	986	0.106	105	109	0.1	0.1	4.635	A
		2	1	1	240	60	-	-	-	240	239	0.0	0.0	0.001	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	424	106	-	-	-	424	435	0.0	0.0	0.000	A
3	Entry	1	1	1	408	102	777	706	0.578	409	403	7.3	7.7	66.752	F
				2	302	76	777	706	0.428	297	301	5.2	5.8	66.563	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	311	78	777	706	0.440	307	298	0.9	1.2	11.103	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	442	111	-	-	-	408	405	7.5	16.6	117.523	F
				2	655	164	-	-	-	613	601	10.6	25.1	115.668	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	10	1147	929	0.045	42	44	0.2	0.0	4.364	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	116	29	1147	931	0.124	116	116	0.2	0.2	4.724	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	42	10	-	-	-	42	43	0.0	0.0	0.025	A
				3	116	29	-	-	-	116	116	0.0	0.0	0.018	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	268	67	1033	994	0.270	268	271	0.5	0.4	5.138	A
			2	1	190	47	1033	995	0.191	189	193	0.4	0.2	5.472	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	89	22	1033	994	0.090	89	91	0.1	0.2	4.425	A
		2	1	1	190	47	-	-	-	190	193	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	358	89	-	-	-	358	362	0.0	0.0	0.000	A
3	Entry	1	1	1	389	97	777	721	0.540	403	403	7.7	5.9	62.696	F
				2	300	75	777	721	0.415	304	306	5.8	4.7	62.150	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	283	71	777	721	0.393	287	292	1.2	0.6	11.388	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	352	88	-	-	-	389	396	16.6	8.1	115.384	F
				2	532	133	-	-	-	583	591	25.1	12.0	112.909	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	9	1147	974	0.039	37	38	0.0	0.1	4.033	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	95	24	1147	976	0.097	95	100	0.2	0.2	4.708	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	9	-	-	-	38	38	0.0	0.0	0.013	A
				3	95	24	-	-	-	95	100	0.0	0.0	0.053	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	225	56	1033	1001	0.225	224	226	0.4	0.5	4.675	A
			2	1	164	41	1033	1001	0.163	162	159	0.2	0.3	4.743	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	69	17	1033	1001	0.069	69	73	0.2	0.1	4.067	A
		2	1	1	164	41	-	-	-	164	159	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	294	73	-	-	-	294	299	0.0	0.0	0.000	A
3	Entry	1	1	1	312	78	777	729	0.429	320	343	5.9	2.2	38.452	E
				2	261	65	777	729	0.359	269	279	4.7	1.5	35.409	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	194	49	777	729	0.267	194	220	0.6	0.4	8.520	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	299	75	-	-	-	312	329	8.1	1.1	32.111	D
				2	435	109	-	-	-	456	486	12.0	1.4	31.439	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | WoD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	14.10	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.10	B

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2038	WoD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	488	100.000
2		ONE HOUR	✓	656	100.000
3		ONE HOUR	✓	868	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	164	324
	2	89	0	567
	3	260	608	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	2	0
	2	7	0	4
	3	3	2	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.44	6.34	1.1	A	451	676
2	0.42	6.23	1.6	A	599	899
3	0.84	24.50	6.3	C	789	1184

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	377	94	453	1342	0.281	377	370	259	0.0	0.5	4.679	A
2	497	124	250	1835	0.271	496	492	580	0.0	0.7	4.962	A
3	643	161	66	1155	0.557	646	648	679	0.0	1.8	9.407	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	431	108	544	1338	0.322	429	437	313	0.5	0.6	5.096	A
2	576	144	282	1805	0.319	580	595	692	0.7	0.8	5.360	A
3	782	195	77	1139	0.686	779	791	784	1.8	2.8	12.707	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	540	135	656	1232	0.438	538	541	383	0.6	1.1	6.191	A
2	726	181	355	1748	0.415	723	732	839	0.8	1.6	6.096	A
3	932	233	96	1159	0.805	942	941	982	2.8	5.2	19.896	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	546	137	674	1248	0.438	548	547	386	1.1	0.9	6.343	A
2	717	179	365	1739	0.412	721	730	857	1.6	1.0	6.231	A
3	959	240	96	1135	0.845	964	960	990	5.2	6.3	24.497	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	441	110	542	1340	0.329	442	446	307	0.9	0.6	5.194	A
2	585	146	299	1847	0.317	586	599	685	1.0	1.0	5.611	A
3	768	192	80	1146	0.670	770	798	805	6.3	3.2	14.548	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	369	92	451	1374	0.268	367	377	263	0.6	0.6	4.735	A
2	496	124	246	1847	0.269	495	500	572	1.0	0.6	4.965	A
3	650	162	69	1125	0.578	646	664	673	3.2	1.8	10.248	B

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	127	982	0.130	127	124	0.0	0.2	4.364	A
			2	1, 3	250	982	0.254	250	246	0.0	0.3	4.736	A
	Exit	2	1	(1, 2, 3)	377			377	372	0.0	0.0	0.064	A
			1		259			259	257	0.0	0.0	0.000	A
2	Entry	1	1	3	308	950	0.325	307	307	0.0	0.5	5.231	A
			2	1, 2, (3)	188	950	0.198	188	185	0.0	0.2	4.512	A
	Exit	2	1	(1, 2, 3)	497			497	495	0.0	0.0	0.000	A
			1		580			580	581	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	473	757	0.625	476	477	0.0	1.5	10.732	B
			2	(2), 3	170	757	0.225	171	172	0.0	0.3	5.732	A
	Exit	2	1	(1, 2, 3)	643			643	655	0.0	0.0	0.001	A
			1		679			679	673	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	Entry	1	1	2	148	949	0.156	148	151	0.2	0.2	4.441	A
			2	1, 3	282	949	0.297	282	287	0.3	0.4	5.277	A
	Exit	2	1	(1, 2, 3)	431			431	438	0.0	0.0	0.103	A
			1		313			313	317	0.0	0.0	0.000	A
2	Entry	1	1	3	350	939	0.373	353	365	0.5	0.5	5.743	A
			2	1, 2, (3)	226	939	0.241	227	230	0.2	0.3	4.748	A
	Exit	2	1	(1, 2, 3)	576			576	596	0.0	0.0	0.000	A
			1		692			692	704	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	563	754	0.747	563	566	1.5	2.3	15.116	C
			2	(2), 3	218	754	0.289	217	225	0.3	0.4	6.358	A
	Exit	2	1	(1, 2, 3)	782			781	795	0.0	0.1	0.071	A
			1		784			784	802	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	Entry	1	1	2	182	908	0.200	183	184	0.2	0.2	5.142	A
			2	1, 3	357	908	0.394	355	357	0.4	0.7	6.037	A
	Exit	1	1	(1, 2, 3)	540			539	542	0.0	0.2	0.441	A
			1		383			383	380	0.0	0.0	0.000	A
2	Entry	1	1	3	437	915	0.478	435	441	0.5	1.1	6.628	A
			2	1, 2, (3)	288	915	0.315	288	291	0.3	0.5	5.279	A
	Exit	1	1	(1, 2, 3)	726			726	735	0.0	0.0	0.000	A
			1		839			839	841	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	648	748	0.866	658	652	2.3	4.4	24.481	C
			2	(2), 3	284	748	0.379	284	288	0.4	0.6	7.520	A
	Exit	1	1	(1, 2, 3)	932			932	950	0.1	0.2	0.599	A
			1		982			982	992	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	Entry	1	1	2	182	901	0.202	183	183	0.2	0.2	5.045	A
			2	1, 3	364	901	0.404	365	364	0.7	0.6	6.285	A
	Exit	1	1	(1, 2, 3)	546			546	547	0.2	0.1	0.476	A
			1		386			386	388	0.0	0.0	0.000	A
2	Entry	1	1	3	432	911	0.475	437	442	1.1	0.6	6.834	A
			2	1, 2, (3)	284	911	0.312	284	288	0.5	0.5	5.304	A
	Exit	1	1	(1, 2, 3)	717			717	727	0.0	0.0	0.000	A
			1		857			857	853	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	652	748	0.871	659	654	4.4	5.0	29.246	D
			2	(2), 3	303	748	0.404	304	306	0.6	0.8	8.210	A
	Exit	1	1	(1, 2, 3)	959			954	963	0.2	0.6	1.892	A
			1		990			990	995	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	Entry	1	1	2	143	949	0.150	143	149	0.2	0.2	4.610	A
			2	1, 3	298	949	0.314	299	298	0.6	0.4	5.269	A
	Exit	1	1	(1, 2, 3)	441			441	446	0.1	0.0	0.145	A
			1		307			307	320	0.0	0.0	0.000	A
2	Entry	1	1	3	365	933	0.391	363	368	0.6	0.7	5.955	A
			2	1, 2, (3)	221	933	0.236	222	231	0.5	0.3	5.055	A
	Exit	1	1	(1, 2, 3)	585			585	599	0.0	0.0	0.000	A
			1		685			685	709	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	550	753	0.730	550	570	5.0	2.7	17.156	C
			2	(2), 3	218	753	0.290	220	228	0.8	0.4	6.680	A
	Exit	1	1	(1, 2, 3)	768			768	787	0.6	0.1	0.542	A
			1		805			805	815	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	121	983	0.123	120	127	0.2	0.2	4.273	A
			2	1, 3	248	983	0.252	246	251	0.4	0.4	4.875	A
	Exit	1	1	(1, 2, 3)	369			369	377	0.0	0.0	0.060	A
			1		263			263	270	0.0	0.0	0.000	A
2	Entry	1	1	3	300	951	0.316	299	306	0.7	0.4	5.236	A
			2	1, 2, (3)	196	951	0.206	196	194	0.3	0.2	4.536	A
	Exit	1	1	(1, 2, 3)	496			496	498	0.0	0.0	0.000	A
			1		572			572	588	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	485	756	0.641	480	492	2.7	1.6	11.704	B
			2	(2), 3	165	756	0.218	165	172	0.4	0.2	6.108	A
	Exit	1	1	(1, 2, 3)	650			650	659	0.1	0.0	0.039	A
			1		673			673	683	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	1147	983	0.129	127	124	0.0	0.2	4.364	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	250	62	1147	982	0.254	250	246	0.0	0.3	4.736	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	-	-	-	127	125	0.0	0.0	0.038	A
				3	250	62	-	-	-	250	247	0.0	0.0	0.077	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	308	77	1033	949	0.325	307	307	0.0	0.5	5.231	A
			2	1	66	17	1033	950	0.070	66	65	0.0	0.1	4.897	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	122	31	1033	949	0.129	122	120	0.0	0.1	4.310	A
		2	1	1	66	17	-	-	-	66	66	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	430	108	-	-	-	430	429	0.0	0.0	0.000	A
3	Entry	1	1	1	191	48	777	757	0.253	193	191	0.0	0.6	11.482	B
				2	282	70	777	757	0.372	283	285	0.0	0.9	10.232	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	170	43	777	757	0.225	171	172	0.0	0.3	5.732	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	191	48	-	-	-	191	194	0.0	0.0	0.001	A
				2	452	113	-	-	-	452	462	0.0	0.0	0.001	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	148	37	1147	949	0.156	148	151	0.2	0.2	4.441	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	282	71	1147	949	0.297	282	287	0.3	0.4	5.277	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	148	37	-	-	-	148	151	0.0	0.0	0.059	A
				3	282	71	-	-	-	282	287	0.0	0.0	0.126	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	350	87	1033	938	0.373	353	365	0.5	0.5	5.743	A
			2	1	77	19	1033	938	0.082	77	80	0.1	0.1	5.311	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	149	37	1033	939	0.159	149	150	0.1	0.2	4.460	A
		2	1	1	77	19	-	-	-	77	80	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	499	125	-	-	-	499	516	0.0	0.0	0.000	A
3	Entry	1	1	1	235	59	777	754	0.311	235	237	0.6	1.0	16.016	C
				2	328	82	777	754	0.435	327	328	0.9	1.3	14.472	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	218	55	777	754	0.289	217	225	0.3	0.4	6.358	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	235	59	-	-	-	235	239	0.0	0.0	0.074	A
				2	547	137	-	-	-	546	556	0.0	0.1	0.070	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	182	45	1147	908	0.200	183	184	0.2	0.2	5.142	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	357	89	1147	907	0.394	355	357	0.4	0.7	6.037	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	182	46	-	-	-	182	184	0.0	0.1	0.332	A
				3	358	89	-	-	-	357	358	0.0	0.1	0.496	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	437	109	1033	915	0.478	435	441	0.5	1.1	6.628	A
			2	1	98	24	1033	915	0.107	96	97	0.1	0.3	5.989	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	191	48	1033	915	0.208	192	194	0.2	0.3	4.930	A
		2	1	1	98	24	-	-	-	98	98	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	628	157	-	-	-	628	637	0.0	0.0	0.000	A
3	Entry	1	1	1	280	70	777	748	0.375	287	283	1.0	2.0	25.875	D
				2	368	92	777	748	0.492	371	370	1.3	2.4	23.424	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	284	71	777	748	0.380	284	288	0.4	0.6	7.520	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	280	70	-	-	-	280	287	0.0	0.0	0.608	A
				2	653	163	-	-	-	652	663	0.1	0.1	0.595	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	182	46	1147	900	0.202	183	183	0.2	0.2	5.045	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	364	91	1147	902	0.404	365	364	0.7	0.6	6.285	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	182	46	-	-	-	182	183	0.1	0.0	0.348	A
				3	364	91	-	-	-	364	364	0.1	0.0	0.539	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	432	108	1033	911	0.474	437	442	1.1	0.6	6.834	A
			2	1	97	24	1033	911	0.107	96	98	0.3	0.3	5.930	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	187	47	1033	912	0.205	188	190	0.3	0.2	4.988	A
		2	1	1	97	24	-	-	-	97	98	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	620	155	-	-	-	620	629	0.0	0.0	0.000	A
3	Entry	1	1	1	286	72	777	749	0.382	290	290	2.0	2.4	30.984	D
				2	366	91	777	748	0.489	370	364	2.4	2.6	27.875	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	303	76	777	748	0.404	304	306	0.6	0.8	8.210	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	287	72	-	-	-	286	291	0.0	0.2	2.054	A
				2	672	168	-	-	-	668	672	0.1	0.4	1.823	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	1147	948	0.151	143	149	0.2	0.2	4.610	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	298	74	1147	949	0.314	299	298	0.6	0.4	5.269	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	-	-	-	143	149	0.0	0.0	0.076	A
				3	298	75	-	-	-	298	297	0.0	0.0	0.179	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	365	91	1033	934	0.391	363	368	0.6	0.7	5.955	A
			2	1	78	20	1033	934	0.084	80	82	0.3	0.1	5.599	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	142	36	1033	935	0.152	143	149	0.2	0.2	4.767	A
		2	1	1	78	20	-	-	-	78	81	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	507	127	-	-	-	507	517	0.0	0.0	0.000	A
3	Entry	1	1	1	226	57	777	753	0.300	228	238	2.4	1.0	18.250	C
				2	324	81	777	754	0.430	323	332	2.6	1.6	16.389	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	218	55	777	754	0.290	220	228	0.8	0.4	6.680	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	226	57	-	-	-	226	232	0.2	0.0	0.686	A
				2	542	136	-	-	-	542	555	0.4	0.1	0.483	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	121	30	1147	981	0.123	120	127	0.2	0.2	4.273	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	248	62	1147	982	0.252	246	251	0.4	0.4	4.875	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	121	30	-	-	-	121	126	0.0	0.0	0.046	A
				3	248	62	-	-	-	248	251	0.0	0.0	0.067	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	300	75	1033	950	0.316	299	306	0.7	0.4	5.236	A
			2	1	69	17	1033	951	0.072	69	67	0.1	0.1	5.090	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	127	32	1033	951	0.134	127	126	0.2	0.1	4.250	A
		2	1	1	69	17	-	-	-	69	67	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	427	107	-	-	-	427	431	0.0	0.0	0.000	A
3	Entry	1	1	1	197	49	777	757	0.260	194	203	1.0	0.8	12.521	B
				2	288	72	777	756	0.381	286	289	1.6	0.8	11.137	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	165	41	777	756	0.218	165	172	0.4	0.2	6.108	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	197	49	-	-	-	197	201	0.0	0.0	0.057	A
				2	453	113	-	-	-	453	458	0.1	0.0	0.031	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Simulation	Arm 3	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	135.07	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	135.07	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2038	WD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	187	100.000
2		ONE HOUR	✓	569	100.000
3		ONE HOUR	✓	1035	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	55	132
	2	210	0	359
	3	406	629	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	6	5
	2	4	0	9
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.17	4.84	0.4	A	173	259
2	0.33	5.28	0.8	A	518	777
3	1.15	229.49	74.3	F	951	1426

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	147	37	474	1323	0.111	147	144	462	0.0	0.2	4.220	A
2	425	106	103	1920	0.221	423	426	518	0.0	0.7	4.723	A
3	782	195	158	1042	0.750	778	766	368	0.0	3.9	15.102	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	169	42	562	1293	0.131	168	173	560	0.2	0.3	4.556	A
2	499	125	117	1937	0.257	498	513	613	0.7	0.8	4.891	A
3	921	230	190	1030	0.895	932	921	424	3.9	8.1	31.328	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	206	51	626	1239	0.166	206	211	627	0.3	0.3	4.758	A
2	627	157	147	1917	0.327	630	640	685	0.8	0.8	5.256	A
3	1142	285	232	1025	1.114	1021	1014	544	8.1	41.4	94.730	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	200	50	618	1208	0.166	197	207	618	0.3	0.4	4.839	A
2	610	153	134	1959	0.312	613	632	681	0.8	0.8	5.275	A
3	1148	287	228	998	1.150	1008	1021	519	41.4	74.3	208.543	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	172	43	603	1258	0.137	173	175	580	0.4	0.2	4.655	A
2	521	130	124	1911	0.273	521	527	652	0.8	0.7	4.999	A
3	939	235	181	1025	0.916	1001	1018	464	74.3	54.6	229.488	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	143	36	541	1258	0.114	141	146	505	0.2	0.3	4.666	A
2	427	107	102	1950	0.219	427	439	580	0.7	0.6	4.682	A
3	772	193	154	1067	0.723	891	941	375	54.6	15.7	114.542	F

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	44	974	0.045	44	42	0.0	0.0	4.030	A
			2	1, 3	103	974	0.106	103	101	0.0	0.1	4.289	A
	Exit	2	1	(1, 2, 3)	147			147	145	0.0	0.0	0.008	A
			1		462			462	456	0.0	0.0	0.000	A
2	Entry	1	1	3	202	999	0.203	201	202	0.0	0.4	4.793	A
			2	1, 2, (3)	223	999	0.223	222	225	0.0	0.4	4.662	A
	Exit	2	1	(1, 2, 3)	425			425	429	0.0	0.0	0.000	A
			1		518			518	512	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	580	730	0.794	577	568	0.0	3.4	17.847	C
			2	(2), 3	200	730	0.274	201	198	0.0	0.3	6.492	A
	Exit	2	1	(1, 2, 3)	782			780	781	0.0	0.2	0.109	A
			1		368			368	368	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	Entry	1	1	2	51	942	0.054	51	52	0.0	0.1	4.287	A
			2	1, 3	118	942	0.125	117	121	0.1	0.3	4.634	A
	Exit	2	1	(1, 2, 3)	169			169	174	0.0	0.0	0.026	A
			1		560			560	554	0.0	0.0	0.000	A
2	Entry	1	1	3	236	994	0.238	236	244	0.4	0.4	4.981	A
			2	1, 2, (3)	262	994	0.264	262	268	0.4	0.4	4.811	A
	Exit	2	1	(1, 2, 3)	499			499	513	0.0	0.0	0.000	A
			1		613			613	609	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	665	721	0.922	670	661	3.4	6.5	34.874	D
			2	(2), 3	261	721	0.362	262	259	0.3	0.6	7.861	A
	Exit	2	1	(1, 2, 3)	921			926	934	0.2	1.1	3.856	A
			1		424			424	443	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	Entry	1	1	2	59	919	0.064	59	65	0.1	0.1	4.516	A
			2	1, 3	147	919	0.160	147	146	0.3	0.2	4.810	A
	Exit	1	1	(1, 2, 3)	206			206	210	0.0	0.0	0.037	A
			1		627			627	623	0.0	0.0	0.000	A
2	Entry	1	1	3	299	984	0.304	301	305	0.4	0.4	5.190	A
			2	1, 2, (3)	328	984	0.333	329	335	0.4	0.5	5.315	A
	Exit	1	1	(1, 2, 3)	627			627	641	0.0	0.0	0.000	A
			1		685			685	689	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	708	708	0.999	700	699	6.5	12.8	57.837	F
			2	(2), 3	321	708	0.453	321	316	0.6	1.1	10.983	B
	Exit	1	1	(1, 2, 3)	1142			1029	1042	1.1	27.4	50.249	F
			1		544			544	552	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	Entry	1	1	2	64	922	0.069	63	63	0.1	0.1	4.515	A
			2	1, 3	136	922	0.148	134	144	0.2	0.2	4.907	A
	Exit	1	1	(1, 2, 3)	200			200	207	0.0	0.0	0.050	A
			1		618			618	632	0.0	0.0	0.000	A
2	Entry	1	1	3	291	988	0.294	292	300	0.4	0.4	5.351	A
			2	1, 2, (3)	319	988	0.323	321	331	0.5	0.4	5.209	A
	Exit	1	1	(1, 2, 3)	610			610	631	0.0	0.0	0.000	A
			1		681			681	684	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	703	710	0.990	699	709	12.8	13.8	67.856	F
			2	(2), 3	311	710	0.439	309	311	1.1	1.4	12.645	B
	Exit	1	1	(1, 2, 3)	1148			1014	1026	27.4	59.1	157.526	F
			1		519			519	543	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	Entry	1	1	2	49	927	0.053	49	51	0.1	0.1	4.527	A
			2	1, 3	123	927	0.133	124	124	0.2	0.1	4.683	A
	Exit	1	1	(1, 2, 3)	172			172	174	0.0	0.0	0.017	A
			1		580			580	598	0.0	0.0	0.000	A
2	Entry	1	1	3	255	991	0.257	256	253	0.4	0.3	5.014	A
			2	1, 2, (3)	266	991	0.269	265	273	0.4	0.4	4.985	A
	Exit	1	1	(1, 2, 3)	521			521	526	0.0	0.0	0.000	A
			1		652			652	664	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	709	723	0.980	711	714	13.8	12.6	66.257	F
			2	(2), 3	295	723	0.408	291	304	1.4	1.1	11.696	B
	Exit	1	1	(1, 2, 3)	939			1004	1012	59.1	40.8	179.421	F
			1		464			464	457	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	41	950	0.043	39	43	0.1	0.1	4.473	A
			2	1, 3	103	950	0.108	102	103	0.1	0.2	4.683	A
	Exit	1	1	(1, 2, 3)	143			143	146	0.0	0.0	0.044	A
			1		505			505	534	0.0	0.0	0.000	A
2	Entry	1	1	3	206	999	0.206	207	210	0.3	0.2	4.609	A
			2	1, 2, (3)	221	999	0.221	220	229	0.4	0.4	4.747	A
	Exit	1	1	(1, 2, 3)	427			427	438	0.0	0.0	0.000	A
			1		580			580	611	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	617	731	0.843	645	675	12.6	6.0	50.612	F
			2	(2), 3	244	731	0.333	246	267	1.1	0.6	10.392	B
	Exit	1	1	(1, 2, 3)	772			861	913	40.8	9.0	78.907	F
			1		375			375	380	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	1147	974	0.045	44	42	0.0	0.0	4.030	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	103	26	1147	973	0.106	103	101	0.0	0.1	4.289	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	-	-	-	44	43	0.0	0.0	0.015	A
				3	103	26	-	-	-	103	102	0.0	0.0	0.005	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	202	51	1033	999	0.203	201	202	0.0	0.4	4.793	A
			2	1	158	39	1033	999	0.158	158	160	0.0	0.3	4.829	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	64	16	1033	999	0.065	64	65	0.0	0.1	4.224	A
		2	1	1	158	39	-	-	-	158	161	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	267	67	-	-	-	267	268	0.0	0.0	0.000	A
3	Entry	1	1	1	305	76	777	731	0.418	304	296	0.0	1.9	18.598	C
				2	274	69	777	731	0.375	273	272	0.0	1.5	17.027	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	200	50	777	731	0.274	201	198	0.0	0.3	6.492	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	306	77	-	-	-	305	304	0.0	0.1	0.131	A
				2	476	119	-	-	-	474	477	0.0	0.1	0.095	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				2	51	13	1147	943	0.054	51	52	0.0	0.1	4.287	A		
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				3	118	30	1147	942	0.125	117	121	0.1	0.3	4.634	A		
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				2	51	13	-	-	-	51	52	0.0	0.0	0.014	A		
				3	118	30	-	-	-	118	122	0.0	0.0	0.031	A		
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				3	236	59	1033	994	0.237	236	244	0.4	0.4	4.981	A		
			2	1	191	48	1033	994	0.192	190	190	0.3	0.3	5.079	A		
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				3	72	18	1033	994	0.072	71	78	0.1	0.1	4.128	A		
		2	1	2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				3	308	77	-	-	-	308	323	0.0	0.0	0.000	A		
3	Entry	1	1	1	367	92	777	721	0.508	370	364	1.9	3.8	35.650	E		
				2	298	75	777	720	0.414	300	298	1.5	2.7	33.922	D		
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
				2	261	65	777	720	0.362	262	259	0.3	0.6	7.861	A		
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		
		2	1	1	365	91	-	-	-	367	371	0.1	0.5	4.066	A		
				2	556	139	-	-	-	559	563	0.1	0.6	3.717	A		
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A		

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1147	918	0.064	59	65	0.1	0.1	4.516	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	147	37	1147	917	0.161	147	146	0.3	0.2	4.810	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	65	0.0	0.0	0.019	A
				3	147	37	-	-	-	147	146	0.0	0.0	0.046	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	299	75	1033	984	0.304	301	305	0.4	0.4	5.190	A
			2	1	233	58	1033	984	0.237	232	234	0.3	0.4	5.614	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	95	24	1033	983	0.097	96	101	0.1	0.1	4.582	A
		2	1	1	233	58	-	-	-	233	234	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	394	98	-	-	-	394	406	0.0	0.0	0.000	A
3	Entry	1	1	1	399	100	777	708	0.563	394	389	3.8	7.2	58.247	F
				2	309	77	777	708	0.436	305	309	2.7	5.7	57.323	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	321	80	777	709	0.453	321	316	0.6	1.1	10.983	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	452	113	-	-	-	399	403	0.5	11.3	51.108	F
				2	690	173	-	-	-	630	639	0.6	16.1	49.703	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	64	16	1147	922	0.069	63	63	0.1	0.1	4.515	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	136	34	1147	921	0.148	134	144	0.2	0.2	4.907	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	64	16	-	-	-	64	63	0.0	0.0	0.035	A
				3	136	34	-	-	-	136	144	0.0	0.0	0.056	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	291	73	1033	988	0.294	292	300	0.4	0.4	5.351	A
			2	1	227	57	1033	988	0.229	228	233	0.4	0.3	5.503	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	93	23	1033	987	0.094	93	98	0.1	0.1	4.476	A
		2	1	1	227	57	-	-	-	227	233	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	384	96	-	-	-	384	399	0.0	0.0	0.000	A
3	Entry	1	1	1	396	99	777	710	0.558	390	400	7.2	8.1	68.284	F
				2	307	77	777	709	0.432	310	310	5.7	5.7	67.299	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	311	78	777	709	0.439	309	311	1.1	1.4	12.645	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	452	113	-	-	-	396	403	11.3	23.3	158.740	F
				2	696	174	-	-	-	618	622	16.1	35.8	156.744	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	1147	926	0.053	49	51	0.1	0.1	4.527	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	123	31	1147	930	0.132	124	124	0.2	0.1	4.683	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	-	-	-	49	51	0.0	0.0	0.011	A
				3	123	31	-	-	-	123	123	0.0	0.0	0.020	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	255	64	1033	992	0.257	256	253	0.4	0.3	5.014	A
			2	1	182	46	1033	991	0.184	181	193	0.3	0.3	5.249	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	84	21	1033	991	0.085	84	80	0.1	0.1	4.317	A
		2	1	1	182	46	-	-	-	182	193	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	339	85	-	-	-	339	333	0.0	0.0	0.000	A
3	Entry	1	1	1	401	100	777	723	0.556	398	405	8.1	7.3	66.643	F
				2	307	77	777	723	0.425	312	309	5.7	5.3	65.753	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	295	74	777	723	0.408	291	304	1.4	1.1	11.696	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	374	94	-	-	-	401	401	23.3	16.5	181.355	F
				2	565	141	-	-	-	602	610	35.8	24.3	178.138	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	41	10	1147	945	0.043	39	43	0.1	0.1	4.473	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	103	26	1147	948	0.108	102	103	0.1	0.2	4.683	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	41	10	-	-	-	41	43	0.0	0.0	0.034	A
				3	103	26	-	-	-	103	103	0.0	0.0	0.049	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	206	51	1033	999	0.206	207	210	0.3	0.2	4.609	A
			2	1	156	39	1033	999	0.156	154	161	0.3	0.3	4.949	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	65	16	1033	999	0.066	66	68	0.1	0.1	4.245	A
		2	1	1	156	39	-	-	-	156	161	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	271	68	-	-	-	271	277	0.0	0.0	0.000	A
3	Entry	1	1	1	334	84	777	731	0.457	351	373	7.3	3.3	51.669	F
				2	282	71	777	731	0.386	294	302	5.3	2.8	49.314	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	244	61	777	731	0.334	246	267	1.1	0.6	10.392	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	307	77	-	-	-	334	357	16.5	3.9	79.411	F
				2	464	116	-	-	-	526	556	24.3	5.2	78.581	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	13.62	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.62	B

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2038	WD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	523	100.000
2		ONE HOUR	✓	702	100.000
3		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	169	354
	2	89	0	613
	3	262	584	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	2	0
	2	6	0	3
	3	2	3	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	6.50	1.0	A	481	721
2	0.45	6.60	1.6	A	641	962
3	0.84	23.86	6.1	C	774	1162

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	393	98	436	1356	0.290	393	388	268	0.0	0.4	4.701	A
2	524	131	264	1856	0.282	524	530	564	0.0	0.8	5.144	A
3	631	158	69	1138	0.555	634	632	718	0.0	1.5	9.665	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	470	118	522	1319	0.356	472	476	328	0.4	0.5	5.347	A
2	632	158	322	1770	0.357	633	634	671	0.8	1.0	5.585	A
3	762	190	83	1147	0.664	767	755	872	1.5	2.5	12.452	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	582	145	628	1278	0.455	583	578	388	0.5	0.9	6.104	A
2	787	197	396	1738	0.453	783	782	815	1.0	1.6	6.449	A
3	921	230	101	1121	0.821	915	922	1078	2.5	5.8	20.385	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	571	143	649	1231	0.463	572	588	387	0.9	1.0	6.505	A
2	763	191	384	1755	0.435	762	785	837	1.6	1.2	6.596	A
3	942	236	90	1118	0.843	946	945	1056	5.8	6.1	23.864	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	467	117	522	1300	0.359	466	470	325	1.0	0.8	5.466	A
2	627	157	317	1752	0.358	625	633	671	1.2	1.0	5.620	A
3	756	189	84	1168	0.648	762	778	858	6.1	2.7	14.651	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	402	101	441	1354	0.297	401	406	263	0.8	0.5	4.863	A
2	517	129	270	1835	0.281	513	532	572	1.0	0.9	5.168	A
3	634	159	66	1142	0.555	638	643	717	2.7	1.5	10.093	B

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	128	988	0.130	129	126	0.0	0.1	4.331	A
			2	1, 3	264	988	0.267	264	261	0.0	0.3	4.748	A
	Exit	2	1	(1, 2, 3)	393			392	389	0.0	0.0	0.085	A
			1		268			268	265	0.0	0.0	0.000	A
2	Entry	1	1	3	326	945	0.345	326	330	0.0	0.5	5.410	A
			2	1, 2, (3)	197	945	0.209	197	200	0.0	0.3	4.699	A
	Exit	2	1	(1, 2, 3)	524			524	533	0.0	0.0	0.000	A
			1		564			564	562	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	472	756	0.624	474	470	0.0	1.3	11.039	B
			2	(2), 3	159	756	0.210	160	162	0.0	0.2	5.654	A
	Exit	2	1	(1, 2, 3)	631			631	638	0.0	0.0	0.000	A
			1		718			718	723	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	Entry	1	1	2	149	957	0.156	149	154	0.1	0.2	4.494	A
			2	1, 3	321	957	0.336	322	322	0.3	0.3	5.448	A
	Exit	2	1	(1, 2, 3)	470			470	476	0.0	0.0	0.206	A
			1		328			328	314	0.0	0.0	0.000	A
2	Entry	1	1	3	385	925	0.416	385	389	0.5	0.7	6.033	A
			2	1, 2, (3)	247	925	0.267	247	245	0.3	0.3	4.863	A
	Exit	2	1	(1, 2, 3)	632			632	635	0.0	0.0	0.000	A
			1		671			671	677	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	559	752	0.743	561	548	1.3	2.1	14.610	B
			2	(2), 3	203	752	0.270	206	207	0.2	0.3	6.603	A
	Exit	2	1	(1, 2, 3)	762			762	759	0.0	0.0	0.022	A
			1		872			872	874	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	Entry	1	1	2	187	918	0.204	187	189	0.2	0.2	4.883	A
			2	1, 3	395	918	0.430	396	389	0.3	0.7	6.140	A
	Exit	1	1	(1, 2, 3)	582			582	579	0.0	0.1	0.364	A
			1		388			388	381	0.0	0.0	0.000	A
2	Entry	1	1	3	475	901	0.528	472	474	0.7	1.1	7.169	A
			2	1, 2, (3)	311	901	0.346	312	308	0.3	0.5	5.325	A
	Exit	1	1	(1, 2, 3)	787			787	784	0.0	0.0	0.001	A
			1		815			815	828	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	642	747	0.860	636	641	2.1	4.8	24.146	C
			2	(2), 3	281	747	0.376	279	281	0.3	0.7	7.856	A
	Exit	1	1	(1, 2, 3)	921			923	934	0.0	0.3	1.101	A
			1		1078			1078	1072	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	Entry	1	1	2	189	911	0.207	189	191	0.2	0.3	4.888	A
			2	1, 3	384	911	0.421	384	397	0.7	0.7	6.535	A
	Exit	1	1	(1, 2, 3)	571			572	589	0.1	0.0	0.505	A
			1		387			387	388	0.0	0.0	0.000	A
2	Entry	1	1	3	466	905	0.515	467	477	1.1	0.7	7.213	A
			2	1, 2, (3)	297	905	0.328	295	309	0.5	0.4	5.635	A
	Exit	1	1	(1, 2, 3)	763			763	784	0.0	0.0	0.000	A
			1		837			837	844	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	656	750	0.875	657	659	4.8	4.9	27.403	D
			2	(2), 3	288	750	0.384	289	286	0.7	0.7	7.651	A
	Exit	1	1	(1, 2, 3)	942			944	945	0.3	0.5	2.411	A
			1		1056			1056	1086	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	Entry	1	1	2	150	957	0.157	149	149	0.3	0.2	4.634	A
			2	1, 3	316	957	0.330	317	322	0.7	0.5	5.537	A
	Exit	1	1	(1, 2, 3)	467			466	469	0.0	0.0	0.210	A
			1		325			325	326	0.0	0.0	0.000	A
2	Entry	1	1	3	383	927	0.413	383	388	0.7	0.6	6.039	A
			2	1, 2, (3)	244	927	0.263	242	245	0.4	0.4	4.953	A
	Exit	1	1	(1, 2, 3)	627			627	633	0.0	0.0	0.000	A
			1		671			671	681	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	554	752	0.737	559	566	4.9	2.3	17.500	C
			2	(2), 3	202	752	0.269	203	211	0.7	0.4	6.622	A
	Exit	1	1	(1, 2, 3)	756			756	766	0.5	0.0	0.206	A
			1		858			858	874	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	131	986	0.133	131	133	0.2	0.1	4.246	A
			2	1, 3	271	986	0.275	270	273	0.5	0.3	4.968	A
	Exit	1	1	(1, 2, 3)	402			402	405	0.0	0.0	0.131	A
			1		263			263	265	0.0	0.0	0.000	A
2	Entry	1	1	3	324	943	0.343	322	330	0.6	0.6	5.559	A
			2	1, 2, (3)	193	943	0.205	192	202	0.4	0.3	4.524	A
	Exit	1	1	(1, 2, 3)	517			517	532	0.0	0.0	0.000	A
			1		572			572	579	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	471	757	0.622	473	477	2.3	1.3	11.535	B
			2	(2), 3	163	757	0.216	164	166	0.4	0.2	5.950	A
	Exit	1	1	(1, 2, 3)	634			634	639	0.0	0.0	0.001	A
			1		717			717	737	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	1147	987	0.130	129	126	0.0	0.1	4.331	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	264	66	1147	988	0.267	264	261	0.0	0.3	4.748	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	-	-	-	128	127	0.0	0.0	0.052	A
				3	264	66	-	-	-	264	263	0.0	0.0	0.101	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	326	82	1033	944	0.346	326	330	0.0	0.5	5.410	A
			2	1	69	17	1033	944	0.073	69	68	0.0	0.1	5.294	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	128	32	1033	945	0.136	128	132	0.0	0.2	4.397	A
		2	1	1	69	17	-	-	-	69	69	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	455	114	-	-	-	455	464	0.0	0.0	0.000	A
3	Entry	1	1	1	197	49	777	756	0.261	198	196	0.0	0.6	11.629	B
				2	275	69	777	756	0.363	276	273	0.0	0.7	10.611	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	159	40	777	756	0.210	160	162	0.0	0.2	5.654	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	197	49	-	-	-	197	199	0.0	0.0	0.000	A
				2	434	108	-	-	-	434	439	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	1147	957	0.156	149	154	0.1	0.2	4.494	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	321	80	1147	958	0.335	322	322	0.3	0.3	5.448	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	-	-	-	149	154	0.0	0.0	0.141	A
				3	321	80	-	-	-	321	322	0.0	0.0	0.237	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	385	96	1033	926	0.416	385	389	0.5	0.7	6.033	A
			2	1	83	21	1033	927	0.089	83	82	0.1	0.1	5.536	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	165	41	1033	926	0.178	164	163	0.2	0.3	4.537	A
		2	1	1	83	21	-	-	-	83	82	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	550	137	-	-	-	550	553	0.0	0.0	0.000	A
3	Entry	1	1	1	240	60	777	752	0.319	245	232	0.6	0.8	15.459	C
				2	318	80	777	752	0.423	316	316	0.7	1.4	13.982	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	203	51	777	752	0.270	206	207	0.2	0.3	6.603	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	240	60	-	-	-	240	233	0.0	0.0	0.038	A
				2	522	130	-	-	-	522	526	0.0	0.0	0.015	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	187	47	1147	917	0.204	187	189	0.2	0.2	4.883	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	395	99	1147	917	0.431	396	389	0.3	0.7	6.140	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	187	47	-	-	-	187	189	0.0	0.0	0.260	A
				3	395	99	-	-	-	395	391	0.0	0.1	0.414	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	475	119	1033	901	0.528	472	474	0.7	1.1	7.169	A
			2	1	101	25	1033	900	0.112	101	99	0.1	0.2	6.008	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	210	53	1033	901	0.234	210	209	0.3	0.3	5.011	A
		2	1	1	101	25	-	-	-	101	100	0.0	0.0	0.001	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	686	171	-	-	-	686	685	0.0	0.0	0.001	A
3	Entry	1	1	1	290	72	777	747	0.388	287	282	0.8	2.2	25.091	D
				2	352	88	777	747	0.472	349	359	1.4	2.6	23.392	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	281	70	777	747	0.376	279	281	0.3	0.7	7.856	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	289	72	-	-	-	290	288	0.0	0.1	1.177	A
				2	632	158	-	-	-	633	646	0.0	0.2	1.066	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	189	47	1147	911	0.207	189	191	0.2	0.3	4.888	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	384	96	1147	910	0.422	384	397	0.7	0.7	6.535	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	188	47	-	-	-	189	192	0.0	0.0	0.367	A
				3	382	96	-	-	-	384	397	0.1	0.0	0.571	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	466	116	1033	905	0.515	467	477	1.1	0.7	7.213	A
			2	1	90	23	1033	904	0.100	90	96	0.2	0.1	6.393	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	206	52	1033	904	0.228	205	213	0.3	0.3	5.305	A
		2	1	1	90	23	-	-	-	90	95	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	672	168	-	-	-	672	688	0.0	0.0	0.000	A
3	Entry	1	1	1	293	73	777	750	0.391	297	292	2.2	2.2	28.420	D
				2	363	91	777	750	0.484	360	367	2.6	2.7	26.585	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	288	72	777	750	0.384	289	286	0.7	0.7	7.651	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	293	73	-	-	-	293	292	0.1	0.1	2.688	A
				2	649	162	-	-	-	651	653	0.2	0.3	2.285	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	150	38	1147	956	0.157	149	149	0.3	0.2	4.634	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	316	79	1147	956	0.331	317	322	0.7	0.5	5.537	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	150	38	-	-	-	150	149	0.0	0.0	0.106	A
				3	316	79	-	-	-	316	321	0.0	0.0	0.257	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	383	96	1033	927	0.413	383	388	0.7	0.6	6.039	A
			2	1	84	21	1033	928	0.091	84	81	0.1	0.1	5.614	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	159	40	1033	927	0.172	158	165	0.3	0.2	4.636	A
		2	1	1	84	21	-	-	-	84	81	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	542	136	-	-	-	542	552	0.0	0.0	0.000	A
3	Entry	1	1	1	234	59	777	752	0.312	240	245	2.2	0.9	18.557	C
				2	320	80	777	752	0.425	318	321	2.7	1.5	16.690	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	202	51	777	752	0.269	203	211	0.7	0.4	6.622	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	234	59	-	-	-	234	240	0.1	0.0	0.255	A
				2	522	130	-	-	-	522	526	0.3	0.0	0.183	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	131	33	1147	987	0.133	131	133	0.2	0.1	4.246	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	271	68	1147	988	0.274	270	273	0.5	0.3	4.968	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	131	33	-	-	-	131	132	0.0	0.0	0.086	A
				3	271	68	-	-	-	271	273	0.0	0.0	0.153	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	324	81	1033	944	0.343	322	330	0.6	0.6	5.559	A
			2	1	67	17	1033	943	0.071	66	68	0.1	0.1	5.027	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	126	32	1033	942	0.134	125	134	0.2	0.2	4.276	A
		2	1	1	67	17	-	-	-	67	68	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	450	112	-	-	-	450	464	0.0	0.0	0.000	A
3	Entry	1	1	1	194	49	777	757	0.256	196	197	0.9	0.6	12.387	B
				2	277	69	777	757	0.366	277	280	1.5	0.7	10.928	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	163	41	777	757	0.215	164	166	0.4	0.2	5.950	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	194	49	-	-	-	194	196	0.0	0.0	0.003	A
				2	440	110	-	-	-	440	443	0.0	0.0	0.001	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | 2a WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	34.74	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.74	D

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028	2a WD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	145	100.000
2		ONE HOUR	✓	549	100.000
3		ONE HOUR	✓	917	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	66	79
	2	259	0	290
	3	262	655	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	9	5
	2	2	0	14
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.12	4.82	0.2	A	133	199
2	0.33	5.44	1.0	A	508	762
3	0.95	57.19	16.7	F	840	1260

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	104	26	492	1453	0.072	104	108	396	0.0	0.2	4.236	A
2	412	103	57	1940	0.213	412	412	539	0.0	0.5	4.690	A
3	684	171	202	1097	0.623	686	687	267	0.0	2.0	11.268	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	133	33	582	1393	0.095	133	138	469	0.2	0.1	4.567	A
2	508	127	72	1948	0.261	507	504	644	0.5	0.7	4.888	A
3	811	203	239	1134	0.715	812	816	339	2.0	3.7	15.809	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	160	40	710	1318	0.122	160	165	574	0.1	0.2	4.586	A
2	610	153	92	1887	0.323	611	608	778	0.7	0.9	5.436	A
3	1021	255	290	1101	0.927	994	977	413	3.7	13.4	35.720	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	163	41	707	1336	0.122	164	166	568	0.2	0.1	4.821	A
2	605	151	86	1858	0.326	604	611	786	0.9	1.0	5.302	A
3	1007	252	278	1064	0.946	997	1003	412	13.4	16.7	57.186	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	127	32	600	1414	0.090	126	135	481	0.1	0.1	4.507	A
2	488	122	67	1890	0.258	490	501	659	1.0	0.5	4.984	A
3	825	206	237	1088	0.759	844	876	320	16.7	4.5	32.379	D

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	110	27	497	1392	0.079	109	117	388	0.1	0.1	4.333	A
2	422	106	58	1904	0.222	423	422	548	0.5	0.4	4.720	A
3	691	173	196	1094	0.631	690	702	285	4.5	2.4	12.800	B

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	47	968	0.048	46	50	0.0	0.1	4.305	A
			2	1, 3	58	968	0.059	57	58	0.0	0.1	4.170	A
	Exit	2	1	(1, 2, 3)	104			104	108	0.0	0.0	0.004	A
			1		396			396	393	0.0	0.0	0.000	A
2	Entry	1	1	3	161	1014	0.159	160	164	0.0	0.2	4.510	A
			2	1, 2, (3)	252	1014	0.248	252	247	0.0	0.3	4.800	A
	Exit	2	1	(1, 2, 3)	412			412	414	0.0	0.0	0.000	A
			1		539			539	543	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	487	717	0.679	488	494	0.0	1.7	13.142	B
			2	(2), 3	197	717	0.275	198	193	0.0	0.3	6.412	A
	Exit	2	1	(1, 2, 3)	684			684	695	0.0	0.0	0.005	A
			1		267			267	271	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	Entry	1	1	2	61	935	0.065	62	63	0.1	0.1	4.617	A
			2	1, 3	71	935	0.076	72	75	0.1	0.1	4.506	A
	Exit	2	1	(1, 2, 3)	133			133	138	0.0	0.0	0.011	A
			1		469			469	473	0.0	0.0	0.000	A
2	Entry	1	1	3	207	1009	0.205	205	204	0.2	0.4	4.781	A
			2	1, 2, (3)	301	1009	0.298	301	300	0.3	0.3	4.956	A
	Exit	2	1	(1, 2, 3)	508			508	505	0.0	0.0	0.000	A
			1		644			644	647	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	567	707	0.803	567	572	1.7	3.2	19.256	C
			2	(2), 3	244	707	0.346	246	244	0.3	0.4	7.099	A
	Exit	2	1	(1, 2, 3)	811			811	823	0.0	0.0	0.157	A
			1		339			339	339	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	Entry	1	1	2	69	888	0.078	68	73	0.1	0.1	4.576	A
			2	1, 3	91	888	0.103	92	92	0.1	0.1	4.575	A
	Exit	1	1	(1, 2, 3)	160			160	165	0.0	0.0	0.010	A
			1		574			574	570	0.0	0.0	0.000	A
2	Entry	1	1	3	248	1002	0.247	247	247	0.4	0.4	5.229	A
			2	1, 2, (3)	363	1002	0.362	364	361	0.3	0.5	5.566	A
	Exit	1	1	(1, 2, 3)	610			610	609	0.0	0.0	0.000	A
			1		778			778	768	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	663	692	0.958	652	650	3.2	8.8	38.964	E
			2	(2), 3	340	692	0.491	342	328	0.4	1.1	10.448	B
	Exit	1	1	(1, 2, 3)	1021			1003	1002	0.0	3.6	5.832	A
			1		413			413	412	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	Entry	1	1	2	77	889	0.087	78	78	0.1	0.0	4.823	A
			2	1, 3	86	889	0.097	86	89	0.1	0.1	4.808	A
	Exit	1	1	(1, 2, 3)	163			163	166	0.0	0.0	0.006	A
			1		568			568	572	0.0	0.0	0.000	A
2	Entry	1	1	3	255	1004	0.254	254	253	0.4	0.4	5.065	A
			2	1, 2, (3)	351	1004	0.350	350	358	0.5	0.6	5.457	A
	Exit	1	1	(1, 2, 3)	605			605	612	0.0	0.0	0.000	A
			1		786			786	795	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	661	695	0.951	661	657	8.8	8.8	50.039	F
			2	(2), 3	338	695	0.486	336	345	1.1	1.1	12.042	B
	Exit	1	1	(1, 2, 3)	1007			998	1003	3.6	6.8	20.000	C
			1		412			412	414	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	Entry	1	1	2	59	928	0.064	59	62	0.0	0.1	4.245	A
			2	1, 3	67	928	0.073	67	73	0.1	0.1	4.694	A
	Exit	1	1	(1, 2, 3)	127			127	135	0.0	0.0	0.017	A
			1		481			481	495	0.0	0.0	0.000	A
2	Entry	1	1	3	192	1010	0.190	194	201	0.4	0.2	4.845	A
			2	1, 2, (3)	296	1010	0.293	296	300	0.6	0.3	5.069	A
	Exit	1	1	(1, 2, 3)	488			488	499	0.0	0.0	0.000	A
			1		659			659	682	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	586	707	0.829	589	609	8.8	3.7	30.557	D
			2	(2), 3	253	707	0.358	255	268	1.1	0.6	9.458	A
	Exit	1	1	(1, 2, 3)	825			840	854	6.8	0.3	9.340	A
			1		320			320	335	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	52	966	0.053	51	54	0.1	0.1	4.447	A
			2	1, 3	58	966	0.060	58	63	0.1	0.0	4.229	A
	Exit	1	1	(1, 2, 3)	110			110	117	0.0	0.0	0.006	A
			1		388			388	395	0.0	0.0	0.000	A
2	Entry	1	1	3	173	1013	0.171	174	172	0.2	0.2	4.817	A
			2	1, 2, (3)	249	1013	0.246	249	250	0.3	0.2	4.660	A
	Exit	1	1	(1, 2, 3)	422			422	422	0.0	0.0	0.000	A
			1		548			548	559	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	496	719	0.689	494	504	3.7	2.1	15.172	C
			2	(2), 3	195	719	0.271	196	198	0.6	0.3	6.656	A
	Exit	1	1	(1, 2, 3)	691			691	695	0.3	0.0	0.105	A
			1		285			285	287	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	1147	968	0.048	46	50	0.0	0.1	4.305	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	58	14	1147	967	0.060	57	58	0.0	0.1	4.170	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	-	-	-	47	50	0.0	0.0	0.000	A
				3	58	14	-	-	-	58	58	0.0	0.0	0.008	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	161	40	1033	1014	0.159	160	164	0.0	0.2	4.510	A
			2	1	202	50	1033	1014	0.199	202	199	0.0	0.3	4.880	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	50	13	1033	1014	0.050	50	49	0.0	0.1	4.430	A
		2	1	1	202	50	-	-	-	202	200	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	211	53	-	-	-	211	214	0.0	0.0	0.000	A
3	Entry	1	1	1	193	48	777	717	0.270	194	194	0.0	0.7	14.193	B
				2	294	73	777	717	0.409	294	300	0.0	1.0	12.459	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	197	49	777	717	0.275	198	193	0.0	0.3	6.412	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	193	48	-	-	-	193	197	0.0	0.0	0.003	A
				2	491	123	-	-	-	491	498	0.0	0.0	0.006	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	61	15	1147	935	0.065	62	63	0.1	0.1	4.617	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	71	18	1147	938	0.076	72	75	0.1	0.1	4.506	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	61	15	-	-	-	61	63	0.0	0.0	0.018	A
				3	71	18	-	-	-	71	75	0.0	0.0	0.006	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	207	52	1033	1009	0.205	205	204	0.2	0.4	4.781	A
			2	1	238	60	1033	1008	0.236	239	240	0.3	0.3	5.103	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	63	16	1033	1009	0.062	62	59	0.1	0.0	4.289	A
		2	1	1	238	60	-	-	-	238	240	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	269	67	-	-	-	269	264	0.0	0.0	0.000	A
3	Entry	1	1	1	232	58	777	707	0.329	230	232	0.7	1.5	20.340	C
				2	335	84	777	707	0.474	337	340	1.0	1.7	18.512	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	244	61	777	707	0.346	246	244	0.3	0.4	7.099	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	232	58	-	-	-	232	235	0.0	0.0	0.208	A
				2	579	145	-	-	-	579	587	0.0	0.0	0.136	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	1147	890	0.078	68	73	0.1	0.1	4.576	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	91	23	1147	888	0.103	92	92	0.1	0.1	4.575	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	73	0.0	0.0	0.007	A
				3	91	23	-	-	-	91	92	0.0	0.0	0.013	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	248	62	1033	1002	0.247	247	247	0.4	0.4	5.229	A
			2	1	288	72	1033	1002	0.288	290	288	0.3	0.4	5.772	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	75	19	1033	1002	0.074	75	72	0.0	0.1	4.647	A
		2	1	1	288	72	-	-	-	288	289	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	322	81	-	-	-	322	320	0.0	0.0	0.000	A
3	Entry	1	1	1	291	73	777	691	0.420	285	282	1.5	4.0	40.305	E
				2	372	93	777	692	0.538	368	368	1.7	4.7	37.933	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	340	85	777	692	0.491	342	328	0.4	1.1	10.448	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	295	74	-	-	-	291	292	0.0	1.0	6.085	A
				2	726	181	-	-	-	712	711	0.0	2.6	5.728	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	77	19	1147	891	0.087	78	78	0.1	0.0	4.823	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	86	21	1147	887	0.097	86	89	0.1	0.1	4.808	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	77	19	-	-	-	77	78	0.0	0.0	0.005	A
				3	86	21	-	-	-	86	89	0.0	0.0	0.007	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	255	64	1033	1004	0.254	254	253	0.4	0.4	5.065	A
			2	1	279	70	1033	1004	0.278	278	286	0.4	0.5	5.650	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	72	18	1033	1004	0.071	71	72	0.1	0.1	4.591	A
		2	1	1	279	70	-	-	-	279	286	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	327	82	-	-	-	327	325	0.0	0.0	0.000	A
3	Entry	1	1	1	287	72	777	695	0.413	290	286	4.0	3.8	51.057	F
				2	374	93	777	695	0.538	371	372	4.7	5.0	49.262	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	338	84	777	695	0.485	336	345	1.1	1.1	12.042	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	291	73	-	-	-	287	285	1.0	2.0	20.854	C
				2	717	179	-	-	-	711	718	2.6	4.9	19.661	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1147	932	0.064	59	62	0.0	0.1	4.245	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	67	17	1147	930	0.072	67	73	0.1	0.1	4.694	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	62	0.0	0.0	0.017	A
				3	67	17	-	-	-	67	73	0.0	0.0	0.017	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	192	48	1033	1010	0.190	194	201	0.4	0.2	4.845	A
			2	1	237	59	1033	1010	0.235	237	239	0.5	0.2	5.231	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	59	15	1033	1010	0.059	59	61	0.1	0.1	4.357	A
		2	1	1	237	59	-	-	-	237	238	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	251	63	-	-	-	251	261	0.0	0.0	0.000	A
3	Entry	1	1	1	243	61	777	707	0.344	244	256	3.8	1.6	31.756	D
				2	344	86	777	707	0.486	345	353	5.0	2.1	29.688	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	253	63	777	707	0.358	255	268	1.1	0.6	9.458	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	237	59	-	-	-	243	247	2.0	0.0	9.551	A
				2	588	147	-	-	-	597	606	4.9	0.3	9.255	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	1147	965	0.053	51	54	0.1	0.1	4.447	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	58	15	1147	967	0.060	58	63	0.1	0.0	4.229	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	-	-	-	52	54	0.0	0.0	0.001	A
				3	58	15	-	-	-	58	63	0.0	0.0	0.010	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	173	43	1033	1013	0.171	174	172	0.2	0.2	4.817	A
			2	1	196	49	1033	1013	0.193	196	198	0.2	0.2	4.763	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	53	13	1033	1014	0.053	53	52	0.1	0.0	4.221	A
		2	1	1	196	49	-	-	-	196	198	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	227	57	-	-	-	227	224	0.0	0.0	0.000	A
3	Entry	1	1	1	195	49	777	719	0.271	192	197	1.6	1.0	15.899	C
				2	301	75	777	719	0.418	302	307	2.1	1.1	14.706	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	195	49	777	719	0.271	196	198	0.6	0.3	6.656	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	195	49	-	-	-	195	195	0.0	0.0	0.101	A
				2	496	124	-	-	-	496	500	0.3	0.0	0.106	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2028 | 2a WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	6.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.80	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2028	2a WD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	465	100.000
2		ONE HOUR	✓	638	100.000
3		ONE HOUR	✓	483	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	176	289
	2	121	0	517
	3	178	305	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	3	0
	2	10	0	4
	3	4	3	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.35	5.05	1.2	A	426	638
2	0.39	6.02	1.4	A	580	870
3	0.52	9.46	1.1	A	450	676

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	337	84	231	1573	0.214	340	343	219	0.0	0.3	4.404	A
2	492	123	208	1852	0.265	493	489	363	0.0	0.7	4.937	A
3	358	89	92	1075	0.333	358	354	609	0.0	0.8	6.479	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	430	107	275	1588	0.271	427	426	259	0.3	0.5	4.436	A
2	553	138	274	1848	0.299	550	582	427	0.7	1.1	5.290	A
3	430	107	104	1122	0.383	430	437	720	0.8	1.0	7.629	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	495	124	357	1478	0.335	492	518	320	0.5	1.0	5.051	A
2	705	176	309	1800	0.392	703	706	539	1.1	1.1	5.636	A
3	547	137	126	1057	0.518	551	546	887	1.0	1.1	9.460	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	515	129	346	1466	0.351	508	529	354	1.0	1.2	4.994	A
2	691	173	320	1786	0.387	691	714	535	1.1	1.4	6.021	A
3	557	139	141	1088	0.512	559	541	869	1.1	1.0	9.039	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	425	106	278	1558	0.273	423	434	279	1.2	0.7	4.749	A
2	569	142	257	1869	0.305	569	577	444	1.4	0.8	5.247	A
3	439	110	118	1062	0.414	439	442	709	1.0	1.0	7.713	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	352	88	227	1556	0.226	350	371	231	0.7	0.5	4.364	A
2	472	118	216	1865	0.253	473	490	360	0.8	0.5	4.942	A
3	371	93	86	1086	0.342	373	378	603	1.0	0.7	7.038	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	128	1063	0.121	132	135	0.0	0.1	4.517	A
			2	1, 3	210	1063	0.197	208	209	0.0	0.2	4.250	A
	Exit	2	1	(1, 2, 3)	337			338	344	0.0	0.0	0.051	A
			1		219			219	222	0.0	0.0	0.000	A
2	Entry	1	1	3	287	963	0.298	288	286	0.0	0.5	5.082	A
			2	1, 2, (3)	205	963	0.213	205	203	0.0	0.2	4.731	A
	Exit	2	1	(1, 2, 3)	492			492	492	0.0	0.0	0.000	A
			1		363			363	360	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	284	750	0.378	283	279	0.0	0.8	6.938	A
			2	(2), 3	74	750	0.099	75	75	0.0	0.1	4.756	A
	Exit	2	1	(1, 2, 3)	358			358	357	0.0	0.0	0.000	A
			1		609			609	604	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	Entry	1	1	2	153	1047	0.146	152	159	0.1	0.2	4.024	A
			2	1, 3	276	1047	0.264	274	267	0.2	0.3	4.554	A
	Exit	2	1	(1, 2, 3)	430			430	427	0.0	0.0	0.076	A
			1		259			259	274	0.0	0.0	0.000	A
2	Entry	1	1	3	324	941	0.344	322	343	0.5	0.7	5.444	A
			2	1, 2, (3)	230	941	0.244	228	239	0.2	0.4	5.065	A
	Exit	2	1	(1, 2, 3)	553			553	583	0.0	0.0	0.000	A
			1		427			427	431	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	336	746	0.451	336	345	0.8	0.8	8.298	A
			2	(2), 3	94	746	0.126	93	91	0.1	0.1	5.123	A
	Exit	2	1	(1, 2, 3)	430			430	437	0.0	0.0	0.000	A
			1		720			720	740	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	Entry	1	1	2	181	1017	0.178	182	188	0.2	0.3	4.332	A
			2	1, 3	313	1017	0.307	309	330	0.3	0.6	5.152	A
	Exit	1	1	(1, 2, 3)	495			494	520	0.0	0.1	0.190	A
			1		320			320	328	0.0	0.0	0.000	A
2	Entry	1	1	3	408	930	0.438	407	406	0.7	0.6	5.954	A
			2	1, 2, (3)	297	930	0.320	296	300	0.4	0.4	5.192	A
	Exit	1	1	(1, 2, 3)	705			705	706	0.0	0.0	0.000	A
			1		539			539	539	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	415	740	0.561	422	420	0.8	0.7	10.502	B
			2	(2), 3	132	740	0.179	129	126	0.1	0.5	6.023	A
	Exit	1	1	(1, 2, 3)	547			547	547	0.0	0.0	0.000	A
			1		887			887	902	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	Entry	1	1	2	189	1021	0.186	188	196	0.3	0.4	4.360	A
			2	1, 3	325	1021	0.318	320	333	0.6	0.7	5.050	A
	Exit	1	1	(1, 2, 3)	515			515	530	0.1	0.1	0.194	A
			1		354			354	332	0.0	0.0	0.000	A
2	Entry	1	1	3	396	926	0.427	395	418	0.6	0.9	6.318	A
			2	1, 2, (3)	296	926	0.319	296	296	0.4	0.5	5.586	A
	Exit	1	1	(1, 2, 3)	691			691	716	0.0	0.0	0.000	A
			1		535			535	541	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	431	735	0.586	430	417	0.7	0.9	10.053	B
			2	(2), 3	127	735	0.173	128	124	0.5	0.1	5.576	A
	Exit	1	1	(1, 2, 3)	557			557	541	0.0	0.0	0.000	A
			1		869			869	912	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	Entry	1	1	2	167	1046	0.160	166	163	0.4	0.2	4.253	A
			2	1, 3	258	1046	0.247	257	271	0.7	0.5	4.721	A
	Exit	1	1	(1, 2, 3)	425			425	432	0.1	0.0	0.203	A
			1		279			279	280	0.0	0.0	0.000	A
2	Entry	1	1	3	328	947	0.346	329	335	0.9	0.5	5.435	A
			2	1, 2, (3)	241	947	0.254	241	242	0.5	0.4	4.980	A
	Exit	1	1	(1, 2, 3)	569			569	576	0.0	0.0	0.000	A
			1		444			444	440	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	345	742	0.464	345	346	0.9	0.8	8.446	A
			2	(2), 3	95	742	0.128	94	96	0.1	0.2	5.125	A
	Exit	1	1	(1, 2, 3)	439			439	442	0.0	0.0	0.000	A
			1		709			709	733	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	137	1064	0.129	134	139	0.2	0.4	4.098	A
			2	1, 3	215	1064	0.202	216	232	0.5	0.2	4.421	A
	Exit	1	1	(1, 2, 3)	352			352	370	0.0	0.0	0.062	A
			1		231			231	235	0.0	0.0	0.000	A
2	Entry	1	1	3	284	961	0.296	284	289	0.5	0.4	5.152	A
			2	1, 2, (3)	188	961	0.195	189	201	0.4	0.2	4.630	A
	Exit	1	1	(1, 2, 3)	472			472	489	0.0	0.0	0.000	A
			1		360			360	376	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	296	751	0.394	297	295	0.8	0.6	7.492	A
			2	(2), 3	75	751	0.100	76	83	0.2	0.1	5.420	A
	Exit	1	1	(1, 2, 3)	371			371	376	0.0	0.0	0.000	A
			1		603			603	628	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	1147	1066	0.120	132	135	0.0	0.1	4.517	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	210	52	1147	1063	0.197	208	209	0.0	0.2	4.250	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	128	32	-	-	-	128	135	0.0	0.0	0.075	A
				3	209	52	-	-	-	210	209	0.0	0.0	0.036	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	287	72	1033	964	0.298	288	286	0.0	0.5	5.082	A
			2	1	92	23	1033	965	0.096	92	94	0.0	0.1	5.286	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	112	28	1033	964	0.117	112	110	0.0	0.2	4.281	A
		2	1	1	92	23	-	-	-	92	94	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	399	100	-	-	-	399	398	0.0	0.0	0.000	A
3	Entry	1	1	1	127	32	777	749	0.170	127	129	0.0	0.4	7.264	A
				2	156	39	777	750	0.209	156	150	0.0	0.4	6.660	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	74	19	777	751	0.099	75	75	0.0	0.1	4.756	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	130	0.0	0.0	0.000	A
				2	231	58	-	-	-	231	227	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	1147	1047	0.146	152	159	0.1	0.2	4.024	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	276	69	1147	1047	0.264	274	267	0.2	0.3	4.554	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	-	-	-	153	159	0.0	0.0	0.035	A
				3	276	69	-	-	-	276	268	0.0	0.0	0.100	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	324	81	1033	941	0.344	322	343	0.5	0.7	5.444	A
			2	1	107	27	1033	941	0.113	104	109	0.1	0.3	5.609	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	123	31	1033	939	0.131	124	130	0.2	0.1	4.625	A
		2	1	1	107	27	-	-	-	107	110	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	446	112	-	-	-	446	473	0.0	0.0	0.000	A
3	Entry	1	1	1	155	39	777	746	0.208	154	164	0.4	0.5	8.959	A
				2	181	45	777	745	0.243	182	181	0.4	0.4	7.700	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	94	23	777	746	0.126	93	91	0.1	0.1	5.123	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	155	39	-	-	-	155	165	0.0	0.0	0.000	A
				2	275	69	-	-	-	275	272	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	181	45	1147	1017	0.178	182	188	0.2	0.3	4.332	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	313	78	1147	1017	0.308	309	330	0.3	0.6	5.152	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	181	45	-	-	-	181	189	0.0	0.0	0.103	A
				3	313	78	-	-	-	313	331	0.0	0.1	0.237	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	408	102	1033	929	0.439	407	406	0.7	0.6	5.954	A
			2	1	127	32	1033	928	0.137	126	133	0.3	0.2	5.877	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	170	42	1033	928	0.183	169	166	0.1	0.2	4.682	A
		2	1	1	127	32	-	-	-	127	133	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	577	144	-	-	-	577	573	0.0	0.0	0.000	A
3	Entry	1	1	1	191	48	777	739	0.259	193	195	0.5	0.5	10.947	B
				2	223	56	777	740	0.302	228	225	0.4	0.2	10.122	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	132	33	777	740	0.179	129	126	0.1	0.5	6.023	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	191	48	-	-	-	191	195	0.0	0.0	0.000	A
				2	356	89	-	-	-	356	352	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	189	47	1147	1024	0.185	188	196	0.3	0.4	4.360	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	325	81	1147	1021	0.318	320	333	0.6	0.7	5.050	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	189	47	-	-	-	189	197	0.0	0.0	0.122	A
				3	325	81	-	-	-	325	333	0.1	0.1	0.235	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	396	99	1033	927	0.427	395	418	0.6	0.9	6.318	A
			2	1	141	35	1033	924	0.153	141	135	0.2	0.3	6.219	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	154	39	1033	930	0.166	154	161	0.2	0.2	5.081	A
		2	1	1	141	35	-	-	-	141	136	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	550	137	-	-	-	550	580	0.0	0.0	0.000	A
3	Entry	1	1	1	213	53	777	735	0.290	212	196	0.5	0.5	10.508	B
				2	217	54	777	735	0.295	219	221	0.2	0.4	9.652	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	777	735	0.173	128	124	0.5	0.1	5.576	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	213	53	-	-	-	213	197	0.0	0.0	0.000	A
				2	344	86	-	-	-	344	344	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	167	42	1147	1046	0.160	166	163	0.4	0.2	4.253	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	258	65	1147	1047	0.247	257	271	0.7	0.5	4.721	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	167	42	-	-	-	167	163	0.0	0.0	0.211	A
				3	258	64	-	-	-	258	270	0.1	0.0	0.198	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	328	82	1033	946	0.347	329	335	0.9	0.5	5.435	A
			2	1	118	29	1033	948	0.124	118	115	0.3	0.2	5.491	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	123	31	1033	946	0.130	123	128	0.2	0.2	4.555	A
		2	1	1	118	29	-	-	-	118	114	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	452	113	-	-	-	452	462	0.0	0.0	0.000	A
3	Entry	1	1	1	163	41	777	742	0.219	162	165	0.5	0.5	9.131	A
				2	181	45	777	743	0.244	184	181	0.4	0.3	7.824	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	95	24	777	742	0.128	94	96	0.1	0.2	5.125	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	163	41	-	-	-	163	165	0.0	0.0	0.000	A
				2	277	69	-	-	-	277	277	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	137	34	1147	1063	0.129	134	139	0.2	0.4	4.098	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	215	54	1147	1065	0.202	216	232	0.5	0.2	4.421	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	137	34	-	-	-	137	140	0.0	0.0	0.032	A
				3	215	54	-	-	-	215	231	0.0	0.0	0.080	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	284	71	1033	961	0.296	284	289	0.5	0.4	5.152	A
			2	1	85	21	1033	961	0.088	86	94	0.2	0.1	5.115	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	103	26	1033	961	0.107	104	107	0.2	0.1	4.233	A
		2	1	1	85	21	-	-	-	85	94	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	387	97	-	-	-	387	395	0.0	0.0	0.000	A
3	Entry	1	1	1	144	36	777	750	0.192	145	141	0.5	0.3	7.899	A
				2	152	38	777	752	0.203	152	154	0.3	0.3	7.121	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	75	19	777	750	0.100	76	83	0.2	0.1	5.420	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	144	36	-	-	-	144	140	0.0	0.0	0.000	A
				2	228	57	-	-	-	228	236	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | 2a WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Simulation	Arm 3	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	118.62	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	118.62	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2038	2a WD Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	169	100.000
2		ONE HOUR	✓	560	100.000
3		ONE HOUR	✓	1038	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	From	1	0	52
		2	209	0
		3	408	630
			0	

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	5	6
	2	4	0	8
	3	0	0	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.15	4.79	0.3	A	156	234
2	0.33	5.18	0.9	A	517	776
3	1.12	196.36	69.9	F	954	1432

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	476	1357	0.097	131	128	469	0.0	0.2	4.260	A
2	434	109	91	1964	0.221	435	428	516	0.0	0.5	4.541	A
3	784	196	161	1098	0.714	784	766	365	0.0	3.7	15.675	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	152	38	561	1330	0.114	153	158	556	0.2	0.1	4.433	A
2	504	126	105	1979	0.255	506	515	608	0.5	0.6	4.811	A
3	938	235	193	1027	0.914	924	922	418	3.7	9.7	31.863	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	189	47	594	1275	0.148	188	192	626	0.1	0.3	4.680	A
2	612	153	132	1944	0.315	613	624	650	0.6	0.9	5.178	A
3	1156	289	230	1001	1.125	991	1001	515	9.7	45.7	102.481	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	183	46	617	1228	0.149	183	194	631	0.3	0.2	4.785	A
2	621	155	124	1868	0.333	622	620	676	0.9	0.8	5.115	A
3	1147	287	233	1045	1.097	1016	1021	514	45.7	69.9	195.656	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	152	38	614	1174	0.129	152	157	606	0.2	0.2	4.773	A
2	513	128	103	1975	0.260	515	513	664	0.8	0.6	4.849	A
3	923	231	197	1010	0.914	1023	1020	420	69.9	59.2	196.806	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	127	32	535	1301	0.098	128	133	510	0.2	0.2	4.553	A
2	417	104	89	1970	0.212	416	427	573	0.6	0.6	4.648	A
3	778	194	150	1043	0.746	895	953	356	59.2	17.8	120.205	F

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	39	974	0.040	40	40	0.0	0.0	4.052	A
			2	1, 3	92	974	0.094	91	89	0.0	0.1	4.345	A
	Exit	2	1	(1, 2, 3)	131			131	129	0.0	0.0	0.006	A
			1		469			469	457	0.0	0.0	0.000	A
2	Entry	1	1	3	210	1002	0.209	210	203	0.0	0.3	4.595	A
			2	1, 2, (3)	224	1002	0.224	225	224	0.0	0.2	4.494	A
	Exit	2	1	(1, 2, 3)	434			434	430	0.0	0.0	0.000	A
			1		516			516	508	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	585	729	0.802	583	572	0.0	3.3	18.430	C
			2	(2), 3	200	729	0.274	201	194	0.0	0.3	6.542	A
	Exit	2	1	(1, 2, 3)	784			785	781	0.0	0.1	0.206	A
			1		365			365	357	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	Entry	1	1	2	47	943	0.050	48	49	0.0	0.0	4.159	A
			2	1, 3	105	943	0.111	105	109	0.1	0.1	4.504	A
	Exit	2	1	(1, 2, 3)	152			152	158	0.0	0.0	0.037	A
			1		556			556	551	0.0	0.0	0.000	A
2	Entry	1	1	3	237	998	0.238	238	246	0.3	0.3	4.768	A
			2	1, 2, (3)	267	998	0.268	268	269	0.2	0.3	4.848	A
	Exit	2	1	(1, 2, 3)	504			504	515	0.0	0.0	0.001	A
			1		608			608	609	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	674	720	0.936	671	664	3.3	7.1	34.541	D
			2	(2), 3	254	720	0.352	253	258	0.3	0.6	8.347	A
	Exit	2	1	(1, 2, 3)	938			928	939	0.1	2.0	4.360	A
			1		418			418	435	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	Entry	1	1	2	56	930	0.061	56	56	0.0	0.1	4.427	A
			2	1, 3	133	930	0.143	132	136	0.1	0.2	4.736	A
	Exit	1	1	(1, 2, 3)	189			189	193	0.0	0.0	0.035	A
			1		626			626	629	0.0	0.0	0.000	A
2	Entry	1	1	3	289	989	0.293	289	294	0.3	0.4	5.179	A
			2	1, 2, (3)	323	989	0.327	323	330	0.3	0.5	5.177	A
	Exit	1	1	(1, 2, 3)	612			612	625	0.0	0.0	0.000	A
			1		650			650	662	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	698	709	0.985	689	695	7.1	13.5	59.926	F
			2	(2), 3	304	709	0.429	301	306	0.6	1.0	10.947	B
	Exit	1	1	(1, 2, 3)	1156			1002	1028	2.0	31.2	56.371	F
			1		515			515	526	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	Entry	1	1	2	59	922	0.064	59	61	0.1	0.1	4.557	A
			2	1, 3	124	922	0.134	124	133	0.2	0.1	4.843	A
	Exit	1	1	(1, 2, 3)	183			183	194	0.0	0.0	0.033	A
			1		631			631	631	0.0	0.0	0.000	A
2	Entry	1	1	3	294	991	0.296	293	293	0.4	0.4	5.053	A
			2	1, 2, (3)	327	991	0.330	329	327	0.5	0.4	5.169	A
	Exit	1	1	(1, 2, 3)	621			621	620	0.0	0.0	0.000	A
			1		676			676	684	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	710	708	1.002	708	707	13.5	13.9	69.642	F
			2	(2), 3	306	708	0.432	308	314	1.0	0.9	12.353	B
	Exit	1	1	(1, 2, 3)	1147			1016	1022	31.2	65.1	176.489	F
			1		514			514	521	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	Entry	1	1	2	49	923	0.053	49	47	0.1	0.1	4.501	A
			2	1, 3	103	923	0.111	103	109	0.1	0.1	4.839	A
	Exit	1	1	(1, 2, 3)	152			152	156	0.0	0.0	0.036	A
			1		606			606	601	0.0	0.0	0.000	A
2	Entry	1	1	3	238	998	0.239	239	240	0.4	0.3	4.842	A
			2	1, 2, (3)	275	998	0.276	276	273	0.4	0.3	4.854	A
	Exit	1	1	(1, 2, 3)	513			513	512	0.0	0.0	0.000	A
			1		664			664	661	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	709	719	0.986	719	716	13.9	12.3	67.065	F
			2	(2), 3	300	719	0.418	304	304	0.9	0.9	12.317	B
	Exit	1	1	(1, 2, 3)	923			1009	1014	65.1	46.1	199.798	F
			1		420			420	428	0.0	0.0	0.000	A

09:15 - 09:30

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	Entry	1	1	2	38	952	0.040	39	41	0.1	0.0	4.244	A
			2	1, 3	89	952	0.094	89	93	0.1	0.1	4.678	A
	Exit	1	1	(1, 2, 3)	127			127	133	0.0	0.0	0.009	A
			1		510			510	537	0.0	0.0	0.000	A
2	Entry	1	1	3	200	1003	0.199	200	202	0.3	0.2	4.696	A
			2	1, 2, (3)	217	1003	0.217	216	225	0.3	0.4	4.607	A
	Exit	1	1	(1, 2, 3)	417			417	427	0.0	0.0	0.000	A
			1		573			573	617	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	631	733	0.861	653	683	12.3	6.7	50.943	F
			2	(2), 3	240	733	0.328	241	271	0.9	0.6	9.940	A
	Exit	1	1	(1, 2, 3)	778			871	930	46.1	10.6	84.080	F
			1		356			356	360	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	39	10	1147	973	0.040	40	40	0.0	0.0	4.052	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	92	23	1147	974	0.094	91	89	0.0	0.1	4.345	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	39	10	-	-	-	39	40	0.0	0.0	0.000	A
				3	92	23	-	-	-	92	89	0.0	0.0	0.008	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	210	52	1033	1003	0.209	210	203	0.0	0.3	4.595	A
			2	1	161	40	1033	1003	0.160	161	159	0.0	0.2	4.731	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	64	16	1033	1003	0.063	63	65	0.0	0.0	3.892	A
		2	1	1	161	40	-	-	-	161	160	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	274	68	-	-	-	274	270	0.0	0.0	0.000	A
3	Entry	1	1	1	310	77	777	729	0.425	308	298	0.0	1.9	19.457	C
				2	275	69	777	729	0.378	276	274	0.0	1.4	17.307	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	200	50	777	729	0.274	201	194	0.0	0.3	6.542	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	309	77	-	-	-	310	305	0.0	0.0	0.221	A
				2	475	119	-	-	-	475	475	0.0	0.1	0.195	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	1147	944	0.050	48	49	0.0	0.0	4.159	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	1147	944	0.111	105	109	0.1	0.1	4.504	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	-	-	-	47	49	0.0	0.0	0.014	A
				3	105	26	-	-	-	105	109	0.0	0.0	0.048	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	237	59	1033	998	0.238	238	246	0.3	0.3	4.768	A
			2	1	192	48	1033	998	0.192	193	189	0.2	0.2	5.095	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	75	19	1033	998	0.075	75	80	0.0	0.1	4.240	A
		2	1	1	192	48	-	-	-	192	189	0.0	0.0	0.002	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	312	78	-	-	-	312	326	0.0	0.0	0.000	A
3	Entry	1	1	1	365	91	777	720	0.507	364	362	1.9	4.1	35.529	E
				2	309	77	777	720	0.429	307	302	1.4	3.0	33.354	D
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	254	63	777	720	0.352	253	258	0.3	0.6	8.347	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	369	92	-	-	-	365	371	0.0	0.8	4.404	A
				2	569	142	-	-	-	562	568	0.1	1.2	4.332	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	56	14	1147	930	0.061	56	56	0.0	0.1	4.427	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	133	33	1147	929	0.143	132	136	0.1	0.2	4.736	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	56	14	-	-	-	56	56	0.0	0.0	0.020	A
				3	133	33	-	-	-	133	137	0.0	0.0	0.041	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	289	72	1033	989	0.293	289	294	0.3	0.4	5.179	A
			2	1	230	57	1033	988	0.233	230	235	0.2	0.4	5.468	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	93	23	1033	988	0.094	94	96	0.1	0.1	4.432	A
		2	1	1	230	57	-	-	-	230	235	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	382	96	-	-	-	382	390	0.0	0.0	0.000	A
3	Entry	1	1	1	402	100	777	709	0.566	396	395	4.1	7.7	60.302	F
				2	297	74	777	710	0.418	293	301	3.0	5.9	59.432	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	304	76	777	710	0.428	301	306	0.6	1.0	10.947	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	453	113	-	-	-	402	409	0.8	11.9	56.157	F
				2	703	176	-	-	-	601	619	1.2	19.4	56.511	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1147	921	0.065	59	61	0.1	0.1	4.557	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	124	31	1147	922	0.134	124	133	0.2	0.1	4.843	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	61	0.0	0.0	0.021	A
				3	124	31	-	-	-	124	133	0.0	0.0	0.038	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	294	73	1033	992	0.296	293	293	0.4	0.4	5.053	A
			2	1	232	58	1033	991	0.234	233	233	0.4	0.3	5.448	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	95	24	1033	991	0.096	96	94	0.1	0.1	4.455	A
		2	1	1	232	58	-	-	-	232	233	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	389	97	-	-	-	389	388	0.0	0.0	0.000	A
3	Entry	1	1	1	399	100	777	709	0.563	398	398	7.7	7.7	69.552	F
				2	311	78	777	708	0.439	309	309	5.9	6.1	69.757	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	306	76	777	708	0.432	308	314	1.0	0.9	12.353	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	454	114	-	-	-	399	398	11.9	26.0	177.554	F
				2	692	173	-	-	-	617	624	19.4	39.1	175.799	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	1147	922	0.053	49	47	0.1	0.1	4.501	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	103	26	1147	922	0.111	103	109	0.1	0.1	4.839	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	-	-	-	49	47	0.0	0.0	0.033	A
				3	103	26	-	-	-	103	109	0.0	0.0	0.038	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	238	60	1033	999	0.239	239	240	0.4	0.3	4.842	A
			2	1	196	49	1033	999	0.197	197	194	0.3	0.2	5.098	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	79	20	1033	999	0.079	79	79	0.1	0.1	4.236	A
		2	1	1	196	49	-	-	-	196	194	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	317	79	-	-	-	317	319	0.0	0.0	0.000	A
3	Entry	1	1	1	404	101	777	719	0.562	409	407	7.7	7.0	67.366	F
				2	305	76	777	719	0.424	311	309	6.1	5.3	66.668	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	300	75	777	719	0.417	304	304	0.9	0.9	12.317	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	365	91	-	-	-	404	404	26.0	18.2	201.039	F
				2	558	140	-	-	-	605	610	39.1	27.9	198.980	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	1147	949	0.040	39	41	0.1	0.0	4.244	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	89	22	1147	951	0.094	89	93	0.1	0.1	4.678	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	-	-	-	38	40	0.0	0.0	0.000	A
				3	89	22	-	-	-	89	93	0.0	0.0	0.012	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	200	50	1033	1003	0.199	200	202	0.3	0.2	4.696	A
			2	1	150	37	1033	1003	0.149	150	160	0.2	0.2	4.843	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	67	17	1033	1004	0.067	66	65	0.1	0.2	4.004	A
		2	1	1	150	37	-	-	-	150	160	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	267	67	-	-	-	267	267	0.0	0.0	0.000	A
3	Entry	1	1	1	349	87	777	732	0.476	360	377	7.0	3.8	51.974	F
				2	282	70	777	732	0.385	293	306	5.3	2.9	49.674	E
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	240	60	777	732	0.328	241	271	0.9	0.6	9.940	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	309	77	-	-	-	349	364	18.2	4.2	84.378	F
				2	469	117	-	-	-	522	565	27.9	6.4	83.885	F
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2038 | 2a WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	11.70	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.70	B

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2038	2a WD Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	513	100.000
2		ONE HOUR	✓	691	100.000
3		ONE HOUR	✓	791	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1	2	3
	1	0	163	350
	2	95	0	596
	3	255	536	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1	2	3
	1	0	2	0
	2	6	0	3
	3	3	3	0

Cyclist %

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.44	6.34	1.0	A	466	699
2	0.43	6.43	1.4	A	633	949
3	0.79	19.71	4.7	C	727	1091

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	386	96	405	1352	0.285	385	389	259	0.0	0.6	4.688	A
2	533	133	261	1842	0.289	533	519	530	0.0	0.7	4.990	A
3	594	149	70	1134	0.524	595	596	725	0.0	1.6	9.156	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	456	114	467	1350	0.338	454	468	314	0.6	0.7	5.233	A
2	610	152	311	1816	0.336	613	624	610	0.7	0.8	5.555	A
3	705	176	82	1180	0.597	699	711	842	1.6	2.5	11.967	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	557	139	600	1273	0.438	558	573	377	0.7	0.9	6.205	A
2	765	191	381	1761	0.435	766	763	778	0.8	1.3	6.140	A
3	877	219	106	1111	0.790	872	871	1042	2.5	4.4	18.708	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
2	763	191	387	1760	0.433	764	769	766	1.3	1.4	6.429	A
3	872	218	107	1150	0.758	872	882	1044	4.4	4.7	19.713	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	453	113	490	1350	0.335	454	464	309	1.0	0.7	5.271	A
2	619	155	309	1807	0.342	619	629	635	1.4	1.0	5.632	A
3	716	179	84	1116	0.641	714	730	843	4.7	2.1	12.938	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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	383	96	403	1363	0.281	383	394	269	0.7	0.5	4.664	A
2	508	127	264	1842	0.276	510	519	521	1.0	0.8	4.993	A
3	600	150	69	1111	0.540	602	609	704	2.1	1.4	9.511	A

Lane Results

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

Lanes: Main Results for each time segment

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	Entry	1	1	2	125	999	0.125	124	124	0.0	0.2	4.112	A
			2	1, 3	261	999	0.261	261	265	0.0	0.3	4.840	A
	Exit	2	1	(1, 2, 3)	386			385	391	0.0	0.0	0.077	A
			1		259			259	262	0.0	0.0	0.000	A
2	Entry	1	1	3	330	946	0.349	330	318	0.0	0.5	5.245	A
			2	1, 2, (3)	203	946	0.214	203	200	0.0	0.2	4.579	A
	Exit	2	1	(1, 2, 3)	533			533	521	0.0	0.0	0.000	A
			1		530			530	531	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	451	756	0.597	452	450	0.0	1.3	10.247	B
			2	(2), 3	143	756	0.189	142	146	0.0	0.3	5.803	A
	Exit	2	1	(1, 2, 3)	594			594	602	0.0	0.0	0.000	A
			1		725			725	711	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	Entry	1	1	2	143	977	0.147	143	149	0.2	0.2	4.492	A
			2	1, 3	313	977	0.320	311	319	0.3	0.5	5.267	A
	Exit	2	1	(1, 2, 3)	456			456	469	0.0	0.0	0.208	A
			1		314			314	319	0.0	0.0	0.000	A
2	Entry	1	1	3	375	929	0.404	378	377	0.5	0.5	5.975	A
			2	1, 2, (3)	234	929	0.252	236	247	0.2	0.3	4.906	A
	Exit	2	1	(1, 2, 3)	610			610	624	0.0	0.0	0.000	A
			1		610			610	629	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	520	752	0.691	516	521	1.3	2.1	14.079	B
			2	(2), 3	185	752	0.246	183	191	0.3	0.4	6.008	A
	Exit	2	1	(1, 2, 3)	705			705	715	0.0	0.0	0.041	A
			1		842			842	855	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	Entry	1	1	2	176	928	0.190	177	181	0.2	0.2	4.921	A
			2	1, 3	381	928	0.411	381	392	0.5	0.6	6.156	A
	Exit	1	1	(1, 2, 3)	557			557	573	0.0	0.1	0.433	A
			1		377			377	385	0.0	0.0	0.000	A
2	Entry	1	1	3	463	906	0.511	463	460	0.5	0.9	6.659	A
			2	1, 2, (3)	302	906	0.334	303	303	0.3	0.5	5.349	A
	Exit	1	1	(1, 2, 3)	765			765	765	0.0	0.0	0.000	A
			1		778			778	773	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	626	746	0.839	621	620	2.1	3.9	22.379	C
			2	(2), 3	251	746	0.336	251	251	0.4	0.4	7.230	A
	Exit	1	1	(1, 2, 3)	877			876	878	0.0	0.1	0.639	A
			1		1042			1042	1049	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	Entry	1	1	2	176	932	0.189	177	178	0.2	0.2	4.879	A
			2	1, 3	386	932	0.414	387	390	0.6	0.7	6.251	A
	Exit	1	1	(1, 2, 3)	563			563	568	0.1	0.1	0.512	A
			1		390			390	389	0.0	0.0	0.000	A
2	Entry	1	1	3	455	904	0.503	455	461	0.9	1.0	7.088	A
			2	1, 2, (3)	308	904	0.340	309	308	0.5	0.4	5.432	A
	Exit	1	1	(1, 2, 3)	763			763	769	0.0	0.0	0.000	A
			1		766			766	777	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	622	745	0.835	622	626	3.9	4.1	23.679	C
			2	(2), 3	249	745	0.334	250	257	0.4	0.5	7.412	A
	Exit	1	1	(1, 2, 3)	872			871	883	0.1	0.1	0.778	A
			1		1044			1044	1054	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	Entry	1	1	2	145	969	0.149	146	150	0.2	0.2	4.442	A
			2	1, 3	308	969	0.318	309	315	0.7	0.5	5.391	A
	Exit	1	1	(1, 2, 3)	453			453	463	0.1	0.0	0.186	A
			1		309			309	320	0.0	0.0	0.000	A
2	Entry	1	1	3	377	930	0.406	377	384	1.0	0.7	6.049	A
			2	1, 2, (3)	241	930	0.259	242	246	0.4	0.4	4.979	A
	Exit	1	1	(1, 2, 3)	619			619	628	0.0	0.0	0.000	A
			1		635			635	645	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	525	752	0.698	524	536	4.1	1.7	15.083	C
			2	(2), 3	191	752	0.254	190	193	0.5	0.4	6.243	A
	Exit	1	1	(1, 2, 3)	716			716	720	0.1	0.0	0.253	A
			1		843			843	858	0.0	0.0	0.000	A

18:15 - 18:30

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	Entry	1	1	2	119	1000	0.119	119	125	0.2	0.1	4.128	A
			2	1, 3	264	1000	0.264	264	268	0.5	0.4	4.783	A
	Exit	1	1	(1, 2, 3)	383			383	393	0.0	0.0	0.087	A
			1		269			269	271	0.0	0.0	0.000	A
2	Entry	1	1	3	316	945	0.334	318	320	0.7	0.4	5.249	A
			2	1, 2, (3)	193	945	0.204	192	199	0.4	0.3	4.579	A
	Exit	1	1	(1, 2, 3)	508			508	517	0.0	0.0	0.000	A
			1		521			521	535	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	451	756	0.596	454	455	1.7	1.1	10.816	B
			2	(2), 3	150	756	0.198	148	153	0.4	0.3	5.620	A
	Exit	1	1	(1, 2, 3)	600			600	606	0.0	0.0	0.001	A
			1		704			704	714	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment
17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	1147	1000	0.125	124	124	0.0	0.2	4.112	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	261	65	1147	999	0.261	261	265	0.0	0.3	4.840	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	-	-	-	125	125	0.0	0.0	0.039	A
				3	261	65	-	-	-	261	267	0.0	0.0	0.094	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	83	1033	946	0.349	330	318	0.0	0.5	5.245	A
			2	1	69	17	1033	946	0.073	70	73	0.0	0.1	5.032	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	133	33	1033	946	0.141	134	127	0.0	0.1	4.326	A
		2	1	1	69	17	-	-	-	69	74	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	463	116	-	-	-	463	448	0.0	0.0	0.000	A
3	Entry	1	1	1	188	47	777	756	0.249	189	189	0.0	0.6	10.937	B
				2	263	66	777	757	0.348	263	261	0.0	0.7	9.746	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	777	756	0.189	142	146	0.0	0.3	5.803	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	188	47	-	-	-	188	191	0.0	0.0	0.000	A
				2	406	102	-	-	-	406	411	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	1147	977	0.147	143	149	0.2	0.2	4.492	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	313	78	1147	977	0.320	311	319	0.3	0.5	5.267	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	143	36	-	-	-	143	149	0.0	0.0	0.164	A
				3	313	78	-	-	-	313	320	0.0	0.0	0.229	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	375	94	1033	929	0.404	378	377	0.5	0.5	5.975	A
			2	1	83	21	1033	929	0.089	82	88	0.1	0.1	5.420	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	152	38	1033	929	0.163	153	159	0.1	0.2	4.629	A
		2	1	1	83	21	-	-	-	83	88	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	527	132	-	-	-	527	536	0.0	0.0	0.000	A
3	Entry	1	1	1	233	58	777	752	0.309	231	231	0.6	1.0	14.841	B
				2	287	72	777	752	0.382	284	289	0.7	1.1	13.467	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	185	46	777	752	0.246	183	191	0.3	0.4	6.008	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	233	58	-	-	-	233	233	0.0	0.0	0.040	A
				2	472	118	-	-	-	472	482	0.0	0.0	0.041	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	176	44	1147	929	0.189	177	181	0.2	0.2	4.921	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	381	95	1147	928	0.411	381	392	0.5	0.6	6.156	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	176	44	-	-	-	176	181	0.0	0.0	0.332	A
				3	381	95	-	-	-	381	392	0.0	0.0	0.479	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	463	116	1033	906	0.511	463	460	0.5	0.9	6.659	A
			2	1	104	26	1033	906	0.115	106	106	0.1	0.1	5.864	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	198	49	1033	905	0.219	197	197	0.2	0.3	5.079	A
		2	1	1	104	26	-	-	-	104	106	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	661	165	-	-	-	661	659	0.0	0.0	0.000	A
3	Entry	1	1	1	273	68	777	745	0.366	272	279	1.0	1.8	23.563	C
				2	353	88	777	746	0.473	349	341	1.1	2.1	21.408	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	251	63	777	745	0.336	251	251	0.4	0.4	7.230	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	273	68	-	-	-	273	282	0.0	0.0	0.677	A
				2	604	151	-	-	-	603	596	0.0	0.1	0.621	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	176	44	1147	932	0.189	177	178	0.2	0.2	4.879	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	386	97	1147	932	0.414	387	390	0.6	0.7	6.251	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	176	44	-	-	-	176	178	0.0	0.0	0.411	A
				3	387	97	-	-	-	386	390	0.0	0.1	0.557	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	455	114	1033	904	0.503	455	461	0.9	1.0	7.088	A
			2	1	107	27	1033	904	0.118	107	105	0.1	0.1	6.120	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	201	50	1033	904	0.222	202	203	0.3	0.3	5.087	A
		2	1	1	107	27	-	-	-	107	105	0.0	0.0	0.001	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	656	164	-	-	-	656	664	0.0	0.0	0.000	A
3	Entry	1	1	1	282	71	777	745	0.379	283	284	1.8	1.9	24.954	C
				2	340	85	777	745	0.456	339	342	2.1	2.2	22.622	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	249	62	777	745	0.334	250	257	0.4	0.5	7.412	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	283	71	-	-	-	282	284	0.0	0.1	0.916	A
				2	590	147	-	-	-	589	599	0.1	0.1	0.713	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	145	36	1147	968	0.149	146	150	0.2	0.2	4.442	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	308	77	1147	968	0.319	309	315	0.7	0.5	5.391	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	144	36	-	-	-	145	150	0.0	0.0	0.098	A
				3	308	77	-	-	-	308	314	0.1	0.0	0.227	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	377	94	1033	930	0.406	377	384	1.0	0.7	6.049	A
			2	1	84	21	1033	929	0.091	84	85	0.1	0.2	5.468	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	157	39	1033	931	0.168	157	160	0.3	0.2	4.722	A
		2	1	1	84	21	-	-	-	84	86	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	534	134	-	-	-	534	542	0.0	0.0	0.000	A
3	Entry	1	1	1	226	56	777	752	0.300	224	235	1.9	0.8	15.984	C
				2	299	75	777	752	0.397	300	302	2.2	0.9	14.380	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	191	48	777	752	0.254	190	193	0.5	0.4	6.243	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	226	56	-	-	-	226	230	0.1	0.0	0.296	A
				2	490	122	-	-	-	490	489	0.1	0.0	0.232	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	119	30	1147	1000	0.119	119	125	0.2	0.1	4.128	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	264	66	1147	1001	0.264	264	268	0.5	0.4	4.783	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	119	30	-	-	-	119	125	0.0	0.0	0.057	A
				3	264	66	-	-	-	264	268	0.0	0.0	0.101	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	316	79	1033	944	0.334	318	320	0.7	0.4	5.249	A
			2	1	70	17	1033	945	0.074	69	73	0.2	0.1	5.022	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	123	31	1033	945	0.130	123	126	0.2	0.2	4.334	A
		2	1	1	70	17	-	-	-	70	73	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	439	110	-	-	-	439	445	0.0	0.0	0.000	A
3	Entry	1	1	1	199	50	777	756	0.263	200	199	0.8	0.5	11.649	B
				2	252	63	777	756	0.333	254	257	0.9	0.6	10.177	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	150	37	777	756	0.198	148	153	0.4	0.3	5.620	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	199	50	-	-	-	199	197	0.0	0.0	0.001	A
				2	402	100	-	-	-	402	408	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A



APPENDIX 52: Junction 10: A453/Walton Hill Signal Junction Stage 1A/2A Modelling Results

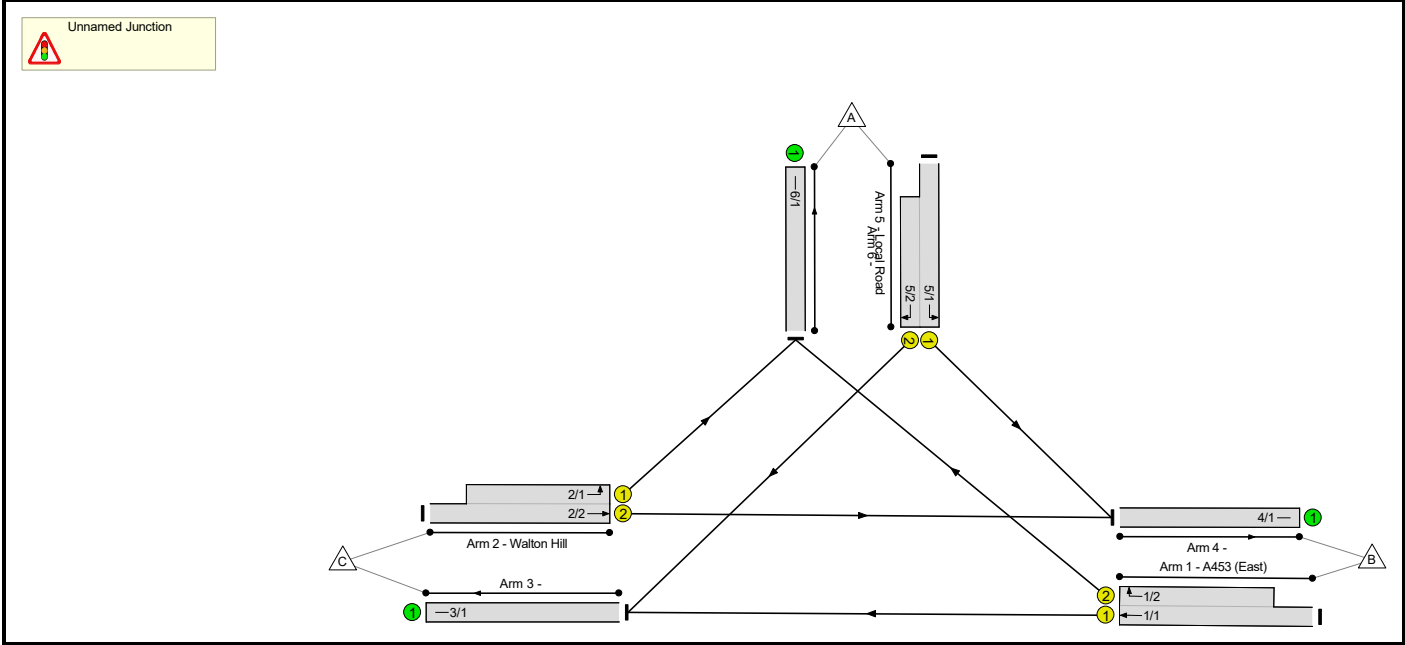
Full Input Data And Results

Full Input Data And Results

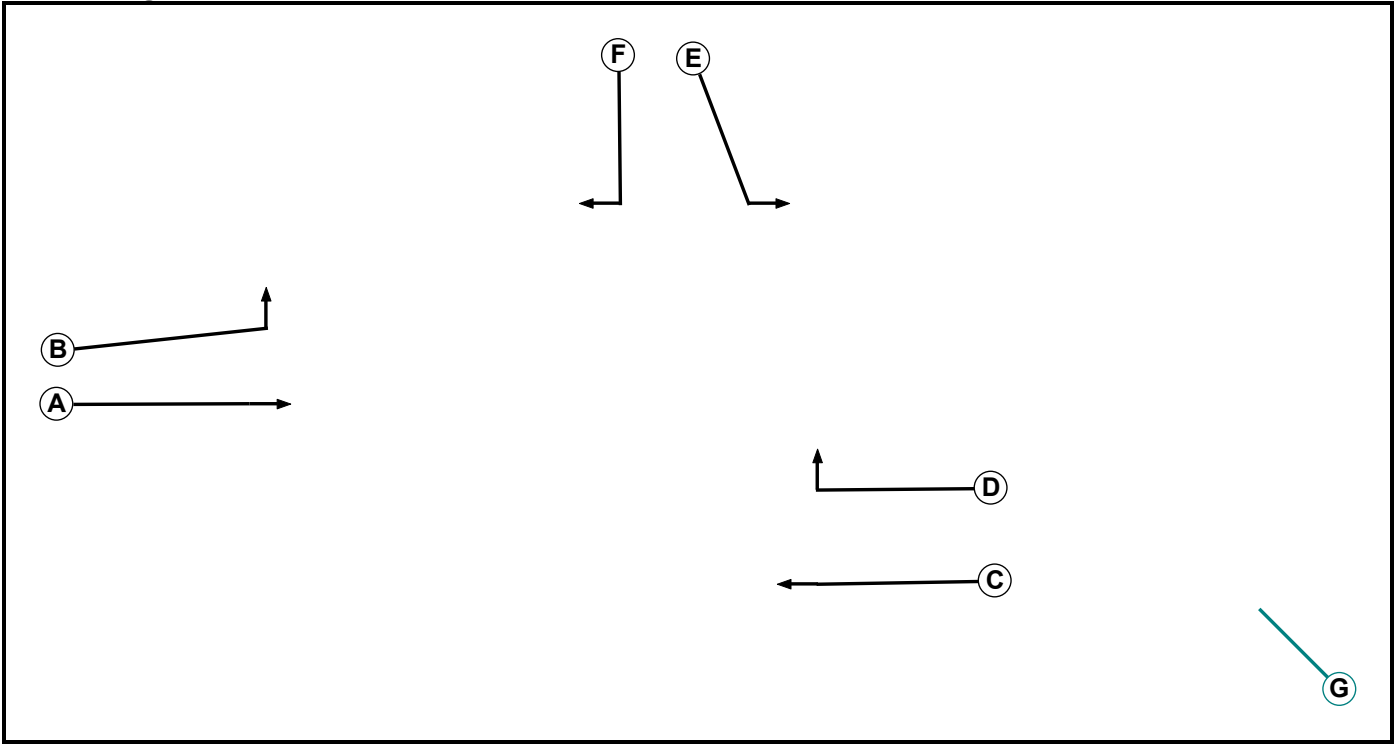
User and Project Details

Project:	East Midlands Gateway Phase 2
Title:	A453 Walton Hill Junction
Location:	
Client:	SEGRO
Site Ref(s):	Junction 10
Date Completed:	27/03/24
Checked By:	Vibeeshan Devaharan
Additional detail:	Phase B added to run in stage 3 as per on site observations
File name:	250619 A453_Local Road Signal Junction_Stage 1a+2a.lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Dummy		4	4

Full Input Data And Results

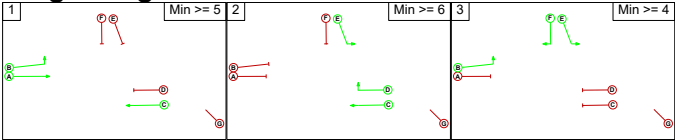
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		-	-	6	7	6	3
	B	-		-	5	-	-	3
	C	-	-		-	-	5	3
	D	6	8	-		-	5	3
	E	3	-	-	-		-	3
	F	6	-	6	6	-		3
	G	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A B C
2	C D E
3	B E F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	1	E	Losing	2	2

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		7	7
	2	8		8
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A453 (East))	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
1/2 (A453 (East))	U	D	2	3	19.1	Geom	-	3.50	0.00	Y	Arm 6 Right	20.00
2/1 (Walton Hill)	U	B	2	3	13.9	Geom	-	3.50	0.00	Y	Arm 6 Left	20.00
2/2 (Walton Hill)	U	A	2	3	60.0	Geom	-	3.50	0.00	N	Arm 4 Ahead	Inf
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Local Road)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Left	15.00
5/2 (Local Road)	U	F	2	3	13.0	Geom	-	3.50	0.00	Y	Arm 3 Right	20.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Observed (AM) (Current Scenario)'	07:45	08:45	01:00	
2: '2022 Observed (PM)'	17:00	18:00	01:00	
3: '2028 Forecast Year Without Development (AM)'	07:45	08:45	01:00	
4: '2028 Forecast Year Without Development (PM)'	17:00	18:00	01:00	
5: '2028 Forecast Year With Development (AM)'	07:45	08:45	01:00	
6: '2028 Forecast Year With Development (PM)'	17:00	18:00	01:00	
7: '2038 Forecast Year Without Development (AM)'	07:45	08:45	01:00	
8: '2038 Forecast Year Without Development (PM)'	17:00	18:00	01:00	
9: '2038 Forecast Year With Development (AM)'	07:45	08:45	01:00	
10: '2038 Forecast Year With Development (PM)'	17:00	18:00	01:00	
11: '2a 2028 Forecast Year with Dev (AM)'	07:45	08:45	01:00	
12: '2a 2028 Forecast Year with Dev (PM)'	17:00	18:00	01:00	
13: '2a 2038 Forecast Year with Dev (AM)'	07:45	08:45	01:00	
14: '2a 2038 Forecast Year with Dev (PM)'	17:00	18:00	01:00	

Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM) (Current Scenario)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	520	287	807
	B	215	0	189	404
	C	314	406	0	720
	Tot.	529	926	476	1931

Traffic Lane Flows

Lane	Scenario 1: 2022 Observed (AM)
Junction: Unnamed Junction	
1/1 (with short)	404(In) 189(Out)
1/2 (short)	215
2/1 (short)	314
2/2 (with short)	720(In) 406(Out)
3/1	476
4/1	926
5/1 (with short)	807(In) 520(Out)
5/2 (short)	287
6/1	529

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	228	289	517
	B	343	0	288	631
	C	227	187	0	414
	Tot.	570	415	577	1562

Traffic Lane Flows

Lane	Scenario 2: 2022 Observed (PM)
Junction: Unnamed Junction	
1/1 (with short)	631(In) 288(Out)
1/2 (short)	343
2/1 (short)	227
2/2 (with short)	414(In) 187(Out)
3/1	577
4/1	415
5/1 (with short)	517(In) 228(Out)
5/2 (short)	289
6/1	570

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2028 Forecast Year Without Development (AM)' (FG3: '2028 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	674	373	1047
	B	347	0	238	585
	C	319	325	0	644
	Tot.	666	999	611	2276

Traffic Lane Flows

Lane	Scenario 3: 2028 Forecast Year Without Development (AM)
Junction: Unnamed Junction	
1/1 (with short)	585(In) 238(Out)
1/2 (short)	347
2/1 (short)	319
2/2 (with short)	644(In) 325(Out)
3/1	611
4/1	999
5/1 (with short)	1047(In) 674(Out)
5/2 (short)	373
6/1	666

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 Forecast Year Without Development (PM)' (FG4: '2028 Forecast Year Without Development (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	303	419	722
	B	406	0	398	804
	C	203	177	0	380
	Tot.	609	480	817	1906

Traffic Lane Flows

Lane	Scenario 4: 2028 Forecast Year Without Development (PM)
Junction: Unnamed Junction	
1/1 (with short)	804(In) 398(Out)
1/2 (short)	406
2/1 (short)	203
2/2 (with short)	380(In) 177(Out)
3/1	817
4/1	480
5/1 (with short)	722(In) 303(Out)
5/2 (short)	419
6/1	609

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2028 Forecast Year With Development (AM)' (FG5: '2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	749	355	1104
	B	337	0	209	546
	C	321	343	0	664
	Tot.	658	1092	564	2314

Traffic Lane Flows

Lane	Scenario 5: 2028 Forecast Year With Development (AM)
Junction: Unnamed Junction	
1/1 (with short)	546(In) 209(Out)
1/2 (short)	337
2/1 (short)	321
2/2 (with short)	664(In) 343(Out)
3/1	564
4/1	1092
5/1 (with short)	1104(In) 749(Out)
5/2 (short)	355
6/1	658

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2028 Forecast Year With Development (PM)' (FG6: '2028 Forecast Year With Development (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	288	432	720
	B	425	0	412	837
	C	191	158	0	349
	Tot.	616	446	844	1906

Traffic Lane Flows

Lane	Scenario 6: 2028 Forecast Year With Development (PM)
Junction: Unnamed Junction	
1/1 (with short)	837(In) 412(Out)
1/2 (short)	425
2/1 (short)	191
2/2 (with short)	349(In) 158(Out)
3/1	844
4/1	446
5/1 (with short)	720(In) 288(Out)
5/2 (short)	432
6/1	616

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2038 Forecast Year Without Development (AM)' (FG7: '2038 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	624	515	1139
	B	405	0	302	707
	C	676	510	0	1186
	Tot.	1081	1134	817	3032

Traffic Lane Flows

Lane	Scenario 7: 2038 Forecast Year Without Development (AM)
Junction: Unnamed Junction	
1/1 (with short)	707(In) 302(Out)
1/2 (short)	405
2/1 (short)	676
2/2 (with short)	1186(In) 510(Out)
3/1	817
4/1	1134
5/1 (with short)	1139(In) 624(Out)
5/2 (short)	515
6/1	1081

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2038 Forecast Year Without Development (PM)' (FG8: '2038 Forecast Year Without Development (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	451	749	1200
	B	480	0	458	938
	C	599	446	0	1045
	Tot.	1079	897	1207	3183

Traffic Lane Flows

Lane	Scenario 8: 2038 Forecast Year Without Development (PM)
Junction: Unnamed Junction	
1/1 (with short)	938(In) 458(Out)
1/2 (short)	480
2/1 (short)	599
2/2 (with short)	1045(In) 446(Out)
3/1	1207
4/1	897
5/1 (with short)	1200(In) 451(Out)
5/2 (short)	749
6/1	1079

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2038 Forecast Year With Development (AM)' (FG9: '2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	659	468	1127
	B	411	0	268	679
	C	693	531	0	1224
	Tot.	1104	1190	736	3030

Traffic Lane Flows

Lane	Scenario 9: 2038 Forecast Year With Development (AM)
Junction: Unnamed Junction	
1/1 (with short)	679(In) 268(Out)
1/2 (short)	411
2/1 (short)	693
2/2 (with short)	1224(In) 531(Out)
3/1	736
4/1	1190
5/1 (with short)	1127(In) 659(Out)
5/2 (short)	468
6/1	1104

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2038 Forecast Year With Development (PM)' (FG10: '2038 Forecast Year With Development (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	451	794	1245
	B	525	0	489	1014
	C	603	421	0	1024
	Tot.	1128	872	1283	3283

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2038 Forecast Year With Development (PM)
Junction: Unnamed Junction	
1/1 (with short)	1014(In) 489(Out)
1/2 (short)	525
2/1 (short)	603
2/2 (with short)	1024(In) 421(Out)
3/1	1283
4/1	872
5/1 (with short)	1245(In) 451(Out)
5/2 (short)	794
6/1	1128

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '2a 2028 Forecast Year with Dev' (FG11: '2a 2028 Forecast Year with Dev (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	716	367	1083
	B	330	0	229	559
	C	321	354	0	675
	Tot.	651	1070	596	2317

Traffic Lane Flows

Lane	Scenario 11: 2a 2028 Forecast Year with Dev
Junction: Unnamed Junction	
1/1 (with short)	559(In) 229(Out)
1/2 (short)	330
2/1 (short)	321
2/2 (with short)	675(In) 354(Out)
3/1	596
4/1	1070
5/1 (with short)	1083(In) 716(Out)
5/2 (short)	367
6/1	651

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2a 2028 Forecast Year with Dev' (FG12: '2a 2028 Forecast Year with Dev (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	365	456	821
	B	453	0	397	850
	C	158	142	0	300
	Tot.	611	507	853	1971

Traffic Lane Flows

Lane	Scenario 12: 2a 2028 Forecast Year with Dev
Junction: Unnamed Junction	
1/1 (with short)	850(In) 397(Out)
1/2 (short)	453
2/1 (short)	158
2/2 (with short)	300(In) 142(Out)
3/1	853
4/1	507
5/1 (with short)	821(In) 365(Out)
5/2 (short)	456
6/1	611

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 13: '2a 2038 Forecast Year with Dev' (FG13: '2a 2038 Forecast Year with Dev (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	615	473	1088
	B	369	0	287	656
	C	685	575	0	1260
	Tot.	1054	1190	760	3004

Traffic Lane Flows

Lane	Scenario 13: 2a 2038 Forecast Year with Dev
Junction: Unnamed Junction	
1/1 (with short)	656(In) 287(Out)
1/2 (short)	369
2/1 (short)	685
2/2 (with short)	1260(In) 575(Out)
3/1	760
4/1	1190
5/1 (with short)	1088(In) 615(Out)
5/2 (short)	473
6/1	1054

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2a 2038 Forecast Year with Dev' (FG14: '2a 2038 Forecast Year with Dev (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	406	782	1188
	B	498	0	496	994
	C	619	413	0	1032
	Tot.	1117	819	1278	3214

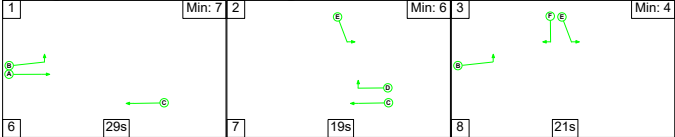
Traffic Lane Flows

Lane	Scenario 14: 2a 2038 Forecast Year with Dev
Junction: Unnamed Junction	
1/1 (with short)	994(In) 496(Out)
1/2 (short)	498
2/1 (short)	619
2/2 (with short)	1032(In) 413(Out)
3/1	1278
4/1	819
5/1 (with short)	1188(In) 406(Out)
5/2 (short)	782
6/1	1117

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 (East))	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
1/2 (A453 (East))	3.50	0.00	Y	Arm 6 Right	20.00	100.0 %	1828	1828
2/1 (Walton Hill)	3.50	0.00	Y	Arm 6 Left	20.00	100.0 %	1828	1828
2/2 (Walton Hill)	3.50	0.00	N	Arm 4 Ahead	Inf	100.0 %	2105	2105
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (Local Road)	3.50	0.00	Y	Arm 4 Left	15.00	100.0 %	1786	1786
5/2 (Local Road)	3.50	0.00	Y	Arm 3 Right	20.00	100.0 %	1828	1828
6/1	Infinite Saturation Flow						Inf	Inf

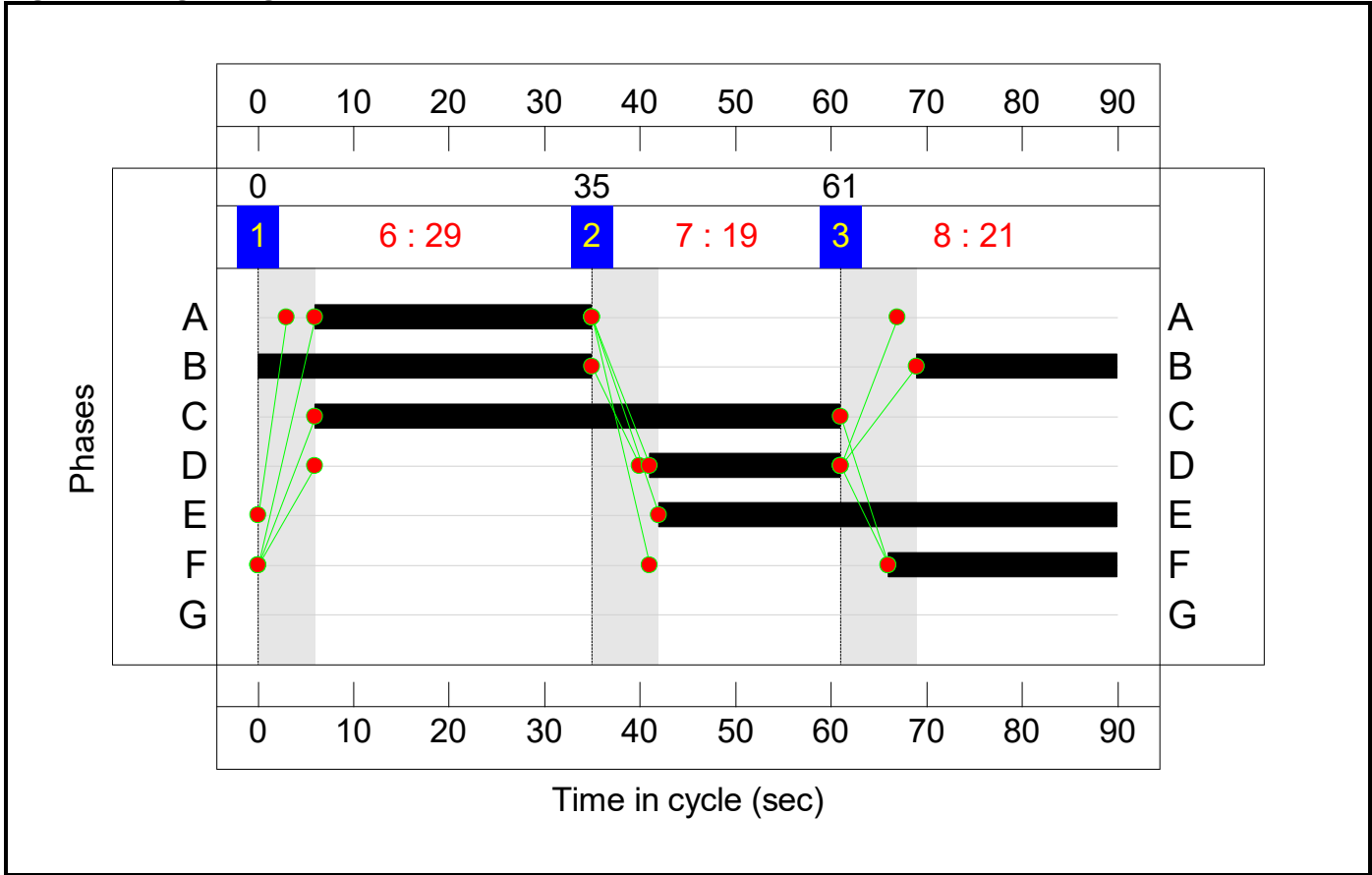
Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM) (Current Scenario)', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	29	19	21
Change Point	0	35	61

Signal Timings Diagram

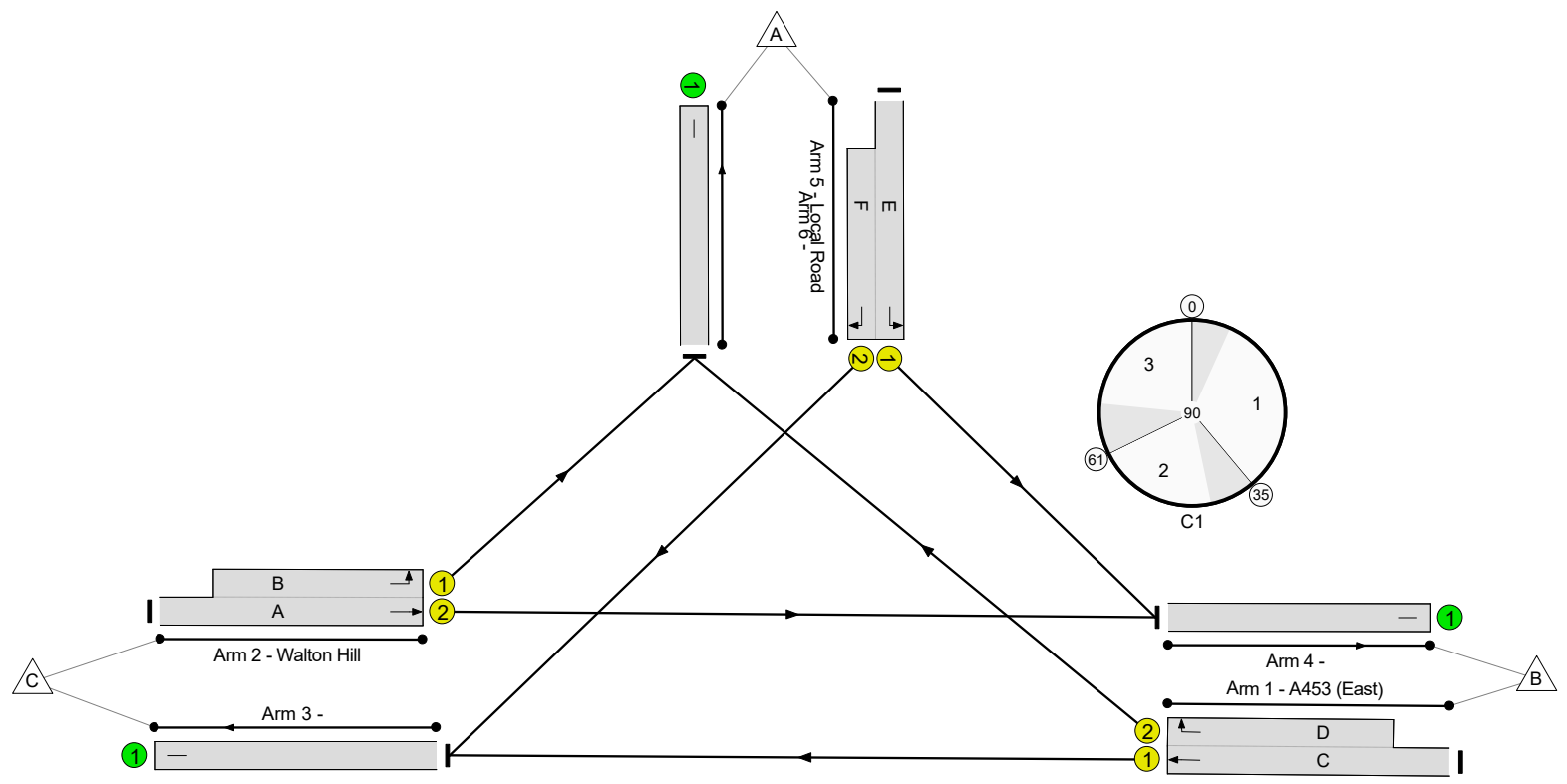


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 41.3 %
Total Traffic Delay: 11.9 pcuHr



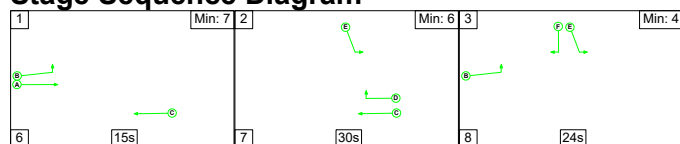
Network Results

Network Results

Full Input Data And Results

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 1: 'Network Control Plan 1')

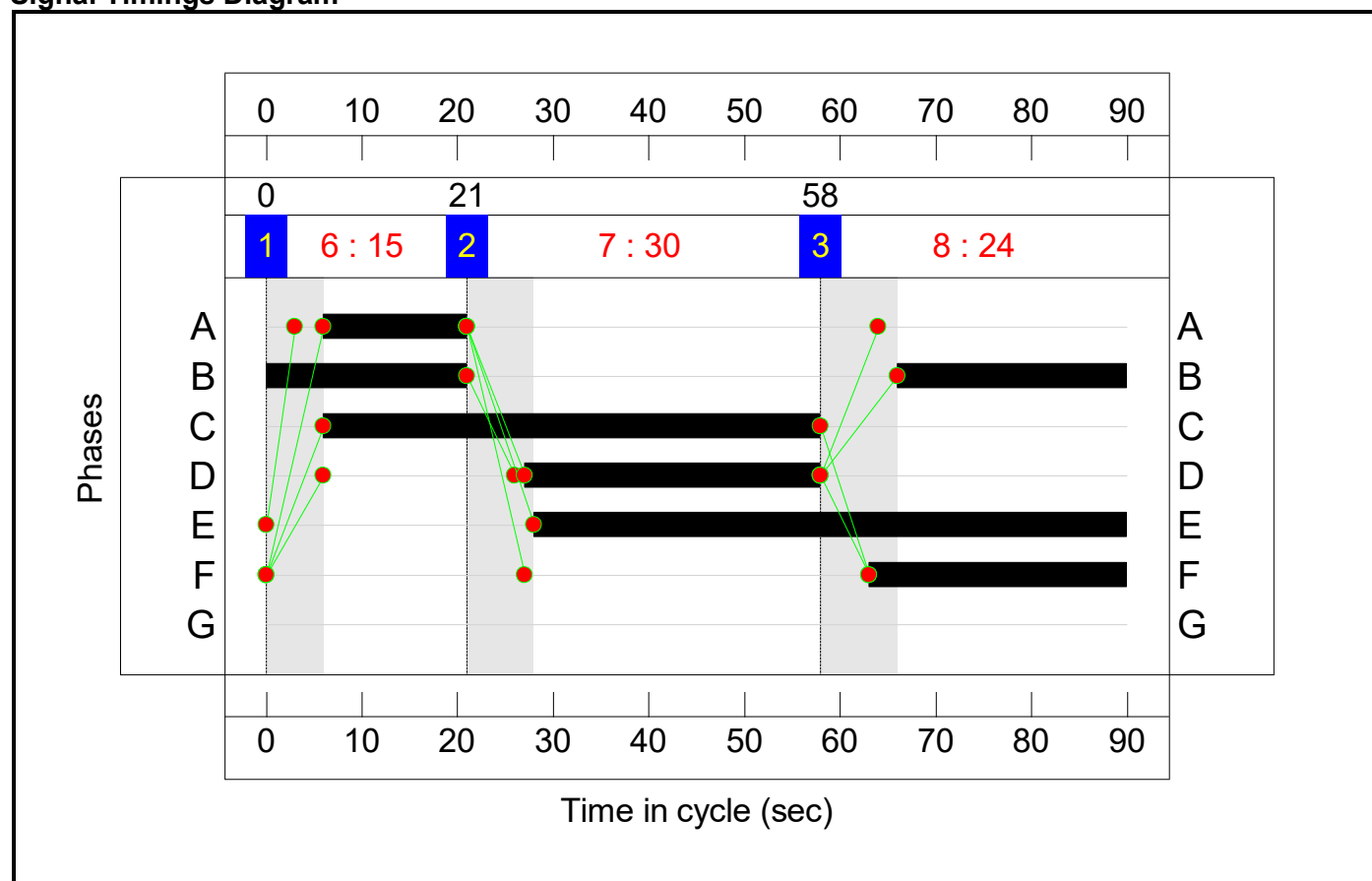
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	15	30	24
Change Point	0	21	58

Signal Timings Diagram

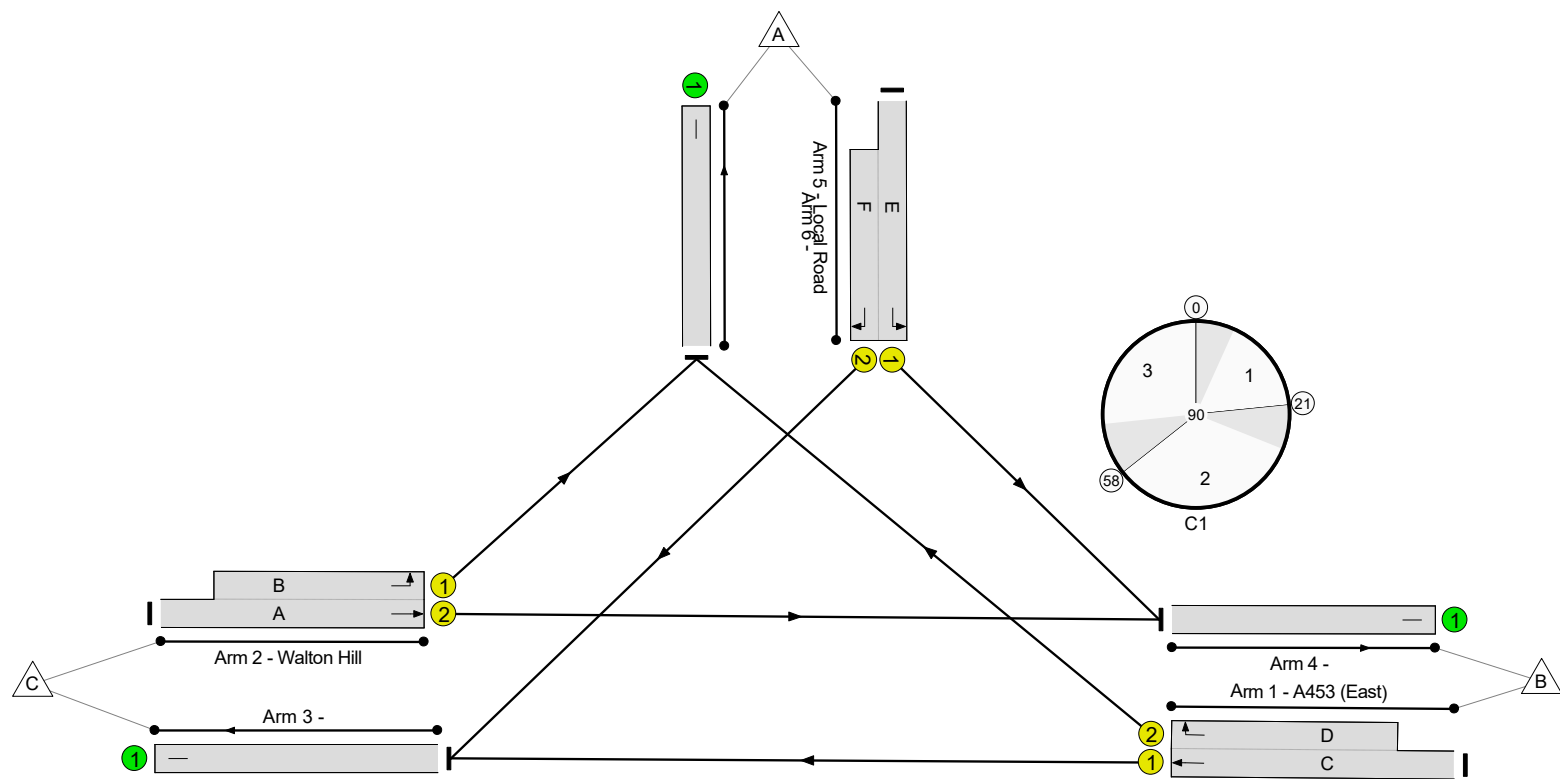


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 68.9 %
Total Traffic Delay: 9.4 pcuHr



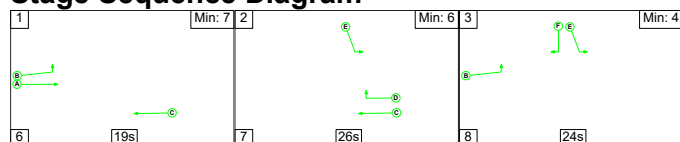
Network Results

Network Results

Full Input Data And Results

Scenario 3: '2028 Forecast Year Without Development (AM)' (FG3: '2028 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

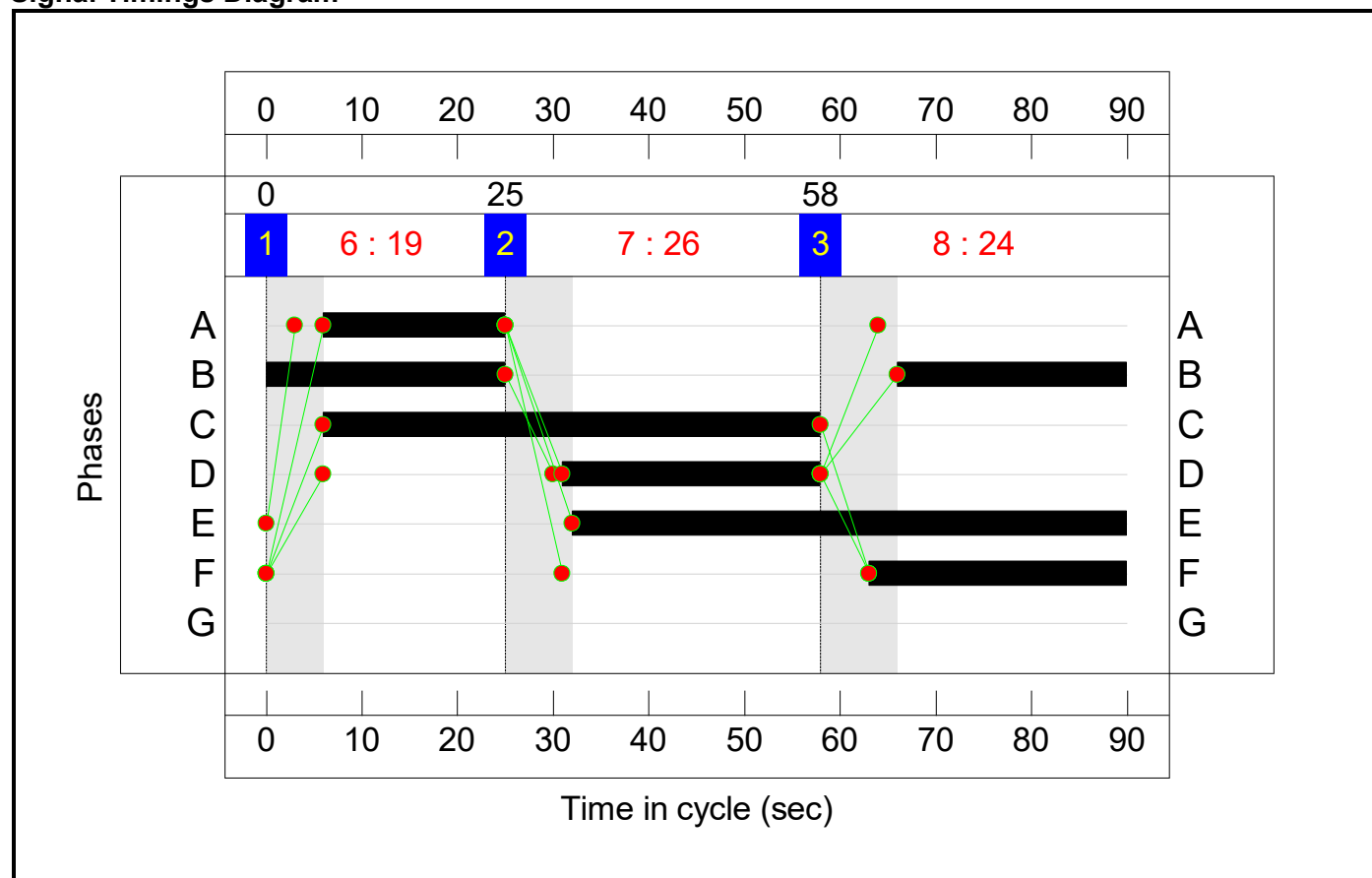
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	19	26	24
Change Point	0	25	58

Signal Timings Diagram

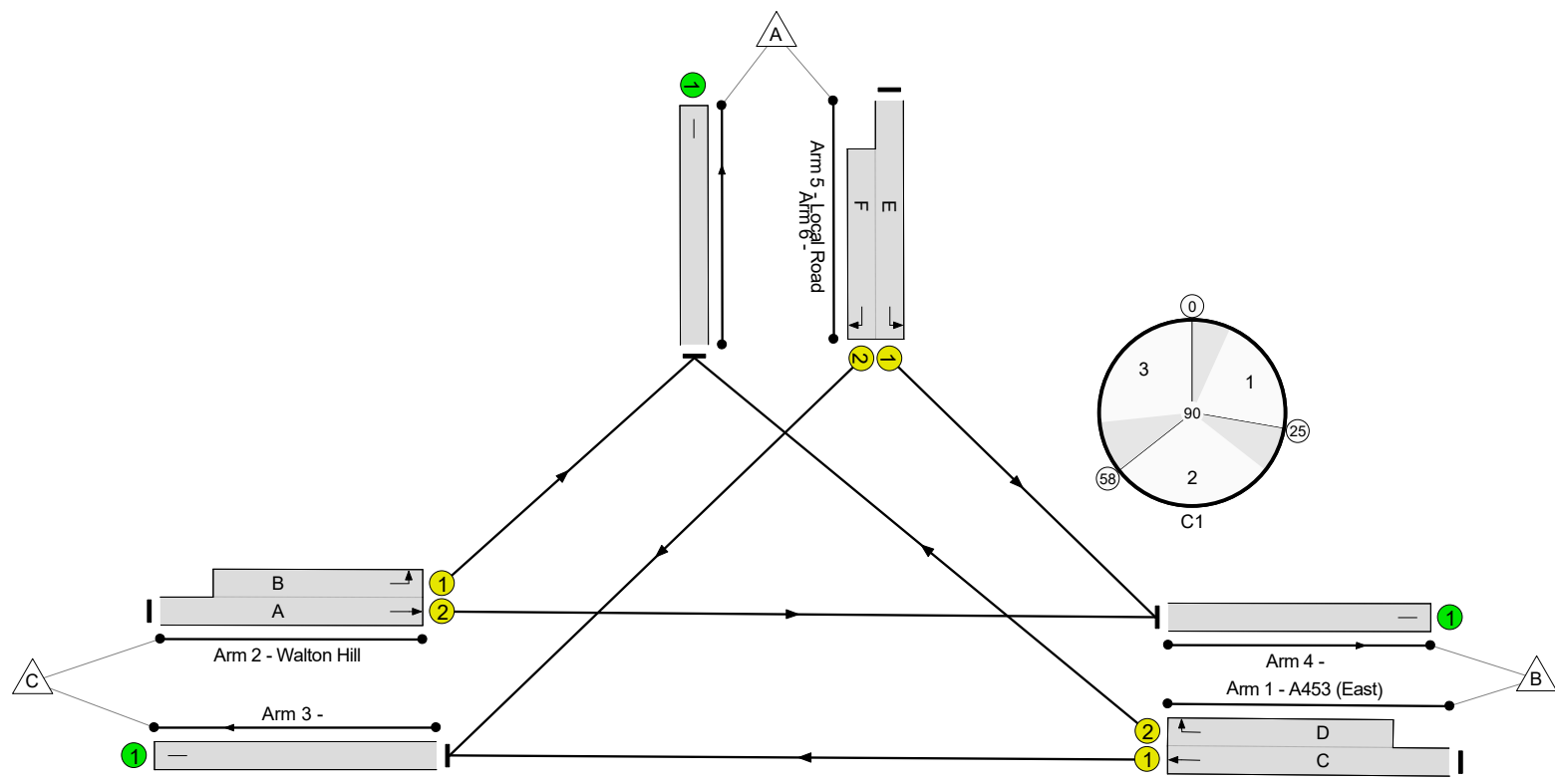


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 26.2 %
Total Traffic Delay: 14.5 pcuHr



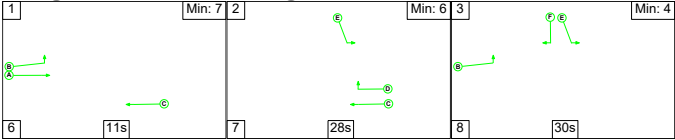
Network Results

Network Results

Full Input Data And Results

Scenario 4: '2028 Forecast Year Without Development (PM)' (FG4: '2028 Forecast Year Without Development (PM)', Plan 1: 'Network Control Plan 1')

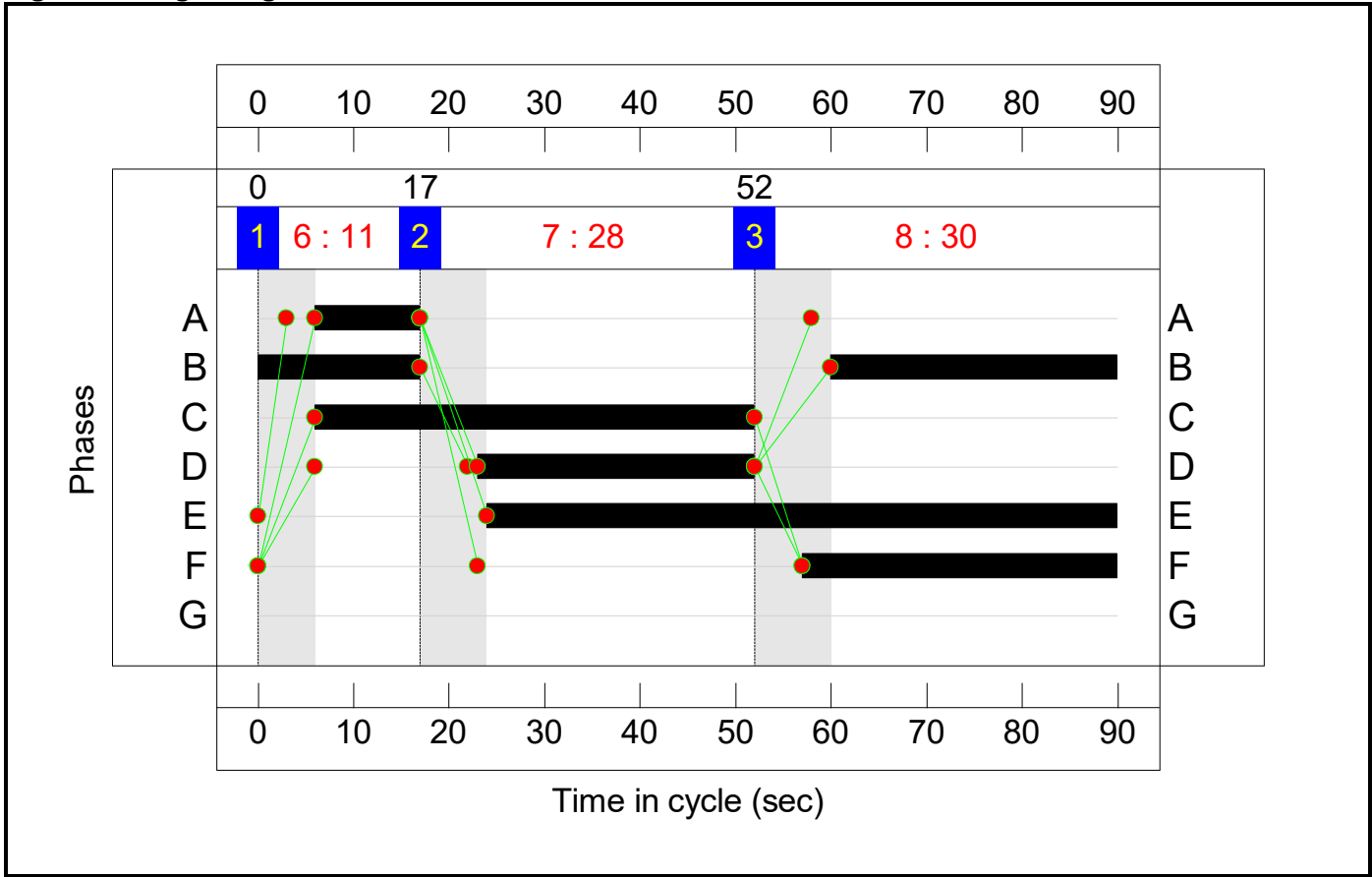
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	11	28	30
Change Point	0	17	52

Signal Timings Diagram

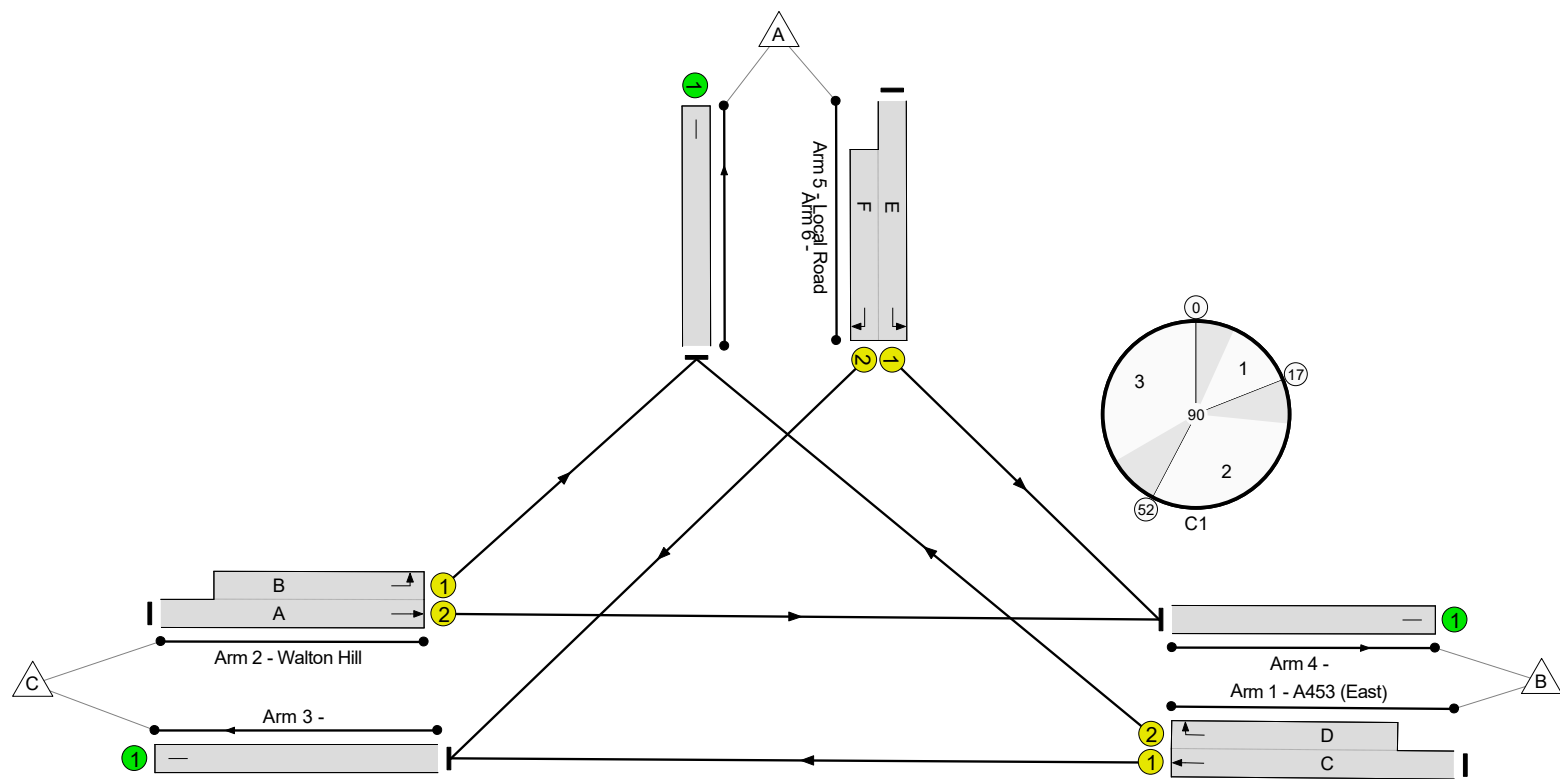


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 31.8 %
Total Traffic Delay: 12.6 pcuHr



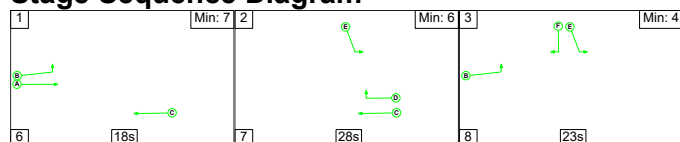
Network Results

Network Results

Full Input Data And Results

Scenario 5: '2028 Forecast Year With Development (AM)' (FG5: '2028 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

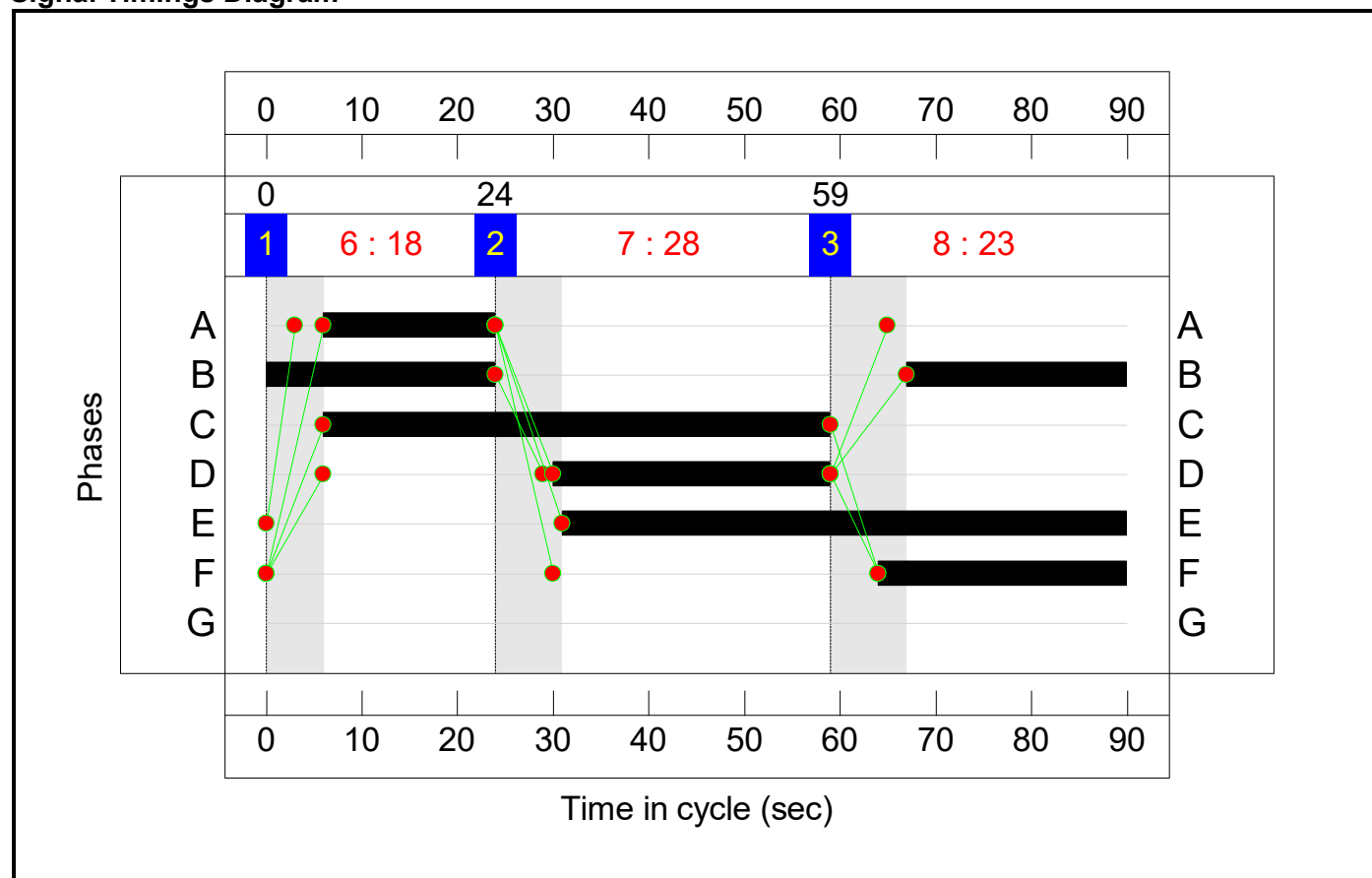
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	18	28	23
Change Point	0	24	59

Signal Timings Diagram

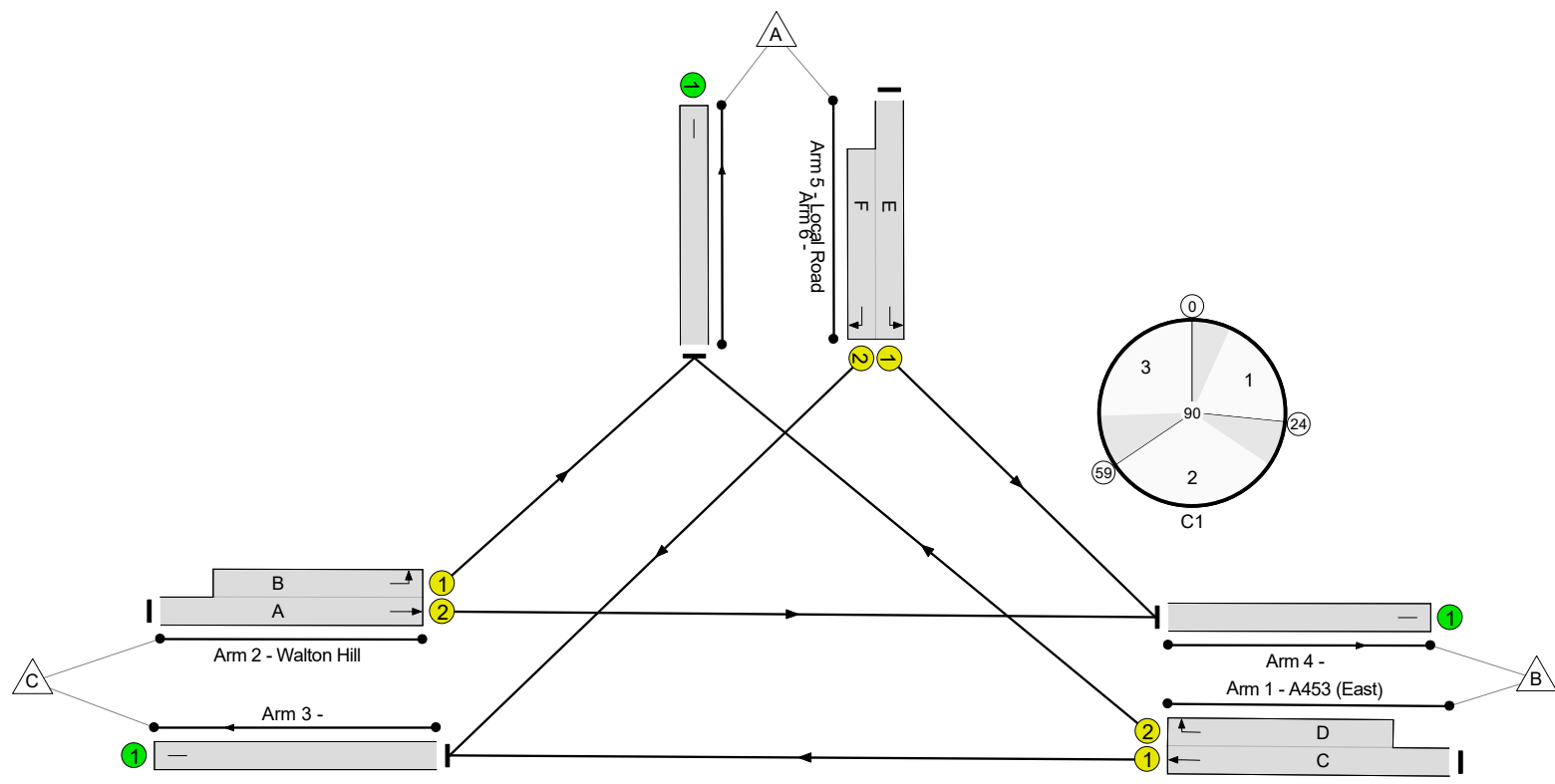


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 16.6 %
Total Traffic Delay: 15.4 pcuHr



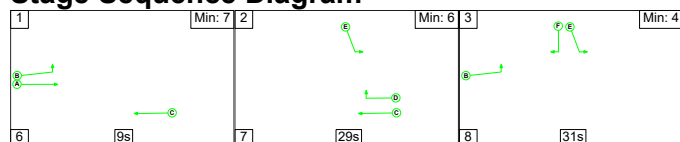
Network Results

Network Results

Full Input Data And Results

Scenario 6: '2028 Forecast Year With Development (PM)' (FG6: '2028 Forecast Year With Development (PM)', Plan 1: 'Network Control Plan 1')

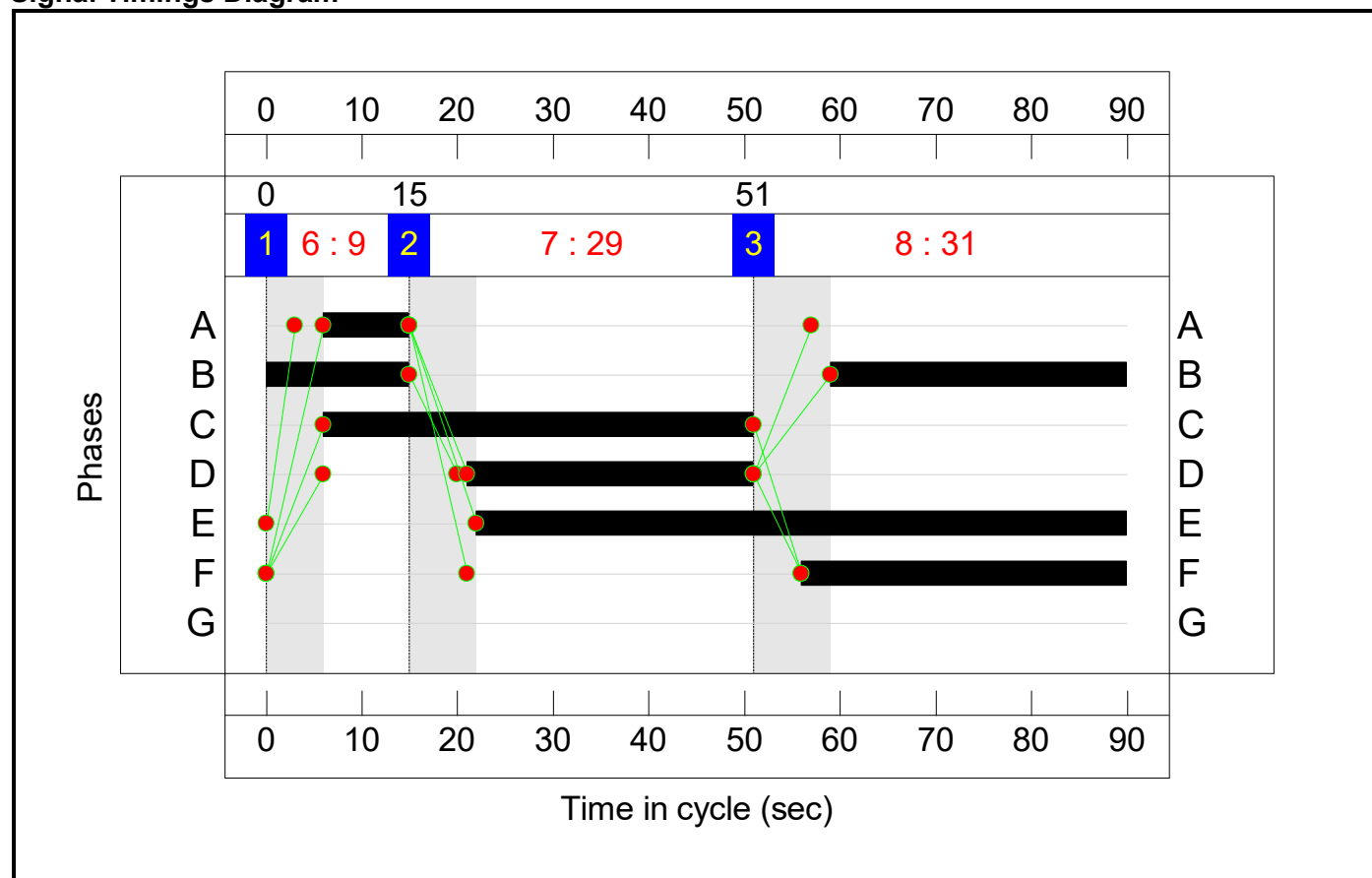
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	9	29	31
Change Point	0	15	51

Signal Timings Diagram

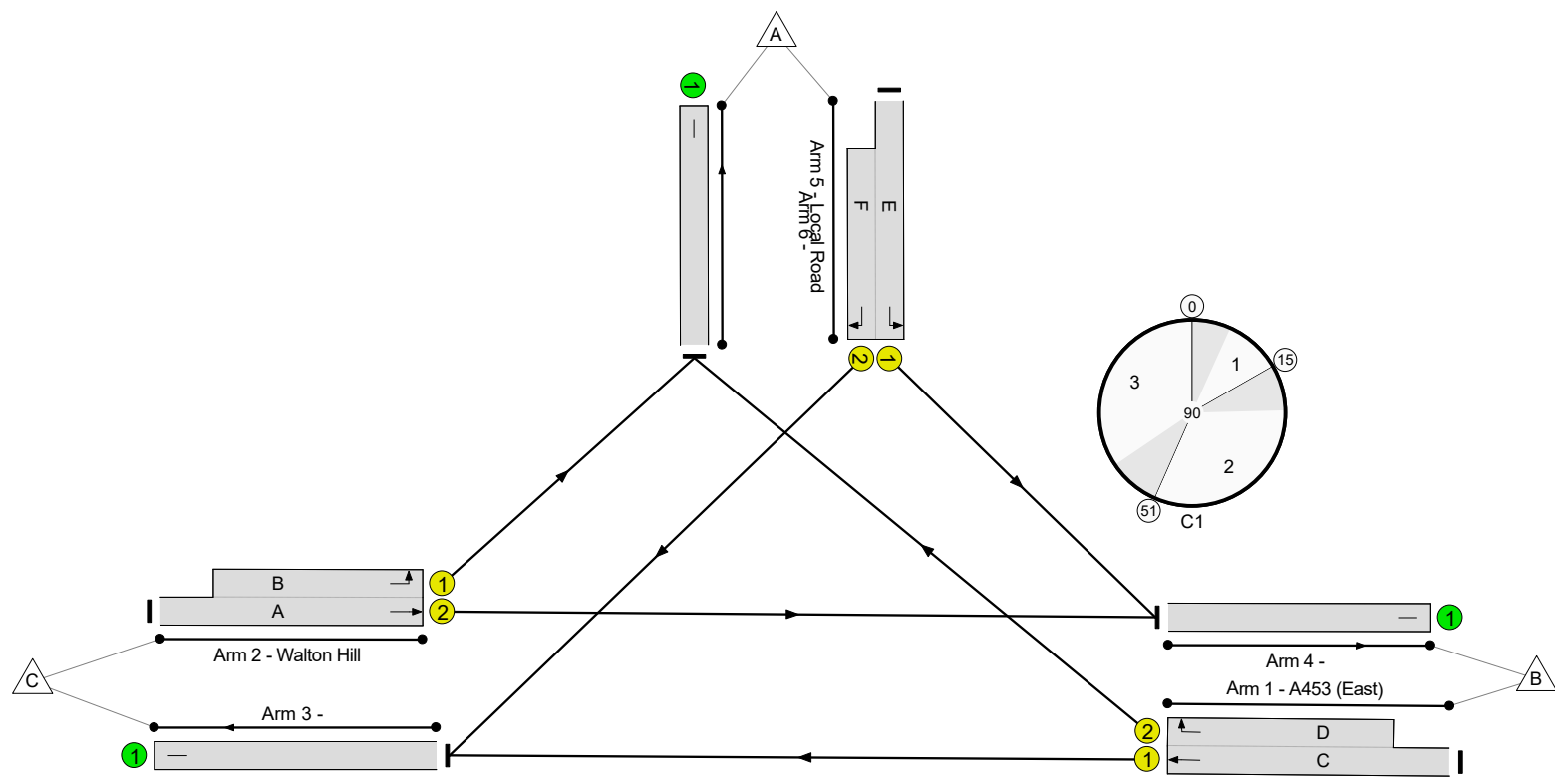


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 31.0 %
Total Traffic Delay: 12.9 pcuHr



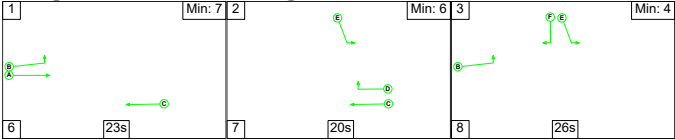
Network Results

Network Results

Full Input Data And Results

Scenario 7: '2038 Forecast Year Without Development (AM)' (FG7: '2038 Forecast Year Without Development (AM)', Plan 1: 'Network Control Plan 1')

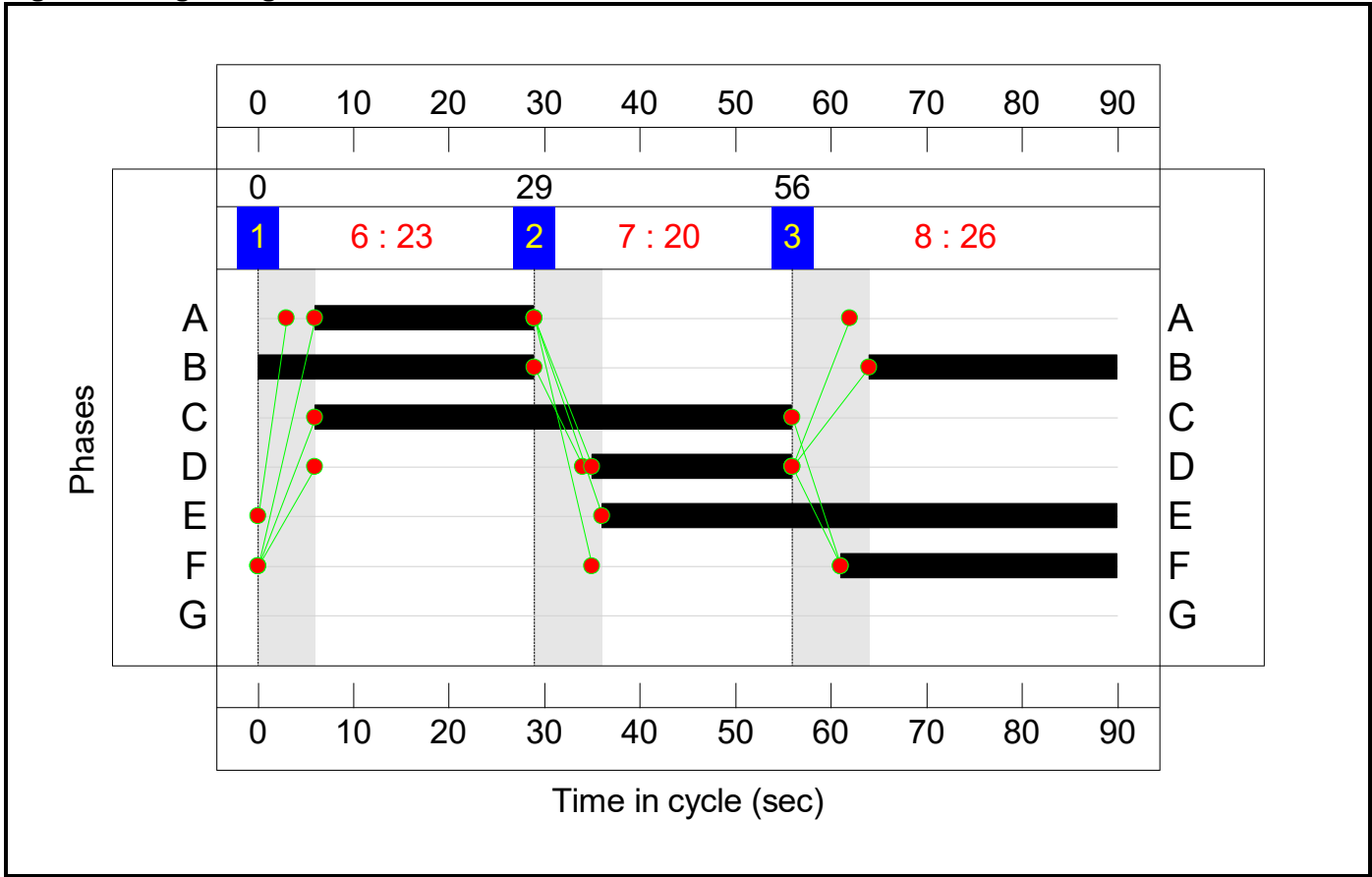
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	23	20	26
Change Point	0	29	56

Signal Timings Diagram

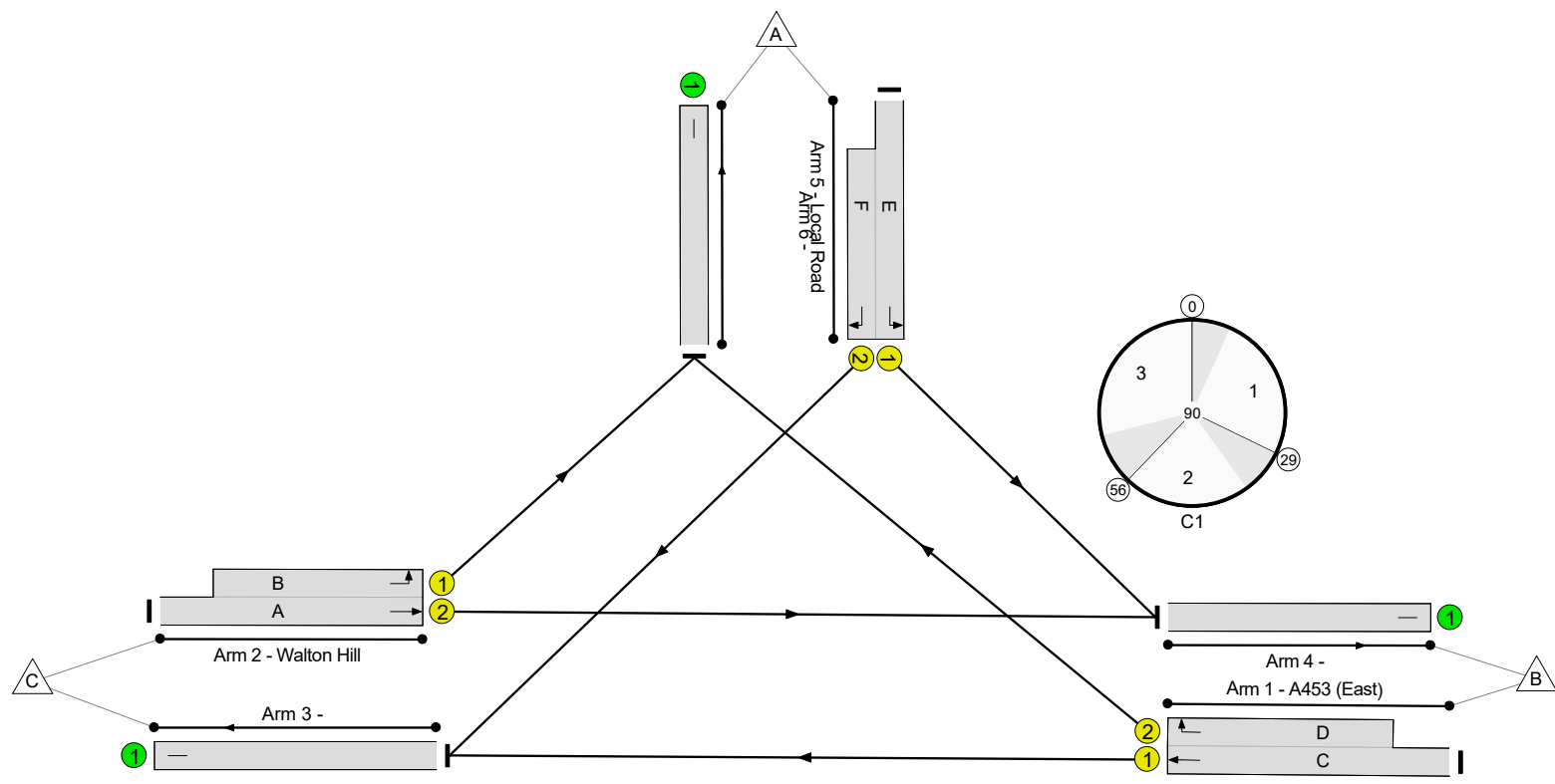


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -2.9 %
Total Traffic Delay: 31.3 pcuHr



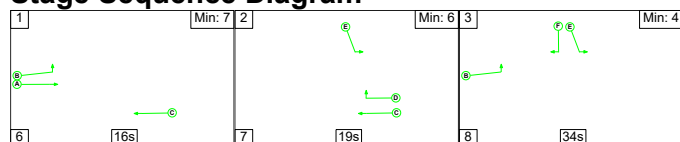
Network Results

Network Results

Full Input Data And Results

Scenario 8: '2038 Forecast Year Without Development (PM)' (FG8: '2038 Forecast Year Without Development (PM)', Plan 1: 'Network Control Plan 1')

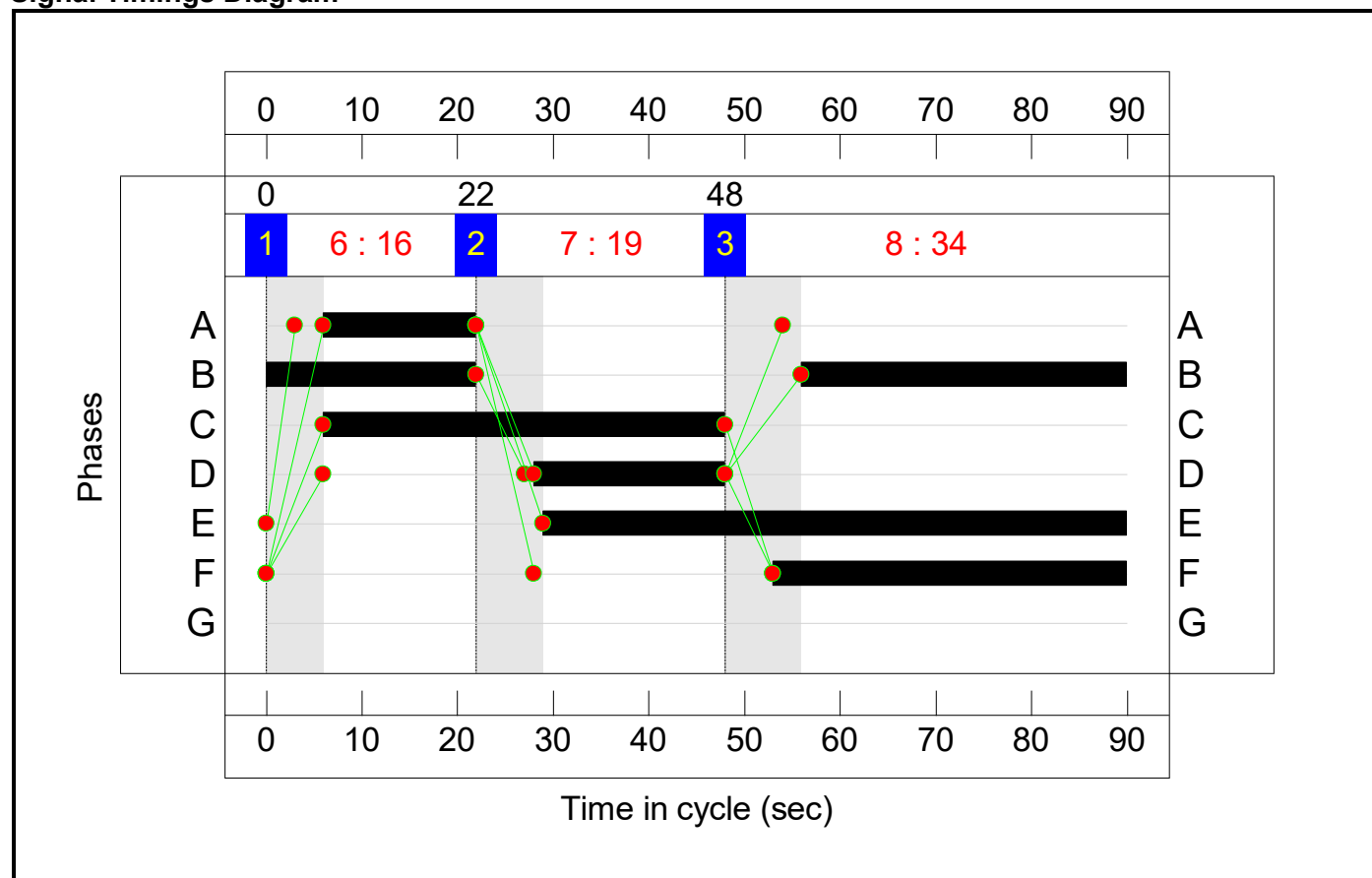
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	16	19	34
Change Point	0	22	48

Signal Timings Diagram

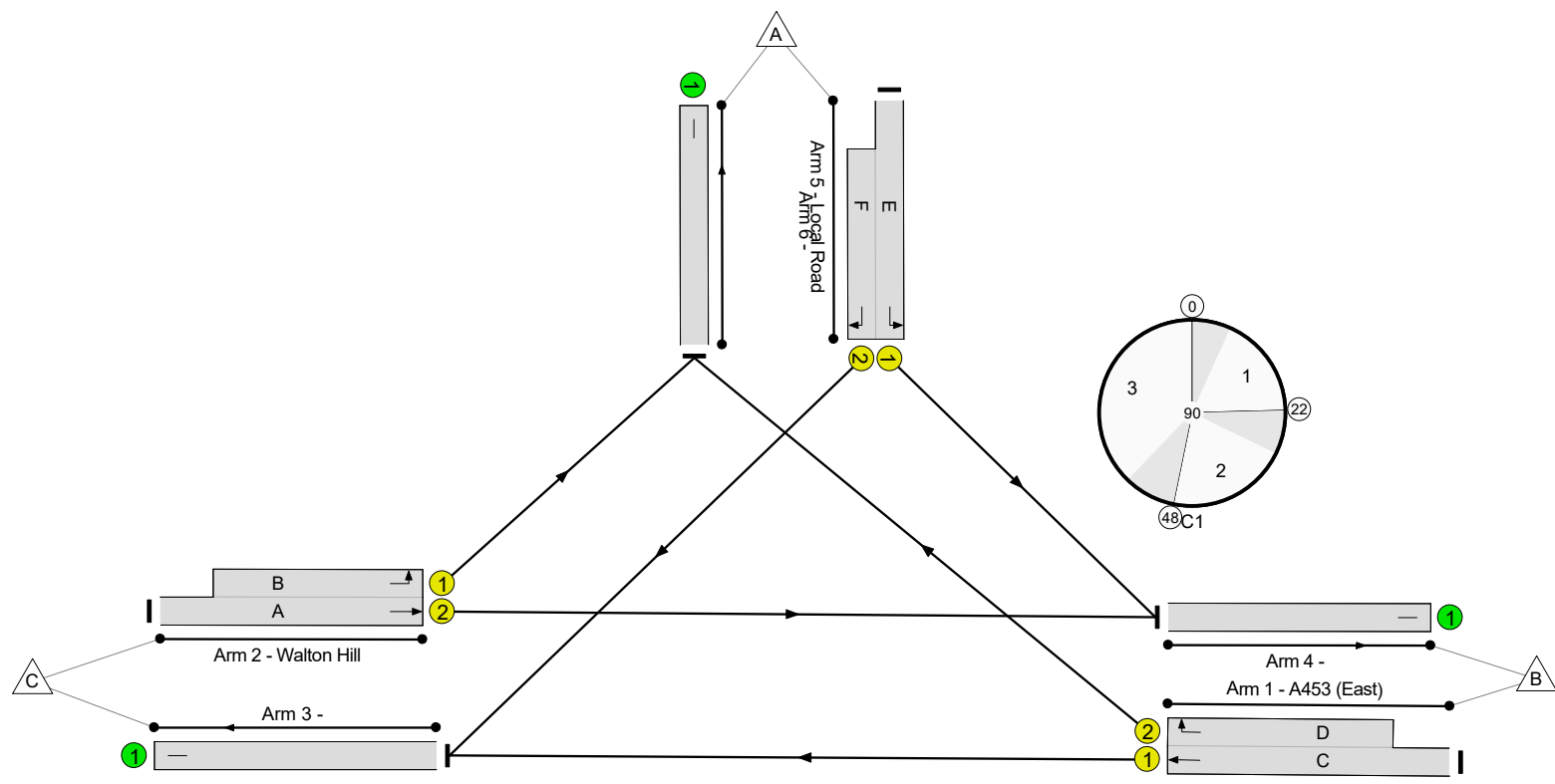


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -25.0 %
Total Traffic Delay: 210.8 pcuHr



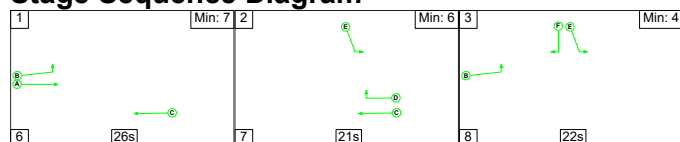
Network Results

Network Results

Full Input Data And Results

Scenario 9: '2038 Forecast Year With Development (AM)' (FG9: '2038 Forecast Year With Development (AM)', Plan 1: 'Network Control Plan 1')

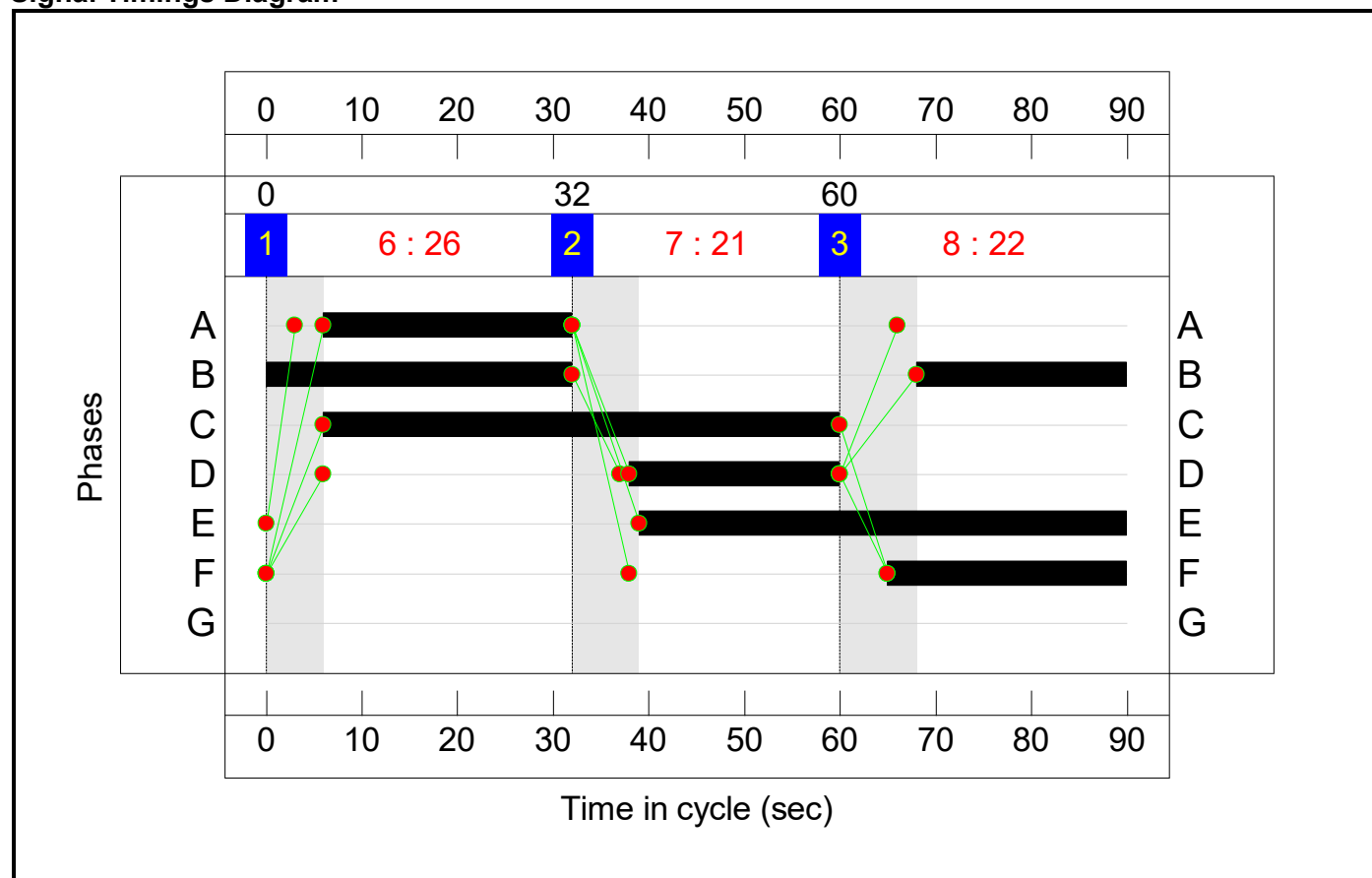
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	26	21	22
Change Point	0	32	60

Signal Timings Diagram

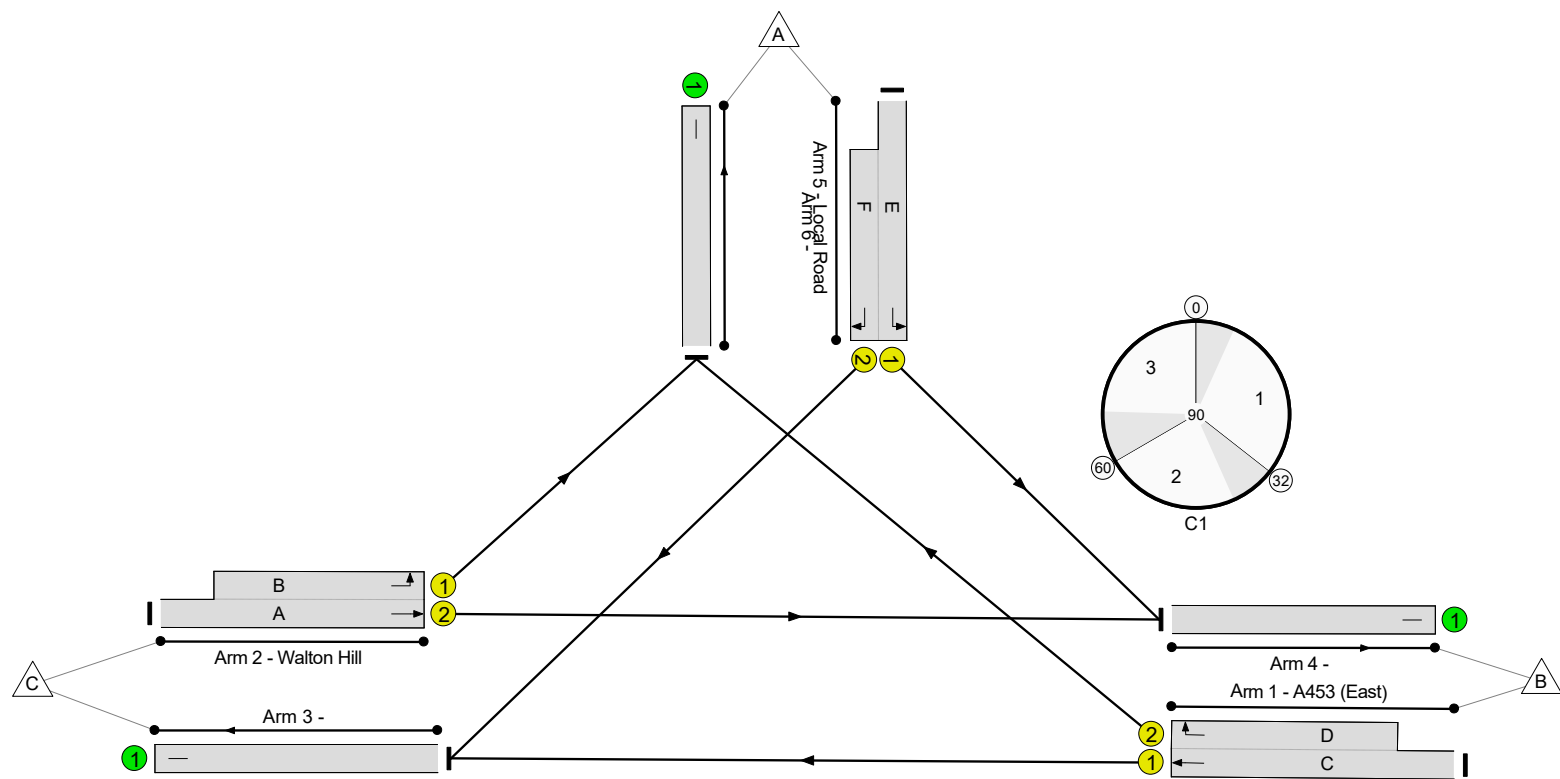


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -0.0 %
Total Traffic Delay: 28.6 pcuHr



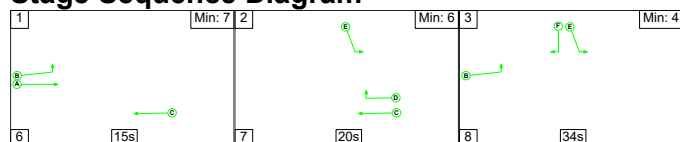
Network Results

Network Results

Full Input Data And Results

Scenario 10: '2038 Forecast Year With Development (PM)' (FG10: '2038 Forecast Year With Development (PM)', Plan 1: 'Network Control Plan 1')

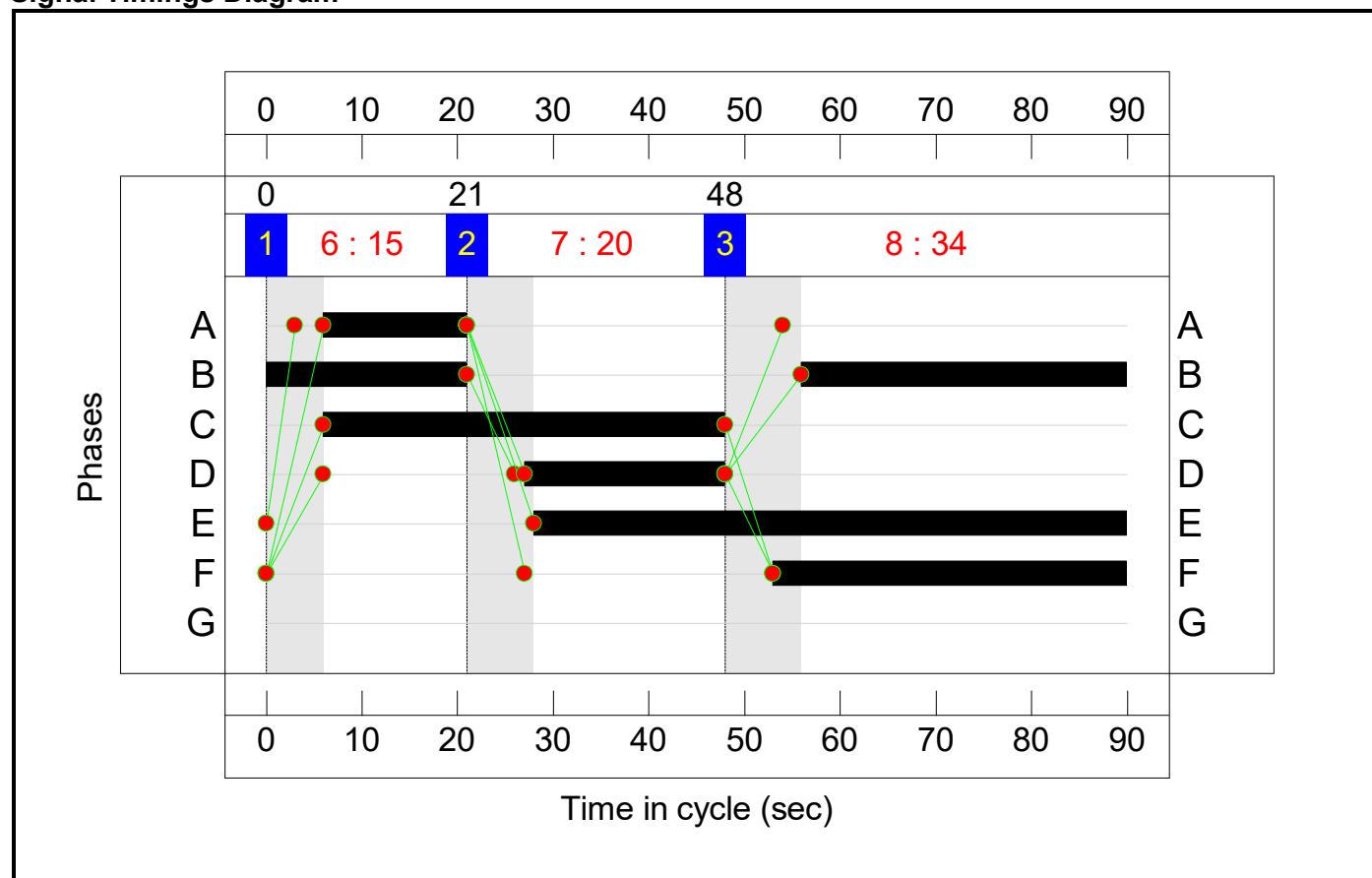
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	15	20	34
Change Point	0	21	48

Signal Timings Diagram

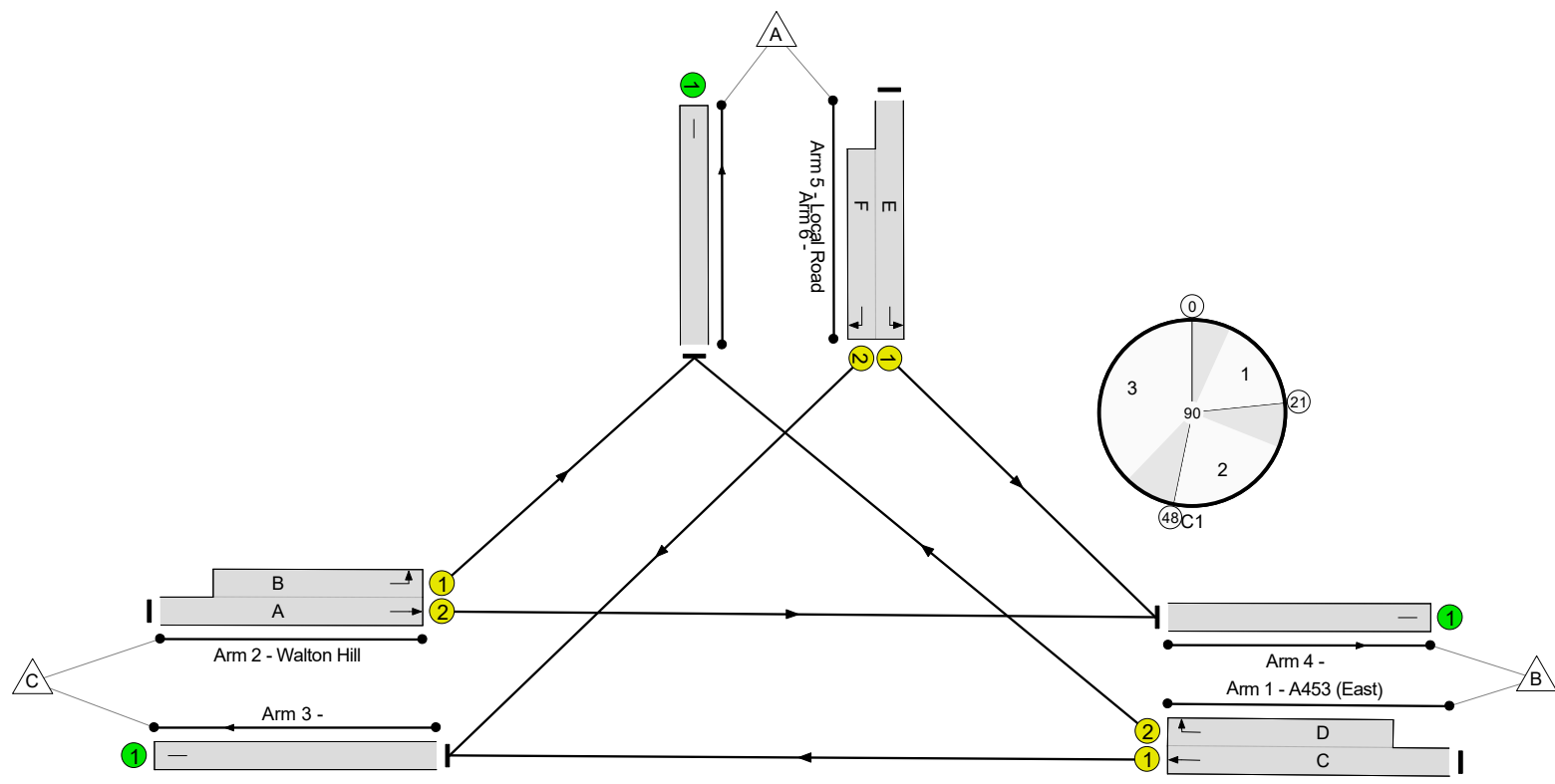


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -30.9 %
Total Traffic Delay: 268.0 pcuHr



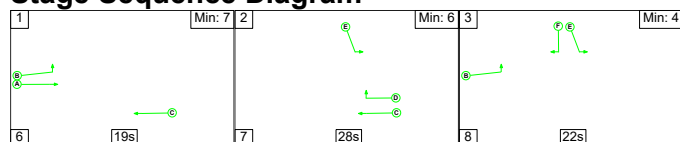
Network Results

Network Results

Full Input Data And Results

Scenario 11: '2a 2028 Forecast Year with Dev' (FG11: '2a 2028 Forecast Year with Dev (AM)', Plan 1: 'Network Control Plan 1')

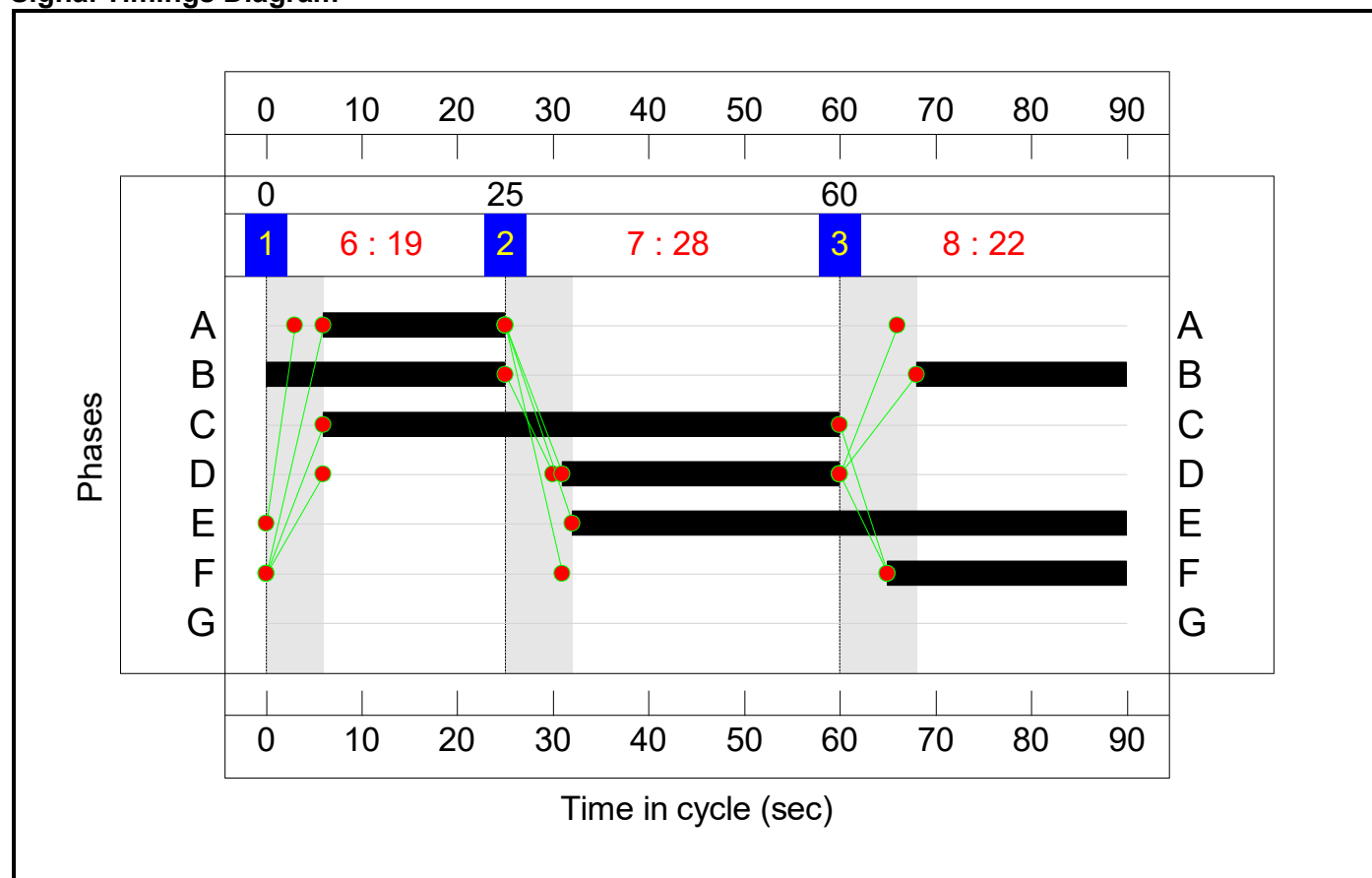
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	19	28	22
Change Point	0	25	60

Signal Timings Diagram

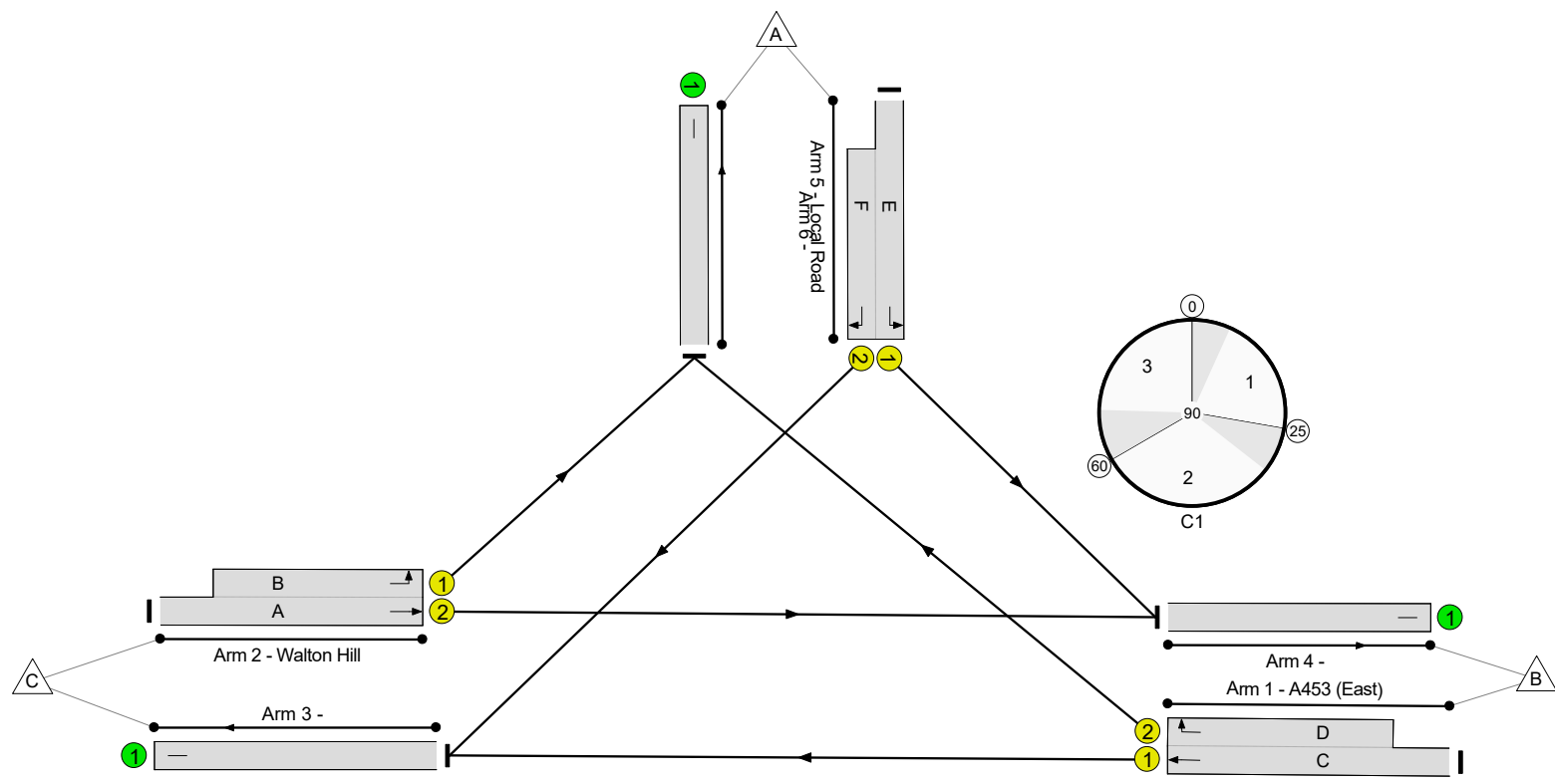


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 18.9 %
Total Traffic Delay: 15.3 pcuHr



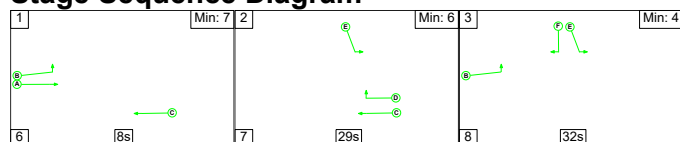
Network Results

Network Results

Full Input Data And Results

Scenario 12: '2a 2028 Forecast Year with Dev' (FG12: '2a 2028 Forecast Year with Dev (PM)', Plan 1: 'Network Control Plan 1')

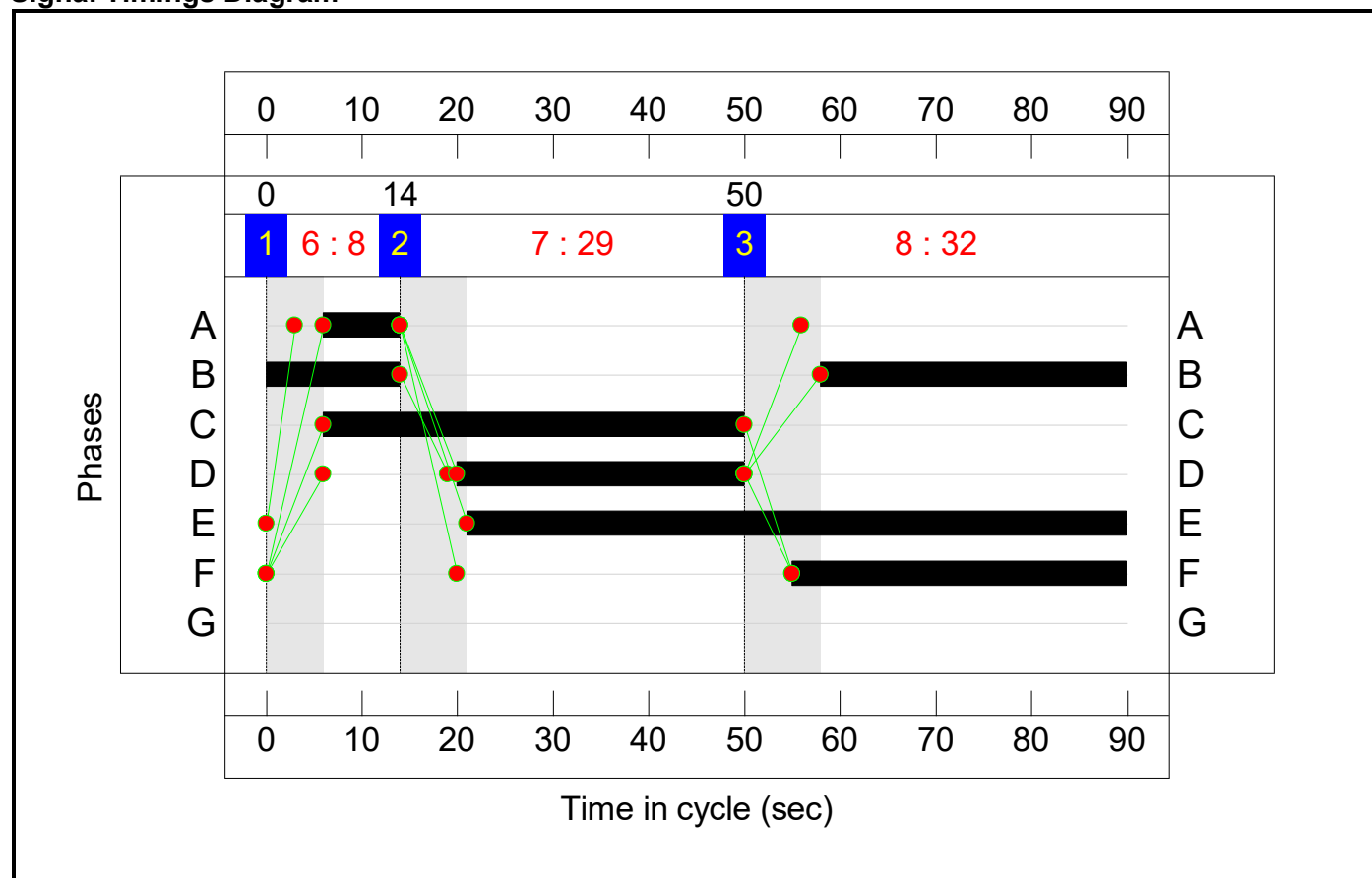
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	8	29	32
Change Point	0	14	50

Signal Timings Diagram

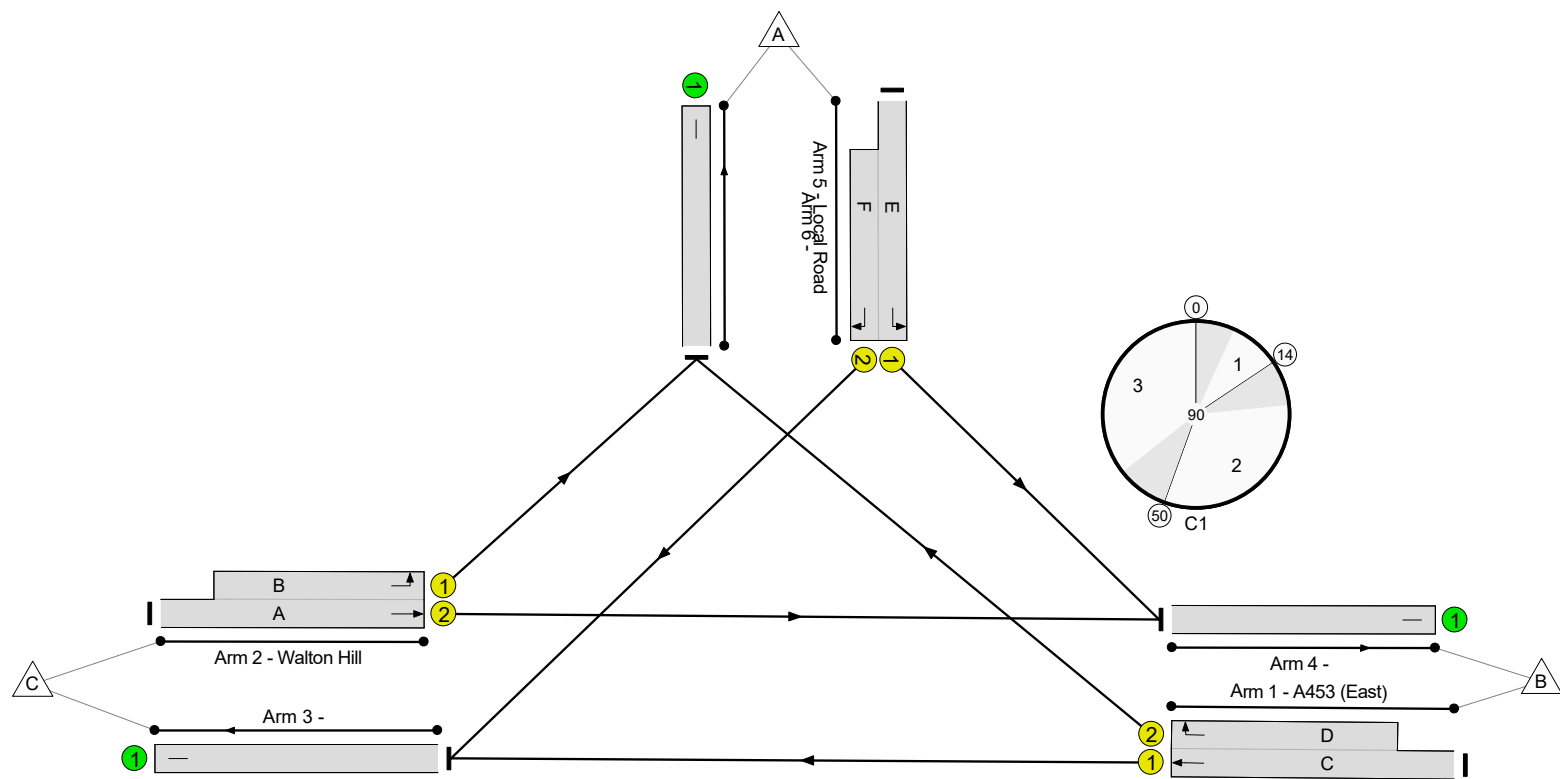


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: 24.7 %
Total Traffic Delay: 13.4 pcuHr



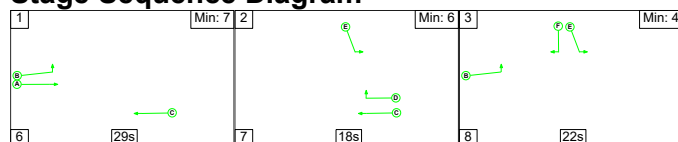
Network Results

Network Results

Full Input Data And Results

Scenario 13: '2a 2038 Forecast Year with Dev' (FG13: '2a 2038 Forecast Year with Dev (AM)', Plan 1: 'Network Control Plan 1')

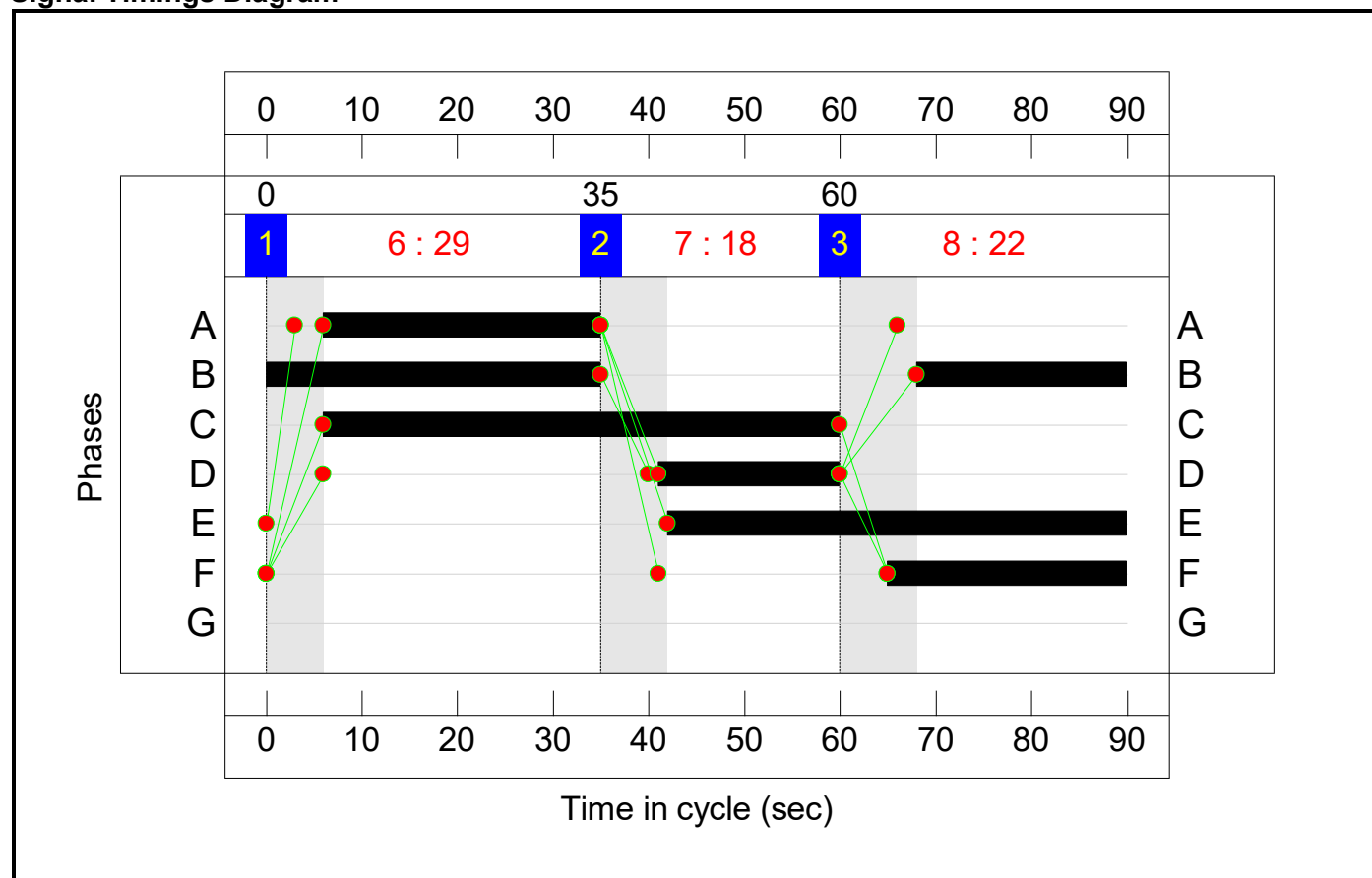
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	29	18	22
Change Point	0	35	60

Signal Timings Diagram

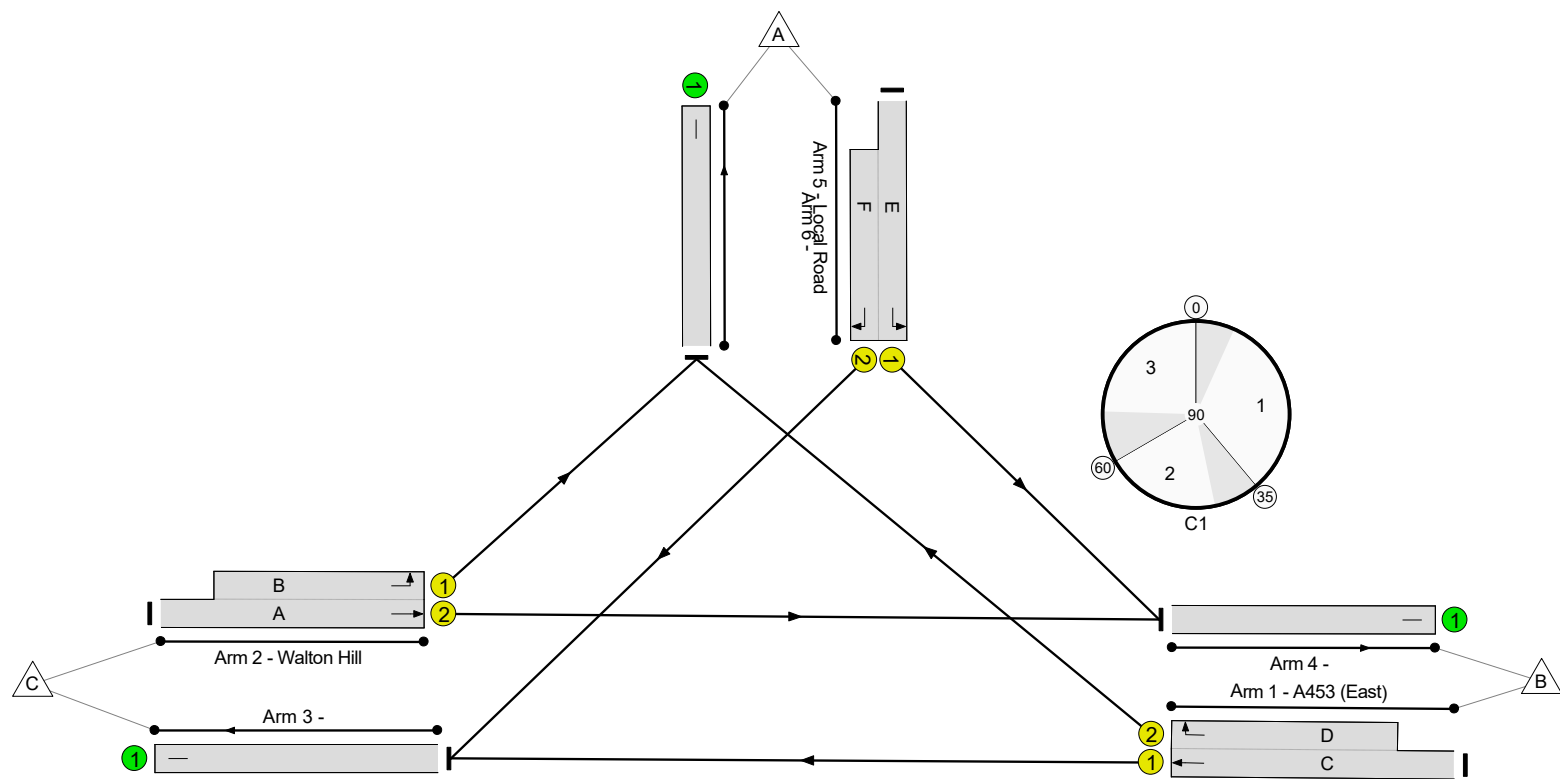


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -1.9 %
Total Traffic Delay: 30.8 pcuHr

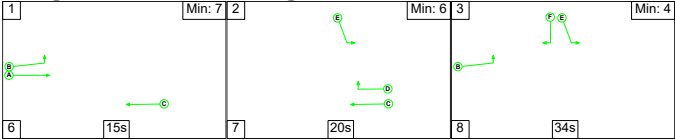


Network Results

Network Results

Full Input Data And Results
Scenario 14: '2a 2038 Forecast Year with Dev' (FG14: '2a 2038 Forecast Year with Dev (PM)', Plan 1: 'Network Control Plan 1')

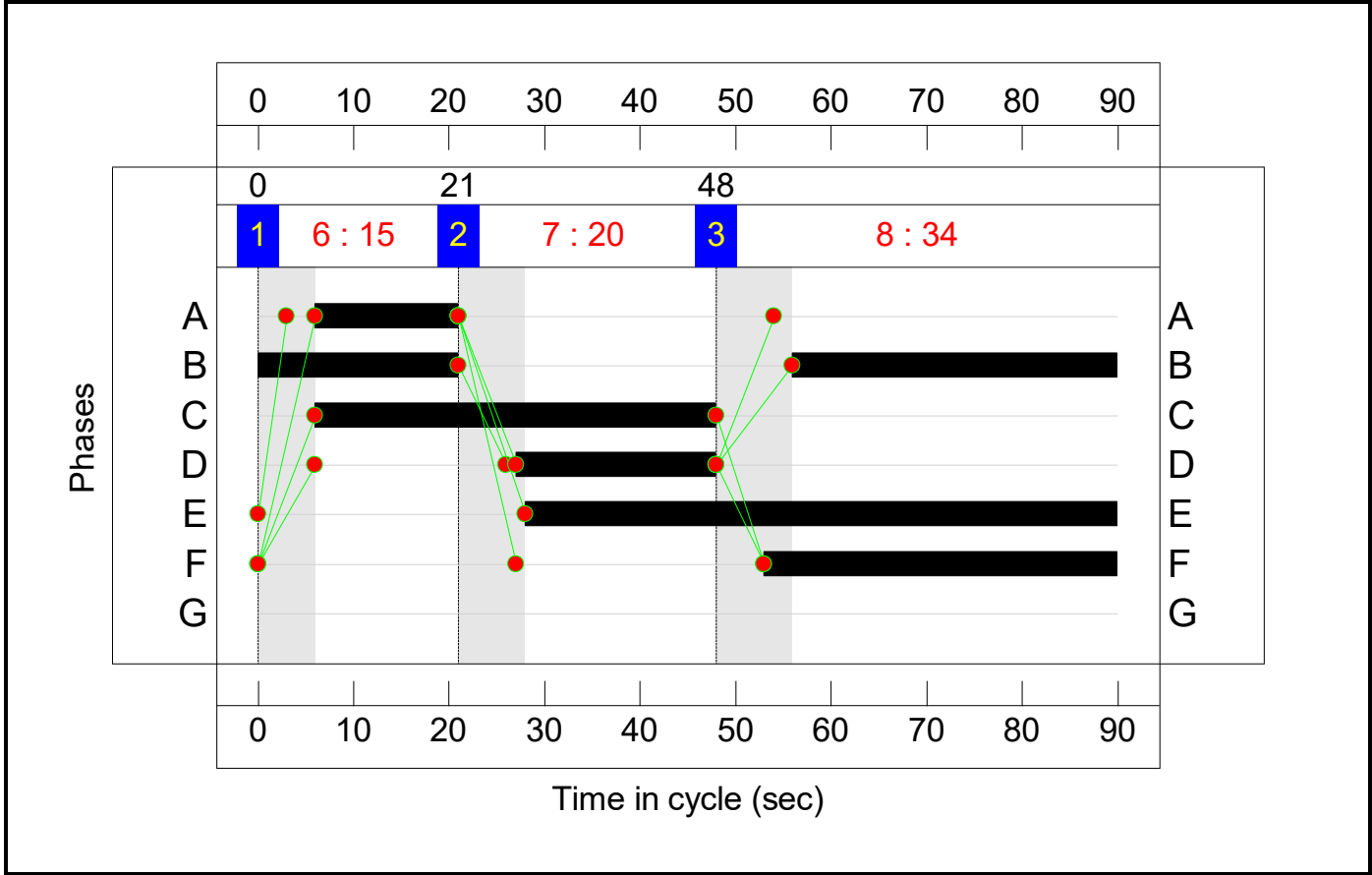
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	15	20	34
Change Point	0	21	48

Signal Timings Diagram

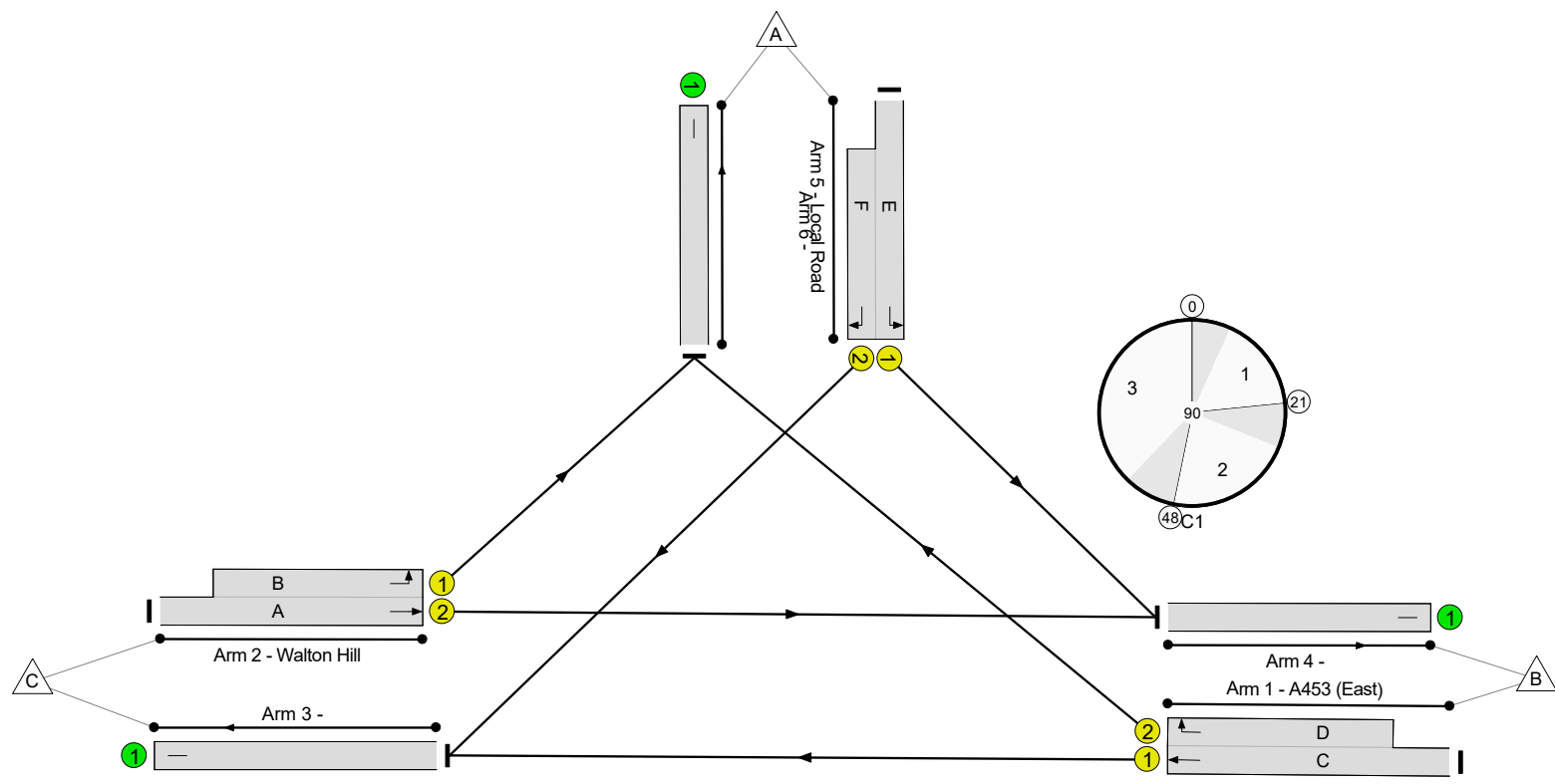


Full Input Data And Results

Network Layout Diagram



Unnamed Junction
PRC: -27.9 %
Total Traffic Delay: 218.2 pcuHr



Network Results

Network Results

**APPENDIX 53: Junction 11: A42 Junction 14 on-slip/Top Brand/Gelscoe Lane
Roundabout Stage 1A/2A Modelling Results
Results**

Junctions 11		
ARCADY 11 - Roundabout Module		
Version: 11.0.0.2177		
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For sales and distribution information, program advice and maintenance, contact TRL Software:		
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com		
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution		

Filename: 250619 A453_Gelscoe Lane roundabout (LS)_Stage 1a+2a.j11

Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\11. A453_Gelscoe Lane_Top Brand roundabout (near A42)

Report generation date: 20/06/2025 16:53:53

»2022 | Base Flows | AM
 »2022 | Base Flows | PM
 »2028 | WoD Flows | AM
 »2028 | WoD Flows | PM
 »2028 | WD Flows | AM
 »2028 | WD Flows | PM
 »2038 | WoD Flows | AM
 »2038 | WoD Flows | PM
 »2038 | WD Flows | AM
 »2038 | WD Flows | PM
 »2028 | 2a WD Flows | AM
 »2028 | 2a WD Flows | PM
 »2038 | 2a WD Flows | AM
 »2038 | 2a WD Flows | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2022 - Base Flows									
1 - A453 (N)	D1	0.4	4.64	0.20	A	D2	1.4	6.28	0.47	A
2 - Gelscoe Lane		0.1	4.19	0.04	A		0.1	5.01	0.05	A
3 - Top Brand		0.4	4.92	0.24	A		0.1	4.53	0.08	A
	[Lane Simulation] - 2028 - 2a WD Flows									
1 - A453 (N)	D11	0.9	5.91	0.32	A	D12	0.7	6.84	0.31	A
2 - Gelscoe Lane		0.2	4.70	0.10	A		0.4	5.13	0.18	A
3 - Top Brand		0.7	7.35	0.36	A		0.2	4.77	0.12	A
	[Lane Simulation] - 2028 - WD Flows									
1 - A453 (N)	D5	1.8	9.31	0.55	A	D6	1.2	7.74	0.35	A
2 - Gelscoe Lane		0.2	4.67	0.08	A		0.4	5.02	0.21	A
3 - Top Brand		0.6	6.18	0.25	A		0.2	4.37	0.09	A
	[Lane Simulation] - 2028 - WoD Flows									
1 - A453 (N)	D3	0.8	6.60	0.37	A	D4	1.0	7.31	0.35	A
2 - Gelscoe Lane		0.2	4.46	0.08	A		0.2	4.63	0.15	A
3 - Top Brand		0.5	6.35	0.23	A		0.2	4.75	0.08	A
	[Lane Simulation] - 2038 - 2a WD Flows									
1 - A453 (N)	D13	0.9	6.07	0.37	A	D14	1.3	6.74	0.36	A
2 - Gelscoe Lane		0.3	4.95	0.17	A		0.9	5.88	0.33	A
3 - Top Brand		1.5	9.83	0.51	A		0.6	6.11	0.28	A
	[Lane Simulation] - 2038 - WD Flows									
1 - A453 (N)	D9	1.8	8.76	0.57	A	D10	1.5	7.68	0.39	A
2 - Gelscoe Lane		0.3	5.06	0.15	A		1.0	6.70	0.36	A
3 - Top Brand		1.0	7.81	0.38	A		0.5	5.42	0.23	A
	[Lane Simulation] - 2038 - WoD Flows									
1 - A453 (N)	D7	1.0	6.37	0.40	A	D8	1.3	7.45	0.35	A
2 - Gelscoe Lane		0.4	4.95	0.16	A		0.4	5.02	0.19	A
3 - Top Brand		1.2	7.75	0.40	A		0.3	5.06	0.22	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	A453 Gelscoe Lane Top Brand roundabout
Location	
Site number	
Date	18/10/2023
Version	
Status	(new file)
Identifier	Aaiza
Client	
Jobnumber	220500
Enumerator	BWB\Aaiza.Shafiq
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	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Calculate RFCs	Relaxation factor for capacity/RFC runs	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
Delay	1.00	100000	100000	Calculate for all arms	3.00	-1	3	1	60	✓			1402155294	101

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	Base Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2022	Base Flows	PM	ONE HOUR	16:45	18:15	15	✓
D3	2028	WoD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2028	WoD Flows	PM	ONE HOUR	16:45	18:15	15	✓
D5	2028	WD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2028	WD Flows	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038	WoD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038	WoD Flows	PM	ONE HOUR	16:45	18:15	15	✓
D9	2038	WD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2038	WD Flows	PM	ONE HOUR	16:45	18:15	15	✓
D11	2028	2a WD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D12	2028	2a WD Flows	PM	ONE HOUR	16:45	18:15	15	✓
D13	2038	2a WD Flows	AM	ONE HOUR	07:45	09:15	15	✓
D14	2038	2a WD Flows	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

2022 | Base Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.72	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A453 (N)		
2	Gelscoe Lane		
3	Top Brand		
4	A42		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A453 (N)	3.88	7.16	18.0	24.0	58.0	9.6		
2 - Gelscoe Lane	3.26	6.87	35.0	45.0	58.0	14.7		
3 - Top Brand	3.56	6.87	36.0	44.0	58.0	14.7		
4 - A42								✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A453 (N)	0.633	1946
2 - Gelscoe Lane	0.635	1956
3 - Top Brand	0.643	2002
4 - A42		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - A453 (N)	Evenly split	10.00
2 - Gelscoe Lane	Evenly split	10.00
3 - Top Brand	Evenly split	10.00
4 - A42	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - A453 (N)	Entry	1	1	2, 3	✓	4.00			0	99999	
			2	1, 4	✓	4.00			0	99999	
	Exit	1	1	(1, 2, 3, 4)		Infinity					
			1			Infinity					
2 - Gelscoe Lane	Entry	1	1	3, 4	✓	5.00			0	99999	
			2	1, 2	✓	5.00			0	99999	
	Exit	1	1	(1, 2, 3, 4)		Infinity					
			1			Infinity					
3 - Top Brand	Entry	1	1	1, 4	✓	5.00			0	99999	
			2	2, 3	✓	5.00			0	99999	
	Exit	1	1	(1, 2, 3, 4)		Infinity					
			1			Infinity					
4 - A42	Exit	1	1			Infinity					

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - A453 (N)	Entry	1	1	0.316	973
			2	0.316	973
2 - Gelscoe Lane	Entry	1	1	0.317	978
			2	0.317	978
3 - Top Brand	Entry	1	1	0.321	1001
			2	0.321	1001

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A453 (N)	Gelscoe Lane	Top Brand	A42
1 - A453 (N)	1	1		✓	✓	
		2	✓			✓
	2	1	✓	✓	✓	✓
2 - Gelscoe Lane	1	1			✓	✓
		2	✓	✓		
	2	1	✓	✓	✓	✓
3 - Top Brand	1	1	✓			✓
		2		✓	✓	
	2	1	✓	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	Base Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	246	100.000
2 - Gelscoe Lane		ONE HOUR	✓	55	100.000
3 - Top Brand		ONE HOUR	✓	232	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	43	126	77
	2 - Gelscoe Lane	19	0	12	24
	3 - Top Brand	169	23	0	40
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Cyclist %

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.20	4.64	0.4	A	228	342
2 - Gelscoe Lane	0.04	4.19	0.1	A	51	77
3 - Top Brand	0.24	4.92	0.4	A	212	318
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	186	47	15	1377	0.135	185	186	148	0.0	0.2	4.169	A
2 - Gelscoe Lane	42	11	153	1403	0.030	42	45	48	0.0	0.1	4.125	A
3 - Top Brand	179	45	92	1120	0.160	179	177	103	0.0	0.2	4.274	A
4 - A42			0					108				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	231	58	19	1383	0.167	230	228	167	0.2	0.4	4.389	A
2 - Gelscoe Lane	48	12	186	1409	0.034	48	55	63	0.1	0.0	4.130	A
3 - Top Brand	204	51	104	1073	0.190	203	213	130	0.2	0.3	4.524	A
4 - A42			0					121				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	276	69	24	1381	0.200	276	280	209	0.4	0.3	4.644	A
2 - Gelscoe Lane	59	15	228	1376	0.043	59	68	72	0.0	0.1	4.105	A
3 - Top Brand	257	64	132	1071	0.240	257	258	155	0.3	0.4	4.904	A
4 - A42			0					157				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	275	69	22	1349	0.204	278	275	202	0.3	0.2	4.528	A
2 - Gelscoe Lane	62	16	233	1392	0.045	63	66	67	0.1	0.1	4.148	A
3 - Top Brand	243	61	137	1103	0.220	243	255	159	0.4	0.4	4.923	A
4 - A42			0					156				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	218	54	22	1394	0.156	216	227	163	0.2	0.3	4.219	A
2 - Gelscoe Lane	50	12	180	1380	0.036	50	59	58	0.1	0.0	4.195	A
3 - Top Brand	209	52	110	1094	0.191	208	215	120	0.4	0.3	4.598	A
4 - A42			0					132				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	181	45	20	1370	0.132	182	190	145	0.3	0.2	4.098	A
2 - Gelscoe Lane	45	11	150	1411	0.032	46	46	52	0.0	0.0	3.947	A
3 - Top Brand	180	45	96	1076	0.167	181	183	99	0.3	0.2	4.285	A
4 - A42			0					111				

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 - A453 (N)	Entry	1	1	2, 3	125	968	0.129	124	127	0.0	0.1	4.310	A
			2	1, 4	61	968	0.063	61	59	0.0	0.1	3.867	A
		2	1	(1, 2, 3, 4)	186			186	187	0.0	0.0	0.000	A
	Exit	1	1		148			148	146	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	29	929	0.031	29	30	0.0	0.0	4.209	A
			2	1, 2	13	929	0.014	13	15	0.0	0.0	3.962	A
		2	1	(1, 2, 3, 4)	42			42	46	0.0	0.0	0.000	A
	Exit	1	1		48			48	50	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	164	971	0.169	163	160	0.0	0.2	4.324	A
			2	2, 3	15	971	0.016	15	16	0.0	0.0	3.784	A
		2	1	(1, 2, 3, 4)	179			179	177	0.0	0.0	0.000	A
	Exit	1	1		103			103	104	0.0	0.0	0.000	A
4 - A42	Exit	1	1		108			108	108	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 - A453 (N)	Entry	1	1	2, 3	163	967	0.169	162	159	0.1	0.3	4.599	A
			2	1, 4	68	967	0.070	68	69	0.1	0.1	3.908	A
		2	1	(1, 2, 3, 4)	231			231	229	0.0	0.0	0.001	A
	Exit	1	1		167			167	175	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	32	919	0.035	32	36	0.0	0.0	4.216	A
			2	1, 2	16	919	0.017	16	19	0.0	0.0	3.960	A
		2	1	(1, 2, 3, 4)	48			48	55	0.0	0.0	0.000	A
	Exit	1	1		63			63	62	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	184	967	0.191	184	193	0.2	0.3	4.609	A
			2	2, 3	19	967	0.020	19	21	0.0	0.0	3.720	A
		2	1	(1, 2, 3, 4)	204			204	214	0.0	0.0	0.001	A
	Exit	1	1		130			130	130	0.0	0.0	0.000	A
4 - A42	Exit	1	1		121			121	130	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 - A453 (N)	Entry	1	1	2, 3	191	965	0.198	191	192	0.3	0.2	4.845	A
			2	1, 4	84	965	0.088	86	87	0.1	0.1	4.160	A
		2	1	(1, 2, 3, 4)	276			275	279	0.0	0.0	0.009	A
	Exit	1	1		209			209	212	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	41	906	0.045	41	45	0.0	0.0	4.272	A
			2	1, 2	19	906	0.021	19	22	0.0	0.0	3.767	A
		2	1	(1, 2, 3, 4)	59			59	68	0.0	0.0	0.000	A
	Exit	1	1		72			72	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	233	958	0.243	233	233	0.3	0.4	4.998	A
			2	2, 3	24	958	0.025	24	25	0.0	0.0	3.991	A
		2	1	(1, 2, 3, 4)	257			257	259	0.0	0.0	0.004	A
	Exit	1	1		155			155	159	0.0	0.0	0.000	A
4 - A42	Exit	1	1		157			157	160	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 - A453 (N)	Entry	1	1	2, 3	187	966	0.194	190	189	0.2	0.1	4.719	A
			2	1, 4	87	966	0.090	89	86	0.1	0.1	4.095	A
		2	1	(1, 2, 3, 4)	275			275	275	0.0	0.0	0.009	A
	Exit	1	1		202			202	209	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	41	904	0.046	42	43	0.0	0.0	4.238	A
			2	1, 2	21	904	0.023	21	23	0.0	0.0	3.978	A
		2	1	(1, 2, 3, 4)	62			62	66	0.0	0.0	0.000	A
	Exit	1	1		67			67	72	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	221	957	0.231	221	231	0.4	0.4	5.016	A
			2	2, 3	22	957	0.023	22	24	0.0	0.0	3.933	A
		2	1	(1, 2, 3, 4)	243			243	256	0.0	0.0	0.009	A
	Exit	1	1		159			159	156	0.0	0.0	0.000	A
4 - A42	Exit	1	1		156			156	159	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 - A453 (N)	Entry	1	1	2, 3	147	966	0.153	146	154	0.1	0.2	4.326	A
			2	1, 4	71	966	0.073	70	73	0.1	0.1	3.993	A
		2	1	(1, 2, 3, 4)	218			218	228	0.0	0.0	0.000	A
	Exit	1	1		163			163	173	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	35	921	0.038	35	39	0.0	0.0	4.116	A
			2	1, 2	15	921	0.016	15	19	0.0	0.0	4.355	A
		2	1	(1, 2, 3, 4)	50			50	59	0.0	0.0	0.000	A
	Exit	1	1		58			58	61	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	187	966	0.193	186	194	0.4	0.2	4.675	A
			2	2, 3	22	966	0.023	22	22	0.0	0.0	3.899	A
		2	1	(1, 2, 3, 4)	209			209	215	0.0	0.0	0.001	A
	Exit	1	1		120			120	127	0.0	0.0	0.000	A
4 - A42	Exit	1	1		132			132	140	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 - A453 (N)	Entry	1	1	2, 3	121	967	0.125	121	129	0.2	0.2	4.209	A
			2	1, 4	60	967	0.062	61	60	0.1	0.0	3.857	A
		2	1	(1, 2, 3, 4)	181			181	189	0.0	0.0	0.001	A
	Exit	1	1		145			145	149	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	29	930	0.031	29	29	0.0	0.0	3.992	A
			2	1, 2	17	930	0.018	17	17	0.0	0.0	3.872	A
		2	1	(1, 2, 3, 4)	45			45	46	0.0	0.0	0.000	A
	Exit	1	1		52			52	51	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	160	970	0.164	161	165	0.2	0.2	4.317	A
			2	2, 3	20	970	0.021	20	18	0.0	0.0	4.004	A
		2	1	(1, 2, 3, 4)	180			180	183	0.0	0.0	0.000	A
	Exit	1	1		99			99	106	0.0	0.0	0.000	A
4 - A42	Exit	1	1		111			111	113	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	973	968	0.034	33	33	0.0	0.1	4.163	A
				3	92	23	973	968	0.095	92	94	0.0	0.1	4.362	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	61	15	973	968	0.063	61	59	0.0	0.1	3.867	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	-	-	-	33	33	0.0	0.0	0.000	A
				3	92	23	-	-	-	92	94	0.0	0.0	0.000	A
				4	61	15	-	-	-	61	59	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	910	865	0.013	11	11	0.0	0.0	4.074	A
				4	18	4	978	930	0.019	18	19	0.0	0.0	4.283	A
			2	1	13	3	968	920	0.015	13	15	0.0	0.0	3.962	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	13	3	-	-	-	13	16	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	-	-	-	11	11	0.0	0.0	0.000	A
				4	18	4	-	-	-	18	19	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	134	34	1001	972	0.138	134	130	0.0	0.1	4.317	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	7	1001	972	0.030	29	30	0.0	0.0	4.351	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	15	4	991	962	0.016	15	16	0.0	0.0	3.784	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	134	34	-	-	-	134	131	0.0	0.0	0.000	A
				2	15	4	-	-	-	15	16	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	7	-	-	-	30	30	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	973	967	0.045	43	41	0.1	0.1	4.686	A
				3	120	30	973	967	0.124	119	118	0.1	0.2	4.568	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	68	17	973	967	0.070	68	69	0.1	0.1	3.908	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	-	-	-	44	41	0.0	0.0	0.000	A
				3	120	30	-	-	-	120	118	0.0	0.0	0.001	A
				4	68	17	-	-	-	68	70	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	968	912	0.013	12	12	0.0	0.0	4.540	A
				4	20	5	978	921	0.022	21	24	0.0	0.0	4.052	A
			2	1	16	4	978	918	0.017	16	19	0.0	0.0	3.960	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	16	4	-	-	-	16	18	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	12	0.0	0.0	0.000	A
				4	20	5	-	-	-	20	24	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	152	38	1001	967	0.157	151	156	0.1	0.3	4.635	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	968	0.033	33	37	0.0	0.0	4.495	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	19	5	991	957	0.020	19	21	0.0	0.0	3.720	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	152	38	-	-	-	152	157	0.0	0.0	0.001	A
				2	19	5	-	-	-	19	21	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	36	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	48	12	973	966	0.050	48	49	0.1	0.0	4.791	A
				3	142	36	973	965	0.148	142	143	0.2	0.1	4.863	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	84	21	973	965	0.087	86	87	0.1	0.1	4.160	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	48	12	-	-	-	48	49	0.0	0.0	0.015	A
				3	143	36	-	-	-	142	143	0.0	0.0	0.013	A
				4	84	21	-	-	-	84	87	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	968	898	0.014	12	16	0.0	0.0	4.262	A
				4	28	7	978	906	0.031	28	30	0.0	0.0	4.278	A
			2	1	19	5	978	907	0.021	19	22	0.0	0.0	3.767	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	19	5	-	-	-	19	22	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	16	0.0	0.0	0.000	A
				4	28	7	-	-	-	28	30	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	191	48	1001	958	0.199	190	190	0.3	0.3	4.997	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	43	11	1001	957	0.044	43	43	0.0	0.0	5.001	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	24	6	1001	958	0.025	24	25	0.0	0.0	3.991	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	191	48	-	-	-	191	190	0.0	0.0	0.004	A
				2	24	6	-	-	-	24	25	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	43	11	-	-	-	43	44	0.0	0.0	0.005	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	45	11	973	966	0.046	45	48	0.0	0.0	4.716	A
				3	143	36	973	966	0.148	145	141	0.1	0.1	4.720	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	87	22	973	966	0.090	89	86	0.1	0.1	4.095	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	45	11	-	-	-	45	48	0.0	0.0	0.006	A
				3	143	36	-	-	-	143	141	0.0	0.0	0.009	A
				4	87	22	-	-	-	87	86	0.0	0.0	0.011	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	4	920	851	0.017	15	15	0.0	0.0	4.275	A
				4	27	7	978	905	0.030	27	28	0.0	0.0	4.219	A
			2	1	21	5	978	905	0.023	21	23	0.0	0.0	3.978	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	21	5	-	-	-	21	23	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	4	-	-	-	14	15	0.0	0.0	0.000	A
				4	27	7	-	-	-	27	28	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	182	45	1001	958	0.190	181	187	0.3	0.3	5.008	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	39	10	1001	957	0.041	40	45	0.0	0.1	5.048	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	22	6	991	948	0.023	22	24	0.0	0.0	3.933	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	182	45	-	-	-	182	187	0.0	0.0	0.012	A
				2	22	6	-	-	-	22	24	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	39	10	-	-	-	39	45	0.0	0.0	0.002	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	36	9	973	967	0.037	36	39	0.0	0.0	4.357	A
				3	111	28	973	966	0.115	110	115	0.1	0.2	4.315	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	71	18	973	966	0.073	70	73	0.1	0.1	3.993	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	36	9	-	-	-	36	39	0.0	0.0	0.000	A
				3	111	28	-	-	-	111	115	0.0	0.0	0.000	A
				4	71	18	-	-	-	71	73	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	910	857	0.012	10	12	0.0	0.0	4.267	A
				4	24	6	978	921	0.026	24	27	0.0	0.0	4.048	A
			2	1	15	4	978	919	0.016	15	19	0.0	0.0	4.355	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	15	4	-	-	-	15	19	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	-	-	-	11	12	0.0	0.0	0.000	A
				4	24	6	-	-	-	24	27	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	149	37	1001	964	0.155	149	154	0.3	0.2	4.698	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	37	9	1001	965	0.039	38	40	0.1	0.0	4.590	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	22	5	1001	965	0.023	22	22	0.0	0.0	3.899	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	149	37	-	-	-	149	153	0.0	0.0	0.001	A
				2	22	5	-	-	-	22	22	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	37	9	-	-	-	37	40	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	973	967	0.034	32	33	0.0	0.1	4.148	A
				3	88	22	973	967	0.091	89	97	0.2	0.1	4.230	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	60	15	973	967	0.062	61	60	0.1	0.0	3.857	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	-	-	-	33	33	0.0	0.0	0.000	A
				3	88	22	-	-	-	88	96	0.0	0.0	0.002	A
				4	60	15	-	-	-	60	60	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	2	881	836	0.012	10	9	0.0	0.0	4.022	A
				4	19	5	968	922	0.020	19	20	0.0	0.0	3.978	A
			2	1	17	4	968	922	0.018	17	17	0.0	0.0	3.872	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	17	4	-	-	-	17	17	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	2	-	-	-	10	9	0.0	0.0	0.000	A
				4	19	5	-	-	-	19	20	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	127	32	1001	971	0.131	128	131	0.2	0.1	4.337	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	972	0.033	32	33	0.0	0.0	4.237	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	20	5	991	961	0.021	20	18	0.0	0.0	4.004	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	131	0.0	0.0	0.000	A
				2	20	5	-	-	-	20	18	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	33	0.0	0.0	0.000	A

2022 | Base Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.03	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022	Base Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	672	100.000
2 - Gelscoe Lane		ONE HOUR	✓	55	100.000
3 - Top Brand		ONE HOUR	✓	65	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	93	273	306
	2 - Gelscoe Lane	23	0	13	19
	3 - Top Brand	56	7	0	2
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Cyclist %

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.47	6.28	1.4	A	616	924
2 - Gelscoe Lane	0.05	5.01	0.1	A	52	79
3 - Top Brand	0.08	4.53	0.1	A	63	95
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	511	128	5	1559	0.328	511	502	67	0.0	0.8	5.045	A
2 - Gelscoe Lane	44	11	436	1333	0.033	45	44	80	0.0	0.1	4.453	A
3 - Top Brand	53	13	261	1038	0.051	53	53	220	0.0	0.1	4.082	A
4 - A42			0					242				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	599	150	7	1553	0.386	601	608	71	0.8	0.7	5.424	A
2 - Gelscoe Lane	51	13	514	1310	0.039	50	56	94	0.1	0.0	4.558	A
3 - Top Brand	60	15	311	1016	0.059	59	63	254	0.1	0.1	4.393	A
4 - A42			0					292				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	741	185	7	1575	0.470	734	743	91	0.7	1.4	6.116	A
2 - Gelscoe Lane	64	16	632	1251	0.051	65	69	109	0.0	0.0	4.812	A
3 - Top Brand	76	19	385	972	0.078	76	77	312	0.1	0.0	4.529	A
4 - A42			0					363				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	727	182	7	1578	0.461	728	745	89	1.4	1.2	6.276	A
2 - Gelscoe Lane	65	16	626	1292	0.050	64	69	109	0.0	0.1	5.011	A
3 - Top Brand	70	17	388	975	0.072	70	76	303	0.0	0.1	4.510	A
4 - A42			0					362				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	612	153	8	1585	0.386	616	615	76	1.2	0.5	5.387	A
2 - Gelscoe Lane	47	12	534	1331	0.036	47	56	90	0.1	0.1	4.733	A
3 - Top Brand	67	17	314	1003	0.066	67	68	267	0.1	0.1	4.261	A
4 - A42			0					298				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	503	126	6	1565	0.322	504	502	61	0.5	0.6	5.049	A
2 - Gelscoe Lane	43	11	435	1391	0.031	42	47	75	0.1	0.0	4.551	A
3 - Top Brand	53	13	259	1059	0.050	53	55	219	0.1	0.0	4.084	A
4 - A42			0					245				

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 - A453 (N)	Entry	1	1	2, 3	284	971	0.293	285	273	0.0	0.5	5.106	A
			2	1, 4	227	971	0.234	227	229	0.0	0.3	4.896	A
		2	1	(1, 2, 3, 4)	511			511	505	0.0	0.0	0.036	A
	Exit	1	1		67			67	66	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	24	839	0.029	24	24	0.0	0.0	4.529	A
			2	1, 2	20	839	0.024	20	20	0.0	0.0	4.359	A
		2	1	(1, 2, 3, 4)	44			44	44	0.0	0.0	0.000	A
	Exit	1	1		80			80	77	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	48	917	0.053	48	48	0.0	0.0	4.107	A
			2	2, 3	5	917	0.006	5	6	0.0	0.0	3.872	A
		2	1	(1, 2, 3, 4)	53			53	54	0.0	0.0	0.000	A
	Exit	1	1		220			220	211	0.0	0.0	0.000	A
4 - A42	Exit	1	1		242			242	245	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 - A453 (N)	Entry	1	1	2, 3	326	971	0.335	327	333	0.5	0.4	5.562	A
			2	1, 4	274	971	0.282	274	275	0.3	0.3	5.043	A
		2	1	(1, 2, 3, 4)	599			599	608	0.0	0.0	0.097	A
	Exit	1	1		71			71	78	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	31	815	0.038	30	33	0.0	0.0	4.536	A
			2	1, 2	20	815	0.024	20	24	0.0	0.0	4.589	A
		2	1	(1, 2, 3, 4)	51			51	56	0.0	0.0	0.000	A
	Exit	1	1		94			94	92	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	53	901	0.058	52	56	0.0	0.1	4.391	A
			2	2, 3	7	901	0.008	7	7	0.0	0.0	4.410	A
		2	1	(1, 2, 3, 4)	60			60	63	0.0	0.0	0.000	A
	Exit	1	1		254			254	262	0.0	0.0	0.000	A
4 - A42	Exit	1	1		292			292	295	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 - A453 (N)	Entry	1	1	2, 3	401	971	0.413	400	405	0.4	0.6	6.103	A
			2	1, 4	339	971	0.349	335	337	0.3	0.7	5.497	A
		2	1	(1, 2, 3, 4)	741			740	745	0.0	0.1	0.288	A
	Exit	1	1		91			91	96	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	39	777	0.050	40	39	0.0	0.0	4.750	A
			2	1, 2	25	777	0.032	25	29	0.0	0.0	4.894	A
		2	1	(1, 2, 3, 4)	64			64	69	0.0	0.0	0.000	A
	Exit	1	1		109			109	109	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	68	877	0.078	69	70	0.1	0.0	4.573	A
			2	2, 3	8	877	0.009	7	7	0.0	0.0	4.115	A
		2	1	(1, 2, 3, 4)	76			76	77	0.0	0.0	0.000	A
	Exit	1	1		312			312	319	0.0	0.0	0.000	A
4 - A42	Exit	1	1		363			363	365	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 - A453 (N)	Entry	1	1	2, 3	389	971	0.401	391	403	0.6	0.6	6.329	A
			2	1, 4	338	971	0.348	337	342	0.7	0.6	5.614	A
		2	1	(1, 2, 3, 4)	727			727	745	0.1	0.0	0.276	A
	Exit	1	1		89			89	96	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	38	779	0.049	37	40	0.0	0.1	5.040	A
			2	1, 2	26	779	0.034	27	29	0.0	0.0	4.971	A
		2	1	(1, 2, 3, 4)	65			65	69	0.0	0.0	0.000	A
	Exit	1	1		109			109	113	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	63	876	0.072	63	69	0.0	0.1	4.526	A
			2	2, 3	7	876	0.008	7	7	0.0	0.0	4.358	A
		2	1	(1, 2, 3, 4)	70			70	77	0.0	0.0	0.000	A
	Exit	1	1		303			303	313	0.0	0.0	0.000	A
4 - A42	Exit	1	1		362			362	368	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 - A453 (N)	Entry	1	1	2, 3	335	971	0.345	337	337	0.6	0.3	5.533	A
			2	1, 4	278	971	0.287	279	278	0.6	0.3	5.033	A
		2	1	(1, 2, 3, 4)	612			613	612	0.0	0.0	0.081	A
	Exit	1	1		76			76	83	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	29	808	0.036	29	32	0.1	0.0	4.713	A
			2	1, 2	18	808	0.023	18	24	0.0	0.0	4.759	A
		2	1	(1, 2, 3, 4)	47			47	56	0.0	0.0	0.000	A
	Exit	1	1		90			90	93	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	59	900	0.066	59	60	0.1	0.1	4.270	A
			2	2, 3	8	900	0.008	8	8	0.0	0.0	4.197	A
		2	1	(1, 2, 3, 4)	67			67	68	0.0	0.0	0.000	A
	Exit	1	1		267			267	265	0.0	0.0	0.000	A
4 - A42	Exit	1	1		298			298	299	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 - A453 (N)	Entry	1	1	2, 3	277	971	0.285	276	273	0.3	0.4	5.117	A
			2	1, 4	226	971	0.233	228	228	0.3	0.2	4.729	A
		2	1	(1, 2, 3, 4)	503			503	502	0.0	0.0	0.109	A
	Exit	1	1		61			61	68	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	26	840	0.031	26	27	0.0	0.0	4.663	A
			2	1, 2	17	840	0.020	17	20	0.0	0.0	4.397	A
		2	1	(1, 2, 3, 4)	43			43	47	0.0	0.0	0.000	A
	Exit	1	1		75			75	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	47	918	0.051	47	50	0.1	0.0	4.080	A
			2	2, 3	6	918	0.007	6	5	0.0	0.0	4.122	A
		2	1	(1, 2, 3, 4)	53			53	55	0.0	0.0	0.000	A
	Exit	1	1		219			219	217	0.0	0.0	0.000	A
4 - A42	Exit	1	1		245			245	245	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	75	19	973	971	0.077	75	72	0.0	0.1	5.219	A
				3	209	52	973	971	0.215	209	201	0.0	0.3	5.065	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	227	57	973	971	0.234	227	229	0.0	0.3	4.896	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	75	19	-	-	-	75	72	0.0	0.0	0.070	A
				3	209	52	-	-	-	209	202	0.0	0.0	0.033	A
				4	227	57	-	-	-	227	231	0.0	0.0	0.027	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	3	918	785	0.013	10	10	0.0	0.0	4.156	A
				4	14	4	942	809	0.017	14	14	0.0	0.0	4.791	A
			2	1	20	5	966	831	0.024	20	20	0.0	0.0	4.359	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	20	5	-	-	-	20	20	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	3	-	-	-	10	10	0.0	0.0	0.000	A
				4	14	4	-	-	-	14	14	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	47	12	1001	918	0.051	47	46	0.0	0.0	4.134	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	354	323	0.004	1	2	0.0	0.0	3.301	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	5	1	781	714	0.007	5	6	0.0	0.0	3.872	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	47	12	-	-	-	47	46	0.0	0.0	0.000	A
				2	5	1	-	-	-	5	6	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	-	-	-	1	2	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	86	22	973	971	0.089	86	85	0.1	0.1	5.647	A
				3	239	60	973	971	0.246	241	248	0.3	0.3	5.533	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	274	68	973	971	0.282	274	275	0.3	0.3	5.043	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	86	22	-	-	-	86	85	0.0	0.0	0.117	A
				3	239	60	-	-	-	239	248	0.0	0.0	0.111	A
				4	274	68	-	-	-	274	275	0.0	0.0	0.079	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	966	802	0.017	13	14	0.0	0.0	4.667	A
				4	17	4	978	814	0.021	17	19	0.0	0.0	4.436	A
			2	1	20	5	978	812	0.025	20	24	0.0	0.0	4.589	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	20	5	-	-	-	20	24	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	14	0.0	0.0	0.000	A
				4	17	4	-	-	-	17	18	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	52	13	1001	901	0.057	51	55	0.0	0.1	4.382	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	305	275	0.004	1	1	0.0	0.0	4.725	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	7	2	854	773	0.009	7	7	0.0	0.0	4.410	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	52	13	-	-	-	52	55	0.0	0.0	0.000	A
				2	7	2	-	-	-	7	7	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	-	-	-	1	1	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	101	25	973	971	0.104	102	102	0.1	0.1	5.934	A
				3	299	75	973	971	0.308	298	304	0.3	0.5	6.159	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	339	85	973	971	0.349	335	337	0.3	0.7	5.497	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	25	-	-	-	101	102	0.0	0.0	0.329	A
				3	300	75	-	-	-	299	305	0.0	0.0	0.307	A
				4	340	85	-	-	-	339	339	0.0	0.0	0.258	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	966	772	0.018	14	15	0.0	0.0	5.146	A
				4	25	6	978	782	0.033	26	25	0.0	0.0	4.514	A
			2	1	25	6	978	780	0.032	25	29	0.0	0.0	4.894	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	25	6	-	-	-	25	29	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	15	0.0	0.0	0.000	A
				4	25	6	-	-	-	25	25	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	65	16	1001	878	0.074	66	67	0.1	0.0	4.583	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.73	525	462	0.006	3	3	0.0	0.0	4.336	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	818	716	0.011	7	7	0.0	0.0	4.115	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	65	16	-	-	-	65	67	0.0	0.0	0.000	A
				2	8	2	-	-	-	8	7	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.73	-	-	-	3	3	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	26	973	971	0.105	102	106	0.1	0.1	6.239	A
				3	287	72	973	971	0.296	288	297	0.5	0.5	6.362	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	338	84	973	971	0.348	337	342	0.7	0.6	5.614	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	26	-	-	-	102	106	0.0	0.0	0.271	A
				3	287	72	-	-	-	287	297	0.0	0.0	0.281	A
				4	338	84	-	-	-	338	342	0.0	0.0	0.273	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	942	745	0.020	14	16	0.0	0.0	5.072	A
				4	24	6	966	768	0.031	23	23	0.0	0.0	5.018	A
			2	1	26	7	978	777	0.034	27	29	0.0	0.0	4.971	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	26	7	-	-	-	26	29	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	-	-	-	15	17	0.0	0.0	0.000	A
				4	24	6	-	-	-	24	23	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	62	15	1001	875	0.071	62	67	0.0	0.1	4.524	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	403	353	0.003	1	2	0.0	0.0	4.591	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	7	2	793	692	0.010	7	7	0.0	0.0	4.358	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	62	15	-	-	-	62	67	0.0	0.0	0.000	A
				2	7	2	-	-	-	7	7	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.29	-	-	-	1	2	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	81	20	973	971	0.083	82	85	0.1	0.0	5.724	A
				3	254	63	973	971	0.262	255	252	0.5	0.2	5.468	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	278	70	973	970	0.287	279	278	0.6	0.3	5.033	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	80	20	-	-	-	81	85	0.0	0.0	0.117	A
				3	254	63	-	-	-	254	251	0.0	0.0	0.095	A
				4	278	70	-	-	-	278	277	0.0	0.0	0.057	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	954	790	0.015	12	13	0.0	0.0	4.615	A
				4	17	4	966	801	0.021	17	19	0.0	0.0	4.779	A
			2	1	18	5	978	809	0.023	18	24	0.0	0.0	4.759	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	18	5	-	-	-	18	24	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	13	0.0	0.0	0.000	A
				4	17	4	-	-	-	17	19	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	58	14	1001	900	0.064	58	59	0.1	0.1	4.276	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.37	354	315	0.005	1	2	0.0	0.0	4.089	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	781	702	0.011	8	8	0.0	0.0	4.197	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	58	14	-	-	-	58	58	0.0	0.0	0.000	A
				2	8	2	-	-	-	8	8	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.37	-	-	-	1	2	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	973	971	0.071	69	69	0.0	0.1	5.047	A
				3	208	52	973	971	0.214	208	205	0.2	0.3	5.141	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	226	57	973	971	0.233	228	228	0.3	0.2	4.729	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	69	0.0	0.0	0.162	A
				3	208	52	-	-	-	208	205	0.0	0.0	0.123	A
				4	226	57	-	-	-	226	228	0.0	0.0	0.079	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	966	828	0.014	11	12	0.0	0.0	4.110	A
				4	14	4	954	818	0.018	14	15	0.0	0.0	5.127	A
			2	1	17	4	966	829	0.020	17	20	0.0	0.0	4.397	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	17	4	-	-	-	17	20	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	12	0.0	0.0	0.000	A
				4	14	4	-	-	-	14	15	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	44	11	1001	918	0.048	44	48	0.1	0.0	4.089	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.62	439	401	0.006	3	2	0.0	0.0	3.875	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	6	2	769	704	0.009	6	5	0.0	0.0	4.122	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	44	11	-	-	-	44	48	0.0	0.0	0.000	A
				2	6	2	-	-	-	6	5	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.62	-	-	-	2	2	0.0	0.0	0.000	A

2028 | WoD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.21	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2028	WoD Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	409	100.000
2 - Gelscoe Lane		ONE HOUR	✓	110	100.000
3 - Top Brand		ONE HOUR	✓	258	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	171	135	103
	2 - Gelscoe Lane	47	0	19	44
	3 - Top Brand	157	59	0	42
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	1	29	11
	2 - Gelscoe Lane	0	0	6	5
	3 - Top Brand	24	0	0	91
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.37	6.60	0.8	A	375	563
2 - Gelscoe Lane	0.08	4.46	0.2	A	100	149
3 - Top Brand	0.23	6.35	0.5	A	232	348
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	300	75	44	1234	0.243	300	305	161	0.0	0.5	5.285	A
2 - Gelscoe Lane	87	22	181	1496	0.058	88	87	163	0.0	0.0	4.260	A
3 - Top Brand	199	50	155	1309	0.152	199	195	115	0.0	0.5	5.823	A
4 - A42			0					148				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	372	93	57	1269	0.293	375	367	173	0.5	0.5	5.735	A
2 - Gelscoe Lane	102	25	224	1416	0.072	101	104	208	0.0	0.1	4.150	A
3 - Top Brand	218	55	181	1220	0.179	218	234	144	0.5	0.4	5.528	A
4 - A42			0					169				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	458	115	61	1287	0.356	460	458	207	0.5	0.8	6.182	A
2 - Gelscoe Lane	111	28	258	1478	0.075	110	124	263	0.1	0.2	4.442	A
3 - Top Brand	266	67	200	1214	0.219	268	285	168	0.4	0.4	6.347	A
4 - A42			0					202				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	437	109	65	1172	0.373	437	451	229	0.8	0.7	6.596	A
2 - Gelscoe Lane	121	30	252	1422	0.085	121	124	250	0.2	0.1	4.461	A
3 - Top Brand	285	71	220	1258	0.227	285	294	153	0.4	0.5	6.317	A
4 - A42			0					211				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	363	91	55	1221	0.297	365	375	178	0.7	0.5	5.798	A
2 - Gelscoe Lane	98	24	212	1475	0.066	97	106	208	0.1	0.1	4.359	A
3 - Top Brand	228	57	183	1204	0.190	228	244	126	0.5	0.4	5.643	A
4 - A42			0					178				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	321	80	41	1282	0.251	319	320	149	0.5	0.6	5.293	A
2 - Gelscoe Lane	80	20	182	1548	0.052	80	89	179	0.1	0.1	4.407	A
3 - Top Brand	193	48	137	1270	0.152	196	199	126	0.4	0.3	5.558	A
4 - A42			0					141				

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 - A453 (N)	Entry	1	1	2, 3	221	959	0.230	220	225	0.0	0.4	5.552	A
			2	1, 4	80	959	0.083	81	80	0.0	0.1	4.203	A
		2	1	(1, 2, 3, 4)	300			300	307	0.0	0.0	0.088	A
	Exit	1	1		161			161	150	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	48	920	0.052	49	51	0.0	0.0	4.322	A
			2	1, 2	39	920	0.042	39	36	0.0	0.0	4.176	A
		2	1	(1, 2, 3, 4)	87			87	87	0.0	0.0	0.000	A
	Exit	1	1		163			163	173	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	155	951	0.163	155	148	0.0	0.5	6.659	A
			2	2, 3	44	951	0.046	44	47	0.0	0.0	3.844	A
		2	1	(1, 2, 3, 4)	199			199	197	0.0	0.0	0.002	A
	Exit	1	1		115			115	114	0.0	0.0	0.000	A
4 - A42	Exit	1	1		148			148	151	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 - A453 (N)	Entry	1	1	2, 3	276	955	0.289	279	271	0.4	0.4	5.889	A
			2	1, 4	96	955	0.100	96	96	0.1	0.1	4.559	A
		2	1	(1, 2, 3, 4)	372			371	367	0.0	0.1	0.193	A
	Exit	1	1		173			173	185	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	57	907	0.063	56	59	0.0	0.1	4.150	A
			2	1, 2	45	907	0.049	45	44	0.0	0.0	4.151	A
		2	1	(1, 2, 3, 4)	102			102	104	0.0	0.0	0.000	A
	Exit	1	1		208			208	206	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	162	943	0.171	162	177	0.5	0.3	6.125	A
			2	2, 3	57	943	0.061	57	57	0.0	0.0	4.070	A
		2	1	(1, 2, 3, 4)	218			218	233	0.0	0.0	0.025	A
	Exit	1	1		144			144	139	0.0	0.0	0.000	A
4 - A42	Exit	1	1		169			169	175	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 - A453 (N)	Entry	1	1	2, 3	346	954	0.363	348	342	0.4	0.6	6.334	A
			2	1, 4	112	954	0.117	112	117	0.1	0.2	4.823	A
		2	1	(1, 2, 3, 4)	458			458	459	0.1	0.1	0.225	A
	Exit	1	1		207			207	222	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	69	896	0.077	69	74	0.1	0.1	4.667	A
			2	1, 2	42	896	0.047	42	50	0.0	0.1	4.122	A
		2	1	(1, 2, 3, 4)	111			111	124	0.0	0.0	0.002	A
	Exit	1	1		263			263	259	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	208	936	0.222	208	222	0.3	0.3	7.091	A
			2	2, 3	59	936	0.063	61	63	0.0	0.0	4.279	A
		2	1	(1, 2, 3, 4)	266			267	285	0.0	0.0	0.033	A
	Exit	1	1		168			168	169	0.0	0.0	0.000	A
4 - A42	Exit	1	1		202			202	217	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 - A453 (N)	Entry	1	1	2, 3	319	952	0.335	319	331	0.6	0.5	6.614	A
			2	1, 4	116	952	0.122	118	120	0.2	0.1	4.854	A
		2	1	(1, 2, 3, 4)	437			435	450	0.1	0.2	0.449	A
	Exit	1	1		229			229	233	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	63	898	0.071	64	67	0.1	0.1	4.577	A
			2	1, 2	57	898	0.064	58	56	0.1	0.0	4.327	A
		2	1	(1, 2, 3, 4)	121			121	124	0.0	0.0	0.000	A
	Exit	1	1		250			250	259	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	220	930	0.237	220	227	0.3	0.4	6.965	A
			2	2, 3	65	930	0.070	65	67	0.0	0.1	4.165	A
		2	1	(1, 2, 3, 4)	285			285	294	0.0	0.0	0.148	A
	Exit	1	1		153			153	159	0.0	0.0	0.000	A
4 - A42	Exit	1	1		211			211	218	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 - A453 (N)	Entry	1	1	2, 3	265	956	0.277	264	279	0.5	0.4	5.980	A
			2	1, 4	99	956	0.103	101	96	0.1	0.1	4.769	A
		2	1	(1, 2, 3, 4)	363			363	375	0.2	0.0	0.139	A
	Exit	1	1		178			178	193	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	56	911	0.061	56	61	0.1	0.1	4.500	A
			2	1, 2	42	911	0.046	42	45	0.0	0.1	4.177	A
		2	1	(1, 2, 3, 4)	98			98	106	0.0	0.0	0.000	A
	Exit	1	1		208			208	215	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	173	942	0.184	172	187	0.4	0.3	6.275	A
			2	2, 3	55	942	0.059	55	57	0.1	0.1	3.908	A
		2	1	(1, 2, 3, 4)	228			228	243	0.0	0.0	0.055	A
	Exit	1	1		126			126	137	0.0	0.0	0.000	A
4 - A42	Exit	1	1		178			178	179	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 - A453 (N)	Entry	1	1	2, 3	246	960	0.256	247	240	0.4	0.4	5.593	A
			2	1, 4	75	960	0.078	73	80	0.1	0.2	4.233	A
		2	1	(1, 2, 3, 4)	321			321	321	0.0	0.0	0.042	A
	Exit	1	1		149			149	160	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	48	920	0.053	49	52	0.1	0.0	4.390	A
			2	1, 2	32	920	0.034	32	38	0.1	0.0	4.429	A
		2	1	(1, 2, 3, 4)	80			80	89	0.0	0.0	0.000	A
	Exit	1	1		179			179	178	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	152	957	0.159	154	156	0.3	0.3	6.227	A
			2	2, 3	41	957	0.043	41	44	0.1	0.0	3.641	A
		2	1	(1, 2, 3, 4)	193			194	199	0.0	0.0	0.041	A
	Exit	1	1		126			126	123	0.0	0.0	0.000	A
4 - A42	Exit	1	1		141			141	148	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	119	30	973	959	0.124	119	126	0.0	0.2	5.053	A
				3	102	25	973	959	0.106	101	99	0.0	0.2	6.359	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	80	20	973	959	0.083	81	80	0.0	0.1	4.203	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	119	30	-	-	-	119	126	0.0	0.0	0.102	A
				3	102	25	-	-	-	102	100	0.0	0.0	0.106	A
				4	80	20	-	-	-	80	81	0.0	0.0	0.047	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	929	874	0.016	14	15	0.0	0.0	4.722	A
				4	34	9	978	924	0.037	35	36	0.0	0.0	4.155	A
			2	1	39	10	978	918	0.042	39	36	0.0	0.0	4.176	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	39	10	-	-	-	39	36	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	15	0.0	0.0	0.000	A
				4	34	9	-	-	-	34	36	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	122	30	1001	952	0.128	122	114	0.0	0.3	6.293	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	33	8	1001	954	0.035	33	34	0.0	0.2	8.525	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	1001	952	0.046	44	47	0.0	0.0	3.844	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	122	30	-	-	-	122	115	0.0	0.0	0.003	A
				2	44	11	-	-	-	44	47	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	33	8	-	-	-	33	35	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	973	954	0.156	151	149	0.2	0.2	5.424	A
				3	127	32	973	955	0.133	128	122	0.2	0.3	6.612	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	96	24	973	954	0.100	96	96	0.1	0.1	4.559	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	-	-	-	149	149	0.0	0.0	0.214	A
				3	127	32	-	-	-	127	122	0.0	0.0	0.267	A
				4	96	24	-	-	-	96	96	0.0	0.0	0.074	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	978	910	0.017	15	17	0.0	0.0	4.024	A
				4	42	10	978	906	0.046	41	43	0.0	0.1	4.199	A
			2	1	45	11	978	903	0.049	45	44	0.0	0.0	4.151	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	45	11	-	-	-	45	44	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	-	-	-	15	17	0.0	0.0	0.000	A
				4	42	10	-	-	-	42	43	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	129	32	1001	944	0.137	129	141	0.3	0.3	5.780	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	945	0.034	33	36	0.2	0.1	8.238	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	57	14	1001	944	0.061	57	57	0.0	0.0	4.070	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	129	32	-	-	-	129	140	0.0	0.0	0.041	A
				2	57	14	-	-	-	57	57	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	36	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	201	50	973	954	0.211	202	196	0.2	0.3	5.891	A
				3	145	36	973	954	0.152	146	146	0.3	0.3	7.092	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	112	28	973	954	0.117	112	117	0.1	0.2	4.823	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	201	50	-	-	-	201	196	0.0	0.1	0.237	A
				3	145	36	-	-	-	145	146	0.0	0.0	0.280	A
				4	112	28	-	-	-	112	117	0.0	0.0	0.145	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	22	5	978	895	0.024	22	23	0.0	0.0	4.476	A
				4	47	12	978	895	0.053	47	51	0.1	0.1	4.755	A
			2	1	42	11	978	895	0.047	42	50	0.0	0.1	4.122	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	42	11	-	-	-	42	50	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	22	5	-	-	-	22	23	0.0	0.0	0.009	A
				4	47	12	-	-	-	47	51	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	165	41	1001	936	0.176	164	172	0.3	0.3	6.681	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	44	11	1001	937	0.046	43	49	0.1	0.1	9.337	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1001	934	0.064	61	63	0.0	0.0	4.279	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	164	41	-	-	-	165	172	0.0	0.0	0.039	A
				2	59	15	-	-	-	59	63	0.0	0.0	0.022	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	44	11	-	-	-	44	49	0.0	0.0	0.032	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	185	46	973	952	0.195	185	193	0.3	0.3	6.260	A
				3	133	33	973	953	0.139	134	139	0.3	0.2	7.239	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	116	29	973	952	0.122	118	120	0.2	0.1	4.854	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	186	47	-	-	-	185	193	0.1	0.1	0.519	A
				3	133	33	-	-	-	133	138	0.0	0.1	0.526	A
				4	117	29	-	-	-	116	119	0.0	0.0	0.247	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	978	897	0.021	19	20	0.0	0.0	4.218	A
				4	44	11	978	896	0.049	44	47	0.1	0.1	4.729	A
			2	1	57	14	978	899	0.064	58	56	0.1	0.0	4.327	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	57	14	-	-	-	57	56	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	-	-	-	19	20	0.0	0.0	0.000	A
				4	44	11	-	-	-	44	47	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	172	43	1001	931	0.184	172	176	0.3	0.3	6.521	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	1001	932	0.052	49	51	0.1	0.1	9.378	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	1001	930	0.070	65	67	0.0	0.1	4.165	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	172	43	-	-	-	172	177	0.0	0.0	0.162	A
				2	65	16	-	-	-	65	67	0.0	0.0	0.101	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	-	-	-	48	51	0.0	0.0	0.193	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	973	955	0.160	153	158	0.3	0.2	5.582	A
				3	111	28	973	956	0.116	111	121	0.2	0.2	6.645	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	99	25	973	955	0.103	101	96	0.1	0.1	4.769	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	-	-	-	153	158	0.1	0.0	0.167	A
				3	111	28	-	-	-	111	121	0.1	0.0	0.137	A
				4	99	25	-	-	-	99	96	0.0	0.0	0.090	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	962	895	0.017	15	16	0.0	0.0	4.896	A
				4	41	10	978	912	0.045	40	45	0.1	0.1	4.361	A
			2	1	42	10	978	912	0.046	42	45	0.0	0.1	4.177	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	42	10	-	-	-	42	45	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	-	-	-	15	16	0.0	0.0	0.000	A
				4	41	10	-	-	-	41	45	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	135	34	1001	942	0.143	136	148	0.3	0.2	5.900	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	37	9	984	926	0.040	36	38	0.1	0.2	8.522	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	1001	942	0.059	55	57	0.1	0.1	3.908	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	135	34	-	-	-	135	148	0.0	0.0	0.074	A
				2	55	14	-	-	-	55	57	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	37	9	-	-	-	37	39	0.0	0.0	0.101	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	137	34	973	960	0.143	138	134	0.2	0.2	5.242	A
				3	108	27	973	960	0.113	109	106	0.2	0.2	6.154	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	75	19	973	961	0.078	73	80	0.1	0.2	4.233	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	137	34	-	-	-	137	134	0.0	0.0	0.063	A
				3	108	27	-	-	-	108	106	0.0	0.0	0.026	A
				4	75	19	-	-	-	75	81	0.0	0.0	0.023	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	17	4	962	905	0.019	17	17	0.0	0.0	4.833	A
				4	31	8	978	921	0.034	31	34	0.1	0.0	4.171	A
			2	1	32	8	978	923	0.034	32	38	0.1	0.0	4.429	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	38	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	17	4	-	-	-	17	17	0.0	0.0	0.000	A
				4	31	8	-	-	-	31	34	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	117	29	1001	957	0.122	118	122	0.2	0.2	5.816	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	984	938	0.038	36	33	0.2	0.1	8.545	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	41	10	1001	957	0.043	41	44	0.1	0.0	3.641	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	117	29	-	-	-	117	122	0.0	0.0	0.045	A
				2	41	10	-	-	-	41	43	0.0	0.0	0.051	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	-	-	-	36	33	0.0	0.0	0.000	A

2028 | WoD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.35	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2028	WoD Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	425	100.000
2 - Gelscoe Lane		ONE HOUR	✓	133	100.000
3 - Top Brand		ONE HOUR	✓	113	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	169	106	150
	2 - Gelscoe Lane	23	0	45	65
	3 - Top Brand	46	63	0	4
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	16	49	49
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	24	0	0	0
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.35	7.31	1.0	A	390	585
2 - Gelscoe Lane	0.15	4.63	0.2	A	122	183
3 - Top Brand	0.08	4.75	0.2	A	103	154
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	322	81	48	1363	0.236	322	317	46	0.0	0.8	6.586	A
2 - Gelscoe Lane	96	24	195	1118	0.086	97	96	175	0.0	0.1	4.239	A
3 - Top Brand	83	21	178	1494	0.056	82	84	114	0.0	0.2	4.210	A
4 - A42			0					166				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	392	98	55	1385	0.283	392	395	66	0.8	0.6	7.053	A
2 - Gelscoe Lane	124	31	240	1096	0.113	122	125	207	0.1	0.2	4.504	A
3 - Top Brand	103	26	228	1540	0.067	103	111	134	0.2	0.1	4.491	A
4 - A42			0					210				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	464	116	68	1382	0.336	470	474	73	0.6	1.0	6.978	A
2 - Gelscoe Lane	150	37	284	1028	0.146	149	153	252	0.2	0.2	4.542	A
3 - Top Brand	117	29	265	1443	0.081	116	130	168	0.1	0.2	4.420	A
4 - A42			0					242				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	458	115	73	1316	0.348	461	469	73	1.0	1.0	7.313	A
2 - Gelscoe Lane	142	35	281	1100	0.129	143	153	252	0.2	0.2	4.628	A
3 - Top Brand	124	31	263	1499	0.083	125	133	161	0.2	0.1	4.561	A
4 - A42			0					243				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	392	98	58	1367	0.287	391	393	65	1.0	1.0	6.718	A
2 - Gelscoe Lane	120	30	237	1102	0.109	121	127	211	0.2	0.1	4.566	A
3 - Top Brand	107	27	220	1512	0.071	107	108	138	0.1	0.1	4.753	A
4 - A42			0					203				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	313	78	46	1362	0.230	311	333	51	1.0	0.6	6.234	A
2 - Gelscoe Lane	101	25	190	1121	0.090	100	104	166	0.1	0.1	4.167	A
3 - Top Brand	81	20	175	1496	0.054	80	91	116	0.1	0.1	4.350	A
4 - A42			0					158				

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 - A453 (N)	Entry	1	1	2, 3	211	958	0.220	210	208	0.0	0.6	6.355	A
			2	1, 4	111	958	0.116	112	109	0.0	0.2	6.319	A
		2	1	(1, 2, 3, 4)	322			323	320	0.0	0.0	0.239	A
	Exit	1	1		46			46	52	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	82	916	0.089	82	79	0.0	0.1	4.389	A
			2	1, 2	14	916	0.016	14	17	0.0	0.0	3.550	A
		2	1	(1, 2, 3, 4)	96			96	96	0.0	0.0	0.000	A
	Exit	1	1		175			175	173	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	35	944	0.037	34	37	0.0	0.1	4.506	A
			2	2, 3	49	944	0.052	48	48	0.0	0.1	4.020	A
		2	1	(1, 2, 3, 4)	83			83	85	0.0	0.0	0.000	A
	Exit	1	1		114			114	114	0.0	0.0	0.000	A
4 - A42	Exit	1	1		166			166	158	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 - A453 (N)	Entry	1	1	2, 3	245	956	0.256	244	254	0.6	0.4	6.871	A
			2	1, 4	147	956	0.154	148	141	0.2	0.2	6.615	A
		2	1	(1, 2, 3, 4)	392			392	394	0.0	0.0	0.267	A
	Exit	1	1		66			66	71	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	103	902	0.114	101	102	0.1	0.2	4.608	A
			2	1, 2	21	902	0.023	21	23	0.0	0.0	4.046	A
		2	1	(1, 2, 3, 4)	124			124	125	0.0	0.0	0.000	A
	Exit	1	1		207			207	215	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	47	927	0.051	48	51	0.1	0.0	5.079	A
			2	2, 3	56	927	0.060	55	60	0.1	0.1	4.077	A
		2	1	(1, 2, 3, 4)	103			103	110	0.0	0.0	0.000	A
	Exit	1	1		134			134	140	0.0	0.0	0.000	A
4 - A42	Exit	1	1		210			210	206	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 - A453 (N)	Entry	1	1	2, 3	299	952	0.315	301	305	0.4	0.5	6.730	A
			2	1, 4	164	952	0.172	167	169	0.2	0.4	6.766	A
		2	1	(1, 2, 3, 4)	464			464	475	0.0	0.0	0.235	A
	Exit	1	1		73			73	78	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	123	888	0.139	121	125	0.2	0.2	4.650	A
			2	1, 2	27	888	0.030	27	28	0.0	0.0	4.055	A
		2	1	(1, 2, 3, 4)	150			150	153	0.0	0.0	0.000	A
	Exit	1	1		252			252	264	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	48	916	0.053	48	55	0.0	0.0	4.829	A
			2	2, 3	69	916	0.075	68	75	0.1	0.1	4.169	A
		2	1	(1, 2, 3, 4)	117			117	131	0.0	0.0	0.000	A
	Exit	1	1		168			168	168	0.0	0.0	0.000	A
4 - A42	Exit	1	1		242			242	248	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 - A453 (N)	Entry	1	1	2, 3	290	950	0.305	294	301	0.5	0.4	6.813	A
			2	1, 4	167	950	0.176	167	168	0.4	0.5	7.046	A
		2	1	(1, 2, 3, 4)	458			457	469	0.0	0.1	0.425	A
	Exit	1	1		73			73	81	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	118	889	0.133	120	127	0.2	0.1	4.756	A
			2	1, 2	24	889	0.027	23	26	0.0	0.1	4.004	A
		2	1	(1, 2, 3, 4)	142			142	153	0.0	0.0	0.000	A
	Exit	1	1		252			252	257	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	51	916	0.056	53	60	0.0	0.1	4.892	A
			2	2, 3	73	916	0.080	73	74	0.1	0.1	4.342	A
		2	1	(1, 2, 3, 4)	124			124	133	0.0	0.0	0.000	A
	Exit	1	1		161			161	170	0.0	0.0	0.000	A
4 - A42	Exit	1	1		243			243	246	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 - A453 (N)	Entry	1	1	2, 3	256	955	0.268	253	252	0.4	0.6	6.658	A
			2	1, 4	136	955	0.142	136	141	0.5	0.3	6.278	A
		2	1	(1, 2, 3, 4)	392			392	393	0.1	0.0	0.184	A
	Exit	1	1		65			65	69	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	99	903	0.110	100	104	0.1	0.1	4.619	A
			2	1, 2	21	903	0.023	21	23	0.1	0.0	4.315	A
		2	1	(1, 2, 3, 4)	120			120	127	0.0	0.0	0.000	A
	Exit	1	1		211			211	216	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	50	930	0.054	49	50	0.1	0.1	5.255	A
			2	2, 3	57	930	0.061	58	58	0.1	0.0	4.389	A
		2	1	(1, 2, 3, 4)	107			107	108	0.0	0.0	0.000	A
	Exit	1	1		138			138	138	0.0	0.0	0.000	A
4 - A42	Exit	1	1		203			203	206	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 - A453 (N)	Entry	1	1	2, 3	205	959	0.213	202	218	0.6	0.4	6.143	A
			2	1, 4	109	959	0.114	109	115	0.3	0.2	6.149	A
		2	1	(1, 2, 3, 4)	313			313	332	0.0	0.0	0.089	A
	Exit	1	1		67			67	67	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	82	918	0.090	82	86	0.1	0.1	4.160	A
			2	1, 2	19	918	0.020	18	18	0.0	0.0	4.200	A
		2	1	(1, 2, 3, 4)	101			101	104	0.0	0.0	0.000	A
	Exit	1	1		166			166	185	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	36	945	0.038	35	38	0.1	0.1	4.948	A
			2	2, 3	46	945	0.048	46	52	0.0	0.1	3.993	A
		2	1	(1, 2, 3, 4)	81			81	91	0.0	0.0	0.000	A
	Exit	1	1		116			116	120	0.0	0.0	0.000	A
4 - A42	Exit	1	1		158			158	169	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	973	958	0.133	127	126	0.0	0.2	5.728	A
				3	83	21	973	957	0.087	83	82	0.0	0.4	7.597	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	111	28	973	958	0.116	112	109	0.0	0.2	6.319	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	-	-	-	127	127	0.0	0.0	0.261	A
				3	83	21	-	-	-	83	83	0.0	0.0	0.262	A
				4	111	28	-	-	-	111	110	0.0	0.0	0.189	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	31	8	978	917	0.033	31	32	0.0	0.0	4.447	A
				4	51	13	978	917	0.056	51	46	0.0	0.1	4.349	A
		2	2	1	14	4	961	901	0.016	14	17	0.0	0.0	3.550	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	14	4	-	-	-	14	17	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	31	8	-	-	-	31	32	0.0	0.0	0.000	A
				4	51	13	-	-	-	51	47	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	32	8	1001	946	0.034	31	35	0.0	0.1	4.550	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.66	407	383	0.007	3	2	0.0	0.0	3.888	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	1001	947	0.051	48	48	0.0	0.1	4.020	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	35	0.0	0.0	0.000	A
				2	49	12	-	-	-	49	48	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.66	-	-	-	3	2	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	973	955	0.160	152	155	0.2	0.2	6.363	A
				3	91	23	973	955	0.096	92	99	0.4	0.2	7.919	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	147	37	973	955	0.154	148	141	0.2	0.2	6.615	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	153	38	-	-	-	153	155	0.0	0.0	0.276	A
				3	91	23	-	-	-	91	98	0.0	0.0	0.329	A
				4	147	37	-	-	-	147	141	0.0	0.0	0.212	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	44	11	978	902	0.048	43	41	0.0	0.1	4.649	A
				4	59	15	978	900	0.066	59	61	0.1	0.1	4.579	A
			2	1	21	5	961	889	0.024	21	23	0.0	0.0	4.046	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	21	5	-	-	-	21	23	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	44	11	-	-	-	44	41	0.0	0.0	0.000	A
				4	59	15	-	-	-	59	61	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	45	11	1001	929	0.048	45	48	0.1	0.0	5.158	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.71	560	521	0.005	3	4	0.0	0.0	4.254	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	56	14	1001	927	0.060	55	60	0.1	0.1	4.077	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	45	11	-	-	-	45	47	0.0	0.0	0.000	A
				2	56	14	-	-	-	56	60	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.71	-	-	-	3	4	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	185	46	973	951	0.194	184	189	0.2	0.3	6.237	A
				3	116	29	973	950	0.122	117	117	0.2	0.2	7.769	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	164	41	973	951	0.172	167	169	0.2	0.4	6.766	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	185	46	-	-	-	185	189	0.0	0.0	0.258	A
				3	116	29	-	-	-	116	117	0.0	0.0	0.282	A
				4	164	41	-	-	-	164	170	0.0	0.0	0.170	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	51	13	978	888	0.058	50	51	0.1	0.1	4.666	A
				4	72	18	978	887	0.081	71	74	0.1	0.1	4.639	A
			2	1	27	7	978	888	0.030	27	28	0.0	0.0	4.055	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	27	7	-	-	-	27	28	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	51	13	-	-	-	51	51	0.0	0.0	0.000	A
				4	72	18	-	-	-	72	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	45	11	1001	913	0.050	45	51	0.0	0.0	4.945	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.76	645	588	0.005	3	5	0.0	0.0	3.847	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	1001	915	0.075	68	75	0.1	0.1	4.169	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	45	11	-	-	-	45	51	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	75	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.76	-	-	-	3	5	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	178	45	973	950	0.188	180	183	0.3	0.3	6.296	A
				3	112	28	973	949	0.118	114	118	0.2	0.1	7.862	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	167	42	973	950	0.176	167	168	0.4	0.5	7.046	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	179	45	-	-	-	178	183	0.0	0.1	0.474	A
				3	112	28	-	-	-	112	117	0.0	0.0	0.388	A
				4	167	42	-	-	-	167	168	0.0	0.0	0.382	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	45	11	978	888	0.051	47	53	0.1	0.0	4.633	A
				4	73	18	978	890	0.082	73	75	0.1	0.1	4.842	A
		2	2	1	24	6	978	890	0.027	23	26	0.0	0.1	4.004	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	24	6	-	-	-	24	26	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	45	11	-	-	-	45	52	0.0	0.0	0.000	A
				4	73	18	-	-	-	73	75	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	48	12	1001	917	0.053	50	56	0.0	0.1	4.944	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.76	628	575	0.005	3	4	0.0	0.0	4.277	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	1001	917	0.080	73	74	0.1	0.1	4.342	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	48	12	-	-	-	48	56	0.0	0.0	0.000	A
				2	73	18	-	-	-	73	74	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.76	-	-	-	3	4	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	156	39	973	954	0.163	154	158	0.3	0.5	6.149	A
				3	100	25	973	955	0.105	100	94	0.1	0.1	7.739	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	136	34	973	955	0.142	136	141	0.5	0.3	6.278	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	156	39	-	-	-	156	159	0.1	0.0	0.230	A
				3	100	25	-	-	-	100	95	0.0	0.0	0.178	A
				4	136	34	-	-	-	136	140	0.0	0.0	0.122	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	37	9	978	903	0.041	38	44	0.0	0.0	4.644	A
				4	62	15	978	903	0.068	62	61	0.1	0.1	4.602	A
			2	1	21	5	978	905	0.023	21	23	0.1	0.0	4.315	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	21	5	-	-	-	21	22	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	37	9	-	-	-	37	43	0.0	0.0	0.000	A
				4	62	15	-	-	-	62	61	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	45	11	1001	929	0.049	45	46	0.1	0.1	5.400	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	746	692	0.006	4	4	0.0	0.0	4.031	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	57	14	1001	930	0.061	58	58	0.1	0.0	4.389	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	45	11	-	-	-	45	46	0.0	0.0	0.000	A
				2	57	14	-	-	-	57	58	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	-	-	-	4	4	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	123	31	973	959	0.128	121	132	0.5	0.2	5.724	A
				3	82	20	973	957	0.085	81	86	0.1	0.2	6.972	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	109	27	973	958	0.114	109	115	0.3	0.2	6.149	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	123	31	-	-	-	123	131	0.0	0.0	0.089	A
				3	82	20	-	-	-	82	86	0.0	0.0	0.139	A
				4	109	27	-	-	-	109	114	0.0	0.0	0.051	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	978	915	0.038	35	34	0.0	0.0	4.112	A
				4	47	12	978	916	0.052	47	52	0.1	0.1	4.193	A
			2	1	19	5	961	901	0.021	18	18	0.0	0.0	4.200	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	19	5	-	-	-	19	18	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	-	-	-	35	34	0.0	0.0	0.000	A
				4	47	12	-	-	-	47	51	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	34	8	1001	944	0.036	33	35	0.1	0.1	4.970	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.46	526	493	0.004	2	3	0.0	0.0	4.729	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	1001	944	0.048	46	52	0.0	0.1	3.993	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	34	8	-	-	-	34	35	0.0	0.0	0.000	A
				2	46	11	-	-	-	46	53	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.46	-	-	-	2	3	0.0	0.0	0.000	A

2028 | WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.86	A

Traffic Demand

Demand Set Details

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	573	100.000
2 - Gelscoe Lane		ONE HOUR	✓	113	100.000
3 - Top Brand		ONE HOUR	✓	286	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	328	136	109
	2 - Gelscoe Lane	55	0	17	41
	3 - Top Brand	162	83	0	41
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	27	11
	2 - Gelscoe Lane	0	0	6	5
	3 - Top Brand	23	0	0	95
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.55	9.31	1.8	A	525	788
2 - Gelscoe Lane	0.08	4.67	0.2	A	102	154
3 - Top Brand	0.25	6.18	0.6	A	263	394
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	435	109	64	1163	0.374	435	435	173	0.0	0.8	6.117	A
2 - Gelscoe Lane	86	22	200	1483	0.058	87	87	296	0.0	0.1	4.455	A
3 - Top Brand	219	55	156	1366	0.160	216	225	131	0.0	0.5	5.685	A
4 - A42			0					136				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	520	130	69	1193	0.436	519	532	192	0.8	1.1	6.941	A
2 - Gelscoe Lane	102	26	233	1531	0.067	102	109	356	0.1	0.1	4.106	A
3 - Top Brand	256	64	185	1296	0.198	255	257	150	0.5	0.6	5.555	A
4 - A42			0					179				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	626	157	92	1165	0.538	626	632	245	1.1	1.7	8.921	A
2 - Gelscoe Lane	121	30	271	1482	0.082	121	133	447	0.1	0.2	4.524	A
3 - Top Brand	322	80	219	1276	0.252	323	334	173	0.6	0.4	6.183	A
4 - A42			0					206				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	631	158	90	1151	0.548	630	633	247	1.7	1.8	9.312	A
2 - Gelscoe Lane	118	30	270	1463	0.081	118	132	449	0.2	0.1	4.673	A
3 - Top Brand	321	80	220	1265	0.254	322	318	169	0.4	0.4	5.639	A
4 - A42			0					206				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	506	126	74	1189	0.425	513	531	190	1.8	0.6	7.464	A
2 - Gelscoe Lane	103	26	219	1469	0.070	104	110	367	0.1	0.1	4.421	A
3 - Top Brand	250	63	179	1309	0.191	250	261	143	0.4	0.3	5.765	A
4 - A42			0					167				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	435	109	64	1195	0.364	434	435	160	0.6	0.6	6.174	A
2 - Gelscoe Lane	84	21	174	1496	0.056	84	93	324	0.1	0.1	4.382	A
3 - Top Brand	209	52	150	1342	0.156	208	217	108	0.3	0.3	5.135	A
4 - A42			0					134				

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 - A453 (N)	Entry	1	1	2, 3	354	953	0.372	353	356	0.0	0.7	6.184	A
			2	1, 4	80	953	0.083	80	79	0.0	0.1	4.662	A
		2	1	(1, 2, 3, 4)	435			434	438	0.0	0.1	0.191	A
	Exit	1	1		173			173	170	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	37	914	0.041	37	41	0.0	0.0	4.829	A
			2	1, 2	49	914	0.054	50	45	0.0	0.0	4.136	A
		2	1	(1, 2, 3, 4)	86			86	87	0.0	0.0	0.000	A
	Exit	1	1		296			296	312	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	155	951	0.163	152	158	0.0	0.4	6.591	A
			2	2, 3	64	951	0.067	64	67	0.0	0.0	3.963	A
		2	1	(1, 2, 3, 4)	219			219	227	0.0	0.0	0.034	A
	Exit	1	1		131			131	122	0.0	0.0	0.000	A
4 - A42	Exit	1	1		136			136	142	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 - A453 (N)	Entry	1	1	2, 3	421	951	0.443	422	433	0.7	0.9	6.880	A
			2	1, 4	99	951	0.104	98	99	0.1	0.2	4.349	A
		2	1	(1, 2, 3, 4)	520			520	533	0.1	0.1	0.522	A
	Exit	1	1		192			192	198	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	54	904	0.060	54	55	0.0	0.1	4.288	A
			2	1, 2	48	904	0.053	48	54	0.0	0.1	3.933	A
		2	1	(1, 2, 3, 4)	102			102	110	0.0	0.0	0.000	A
	Exit	1	1		356			356	373	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	188	941	0.199	185	182	0.4	0.5	6.312	A
			2	2, 3	69	941	0.073	69	75	0.0	0.1	4.096	A
		2	1	(1, 2, 3, 4)	256			256	257	0.0	0.0	0.030	A
	Exit	1	1		150			150	150	0.0	0.0	0.000	A
4 - A42	Exit	1	1		179			179	176	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 - A453 (N)	Entry	1	1	2, 3	508	944	0.538	509	512	0.9	1.2	8.244	A
			2	1, 4	117	944	0.124	117	120	0.2	0.2	4.902	A
		2	1	(1, 2, 3, 4)	626			626	633	0.1	0.3	1.284	A
	Exit	1	1		245			245	254	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	61	892	0.069	62	68	0.1	0.1	4.536	A
			2	1, 2	60	892	0.067	59	65	0.1	0.1	4.512	A
		2	1	(1, 2, 3, 4)	121			121	133	0.0	0.0	0.000	A
	Exit	1	1		447			447	453	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	231	930	0.249	232	241	0.5	0.4	7.029	A
			2	2, 3	91	930	0.098	92	94	0.1	0.1	4.456	A
		2	1	(1, 2, 3, 4)	322			322	334	0.0	0.0	0.037	A
	Exit	1	1		173			173	172	0.0	0.0	0.000	A
4 - A42	Exit	1	1		206			206	219	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 - A453 (N)	Entry	1	1	2, 3	508	945	0.538	510	514	1.2	1.1	8.274	A
			2	1, 4	121	945	0.128	120	119	0.2	0.2	5.244	A
		2	1	(1, 2, 3, 4)	631			629	633	0.3	0.5	1.592	A
	Exit	1	1		247			247	246	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	63	892	0.070	62	67	0.1	0.1	4.938	A
			2	1, 2	55	892	0.062	56	65	0.1	0.1	4.416	A
		2	1	(1, 2, 3, 4)	118			118	132	0.0	0.0	0.000	A
	Exit	1	1		449			449	461	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	232	930	0.250	233	222	0.4	0.4	6.241	A
			2	2, 3	89	930	0.095	90	96	0.1	0.1	4.437	A
		2	1	(1, 2, 3, 4)	321			321	318	0.0	0.0	0.052	A
	Exit	1	1		169			169	168	0.0	0.0	0.000	A
4 - A42	Exit	1	1		206			206	209	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 - A453 (N)	Entry	1	1	2, 3	415	950	0.437	421	430	1.1	0.4	7.083	A
			2	1, 4	92	950	0.096	91	101	0.2	0.2	4.830	A
		2	1	(1, 2, 3, 4)	506			507	528	0.5	0.0	0.810	A
	Exit	1	1		190			190	200	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	53	908	0.059	53	58	0.1	0.1	4.581	A
			2	1, 2	50	908	0.055	50	52	0.1	0.0	4.256	A
		2	1	(1, 2, 3, 4)	103			103	110	0.0	0.0	0.000	A
	Exit	1	1		367			367	379	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	176	943	0.187	176	183	0.4	0.2	6.514	A
			2	2, 3	74	943	0.079	74	78	0.1	0.1	4.393	A
		2	1	(1, 2, 3, 4)	250			250	260	0.0	0.0	0.015	A
	Exit	1	1		143			143	144	0.0	0.0	0.000	A
4 - A42	Exit	1	1		167			167	178	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 - A453 (N)	Entry	1	1	2, 3	354	953	0.372	354	352	0.4	0.5	6.165	A
			2	1, 4	81	953	0.084	80	83	0.2	0.1	4.747	A
		2	1	(1, 2, 3, 4)	435			435	435	0.0	0.0	0.268	A
	Exit	1	1		160			160	169	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	38	923	0.042	38	46	0.1	0.0	4.477	A
			2	1, 2	46	923	0.050	46	47	0.0	0.1	4.293	A
		2	1	(1, 2, 3, 4)	84			84	93	0.0	0.0	0.000	A
	Exit	1	1		324			324	315	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	145	953	0.152	144	153	0.2	0.2	5.702	A
			2	2, 3	64	953	0.067	64	64	0.1	0.1	4.078	A
		2	1	(1, 2, 3, 4)	209			209	216	0.0	0.0	0.010	A
	Exit	1	1		108			108	115	0.0	0.0	0.000	A
4 - A42	Exit	1	1		134			134	146	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	234	59	973	953	0.246	233	245	0.0	0.4	5.997	A
				3	120	30	973	954	0.126	120	111	0.0	0.2	6.708	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	80	20	973	954	0.083	80	79	0.0	0.1	4.662	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	235	59	-	-	-	234	247	0.0	0.1	0.192	A
				3	120	30	-	-	-	120	112	0.0	0.0	0.249	A
				4	80	20	-	-	-	80	79	0.0	0.0	0.113	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	873	820	0.013	11	11	0.0	0.0	5.019	A
				4	27	7	978	915	0.029	26	30	0.0	0.0	4.761	A
		2	2	1	49	12	978	918	0.053	50	45	0.0	0.0	4.136	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	49	12	-	-	-	49	46	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	-	-	-	11	11	0.0	0.0	0.000	A
				4	27	7	-	-	-	27	30	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	125	31	1001	951	0.132	123	125	0.0	0.4	6.082	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	8	983	932	0.032	29	33	0.0	0.1	9.611	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	64	16	1001	951	0.067	64	67	0.0	0.0	3.963	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	125	31	-	-	-	125	127	0.0	0.0	0.023	A
				2	64	16	-	-	-	64	67	0.0	0.0	0.052	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	8	-	-	-	30	33	0.0	0.0	0.026	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	286	72	973	951	0.301	286	298	0.4	0.6	6.580	A
				3	135	34	973	950	0.142	136	135	0.2	0.3	7.736	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	99	25	973	950	0.104	98	99	0.1	0.2	4.349	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	287	72	-	-	-	286	299	0.1	0.1	0.601	A
				3	135	34	-	-	-	135	136	0.0	0.0	0.449	A
				4	99	25	-	-	-	99	99	0.0	0.0	0.342	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	925	859	0.016	14	15	0.0	0.0	4.500	A
				4	40	10	978	905	0.044	39	40	0.0	0.1	4.209	A
			2	1	48	12	978	906	0.053	48	54	0.0	0.1	3.933	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	48	12	-	-	-	48	55	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	15	0.0	0.0	0.000	A
				4	40	10	-	-	-	40	40	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	145	36	1001	941	0.154	144	144	0.4	0.3	5.849	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	11	1001	941	0.045	42	38	0.1	0.2	9.096	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	1001	941	0.073	69	75	0.0	0.1	4.096	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	145	36	-	-	-	145	144	0.0	0.0	0.045	A
				2	69	17	-	-	-	69	75	0.0	0.0	0.004	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	11	-	-	-	42	38	0.0	0.0	0.045	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	355	89	973	944	0.376	355	360	0.6	0.8	7.979	A
				3	153	38	973	944	0.163	154	152	0.3	0.4	9.048	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	117	29	973	944	0.124	117	120	0.2	0.2	4.902	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	354	89	-	-	-	355	361	0.1	0.2	1.339	A
				3	154	39	-	-	-	153	152	0.0	0.1	1.289	A
				4	118	29	-	-	-	117	120	0.0	0.1	1.094	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	18	5	978	894	0.021	18	20	0.0	0.1	4.299	A
				4	43	11	978	891	0.048	43	48	0.1	0.1	4.634	A
			2	1	60	15	978	897	0.067	59	65	0.1	0.1	4.512	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	60	15	-	-	-	60	65	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	18	5	-	-	-	18	20	0.0	0.0	0.000	A
				4	43	11	-	-	-	43	48	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	186	47	1001	931	0.200	186	189	0.3	0.3	6.537	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	45	11	1001	932	0.048	46	51	0.2	0.0	9.947	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	91	23	1001	931	0.098	92	94	0.1	0.1	4.456	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	186	47	-	-	-	186	189	0.0	0.0	0.049	A
				2	91	23	-	-	-	91	94	0.0	0.0	0.016	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	45	11	-	-	-	45	51	0.0	0.0	0.039	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	358	90	973	944	0.379	359	365	0.8	0.7	8.000	A
				3	150	37	973	944	0.159	150	149	0.4	0.4	9.113	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	121	30	973	945	0.128	120	119	0.2	0.2	5.244	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	358	90	-	-	-	358	364	0.2	0.2	1.598	A
				3	150	38	-	-	-	150	149	0.1	0.1	1.764	A
				4	123	31	-	-	-	121	120	0.1	0.1	1.379	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	925	846	0.023	18	18	0.1	0.0	5.134	A
				4	44	11	978	895	0.049	44	48	0.1	0.1	4.863	A
			2	1	55	14	978	892	0.062	56	65	0.1	0.1	4.416	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	55	14	-	-	-	55	65	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	-	-	-	19	18	0.0	0.0	0.000	A
				4	44	11	-	-	-	44	48	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	191	48	1001	931	0.205	191	180	0.3	0.3	5.960	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	10	1001	929	0.045	42	42	0.0	0.0	8.191	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	89	22	1001	930	0.095	90	96	0.1	0.1	4.437	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	191	48	-	-	-	191	180	0.0	0.0	0.066	A
				2	89	22	-	-	-	89	96	0.0	0.0	0.027	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	10	-	-	-	42	42	0.0	0.0	0.076	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	290	73	973	950	0.306	293	302	0.7	0.3	6.735	A
				3	125	31	973	950	0.132	128	128	0.4	0.1	8.153	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	92	23	973	951	0.096	91	101	0.2	0.2	4.830	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	290	73	-	-	-	290	300	0.2	0.0	0.811	A
				3	125	31	-	-	-	125	127	0.1	0.0	1.021	A
				4	91	23	-	-	-	92	101	0.1	0.0	0.581	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	16	4	943	873	0.018	16	17	0.0	0.0	4.647	A
				4	38	9	978	903	0.042	38	41	0.1	0.1	4.555	A
			2	1	50	12	978	908	0.055	50	52	0.1	0.0	4.256	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	50	12	-	-	-	50	52	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	16	4	-	-	-	16	17	0.0	0.0	0.000	A
				4	38	9	-	-	-	38	41	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	140	35	1001	943	0.148	140	148	0.3	0.2	6.111	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	1001	940	0.039	37	35	0.0	0.0	9.210	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	74	19	1001	942	0.079	74	78	0.1	0.1	4.393	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	140	35	-	-	-	140	147	0.0	0.0	0.024	A
				2	74	19	-	-	-	74	78	0.0	0.0	0.003	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	-	-	-	36	35	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	260	65	973	953	0.273	260	252	0.3	0.3	5.794	A
				3	94	23	973	953	0.099	94	101	0.1	0.2	7.348	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	81	20	973	953	0.084	80	83	0.2	0.1	4.747	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	260	65	-	-	-	260	252	0.0	0.0	0.266	A
				3	94	23	-	-	-	94	101	0.0	0.0	0.288	A
				4	81	20	-	-	-	81	82	0.0	0.0	0.253	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	908	853	0.016	14	14	0.0	0.0	4.470	A
				4	24	6	978	922	0.026	24	32	0.1	0.0	4.479	A
			2	1	46	12	978	923	0.050	46	47	0.0	0.1	4.293	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	46	12	-	-	-	46	47	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	14	0.0	0.0	0.000	A
				4	24	6	-	-	-	24	32	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	115	29	1001	953	0.120	114	122	0.2	0.2	5.398	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	8	965	919	0.033	30	31	0.0	0.1	7.607	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	64	16	1001	953	0.067	64	64	0.1	0.1	4.078	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	115	29	-	-	-	115	122	0.0	0.0	0.014	A
				2	64	16	-	-	-	64	64	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	8	-	-	-	30	31	0.0	0.0	0.025	A

2028 | WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.50	A

Traffic Demand

Demand Set Details

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	404	100.000
2 - Gelscoe Lane		ONE HOUR	✓	194	100.000
3 - Top Brand		ONE HOUR	✓	100	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	173	107	124
	2 - Gelscoe Lane	26	0	70	98
	3 - Top Brand	26	70	0	4
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	15	46	47
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	8	0	0	0
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.35	7.74	1.2	A	373	560
2 - Gelscoe Lane	0.21	5.02	0.4	A	179	269
3 - Top Brand	0.09	4.37	0.2	A	94	140
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	306	76	51	1253	0.244	306	297	43	0.0	0.5	6.078	A
2 - Gelscoe Lane	150	37	178	1052	0.142	149	148	179	0.0	0.3	4.501	A
3 - Top Brand	78	20	194	1284	0.061	78	75	134	0.0	0.1	4.373	A
4 - A42			0					176				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	376	94	59	1337	0.281	371	386	43	0.5	1.0	6.581	A
2 - Gelscoe Lane	179	45	211	1072	0.167	179	178	219	0.3	0.2	4.653	A
3 - Top Brand	83	21	227	1314	0.063	83	94	162	0.1	0.1	4.328	A
4 - A42			0					208				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	457	114	79	1304	0.350	454	455	63	1.0	1.2	7.743	A
2 - Gelscoe Lane	208	52	255	1099	0.189	209	224	278	0.2	0.3	4.868	A
3 - Top Brand	114	29	275	1293	0.088	113	119	189	0.1	0.2	4.341	A
4 - A42			0					247				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	447	112	82	1296	0.345	448	448	61	1.2	1.1	7.653	A
2 - Gelscoe Lane	214	54	251	1026	0.209	213	222	278	0.3	0.4	5.016	A
3 - Top Brand	113	28	273	1261	0.090	114	118	190	0.2	0.1	4.353	A
4 - A42			0					245				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	354	89	65	1295	0.273	352	367	51	1.1	0.8	6.639	A
2 - Gelscoe Lane	170	42	205	1050	0.162	171	178	212	0.4	0.2	4.783	A
3 - Top Brand	96	24	214	1275	0.075	96	100	162	0.1	0.1	4.177	A
4 - A42			0					194				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	301	75	54	1260	0.239	298	306	42	0.8	0.7	6.106	A
2 - Gelscoe Lane	154	39	174	1082	0.143	154	153	178	0.2	0.1	4.441	A
3 - Top Brand	77	19	193	1330	0.058	76	81	135	0.1	0.1	4.067	A
4 - A42			0					173				

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 - A453 (N)	Entry	1	1	2, 3	210	957	0.220	210	209	0.0	0.3	6.057	A
			2	1, 4	97	957	0.101	96	88	0.0	0.2	5.877	A
		2	1	(1, 2, 3, 4)	306			306	299	0.0	0.0	0.070	A
	Exit	1	1		43			43	40	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	129	921	0.140	128	127	0.0	0.2	4.558	A
			2	1, 2	21	921	0.023	21	20	0.0	0.0	4.146	A
		2	1	(1, 2, 3, 4)	150			150	149	0.0	0.0	0.000	A
	Exit	1	1		179			179	182	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	27	939	0.028	26	22	0.0	0.0	4.775	A
			2	2, 3	52	939	0.055	51	52	0.0	0.1	4.211	A
		2	1	(1, 2, 3, 4)	78			78	75	0.0	0.0	0.000	A
	Exit	1	1		134			134	131	0.0	0.0	0.000	A
4 - A42	Exit	1	1		176			176	168	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 - A453 (N)	Entry	1	1	2, 3	259	955	0.271	257	269	0.3	0.6	6.306	A
			2	1, 4	115	955	0.121	113	117	0.2	0.3	6.235	A
		2	1	(1, 2, 3, 4)	376			375	388	0.0	0.1	0.291	A
	Exit	1	1		43			43	48	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	155	911	0.170	155	153	0.2	0.1	4.743	A
			2	1, 2	24	911	0.026	24	25	0.0	0.0	4.105	A
		2	1	(1, 2, 3, 4)	179			179	178	0.0	0.0	0.000	A
	Exit	1	1		219			219	232	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	25	928	0.026	25	28	0.0	0.1	4.202	A
			2	2, 3	59	928	0.063	59	67	0.1	0.0	4.378	A
		2	1	(1, 2, 3, 4)	83			83	94	0.0	0.0	0.000	A
	Exit	1	1		162			162	165	0.0	0.0	0.000	A
4 - A42	Exit	1	1		208			208	213	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 - A453 (N)	Entry	1	1	2, 3	320	948	0.337	316	309	0.6	0.9	7.308	A
			2	1, 4	137	948	0.145	137	146	0.3	0.3	6.711	A
		2	1	(1, 2, 3, 4)	457			457	456	0.1	0.0	0.604	A
	Exit	1	1		63			63	64	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	175	897	0.196	176	191	0.1	0.2	4.989	A
			2	1, 2	32	897	0.036	33	33	0.0	0.0	4.167	A
		2	1	(1, 2, 3, 4)	208			208	224	0.0	0.0	0.000	A
	Exit	1	1		278			278	274	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	35	912	0.039	34	35	0.1	0.1	4.060	A
			2	2, 3	79	912	0.086	79	84	0.0	0.1	4.449	A
		2	1	(1, 2, 3, 4)	114			114	119	0.0	0.0	0.000	A
	Exit	1	1		189			189	196	0.0	0.0	0.000	A
4 - A42	Exit	1	1		247			247	264	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 - A453 (N)	Entry	1	1	2, 3	317	947	0.335	315	312	0.9	0.8	7.149	A
			2	1, 4	131	947	0.138	132	136	0.3	0.3	6.804	A
		2	1	(1, 2, 3, 4)	447			449	448	0.0	0.0	0.600	A
	Exit	1	1		61			61	61	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	182	898	0.203	181	191	0.2	0.4	5.176	A
			2	1, 2	32	898	0.036	32	31	0.0	0.0	4.023	A
		2	1	(1, 2, 3, 4)	214			214	222	0.0	0.0	0.000	A
	Exit	1	1		278			278	276	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	32	913	0.035	33	35	0.1	0.0	4.405	A
			2	2, 3	81	913	0.089	82	83	0.1	0.1	4.334	A
		2	1	(1, 2, 3, 4)	113			113	117	0.0	0.0	0.000	A
	Exit	1	1		190			190	197	0.0	0.0	0.000	A
4 - A42	Exit	1	1		245			245	253	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 - A453 (N)	Entry	1	1	2, 3	246	952	0.259	245	260	0.8	0.5	6.499	A
			2	1, 4	108	952	0.113	106	107	0.3	0.3	6.205	A
		2	1	(1, 2, 3, 4)	354			354	366	0.0	0.0	0.220	A
	Exit	1	1		51			51	49	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	146	913	0.159	147	154	0.4	0.2	4.961	A
			2	1, 2	24	913	0.026	24	24	0.0	0.0	3.627	A
		2	1	(1, 2, 3, 4)	170			170	177	0.0	0.0	0.000	A
	Exit	1	1		212			212	233	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	31	932	0.034	31	29	0.0	0.0	4.181	A
			2	2, 3	65	932	0.069	65	71	0.1	0.1	4.176	A
		2	1	(1, 2, 3, 4)	96			96	100	0.0	0.0	0.000	A
	Exit	1	1		162			162	164	0.0	0.0	0.000	A
4 - A42	Exit	1	1		194			194	198	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 - A453 (N)	Entry	1	1	2, 3	206	956	0.215	204	212	0.5	0.5	5.919	A
			2	1, 4	94	956	0.099	95	94	0.3	0.1	6.035	A
		2	1	(1, 2, 3, 4)	301			300	306	0.0	0.1	0.159	A
	Exit	1	1		42			42	40	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	132	923	0.143	132	133	0.2	0.1	4.512	A
			2	1, 2	22	923	0.024	22	20	0.0	0.0	3.970	A
		2	1	(1, 2, 3, 4)	154			154	153	0.0	0.0	0.000	A
	Exit	1	1		178			178	186	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	23	939	0.024	23	24	0.0	0.1	4.348	A
			2	2, 3	54	939	0.058	54	57	0.1	0.0	3.956	A
		2	1	(1, 2, 3, 4)	77			77	81	0.0	0.0	0.000	A
	Exit	1	1		135			135	142	0.0	0.0	0.000	A
4 - A42	Exit	1	1		173			173	172	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	973	957	0.133	127	130	0.0	0.2	5.542	A
				3	82	21	973	957	0.086	83	79	0.0	0.1	7.107	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	97	24	973	957	0.101	96	88	0.0	0.2	5.877	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	127	32	-	-	-	127	130	0.0	0.0	0.081	A
				3	82	20	-	-	-	82	80	0.0	0.0	0.111	A
				4	97	24	-	-	-	97	89	0.0	0.0	0.012	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	51	13	978	923	0.056	52	51	0.0	0.1	4.579	A
				4	77	19	978	921	0.084	77	76	0.0	0.1	4.543	A
			2	1	21	5	964	908	0.023	21	20	0.0	0.0	4.146	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	21	5	-	-	-	21	21	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	51	13	-	-	-	51	52	0.0	0.0	0.000	A
				4	77	19	-	-	-	77	77	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	23	6	986	926	0.024	22	19	0.0	0.0	4.816	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	545	512	0.008	4	3	0.0	0.0	4.530	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	1001	937	0.055	51	52	0.0	0.1	4.211	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	23	6	-	-	-	23	20	0.0	0.0	0.000	A
				2	52	13	-	-	-	52	52	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	-	-	-	4	3	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	159	40	973	954	0.166	160	166	0.2	0.3	5.966	A
				3	100	25	973	954	0.105	97	103	0.1	0.4	7.008	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	115	29	973	954	0.121	113	117	0.2	0.3	6.235	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	159	40	-	-	-	159	166	0.0	0.0	0.252	A
				3	100	25	-	-	-	100	104	0.0	0.0	0.420	A
				4	116	29	-	-	-	115	117	0.0	0.0	0.249	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	64	16	978	911	0.071	65	62	0.1	0.1	4.686	A
				4	91	23	978	911	0.100	91	91	0.1	0.1	4.782	A
			2	1	24	6	978	911	0.026	24	25	0.0	0.0	4.105	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	24	6	-	-	-	24	25	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	64	16	-	-	-	64	62	0.0	0.0	0.000	A
				4	91	23	-	-	-	91	91	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	20	5	1001	927	0.021	20	23	0.0	0.0	4.292	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	692	639	0.007	5	5	0.0	0.0	3.779	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1001	927	0.063	59	67	0.1	0.0	4.378	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	20	5	-	-	-	20	23	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	66	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	-	-	-	5	5	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	201	50	973	948	0.212	199	190	0.3	0.5	6.769	A
				3	119	30	973	947	0.126	118	119	0.4	0.4	8.412	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	137	34	973	947	0.145	137	146	0.3	0.3	6.711	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	201	50	-	-	-	201	191	0.0	0.0	0.577	A
				3	119	30	-	-	-	119	119	0.0	0.0	0.812	A
				4	137	34	-	-	-	137	146	0.0	0.0	0.477	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	70	17	978	895	0.078	70	77	0.1	0.1	4.925	A
				4	106	26	978	896	0.118	106	114	0.1	0.2	5.031	A
			2	1	32	8	978	892	0.036	33	33	0.0	0.0	4.167	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	33	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	70	17	-	-	-	70	77	0.0	0.0	0.000	A
				4	106	26	-	-	-	106	115	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	31	8	1001	910	0.035	31	31	0.0	0.1	4.164	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	0.97	618	560	0.007	4	4	0.0	0.0	3.331	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	1001	911	0.086	79	84	0.0	0.1	4.449	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	31	8	-	-	-	31	31	0.0	0.0	0.000	A
				2	79	20	-	-	-	79	84	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	0.97	-	-	-	4	4	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	196	49	973	947	0.207	197	193	0.5	0.4	6.807	A
				3	121	30	973	947	0.128	119	119	0.4	0.4	7.846	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	131	33	973	947	0.138	132	136	0.3	0.3	6.804	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	196	49	-	-	-	196	193	0.0	0.0	0.634	A
				3	120	30	-	-	-	121	119	0.0	0.0	0.756	A
				4	131	33	-	-	-	131	136	0.0	0.0	0.401	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	71	18	978	898	0.079	72	78	0.1	0.1	5.174	A
				4	111	28	978	899	0.123	109	113	0.2	0.3	5.177	A
			2	1	32	8	978	899	0.036	32	31	0.0	0.0	4.023	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	31	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	71	18	-	-	-	71	78	0.0	0.0	0.000	A
				4	111	28	-	-	-	111	114	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	28	7	1001	913	0.031	29	30	0.1	0.0	4.537	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	648	586	0.007	4	4	0.0	0.0	3.546	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	81	20	1001	914	0.089	82	83	0.1	0.1	4.334	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	28	7	-	-	-	28	30	0.0	0.0	0.000	A
				2	81	20	-	-	-	81	83	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	-	-	-	4	4	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	973	953	0.156	147	162	0.4	0.4	6.184	A
				3	98	25	973	953	0.103	99	97	0.4	0.1	7.165	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	108	27	973	954	0.113	106	107	0.3	0.3	6.205	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	-	-	-	149	162	0.0	0.0	0.235	A
				3	98	24	-	-	-	98	96	0.0	0.0	0.183	A
				4	108	27	-	-	-	108	107	0.0	0.0	0.223	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	62	16	978	914	0.068	63	67	0.1	0.1	4.947	A
				4	83	21	978	913	0.091	84	87	0.3	0.1	4.972	A
			2	1	24	6	964	901	0.027	24	24	0.0	0.0	3.627	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	24	6	-	-	-	24	24	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	62	16	-	-	-	62	67	0.0	0.0	0.000	A
				4	83	21	-	-	-	83	87	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	28	7	1001	934	0.030	27	25	0.0	0.0	4.198	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	0.93	603	558	0.007	4	4	0.0	0.0	4.065	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	1001	933	0.069	65	71	0.1	0.1	4.176	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	28	7	-	-	-	28	25	0.0	0.0	0.000	A
				2	65	16	-	-	-	65	71	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	0.93	-	-	-	4	4	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	973	956	0.130	124	128	0.4	0.3	5.437	A
				3	81	20	973	956	0.085	80	83	0.1	0.3	6.854	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	94	24	973	956	0.099	95	94	0.3	0.1	6.035	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	-	-	-	125	128	0.0	0.1	0.130	A
				3	81	20	-	-	-	81	84	0.0	0.0	0.278	A
				4	94	24	-	-	-	94	94	0.0	0.0	0.101	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	55	14	978	923	0.059	55	59	0.1	0.0	4.679	A
				4	77	19	978	922	0.084	76	74	0.1	0.1	4.379	A
			2	1	22	5	964	909	0.024	22	20	0.0	0.0	3.970	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	22	5	-	-	-	22	20	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	55	14	-	-	-	55	59	0.0	0.0	0.000	A
				4	77	19	-	-	-	77	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	20	5	1001	942	0.022	20	21	0.0	0.0	4.410	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.66	545	511	0.005	2	3	0.0	0.0	3.983	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	14	1001	939	0.058	54	57	0.1	0.0	3.956	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	20	5	-	-	-	20	21	0.0	0.0	0.000	A
				2	54	14	-	-	-	54	57	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.66	-	-	-	3	3	0.0	0.0	0.000	A

2038 | WoD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.62	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2038	WoD Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	487	100.000
2 - Gelscoe Lane		ONE HOUR	✓	196	100.000
3 - Top Brand		ONE HOUR	✓	388	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	152	179	156
	2 - Gelscoe Lane	79	0	37	80
	3 - Top Brand	271	73	0	44
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	1	15	9
	2 - Gelscoe Lane	0	0	3	3
	3 - Top Brand	12	0	0	83
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.40	6.37	1.0	A	449	674
2 - Gelscoe Lane	0.16	4.95	0.4	A	177	266
3 - Top Brand	0.40	7.75	1.2	A	356	535
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	365	91	54	1341	0.272	364	364	256	0.0	0.5	5.242	A
2 - Gelscoe Lane	142	35	250	1388	0.102	142	148	168	0.0	0.1	4.487	A
3 - Top Brand	293	73	242	1165	0.251	289	290	150	0.0	0.7	5.972	A
4 - A42			0					221				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	454	113	70	1386	0.327	450	450	316	0.5	0.9	5.959	A
2 - Gelscoe Lane	175	44	302	1392	0.126	175	185	218	0.1	0.2	4.765	A
3 - Top Brand	351	88	287	1080	0.325	354	355	191	0.7	0.5	6.559	A
4 - A42			0					255				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	536	134	78	1334	0.401	540	550	394	0.9	0.8	6.365	A
2 - Gelscoe Lane	218	54	376	1356	0.160	216	222	242	0.2	0.4	4.865	A
3 - Top Brand	431	108	350	1087	0.396	430	432	242	0.5	1.1	7.554	A
4 - A42			0					308				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	531	133	82	1375	0.386	530	540	371	0.8	1.0	6.374	A
2 - Gelscoe Lane	212	53	369	1358	0.156	212	216	242	0.4	0.3	4.945	A
3 - Top Brand	417	104	351	1060	0.393	414	428	230	1.1	1.2	7.754	A
4 - A42			0					313				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	444	111	67	1356	0.327	445	443	312	1.0	0.6	5.720	A
2 - Gelscoe Lane	173	43	310	1430	0.121	173	185	202	0.3	0.2	4.825	A
3 - Top Brand	347	87	273	1106	0.313	347	354	210	1.2	0.6	6.912	A
4 - A42			0					242				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	367	92	58	1345	0.273	367	371	271	0.6	0.6	5.427	A
2 - Gelscoe Lane	145	36	251	1430	0.101	146	153	174	0.2	0.1	4.461	A
3 - Top Brand	301	75	225	1168	0.258	300	301	171	0.6	0.6	6.041	A
4 - A42			0					196				

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 - A453 (N)	Entry	1	1	2, 3	239	956	0.250	239	246	0.0	0.3	5.496	A
			2	1, 4	126	956	0.132	125	118	0.0	0.2	4.571	A
		2	1	(1, 2, 3, 4)	365			365	366	0.0	0.0	0.042	A
	Exit	1	1		256			256	261	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	86	898	0.096	86	89	0.0	0.1	4.688	A
			2	1, 2	56	898	0.062	56	59	0.0	0.0	4.197	A
		2	1	(1, 2, 3, 4)	142			142	149	0.0	0.0	0.000	A
	Exit	1	1		168			168	170	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	239	923	0.259	235	235	0.0	0.6	6.378	A
			2	2, 3	54	923	0.058	54	55	0.0	0.0	4.329	A
		2	1	(1, 2, 3, 4)	293			293	293	0.0	0.0	0.034	A
	Exit	1	1		150			150	160	0.0	0.0	0.000	A
4 - A42	Exit	1	1		221			221	211	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 - A453 (N)	Entry	1	1	2, 3	310	951	0.326	308	305	0.3	0.7	6.108	A
			2	1, 4	143	951	0.150	142	145	0.2	0.2	5.102	A
		2	1	(1, 2, 3, 4)	454			453	451	0.0	0.0	0.172	A
	Exit	1	1		316			316	325	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	102	882	0.115	102	109	0.1	0.1	4.999	A
			2	1, 2	73	882	0.083	74	76	0.0	0.1	4.438	A
		2	1	(1, 2, 3, 4)	175			175	185	0.0	0.0	0.000	A
	Exit	1	1		218			218	209	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	281	909	0.309	284	287	0.6	0.5	6.997	A
			2	2, 3	70	909	0.077	70	68	0.0	0.0	4.395	A
		2	1	(1, 2, 3, 4)	351			351	354	0.0	0.0	0.130	A
	Exit	1	1		191			191	196	0.0	0.0	0.000	A
4 - A42	Exit	1	1		255			255	258	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 - A453 (N)	Entry	1	1	2, 3	363	948	0.383	365	373	0.7	0.6	6.525	A
			2	1, 4	172	948	0.182	176	176	0.2	0.1	5.074	A
		2	1	(1, 2, 3, 4)	536			535	550	0.0	0.1	0.300	A
	Exit	1	1		394			394	393	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	129	859	0.151	128	132	0.1	0.2	4.945	A
			2	1, 2	88	859	0.103	88	90	0.1	0.1	4.738	A
		2	1	(1, 2, 3, 4)	218			218	222	0.0	0.0	0.005	A
	Exit	1	1		242			242	251	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	353	888	0.398	352	351	0.5	1.0	8.023	A
			2	2, 3	78	888	0.087	78	81	0.0	0.1	4.505	A
		2	1	(1, 2, 3, 4)	431			431	434	0.0	0.0	0.282	A
	Exit	1	1		242			242	245	0.0	0.0	0.000	A
4 - A42	Exit	1	1		308			308	315	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 - A453 (N)	Entry	1	1	2, 3	353	947	0.373	353	363	0.6	0.8	6.579	A
			2	1, 4	177	947	0.187	177	177	0.1	0.3	5.221	A
		2	1	(1, 2, 3, 4)	531			531	541	0.1	0.0	0.239	A
	Exit	1	1		371			371	386	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	128	861	0.149	128	128	0.2	0.2	5.237	A
			2	1, 2	84	861	0.098	84	89	0.1	0.1	4.531	A
		2	1	(1, 2, 3, 4)	212			212	216	0.0	0.0	0.002	A
	Exit	1	1		242			242	246	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	333	888	0.375	333	346	1.0	1.0	8.282	A
			2	2, 3	84	888	0.094	82	82	0.1	0.2	4.614	A
		2	1	(1, 2, 3, 4)	417			417	428	0.0	0.1	0.274	A
	Exit	1	1		230			230	238	0.0	0.0	0.000	A
4 - A42	Exit	1	1		313			313	313	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 - A453 (N)	Entry	1	1	2, 3	308	952	0.324	310	305	0.8	0.5	5.969	A
			2	1, 4	135	952	0.142	135	138	0.3	0.1	4.739	A
		2	1	(1, 2, 3, 4)	444			444	441	0.0	0.0	0.133	A
	Exit	1	1		312			312	321	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	106	879	0.120	106	111	0.2	0.2	4.956	A
			2	1, 2	67	879	0.076	67	74	0.1	0.1	4.629	A
		2	1	(1, 2, 3, 4)	173			173	185	0.0	0.0	0.002	A
	Exit	1	1		202			202	206	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	280	913	0.307	280	285	1.0	0.6	7.416	A
			2	2, 3	67	913	0.074	67	69	0.2	0.1	4.388	A
		2	1	(1, 2, 3, 4)	347			347	352	0.1	0.0	0.176	A
	Exit	1	1		210			210	204	0.0	0.0	0.000	A
4 - A42	Exit	1	1		242			242	251	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 - A453 (N)	Entry	1	1	2, 3	257	955	0.269	256	254	0.5	0.4	5.660	A
			2	1, 4	111	955	0.116	110	117	0.1	0.2	4.711	A
		2	1	(1, 2, 3, 4)	367			367	371	0.0	0.0	0.065	A
	Exit	1	1		271			271	270	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	85	898	0.095	85	90	0.2	0.1	4.550	A
			2	1, 2	60	898	0.067	61	62	0.1	0.0	4.335	A
		2	1	(1, 2, 3, 4)	145			145	152	0.0	0.0	0.000	A
	Exit	1	1		174			174	173	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	243	928	0.262	242	242	0.6	0.5	6.483	A
			2	2, 3	58	928	0.062	58	59	0.1	0.1	4.053	A
		2	1	(1, 2, 3, 4)	301			301	301	0.0	0.0	0.102	A
	Exit	1	1		171			171	171	0.0	0.0	0.000	A
4 - A42	Exit	1	1		196			196	212	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	114	29	973	956	0.119	114	115	0.0	0.1	5.223	A
				3	125	31	973	956	0.130	125	131	0.0	0.2	5.769	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	126	31	973	956	0.132	125	118	0.0	0.2	4.571	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	114	29	-	-	-	114	116	0.0	0.0	0.034	A
				3	125	31	-	-	-	125	132	0.0	0.0	0.059	A
				4	126	31	-	-	-	126	118	0.0	0.0	0.034	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	26	6	978	900	0.029	26	29	0.0	0.1	4.871	A
				4	60	15	978	900	0.067	61	60	0.0	0.0	4.599	A
		2	2	1	56	14	978	900	0.062	56	59	0.0	0.0	4.197	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	56	14	-	-	-	56	60	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	26	6	-	-	-	26	29	0.0	0.0	0.000	A
				4	60	15	-	-	-	60	60	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	203	51	1001	923	0.220	200	202	0.0	0.5	6.090	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	991	917	0.039	35	33	0.0	0.1	9.245	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	54	13	1001	925	0.058	54	55	0.0	0.0	4.329	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	203	51	-	-	-	203	204	0.0	0.0	0.048	A
				2	54	13	-	-	-	54	55	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	-	-	-	36	34	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	148	37	973	951	0.156	148	142	0.1	0.3	5.788	A
				3	162	40	973	951	0.170	160	163	0.2	0.4	6.426	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	143	36	973	951	0.150	142	145	0.2	0.2	5.102	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	149	37	-	-	-	148	142	0.0	0.0	0.202	A
				3	162	40	-	-	-	162	164	0.0	0.0	0.203	A
				4	143	36	-	-	-	143	145	0.0	0.0	0.107	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	31	8	978	881	0.035	30	33	0.1	0.0	5.029	A
				4	71	18	978	881	0.081	71	76	0.0	0.1	4.986	A
			2	1	73	18	978	881	0.083	74	76	0.0	0.1	4.438	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	73	18	-	-	-	73	76	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	31	8	-	-	-	31	33	0.0	0.0	0.000	A
				4	71	18	-	-	-	71	76	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	240	60	1001	908	0.264	242	250	0.5	0.4	6.777	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	41	10	1001	909	0.046	41	38	0.1	0.1	9.384	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	70	17	1001	909	0.077	70	68	0.0	0.0	4.395	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	240	60	-	-	-	240	249	0.0	0.0	0.154	A
				2	70	17	-	-	-	70	68	0.0	0.0	0.060	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	41	10	-	-	-	41	38	0.0	0.0	0.109	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	162	41	973	948	0.171	164	170	0.3	0.2	6.100	A
				3	200	50	973	949	0.211	200	203	0.4	0.4	6.932	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	172	43	973	949	0.182	176	176	0.2	0.1	5.074	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	162	41	-	-	-	162	170	0.0	0.0	0.331	A
				3	201	50	-	-	-	200	203	0.0	0.0	0.386	A
				4	172	43	-	-	-	172	176	0.0	0.0	0.174	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	42	10	978	858	0.049	41	41	0.0	0.1	4.989	A
				4	88	22	978	859	0.102	87	91	0.1	0.2	4.925	A
			2	1	88	22	978	856	0.103	88	90	0.1	0.1	4.738	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	88	22	-	-	-	88	90	0.0	0.0	0.004	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	42	10	-	-	-	42	42	0.0	0.0	0.000	A
				4	88	22	-	-	-	88	91	0.0	0.0	0.009	A
3 - Top Brand	Entry	1	1	1	306	77	1001	888	0.345	306	303	0.4	0.7	7.762	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	47	12	1001	890	0.053	46	48	0.1	0.3	10.698	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	78	19	1001	890	0.087	78	81	0.0	0.1	4.505	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	306	77	-	-	-	306	305	0.0	0.0	0.328	A
				2	77	19	-	-	-	78	81	0.0	0.0	0.119	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	47	12	-	-	-	47	48	0.0	0.0	0.306	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	160	40	973	947	0.169	161	165	0.2	0.3	6.371	A
				3	193	48	973	947	0.204	192	198	0.4	0.4	6.776	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	177	44	973	947	0.187	177	177	0.1	0.3	5.221	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	160	40	-	-	-	160	165	0.0	0.0	0.283	A
				3	193	48	-	-	-	193	198	0.0	0.0	0.266	A
				4	177	44	-	-	-	177	178	0.0	0.0	0.167	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	39	10	978	859	0.045	38	40	0.1	0.1	5.213	A
				4	89	22	978	860	0.104	90	87	0.2	0.1	5.249	A
			2	1	84	21	978	859	0.098	84	89	0.1	0.1	4.531	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	84	21	-	-	-	84	88	0.0	0.0	0.001	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	39	10	-	-	-	39	40	0.0	0.0	0.008	A
				4	89	22	-	-	-	89	87	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	289	72	1001	888	0.326	287	298	0.7	0.8	8.007	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	44	11	1001	890	0.050	46	48	0.3	0.1	11.075	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	84	21	1001	888	0.094	82	82	0.1	0.2	4.614	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	289	72	-	-	-	289	298	0.0	0.0	0.301	A
				2	84	21	-	-	-	84	82	0.0	0.0	0.180	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	43	11	-	-	-	44	48	0.0	0.0	0.284	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	133	33	973	951	0.140	135	137	0.3	0.1	5.738	A
				3	175	44	973	952	0.184	175	168	0.4	0.3	6.184	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	135	34	973	952	0.142	135	138	0.3	0.1	4.739	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	133	33	-	-	-	133	136	0.0	0.0	0.138	A
				3	175	44	-	-	-	175	168	0.0	0.0	0.171	A
				4	135	34	-	-	-	135	137	0.0	0.0	0.085	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	978	881	0.040	35	36	0.1	0.1	5.202	A
				4	70	18	978	880	0.080	71	75	0.1	0.1	4.839	A
			2	1	67	17	978	881	0.076	67	74	0.1	0.1	4.629	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	67	17	-	-	-	67	74	0.0	0.0	0.002	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	-	-	-	35	36	0.0	0.0	0.000	A
				4	70	18	-	-	-	70	75	0.0	0.0	0.003	A
3 - Top Brand	Entry	1	1	1	245	61	1001	913	0.268	245	247	0.8	0.5	7.169	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	1001	910	0.039	36	38	0.1	0.1	10.047	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	67	17	1001	912	0.074	67	69	0.2	0.1	4.388	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	244	61	-	-	-	245	246	0.0	0.0	0.204	A
				2	67	17	-	-	-	67	69	0.0	0.0	0.097	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	-	-	-	36	38	0.0	0.0	0.139	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	115	29	973	955	0.121	116	114	0.1	0.1	5.360	A
				3	141	35	973	955	0.148	141	140	0.3	0.3	5.944	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	111	28	973	955	0.116	110	117	0.1	0.2	4.711	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	115	29	-	-	-	115	114	0.0	0.0	0.101	A
				3	141	35	-	-	-	141	140	0.0	0.0	0.057	A
				4	111	28	-	-	-	111	117	0.0	0.0	0.036	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	8	978	897	0.034	30	31	0.1	0.0	4.570	A
				4	55	14	978	899	0.061	55	59	0.1	0.1	4.540	A
			2	1	60	15	978	899	0.067	61	62	0.1	0.0	4.335	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	60	15	-	-	-	60	62	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	8	-	-	-	30	31	0.0	0.0	0.000	A
				4	55	14	-	-	-	55	59	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	211	53	1001	928	0.227	211	207	0.5	0.4	6.226	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	981	911	0.035	31	35	0.1	0.1	9.043	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	58	14	1001	927	0.063	58	59	0.1	0.1	4.053	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	211	53	-	-	-	211	207	0.0	0.0	0.111	A
				2	58	14	-	-	-	58	59	0.0	0.0	0.067	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	35	0.0	0.0	0.118	A

2038 | WoD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2038	WoD Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	457	100.000
2 - Gelscoe Lane		ONE HOUR	✓	213	100.000
3 - Top Brand		ONE HOUR	✓	221	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	90	191	176
	2 - Gelscoe Lane	74	0	64	75
	3 - Top Brand	165	48	0	8
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	26	32	39
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	1	0	0	0
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.35	7.45	1.3	A	419	629
2 - Gelscoe Lane	0.19	5.02	0.4	A	196	293
3 - Top Brand	0.22	5.06	0.3	A	203	304
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	343	86	38	1466	0.234	341	338	172	0.0	0.7	6.423	A
2 - Gelscoe Lane	153	38	273	1314	0.117	152	160	106	0.0	0.2	4.480	A
3 - Top Brand	165	41	240	1202	0.137	166	166	185	0.0	0.2	4.361	A
4 - A42			0					195				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	413	103	48	1382	0.299	412	415	210	0.7	0.8	6.482	A
2 - Gelscoe Lane	187	47	332	1298	0.144	188	196	128	0.2	0.3	4.653	A
3 - Top Brand	197	49	300	1151	0.171	199	202	220	0.2	0.2	4.777	A
4 - A42			0					241				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	510	127	52	1450	0.351	508	511	264	0.8	1.1	7.453	A
2 - Gelscoe Lane	237	59	410	1267	0.187	236	238	150	0.3	0.4	4.971	A
3 - Top Brand	240	60	359	1167	0.206	243	246	287	0.2	0.2	5.016	A
4 - A42			0					286				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	500	125	57	1412	0.354	496	511	265	1.1	1.3	7.362	A
2 - Gelscoe Lane	236	59	394	1255	0.188	234	244	158	0.4	0.4	5.017	A
3 - Top Brand	249	62	358	1122	0.222	250	252	271	0.2	0.2	5.063	A
4 - A42			0					285				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	409	102	39	1434	0.285	408	417	216	1.3	0.9	6.730	A
2 - Gelscoe Lane	192	48	331	1322	0.145	191	200	116	0.4	0.2	4.774	A
3 - Top Brand	198	49	291	1151	0.172	196	203	231	0.2	0.3	4.715	A
4 - A42			0					232				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	341	85	37	1392	0.245	338	354	186	0.9	0.7	6.312	A
2 - Gelscoe Lane	169	42	274	1322	0.128	170	171	101	0.2	0.2	4.555	A
3 - Top Brand	166	42	256	1210	0.138	168	173	187	0.3	0.2	4.552	A
4 - A42			0					201				

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 - A453 (N)	Entry	1	1	2, 3	210	961	0.219	208	205	0.0	0.5	6.147	A
			2	1, 4	132	961	0.138	133	134	0.0	0.2	6.178	A
		2	1	(1, 2, 3, 4)	343			343	341	0.0	0.0	0.264	A
	Exit	1	1		172			172	181	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	101	891	0.114	101	104	0.0	0.1	4.597	A
			2	1, 2	52	891	0.058	51	57	0.0	0.1	4.268	A
		2	1	(1, 2, 3, 4)	153			153	161	0.0	0.0	0.000	A
	Exit	1	1		106			106	102	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	127	924	0.138	128	130	0.0	0.2	4.491	A
			2	2, 3	38	924	0.041	38	36	0.0	0.0	3.892	A
		2	1	(1, 2, 3, 4)	165			165	167	0.0	0.0	0.000	A
	Exit	1	1		185			185	185	0.0	0.0	0.000	A
4 - A42	Exit	1	1		195			195	197	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 - A453 (N)	Entry	1	1	2, 3	249	958	0.260	248	252	0.5	0.5	6.248	A
			2	1, 4	164	958	0.171	164	163	0.2	0.4	6.510	A
		2	1	(1, 2, 3, 4)	413			413	415	0.0	0.0	0.137	A
	Exit	1	1		210			210	218	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	123	873	0.141	123	129	0.1	0.2	4.732	A
			2	1, 2	65	873	0.074	65	67	0.1	0.1	4.501	A
		2	1	(1, 2, 3, 4)	187			187	196	0.0	0.0	0.000	A
	Exit	1	1		128			128	126	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	150	904	0.165	151	158	0.2	0.2	4.980	A
			2	2, 3	48	904	0.053	48	44	0.0	0.1	4.057	A
		2	1	(1, 2, 3, 4)	197			197	202	0.0	0.0	0.000	A
	Exit	1	1		220			220	229	0.0	0.0	0.000	A
4 - A42	Exit	1	1		241			241	241	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 - A453 (N)	Entry	1	1	2, 3	314	956	0.328	310	316	0.5	0.7	7.233	A
			2	1, 4	194	956	0.203	197	195	0.4	0.3	6.499	A
		2	1	(1, 2, 3, 4)	510			509	512	0.0	0.1	0.487	A
	Exit	1	1		264			264	267	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	155	848	0.183	155	154	0.2	0.2	5.065	A
			2	1, 2	82	848	0.097	81	84	0.1	0.2	4.801	A
		2	1	(1, 2, 3, 4)	237			237	239	0.0	0.0	0.000	A
	Exit	1	1		150			150	155	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	2	2, 3	52	885	0.059	52	54	0.1	0.1	4.208	A
			2	1	(1, 2, 3, 4)	240			240	246	0.0	0.0	0.003
	Exit	1	1		287			287	287	0.0	0.0	0.000	A
4 - A42	Exit	1	1		286			286	285	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 - A453 (N)	Entry	1	1	2, 3	304	955	0.318	303	310	0.7	0.8	7.035	A
			2	1, 4	196	955	0.205	193	201	0.3	0.6	6.839	A
		2	1	(1, 2, 3, 4)	500			500	512	0.1	0.0	0.404	A
	Exit	1	1		265			265	272	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	154	853	0.181	152	159	0.2	0.3	5.130	A
			2	1, 2	82	853	0.096	82	85	0.2	0.1	4.803	A
		2	1	(1, 2, 3, 4)	236			236	244	0.0	0.0	0.000	A
	Exit	1	1		158			158	156	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	192	886	0.217	193	197	0.2	0.2	5.253	A
			2	2, 3	57	886	0.064	57	56	0.1	0.1	4.389	A
		2	1	(1, 2, 3, 4)	249			249	252	0.0	0.0	0.002	A
	Exit	1	1		271			271	285	0.0	0.0	0.000	A
4 - A42	Exit	1	1		285			285	295	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 - A453 (N)	Entry	1	1	2, 3	254	961	0.264	252	260	0.8	0.6	6.602	A
			2	1, 4	155	961	0.161	156	158	0.6	0.3	6.092	A
		2	1	(1, 2, 3, 4)	409			409	416	0.0	0.0	0.304	A
	Exit	1	1		216			216	222	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	125	873	0.143	124	129	0.3	0.2	4.911	A
			2	1, 2	67	873	0.077	67	71	0.1	0.0	4.526	A
		2	1	(1, 2, 3, 4)	192			192	199	0.0	0.0	0.000	A
	Exit	1	1		116			116	127	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	159	907	0.175	157	159	0.2	0.3	4.928	A
			2	2, 3	39	907	0.043	39	44	0.1	0.0	3.952	A
		2	1	(1, 2, 3, 4)	198			198	203	0.0	0.0	0.000	A
	Exit	1	1		231			231	237	0.0	0.0	0.000	A
4 - A42	Exit	1	1		232			232	235	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 - A453 (N)	Entry	1	1	2, 3	203	961	0.212	202	215	0.6	0.4	6.281	A
			2	1, 4	137	961	0.142	136	140	0.3	0.3	6.015	A
		2	1	(1, 2, 3, 4)	341			340	354	0.0	0.0	0.141	A
	Exit	1	1		186			186	188	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	109	891	0.122	110	112	0.2	0.1	4.660	A
			2	1, 2	60	891	0.067	60	59	0.0	0.0	4.356	A
		2	1	(1, 2, 3, 4)	169			169	171	0.0	0.0	0.000	A
	Exit	1	1		101			101	105	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	129	918	0.141	131	136	0.3	0.1	4.719	A
			2	2, 3	37	918	0.040	37	37	0.0	0.0	3.951	A
		2	1	(1, 2, 3, 4)	166			166	172	0.0	0.0	0.000	A
	Exit	1	1		187			187	198	0.0	0.0	0.000	A
4 - A42	Exit	1	1		201			201	206	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	973	961	0.072	68	66	0.0	0.2	6.058	A
				3	141	35	973	961	0.146	140	138	0.0	0.3	6.191	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	132	33	973	961	0.138	133	134	0.0	0.2	6.178	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	67	0.0	0.0	0.158	A
				3	141	35	-	-	-	141	139	0.0	0.0	0.257	A
				4	132	33	-	-	-	132	134	0.0	0.0	0.328	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	45	11	978	891	0.051	45	46	0.0	0.0	4.599	A
				4	56	14	978	890	0.063	56	57	0.0	0.1	4.595	A
		2	2	1	52	13	978	891	0.058	51	57	0.0	0.1	4.268	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	52	13	-	-	-	52	57	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	45	11	-	-	-	45	47	0.0	0.0	0.000	A
				4	56	14	-	-	-	56	58	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	120	30	1001	923	0.130	121	124	0.0	0.1	4.495	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	743	688	0.010	7	6	0.0	0.0	4.421	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	9	1001	923	0.041	38	36	0.0	0.0	3.892	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	120	30	-	-	-	120	125	0.0	0.0	0.000	A
				2	38	9	-	-	-	38	36	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	6	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	973	958	0.083	80	82	0.2	0.1	5.979	A
				3	170	42	973	958	0.177	167	171	0.3	0.4	6.378	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	164	41	973	958	0.171	164	163	0.2	0.4	6.510	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	-	-	-	79	81	0.0	0.0	0.142	A
				3	170	42	-	-	-	170	171	0.0	0.0	0.159	A
				4	164	41	-	-	-	164	163	0.0	0.0	0.110	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	53	13	978	875	0.060	52	58	0.0	0.1	4.617	A
				4	70	17	978	873	0.080	71	71	0.1	0.1	4.827	A
			2	1	65	16	978	874	0.074	65	67	0.1	0.1	4.501	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	65	16	-	-	-	65	67	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	53	13	-	-	-	53	58	0.0	0.0	0.000	A
				4	70	17	-	-	-	70	70	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	143	36	1001	906	0.158	145	151	0.1	0.1	4.992	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	2	882	798	0.008	6	7	0.0	0.0	4.751	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	48	12	1001	904	0.053	48	44	0.0	0.1	4.057	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	143	36	-	-	-	143	151	0.0	0.0	0.000	A
				2	48	12	-	-	-	48	44	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	2	-	-	-	6	7	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	99	25	973	956	0.103	98	101	0.1	0.3	7.138	A
				3	215	54	973	957	0.225	213	215	0.4	0.4	7.279	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	194	49	973	956	0.203	197	195	0.4	0.3	6.499	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	99	25	-	-	-	99	102	0.0	0.0	0.570	A
				3	216	54	-	-	-	215	215	0.0	0.0	0.485	A
				4	194	49	-	-	-	194	195	0.0	0.0	0.442	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	74	18	978	849	0.087	74	72	0.1	0.1	4.918	A
				4	81	20	978	850	0.095	81	82	0.1	0.2	5.194	A
			2	1	82	21	978	849	0.097	81	84	0.1	0.2	4.801	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	82	21	-	-	-	82	84	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	74	18	-	-	-	74	72	0.0	0.0	0.000	A
				4	81	20	-	-	-	81	82	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	180	45	1001	885	0.203	183	183	0.1	0.2	5.253	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	8	2	922	819	0.010	8	9	0.0	0.0	5.023	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	1001	886	0.059	52	54	0.1	0.1	4.208	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	180	45	-	-	-	180	183	0.0	0.0	0.001	A
				2	52	13	-	-	-	52	54	0.0	0.0	0.003	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	8	2	-	-	-	8	8	0.0	0.0	0.026	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	25	973	956	0.107	102	100	0.3	0.2	6.718	A
				3	202	51	973	955	0.212	201	210	0.4	0.5	7.193	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	196	49	973	955	0.205	193	201	0.3	0.6	6.839	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	25	-	-	-	102	100	0.0	0.0	0.426	A
				3	202	51	-	-	-	202	210	0.0	0.0	0.395	A
				4	196	49	-	-	-	196	202	0.0	0.0	0.400	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	70	18	978	851	0.083	70	75	0.1	0.1	5.013	A
				4	84	21	978	852	0.099	83	85	0.2	0.2	5.234	A
			2	1	82	20	978	852	0.096	82	85	0.2	0.1	4.803	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	82	20	-	-	-	82	85	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	70	18	-	-	-	70	75	0.0	0.0	0.000	A
				4	84	21	-	-	-	84	85	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	183	46	1001	886	0.206	184	187	0.2	0.2	5.242	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	892	788	0.012	10	9	0.0	0.0	5.473	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	57	14	1001	886	0.064	57	56	0.1	0.1	4.389	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	183	46	-	-	-	183	187	0.0	0.0	0.003	A
				2	57	14	-	-	-	57	56	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	-	-	-	9	9	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	78	20	973	961	0.081	77	82	0.2	0.2	6.676	A
				3	175	44	973	961	0.183	175	177	0.5	0.4	6.566	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	155	39	973	961	0.161	156	158	0.6	0.3	6.092	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	78	20	-	-	-	78	82	0.0	0.0	0.363	A
				3	176	44	-	-	-	175	177	0.0	0.0	0.310	A
				4	155	39	-	-	-	155	157	0.0	0.0	0.264	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	56	14	978	871	0.064	56	60	0.1	0.1	4.995	A
				4	69	17	978	871	0.079	68	69	0.2	0.1	4.839	A
			2	1	67	17	978	872	0.077	67	71	0.1	0.0	4.526	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	67	17	-	-	-	67	71	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	56	14	-	-	-	56	59	0.0	0.0	0.000	A
				4	69	17	-	-	-	69	69	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	150	38	1001	906	0.166	149	151	0.2	0.2	4.913	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	922	834	0.010	8	8	0.0	0.0	5.196	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	39	10	1001	906	0.043	39	44	0.1	0.0	3.952	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	150	38	-	-	-	150	151	0.0	0.0	0.000	A
				2	39	10	-	-	-	39	44	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	-	-	-	9	8	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	973	961	0.068	64	68	0.2	0.1	6.180	A
				3	138	35	973	962	0.144	138	146	0.4	0.2	6.330	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	137	34	973	961	0.142	136	140	0.3	0.3	6.015	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	65	16	-	-	-	65	68	0.0	0.0	0.140	A
				3	138	35	-	-	-	138	146	0.0	0.0	0.164	A
				4	137	34	-	-	-	137	140	0.0	0.0	0.115	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	49	12	978	889	0.055	49	52	0.1	0.1	4.650	A
				4	60	15	978	890	0.068	60	60	0.1	0.1	4.668	A
			2	1	60	15	978	889	0.067	60	59	0.0	0.0	4.356	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	60	15	-	-	-	60	59	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	49	12	-	-	-	49	52	0.0	0.0	0.000	A
				4	60	15	-	-	-	60	60	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	124	31	1001	920	0.135	126	129	0.2	0.1	4.727	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	753	692	0.008	5	6	0.0	0.0	4.542	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	37	9	1001	920	0.040	37	37	0.0	0.0	3.951	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	124	31	-	-	-	124	129	0.0	0.0	0.000	A
				2	37	9	-	-	-	37	37	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	-	-	-	5	6	0.0	0.0	0.000	A

2038 | WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.85	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2038	WD Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	626	100.000
2 - Gelscoe Lane		ONE HOUR	✓	203	100.000
3 - Top Brand		ONE HOUR	✓	430	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	292	175	159
	2 - Gelscoe Lane	93	0	33	77
	3 - Top Brand	274	113	0	43
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	From				
	1 - A453 (N)	0	0	16	7
	2 - Gelscoe Lane	0	0	3	3
	3 - Top Brand	13	0	0	87
	4 - A42	0	0	0	0

Cyclist %

	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	From				
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.57	8.76	1.8	A	576	864
2 - Gelscoe Lane	0.15	5.06	0.3	A	183	274
3 - Top Brand	0.38	7.81	1.0	A	394	591
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	478	120	85	1237	0.387	478	464	288	0.0	0.8	5.855	A
2 - Gelscoe Lane	148	37	260	1505	0.098	146	150	303	0.0	0.3	4.339	A
3 - Top Brand	335	84	240	1239	0.270	338	321	167	0.0	0.4	5.812	A
4 - A42			0					205				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	559	140	104	1272	0.439	559	564	326	0.8	1.0	6.988	A
2 - Gelscoe Lane	175	44	292	1422	0.123	175	185	371	0.3	0.3	4.694	A
3 - Top Brand	384	96	286	1295	0.297	390	389	180	0.4	0.5	6.268	A
4 - A42			0					247				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	679	170	124	1193	0.569	679	689	391	1.0	1.7	8.763	A
2 - Gelscoe Lane	213	53	357	1428	0.149	212	229	446	0.3	0.3	4.900	A
3 - Top Brand	468	117	350	1230	0.381	467	481	218	0.5	1.0	7.348	A
4 - A42			0					304				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	694	173	124	1242	0.558	692	702	392	1.7	1.8	8.623	A
2 - Gelscoe Lane	218	55	365	1430	0.153	217	230	451	0.3	0.3	5.057	A
3 - Top Brand	469	117	356	1239	0.379	467	488	227	1.0	0.9	7.809	A
4 - A42			0					306				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	576	144	97	1235	0.466	576	573	334	1.8	1.1	7.019	A
2 - Gelscoe Lane	184	46	307	1479	0.125	184	186	365	0.3	0.2	4.767	A
3 - Top Brand	391	98	304	1249	0.313	386	395	187	0.9	1.0	6.509	A
4 - A42			0					259				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	469	117	92	1268	0.370	470	470	268	1.1	0.6	6.132	A
2 - Gelscoe Lane	158	39	256	1435	0.110	157	161	307	0.2	0.2	4.578	A
3 - Top Brand	318	79	261	1287	0.247	319	334	152	1.0	0.5	5.879	A
4 - A42			0					219				

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 - A453 (N)	Entry	1	1	2, 3	361	946	0.382	361	348	0.0	0.7	6.006	A
			2	1, 4	117	946	0.124	117	116	0.0	0.1	4.680	A
		2	1	(1, 2, 3, 4)	478			478	467	0.0	0.0	0.178	A
	Exit	1	1		288			288	275	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	77	895	0.086	76	81	0.0	0.2	4.396	A
			2	1, 2	71	895	0.080	70	69	0.0	0.1	4.274	A
		2	1	(1, 2, 3, 4)	148			148	151	0.0	0.0	0.000	A
	Exit	1	1		303			303	300	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	250	924	0.270	253	237	0.0	0.4	6.321	A
			2	2, 3	85	924	0.092	85	84	0.0	0.1	4.506	A
		2	1	(1, 2, 3, 4)	335			335	323	0.0	0.0	0.029	A
	Exit	1	1		167			167	155	0.0	0.0	0.000	A
4 - A42	Exit	1	1		205			205	204	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 - A453 (N)	Entry	1	1	2, 3	421	940	0.447	420	422	0.7	0.8	7.150	A
			2	1, 4	139	940	0.147	139	141	0.1	0.2	4.692	A
		2	1	(1, 2, 3, 4)	559			559	564	0.0	0.0	0.445	A
	Exit	1	1		326			326	330	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	95	885	0.107	94	99	0.2	0.1	4.665	A
			2	1, 2	81	885	0.091	80	86	0.1	0.1	4.726	A
		2	1	(1, 2, 3, 4)	175			175	185	0.0	0.0	0.000	A
	Exit	1	1		371			371	368	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	283	909	0.312	286	285	0.4	0.4	6.723	A
			2	2, 3	102	909	0.112	104	103	0.1	0.1	4.451	A
		2	1	(1, 2, 3, 4)	384			385	389	0.0	0.0	0.230	A
	Exit	1	1		180			180	187	0.0	0.0	0.000	A
4 - A42	Exit	1	1		247			247	252	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 - A453 (N)	Entry	1	1	2, 3	502	934	0.537	503	514	0.8	1.1	8.264	A
			2	1, 4	176	934	0.189	176	175	0.2	0.3	5.205	A
		2	1	(1, 2, 3, 4)	679			678	691	0.0	0.3	1.256	A
	Exit	1	1		391			391	411	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	113	865	0.131	112	121	0.1	0.2	5.118	A
			2	1, 2	99	865	0.115	100	108	0.1	0.1	4.637	A
		2	1	(1, 2, 3, 4)	213			213	229	0.0	0.0	0.010	A
	Exit	1	1		446			446	452	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	345	888	0.388	343	352	0.4	0.9	8.072	A
			2	2, 3	123	888	0.139	124	128	0.1	0.1	4.849	A
		2	1	(1, 2, 3, 4)	468			468	483	0.0	0.0	0.252	A
	Exit	1	1		218			218	229	0.0	0.0	0.000	A
4 - A42	Exit	1	1		304			304	307	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 - A453 (N)	Entry	1	1	2, 3	516	934	0.553	516	521	1.1	1.3	8.091	A
			2	1, 4	177	934	0.189	177	181	0.3	0.2	5.001	A
		2	1	(1, 2, 3, 4)	694			693	702	0.3	0.2	1.322	A
	Exit	1	1		392			392	420	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	118	862	0.136	117	122	0.2	0.2	5.092	A
			2	1, 2	101	862	0.117	100	107	0.1	0.2	5.018	A
		2	1	(1, 2, 3, 4)	218			218	230	0.0	0.0	0.000	A
	Exit	1	1		451			451	453	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	344	887	0.388	343	363	0.9	0.6	8.548	A
			2	2, 3	125	887	0.141	124	125	0.1	0.3	4.771	A
		2	1	(1, 2, 3, 4)	469			469	487	0.0	0.0	0.370	A
	Exit	1	1		227			227	230	0.0	0.0	0.000	A
4 - A42	Exit	1	1		306			306	316	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 - A453 (N)	Entry	1	1	2, 3	428	942	0.454	428	429	1.3	0.8	7.099	A
			2	1, 4	148	942	0.157	148	144	0.2	0.2	5.052	A
		2	1	(1, 2, 3, 4)	576			576	571	0.2	0.1	0.435	A
	Exit	1	1		334			334	339	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	99	880	0.112	98	99	0.2	0.2	4.752	A
			2	1, 2	85	880	0.097	86	86	0.2	0.0	4.785	A
		2	1	(1, 2, 3, 4)	184			184	185	0.0	0.0	0.000	A
	Exit	1	1		365			365	370	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	293	903	0.324	289	293	0.6	0.8	7.192	A
			2	2, 3	98	903	0.108	97	102	0.3	0.2	4.463	A
		2	1	(1, 2, 3, 4)	391			391	396	0.0	0.0	0.117	A
	Exit	1	1		187			187	191	0.0	0.0	0.000	A
4 - A42	Exit	1	1		259			259	254	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 - A453 (N)	Entry	1	1	2, 3	341	944	0.361	341	353	0.8	0.5	6.265	A
			2	1, 4	128	944	0.135	129	117	0.2	0.1	4.766	A
		2	1	(1, 2, 3, 4)	469			469	469	0.1	0.0	0.247	A
	Exit	1	1		268			268	281	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	87	897	0.098	87	88	0.2	0.2	4.686	A
			2	1, 2	70	897	0.078	70	74	0.0	0.1	4.456	A
		2	1	(1, 2, 3, 4)	158			158	161	0.0	0.0	0.000	A
	Exit	1	1		307			307	316	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	227	917	0.247	227	241	0.8	0.4	6.468	A
			2	2, 3	92	917	0.100	92	93	0.2	0.1	4.268	A
		2	1	(1, 2, 3, 4)	318			318	332	0.0	0.0	0.108	A
	Exit	1	1		152			152	156	0.0	0.0	0.000	A
4 - A42	Exit	1	1		219			219	213	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	217	54	973	946	0.229	218	216	0.0	0.3	5.787	A
				3	145	36	973	946	0.153	143	132	0.0	0.4	6.423	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	117	29	973	946	0.124	117	116	0.0	0.1	4.680	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	217	54	-	-	-	217	218	0.0	0.0	0.189	A
				3	145	36	-	-	-	145	133	0.0	0.0	0.200	A
				4	117	29	-	-	-	117	116	0.0	0.0	0.132	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	24	6	978	897	0.026	23	24	0.0	0.0	4.284	A
				4	53	13	978	896	0.060	53	57	0.0	0.1	4.442	A
			2	1	71	18	978	897	0.079	70	69	0.0	0.1	4.274	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	71	18	-	-	-	71	70	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	24	6	-	-	-	24	24	0.0	0.0	0.000	A
				4	53	13	-	-	-	53	58	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	217	54	1001	923	0.235	218	206	0.0	0.3	5.998	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	33	8	988	910	0.036	34	31	0.0	0.1	9.825	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	85	21	1001	922	0.092	85	84	0.0	0.1	4.506	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	217	54	-	-	-	217	207	0.0	0.0	0.037	A
				2	85	21	-	-	-	85	84	0.0	0.0	0.007	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	33	8	-	-	-	33	31	0.0	0.0	0.048	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	266	67	973	940	0.283	267	265	0.3	0.4	7.019	A
				3	154	39	973	940	0.164	153	157	0.4	0.4	7.403	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	139	35	973	939	0.147	139	141	0.1	0.2	4.692	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	266	67	-	-	-	266	265	0.0	0.0	0.470	A
				3	154	39	-	-	-	154	157	0.0	0.0	0.535	A
				4	139	35	-	-	-	139	142	0.0	0.0	0.303	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	27	7	978	888	0.031	27	30	0.0	0.0	4.676	A
				4	67	17	978	887	0.076	67	70	0.1	0.1	4.661	A
			2	1	81	20	978	885	0.091	80	86	0.1	0.1	4.726	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	81	20	-	-	-	81	86	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	27	7	-	-	-	27	29	0.0	0.0	0.000	A
				4	67	17	-	-	-	67	70	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	243	61	1001	909	0.268	245	244	0.3	0.4	6.422	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	40	10	1001	910	0.044	41	41	0.1	0.0	9.707	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	102	26	1001	909	0.112	104	103	0.1	0.1	4.451	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	243	61	-	-	-	243	245	0.0	0.0	0.281	A
				2	102	25	-	-	-	102	103	0.0	0.0	0.112	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	40	10	-	-	-	40	41	0.0	0.0	0.283	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	321	80	973	934	0.344	322	324	0.4	0.7	8.115	A
				3	181	45	973	933	0.194	181	190	0.4	0.4	8.558	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	176	44	973	935	0.189	176	175	0.2	0.3	5.205	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	321	80	-	-	-	321	325	0.0	0.1	1.310	A
				3	182	45	-	-	-	181	191	0.0	0.1	1.452	A
				4	176	44	-	-	-	176	175	0.0	0.0	0.950	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	37	9	978	864	0.043	37	38	0.0	0.1	5.104	A
				4	76	19	978	864	0.088	75	83	0.1	0.2	5.125	A
			2	1	99	25	978	865	0.115	100	108	0.1	0.1	4.637	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	99	25	-	-	-	99	107	0.0	0.0	0.009	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	37	9	-	-	-	37	39	0.0	0.0	0.000	A
				4	76	19	-	-	-	76	83	0.0	0.0	0.018	A
3 - Top Brand	Entry	1	1	1	293	73	1001	889	0.330	291	303	0.4	0.8	7.802	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	52	13	1001	885	0.058	52	49	0.0	0.1	10.848	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	123	31	1001	887	0.139	124	128	0.1	0.1	4.849	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	293	73	-	-	-	293	305	0.0	0.0	0.279	A
				2	123	31	-	-	-	123	129	0.0	0.0	0.178	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	52	13	-	-	-	52	49	0.0	0.0	0.334	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	326	82	973	935	0.349	327	328	0.7	0.7	7.861	A
				3	190	48	973	934	0.204	189	193	0.4	0.6	8.546	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	177	44	973	934	0.189	177	181	0.3	0.2	5.001	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	327	82	-	-	-	326	328	0.1	0.1	1.494	A
				3	190	48	-	-	-	190	194	0.1	0.0	1.314	A
				4	177	44	-	-	-	177	180	0.0	0.0	0.993	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	38	9	978	863	0.044	37	37	0.1	0.1	5.061	A
				4	80	20	978	864	0.093	80	85	0.2	0.1	5.106	A
			2	1	101	25	978	861	0.117	100	107	0.1	0.2	5.018	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	101	25	-	-	-	101	108	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	38	9	-	-	-	38	37	0.0	0.0	0.000	A
				4	80	20	-	-	-	80	85	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	294	73	1001	886	0.332	293	313	0.8	0.6	8.302	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	50	13	1001	887	0.057	50	51	0.1	0.0	11.050	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	125	31	1001	886	0.141	124	125	0.1	0.3	4.771	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	294	73	-	-	-	294	312	0.0	0.0	0.419	A
				2	125	31	-	-	-	125	125	0.0	0.0	0.232	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	50	13	-	-	-	50	50	0.0	0.0	0.514	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	270	68	973	942	0.287	269	268	0.7	0.5	6.920	A
				3	158	40	973	942	0.168	159	161	0.6	0.3	7.447	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	148	37	973	942	0.157	148	144	0.2	0.2	5.052	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	270	68	-	-	-	270	267	0.1	0.1	0.493	A
				3	158	40	-	-	-	158	160	0.0	0.0	0.462	A
				4	148	37	-	-	-	148	143	0.0	0.0	0.292	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	29	7	978	880	0.033	28	30	0.1	0.1	4.683	A
				4	70	18	978	879	0.080	70	70	0.1	0.1	4.781	A
			2	1	85	21	978	880	0.097	86	86	0.2	0.0	4.785	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	85	21	-	-	-	85	86	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	29	7	-	-	-	29	30	0.0	0.0	0.000	A
				4	70	18	-	-	-	70	69	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	250	62	1001	902	0.277	247	253	0.6	0.7	6.882	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	11	1001	906	0.047	41	41	0.0	0.1	10.365	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	98	24	1001	903	0.108	97	102	0.3	0.2	4.463	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	250	62	-	-	-	250	253	0.0	0.0	0.142	A
				2	98	24	-	-	-	98	102	0.0	0.0	0.069	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	42	11	-	-	-	42	41	0.0	0.0	0.087	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	215	54	973	944	0.228	215	223	0.5	0.4	5.944	A
				3	126	32	973	944	0.134	126	130	0.3	0.2	6.905	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	128	32	973	945	0.135	129	117	0.2	0.1	4.766	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	215	54	-	-	-	215	222	0.1	0.0	0.286	A
				3	126	32	-	-	-	126	130	0.0	0.0	0.282	A
				4	128	32	-	-	-	128	117	0.0	0.0	0.134	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	26	7	978	899	0.029	26	26	0.1	0.1	4.851	A
				4	61	15	978	898	0.068	61	62	0.1	0.1	4.617	A
			2	1	70	18	978	899	0.078	70	74	0.0	0.1	4.456	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	70	18	-	-	-	70	74	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	26	7	-	-	-	26	26	0.0	0.0	0.000	A
				4	61	15	-	-	-	61	62	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	198	49	1001	917	0.215	198	207	0.7	0.3	6.193	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	29	7	1001	921	0.031	29	34	0.1	0.1	9.250	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	92	23	1001	918	0.100	92	93	0.2	0.1	4.268	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	198	49	-	-	-	198	206	0.0	0.0	0.114	A
				2	92	23	-	-	-	92	93	0.0	0.0	0.081	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	29	7	-	-	-	29	33	0.0	0.0	0.187	A

2038 | WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.90	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2038	WD Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	496	100.000
2 - Gelscoe Lane		ONE HOUR	✓	371	100.000
3 - Top Brand		ONE HOUR	✓	208	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	86	193	217
	2 - Gelscoe Lane	99	0	113	159
	3 - Top Brand	147	51	0	10
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	26	32	34
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	1	0	0	0
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.39	7.68	1.5	A	453	680
2 - Gelscoe Lane	0.36	6.70	1.0	A	342	513
3 - Top Brand	0.23	5.42	0.5	A	191	287
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	388	97	38	1474	0.263	386	385	177	0.0	0.8	6.256	A
2 - Gelscoe Lane	282	70	327	1224	0.230	281	275	97	0.0	0.4	5.288	A
3 - Top Brand	151	38	375	1164	0.129	151	158	233	0.0	0.2	4.642	A
4 - A42			0					311				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	426	107	45	1410	0.302	430	456	213	0.8	0.8	7.052	A
2 - Gelscoe Lane	328	82	356	1201	0.273	330	343	119	0.4	0.4	5.413	A
3 - Top Brand	185	46	424	1112	0.166	183	193	261	0.2	0.3	4.882	A
4 - A42			0					350				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	530	133	60	1441	0.368	533	548	264	0.8	0.9	7.682	A
2 - Gelscoe Lane	410	102	454	1153	0.355	407	418	140	0.4	1.0	6.698	A
3 - Top Brand	230	57	530	1139	0.202	227	235	331	0.3	0.5	5.415	A
4 - A42			0					432				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	551	138	62	1417	0.389	550	545	272	0.9	1.5	7.430	A
2 - Gelscoe Lane	409	102	459	1160	0.353	412	416	153	1.0	0.5	6.566	A
3 - Top Brand	240	60	545	1055	0.228	243	238	327	0.5	0.3	5.364	A
4 - A42			0					454				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	458	114	45	1405	0.326	455	460	219	1.5	1.1	7.057	A
2 - Gelscoe Lane	332	83	387	1087	0.305	332	344	114	0.5	0.3	5.463	A
3 - Top Brand	184	46	425	1201	0.153	182	186	294	0.3	0.5	5.237	A
4 - A42			0					342				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	367	92	40	1431	0.257	363	372	185	1.1	0.8	6.578	A
2 - Gelscoe Lane	290	73	305	1152	0.252	291	292	99	0.3	0.4	5.102	A
3 - Top Brand	157	39	357	1180	0.133	157	160	237	0.5	0.2	4.890	A
4 - A42			0					290				

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 - A453 (N)	Entry	1	1	2, 3	206	961	0.214	207	215	0.0	0.5	6.110	A
			2	1, 4	182	961	0.189	179	170	0.0	0.3	6.233	A
		2	1	(1, 2, 3, 4)	388			388	388	0.0	0.0	0.093	A
	Exit	1	1		177			177	184	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	211	874	0.241	210	203	0.0	0.3	5.421	A
			2	1, 2	71	874	0.081	71	72	0.0	0.0	4.910	A
		2	1	(1, 2, 3, 4)	282			282	277	0.0	0.0	0.001	A
	Exit	1	1		97			97	102	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	113	881	0.128	113	120	0.0	0.1	4.784	A
			2	2, 3	38	881	0.043	38	39	0.0	0.0	4.207	A
		2	1	(1, 2, 3, 4)	151			151	159	0.0	0.0	0.000	A
	Exit	1	1		233			233	234	0.0	0.0	0.000	A
4 - A42	Exit	1	1		311			311	299	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 - A453 (N)	Entry	1	1	2, 3	228	959	0.238	229	251	0.5	0.4	6.890	A
			2	1, 4	198	959	0.206	200	205	0.3	0.4	6.707	A
		2	1	(1, 2, 3, 4)	426			426	456	0.0	0.0	0.242	A
	Exit	1	1		213			213	228	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	245	865	0.284	246	253	0.3	0.3	5.731	A
			2	1, 2	83	865	0.096	84	90	0.0	0.1	4.511	A
		2	1	(1, 2, 3, 4)	328			328	343	0.0	0.0	0.001	A
	Exit	1	1		119			119	127	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	139	865	0.161	138	145	0.1	0.2	5.014	A
			2	2, 3	46	865	0.053	45	48	0.0	0.1	4.483	A
		2	1	(1, 2, 3, 4)	185			185	194	0.0	0.0	0.000	A
	Exit	1	1		261			261	278	0.0	0.0	0.000	A
4 - A42	Exit	1	1		350			350	360	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 - A453 (N)	Entry	1	1	2, 3	288	954	0.301	291	300	0.4	0.4	7.331	A
			2	1, 4	243	954	0.255	243	248	0.4	0.5	6.953	A
		2	1	(1, 2, 3, 4)	530			531	549	0.0	0.0	0.520	A
	Exit	1	1		264			264	278	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	299	834	0.358	299	304	0.3	0.8	7.165	A
			2	1, 2	111	834	0.133	109	114	0.1	0.2	4.967	A
		2	1	(1, 2, 3, 4)	410			410	420	0.0	0.0	0.131	A
	Exit	1	1		140			140	149	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	170	831	0.204	167	176	0.2	0.4	5.720	A
			2	2, 3	60	831	0.072	60	58	0.1	0.1	4.497	A
		2	1	(1, 2, 3, 4)	230			230	235	0.0	0.0	0.000	A
	Exit	1	1		331			331	334	0.0	0.0	0.000	A
4 - A42	Exit	1	1		432			432	439	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 - A453 (N)	Entry	1	1	2, 3	298	954	0.313	298	308	0.4	0.9	7.227	A
			2	1, 4	253	954	0.265	253	237	0.5	0.5	6.301	A
		2	1	(1, 2, 3, 4)	551			551	547	0.0	0.1	0.591	A
	Exit	1	1		272			272	279	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	306	832	0.368	309	305	0.8	0.4	6.987	A
			2	1, 2	103	832	0.124	104	111	0.2	0.1	5.104	A
		2	1	(1, 2, 3, 4)	409			409	414	0.0	0.0	0.083	A
	Exit	1	1		153			153	154	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	179	826	0.217	181	179	0.4	0.2	5.553	A
			2	2, 3	61	826	0.074	62	59	0.1	0.1	4.791	A
		2	1	(1, 2, 3, 4)	240			240	237	0.0	0.0	0.000	A
	Exit	1	1		327			327	338	0.0	0.0	0.000	A
4 - A42	Exit	1	1		454			454	429	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 - A453 (N)	Entry	1	1	2, 3	256	959	0.267	255	262	0.9	0.5	6.794	A
			2	1, 4	200	959	0.208	200	198	0.5	0.5	6.617	A
		2	1	(1, 2, 3, 4)	458			457	459	0.1	0.0	0.344	A
	Exit	1	1		219			219	226	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	242	855	0.282	242	251	0.4	0.2	5.732	A
			2	1, 2	91	855	0.106	91	93	0.1	0.1	4.730	A
		2	1	(1, 2, 3, 4)	332			332	343	0.0	0.0	0.002	A
	Exit	1	1		114			114	121	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	140	864	0.162	137	142	0.2	0.4	5.372	A
			2	2, 3	45	864	0.051	45	44	0.1	0.0	4.802	A
		2	1	(1, 2, 3, 4)	184			184	187	0.0	0.0	0.000	A
	Exit	1	1		294			294	290	0.0	0.0	0.000	A
4 - A42	Exit	1	1		342			342	353	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 - A453 (N)	Entry	1	1	2, 3	207	961	0.215	204	205	0.5	0.5	6.435	A
			2	1, 4	160	961	0.166	160	167	0.5	0.3	6.294	A
		2	1	(1, 2, 3, 4)	367			367	371	0.0	0.0	0.204	A
	Exit	1	1		185			185	189	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	218	881	0.247	216	216	0.2	0.3	5.435	A
			2	1, 2	73	881	0.083	74	77	0.1	0.1	4.164	A
		2	1	(1, 2, 3, 4)	290			290	293	0.0	0.0	0.000	A
	Exit	1	1		99			99	104	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	119	886	0.134	117	119	0.4	0.2	5.115	A
			2	2, 3	38	886	0.043	40	41	0.0	0.0	4.250	A
		2	1	(1, 2, 3, 4)	157			157	159	0.0	0.0	0.000	A
	Exit	1	1		237			237	233	0.0	0.0	0.000	A
4 - A42	Exit	1	1		290			290	299	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	973	961	0.061	59	63	0.0	0.1	6.103	A
				3	147	37	973	961	0.153	148	152	0.0	0.4	6.114	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	182	45	973	961	0.189	179	170	0.0	0.3	6.233	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	64	0.0	0.0	0.100	A
				3	147	37	-	-	-	147	153	0.0	0.0	0.107	A
				4	182	45	-	-	-	182	171	0.0	0.0	0.077	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	85	21	978	877	0.097	85	82	0.0	0.1	5.578	A
				4	126	31	978	876	0.143	125	121	0.0	0.2	5.315	A
		2	2	1	71	18	978	877	0.081	71	72	0.0	0.0	4.910	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	71	18	-	-	-	71	72	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	85	21	-	-	-	85	83	0.0	0.0	0.000	A
				4	126	31	-	-	-	126	122	0.0	0.0	0.001	A
3 - Top Brand	Entry	1	1	1	105	26	1001	883	0.119	106	112	0.0	0.1	4.768	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	876	779	0.009	8	8	0.0	0.0	5.015	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	1001	884	0.043	38	39	0.0	0.0	4.207	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	105	26	-	-	-	105	112	0.0	0.0	0.000	A
				2	38	10	-	-	-	38	39	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	8	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	75	19	973	958	0.078	74	80	0.1	0.1	6.817	A
				3	154	38	973	958	0.160	155	172	0.4	0.3	6.925	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	198	49	973	958	0.206	200	205	0.3	0.4	6.707	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	75	19	-	-	-	75	79	0.0	0.0	0.228	A
				3	154	38	-	-	-	154	172	0.0	0.0	0.227	A
				4	198	49	-	-	-	198	205	0.0	0.0	0.260	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	978	865	0.122	106	106	0.1	0.1	5.629	A
				4	140	35	978	862	0.162	140	148	0.2	0.2	5.805	A
			2	1	83	21	978	862	0.096	84	90	0.0	0.1	4.511	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	83	21	-	-	-	83	90	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	105	26	-	-	-	105	106	0.0	0.0	0.002	A
				4	140	35	-	-	-	140	148	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	131	33	1001	865	0.151	129	138	0.1	0.2	5.008	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	876	755	0.011	9	8	0.0	0.0	5.122	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	1001	867	0.053	45	48	0.0	0.1	4.483	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	131	33	-	-	-	131	138	0.0	0.0	0.000	A
				2	46	11	-	-	-	46	48	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	9	2	-	-	-	9	8	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	973	954	0.083	79	91	0.1	0.1	7.445	A
				3	209	52	973	954	0.219	211	209	0.3	0.3	7.280	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	243	61	973	954	0.255	243	248	0.4	0.5	6.953	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	79	20	-	-	-	79	91	0.0	0.0	0.649	A
				3	209	52	-	-	-	209	209	0.0	0.0	0.496	A
				4	243	61	-	-	-	243	249	0.0	0.0	0.492	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	121	30	978	833	0.145	120	125	0.1	0.3	7.492	A
				4	178	45	978	833	0.214	179	179	0.2	0.5	6.935	A
			2	1	111	28	978	832	0.133	109	114	0.1	0.2	4.967	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	111	28	-	-	-	111	114	0.0	0.0	0.082	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	121	30	-	-	-	121	126	0.0	0.0	0.147	A
				4	178	45	-	-	-	178	180	0.0	0.0	0.151	A
3 - Top Brand	Entry	1	1	1	158	40	1001	830	0.190	156	165	0.2	0.3	5.684	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	12	3	917	763	0.015	11	12	0.0	0.0	6.212	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	1001	829	0.072	60	58	0.1	0.1	4.497	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	158	40	-	-	-	158	165	0.0	0.0	0.000	A
				2	60	15	-	-	-	60	58	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	12	3	-	-	-	12	12	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	92	23	973	955	0.097	91	95	0.1	0.2	7.024	A
				3	206	51	973	954	0.216	206	213	0.3	0.7	7.319	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	253	63	973	955	0.265	253	237	0.5	0.5	6.301	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	92	23	-	-	-	92	96	0.0	0.0	0.475	A
				3	206	52	-	-	-	206	215	0.0	0.1	0.678	A
				4	252	63	-	-	-	253	237	0.0	0.0	0.558	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	119	30	978	833	0.143	120	125	0.3	0.1	7.046	A
				4	188	47	978	832	0.225	188	180	0.5	0.3	6.946	A
			2	1	103	26	978	834	0.123	104	111	0.2	0.1	5.104	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	103	26	-	-	-	103	111	0.0	0.0	0.049	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	119	30	-	-	-	119	124	0.0	0.0	0.110	A
				4	188	47	-	-	-	188	179	0.0	0.0	0.085	A
3 - Top Brand	Entry	1	1	1	166	42	1001	826	0.201	168	168	0.3	0.2	5.573	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	13	3	959	795	0.016	13	12	0.0	0.0	5.272	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	61	15	1001	828	0.074	62	59	0.1	0.1	4.791	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	166	42	-	-	-	166	167	0.0	0.0	0.000	A
				2	61	15	-	-	-	61	59	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	13	3	-	-	-	13	12	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	973	960	0.072	69	77	0.2	0.1	6.477	A
				3	187	47	973	959	0.195	187	185	0.7	0.4	6.933	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	200	50	973	959	0.208	200	198	0.5	0.5	6.617	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	77	0.0	0.0	0.490	A
				3	187	47	-	-	-	187	184	0.1	0.0	0.310	A
				4	200	50	-	-	-	200	198	0.0	0.0	0.317	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	107	27	978	856	0.125	107	105	0.1	0.1	5.792	A
				4	135	34	978	857	0.157	135	146	0.3	0.1	5.688	A
		2	2	1	91	23	978	856	0.106	91	93	0.1	0.1	4.730	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	91	23	-	-	-	91	93	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	107	27	-	-	-	107	105	0.0	0.0	0.001	A
				4	135	34	-	-	-	135	146	0.0	0.0	0.003	A
3 - Top Brand	Entry	1	1	1	132	33	1001	865	0.152	129	133	0.2	0.4	5.401	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	8	2	897	771	0.011	8	9	0.0	0.0	4.938	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	45	11	1001	864	0.052	45	44	0.1	0.0	4.802	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	132	33	-	-	-	132	134	0.0	0.0	0.000	A
				2	45	11	-	-	-	45	44	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	8	2	-	-	-	8	9	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	973	961	0.062	59	63	0.1	0.1	6.274	A
				3	147	37	973	961	0.153	145	143	0.4	0.5	6.512	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	160	40	973	961	0.166	160	167	0.5	0.3	6.294	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	-	-	-	60	62	0.0	0.0	0.242	A
				3	147	37	-	-	-	147	143	0.0	0.0	0.213	A
				4	160	40	-	-	-	160	165	0.0	0.0	0.181	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	93	23	978	881	0.106	93	91	0.1	0.1	5.576	A
				4	125	31	978	884	0.141	124	125	0.1	0.2	5.333	A
			2	1	73	18	978	882	0.082	74	77	0.1	0.1	4.164	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	73	18	-	-	-	73	77	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	93	23	-	-	-	93	91	0.0	0.0	0.000	A
				4	125	31	-	-	-	125	126	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	111	28	1001	886	0.126	110	112	0.4	0.1	5.090	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	855	751	0.010	7	7	0.0	0.0	5.532	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	1001	889	0.043	40	41	0.0	0.0	4.250	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	111	28	-	-	-	111	111	0.0	0.0	0.000	A
				2	38	10	-	-	-	38	41	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	7	0.0	0.0	0.000	A

2028 | 2a WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.33	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028	2a WD Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	384	100.000
2 - Gelscoe Lane		ONE HOUR	✓	111	100.000
3 - Top Brand		ONE HOUR	✓	345	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	75	183	126
	2 - Gelscoe Lane	41	0	23	47
	3 - Top Brand	260	45	0	40
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	1	20	8
	2 - Gelscoe Lane	0	0	5	4
	3 - Top Brand	14	0	0	82
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.32	5.91	0.9	A	361	541
2 - Gelscoe Lane	0.10	4.70	0.2	A	104	156
3 - Top Brand	0.36	7.35	0.7	A	312	468
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	286	72	31	1384	0.207	285	289	238	0.0	0.5	5.159	A
2 - Gelscoe Lane	86	22	231	1398	0.062	88	88	85	0.0	0.1	4.224	A
3 - Top Brand	269	67	162	1103	0.244	273	266	157	0.0	0.4	6.211	A
4 - A42			0					165				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	369	92	39	1343	0.275	371	365	265	0.5	0.3	5.643	A
2 - Gelscoe Lane	90	23	299	1394	0.065	90	100	111	0.1	0.1	4.408	A
3 - Top Brand	302	76	182	1100	0.275	306	317	206	0.4	0.3	6.256	A
4 - A42			0					185				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	419	105	47	1330	0.315	416	424	315	0.3	0.9	5.909	A
2 - Gelscoe Lane	128	32	335	1374	0.093	129	131	128	0.1	0.1	4.651	A
3 - Top Brand	358	89	245	1028	0.348	359	374	219	0.3	0.7	6.526	A
4 - A42			0					243				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	438	110	59	1389	0.316	439	436	338	0.9	0.6	5.825	A
2 - Gelscoe Lane	135	34	356	1314	0.103	135	131	142	0.1	0.2	4.661	A
3 - Top Brand	394	99	245	1090	0.362	396	392	247	0.7	0.7	7.352	A
4 - A42			0					244				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	365	91	42	1360	0.268	365	365	262	0.6	0.5	5.221	A
2 - Gelscoe Lane	95	24	298	1328	0.072	94	106	109	0.2	0.2	4.701	A
3 - Top Brand	300	75	205	1109	0.270	299	315	187	0.7	0.7	6.288	A
4 - A42			0					200				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	286	72	31	1388	0.206	287	298	217	0.5	0.4	5.067	A
2 - Gelscoe Lane	90	22	231	1391	0.065	89	91	87	0.2	0.1	4.453	A
3 - Top Brand	249	62	160	1129	0.221	251	262	161	0.7	0.3	5.578	A
4 - A42			0					161				

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 - A453 (N)	Entry	1	1	2, 3	191	963	0.199	191	196	0.0	0.3	5.273	A
			2	1, 4	95	963	0.098	94	93	0.0	0.2	4.880	A
		2	1	(1, 2, 3, 4)	286			286	291	0.0	0.0	0.017	A
	Exit	1	1		238			238	232	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	54	905	0.060	55	55	0.0	0.0	4.213	A
			2	1, 2	32	905	0.035	33	32	0.0	0.0	4.241	A
		2	1	(1, 2, 3, 4)	86			86	88	0.0	0.0	0.000	A
	Exit	1	1		85			85	89	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	239	949	0.252	242	233	0.0	0.4	6.383	A
			2	2, 3	32	949	0.034	31	33	0.0	0.0	4.058	A
		2	1	(1, 2, 3, 4)	269			271	268	0.0	0.0	0.169	A
	Exit	1	1		157			157	158	0.0	0.0	0.000	A
4 - A42	Exit	1	1		165			165	163	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 - A453 (N)	Entry	1	1	2, 3	260	961	0.271	263	252	0.3	0.2	5.916	A
			2	1, 4	109	961	0.114	108	112	0.2	0.1	4.645	A
		2	1	(1, 2, 3, 4)	369			369	364	0.0	0.0	0.134	A
	Exit	1	1		265			265	281	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	56	883	0.063	56	61	0.0	0.1	4.637	A
			2	1, 2	34	883	0.039	34	39	0.0	0.0	4.059	A
		2	1	(1, 2, 3, 4)	90			90	100	0.0	0.0	0.000	A
	Exit	1	1		111			111	114	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	263	942	0.280	268	277	0.4	0.3	6.572	A
			2	2, 3	39	942	0.042	39	40	0.0	0.0	3.968	A
		2	1	(1, 2, 3, 4)	302			303	317	0.0	0.0	0.068	A
	Exit	1	1		206			206	198	0.0	0.0	0.000	A
4 - A42	Exit	1	1		185			185	189	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 - A453 (N)	Entry	1	1	2, 3	278	958	0.290	276	287	0.2	0.7	6.310	A
			2	1, 4	141	958	0.147	140	136	0.1	0.2	4.675	A
		2	1	(1, 2, 3, 4)	419			419	426	0.0	0.0	0.135	A
	Exit	1	1		315			315	330	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	82	872	0.094	83	82	0.1	0.1	4.776	A
			2	1, 2	46	872	0.053	46	50	0.0	0.0	4.454	A
		2	1	(1, 2, 3, 4)	128			128	132	0.0	0.0	0.000	A
	Exit	1	1		128			128	131	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	309	922	0.336	312	325	0.3	0.6	6.855	A
			2	2, 3	48	922	0.052	47	49	0.0	0.1	3.945	A
		2	1	(1, 2, 3, 4)	358			359	375	0.0	0.0	0.112	A
	Exit	1	1		219			219	231	0.0	0.0	0.000	A
4 - A42	Exit	1	1		243			243	238	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 - A453 (N)	Entry	1	1	2, 3	298	954	0.312	299	297	0.7	0.4	6.209	A
			2	1, 4	140	954	0.147	140	139	0.2	0.1	4.478	A
		2	1	(1, 2, 3, 4)	438			438	435	0.0	0.0	0.194	A
	Exit	1	1		338			338	341	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	86	865	0.100	85	83	0.1	0.2	4.800	A
			2	1, 2	49	865	0.057	49	48	0.0	0.0	4.431	A
		2	1	(1, 2, 3, 4)	135			135	131	0.0	0.0	0.000	A
	Exit	1	1		142			142	138	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	336	922	0.364	337	339	0.6	0.6	7.665	A
			2	2, 3	59	922	0.064	59	53	0.1	0.0	4.226	A
		2	1	(1, 2, 3, 4)	394			394	392	0.0	0.0	0.232	A
	Exit	1	1		247			247	240	0.0	0.0	0.000	A
4 - A42	Exit	1	1		244			244	241	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 - A453 (N)	Entry	1	1	2, 3	234	960	0.244	235	243	0.4	0.3	5.563	A
			2	1, 4	131	960	0.136	130	122	0.1	0.2	4.390	A
		2	1	(1, 2, 3, 4)	365			365	365	0.0	0.0	0.070	A
	Exit	1	1		262			262	280	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	62	883	0.070	61	67	0.2	0.1	4.808	A
			2	1, 2	33	883	0.038	33	38	0.0	0.0	4.520	A
		2	1	(1, 2, 3, 4)	95			95	105	0.0	0.0	0.000	A
	Exit	1	1		109			109	107	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	257	935	0.275	257	276	0.6	0.6	6.572	A
			2	2, 3	43	935	0.046	42	39	0.0	0.1	3.883	A
		2	1	(1, 2, 3, 4)	300			300	314	0.0	0.0	0.100	A
	Exit	1	1		187			187	197	0.0	0.0	0.000	A
4 - A42	Exit	1	1		200			200	202	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 - A453 (N)	Entry	1	1	2, 3	194	963	0.202	196	201	0.3	0.2	5.375	A
			2	1, 4	92	963	0.095	91	97	0.2	0.1	4.374	A
		2	1	(1, 2, 3, 4)	286			286	297	0.0	0.0	0.032	A
	Exit	1	1		217			217	229	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	59	905	0.066	60	59	0.1	0.0	4.484	A
			2	1, 2	30	905	0.034	30	32	0.0	0.0	4.398	A
		2	1	(1, 2, 3, 4)	90			90	90	0.0	0.0	0.000	A
	Exit	1	1		87			87	95	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	218	949	0.230	219	226	0.6	0.3	5.871	A
			2	2, 3	31	949	0.033	31	35	0.1	0.0	3.925	A
		2	1	(1, 2, 3, 4)	249			249	261	0.0	0.0	0.021	A
	Exit	1	1		161			161	161	0.0	0.0	0.000	A
4 - A42	Exit	1	1		161			161	166	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	973	962	0.057	54	56	0.0	0.1	4.733	A
				3	136	34	973	962	0.142	137	140	0.0	0.2	5.534	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	95	24	973	962	0.099	94	93	0.0	0.2	4.880	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	-	-	-	55	57	0.0	0.0	0.032	A
				3	136	34	-	-	-	136	141	0.0	0.0	0.014	A
				4	95	24	-	-	-	95	94	0.0	0.0	0.012	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	962	892	0.023	20	19	0.0	0.0	4.465	A
				4	34	9	978	905	0.038	35	37	0.0	0.0	4.086	A
		2	2	1	32	8	978	905	0.035	33	32	0.0	0.0	4.241	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	32	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	-	-	-	20	19	0.0	0.0	0.000	A
				4	34	9	-	-	-	34	37	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	204	51	1001	948	0.215	205	200	0.0	0.3	6.154	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	35	9	984	935	0.038	36	33	0.0	0.1	8.615	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	32	8	1001	946	0.034	31	33	0.0	0.0	4.058	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	203	51	-	-	-	204	201	0.0	0.0	0.170	A
				2	32	8	-	-	-	32	33	0.0	0.0	0.137	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	35	9	-	-	-	35	33	0.0	0.0	0.218	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	71	18	973	961	0.074	72	74	0.1	0.1	5.323	A
				3	189	47	973	961	0.196	190	179	0.2	0.1	6.209	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	109	27	973	961	0.114	108	112	0.2	0.1	4.645	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	71	18	-	-	-	71	74	0.0	0.0	0.150	A
				3	188	47	-	-	-	189	178	0.0	0.0	0.184	A
				4	109	27	-	-	-	109	112	0.0	0.0	0.053	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	16	4	978	884	0.018	16	20	0.0	0.0	4.962	A
				4	40	10	978	882	0.046	40	41	0.0	0.1	4.483	A
			2	1	34	9	978	883	0.039	34	39	0.0	0.0	4.059	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	34	9	-	-	-	34	39	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	16	4	-	-	-	16	20	0.0	0.0	0.000	A
				4	40	10	-	-	-	40	42	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	227	57	1001	943	0.241	230	242	0.3	0.2	6.389	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	984	925	0.039	37	35	0.1	0.1	8.507	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	39	10	1001	941	0.042	39	40	0.0	0.0	3.968	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	227	57	-	-	-	227	242	0.0	0.0	0.060	A
				2	39	10	-	-	-	39	40	0.0	0.0	0.060	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	36	9	-	-	-	36	35	0.0	0.0	0.166	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	80	20	973	958	0.084	81	82	0.1	0.1	5.897	A
				3	198	49	973	958	0.207	195	205	0.1	0.6	6.502	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	141	35	973	957	0.147	140	136	0.1	0.2	4.675	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	80	20	-	-	-	80	82	0.0	0.0	0.165	A
				3	198	50	-	-	-	198	207	0.0	0.0	0.169	A
				4	141	35	-	-	-	141	137	0.0	0.0	0.070	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	24	6	978	868	0.027	24	25	0.0	0.0	4.593	A
				4	58	15	978	872	0.067	59	56	0.1	0.1	4.859	A
			2	1	46	12	978	874	0.053	46	50	0.0	0.0	4.454	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	46	12	-	-	-	46	50	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	24	6	-	-	-	24	25	0.0	0.0	0.000	A
				4	58	15	-	-	-	58	56	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	266	66	1001	922	0.288	269	280	0.2	0.5	6.655	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	44	11	984	908	0.048	44	46	0.1	0.1	8.834	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	48	12	1001	922	0.052	47	49	0.0	0.1	3.945	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	265	66	-	-	-	266	281	0.0	0.0	0.121	A
				2	48	12	-	-	-	48	49	0.0	0.0	0.059	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	44	11	-	-	-	44	46	0.0	0.0	0.123	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	82	21	973	955	0.086	83	84	0.1	0.1	5.819	A
				3	216	54	973	955	0.226	216	213	0.6	0.3	6.396	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	140	35	973	955	0.147	140	139	0.2	0.1	4.478	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	82	21	-	-	-	82	84	0.0	0.0	0.234	A
				3	216	54	-	-	-	216	212	0.0	0.0	0.243	A
				4	140	35	-	-	-	140	139	0.0	0.0	0.102	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	7	978	865	0.035	30	28	0.0	0.0	4.663	A
				4	56	14	978	866	0.065	55	55	0.1	0.2	4.868	A
			2	1	49	12	978	865	0.057	49	48	0.0	0.0	4.431	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	49	12	-	-	-	49	48	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	7	-	-	-	30	28	0.0	0.0	0.000	A
				4	56	14	-	-	-	56	55	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	287	72	1001	922	0.312	288	293	0.5	0.5	7.376	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	1001	925	0.052	48	46	0.1	0.1	10.525	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	1001	922	0.064	59	53	0.1	0.0	4.226	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	287	72	-	-	-	287	293	0.0	0.0	0.259	A
				2	59	15	-	-	-	59	53	0.0	0.0	0.140	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	-	-	-	48	46	0.0	0.0	0.158	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	67	17	973	960	0.070	67	69	0.1	0.1	5.205	A
				3	167	42	973	960	0.174	168	175	0.3	0.3	5.730	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	131	33	973	960	0.136	130	122	0.1	0.2	4.390	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	67	17	-	-	-	67	69	0.0	0.0	0.053	A
				3	167	42	-	-	-	167	175	0.0	0.0	0.103	A
				4	131	33	-	-	-	131	122	0.0	0.0	0.037	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	978	883	0.022	19	22	0.0	0.0	5.236	A
				4	42	10	978	884	0.047	41	45	0.2	0.1	4.600	A
			2	1	33	8	978	885	0.038	33	38	0.0	0.0	4.520	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	33	8	-	-	-	33	38	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	-	-	-	20	22	0.0	0.0	0.000	A
				4	42	10	-	-	-	42	45	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	227	57	1001	935	0.243	229	241	0.5	0.4	6.333	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	7	984	923	0.032	28	35	0.1	0.1	9.140	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	43	11	1001	937	0.046	42	39	0.0	0.1	3.883	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	227	57	-	-	-	227	241	0.0	0.0	0.106	A
				2	43	11	-	-	-	43	39	0.0	0.0	0.080	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	30	7	-	-	-	30	35	0.0	0.0	0.075	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	56	14	973	963	0.058	56	59	0.1	0.1	4.608	A
				3	138	35	973	963	0.144	140	142	0.3	0.2	5.758	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	92	23	973	963	0.095	91	97	0.2	0.1	4.374	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	56	14	-	-	-	56	59	0.0	0.0	0.044	A
				3	138	35	-	-	-	138	141	0.0	0.0	0.035	A
				4	92	23	-	-	-	92	97	0.0	0.0	0.019	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	978	905	0.023	21	19	0.0	0.0	4.440	A
				4	39	10	978	908	0.043	39	39	0.1	0.0	4.505	A
			2	1	30	8	978	906	0.034	30	32	0.0	0.0	4.398	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	30	8	-	-	-	30	32	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	20	5	-	-	-	20	19	0.0	0.0	0.000	A
				4	39	10	-	-	-	39	39	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	187	47	1001	950	0.197	187	197	0.4	0.2	5.696	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	31	8	984	931	0.033	32	30	0.1	0.1	7.735	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	31	8	1001	948	0.033	31	35	0.1	0.0	3.925	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	187	47	-	-	-	187	196	0.0	0.0	0.018	A
				2	31	8	-	-	-	31	35	0.0	0.0	0.026	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	31	8	-	-	-	31	29	0.0	0.0	0.042	A

2028 | 2a WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.00	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2028	2a WD Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	388	100.000
2 - Gelscoe Lane		ONE HOUR	✓	223	100.000
3 - Top Brand		ONE HOUR	✓	106	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	53	154	181
	2 - Gelscoe Lane	93	0	53	77
	3 - Top Brand	91	12	0	3
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand
	1 - A453 (N)	0	37	37
	2 - Gelscoe Lane	0	0	0
	3 - Top Brand	2	0	0
	4 - A42	0	0	0

Cyclist %

From	To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand
	1 - A453 (N)	0	0	0
	2 - Gelscoe Lane	0	0	0
	3 - Top Brand	0	0	0
	4 - A42	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.31	6.84	0.7	A	360	541
2 - Gelscoe Lane	0.18	5.13	0.4	A	210	315
3 - Top Brand	0.12	4.77	0.2	A	97	145
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	286	71	10	1452	0.197	288	299	138	0.0	0.5	6.504	A
2 - Gelscoe Lane	166	42	248	1507	0.110	168	169	51	0.0	0.2	4.483	A
3 - Top Brand	77	19	258	1045	0.074	78	81	157	0.0	0.0	4.191	A
4 - A42			0					187				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	367	92	13	1426	0.257	371	359	166	0.5	0.7	6.489	A
2 - Gelscoe Lane	200	50	326	1455	0.137	199	200	57	0.2	0.2	4.524	A
3 - Top Brand	96	24	332	1020	0.094	96	102	193	0.0	0.1	4.279	A
4 - A42			0					249				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	431	108	13	1392	0.310	429	439	220	0.7	0.7	6.802	A
2 - Gelscoe Lane	254	64	370	1396	0.182	254	254	72	0.2	0.3	4.954	A
3 - Top Brand	120	30	395	982	0.122	121	121	229	0.1	0.1	4.771	A
4 - A42			0					283				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	440	110	13	1434	0.307	441	451	208	0.7	0.7	6.839	A
2 - Gelscoe Lane	258	64	382	1396	0.185	257	248	73	0.3	0.4	5.128	A
3 - Top Brand	117	29	410	978	0.119	116	122	228	0.1	0.2	4.623	A
4 - A42			0					306				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	349	87	11	1458	0.240	350	360	175	0.7	0.6	6.628	A
2 - Gelscoe Lane	211	53	301	1454	0.145	211	208	60	0.4	0.2	4.788	A
3 - Top Brand	97	24	327	990	0.098	97	102	185	0.2	0.2	4.638	A
4 - A42			0					238				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	289	72	8	1429	0.202	288	297	140	0.6	0.6	5.871	A
2 - Gelscoe Lane	171	43	252	1478	0.116	171	175	44	0.2	0.2	4.367	A
3 - Top Brand	76	19	264	1041	0.073	75	83	158	0.2	0.1	4.426	A
4 - A42			0					192				

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 - A453 (N)	Entry	1	1	2, 3	157	970	0.162	157	163	0.0	0.3	6.428	A
			2	1, 4	129	970	0.133	131	136	0.0	0.2	6.219	A
		2	1	(1, 2, 3, 4)	286			286	301	0.0	0.0	0.172	A
	Exit	1	1		138			138	140	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	93	899	0.104	94	98	0.0	0.2	4.588	A
			2	1, 2	73	899	0.081	74	71	0.0	0.1	4.339	A
		2	1	(1, 2, 3, 4)	166			166	170	0.0	0.0	0.000	A
	Exit	1	1		51			51	52	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	67	918	0.073	68	71	0.0	0.0	4.193	A
			2	2, 3	10	918	0.011	10	10	0.0	0.0	4.180	A
		2	1	(1, 2, 3, 4)	77			77	81	0.0	0.0	0.000	A
	Exit	1	1		157			157	163	0.0	0.0	0.000	A
4 - A42	Exit	1	1		187			187	195	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 - A453 (N)	Entry	1	1	2, 3	190	969	0.197	191	188	0.3	0.4	6.617	A
			2	1, 4	177	969	0.182	179	172	0.2	0.3	6.083	A
		2	1	(1, 2, 3, 4)	367			367	360	0.0	0.0	0.130	A
	Exit	1	1		166			166	171	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	114	874	0.130	113	117	0.2	0.2	4.719	A
			2	1, 2	86	874	0.098	86	83	0.1	0.1	4.249	A
		2	1	(1, 2, 3, 4)	200			200	200	0.0	0.0	0.000	A
	Exit	1	1		57			57	59	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	84	894	0.093	83	90	0.0	0.1	4.326	A
			2	2, 3	12	894	0.014	13	12	0.0	0.0	3.940	A
		2	1	(1, 2, 3, 4)	96			96	103	0.0	0.0	0.000	A
	Exit	1	1		193			193	188	0.0	0.0	0.000	A
4 - A42	Exit	1	1		249			249	244	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 - A453 (N)	Entry	1	1	2, 3	232	969	0.239	232	235	0.4	0.4	6.807	A
			2	1, 4	199	969	0.205	197	205	0.3	0.4	6.151	A
		2	1	(1, 2, 3, 4)	431			431	440	0.0	0.0	0.303	A
	Exit	1	1		220			220	211	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	139	860	0.162	139	147	0.2	0.2	5.145	A
			2	1, 2	115	860	0.133	114	106	0.1	0.2	4.688	A
		2	1	(1, 2, 3, 4)	254			254	254	0.0	0.0	0.001	A
	Exit	1	1		72			72	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	106	874	0.122	108	108	0.1	0.1	4.850	A
			2	2, 3	13	874	0.015	13	13	0.0	0.0	4.142	A
		2	1	(1, 2, 3, 4)	120			120	121	0.0	0.0	0.000	A
	Exit	1	1		229			229	237	0.0	0.0	0.000	A
4 - A42	Exit	1	1		283			283	292	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 - A453 (N)	Entry	1	1	2, 3	229	969	0.237	227	239	0.4	0.5	6.887	A
			2	1, 4	212	969	0.219	214	211	0.4	0.3	6.220	A
		2	1	(1, 2, 3, 4)	440			440	451	0.0	0.0	0.264	A
	Exit	1	1		208			208	207	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	150	857	0.175	148	146	0.2	0.3	5.152	A
			2	1, 2	108	857	0.126	109	102	0.2	0.1	5.094	A
		2	1	(1, 2, 3, 4)	258			258	248	0.0	0.0	0.000	A
	Exit	1	1		73			73	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	103	869	0.119	103	109	0.1	0.2	4.754	A
			2	2, 3	13	869	0.015	13	13	0.0	0.0	3.554	A
		2	1	(1, 2, 3, 4)	117			117	122	0.0	0.0	0.000	A
	Exit	1	1		228			228	236	0.0	0.0	0.000	A
4 - A42	Exit	1	1		306			306	303	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 - A453 (N)	Entry	1	1	2, 3	186	970	0.192	186	194	0.5	0.3	6.588	A
			2	1, 4	163	970	0.169	164	167	0.3	0.3	6.257	A
		2	1	(1, 2, 3, 4)	349			350	360	0.0	0.0	0.194	A
	Exit	1	1		175			175	177	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	120	882	0.136	120	121	0.3	0.1	4.972	A
			2	1, 2	91	882	0.103	91	87	0.1	0.1	4.532	A
		2	1	(1, 2, 3, 4)	211			211	208	0.0	0.0	0.000	A
	Exit	1	1		60			60	59	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	87	896	0.097	86	92	0.2	0.2	4.690	A
			2	2, 3	10	896	0.012	11	10	0.0	0.0	4.190	A
		2	1	(1, 2, 3, 4)	97			97	102	0.0	0.0	0.000	A
	Exit	1	1		185			185	195	0.0	0.0	0.000	A
4 - A42	Exit	1	1		238			238	240	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 - A453 (N)	Entry	1	1	2, 3	156	971	0.161	154	158	0.3	0.4	6.051	A
			2	1, 4	132	971	0.136	133	139	0.3	0.2	5.470	A
		2	1	(1, 2, 3, 4)	289			289	297	0.0	0.0	0.091	A
	Exit	1	1		140			140	148	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	97	898	0.108	96	100	0.1	0.1	4.484	A
			2	1, 2	74	898	0.083	74	75	0.1	0.1	4.213	A
		2	1	(1, 2, 3, 4)	171			171	175	0.0	0.0	0.000	A
	Exit	1	1		44			44	49	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	68	916	0.074	68	74	0.2	0.1	4.509	A
			2	2, 3	8	916	0.009	8	8	0.0	0.0	3.703	A
		2	1	(1, 2, 3, 4)	76			76	82	0.0	0.0	0.000	A
	Exit	1	1		158			158	158	0.0	0.0	0.000	A
4 - A42	Exit	1	1		192			192	201	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	41	10	973	970	0.042	40	41	0.0	0.1	6.284	A
				3	116	29	973	970	0.120	117	122	0.0	0.2	6.478	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	129	32	973	969	0.133	131	136	0.0	0.2	6.219	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	41	10	-	-	-	41	42	0.0	0.0	0.187	A
				3	116	29	-	-	-	116	123	0.0	0.0	0.220	A
				4	129	32	-	-	-	129	137	0.0	0.0	0.125	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	39	10	978	898	0.044	40	41	0.0	0.0	4.303	A
				4	54	14	978	902	0.060	54	57	0.0	0.1	4.795	A
		2	2	1	73	18	978	900	0.081	74	71	0.0	0.1	4.339	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	73	18	-	-	-	73	71	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	39	10	-	-	-	39	41	0.0	0.0	0.000	A
				4	54	14	-	-	-	54	57	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	64	16	1001	918	0.070	65	69	0.0	0.0	4.186	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.69	449	408	0.007	3	2	0.0	0.0	4.421	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	10	3	924	845	0.012	10	10	0.0	0.0	4.180	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	64	16	-	-	-	64	69	0.0	0.0	0.000	A
				2	10	3	-	-	-	10	10	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.69	-	-	-	3	2	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	973	969	0.047	44	47	0.1	0.2	6.741	A
				3	145	36	973	969	0.150	147	141	0.2	0.2	6.577	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	177	44	973	969	0.182	179	172	0.2	0.3	6.083	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	46	11	-	-	-	46	47	0.0	0.0	0.139	A
				3	145	36	-	-	-	145	141	0.0	0.0	0.170	A
				4	176	44	-	-	-	177	172	0.0	0.0	0.096	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	978	876	0.053	46	48	0.0	0.1	4.741	A
				4	68	17	978	879	0.077	67	70	0.1	0.1	4.704	A
			2	1	86	21	978	877	0.098	86	83	0.1	0.1	4.249	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	86	21	-	-	-	86	83	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	-	-	-	46	48	0.0	0.0	0.000	A
				4	68	17	-	-	-	68	70	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	81	20	1001	896	0.091	81	88	0.0	0.1	4.308	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.58	462	417	0.006	2	2	0.0	0.0	5.023	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	12	3	962	866	0.014	13	12	0.0	0.0	3.940	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	81	20	-	-	-	81	88	0.0	0.0	0.000	A
				2	12	3	-	-	-	12	12	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.58	-	-	-	2	2	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	973	969	0.060	59	61	0.2	0.1	6.847	A
				3	173	43	973	969	0.178	173	174	0.2	0.3	6.793	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	199	50	973	969	0.205	197	205	0.3	0.4	6.151	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	61	0.0	0.0	0.327	A
				3	173	43	-	-	-	173	174	0.0	0.0	0.350	A
				4	199	50	-	-	-	199	205	0.0	0.0	0.257	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	56	14	978	861	0.065	56	63	0.1	0.1	5.072	A
				4	83	21	978	861	0.096	83	84	0.1	0.1	5.199	A
			2	1	115	29	978	862	0.133	114	106	0.1	0.2	4.688	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	115	29	-	-	-	115	107	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	56	14	-	-	-	56	63	0.0	0.0	0.002	A
				4	83	21	-	-	-	83	84	0.0	0.0	0.003	A
3 - Top Brand	Entry	1	1	1	104	26	1001	875	0.119	106	105	0.1	0.1	4.848	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.65	526	460	0.006	3	3	0.0	0.0	4.887	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	13	3	1001	876	0.015	13	13	0.0	0.0	4.142	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	104	26	-	-	-	104	104	0.0	0.0	0.000	A
				2	13	3	-	-	-	13	13	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	3	0.65	-	-	-	3	3	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	973	969	0.062	59	61	0.1	0.1	7.027	A
				3	170	42	973	969	0.175	167	178	0.3	0.4	6.839	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	212	53	973	969	0.219	214	211	0.4	0.3	6.220	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	60	15	-	-	-	60	61	0.0	0.0	0.225	A
				3	170	42	-	-	-	170	179	0.0	0.0	0.306	A
				4	212	53	-	-	-	212	211	0.0	0.0	0.239	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	61	15	978	857	0.071	61	58	0.1	0.1	5.209	A
				4	89	22	978	856	0.104	87	88	0.1	0.2	5.114	A
			2	1	108	27	978	857	0.126	109	102	0.2	0.1	5.094	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	108	27	-	-	-	108	102	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	61	15	-	-	-	61	58	0.0	0.0	0.000	A
				4	89	22	-	-	-	89	88	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	99	25	1001	869	0.114	99	105	0.1	0.1	4.725	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	642	559	0.007	4	4	0.0	0.0	5.537	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	13	3	975	850	0.016	13	13	0.0	0.0	3.554	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	99	25	-	-	-	99	105	0.0	0.0	0.000	A
				2	13	3	-	-	-	13	13	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	4	1	-	-	-	4	4	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	50	12	973	970	0.051	49	49	0.1	0.2	7.048	A
				3	137	34	973	970	0.141	137	145	0.4	0.1	6.428	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	163	41	973	970	0.169	164	167	0.3	0.3	6.257	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	50	12	-	-	-	50	49	0.0	0.0	0.251	A
				3	137	34	-	-	-	137	144	0.0	0.0	0.239	A
				4	163	41	-	-	-	163	167	0.0	0.0	0.139	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	49	12	978	882	0.055	48	50	0.1	0.1	4.920	A
				4	72	18	978	883	0.081	72	71	0.2	0.1	5.009	A
			2	1	91	23	978	879	0.104	91	87	0.1	0.1	4.532	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	91	23	-	-	-	91	87	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	49	12	-	-	-	49	50	0.0	0.0	0.000	A
				4	72	18	-	-	-	72	71	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	84	21	1001	895	0.094	83	90	0.1	0.2	4.673	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.62	449	403	0.006	2	2	0.0	0.0	5.382	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	10	3	950	851	0.012	11	10	0.0	0.0	4.190	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	84	21	-	-	-	84	90	0.0	0.0	0.000	A
				2	10	3	-	-	-	10	10	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.62	-	-	-	2	2	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	9	973	971	0.039	36	40	0.2	0.2	5.906	A
				3	118	30	973	971	0.122	118	117	0.1	0.3	6.100	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	132	33	973	971	0.136	133	139	0.3	0.2	5.470	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	9	-	-	-	38	40	0.0	0.0	0.076	A
				3	118	30	-	-	-	118	118	0.0	0.0	0.131	A
				4	132	33	-	-	-	132	139	0.0	0.0	0.061	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	40	10	978	897	0.044	40	40	0.1	0.1	4.321	A
				4	57	14	978	898	0.063	57	59	0.1	0.1	4.594	A
			2	1	74	19	978	899	0.083	74	75	0.1	0.1	4.213	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	74	19	-	-	-	74	75	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	40	10	-	-	-	40	40	0.0	0.0	0.000	A
				4	57	14	-	-	-	57	60	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	66	16	1001	915	0.072	65	72	0.2	0.1	4.493	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.54	423	386	0.006	2	2	0.0	0.0	5.047	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	885	811	0.010	8	8	0.0	0.0	3.703	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	66	16	-	-	-	66	72	0.0	0.0	0.000	A
				2	8	2	-	-	-	8	8	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.54	-	-	-	2	2	0.0	0.0	0.000	A

2038 | 2a WD Flows | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.49	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2038	2a WD Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	469	100.000
2 - Gelscoe Lane		ONE HOUR	✓	187	100.000
3 - Top Brand		ONE HOUR	✓	486	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	90	226	153
	2 - Gelscoe Lane	70	0	39	78
	3 - Top Brand	369	65	0	52
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	From				
	1 - A453 (N)	0	1	13	4
	2 - Gelscoe Lane	0	0	2	2
	3 - Top Brand	8	0	0	72
	4 - A42	0	0	0	0

Cyclist %

	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	From				
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.37	6.07	0.9	A	428	642
2 - Gelscoe Lane	0.17	4.95	0.3	A	170	255
3 - Top Brand	0.51	9.83	1.5	A	445	667
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	367	92	51	1392	0.263	365	361	337	0.0	0.6	5.243	A
2 - Gelscoe Lane	141	35	293	1359	0.104	141	144	123	0.0	0.2	4.323	A
3 - Top Brand	373	93	228	1106	0.337	369	370	206	0.0	0.8	6.499	A
4 - A42			0					210				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	410	103	61	1391	0.295	411	424	396	0.6	0.6	5.611	A
2 - Gelscoe Lane	163	41	338	1371	0.119	165	172	134	0.2	0.1	4.689	A
3 - Top Brand	440	110	272	1115	0.395	440	450	232	0.8	1.1	7.455	A
4 - A42			0					255				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	512	128	70	1424	0.360	512	518	479	0.6	0.9	6.070	A
2 - Gelscoe Lane	207	52	415	1271	0.163	208	219	168	0.1	0.3	4.952	A
3 - Top Brand	530	133	335	1042	0.509	532	534	287	1.1	1.5	8.925	A
4 - A42			0					318				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	512	128	68	1374	0.373	514	518	475	0.9	0.9	5.971	A
2 - Gelscoe Lane	204	51	412	1215	0.168	204	211	170	0.3	0.2	4.942	A
3 - Top Brand	526	132	321	1040	0.506	531	542	295	1.5	1.2	9.828	A
4 - A42			0					308				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	425	106	52	1363	0.312	423	431	396	0.9	0.8	5.375	A
2 - Gelscoe Lane	165	41	342	1368	0.121	166	178	133	0.2	0.2	4.790	A
3 - Top Brand	435	109	271	1046	0.416	438	446	237	1.2	0.8	7.450	A
4 - A42			0					260				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	341	85	46	1364	0.250	339	355	327	0.8	0.6	5.373	A
2 - Gelscoe Lane	139	35	269	1410	0.099	139	147	116	0.2	0.1	4.586	A
3 - Top Brand	362	91	218	1067	0.340	363	372	191	0.8	0.6	6.767	A
4 - A42			0					207				

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 - A453 (N)	Entry	1	1	2, 3	248	957	0.259	247	245	0.0	0.4	5.543	A
			2	1, 4	118	957	0.123	118	115	0.0	0.1	4.272	A
		2	1	(1, 2, 3, 4)	367			366	363	0.0	0.0	0.118	A
	Exit	1	1		337			337	338	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	88	885	0.100	88	90	0.0	0.1	4.495	A
			2	1, 2	53	885	0.060	53	54	0.0	0.1	4.044	A
		2	1	(1, 2, 3, 4)	141			141	145	0.0	0.0	0.000	A
	Exit	1	1		123			123	120	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	322	927	0.347	319	320	0.0	0.7	6.709	A
			2	2, 3	50	927	0.054	51	49	0.0	0.0	3.955	A
		2	1	(1, 2, 3, 4)	373			372	373	0.0	0.1	0.189	A
	Exit	1	1		206			206	205	0.0	0.0	0.000	A
4 - A42	Exit	1	1		210			210	212	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 - A453 (N)	Entry	1	1	2, 3	269	954	0.282	270	284	0.4	0.4	5.895	A
			2	1, 4	141	954	0.148	141	140	0.1	0.2	4.735	A
		2	1	(1, 2, 3, 4)	410			410	424	0.0	0.0	0.116	A
	Exit	1	1		396			396	403	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	103	871	0.118	104	107	0.1	0.1	4.933	A
			2	1, 2	61	871	0.070	61	65	0.1	0.1	4.295	A
		2	1	(1, 2, 3, 4)	163			163	172	0.0	0.0	0.000	A
	Exit	1	1		134			134	144	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	379	914	0.415	379	387	0.7	1.0	7.721	A
			2	2, 3	61	914	0.067	61	63	0.0	0.1	4.038	A
		2	1	(1, 2, 3, 4)	440			440	451	0.1	0.0	0.311	A
	Exit	1	1		232			232	238	0.0	0.0	0.000	A
4 - A42	Exit	1	1		255			255	260	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 - A453 (N)	Entry	1	1	2, 3	336	951	0.354	338	347	0.4	0.5	6.430	A
			2	1, 4	176	951	0.185	174	170	0.2	0.4	4.758	A
		2	1	(1, 2, 3, 4)	512			512	519	0.0	0.0	0.205	A
	Exit	1	1		479			479	485	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	133	846	0.158	134	141	0.1	0.2	5.052	A
			2	1, 2	74	846	0.087	73	78	0.1	0.1	4.776	A
		2	1	(1, 2, 3, 4)	207			207	219	0.0	0.0	0.000	A
	Exit	1	1		168			168	172	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	460	893	0.515	462	462	1.0	1.3	8.845	A
			2	2, 3	71	893	0.079	70	71	0.1	0.1	4.325	A
		2	1	(1, 2, 3, 4)	530			530	535	0.0	0.1	0.747	A
	Exit	1	1		287			287	295	0.0	0.0	0.000	A
4 - A42	Exit	1	1		318			318	318	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 - A453 (N)	Entry	1	1	2, 3	348	951	0.365	350	346	0.5	0.6	6.318	A
			2	1, 4	165	951	0.173	164	172	0.4	0.2	4.744	A
		2	1	(1, 2, 3, 4)	512			512	518	0.0	0.0	0.196	A
	Exit	1	1		475			475	488	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	132	847	0.156	133	134	0.2	0.1	4.995	A
			2	1, 2	72	847	0.085	71	77	0.1	0.1	4.852	A
		2	1	(1, 2, 3, 4)	204			204	211	0.0	0.0	0.000	A
	Exit	1	1		170			170	169	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	460	898	0.512	462	472	1.3	1.1	9.517	A
			2	2, 3	68	898	0.075	68	71	0.1	0.0	4.334	A
		2	1	(1, 2, 3, 4)	526			528	542	0.1	0.0	1.068	A
	Exit	1	1		295			295	293	0.0	0.0	0.000	A
4 - A42	Exit	1	1		308			308	321	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 - A453 (N)	Entry	1	1	2, 3	284	956	0.297	282	289	0.6	0.6	5.712	A
			2	1, 4	140	956	0.147	141	142	0.2	0.2	4.473	A
		2	1	(1, 2, 3, 4)	425			425	431	0.0	0.0	0.082	A
	Exit	1	1		396			396	408	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	104	869	0.120	105	112	0.1	0.1	4.859	A
			2	1, 2	61	869	0.070	61	66	0.1	0.1	4.678	A
		2	1	(1, 2, 3, 4)	165			165	178	0.0	0.0	0.000	A
	Exit	1	1		133			133	140	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	384	914	0.421	385	389	1.1	0.8	7.636	A
			2	2, 3	52	914	0.057	52	57	0.0	0.1	4.520	A
		2	1	(1, 2, 3, 4)	435			436	445	0.0	0.0	0.262	A
	Exit	1	1		237			237	244	0.0	0.0	0.000	A
4 - A42	Exit	1	1		260			260	264	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 - A453 (N)	Entry	1	1	2, 3	233	958	0.243	232	240	0.6	0.4	5.642	A
			2	1, 4	107	958	0.112	107	114	0.2	0.2	4.478	A
		2	1	(1, 2, 3, 4)	341			341	354	0.0	0.0	0.118	A
	Exit	1	1		327			327	338	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	88	892	0.098	88	92	0.1	0.1	4.818	A
			2	1, 2	51	892	0.058	51	55	0.1	0.1	4.200	A
		2	1	(1, 2, 3, 4)	139			139	147	0.0	0.0	0.000	A
	Exit	1	1		116			116	115	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	316	931	0.339	317	325	0.8	0.5	7.004	A
			2	2, 3	47	931	0.050	46	47	0.1	0.1	4.063	A
		2	1	(1, 2, 3, 4)	362			362	371	0.0	0.0	0.178	A
	Exit	1	1		191			191	203	0.0	0.0	0.000	A
4 - A42	Exit	1	1		207			207	218	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	973	958	0.076	72	71	0.0	0.1	5.262	A
				3	175	44	973	957	0.183	175	174	0.0	0.3	5.671	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	118	29	973	958	0.123	118	115	0.0	0.1	4.272	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	-	-	-	73	71	0.0	0.0	0.171	A
				3	175	44	-	-	-	175	176	0.0	0.0	0.131	A
				4	118	30	-	-	-	118	116	0.0	0.0	0.067	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	8	978	887	0.034	30	30	0.0	0.0	4.563	A
				4	58	14	978	887	0.065	58	60	0.0	0.1	4.461	A
		2	2	1	53	13	978	887	0.060	53	54	0.0	0.1	4.044	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	53	13	-	-	-	53	54	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	30	8	-	-	-	30	30	0.0	0.0	0.000	A
				4	58	14	-	-	-	58	60	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	287	72	1001	927	0.309	284	284	0.0	0.6	6.522	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	35	9	1001	926	0.038	35	37	0.0	0.1	8.987	A
		2	2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	50	13	1001	927	0.054	51	49	0.0	0.0	3.955	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	287	72	-	-	-	287	286	0.0	0.1	0.211	A
				2	50	13	-	-	-	50	50	0.0	0.0	0.122	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	35	9	-	-	-	35	37	0.0	0.0	0.075	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	973	954	0.077	73	82	0.1	0.1	5.658	A
				3	196	49	973	953	0.206	197	202	0.3	0.3	6.002	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	141	35	973	954	0.148	141	140	0.1	0.2	4.735	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	-	-	-	73	82	0.0	0.0	0.165	A
				3	196	49	-	-	-	196	202	0.0	0.0	0.134	A
				4	141	35	-	-	-	141	140	0.0	0.0	0.062	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	978	871	0.040	35	36	0.0	0.0	4.707	A
				4	67	17	978	870	0.078	69	71	0.1	0.1	5.047	A
			2	1	61	15	978	870	0.070	61	65	0.1	0.1	4.295	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	61	15	-	-	-	61	65	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	-	-	-	35	36	0.0	0.0	0.000	A
				4	67	17	-	-	-	67	71	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	333	83	1001	913	0.365	335	338	0.6	0.8	7.485	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	46	12	1001	915	0.051	45	49	0.1	0.2	10.300	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	61	15	1001	914	0.067	61	63	0.0	0.1	4.038	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	333	83	-	-	-	333	339	0.1	0.0	0.357	A
				2	61	15	-	-	-	61	63	0.0	0.0	0.086	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	46	12	-	-	-	46	49	0.0	0.0	0.308	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	97	24	973	950	0.102	97	100	0.1	0.2	6.199	A
				3	239	60	973	951	0.251	241	247	0.3	0.4	6.535	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	176	44	973	950	0.185	174	170	0.2	0.4	4.758	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	97	24	-	-	-	97	101	0.0	0.0	0.254	A
				3	239	60	-	-	-	239	247	0.0	0.0	0.251	A
				4	176	44	-	-	-	176	171	0.0	0.0	0.112	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	978	847	0.055	46	48	0.0	0.1	5.075	A
				4	87	22	978	845	0.103	88	92	0.1	0.1	5.040	A
			2	1	74	18	978	845	0.087	73	78	0.1	0.1	4.776	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	74	18	-	-	-	74	78	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	-	-	-	46	49	0.0	0.0	0.000	A
				4	87	22	-	-	-	87	92	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	404	101	1001	894	0.452	406	407	0.8	1.1	8.588	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	56	14	1001	893	0.063	56	56	0.2	0.2	11.842	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	71	18	1001	892	0.079	70	71	0.1	0.1	4.325	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	403	101	-	-	-	404	408	0.0	0.0	0.780	A
				2	71	18	-	-	-	71	71	0.0	0.0	0.564	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	56	14	-	-	-	56	55	0.0	0.0	0.764	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	100	25	973	951	0.105	101	98	0.2	0.1	6.083	A
				3	248	62	973	951	0.260	248	248	0.4	0.5	6.423	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	165	41	973	952	0.173	164	172	0.4	0.2	4.744	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	100	25	-	-	-	100	98	0.0	0.0	0.210	A
				3	247	62	-	-	-	248	248	0.0	0.0	0.245	A
				4	165	41	-	-	-	165	172	0.0	0.0	0.123	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	47	12	978	845	0.055	47	45	0.1	0.0	4.946	A
				4	85	21	978	845	0.101	85	89	0.1	0.1	5.020	A
			2	1	72	18	978	845	0.085	71	77	0.1	0.1	4.852	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	72	18	-	-	-	72	77	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	47	12	-	-	-	47	45	0.0	0.0	0.000	A
				4	85	21	-	-	-	85	89	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	402	100	1001	898	0.448	403	412	1.1	1.0	9.275	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	58	14	1001	897	0.065	59	60	0.2	0.1	12.196	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	68	17	1001	898	0.075	68	71	0.1	0.0	4.334	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	401	100	-	-	-	402	411	0.0	0.0	1.077	A
				2	67	17	-	-	-	68	71	0.0	0.0	1.030	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	58	15	-	-	-	58	60	0.0	0.0	1.054	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	81	20	973	956	0.084	81	82	0.1	0.1	5.349	A
				3	203	51	973	956	0.213	201	207	0.5	0.5	5.873	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	140	35	973	956	0.147	141	142	0.2	0.2	4.473	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	81	20	-	-	-	81	82	0.0	0.0	0.092	A
				3	204	51	-	-	-	203	207	0.0	0.0	0.109	A
				4	140	35	-	-	-	140	142	0.0	0.0	0.041	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	978	869	0.040	35	38	0.0	0.0	5.018	A
				4	70	17	978	869	0.080	70	74	0.1	0.1	4.779	A
			2	1	61	15	978	870	0.070	61	66	0.1	0.1	4.678	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	61	15	-	-	-	61	66	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	35	9	-	-	-	35	37	0.0	0.0	0.000	A
				4	70	17	-	-	-	70	74	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	334	84	1001	913	0.366	335	342	1.0	0.7	7.413	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	50	12	1001	910	0.054	50	48	0.1	0.1	10.182	B
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	52	13	1001	914	0.057	52	57	0.0	0.1	4.520	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	334	83	-	-	-	334	341	0.0	0.0	0.273	A
				2	52	13	-	-	-	52	57	0.0	0.0	0.121	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	50	12	-	-	-	50	47	0.0	0.0	0.426	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	71	18	973	958	0.074	69	68	0.1	0.2	5.432	A
				3	163	41	973	958	0.170	162	173	0.5	0.3	5.734	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	107	27	973	958	0.112	107	114	0.2	0.2	4.478	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	71	18	-	-	-	71	68	0.0	0.0	0.115	A
				3	163	41	-	-	-	163	172	0.0	0.0	0.154	A
				4	107	27	-	-	-	107	114	0.0	0.0	0.070	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	29	7	978	893	0.032	29	31	0.0	0.0	4.953	A
				4	59	15	978	892	0.066	59	62	0.1	0.0	4.751	A
			2	1	51	13	978	890	0.058	51	55	0.1	0.1	4.200	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	51	13	-	-	-	51	55	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	29	7	-	-	-	29	31	0.0	0.0	0.000	A
				4	59	15	-	-	-	59	62	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	275	69	1001	931	0.296	276	283	0.7	0.5	6.796	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	40	10	991	921	0.044	41	42	0.1	0.1	9.205	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	47	12	1001	930	0.050	46	47	0.1	0.1	4.063	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	275	69	-	-	-	275	282	0.0	0.0	0.191	A
				2	47	12	-	-	-	47	47	0.0	0.0	0.103	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	40	10	-	-	-	40	42	0.0	0.0	0.188	A

2038 | 2a WD Flows | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.29	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2038	2a WD Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	458	100.000
2 - Gelscoe Lane		ONE HOUR	✓	394	100.000
3 - Top Brand		ONE HOUR	✓	228	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	62	181	215
	2 - Gelscoe Lane	165	0	93	136
	3 - Top Brand	195	26	0	7
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	23	23	23
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	3	0	0	0
	4 - A42	0	0	0	0

Cyclist %

From	To				
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.36	6.74	1.3	A	419	629
2 - Gelscoe Lane	0.33	5.88	0.9	A	357	536
3 - Top Brand	0.28	6.11	0.6	A	210	315
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	335	84	18	1502	0.223	335	345	274	0.0	0.6	5.550	A
2 - Gelscoe Lane	298	74	292	1477	0.202	299	297	61	0.0	0.5	4.941	A
3 - Top Brand	171	43	390	982	0.175	170	170	202	0.0	0.3	5.099	A
4 - A42			0					268				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	418	104	21	1451	0.288	414	420	327	0.6	1.0	6.051	A
2 - Gelscoe Lane	350	87	360	1404	0.249	350	361	75	0.5	0.5	5.195	A
3 - Top Brand	210	52	458	956	0.220	210	216	252	0.3	0.3	5.256	A
4 - A42			0					322				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	510	127	28	1417	0.360	506	510	391	1.0	1.3	6.745	A
2 - Gelscoe Lane	419	105	433	1431	0.292	418	437	101	0.5	0.7	5.730	A
3 - Top Brand	250	62	556	919	0.272	249	257	295	0.3	0.6	5.915	A
4 - A42			0					386				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	502	125	28	1442	0.348	503	517	390	1.3	1.1	6.373	A
2 - Gelscoe Lane	431	108	444	1307	0.330	427	438	88	0.7	0.9	5.876	A
3 - Top Brand	248	62	562	900	0.275	249	253	309	0.6	0.4	6.106	A
4 - A42			0					394				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	407	102	21	1484	0.274	406	420	326	1.1	0.7	6.116	A
2 - Gelscoe Lane	356	89	349	1419	0.251	356	360	78	0.9	0.5	5.422	A
3 - Top Brand	203	51	465	995	0.204	203	211	241	0.4	0.3	5.796	A
4 - A42			0					320				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	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 - A453 (N)	344	86	20	1486	0.232	347	349	271	0.7	0.4	5.634	A
2 - Gelscoe Lane	290	72	303	1423	0.203	288	300	64	0.5	0.5	4.952	A
3 - Top Brand	178	45	390	983	0.181	178	181	201	0.3	0.3	5.197	A
4 - A42			0					278				

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 - A453 (N)	Entry	1	1	2, 3	173	967	0.179	173	179	0.0	0.4	5.665	A
			2	1, 4	162	967	0.167	162	165	0.0	0.2	5.256	A
		2	1	(1, 2, 3, 4)	335			335	347	0.0	0.0	0.082	A
	Exit	1	1		274			274	269	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	171	885	0.193	172	174	0.0	0.3	5.036	A
			2	1, 2	127	885	0.143	127	123	0.0	0.2	4.808	A
		2	1	(1, 2, 3, 4)	298			298	299	0.0	0.0	0.000	A
	Exit	1	1		61			61	61	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	153	876	0.175	152	152	0.0	0.3	5.216	A
			2	2, 3	18	876	0.021	18	18	0.0	0.0	4.118	A
		2	1	(1, 2, 3, 4)	171			171	171	0.0	0.0	0.001	A
	Exit	1	1		202			202	206	0.0	0.0	0.000	A
4 - A42	Exit	1	1		268			268	275	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 - A453 (N)	Entry	1	1	2, 3	224	966	0.231	222	227	0.4	0.6	6.099	A
			2	1, 4	194	966	0.200	192	193	0.2	0.4	5.637	A
		2	1	(1, 2, 3, 4)	418			417	421	0.0	0.0	0.164	A
	Exit	1	1		327			327	338	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	206	864	0.239	206	209	0.3	0.3	5.380	A
			2	1, 2	144	864	0.166	144	152	0.2	0.2	4.930	A
		2	1	(1, 2, 3, 4)	350			350	361	0.0	0.0	0.004	A
	Exit	1	1		75			75	81	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	188	854	0.221	189	192	0.3	0.2	5.405	A
			2	2, 3	21	854	0.025	21	23	0.0	0.0	4.057	A
		2	1	(1, 2, 3, 4)	210			210	215	0.0	0.0	0.000	A
	Exit	1	1		252			252	253	0.0	0.0	0.000	A
4 - A42	Exit	1	1		322			322	324	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 - A453 (N)	Entry	1	1	2, 3	274	964	0.284	272	274	0.6	0.6	6.500	A
			2	1, 4	235	964	0.244	234	235	0.4	0.6	6.310	A
		2	1	(1, 2, 3, 4)	510			509	511	0.0	0.1	0.333	A
	Exit	1	1		391			391	405	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	240	840	0.285	241	253	0.3	0.4	5.870	A
			2	1, 2	179	840	0.213	177	185	0.2	0.3	5.529	A
		2	1	(1, 2, 3, 4)	419			419	438	0.0	0.0	0.004	A
	Exit	1	1		101			101	101	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	221	822	0.269	221	228	0.2	0.5	6.128	A
			2	2, 3	29	822	0.035	28	29	0.0	0.1	4.237	A
		2	1	(1, 2, 3, 4)	250			250	258	0.0	0.0	0.005	A
	Exit	1	1		295			295	305	0.0	0.0	0.000	A
4 - A42	Exit	1	1		386			386	393	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 - A453 (N)	Entry	1	1	2, 3	261	964	0.271	263	267	0.6	0.5	6.110	A
			2	1, 4	240	964	0.249	240	250	0.6	0.5	6.111	A
		2	1	(1, 2, 3, 4)	502			501	517	0.1	0.1	0.264	A
	Exit	1	1		390			390	397	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	255	837	0.305	252	257	0.4	0.6	6.179	A
			2	1, 2	176	837	0.210	176	181	0.3	0.3	5.430	A
		2	1	(1, 2, 3, 4)	431			431	439	0.0	0.0	0.004	A
	Exit	1	1		88			88	95	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	219	820	0.268	221	223	0.5	0.3	6.308	A
			2	2, 3	28	820	0.034	28	30	0.1	0.0	4.212	A
		2	1	(1, 2, 3, 4)	248			248	253	0.0	0.0	0.051	A
	Exit	1	1		309			309	309	0.0	0.0	0.000	A
4 - A42	Exit	1	1		394			394	407	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 - A453 (N)	Entry	1	1	2, 3	216	966	0.223	215	223	0.5	0.3	6.091	A
			2	1, 4	191	966	0.198	191	197	0.5	0.4	5.890	A
		2	1	(1, 2, 3, 4)	407			407	419	0.1	0.0	0.121	A
	Exit	1	1		326			326	333	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	206	867	0.238	206	210	0.6	0.3	5.578	A
			2	1, 2	150	867	0.173	150	151	0.3	0.2	5.191	A
		2	1	(1, 2, 3, 4)	356			356	358	0.0	0.0	0.006	A
	Exit	1	1		78			78	78	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	181	852	0.213	181	188	0.3	0.3	5.910	A
			2	2, 3	22	852	0.025	21	22	0.0	0.0	4.705	A
		2	1	(1, 2, 3, 4)	203			203	210	0.0	0.0	0.019	A
	Exit	1	1		241			241	251	0.0	0.0	0.000	A
4 - A42	Exit	1	1		320			320	328	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 - A453 (N)	Entry	1	1	2, 3	181	967	0.187	184	187	0.3	0.2	5.609	A
			2	1, 4	163	967	0.169	163	162	0.4	0.3	5.487	A
		2	1	(1, 2, 3, 4)	344			344	348	0.0	0.0	0.082	A
	Exit	1	1		271			271	282	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	171	882	0.194	170	172	0.3	0.4	5.096	A
			2	1, 2	119	882	0.135	118	128	0.2	0.2	4.757	A
		2	1	(1, 2, 3, 4)	290			290	301	0.0	0.0	0.000	A
	Exit	1	1		64			64	68	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	158	876	0.181	158	160	0.3	0.2	5.345	A
			2	2, 3	20	876	0.023	20	21	0.0	0.1	4.106	A
		2	1	(1, 2, 3, 4)	178			178	181	0.0	0.0	0.000	A
	Exit	1	1		201			201	206	0.0	0.0	0.000	A
4 - A42	Exit	1	1		278			278	274	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	43	11	973	967	0.044	42	43	0.0	0.1	5.119	A
				3	130	32	973	967	0.134	131	136	0.0	0.3	5.836	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	162	40	973	967	0.167	162	165	0.0	0.2	5.256	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	43	11	-	-	-	43	43	0.0	0.0	0.064	A
				3	130	32	-	-	-	130	137	0.0	0.0	0.119	A
				4	162	40	-	-	-	162	166	0.0	0.0	0.056	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	72	18	978	884	0.081	72	70	0.0	0.1	5.139	A
				4	99	25	978	884	0.112	100	103	0.0	0.2	4.967	A
			2	1	127	32	978	885	0.143	127	123	0.0	0.2	4.808	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	124	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	72	18	-	-	-	72	71	0.0	0.0	0.000	A
				4	99	25	-	-	-	99	104	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	147	37	1001	877	0.168	147	146	0.0	0.3	5.241	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	1	812	708	0.008	6	6	0.0	0.0	4.665	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	18	5	1001	876	0.021	18	18	0.0	0.0	4.118	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	147	37	-	-	-	147	147	0.0	0.0	0.001	A
				2	18	5	-	-	-	18	18	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	1	-	-	-	6	6	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	973	966	0.057	54	58	0.1	0.1	6.173	A
				3	169	42	973	967	0.175	168	169	0.3	0.4	6.074	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	194	48	973	966	0.200	192	193	0.2	0.4	5.637	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	55	14	-	-	-	55	58	0.0	0.0	0.189	A
				3	169	42	-	-	-	169	170	0.0	0.0	0.170	A
				4	194	48	-	-	-	194	194	0.0	0.0	0.152	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	84	21	978	864	0.098	84	83	0.1	0.1	5.250	A
				4	122	30	978	863	0.141	122	125	0.2	0.2	5.467	A
			2	1	144	36	978	863	0.166	144	152	0.2	0.2	4.930	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	144	36	-	-	-	144	152	0.0	0.0	0.002	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	84	21	-	-	-	84	83	0.0	0.0	0.008	A
				4	122	30	-	-	-	122	125	0.0	0.0	0.004	A
3 - Top Brand	Entry	1	1	1	182	45	1001	854	0.213	183	186	0.3	0.2	5.395	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	836	713	0.009	7	7	0.0	0.0	5.691	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	21	5	1001	853	0.025	21	23	0.0	0.0	4.057	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	182	45	-	-	-	182	186	0.0	0.0	0.000	A
				2	21	5	-	-	-	21	23	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	6	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	973	965	0.076	73	72	0.1	0.1	6.553	A
				3	201	50	973	964	0.208	199	203	0.4	0.4	6.481	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	235	59	973	964	0.244	234	235	0.4	0.6	6.310	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	73	18	-	-	-	73	72	0.0	0.0	0.332	A
				3	201	50	-	-	-	201	203	0.0	0.0	0.308	A
				4	236	59	-	-	-	235	236	0.0	0.0	0.354	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	94	24	978	840	0.112	95	103	0.1	0.1	5.807	A
				4	145	36	978	842	0.173	145	150	0.2	0.2	5.914	A
			2	1	179	45	978	842	0.213	177	185	0.2	0.3	5.529	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	179	45	-	-	-	179	185	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	94	24	-	-	-	94	103	0.0	0.0	0.010	A
				4	145	36	-	-	-	145	150	0.0	0.0	0.006	A
3 - Top Brand	Entry	1	1	1	213	53	1001	823	0.259	213	220	0.2	0.5	6.134	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	860	707	0.011	7	8	0.0	0.0	5.966	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	29	7	1001	826	0.035	28	29	0.0	0.1	4.237	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	213	53	-	-	-	213	221	0.0	0.0	0.006	A
				2	29	7	-	-	-	29	29	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	8	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	973	963	0.061	59	65	0.1	0.1	6.040	A
				3	202	51	973	964	0.210	204	202	0.4	0.4	6.133	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	240	60	973	964	0.249	240	250	0.6	0.5	6.111	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	59	15	-	-	-	59	65	0.0	0.0	0.219	A
				3	202	51	-	-	-	202	202	0.0	0.0	0.266	A
				4	241	60	-	-	-	240	250	0.0	0.1	0.274	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	107	27	978	839	0.127	105	107	0.1	0.3	6.175	A
				4	148	37	978	839	0.177	147	151	0.2	0.3	6.182	A
			2	1	176	44	978	839	0.210	176	181	0.3	0.3	5.430	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	176	44	-	-	-	176	180	0.0	0.0	0.002	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	107	27	-	-	-	107	107	0.0	0.0	0.009	A
				4	148	37	-	-	-	148	151	0.0	0.0	0.004	A
3 - Top Brand	Entry	1	1	1	213	53	1001	821	0.259	214	217	0.5	0.3	6.312	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	871	714	0.010	7	7	0.0	0.0	6.190	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	28	7	1001	817	0.034	28	30	0.1	0.0	4.212	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	212	53	-	-	-	213	216	0.0	0.0	0.056	A
				2	28	7	-	-	-	28	30	0.0	0.0	0.020	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	7	2	-	-	-	7	7	0.0	0.0	0.035	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	57	14	973	967	0.059	57	56	0.1	0.1	6.009	A
				3	159	40	973	966	0.164	158	167	0.4	0.2	6.118	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	191	48	973	966	0.198	191	197	0.5	0.4	5.890	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	57	14	-	-	-	57	56	0.0	0.0	0.089	A
				3	159	40	-	-	-	159	166	0.0	0.0	0.114	A
				4	191	48	-	-	-	191	197	0.1	0.0	0.136	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	82	21	978	865	0.095	82	84	0.3	0.1	5.598	A
				4	124	31	978	866	0.143	124	125	0.3	0.1	5.564	A
			2	1	150	37	978	865	0.173	150	151	0.3	0.2	5.191	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	150	37	-	-	-	150	150	0.0	0.0	0.006	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	82	21	-	-	-	82	84	0.0	0.0	0.002	A
				4	124	31	-	-	-	124	124	0.0	0.0	0.010	A
3 - Top Brand	Entry	1	1	1	176	44	1001	851	0.207	176	183	0.3	0.3	5.916	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	742	628	0.009	5	6	0.0	0.0	5.717	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	22	5	1001	849	0.025	21	22	0.0	0.0	4.705	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	176	44	-	-	-	176	183	0.0	0.0	0.021	A
				2	22	5	-	-	-	22	22	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	5	1	-	-	-	5	5	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (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 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	973	967	0.045	44	47	0.1	0.0	5.612	A
				3	138	34	973	967	0.142	140	140	0.2	0.1	5.608	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	163	41	973	967	0.169	163	162	0.4	0.3	5.487	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	44	11	-	-	-	44	47	0.0	0.0	0.096	A
				3	138	34	-	-	-	138	139	0.0	0.0	0.088	A
				4	163	41	-	-	-	163	162	0.0	0.0	0.072	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	63	16	978	882	0.071	62	66	0.1	0.2	4.970	A
				4	108	27	978	882	0.123	109	106	0.1	0.2	5.176	A
			2	1	119	30	978	883	0.134	118	128	0.2	0.2	4.757	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	119	30	-	-	-	119	128	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	63	16	-	-	-	63	67	0.0	0.0	0.000	A
				4	108	27	-	-	-	108	106	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	153	38	1001	876	0.174	152	154	0.3	0.2	5.355	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	1	812	705	0.008	6	6	0.0	0.0	5.089	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	20	5	1001	878	0.023	20	21	0.0	0.1	4.106	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	153	38	-	-	-	153	154	0.0	0.0	0.000	A
				2	20	5	-	-	-	20	21	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	6	1	-	-	-	6	6	0.0	0.0	0.000	A

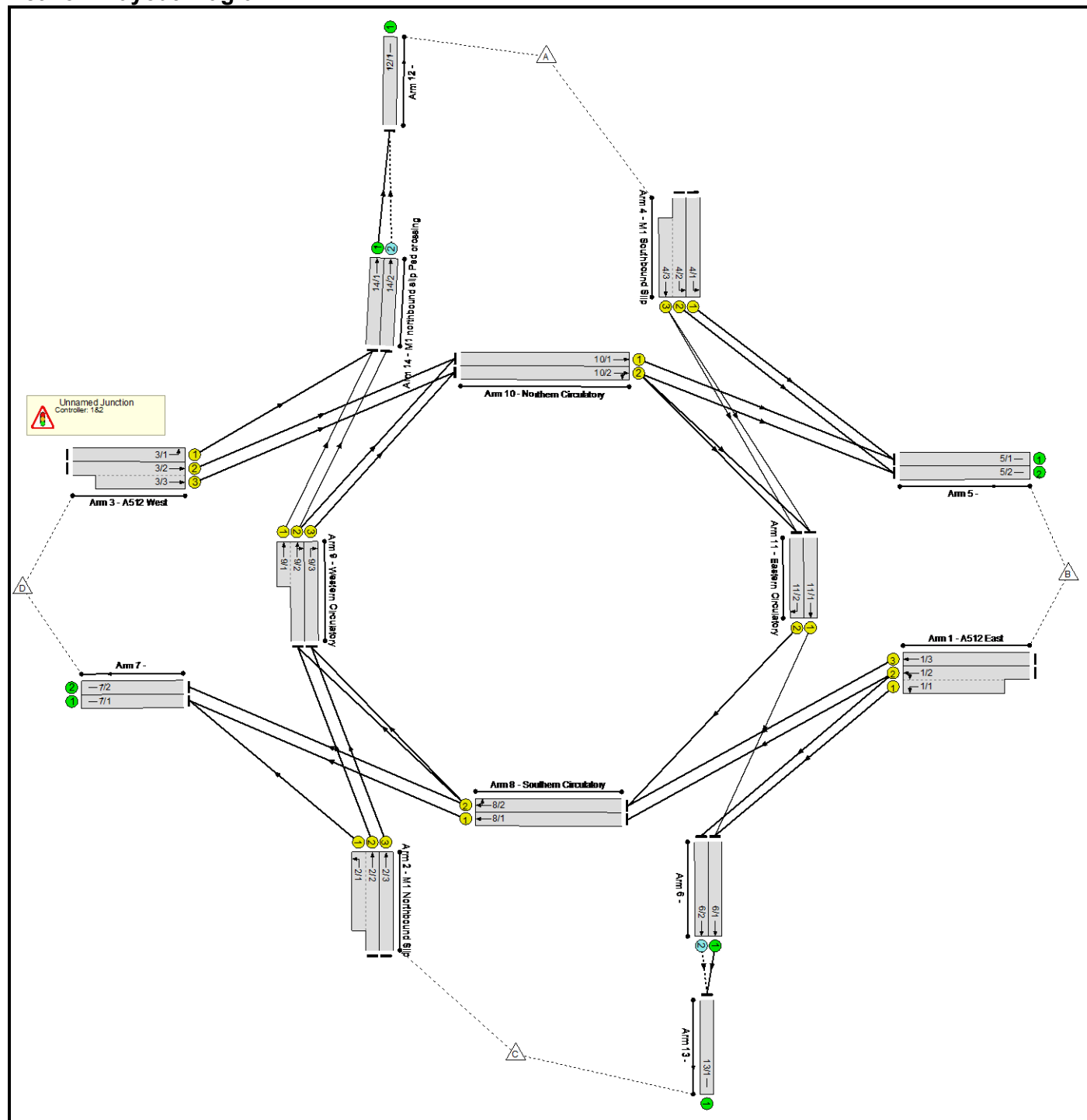


APPENDIX 54: Junction 12: M1 Junction 23 Stage 1A/2A Modelling

Full Input Data And Results**User and Project Details**

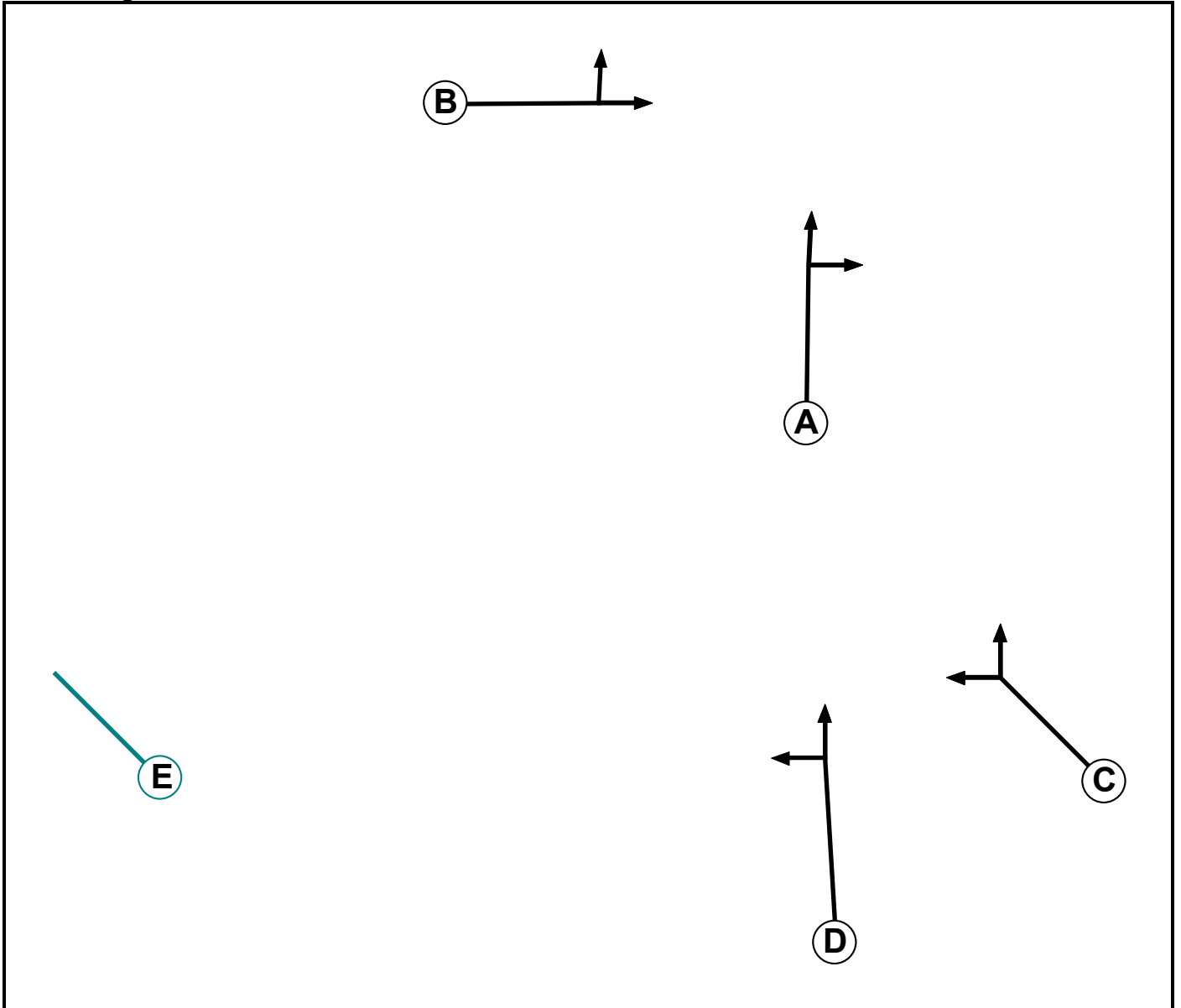
Project:	East Midlands Gateway 2
Title:	M1 Junction 23
Location:	
Client:	SEGRO
Site Ref(s):	Junction 12
Date Started:	26/10/23
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	250619 M1 Junction 23_Stage 1a+2a.lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Network Layout Diagram



Controller :C1 - Westside 25911

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Dummy		4	4

Full Input Data And Results

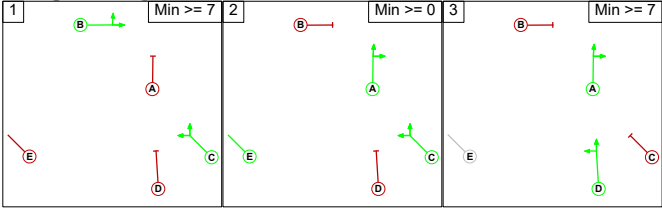
Phase Intergreens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		6	-	-	-
	B	6		-	-	6
	C	-	-		6	-
	D	-	-	7		-
	E	-	1	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	B C
2	A C E
3	A D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
3	1	A	Losing	7	7

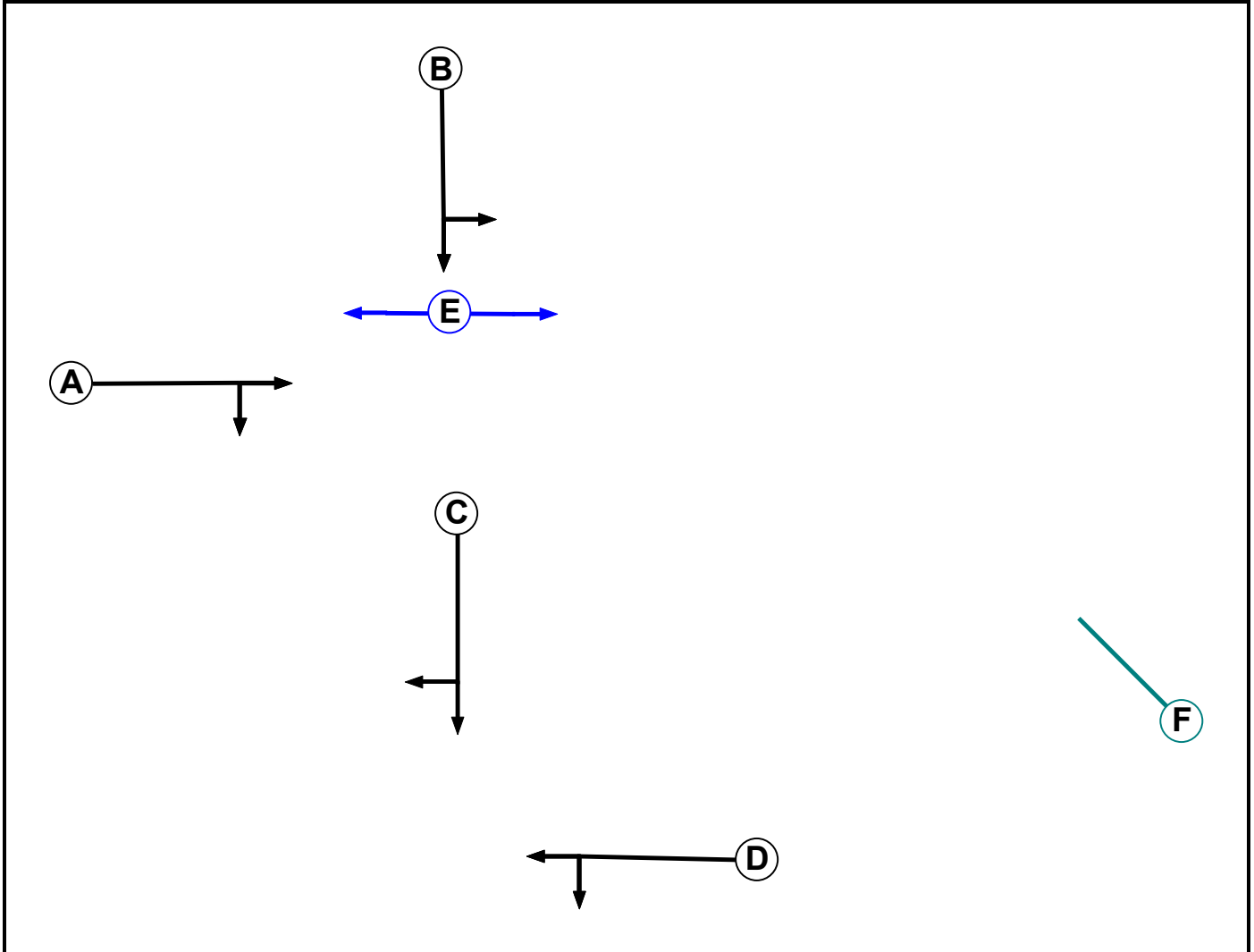
Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		6	6
	2	6		6
	3	13	7	

Full Input Data And Results

Controller :C2 - Eastside 25921

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		9	9
F	Dummy		4	4

Full Input Data And Results

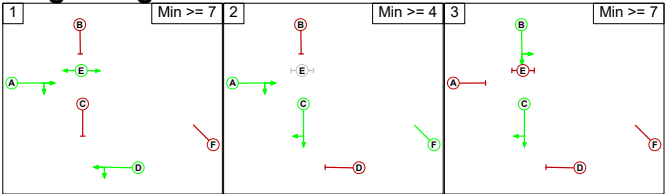
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		6	-	-	-	-
	B	7		-	-	5	7
	C	-	-		6	-	-
	D	-	-	6		-	6
	E	-	10	-	-		-
	F	-	1	-	1	-	

Phases in Stage

Stage No.	Phases in Stage
1	A D E
2	A C F
3	B C

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
3	1	C	Losing	7	7

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		6	10
	2	6		6
	3	13	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
6/2	13/1 (Ahead)	715	0	6/1	0.22	All	-	-	-	-	-
14/2 (M1 northbound slip Ped crossing)	12/1 (Ahead)	715	0	14/1	0.22	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A512 East)	U	D	2	3	16.0	Geom	-	3.75	0.00	Y	Arm 6 Left	110.00
1/2 (A512 East)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 6 Left	Inf
1/3 (A512 East)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 8 Ahead	71.00
2/1 (M1 Northbound Slip)	U	D	2	3	13.9	Geom	-	3.75	0.00	Y	Arm 8 Ahead	85.00
2/2 (M1 Northbound Slip)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 7 Left	110.00
2/3 (M1 Northbound Slip)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 9 Ahead	170.00
3/1 (A512 West)	U	B	2	3	18.3	Geom	-	3.75	0.00	Y	Arm 9 Ahead	276.00
3/2 (A512 West)	U	B	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 14 Left	45.00
3/3 (A512 West)	U	B	2	3	10.4	Geom	-	3.75	0.00	Y	Arm 10 Ahead	55.00
4/1 (M1 Southbound Slip)	U	B	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 10 Ahead	60.00
4/2 (M1 Southbound Slip)	U	B	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 5 Left	55.00
4/3 (M1 Southbound Slip)	U	B	2	3	14.8	Geom	-	3.75	0.00	Y	Arm 5 Left	65.00
5/1	U		2	3	60.0	Inf	-	-	-	-	Arm 11 Ahead	70.00
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	17.4	Geom	-	3.65	0.00	Y	-	-
6/2	O		2	3	17.4	Geom	-	3.65	0.00	Y	Arm 13 Ahead	Inf
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Southern Circulatory)	U	C	2	3	28.3	Geom	-	3.75	0.00	Y	Arm 7 Ahead	100.00

Full Input Data And Results

8/2 (Southern Circulatory)	U	C	2	3	28.0	Geom	-	3.75	0.00	Y	Arm 7 Ahead	100.00
											Arm 9 Right	45.00
9/1 (Western Circulatory)	U	A	2	3	4.9	Geom	-	3.75	0.00	Y	Arm 14 Ahead	60.00
9/2 (Western Circulatory)	U	A	2	3	12.8	Geom	-	3.75	0.00	Y	Arm 10 Right	45.00
											Arm 14 Ahead	45.00
9/3 (Western Circulatory)	U	A	2	3	11.6	Geom	-	3.75	0.00	Y	Arm 10 Right	50.00
10/1 (Northern Circulatory)	U	A	2	3	30.5	Geom	-	3.75	0.00	Y	Arm 5 Ahead	80.00
10/2 (Northern Circulatory)	U	A	2	3	29.1	Geom	-	3.75	0.00	Y	Arm 5 Ahead	55.00
											Arm 11 Right	55.00
11/1 (Eastern Circulatory)	U	C	2	3	14.9	Geom	-	4.25	0.00	Y	Arm 6 Ahead	70.00
11/2 (Eastern Circulatory)	U	C	2	3	13.3	Geom	-	4.25	0.00	Y	Arm 8 Right	65.00
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1 (M1 northbound slip Ped crossing)	U		2	3	11.3	Geom	-	3.25	0.00	Y	Arm 12 Ahead	Inf
14/2 (M1 northbound slip Ped crossing)	O		2	3	11.1	Geom	-	3.25	0.00	Y	Arm 12 Ahead	Inf

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Am'	07:45	08:45	01:00	
2: '2022 Pm'	17:00	18:00	01:00	
3: '2028 Without Development Flows (AM)'	07:45	08:45	01:00	
4: '2028 Without Development Flows (PM)'	17:00	18:00	01:00	
5: '2028 With Development Flows (AM)'	07:45	08:45	01:00	
6: '2028 With Development Flows (PM)'	17:00	18:00	01:00	
7: '2038 Without Development Flows (AM)'	07:45	08:45	01:00	
8: '2038 Without Development Flows (PM)'	17:00	18:00	01:00	
9: '2038 With Development Flows (AM)'	07:45	08:45	01:00	
10: '2038 With Development Flows (PM)'	17:00	18:00	01:00	
11: '2a 2028 With Development Flows (AM)'	07:45	08:45	01:00	
12: '2a 2028 With Development Flows (PM)'	17:00	18:00	01:00	
13: '2a 2038 With Development Flows (AM)'	07:45	08:45	01:00	
14: '2a 2038 With Development Flows (PM)'	17:00	18:00	01:00	

Scenario 1: 'AM Base' (FG1: '2022 Am', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	795	0	377	1172
	B	494	0	161	378	1033
	C	0	423	0	44	467
	D	290	735	132	0	1157
	Tot.	784	1953	293	799	3829

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: Unnamed Junction	
1/1 (short)	161
1/2 (with short)	539(In) 378(Out)
1/3	494
2/1 (short)	44
2/2 (with short)	237(In) 193(Out)
2/3	230
3/1	290
3/2 (with short)	867(In) 504(Out)
3/3 (short)	363
4/1	343
4/2 (with short)	829(In) 452(Out)
4/3 (short)	377
5/1	1040
5/2	913
6/1	293
6/2	0
7/1	422
7/2	377
8/1	378
8/2	871
9/1 (short)	423
9/2 (with short)	687(In) 264(Out)
9/3	230
10/1	697
10/2	593
11/1	132
11/2	377
12/1	784
13/1	293
14/1	713
14/2	71

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	43.3 %	1941	1941
				Arm 9 Right	45.00	56.7 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	73.1 %	1926	1926
				Arm 14 Ahead	45.00	26.9 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	77.7 %	1937	1937
				Arm 11 Right	55.00	22.3 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 2: 'PM Base' (FG2: '2022 Pm', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	0	408	0	187	595
	B	491	0	351	520	1362
	C	0	203	0	168	371
	D	218	389	118	0	725
	Tot.	709	1000	469	875	3053

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Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: Unnamed Junction	
1/1 (short)	351
1/2 (with short)	871(In) 520(Out)
1/3	491
2/1 (short)	168
2/2 (with short)	232(In) 64(Out)
2/3	139
3/1	218
3/2 (with short)	507(In) 226(Out)
3/3 (short)	281
4/1	167
4/2 (with short)	428(In) 241(Out)
4/3 (short)	187
5/1	457
5/2	543
6/1	469
6/2	0
7/1	688
7/2	187
8/1	520
8/2	678
9/1 (short)	410
9/2 (with short)	555(In) 145(Out)
9/3	139
10/1	290
10/2	420
11/1	118
11/2	187
12/1	709
13/1	469
14/1	628
14/2	81

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	27.6 %	1935	1935
				Arm 9 Right	45.00	72.4 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	44.1 %	1926	1926
				Arm 14 Ahead	45.00	55.9 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	71.9 %	1937	1937
				Arm 11 Right	55.00	28.1 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 3: '2028 Without Development Flows (AM)' (FG3: '2028 Without Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	841	0	496	1337
	B	557	0	193	526	1276
	C	0	472	0	46	518
	D	365	902	173	0	1440
	Tot.	922	2215	366	1068	4571

Traffic Lane Flows

Lane	Scenario 3: 2028 Without Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	193
1/2 (with short)	719(In) 526(Out)
1/3	557
2/1 (short)	46
2/2 (with short)	279(In) 233(Out)
2/3	239
3/1	365
3/2 (with short)	1075(In) 537(Out)
3/3 (short)	538
4/1	384
4/2 (with short)	953(In) 457(Out)
4/3 (short)	496
5/1	1154
5/2	1061
6/1	366
6/2	0
7/1	572
7/2	496
8/1	526
8/2	1053
9/1 (short)	502
9/2 (with short)	790(In) 288(Out)
9/3	239
10/1	770
10/2	777
11/1	173
11/2	496
12/1	922
13/1	366
14/1	867
14/2	55

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	47.1 %	1942	1942
				Arm 9 Right	45.00	52.9 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	80.9 %	1926	1926
				Arm 14 Ahead	45.00	19.1 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	77.7 %	1937	1937
				Arm 11 Right	55.00	22.3 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 4: '2028 Without Development Flows (PM)' (FG4: '2028 Without Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	558	0	320	878
	B	532	0	381	749	1662
	C	0	229	0	212	441
	D	351	707	192	0	1250
	Tot.	883	1494	573	1281	4231

Traffic Lane Flows

Lane	Scenario 4: 2028 Without Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	381
1/2 (with short)	1066(In) 685(Out)
1/3	596
2/1 (short)	212
2/2 (with short)	244(In) 32(Out)
2/3	197
3/1	351
3/2 (with short)	899(In) 452(Out)
3/3 (short)	447
4/1	238
4/2 (with short)	640(In) 320(Out)
4/3 (short)	320
5/1	722
5/2	772
6/1	573
6/2	0
7/1	897
7/2	384
8/1	685
8/2	916
9/1 (short)	455
9/2 (with short)	564(In) 109(Out)
9/3	197
10/1	484
10/2	644
11/1	192
11/2	320
12/1	883
13/1	573
14/1	806
14/2	77

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	41.9 %	1940	1940
				Arm 9 Right	45.00	58.1 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	29.4 %	1926	1926
				Arm 14 Ahead	45.00	70.6 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	70.2 %	1937	1937
				Arm 11 Right	55.00	29.8 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 5: '2028 With Development Flows (AM)' (FG5: '2028 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	858	0	498	1356
	B	598	0	196	542	1336
	C	0	457	0	48	505
	D	383	938	173	0	1494
	Tot.	981	2253	369	1088	4691

Traffic Lane Flows

Lane	Scenario 5: 2028 With Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	196
1/2 (with short)	738(In) 542(Out)
1/3	598
2/1 (short)	48
2/2 (with short)	271(In) 223(Out)
2/3	234
3/1	383
3/2 (with short)	1111(In) 558(Out)
3/3 (short)	553
4/1	392
4/2 (with short)	964(In) 466(Out)
4/3 (short)	498
5/1	1173
5/2	1080
6/1	369
6/2	0
7/1	590
7/2	498
8/1	542
8/2	1096
9/1 (short)	547
9/2 (with short)	821(In) 274(Out)
9/3	234
10/1	781
10/2	787
11/1	173
11/2	498
12/1	981
13/1	369
14/1	930
14/2	51

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	45.4 %	1941	1941
				Arm 9 Right	45.00	54.6 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	81.4 %	1926	1926
				Arm 14 Ahead	45.00	18.6 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	78.0 %	1937	1937
				Arm 11 Right	55.00	22.0 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 6: '2028 With Development Flows (PM)' (FG6: '2028 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	583	0	341	924
	B	488	0	352	705	1545
	C	0	206	0	209	415
	D	352	651	193	0	1196
	Tot.	840	1440	545	1255	4080

Traffic Lane Flows

Lane	Scenario 6: 2028 With Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	352
1/2 (with short)	996(In) 644(Out)
1/3	549
2/1 (short)	209
2/2 (with short)	218(In) 9(Out)
2/3	197
3/1	352
3/2 (with short)	844(In) 430(Out)
3/3 (short)	414
4/1	244
4/2 (with short)	680(In) 339(Out)
4/3 (short)	341
5/1	683
5/2	757
6/1	545
6/2	0
7/1	853
7/2	402
8/1	644
8/2	890
9/1 (short)	406
9/2 (with short)	497(In) 91(Out)
9/3	197
10/1	439
10/2	611
11/1	193
11/2	341
12/1	840
13/1	545
14/1	758
14/2	82

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	45.2 %	1941	1941
				Arm 9 Right	45.00	54.8 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	9.9 %	1926	1926
				Arm 14 Ahead	45.00	90.1 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	68.4 %	1937	1937
				Arm 11 Right	55.00	31.6 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 7: '2038 Without Development Flows (AM)' (FG7: '2038 Without Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	905	0	742	1647
	B	616	0	271	791	1678
	C	0	590	0	58	648
	D	472	1170	285	0	1927
	Tot.	1088	2665	556	1591	5900

Traffic Lane Flows

Lane	Scenario 7: 2038 Without Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	271
1/2 (with short)	989(In) 718(Out)
1/3	689
2/1 (short)	58
2/2 (with short)	353(In) 295(Out)
2/3	295
3/1	472
3/2 (with short)	1455(In) 732(Out)
3/3 (short)	723
4/1	727
4/2 (with short)	920(In) 178(Out)
4/3 (short)	742
5/1	1754
5/2	911
6/1	556
6/2	0
7/1	776
7/2	815
8/1	718
8/2	1431
9/1 (short)	600
9/2 (with short)	911(In) 311(Out)
9/3	295
10/1	1027
10/2	1018
11/1	285
11/2	742
12/1	1088
13/1	556
14/1	1072
14/2	16

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	57.0 %	1945	1945
				Arm 9 Right	45.00	43.0 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	94.9 %	1926	1926
				Arm 14 Ahead	45.00	5.1 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	72.0 %	1937	1937
				Arm 11 Right	55.00	28.0 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 8: '2038 Without Development Flows (PM)' (FG8: '2038 Without Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	621	0	305	926
	B	640	0	501	924	2065
	C	0	365	0	291	656
	D	456	1023	273	0	1752
	Tot.	1096	2009	774	1520	5399

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2038 Without Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	501
1/2 (with short)	1307(In) 806(Out)
1/3	758
2/1 (short)	291
2/2 (with short)	370(In) 79(Out)
2/3	286
3/1	456
3/2 (with short)	1296(In) 687(Out)
3/3 (short)	609
4/1	269
4/2 (with short)	657(In) 352(Out)
4/3 (short)	305
5/1	1035
5/2	974
6/1	774
6/2	0
7/1	1097
7/2	423
8/1	806
8/2	1063
9/1 (short)	589
9/2 (with short)	719(In) 130(Out)
9/3	286
10/1	766
10/2	895
11/1	273
11/2	305
12/1	1096
13/1	774
14/1	1045
14/2	51

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	39.8 %	1939	1939
				Arm 9 Right	45.00	60.2 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	60.8 %	1926	1926
				Arm 14 Ahead	45.00	39.2 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	69.5 %	1937	1937
				Arm 11 Right	55.00	30.5 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 9: '2038 With Development Flows (AM)' (FG9: '2038 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	917	0	728	1645
	B	648	0	273	801	1722
	C	0	575	0	58	633
	D	485	1199	283	0	1967
	Tot.	1133	2691	556	1587	5967

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2038 With Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	273
1/2 (with short)	1006(In) 733(Out)
1/3	716
2/1 (short)	58
2/2 (with short)	346(In) 288(Out)
2/3	287
3/1	485
3/2 (with short)	1482(In) 745(Out)
3/3 (short)	737
4/1	714
4/2 (with short)	931(In) 203(Out)
4/3 (short)	728
5/1	1747
5/2	944
6/1	556
6/2	0
7/1	791
7/2	796
8/1	733
8/2	1444
9/1 (short)	574
9/2 (with short)	936(In) 362(Out)
9/3	287
10/1	1033
10/2	1024
11/1	283
11/2	728
12/1	1133
13/1	556
14/1	1059
14/2	74

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	55.1 %	1945	1945
				Arm 9 Right	45.00	44.9 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	79.6 %	1926	1926
				Arm 14 Ahead	45.00	20.4 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	72.4 %	1937	1937
				Arm 11 Right	55.00	27.6 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 10: '2038 With Development Flows (PM)' (FG10: '2038 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	653	0	339	992
	B	651	0	486	943	2080
	C	0	356	0	296	652
	D	470	1013	269	0	1752
	Tot.	1121	2022	755	1578	5476

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2038 With Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	486
1/2 (with short)	1308(In) 822(Out)
1/3	772
2/1 (short)	296
2/2 (with short)	358(In) 62(Out)
2/3	294
3/1	470
3/2 (with short)	1282(In) 680(Out)
3/3 (short)	602
4/1	298
4/2 (with short)	694(In) 355(Out)
4/3 (short)	339
5/1	1040
5/2	982
6/1	755
6/2	0
7/1	1118
7/2	460
8/1	822
8/2	1111
9/1 (short)	602
9/2 (with short)	713(In) 111(Out)
9/3	294
10/1	742
10/2	896
11/1	269
11/2	339
12/1	1121
13/1	755
14/1	1072
14/2	49

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	41.4 %	1940	1940
				Arm 9 Right	45.00	58.6 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	55.9 %	1926	1926
				Arm 14 Ahead	45.00	44.1 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	70.0 %	1937	1937
				Arm 11 Right	55.00	30.0 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 11: '2a 2028 With Development Flows (AM)' (FG11: '2a 2028 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	840	0	469	1309
	B	592	0	200	543	1335
	C	0	458	0	46	504
	D	371	953	177	0	1501
	Tot.	963	2251	377	1058	4649

Traffic Lane Flows

Lane	Scenario 11: 2a 2028 With Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	200
1/2 (with short)	743(In) 543(Out)
1/3	592
2/1 (short)	46
2/2 (with short)	270(In) 224(Out)
2/3	234
3/1	371
3/2 (with short)	1130(In) 567(Out)
3/3 (short)	563
4/1	375
4/2 (with short)	934(In) 465(Out)
4/3 (short)	469
5/1	1166
5/2	1085
6/1	377
6/2	0
7/1	589
7/2	469
8/1	543
8/2	1061
9/1 (short)	541
9/2 (with short)	816(In) 275(Out)
9/3	234
10/1	791
10/2	797
11/1	177
11/2	469
12/1	963
13/1	377
14/1	912
14/2	51

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	44.2 %	1941	1941
				Arm 9 Right	45.00	55.8 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	81.5 %	1926	1926
				Arm 14 Ahead	45.00	18.5 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

Full Input Data And Results

10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	77.8 %	1937	1937
				Arm 11 Right	55.00	22.2 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 12: '2a 2028 With Development Flows (PM)' (FG12: '2a 2028 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	540	0	291	831
	B	494	0	362	690	1546
	C	0	219	0	199	418
	D	329	650	186	0	1165
	Tot.	823	1409	548	1180	3960

Traffic Lane Flows

Lane	Scenario 12: 2a 2028 With Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	362
1/2 (with short)	997(In) 635(Out)
1/3	549
2/1 (short)	199
2/2 (with short)	240(In) 41(Out)
2/3	178
3/1	329
3/2 (with short)	836(In) 418(Out)
3/3 (short)	418
4/1	213
4/2 (with short)	618(In) 327(Out)
4/3 (short)	291
5/1	672
5/2	737
6/1	548
6/2	0
7/1	834
7/2	346
8/1	635
8/2	840
9/1 (short)	413
9/2 (with short)	535(In) 122(Out)
9/3	178
10/1	459
10/2	596
11/1	186
11/2	291
12/1	823
13/1	548
14/1	742
14/2	81

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	41.2 %	1940	1940
				Arm 9 Right	45.00	58.8 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	33.6 %	1926	1926
				Arm 14 Ahead	45.00	66.4 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

Full Input Data And Results

10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	68.8 %	1937	1937
				Arm 11 Right	55.00	31.2 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 13: '2a 2038 With Development Flows (AM)' (FG13: '2a 2038 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	914	0	737	1651
	B	617	0	267	796	1680
	C	0	561	0	58	619
	D	480	1219	289	0	1988
	Tot.	1097	2694	556	1591	5938

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: 2a 2038 With Development Flows (AM)
Junction: Unnamed Junction	
1/1 (short)	267
1/2 (with short)	987(In) 720(Out)
1/3	693
2/1 (short)	58
2/2 (with short)	338(In) 280(Out)
2/3	281
3/1	480
3/2 (with short)	1508(In) 758(Out)
3/3 (short)	750
4/1	722
4/2 (with short)	929(In) 192(Out)
4/3 (short)	737
5/1	1760
5/2	934
6/1	556
6/2	0
7/1	778
7/2	813
8/1	720
8/2	1430
9/1 (short)	554
9/2 (with short)	897(In) 343(Out)
9/3	281
10/1	1038
10/2	1031
11/1	289
11/2	737
12/1	1097
13/1	556
14/1	1034
14/2	63

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	56.9 %	1945	1945
				Arm 9 Right	45.00	43.1 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	81.6 %	1926	1926
				Arm 14 Ahead	45.00	18.4 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

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10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	72.0 %	1937	1937
				Arm 11 Right	55.00	28.0 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 14: '2a 2038 With Development Flows (PM)' (FG14: '2a 2038 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	624	0	301	925
	B	654	0	487	934	2075
	C	0	369	0	287	656
	D	450	1027	256	0	1733
	Tot.	1104	2020	743	1522	5389

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 14: 2a 2038 With Development Flows (PM)
Junction: Unnamed Junction	
1/1 (short)	487
1/2 (with short)	1302(In) 815(Out)
1/3	773
2/1 (short)	287
2/2 (with short)	372(In) 85(Out)
2/3	284
3/1	450
3/2 (with short)	1283(In) 674(Out)
3/3 (short)	609
4/1	269
4/2 (with short)	656(In) 355(Out)
4/3 (short)	301
5/1	1028
5/2	992
6/1	743
6/2	0
7/1	1102
7/2	420
8/1	815
8/2	1074
9/1 (short)	606
9/2 (with short)	739(In) 133(Out)
9/3	284
10/1	759
10/2	893
11/1	256
11/2	301
12/1	1104
13/1	743
14/1	1056
14/2	48

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A512 East)	3.75	0.00	Y	Arm 6 Left	110.00	100.0 %	1963	1963
1/2 (A512 East)	3.75	0.00	Y	Arm 6 Left	Inf	0.0 %	1949	1949
				Arm 8 Ahead	71.00	100.0 %		
1/3 (A512 East)	3.75	0.00	Y	Arm 8 Ahead	85.00	100.0 %	1955	1955
2/1 (M1 Northbound Slip)	3.75	0.00	Y	Arm 7 Left	110.00	100.0 %	1963	1963
2/2 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	170.00	100.0 %	1973	1973
2/3 (M1 Northbound Slip)	3.75	0.00	Y	Arm 9 Ahead	276.00	100.0 %	1979	1979
3/1 (A512 West)	3.75	0.00	Y	Arm 14 Left	45.00	100.0 %	1926	1926
3/2 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	55.00	100.0 %	1937	1937
3/3 (A512 West)	3.75	0.00	Y	Arm 10 Ahead	60.00	100.0 %	1941	1941
4/1 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	55.00	100.0 %	1937	1937
4/2 (M1 Southbound Slip)	3.75	0.00	Y	Arm 5 Left	65.00	100.0 %	1945	1945
4/3 (M1 Southbound Slip)	3.75	0.00	Y	Arm 11 Ahead	70.00	100.0 %	1948	1948
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 13 Ahead	Inf	0.0 %	1980	1980
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	100.0 %	1961	1961
8/2 (Southern Circulatory)	3.75	0.00	Y	Arm 7 Ahead	100.00	39.1 %	1939	1939
				Arm 9 Right	45.00	60.9 %		
9/1 (Western Circulatory)	3.75	0.00	Y	Arm 14 Ahead	60.00	100.0 %	1941	1941
9/2 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	45.00	63.9 %	1926	1926
				Arm 14 Ahead	45.00	36.1 %		
9/3 (Western Circulatory)	3.75	0.00	Y	Arm 10 Right	50.00	100.0 %	1932	1932
10/1 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	80.00	100.0 %	1953	1953

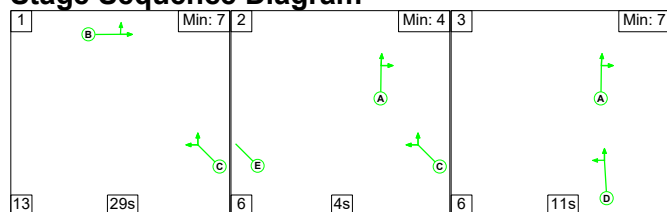
Full Input Data And Results

10/2 (Northern Circulatory)	3.75	0.00	Y	Arm 5 Ahead	55.00	71.3 %	1937	1937
				Arm 11 Right	55.00	28.7 %		
11/1 (Eastern Circulatory)	4.25	0.00	Y	Arm 6 Ahead	70.00	100.0 %	1997	1997
11/2 (Eastern Circulatory)	4.25	0.00	Y	Arm 8 Right	65.00	100.0 %	1994	1994
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
14/1 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
14/2 (M1 northbound slip Ped crossing)	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940

Scenario 1: 'AM Base' (FG1: '2022 Am', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

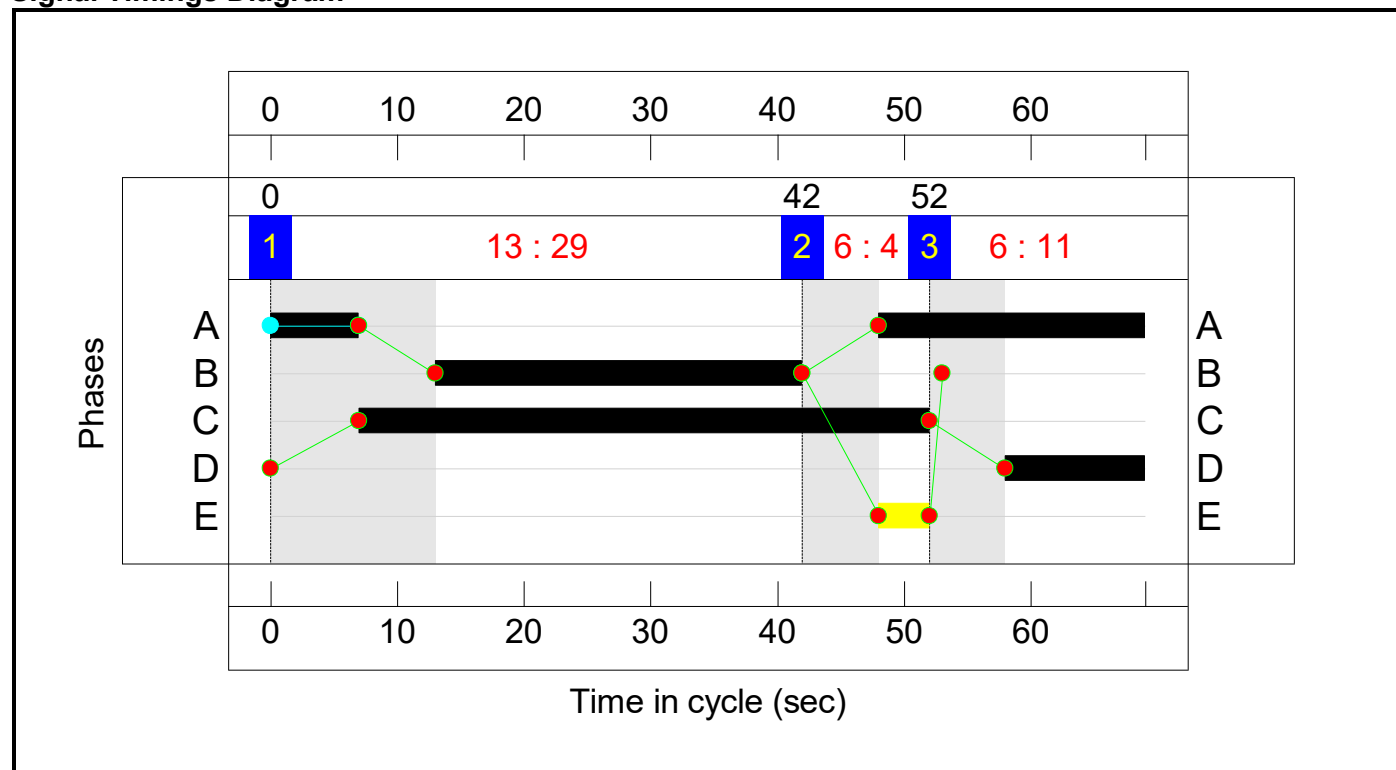
Stage Sequence Diagram



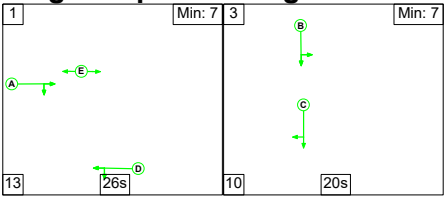
Stage Timings

Stage	1	2	3
Duration	29	4	11
Change Point	0	42	52

Signal Timings Diagram



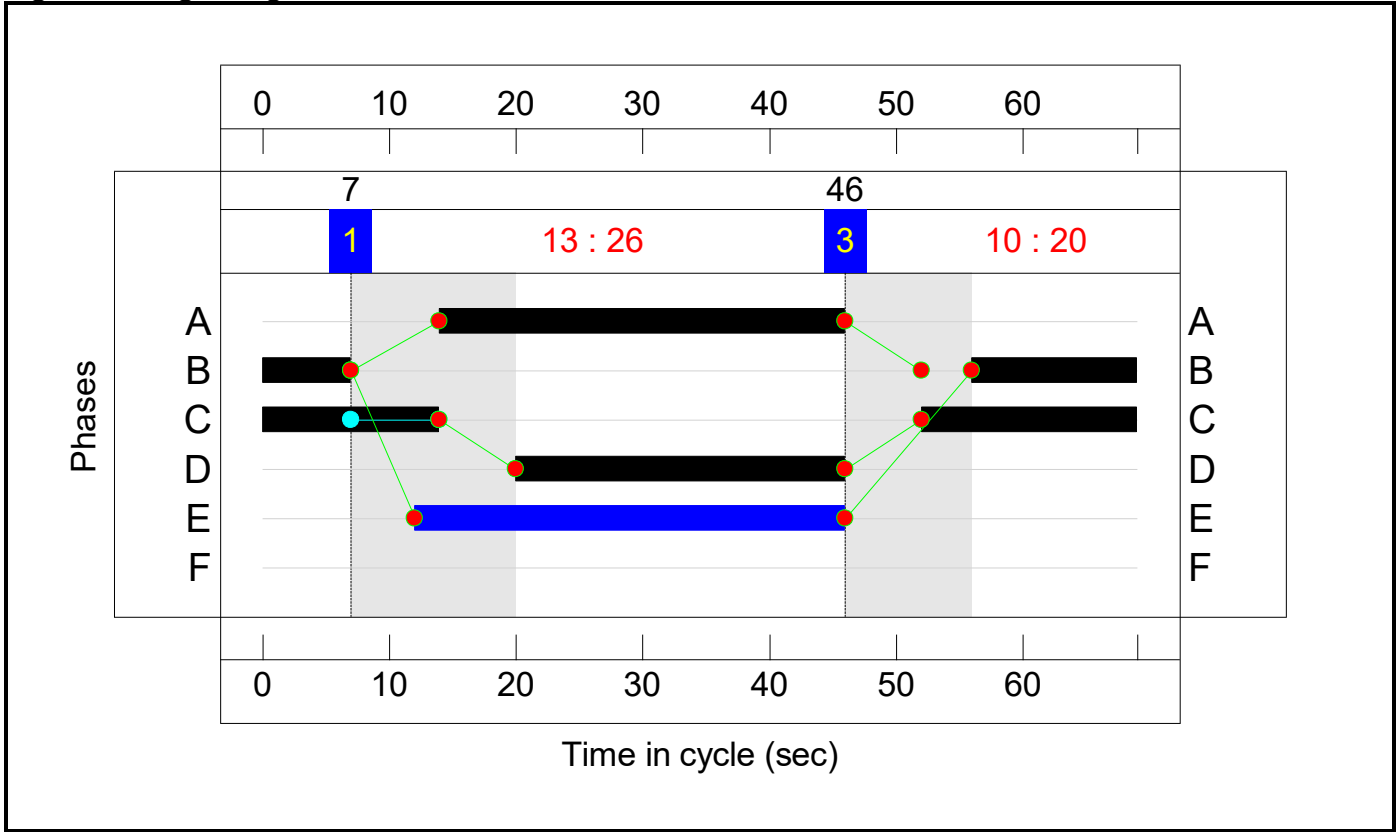
Controller :C2 - Eastside 25921
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	26	20
Change Point	7	46

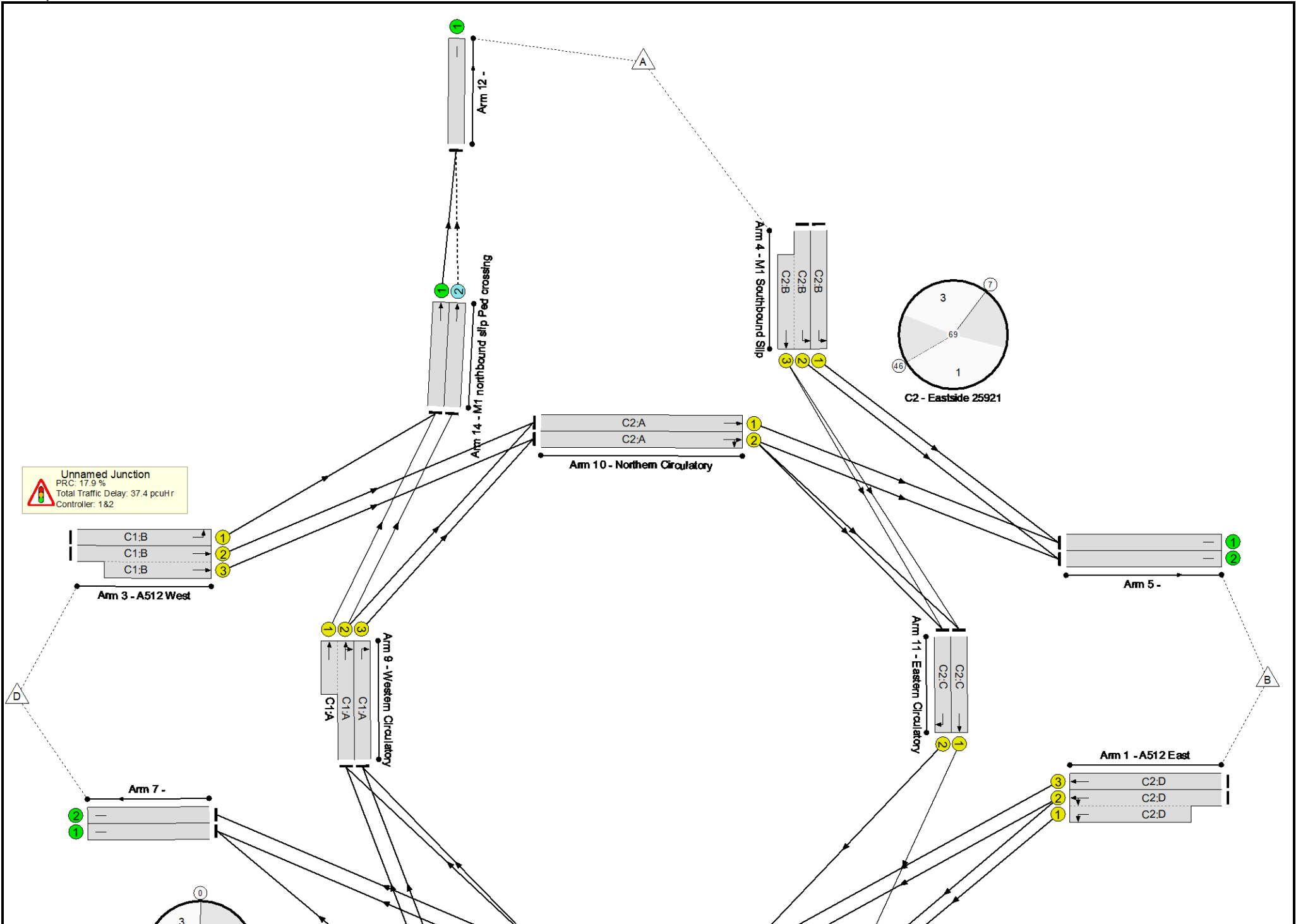
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	26	-	539	1949:1963	763+325	49.6 : 49.6%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	26	-	494	1955	765	64.6%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	11	-	237	1973:1963	343+78	56.2 : 56.2%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	11	-	230	1979	344	66.8%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	29	-	290	1926	837	34.6%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	29	-	867	1937:1941	718+517	70.2 : 70.2%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	20	-	343	1937	590	58.2%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	20	-	829	1945:1948	592+545	76.4 : 69.2%
5/1		U	N/A	N/A	-		-	-	-	1040	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	913	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	293	1980	1980	14.8%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	976	0.0%
7/1		U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	45	-	378	1961	1307	28.9%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	45	-	871	1941	1294	67.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	28	-	687	1926:1941	388+621	68.1 : 68.1%

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9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	28	-	230	1932	812	28.3%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	32	-	697	1953	934	74.6%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	32	-	593	1937	926	64.0%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	31	-	132	1997	926	14.3%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	31	-	377	1994	925	40.8%
12/1		U	N/A	N/A	-		-	-	-	784	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	713	1940	1940	36.8%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	71	1940	558	12.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	71	0	0	25.2	12.2	0.0	37.4	-	-	-	-
Unnamed Junction	-	-	71	0	0	25.2	12.2	0.0	37.4	-	-	-	-
1/2+1/1	539	539	-	-	-	2.3	0.5	-	2.8	18.6	5.5	0.5	6.0
1/3	494	494	-	-	-	2.3	0.9	-	3.3	23.7	7.7	0.9	8.6
2/2+2/1	237	237	-	-	-	1.7	0.6	-	2.3	35.4	3.4	0.6	4.0
2/3	230	230	-	-	-	1.7	1.0	-	2.7	42.1	4.1	1.0	5.1
3/1	290	290	-	-	-	1.0	0.3	-	1.3	16.3	3.6	0.3	3.9
3/2+3/3	867	867	-	-	-	3.5	1.2	-	4.6	19.2	7.3	1.2	8.5
4/1	343	343	-	-	-	1.9	0.7	-	2.6	27.6	5.5	0.7	6.2
4/2+4/3	829	829	-	-	-	4.9	1.3	-	6.2	27.1	7.8	1.3	9.1
5/1	1040	1040	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	293	293	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	378	378	-	-	-	0.4	0.2	-	0.6	6.0	1.7	0.2	1.9
8/2	871	871	-	-	-	0.7	1.0	-	1.7	7.2	3.9	1.0	4.9
9/2+9/1	687	687	-	-	-	1.7	1.1	-	2.7	14.3	8.7	1.1	9.7
9/3	230	230	-	-	-	0.1	0.2	-	0.3	4.9	0.2	0.2	0.4
10/1	697	697	-	-	-	1.4	1.5	-	2.8	14.7	5.7	1.5	7.1
10/2	593	593	-	-	-	1.0	0.9	-	1.8	11.2	5.2	0.9	6.0
11/1	132	132	-	-	-	0.5	0.1	-	0.6	15.9	2.4	0.1	2.5
11/2	377	377	-	-	-	0.1	0.3	-	0.4	4.1	0.2	0.3	0.5
12/1	784	784	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	293	293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

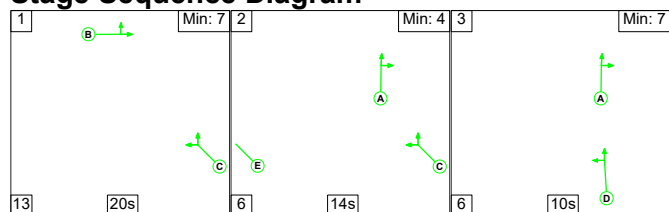
14/1	713	713	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	71	71	71	0	0	0.0	0.1	-	0.1	3.7	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		28.2	Total Delay for Signalled Lanes (pcuHr):		16.38	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		17.9	Total Delay for Signalled Lanes (pcuHr):		20.59	Cycle Time (s):		69		
			PRC Over All Lanes (%):		17.9	Total Delay Over All Lanes(pcuHr):		37.42					

Full Input Data And Results

Scenario 2: 'PM Base' (FG2: '2022 Pm', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

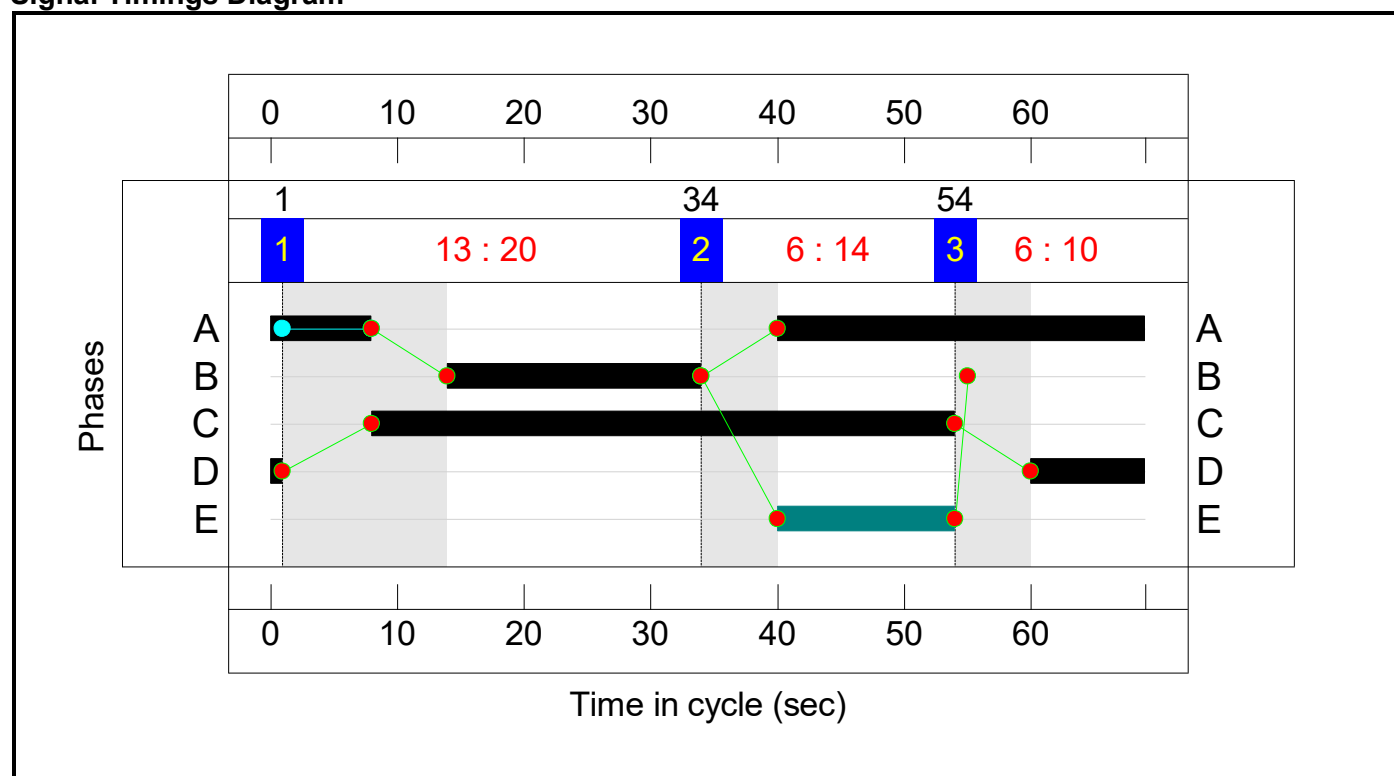
Stage Sequence Diagram



Stage Timings

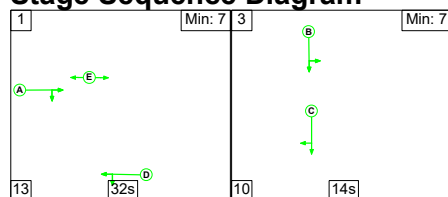
Stage	1	2	3
Duration	20	14	10
Change Point	1	34	54

Signal Timings Diagram



Controller :C2 - Eastside 25921

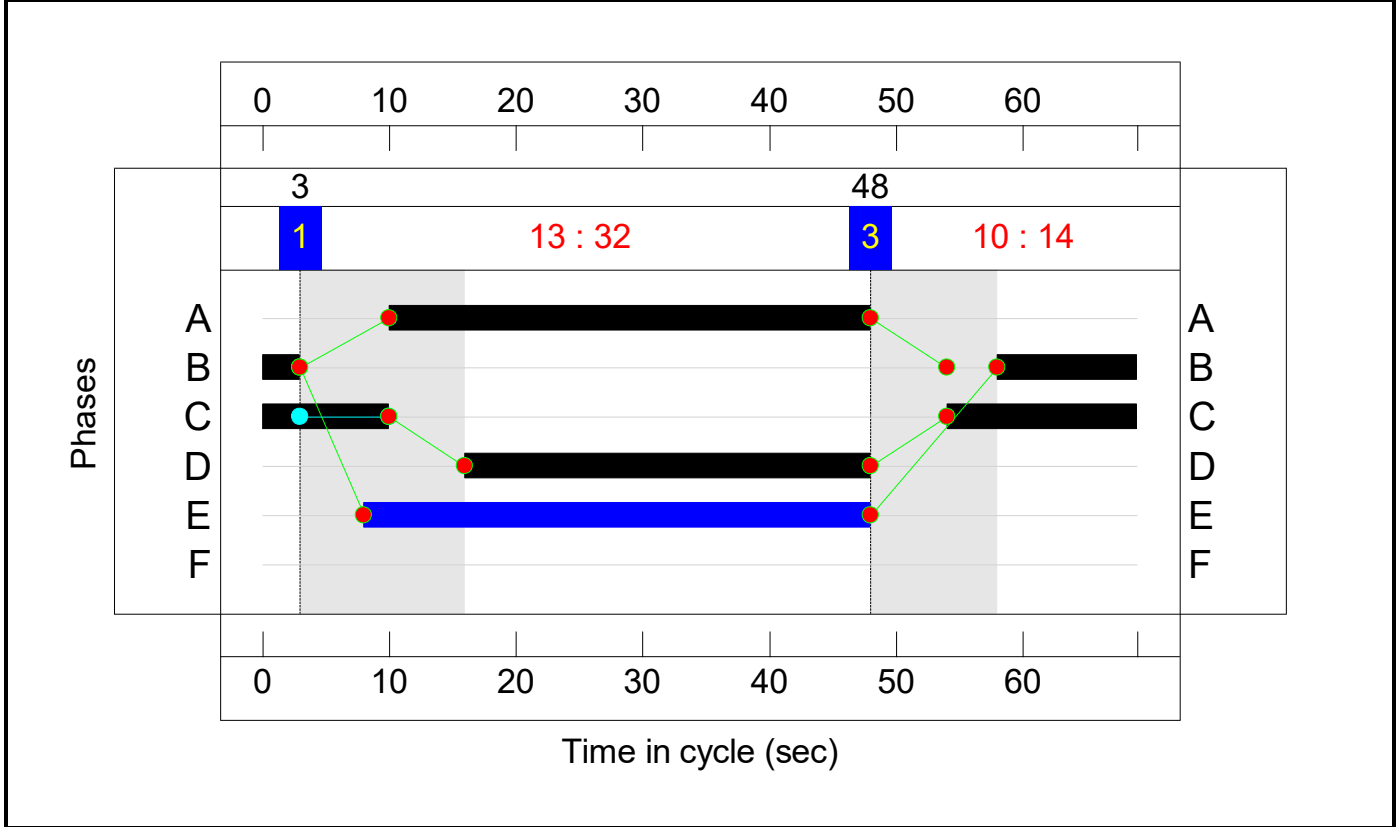
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	32	14
Change Point	3	48

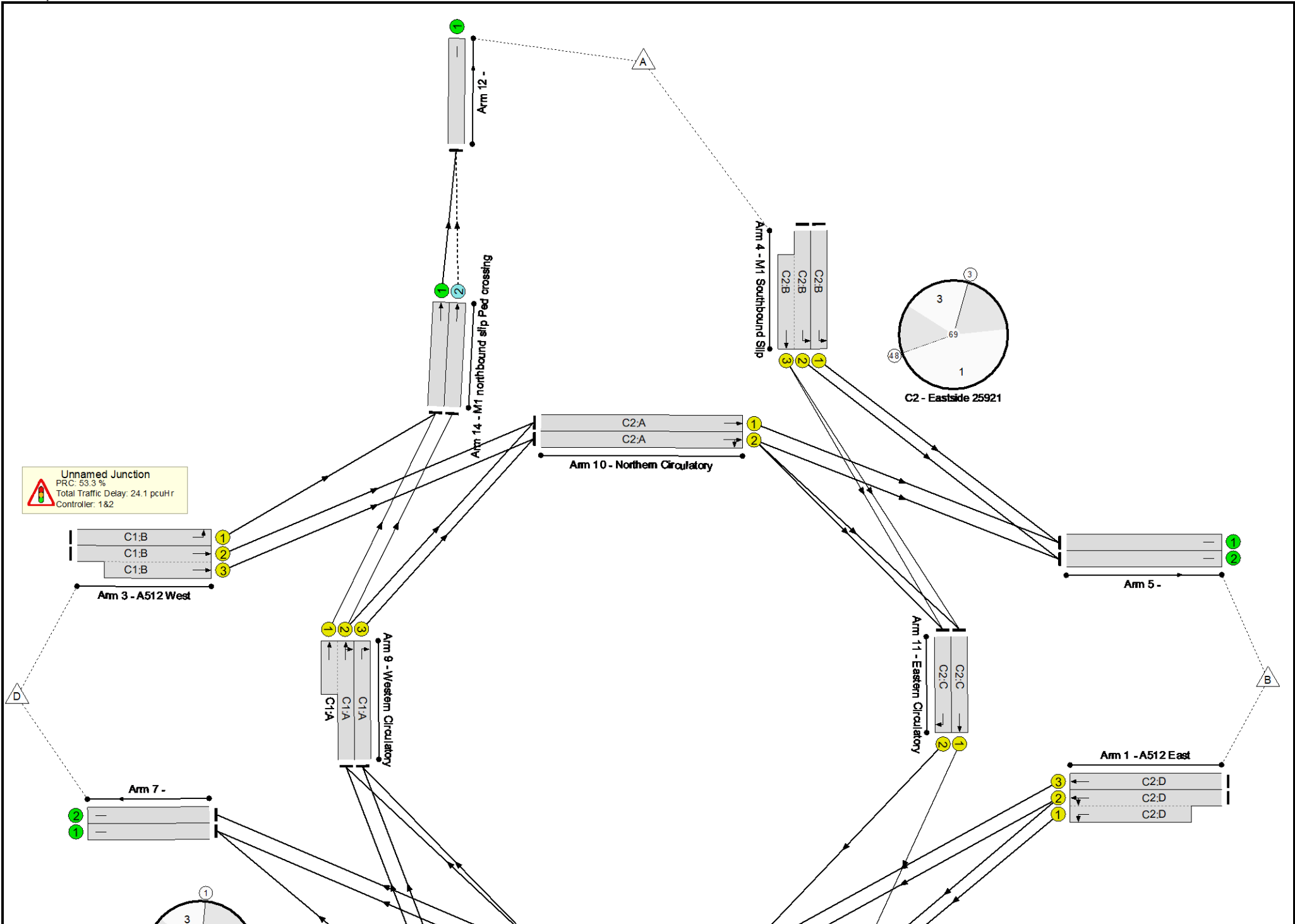
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	58.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	58.7%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	32	-	871	1949:1963	886+598	58.7 : 58.7%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	32	-	491	1955	935	52.5%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	232	1973:1963	119+313	53.7 : 53.7%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	139	1979	315	44.1%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	20	-	218	1926	586	37.2%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	20	-	507	1937:1941	458+570	49.3 : 49.3%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	14	-	167	1937	421	39.7%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	14	-	428	1945:1948	423+423	57.0 : 44.2%
5/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	469	1980	1980	23.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	612	0.0%
7/1		U	N/A	N/A	-		-	-	-	688	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	187	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	520	1961	1336	38.9%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	678	1935	1318	51.4%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	37	-	555	1926:1941	311+881	46.6 : 46.6%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	37	-	139	1932	1064	13.1%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	38	-	290	1953	1104	26.3%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	38	-	420	1937	1095	38.4%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	25	-	118	1997	752	15.7%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	25	-	187	1994	751	24.9%
12/1		U	N/A	N/A	-		-	-	-	709	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	628	1940	1940	32.4%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	81	1940	577	14.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	81	0	0	17.7	6.4	0.0	24.1	-	-	-	-
Unnamed Junction	-	-	81	0	0	17.7	6.4	0.0	24.1	-	-	-	-
1/2+1/1	871	871	-	-	-	3.0	0.7	-	3.7	15.2	7.1	0.7	7.8
1/3	491	491	-	-	-	1.7	0.6	-	2.3	16.6	6.5	0.6	7.1
2/2+2/1	232	232	-	-	-	1.7	0.6	-	2.3	35.2	2.9	0.6	3.5
2/3	139	139	-	-	-	1.0	0.4	-	1.4	36.4	2.4	0.4	2.8
3/1	218	218	-	-	-	1.1	0.3	-	1.4	23.7	3.3	0.3	3.6
3/2+3/3	507	507	-	-	-	2.7	0.5	-	3.2	22.7	4.4	0.5	4.9
4/1	167	167	-	-	-	1.1	0.3	-	1.4	30.2	2.7	0.3	3.1
4/2+4/3	428	428	-	-	-	2.8	0.5	-	3.3	28.1	4.1	0.5	4.6
5/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	469	469	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	688	688	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	187	187	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	520	520	-	-	-	0.5	0.3	-	0.8	5.6	2.0	0.3	2.3
8/2	678	678	-	-	-	0.5	0.5	-	1.0	5.3	2.2	0.5	2.7
9/2+9/1	555	555	-	-	-	0.7	0.4	-	1.1	7.4	3.4	0.4	3.8
9/3	139	139	-	-	-	0.0	0.1	-	0.1	3.0	0.1	0.1	0.2
10/1	290	290	-	-	-	0.2	0.2	-	0.3	4.2	0.4	0.2	0.6
10/2	420	420	-	-	-	0.2	0.3	-	0.5	4.6	0.6	0.3	1.0
11/1	118	118	-	-	-	0.4	0.1	-	0.5	15.0	2.2	0.1	2.3
11/2	187	187	-	-	-	0.1	0.2	-	0.2	4.2	0.1	0.2	0.3
12/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

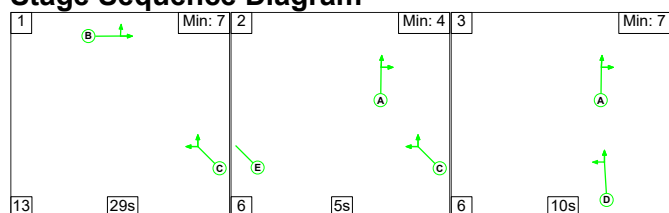
14/1	628	628	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
14/2	81	81	81	0	0	0.0	0.1	-	0.1	3.6	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		67.6	Total Delay for Signalled Lanes (pcuHr):		11.37	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		53.3	Total Delay for Signalled Lanes (pcuHr):		12.26	Cycle Time (s):		69		
			PRC Over All Lanes (%):		53.3	Total Delay Over All Lanes(pcuHr):		24.11					

Full Input Data And Results

Scenario 3: '2028 Without Development Flows (AM)' (FG3: '2028 Without Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

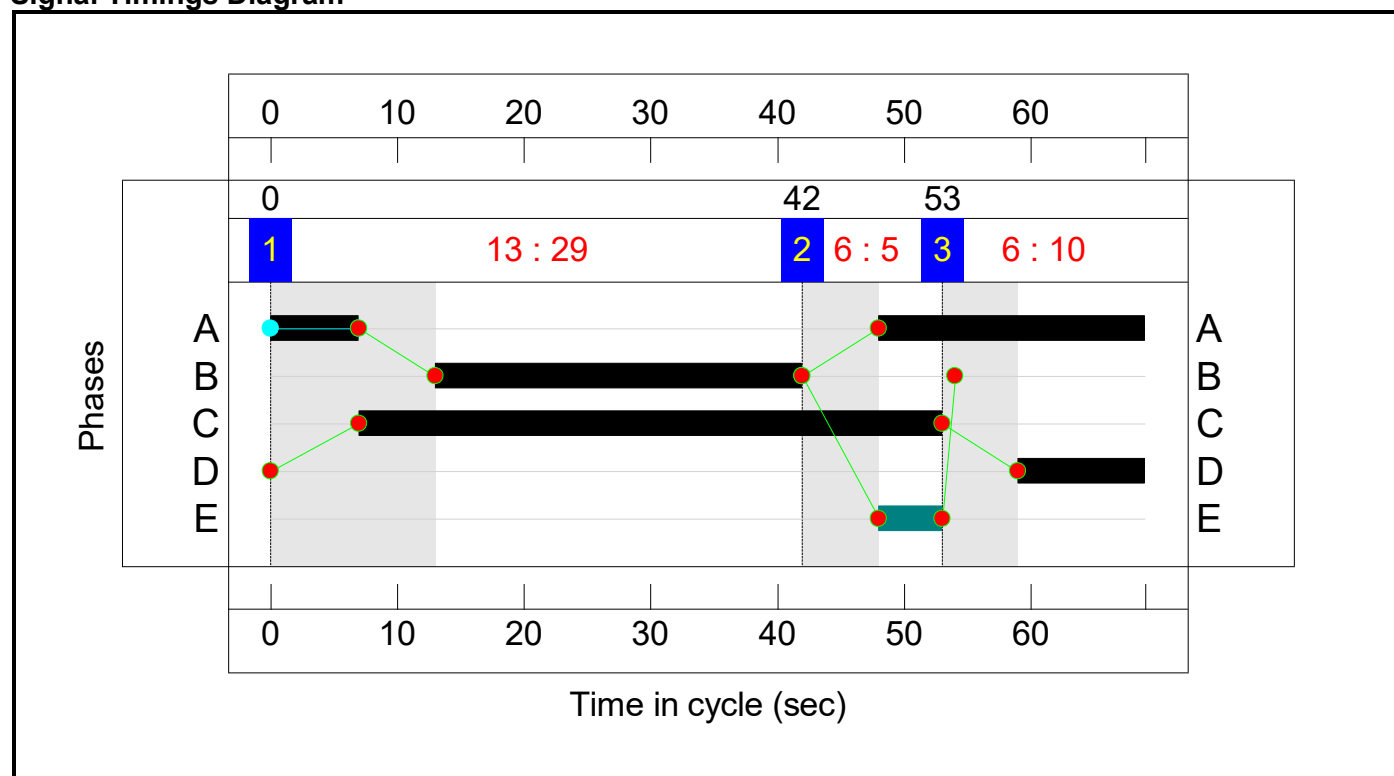
Stage Sequence Diagram



Stage Timings

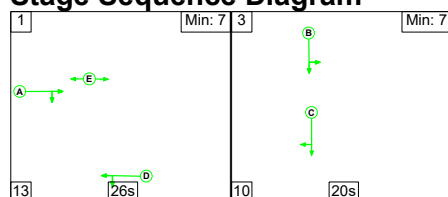
Stage	1	2	3
Duration	29	5	10
Change Point	0	42	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

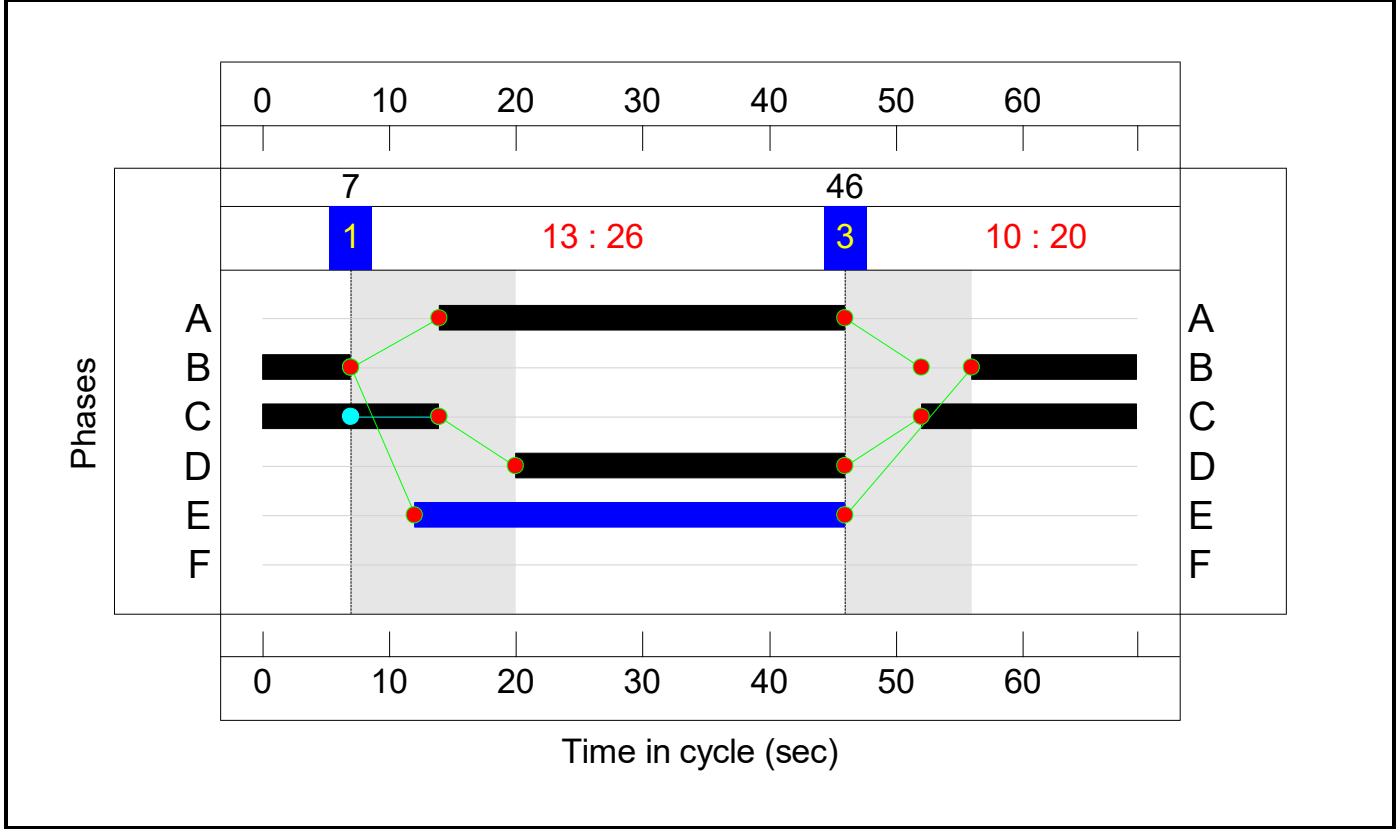
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	26	20
Change Point	7	46

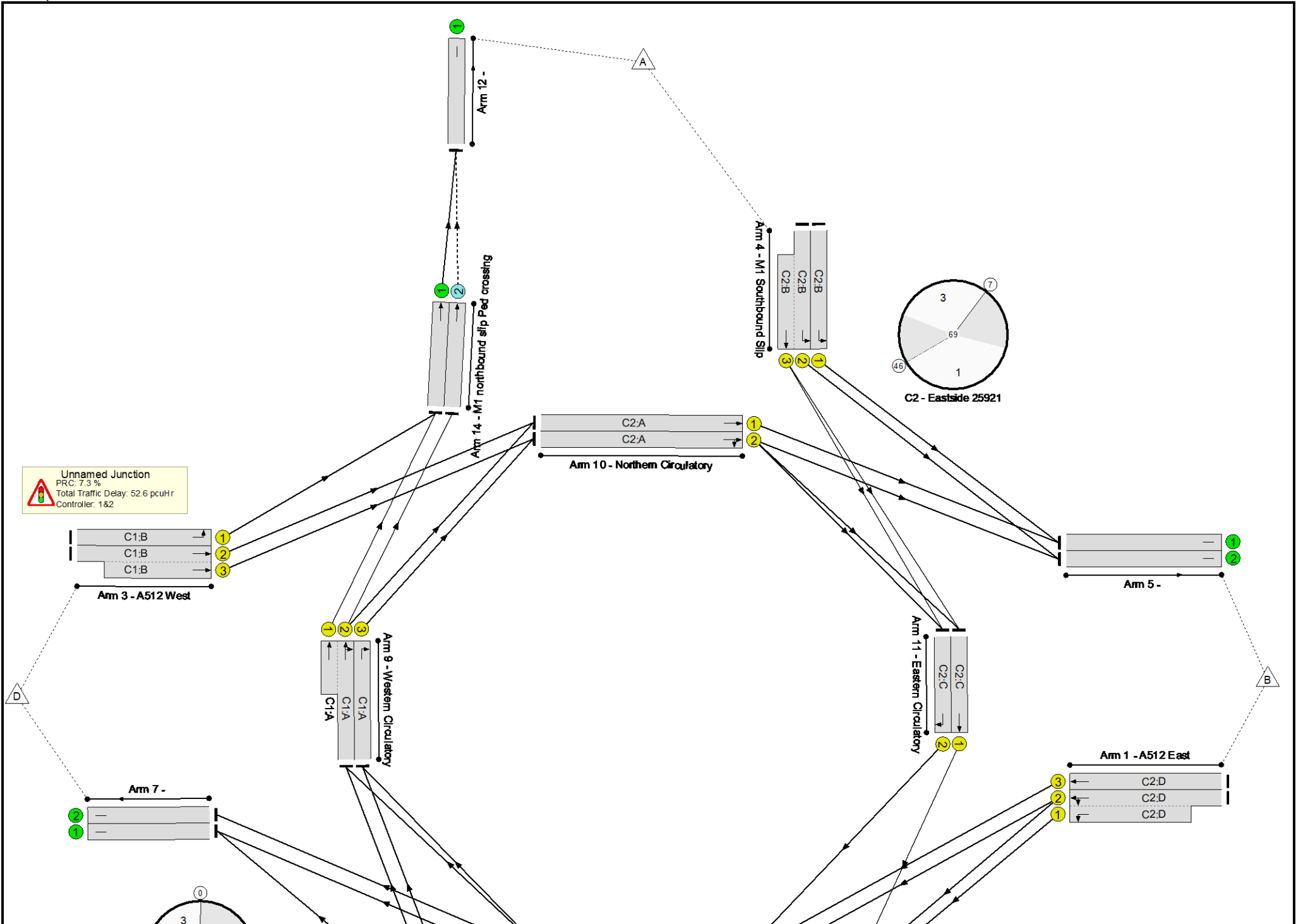
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	83.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	83.9%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	26	-	719	1949:1963	763+280	69.0 : 69.0%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	26	-	557	1955	765	72.8%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	279	1973:1963	315+62	74.1 : 74.1%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	239	1979	315	75.8%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	29	-	365	1926	837	43.6%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	29	-	1075	1937:1941	691+692	77.7 : 77.7%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	20	-	384	1937	590	65.1%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	20	-	953	1945:1948	592+593	77.2 : 83.7%
5/1		U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	1061	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	366	1980	1980	18.5%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	634	0.0%
7/1		U	N/A	N/A	-		-	-	-	572	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	526	1961	1336	39.4%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1053	1942	1323	79.6%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	28	-	790	1926:1941	363+633	79.4 : 79.4%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	28	-	239	1932	812	29.4%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	32	-	770	1953	934	82.4%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	32	-	777	1937	926	83.9%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	31	-	173	1997	926	18.7%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	31	-	496	1994	925	53.6%
12/1		U	N/A	N/A	-		-	-	-	922	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	366	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	867	1940	1940	44.7%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	55	1940	524	10.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	55	0	0	31.8	20.8	0.0	52.6	-	-	-	-
Unnamed Junction	-	-	55	0	0	31.8	20.8	0.0	52.6	-	-	-	-
1/2+1/1	719	719	-	-	-	3.3	1.1	-	4.4	22.1	8.3	1.1	9.4
1/3	557	557	-	-	-	2.8	1.3	-	4.1	26.4	9.0	1.3	10.3
2/2+2/1	279	279	-	-	-	2.1	1.4	-	3.5	45.1	4.2	1.4	5.6
2/3	239	239	-	-	-	1.8	1.5	-	3.3	50.4	4.3	1.5	5.8
3/1	365	365	-	-	-	1.4	0.4	-	1.8	17.4	4.9	0.4	5.3
3/2+3/3	1075	1075	-	-	-	4.6	1.7	-	6.3	21.0	7.9	1.7	9.6
4/1	384	384	-	-	-	2.2	0.9	-	3.1	29.5	6.3	0.9	7.2
4/2+4/3	953	953	-	-	-	5.9	2.0	-	7.9	29.8	8.8	2.0	10.8
5/1	1154	1154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1061	1061	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	366	366	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	572	572	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	526	526	-	-	-	0.6	0.3	-	1.0	6.7	2.5	0.3	2.8
8/2	1053	1053	-	-	-	0.8	1.9	-	2.8	9.4	5.4	1.9	7.4
9/2+9/1	790	790	-	-	-	2.0	1.9	-	3.9	17.9	10.1	1.9	12.0
9/3	239	239	-	-	-	0.2	0.2	-	0.4	5.6	0.3	0.2	0.5
10/1	770	770	-	-	-	1.6	2.3	-	3.9	18.1	6.7	2.3	9.0
10/2	777	777	-	-	-	1.7	2.5	-	4.2	19.3	6.8	2.5	9.3
11/1	173	173	-	-	-	0.7	0.1	-	0.8	16.1	3.2	0.1	3.3
11/2	496	496	-	-	-	0.1	0.6	-	0.7	5.3	0.3	0.6	0.9
12/1	922	922	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

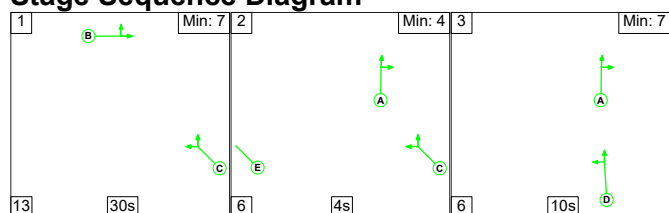
14/1	867	867	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
14/2	55	55	55	0	0	0.0	0.1	-	0.1	3.8	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		13.1	Total Delay for Signalled Lanes (pcuHr):		22.92	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		7.3	Total Delay for Signalled Lanes (pcuHr):		29.07	Cycle Time (s):		69		
			PRC Over All Lanes (%):		7.3	Total Delay Over All Lanes(pcuHr):		52.57					

Full Input Data And Results

Scenario 4: '2028 Without Development Flows (PM)' (FG4: '2028 Without Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

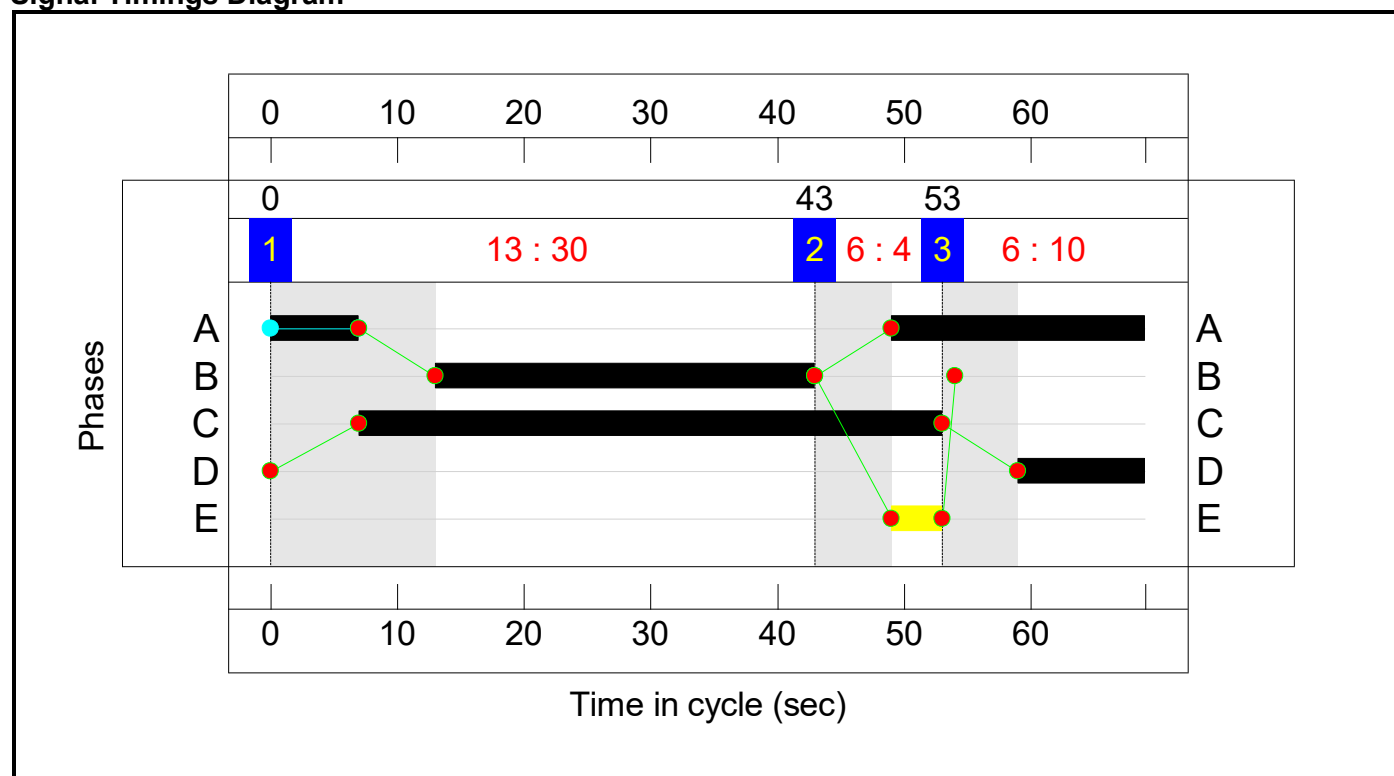
Stage Sequence Diagram



Stage Timings

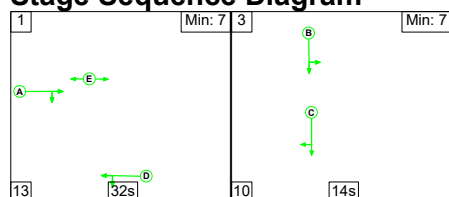
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

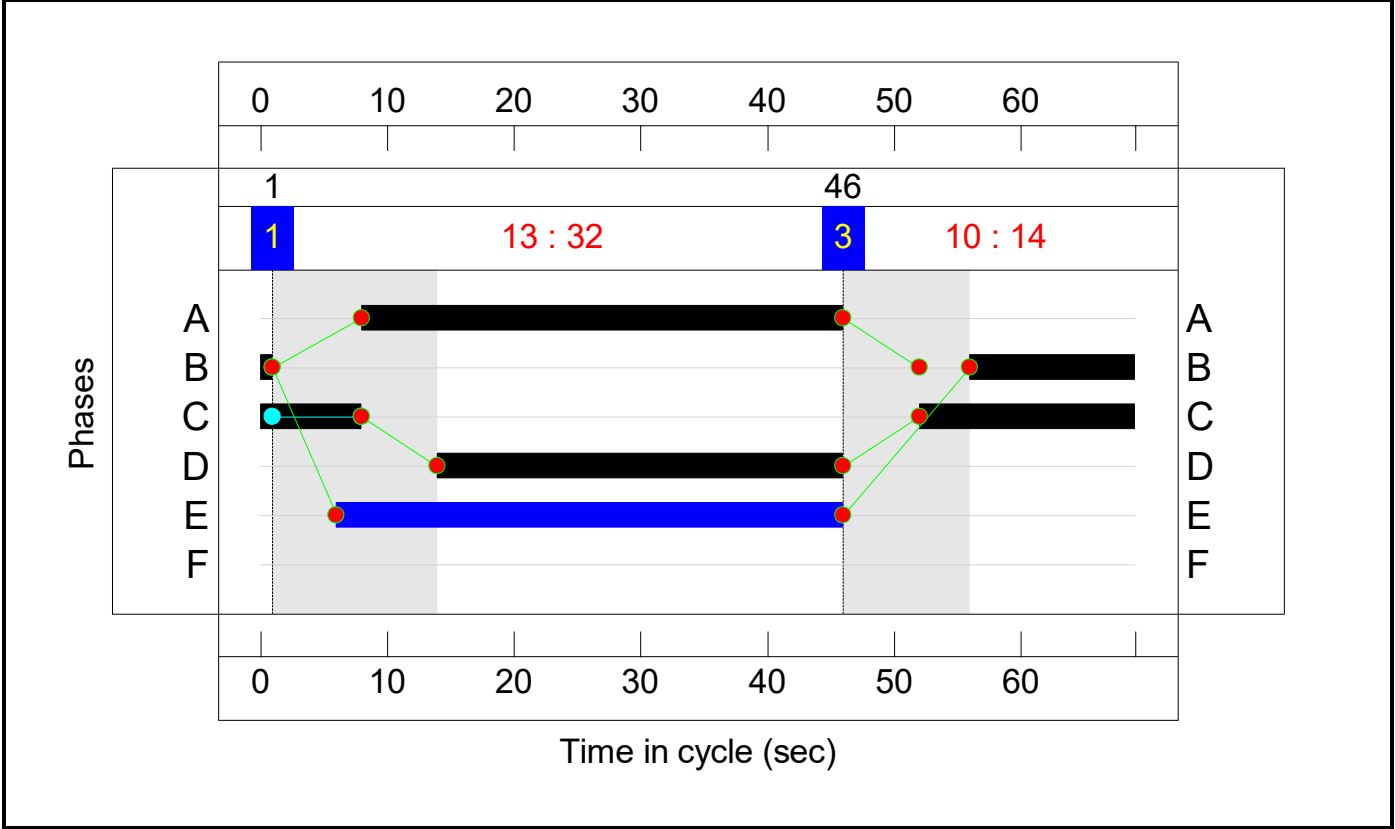
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	32	14
Change Point	1	46

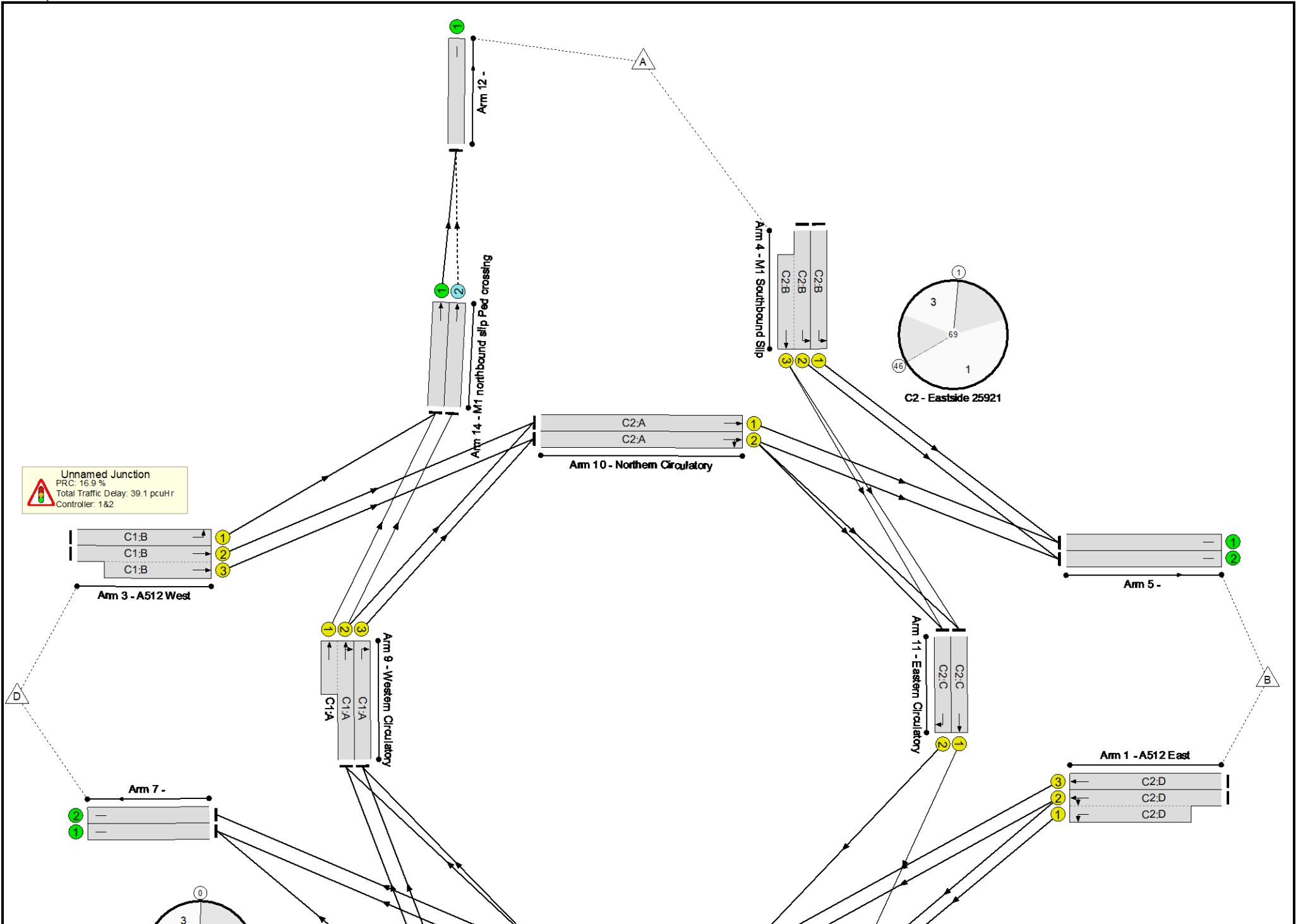
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	32	-	1066	1949:1963	889+495	77.0 : 77.0%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	32	-	596	1955	935	63.7%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	244	1973:1963	47+313	67.7 : 67.7%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	197	1979	315	62.4%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	351	1926	865	40.6%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	899	1937:1941	708+700	63.8 : 63.8%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	14	-	238	1937	421	56.5%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	14	-	640	1945:1948	423+423	75.7 : 75.6%
5/1		U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	772	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	573	1980	1980	28.9%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	589	0.0%
7/1		U	N/A	N/A	-		-	-	-	897	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	685	1961	1336	51.3%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	916	1940	1321	69.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	564	1926:1941	170+712	63.9 : 63.9%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	197	1932	784	25.1%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	38	-	484	1953	1104	43.8%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	38	-	644	1937	1095	58.8%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	25	-	192	1997	752	25.5%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	25	-	320	1994	751	42.6%
12/1		U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	806	1940	1940	41.5%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	77	1940	538	14.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	77	0	0	26.4	12.8	0.0	39.1	-	-	-	-
Unnamed Junction	-	-	77	0	0	26.4	12.8	0.0	39.1	-	-	-	-
1/2+1/1	1066	1066	-	-	-	4.0	1.7	-	5.6	19.1	10.5	1.7	12.1
1/3	596	596	-	-	-	2.2	0.9	-	3.1	18.8	8.4	0.9	9.3
2/2+2/1	244	244	-	-	-	1.8	1.0	-	2.9	42.2	3.8	1.0	4.9
2/3	197	197	-	-	-	1.5	0.8	-	2.3	42.1	3.5	0.8	4.3
3/1	351	351	-	-	-	1.2	0.3	-	1.6	16.3	4.5	0.3	4.8
3/2+3/3	899	899	-	-	-	3.4	0.9	-	4.3	17.1	6.2	0.9	7.0
4/1	238	238	-	-	-	1.6	0.6	-	2.2	33.9	4.0	0.6	4.7
4/2+4/3	640	640	-	-	-	4.5	1.5	-	6.0	33.9	5.7	1.5	7.2
5/1	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	772	772	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	573	573	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	897	897	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	685	685	-	-	-	0.7	0.5	-	1.2	6.5	2.7	0.5	3.3
8/2	916	916	-	-	-	0.6	1.1	-	1.7	6.8	3.3	1.1	4.5
9/2+9/1	564	564	-	-	-	2.0	0.9	-	2.9	18.4	9.3	0.9	10.2
9/3	197	197	-	-	-	0.1	0.2	-	0.3	5.0	0.2	0.2	0.4
10/1	484	484	-	-	-	0.8	0.4	-	1.2	9.0	2.4	0.4	2.8
10/2	644	644	-	-	-	0.8	0.7	-	1.6	8.7	2.7	0.7	3.4
11/1	192	192	-	-	-	0.9	0.2	-	1.0	19.4	3.6	0.2	3.8
11/2	320	320	-	-	-	0.1	0.4	-	0.5	5.8	0.2	0.4	0.6
12/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

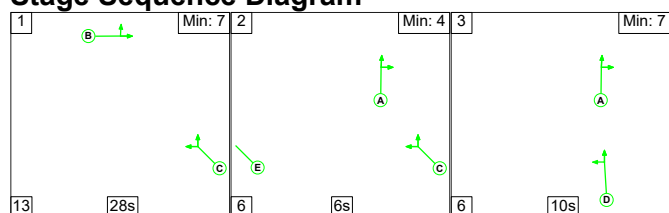
14/1	806	806	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
14/2	77	77	77	0	0	0.0	0.1	-	0.1	3.9	0.4	0.1	0.4
<div> <div> C1 - Westside 25911 C2 - Eastside 25921 </div> <div> PRC for Signalled Lanes (%): 29.8 PRC for Signalled Lanes (%): 16.9 PRC Over All Lanes (%): 16.9 </div> <div> Total Delay for Signalled Lanes (pcuHr): 17.16 Total Delay for Signalled Lanes (pcuHr): 21.34 Total Delay Over All Lanes(pcuHr): 39.14 </div> <div> Cycle Time (s): 69 Cycle Time (s): 69 </div> </div>													

Full Input Data And Results

Scenario 5: '2028 With Development Flows (AM)' (FG5: '2028 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

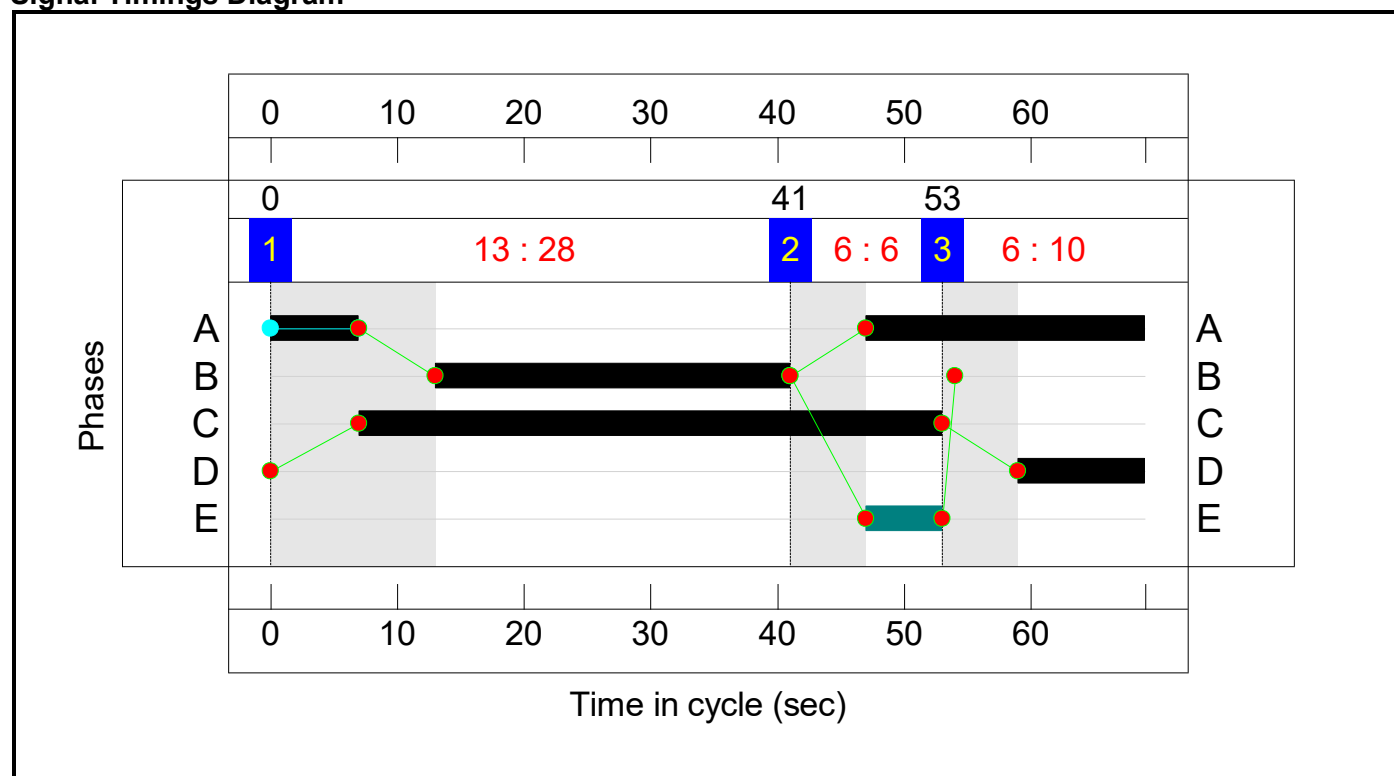
Stage Sequence Diagram



Stage Timings

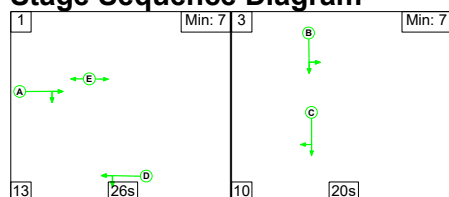
Stage	1	2	3
Duration	28	6	10
Change Point	0	41	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

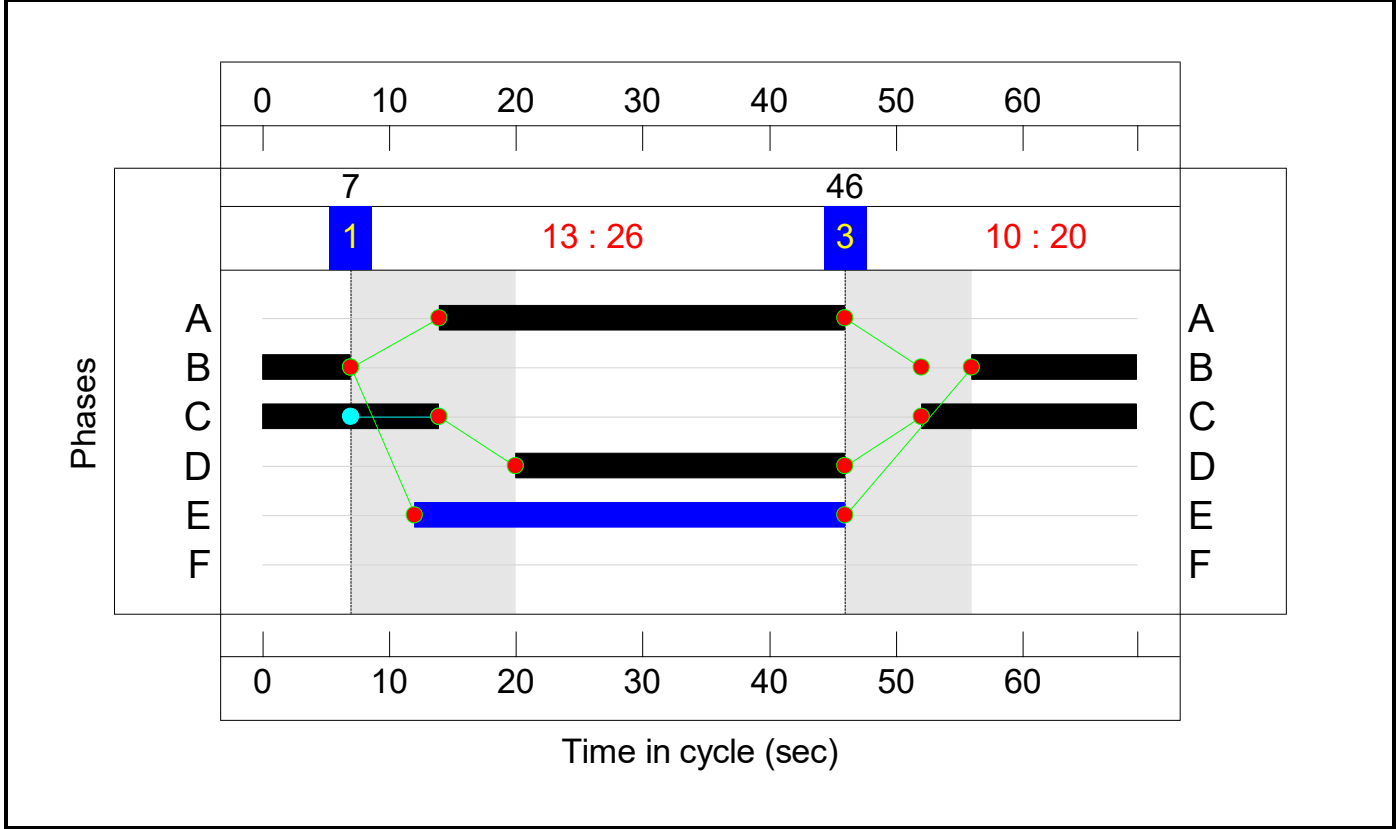
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	26	20
Change Point	7	46

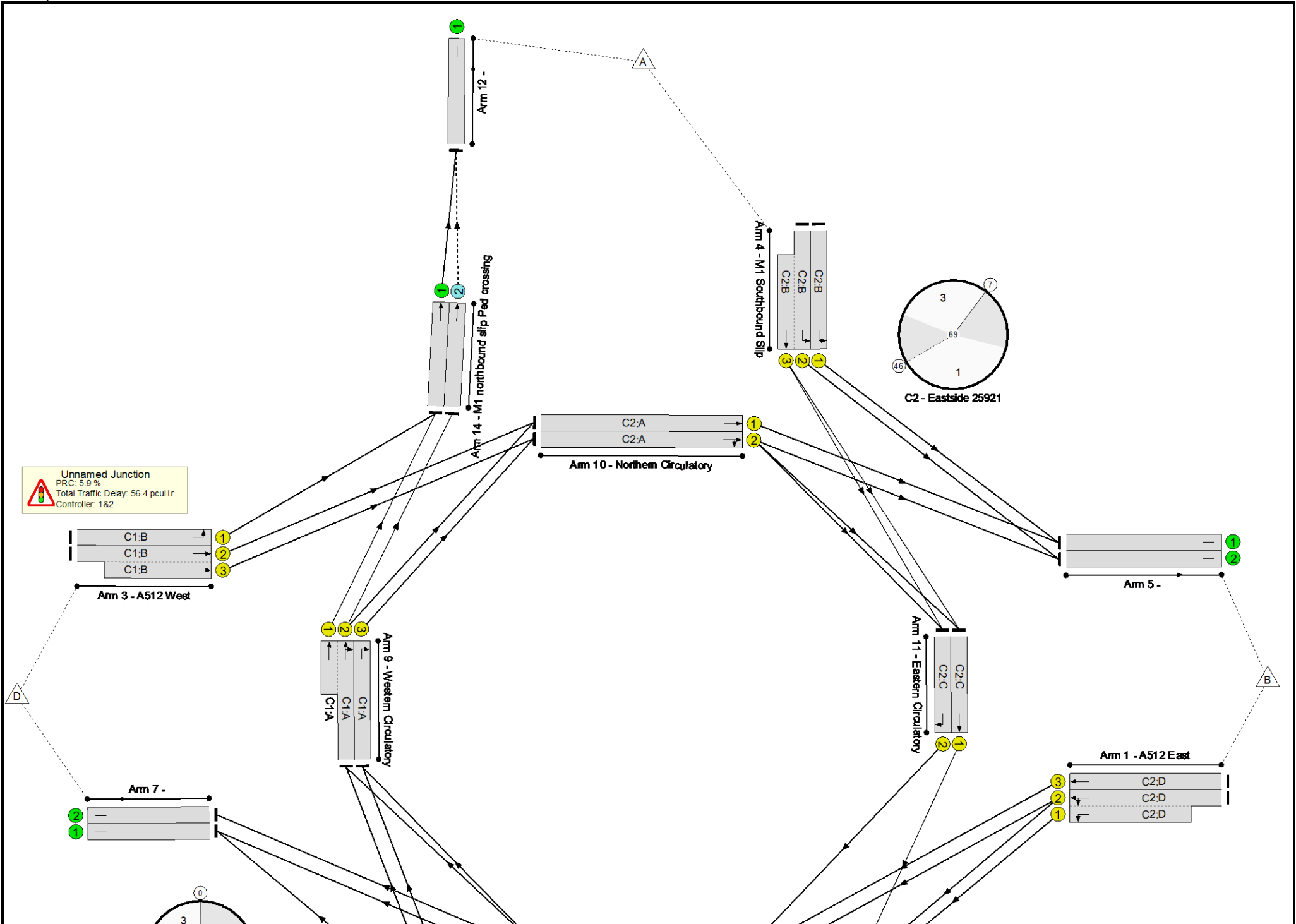
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	85.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	85.0%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	26	-	738	1949:1963	763+276	71.1 : 71.1%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	26	-	598	1955	765	78.2%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	271	1973:1963	315+68	70.9 : 70.9%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	234	1979	315	74.2%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	28	-	383	1926	809	47.3%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	28	-	1111	1937:1941	680+674	82.1 : 82.1%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	20	-	392	1937	590	66.5%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	20	-	964	1945:1948	592+593	78.7 : 84.0%
5/1		U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	369	1980	1980	18.6%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	634	0.0%
7/1		U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	542	1961	1336	40.6%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1096	1941	1322	82.9%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	29	-	821	1926:1941	335+670	81.7 : 81.7%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	29	-	234	1932	840	27.9%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	32	-	781	1953	934	83.6%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	32	-	787	1937	926	85.0%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	31	-	173	1997	926	18.7%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	31	-	498	1994	925	53.9%
12/1		U	N/A	N/A	-		-	-	-	981	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	930	1940	1940	47.9%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	51	1940	510	10.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	51	0	0	33.4	23.0	0.0	56.4	-	-	-	-
Unnamed Junction	-	-	51	0	0	33.4	23.0	0.0	56.4	-	-	-	-
1/2+1/1	738	738	-	-	-	3.4	1.2	-	4.7	22.7	8.7	1.2	10.0
1/3	598	598	-	-	-	3.1	1.8	-	4.8	29.0	10.0	1.8	11.7
2/2+2/1	271	271	-	-	-	2.0	1.2	-	3.2	42.9	4.0	1.2	5.2
2/3	234	234	-	-	-	1.8	1.4	-	3.2	49.0	4.2	1.4	5.6
3/1	383	383	-	-	-	1.5	0.4	-	2.0	18.7	5.2	0.4	5.7
3/2+3/3	1111	1111	-	-	-	5.0	2.3	-	7.3	23.5	8.7	2.3	10.9
4/1	392	392	-	-	-	2.3	1.0	-	3.3	30.0	6.5	1.0	7.5
4/2+4/3	964	964	-	-	-	5.9	2.1	-	8.1	30.2	8.9	2.1	11.0
5/1	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	369	369	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	542	542	-	-	-	0.7	0.3	-	1.0	6.9	2.6	0.3	3.0
8/2	1096	1096	-	-	-	1.1	2.4	-	3.4	11.3	9.2	2.4	11.6
9/2+9/1	821	821	-	-	-	2.2	2.2	-	4.4	19.4	11.0	2.2	13.2
9/3	234	234	-	-	-	0.2	0.2	-	0.3	5.3	0.3	0.2	0.5
10/1	781	781	-	-	-	1.7	2.5	-	4.1	19.0	6.6	2.5	9.1
10/2	787	787	-	-	-	1.7	2.7	-	4.4	20.2	6.8	2.7	9.5
11/1	173	173	-	-	-	0.6	0.1	-	0.8	15.9	3.2	0.1	3.3
11/2	498	498	-	-	-	0.2	0.6	-	0.7	5.3	0.3	0.6	0.9
12/1	981	981	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

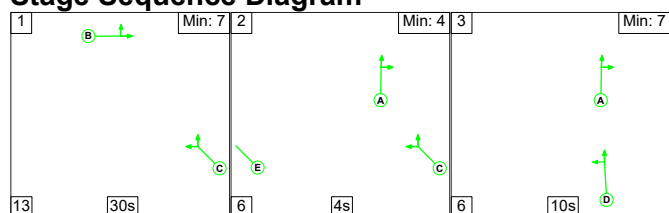
14/1	930	930	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
14/2	51	51	51	0	0	0.0	0.1	-	0.1	3.9	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		8.6	Total Delay for Signalled Lanes (pcuHr):		24.90	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		5.9	Total Delay for Signalled Lanes (pcuHr):		30.85	Cycle Time (s):		69		
			PRC Over All Lanes (%):		5.9	Total Delay Over All Lanes(pcuHr):		56.38					

Full Input Data And Results

Scenario 6: '2028 With Development Flows (PM)' (FG6: '2028 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

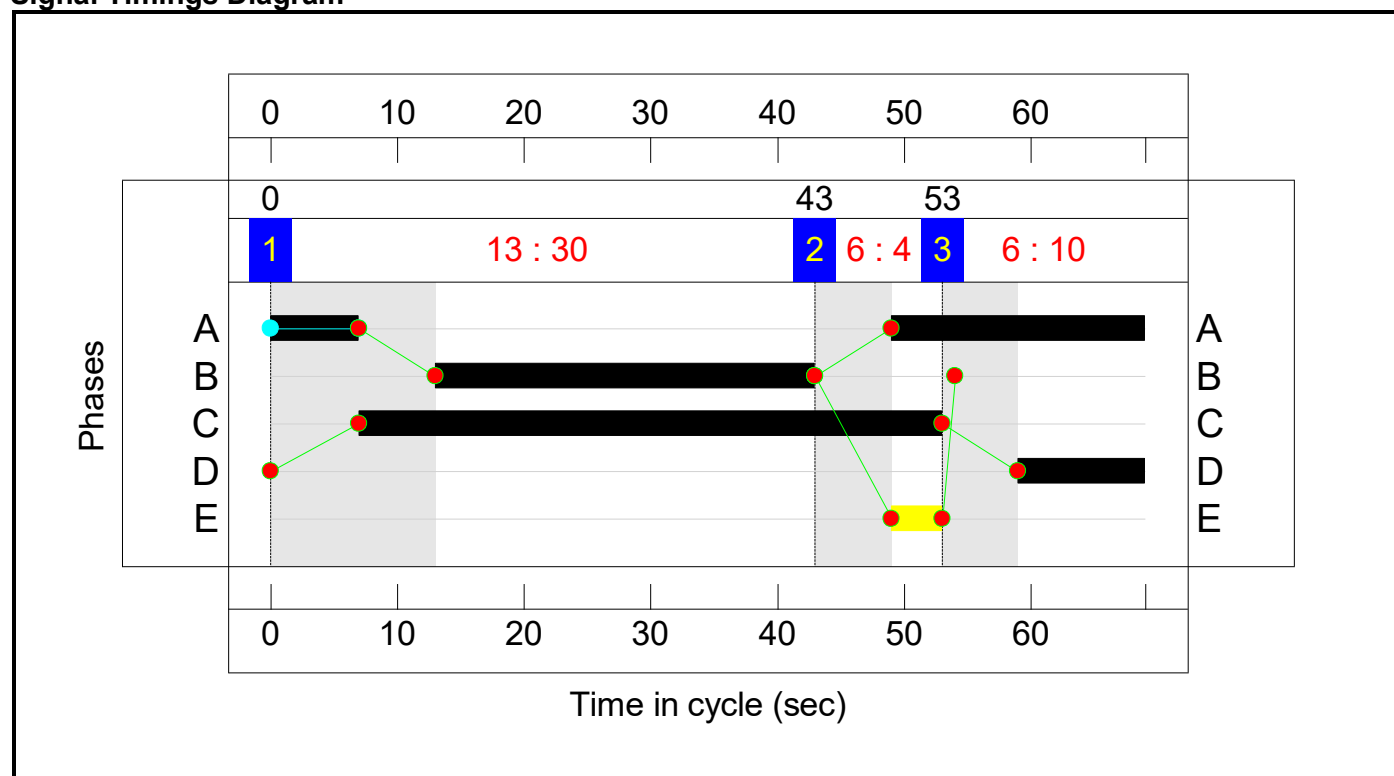
Stage Sequence Diagram



Stage Timings

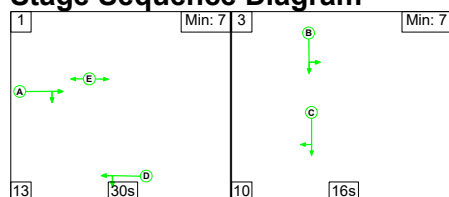
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

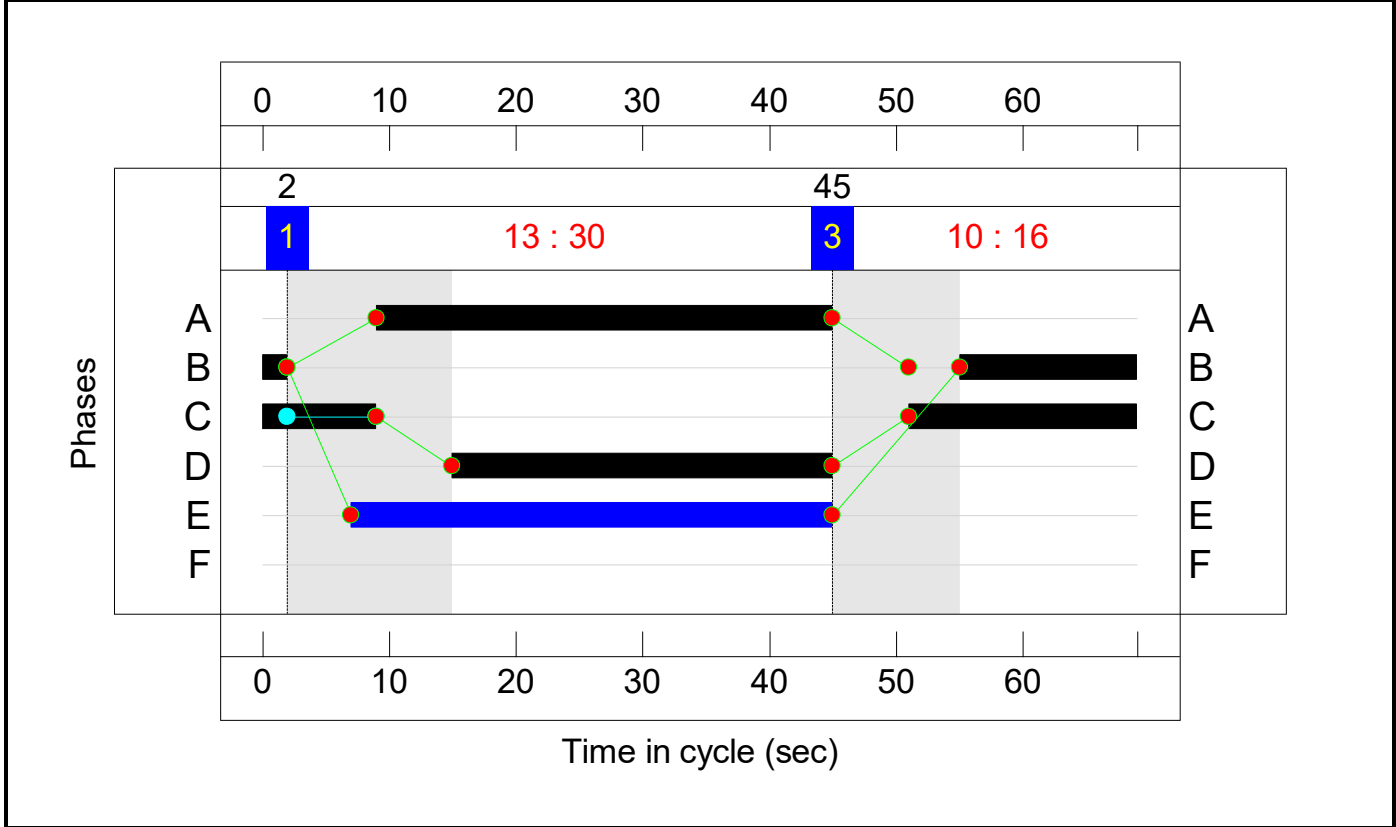
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	30	16
Change Point	2	45

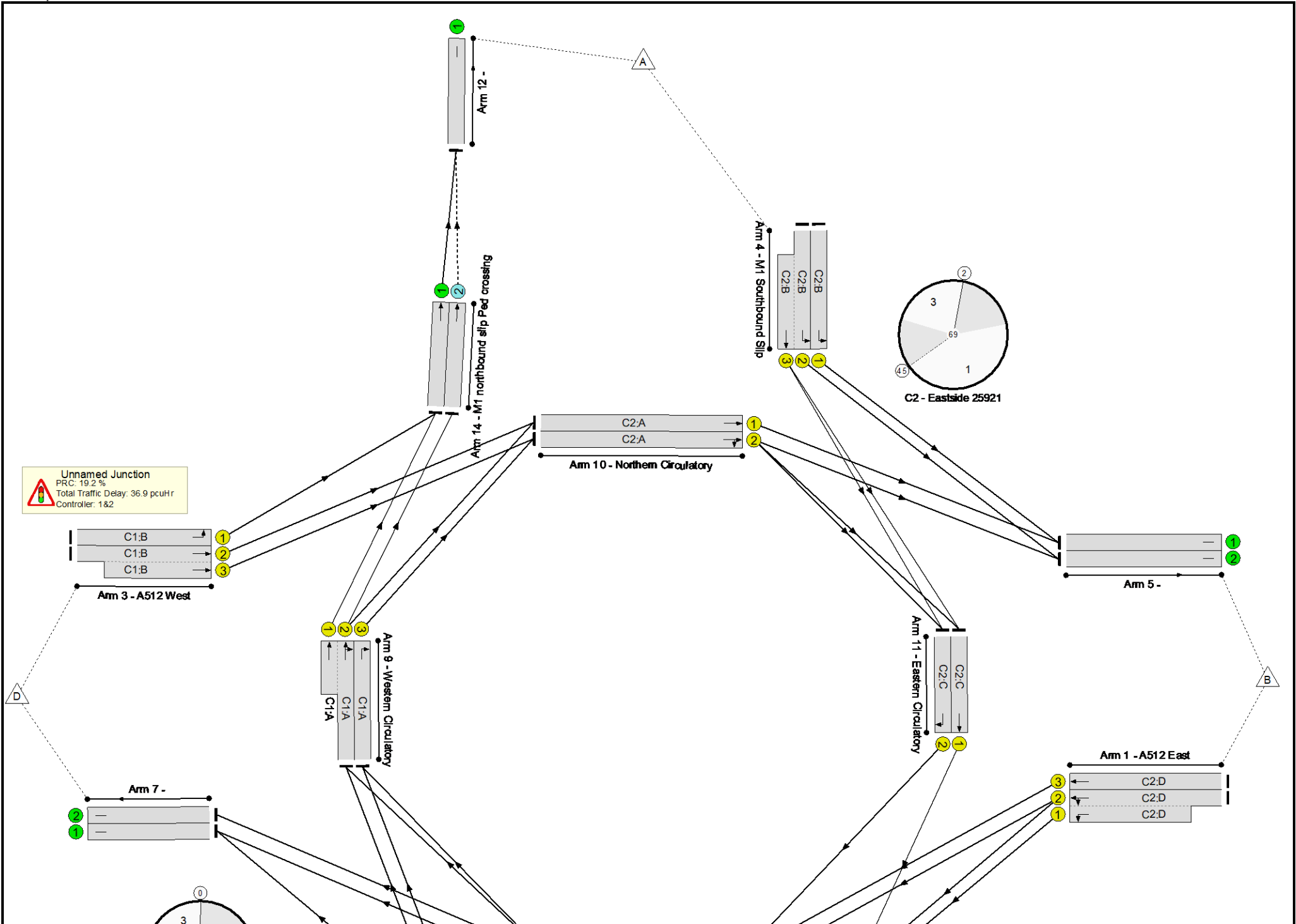
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	75.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	75.5%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	30	-	996	1949:1963	853+466	75.5 : 75.5%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	30	-	549	1955	878	62.5%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	218	1973:1963	13+313	66.8 : 66.8%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	197	1979	315	62.4%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	352	1926	865	40.7%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	844	1937:1941	711+684	60.5 : 60.5%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	16	-	244	1937	477	51.1%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	16	-	680	1945:1948	479+480	70.7 : 71.1%
5/1		U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	757	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	545	1980	1980	27.5%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	595	0.0%
7/1		U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	644	1961	1336	48.2%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	890	1941	1322	67.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	497	1926:1941	161+717	56.6 : 56.6%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	197	1932	784	25.1%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	36	-	439	1953	1047	41.9%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	36	-	611	1937	1039	58.8%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	27	-	193	1997	810	23.8%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	27	-	341	1994	809	42.1%
12/1		U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	758	1940	1940	39.1%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	82	1940	548	15.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	82	0	0	25.4	11.5	0.0	36.9	-	-	-	-
Unnamed Junction	-	-	82	0	0	25.4	11.5	0.0	36.9	-	-	-	-
1/2+1/1	996	996	-	-	-	4.0	1.5	-	5.6	20.1	10.0	1.5	11.5
1/3	549	549	-	-	-	2.2	0.8	-	3.0	20.0	7.9	0.8	8.8
2/2+2/1	218	218	-	-	-	1.6	1.0	-	2.6	43.5	3.7	1.0	4.7
2/3	197	197	-	-	-	1.5	0.8	-	2.3	42.1	3.5	0.8	4.3
3/1	352	352	-	-	-	1.3	0.3	-	1.6	16.3	4.5	0.3	4.8
3/2+3/3	844	844	-	-	-	3.1	0.8	-	3.9	16.6	5.7	0.8	6.5
4/1	244	244	-	-	-	1.5	0.5	-	2.0	30.1	4.0	0.5	4.5
4/2+4/3	680	680	-	-	-	4.5	1.2	-	5.7	30.1	6.0	1.2	7.2
5/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	757	757	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	545	545	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	644	644	-	-	-	0.6	0.5	-	1.1	6.2	2.5	0.5	2.9
8/2	890	890	-	-	-	0.5	1.0	-	1.6	6.3	3.3	1.0	4.3
9/2+9/1	497	497	-	-	-	1.6	0.6	-	2.3	16.4	8.3	0.6	8.9
9/3	197	197	-	-	-	0.1	0.2	-	0.3	5.0	0.2	0.2	0.4
10/1	439	439	-	-	-	0.9	0.4	-	1.2	10.2	2.4	0.4	2.8
10/2	611	611	-	-	-	0.9	0.7	-	1.6	9.5	2.9	0.7	3.6
11/1	193	193	-	-	-	0.8	0.2	-	1.0	18.7	3.6	0.2	3.8
11/2	341	341	-	-	-	0.1	0.4	-	0.5	5.0	0.2	0.4	0.6
12/1	840	840	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

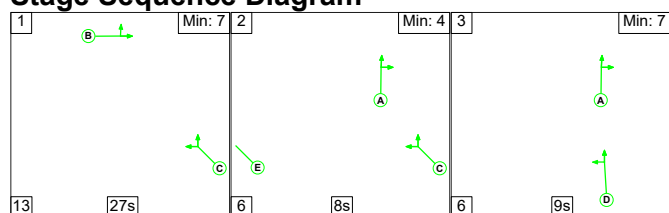
14/1	758	758	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	82	82	82	0	0	0.0	0.1	-	0.1	4.0	0.6	0.1	0.7
C1 - Westside 25911			PRC for Signalled Lanes (%):		33.7	Total Delay for Signalled Lanes (pcuHr):		15.64	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		19.2	Total Delay for Signalled Lanes (pcuHr):		20.68	Cycle Time (s):		69		
			PRC Over All Lanes (%):		19.2	Total Delay Over All Lanes(pcuHr):		36.92					

Full Input Data And Results

Scenario 7: '2038 Without Development Flows (AM)' (FG7: '2038 Without Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

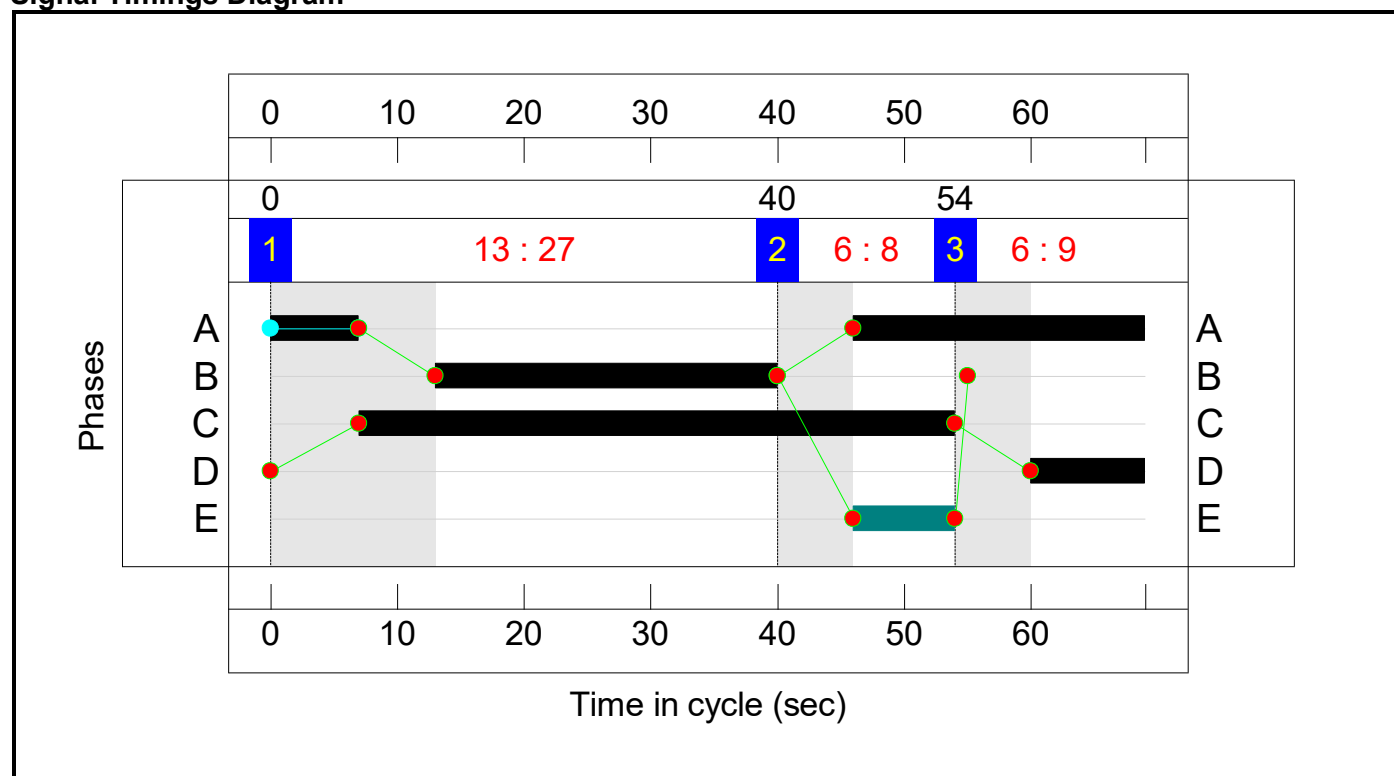
Stage Sequence Diagram



Stage Timings

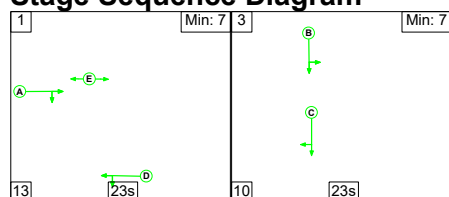
Stage	1	2	3
Duration	27	8	9
Change Point	0	40	54

Signal Timings Diagram



Controller :C2 - Eastside 25921

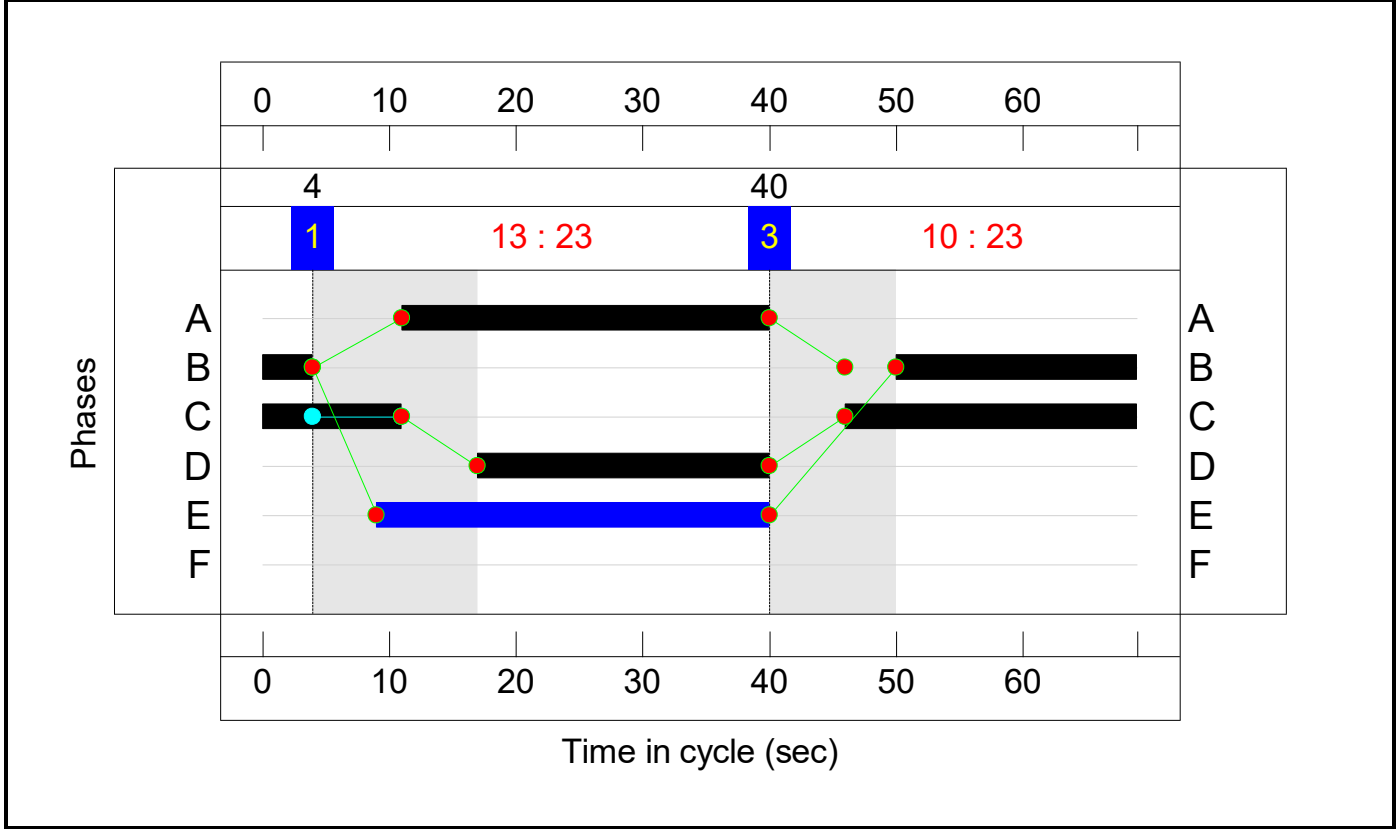
Stage Sequence Diagram



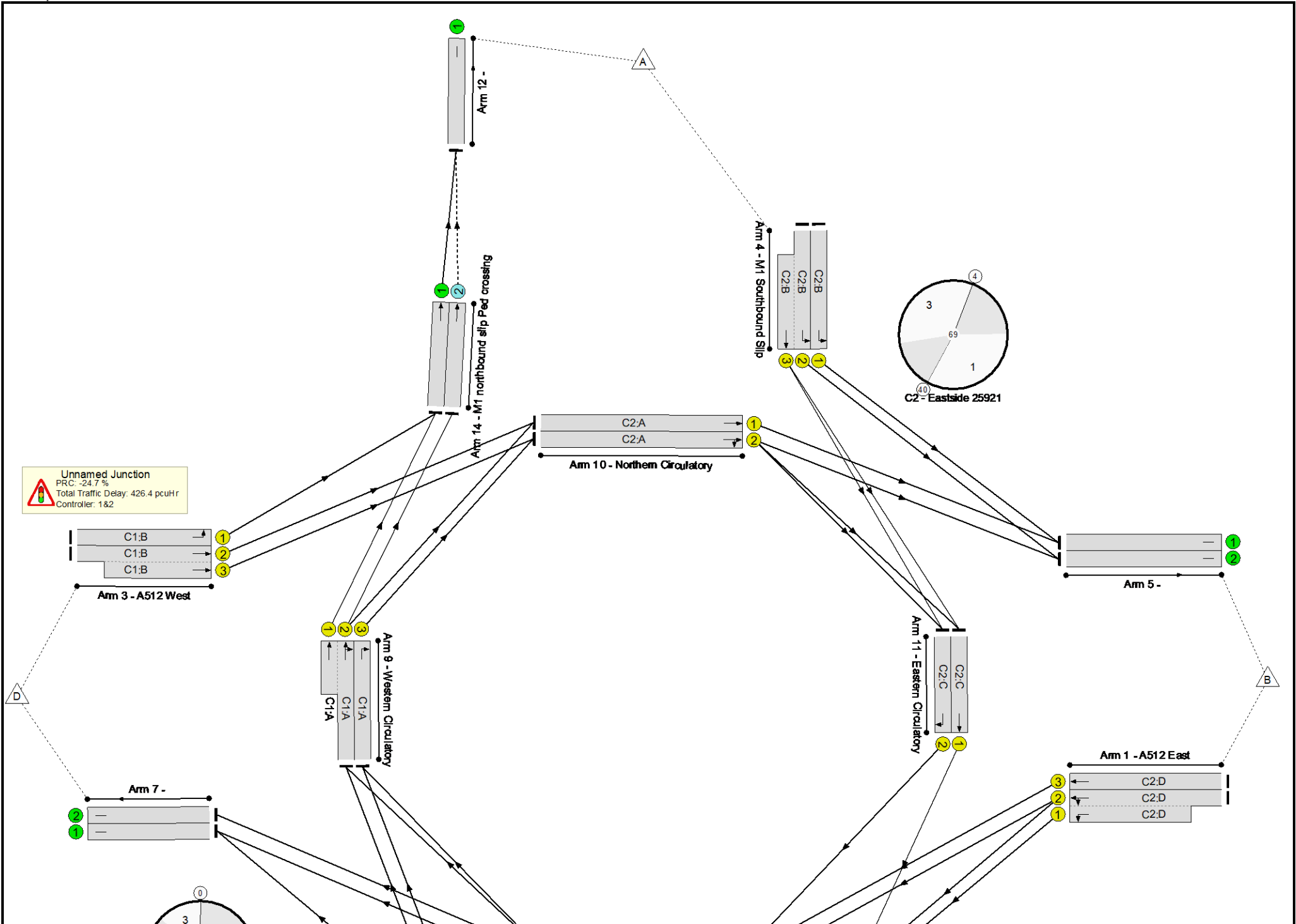
Stage Timings

Stage	1	3
Duration	23	23
Change Point	4	40

Signal Timings Diagram



Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	112.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.2%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	23	-	989	1949:1963	678+256	105.9 : 105.9%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	23	-	689	1955	680	101.3%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	9	-	353	1973:1963	286+56	103.2 : 103.2%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	9	-	295	1979	287	102.9%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	27	-	472	1926	782	60.4%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	27	-	1455	1937:1941	666+658	109.9 : 109.9%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	23	-	727	1937	674	107.9%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	23	-	920	1945:1948	163+678	109.5 : 109.5%
5/1		U	N/A	N/A	-		-	-	-	1754	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	911	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	556	1980	1980	24.9%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	607	0.0%
7/1		U	N/A	N/A	-		-	-	-	776	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	47	-	718	1961	1364	49.7%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	47	-	1431	1945	1353	100.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	30	-	911	1926:1941	354+683	85.2 : 86.1%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	30	-	295	1932	868	33.0%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	29	-	1027	1953	849	112.1%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	29	-	1018	1937	842	112.2%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	34	-	285	1997	1013	21.9%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	34	-	742	1994	1011	67.0%
12/1		U	N/A	N/A	-		-	-	-	1088	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1072	1940	1940	54.7%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	16	1940	482	3.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	16	0	0	67.5	358.8	0.0	426.4	-	-	-	-
Unnamed Junction	-	-	16	0	0	67.5	358.8	0.0	426.4	-	-	-	-
1/2+1/1	989	949	-	-	-	7.0	34.7	-	41.7	151.8	14.5	34.7	49.3
1/3	689	680	-	-	-	4.6	15.6	-	20.1	105.2	13.4	15.6	28.9
2/2+2/1	353	344	-	-	-	3.0	12.5	-	15.5	158.1	5.7	12.5	18.1
2/3	295	287	-	-	-	2.7	10.9	-	13.6	166.1	5.8	10.9	16.7
3/1	472	472	-	-	-	2.1	0.8	-	2.9	21.9	7.1	0.8	7.8
3/2+3/3	1455	1324	-	-	-	11.6	70.6	-	82.2	203.4	23.8	70.6	94.4
4/1	727	674	-	-	-	6.7	32.3	-	38.9	192.8	15.0	32.3	47.2
4/2+4/3	920	856	-	-	-	7.0	45.1	-	52.0	203.6	15.3	45.1	60.4
5/1	1523	1523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	798	798	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	493	493	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	749	749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	678	678	-	-	-	0.7	0.5	-	1.2	6.3	2.6	0.5	3.1
8/2	1358	1353	-	-	-	2.1	19.6	-	21.7	57.4	26.1	19.6	45.7
9/2+9/1	890	890	-	-	-	2.1	2.9	-	5.0	20.3	11.5	2.9	14.4
9/3	287	287	-	-	-	0.4	0.2	-	0.6	8.1	0.8	0.2	1.0
10/1	952	849	-	-	-	8.1	55.8	-	63.9	241.6	20.2	55.8	76.0
10/2	945	842	-	-	-	8.0	55.6	-	63.6	242.3	20.1	55.6	75.7
11/1	222	222	-	-	-	1.1	0.1	-	1.2	20.3	4.2	0.1	4.3
11/2	678	678	-	-	-	0.4	1.0	-	1.4	7.3	0.8	1.0	1.8
12/1	1076	1076	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

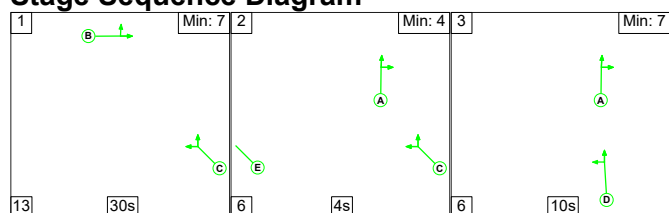
14/1	1060	1060	-	-	-	0.0	0.6	-	0.6	2.0	0.5	0.6	1.1
14/2	16	16	16	0	0	0.0	0.0	-	0.0	3.9	0.0	0.0	0.0
<div> <div> C1 - Westside 25911 C2 - Eastside 25921 </div> <div> PRC for Signalled Lanes (%): -22.1 PRC for Signalled Lanes (%): -24.7 PRC Over All Lanes (%): -24.7 </div> <div> Total Delay for Signalled Lanes (pcuHr): 142.70 Total Delay for Signalled Lanes (pcuHr): 282.91 Total Delay Over All Lanes(pcuHr): 426.39 </div> <div> Cycle Time (s): 69 Cycle Time (s): 69 </div> </div>													

Full Input Data And Results

Scenario 8: '2038 Without Development Flows (PM)' (FG8: '2038 Without Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

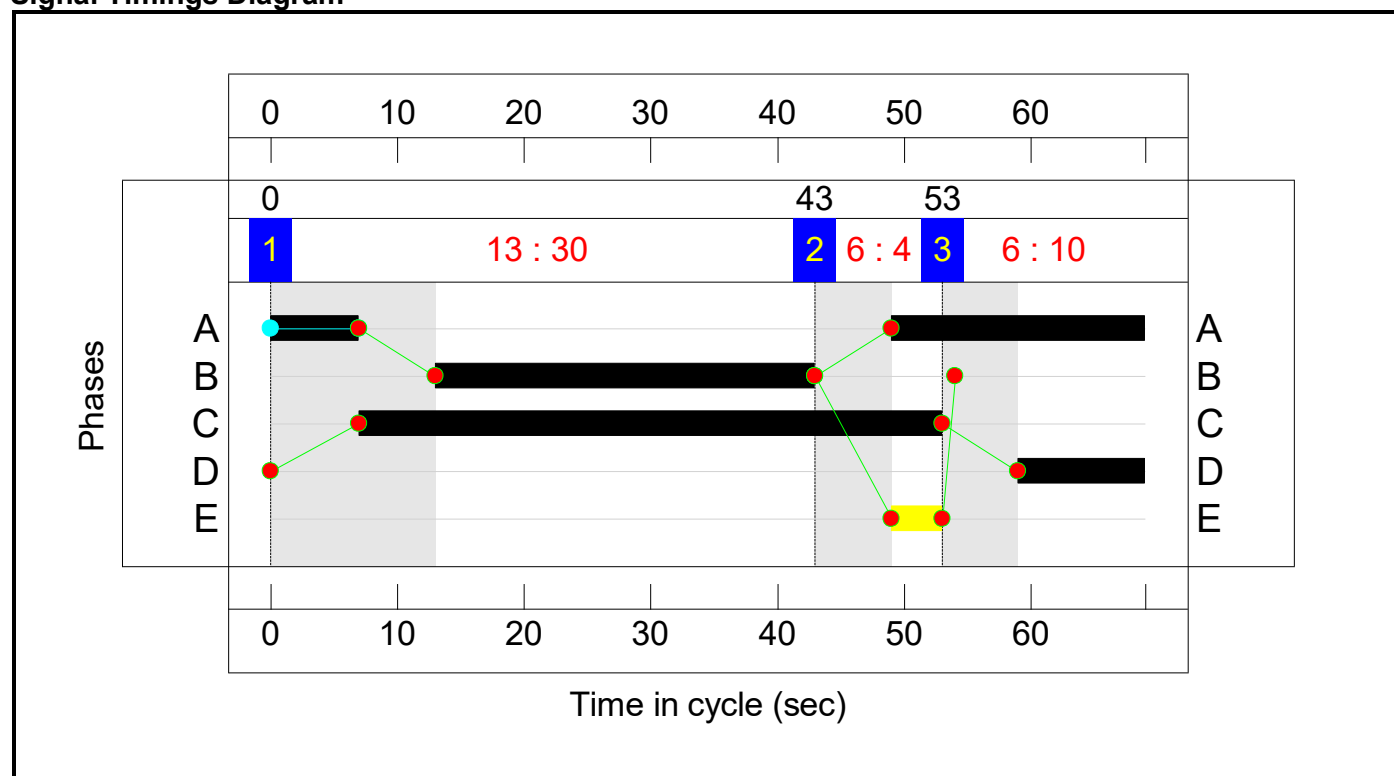
Stage Sequence Diagram



Stage Timings

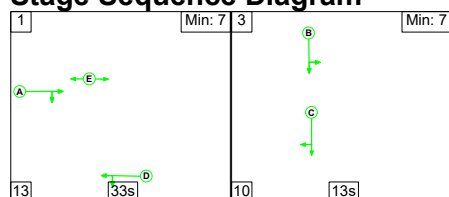
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

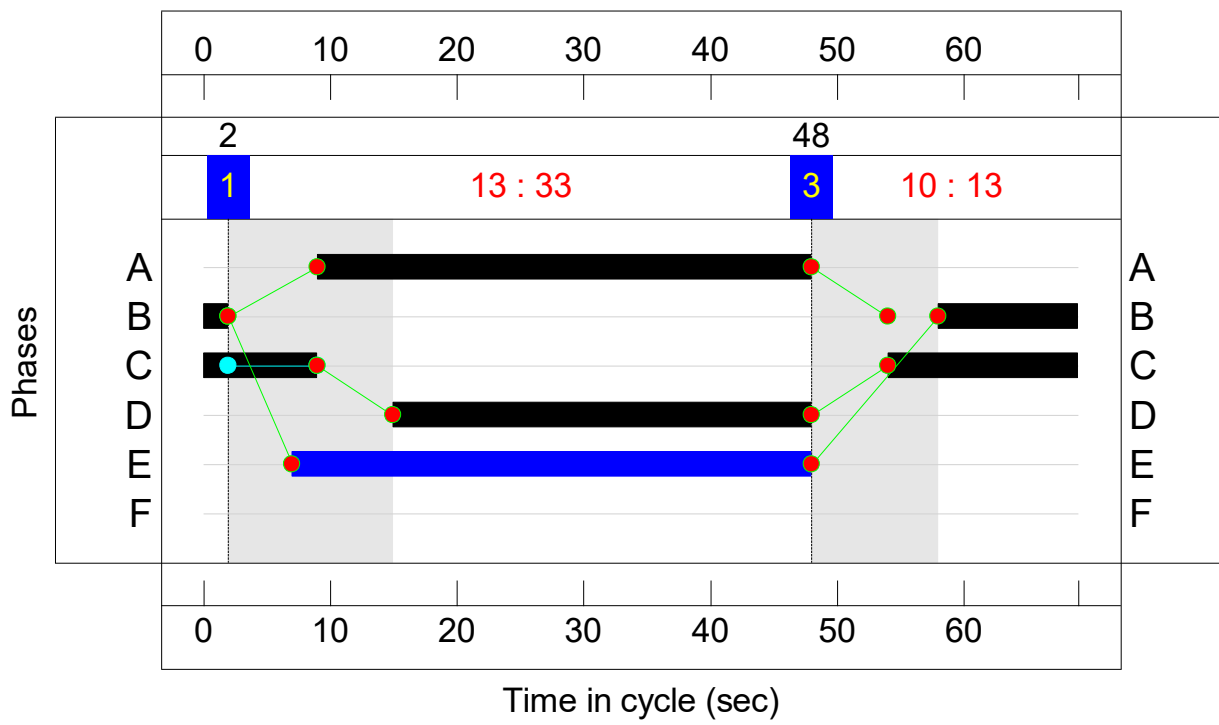
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	33	13
Change Point	2	48

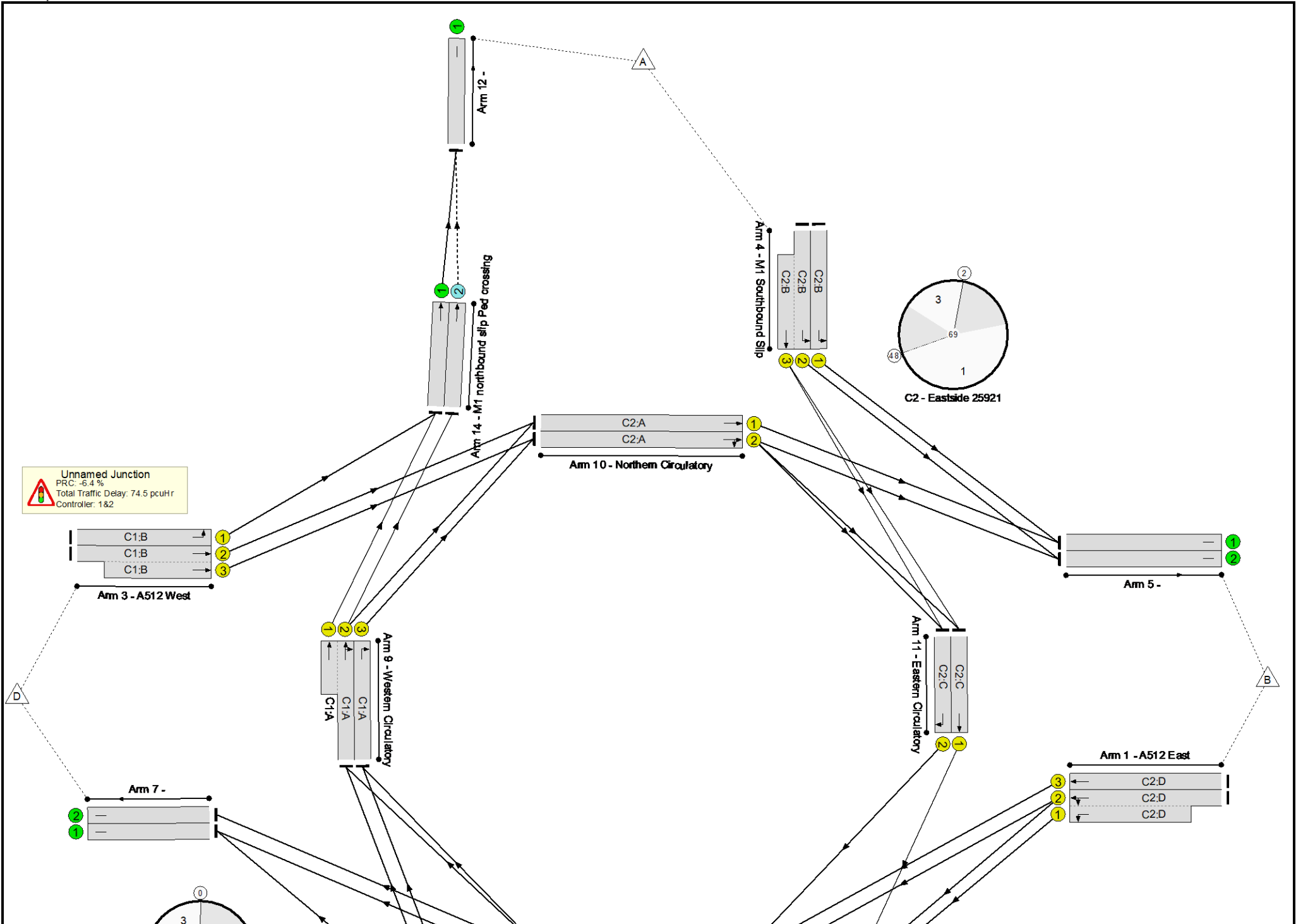
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	95.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	95.8%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	33	-	1307	1949:1963	905+562	89.1 : 89.1%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	33	-	758	1955	963	78.7%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	370	1973:1963	85+313	93.0 : 93.0%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	286	1979	315	90.7%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	456	1926	865	52.7%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	1296	1937:1941	717+636	95.8 : 95.8%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	13	-	269	1937	393	68.4%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	13	-	657	1945:1948	395+395	89.2 : 77.2%
5/1		U	N/A	N/A	-		-	-	-	1035	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	774	1980	1980	39.1%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	545	0.0%
7/1		U	N/A	N/A	-		-	-	-	1097	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	806	1961	1336	60.3%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1063	1939	1321	80.5%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	719	1926:1941	159+719	82.0 : 82.0%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	286	1932	784	36.5%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	39	-	766	1953	1132	67.7%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	39	-	895	1937	1123	79.7%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	24	-	273	1997	724	37.7%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	24	-	305	1994	722	42.2%
12/1		U	N/A	N/A	-		-	-	-	1096	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1045	1940	1940	53.9%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	51	1940	485	10.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	51	0	0	37.5	37.0	0.0	74.5	-	-	-	-
Unnamed Junction	-	-	51	0	0	37.5	37.0	0.0	74.5	-	-	-	-
1/2+1/1	1307	1307	-	-	-	5.0	3.9	-	8.9	24.6	13.2	3.9	17.1
1/3	758	758	-	-	-	3.1	1.8	-	4.9	23.1	12.0	1.8	13.8
2/2+2/1	370	370	-	-	-	2.9	4.9	-	7.8	75.7	5.5	4.9	10.4
2/3	286	286	-	-	-	2.3	3.8	-	6.1	76.9	5.3	3.8	9.2
3/1	456	456	-	-	-	1.7	0.6	-	2.3	18.1	6.2	0.6	6.8
3/2+3/3	1296	1296	-	-	-	5.7	8.7	-	14.4	39.9	13.3	8.7	21.9
4/1	269	269	-	-	-	1.9	1.1	-	3.0	39.7	4.7	1.1	5.8
4/2+4/3	657	657	-	-	-	4.8	2.4	-	7.2	39.5	6.6	2.4	8.9
5/1	1035	1035	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	774	774	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1097	1097	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	806	806	-	-	-	1.3	0.8	-	2.0	9.0	4.5	0.8	5.3
8/2	1063	1063	-	-	-	1.1	2.0	-	3.1	10.6	6.0	2.0	8.1
9/2+9/1	719	719	-	-	-	3.0	2.2	-	5.2	26.1	13.1	2.2	15.3
9/3	286	286	-	-	-	0.3	0.3	-	0.6	7.3	0.5	0.3	0.8
10/1	766	766	-	-	-	1.5	1.0	-	2.6	12.1	4.5	1.0	5.5
10/2	895	895	-	-	-	1.4	1.9	-	3.3	13.3	6.6	1.9	8.5
11/1	273	273	-	-	-	1.4	0.3	-	1.7	21.9	5.2	0.3	5.5
11/2	305	305	-	-	-	0.2	0.4	-	0.5	6.2	0.3	0.4	0.6
12/1	1096	1096	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

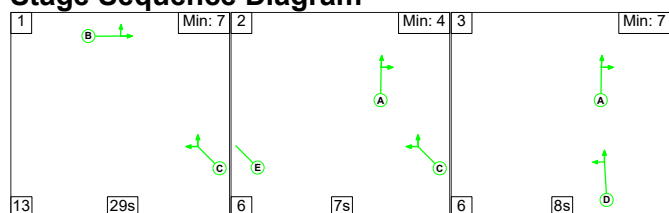
14/1	1045	1045	-	-	-	0.0	0.6	-	0.6	2.0	0.5	0.6	1.1
14/2	51	51	51	0	0	0.0	0.1	-	0.1	4.1	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		-6.4	Total Delay for Signalled Lanes (pcuHr):		41.51	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		0.9	Total Delay for Signalled Lanes (pcuHr):		32.05	Cycle Time (s):		69		
			PRC Over All Lanes (%):		-6.4	Total Delay Over All Lanes(pcuHr):		74.52					

Full Input Data And Results

Scenario 9: '2038 With Development Flows (AM)' (FG9: '2038 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

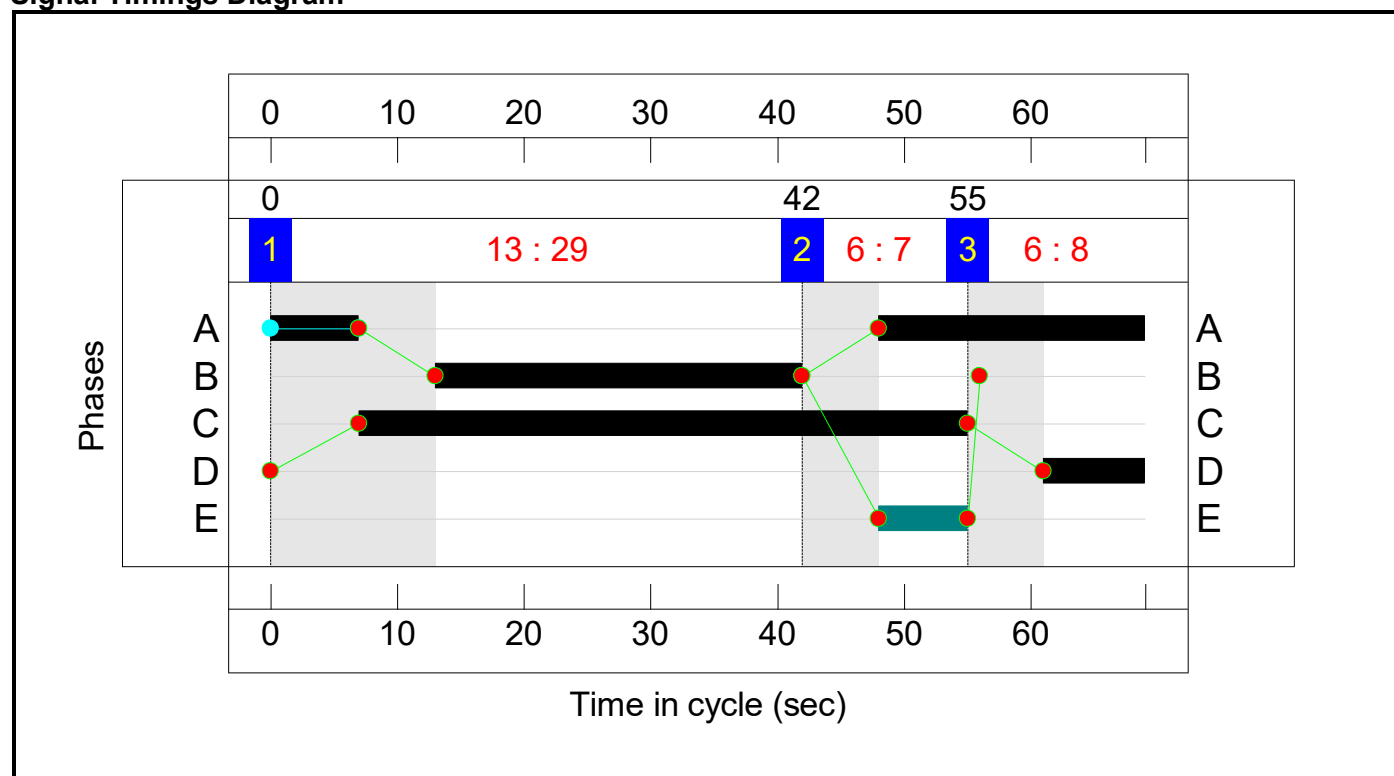
Stage Sequence Diagram



Stage Timings

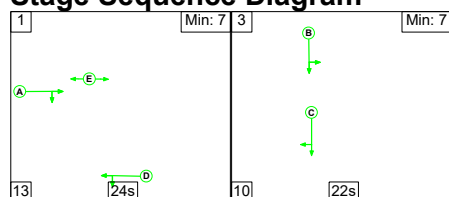
Stage	1	2	3
Duration	29	7	8
Change Point	0	42	55

Signal Timings Diagram



Controller :C2 - Eastside 25921

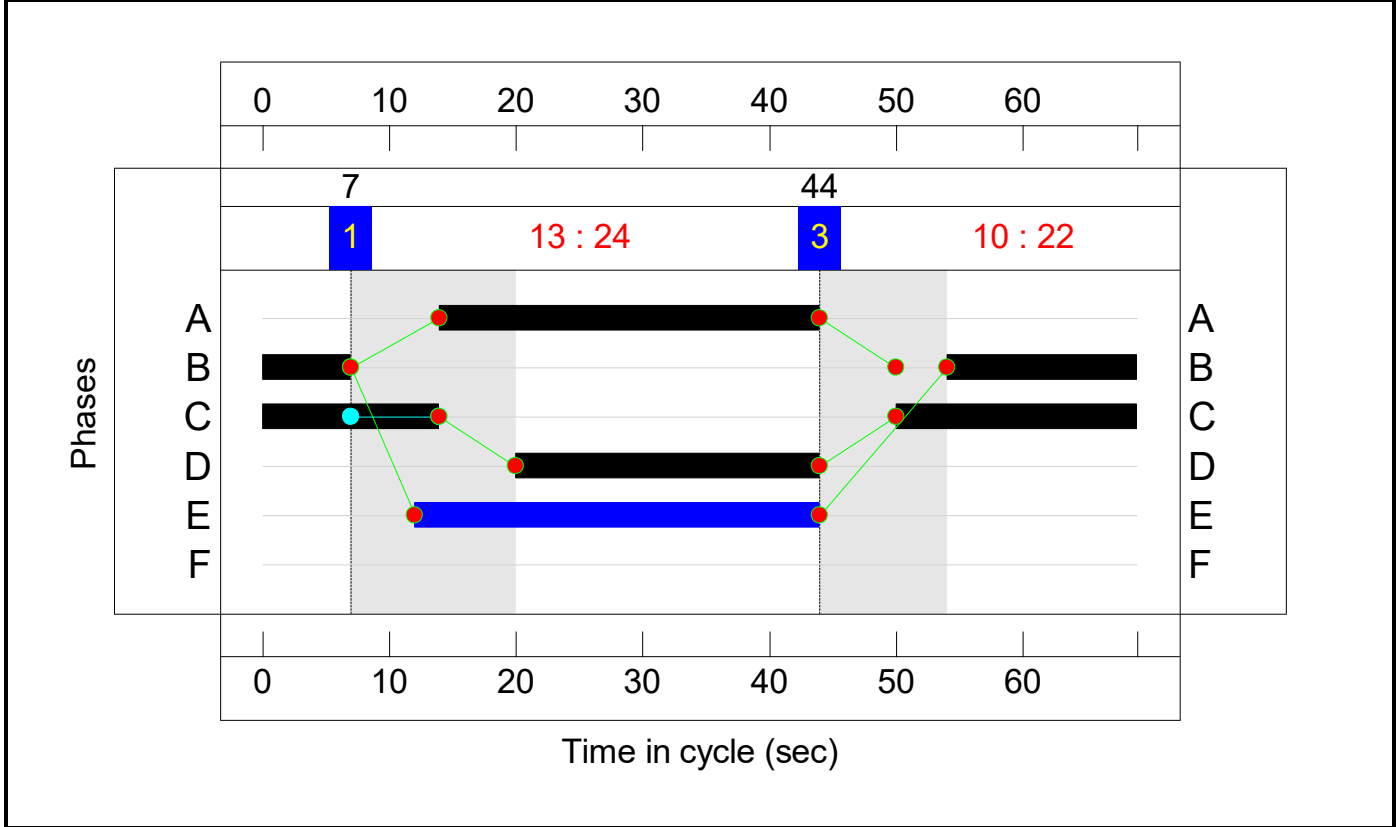
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	24	22
Change Point	7	44

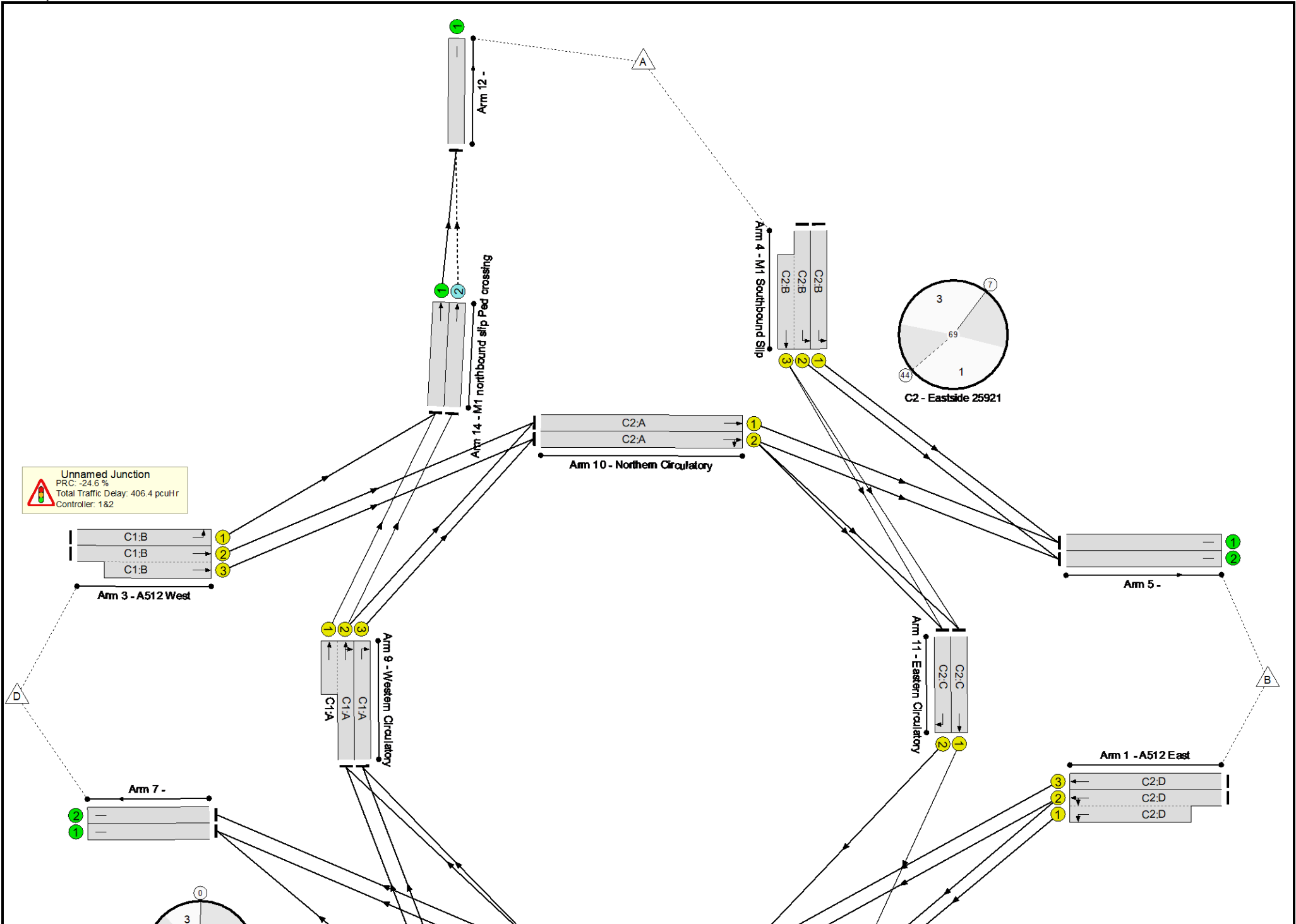
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	112.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.1%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	24	-	1006	1949:1963	706+263	103.8 : 103.8%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	24	-	716	1955	708	101.1%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	8	-	346	1973:1963	257+52	111.9 : 111.9%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	8	-	287	1979	258	111.2%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	29	-	485	1926	837	57.9%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	29	-	1482	1937:1941	694+687	107.3 : 107.3%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	22	-	714	1937	646	110.6%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	22	-	931	1945:1948	181+649	112.1 : 112.1%
5/1		U	N/A	N/A	-		-	-	-	1747	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	944	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	556	1980	1980	25.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	917	0.0%
7/1		U	N/A	N/A	-		-	-	-	791	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	796	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	48	-	733	1961	1393	50.7%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	48	-	1444	1945	1381	98.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	28	-	936	1926:1941	391+619	84.6 : 91.7%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	28	-	287	1932	812	31.8%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	30	-	1033	1953	877	108.5%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	30	-	1024	1937	870	108.6%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	33	-	283	1997	984	23.9%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	33	-	728	1994	983	66.1%
12/1		U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1059	1940	1940	54.3%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	74	1940	483	15.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	73	0	0	66.1	340.2	0.0	406.4	-	-	-	-
Unnamed Junction	-	-	73	0	0	66.1	340.2	0.0	406.4	-	-	-	-
1/2+1/1	1006	979	-	-	-	6.5	27.5	-	34.0	121.8	14.6	27.5	42.1
1/3	716	708	-	-	-	4.6	15.4	-	20.0	100.7	13.9	15.4	29.3
2/2+2/1	346	315	-	-	-	3.4	22.3	-	25.7	267.7	5.9	22.3	28.2
2/3	287	258	-	-	-	3.5	18.3	-	21.9	274.2	6.4	18.3	24.7
3/1	485	485	-	-	-	2.0	0.7	-	2.7	19.8	7.0	0.7	7.7
3/2+3/3	1482	1381	-	-	-	10.3	57.1	-	67.4	163.6	23.8	57.1	80.9
4/1	714	646	-	-	-	7.2	38.8	-	46.0	231.9	15.0	38.8	53.8
4/2+4/3	931	852	-	-	-	8.3	54.6	-	62.9	243.2	17.4	54.6	72.0
5/1	1523	1523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	838	838	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	509	509	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	764	764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	717	717	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	706	706	-	-	-	1.1	0.5	-	1.6	8.3	4.2	0.5	4.7
8/2	1358	1358	-	-	-	2.1	13.5	-	15.6	41.2	17.9	13.5	31.3
9/2+9/1	898	898	-	-	-	2.9	3.8	-	6.7	26.8	11.6	3.8	15.4
9/3	258	258	-	-	-	0.4	0.2	-	0.7	9.1	0.8	0.2	1.0
10/1	952	877	-	-	-	6.2	42.7	-	48.9	184.9	19.7	42.7	62.3
10/2	945	870	-	-	-	6.1	42.9	-	49.0	186.6	19.5	42.9	62.4
11/1	236	236	-	-	-	1.1	0.2	-	1.2	18.8	4.5	0.2	4.6
11/2	649	649	-	-	-	0.4	1.0	-	1.3	7.4	0.8	1.0	1.7
12/1	1126	1126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	509	509	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

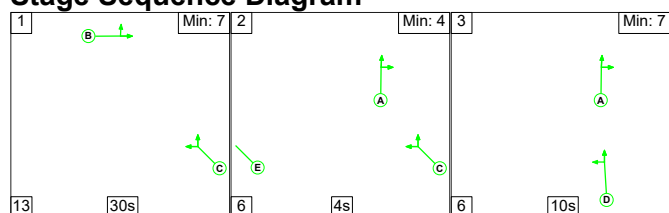
14/1	1053	1053	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	73	73	73	0	0	0.0	0.1	-	0.1	4.4	0.3	0.1	0.4
<div> <div> C1 - Westside 25911 C2 - Eastside 25921 </div> <div> PRC for Signalled Lanes (%): -24.3 PRC for Signalled Lanes (%): -24.6 PRC Over All Lanes (%): -24.6 </div> <div> Total Delay for Signalled Lanes (pcuHr): 142.13 Total Delay for Signalled Lanes (pcuHr): 263.38 Total Delay Over All Lanes(pcuHr): 406.36 </div> <div> Cycle Time (s): 69 Cycle Time (s): 69 </div> </div>													

Full Input Data And Results

Scenario 10: '2038 With Development Flows (PM)' (FG10: '2038 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

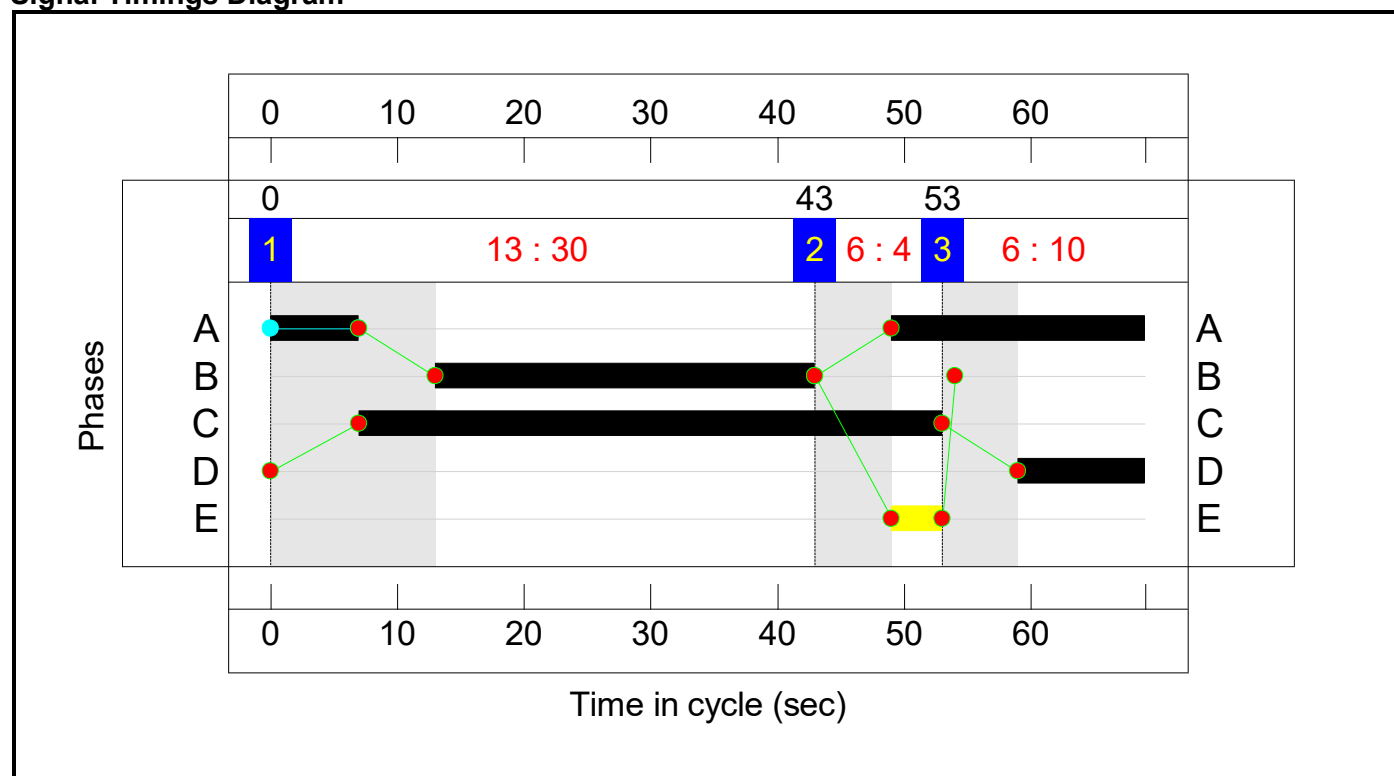
Stage Sequence Diagram



Stage Timings

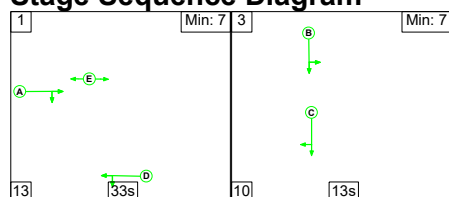
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

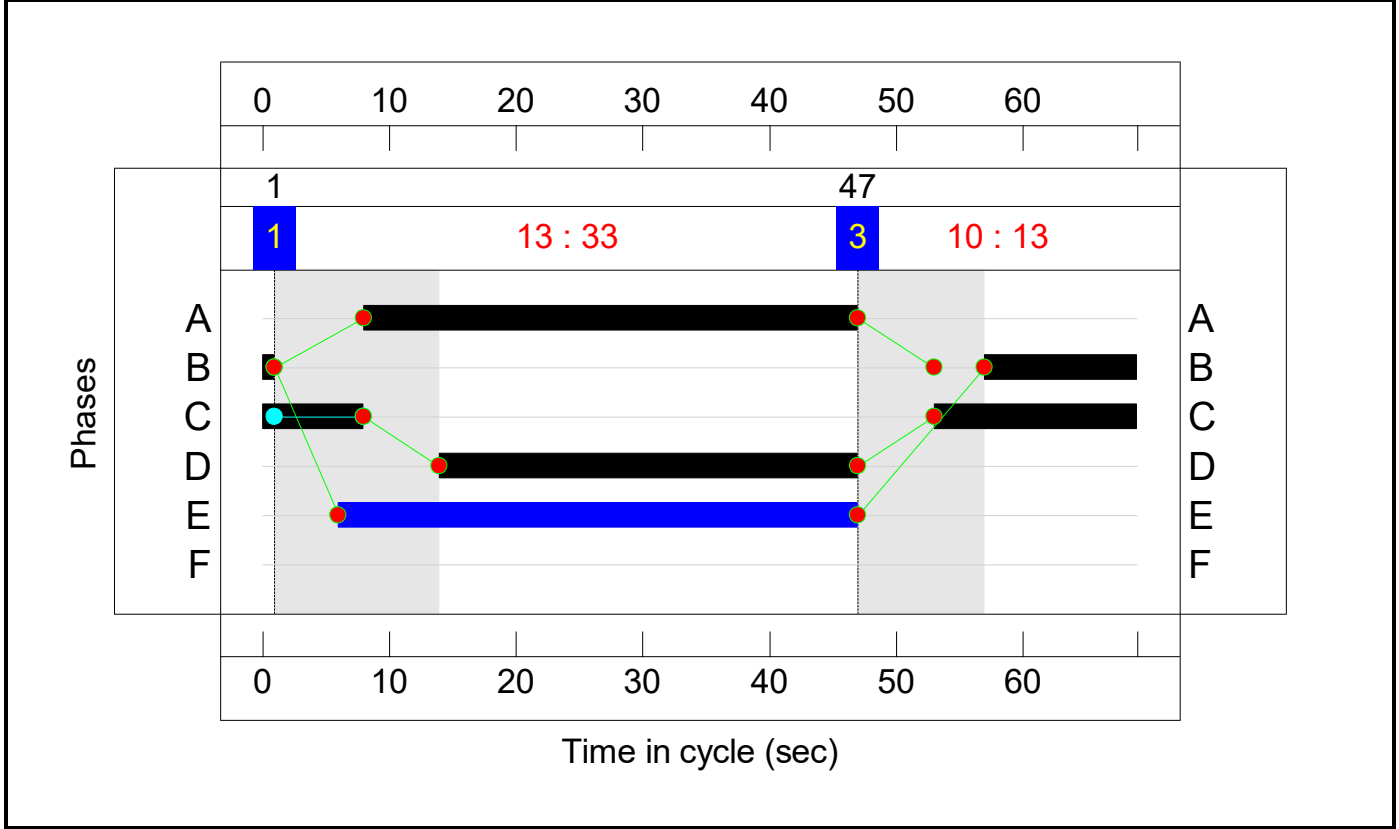
Stage Sequence Diagram



Stage Timings

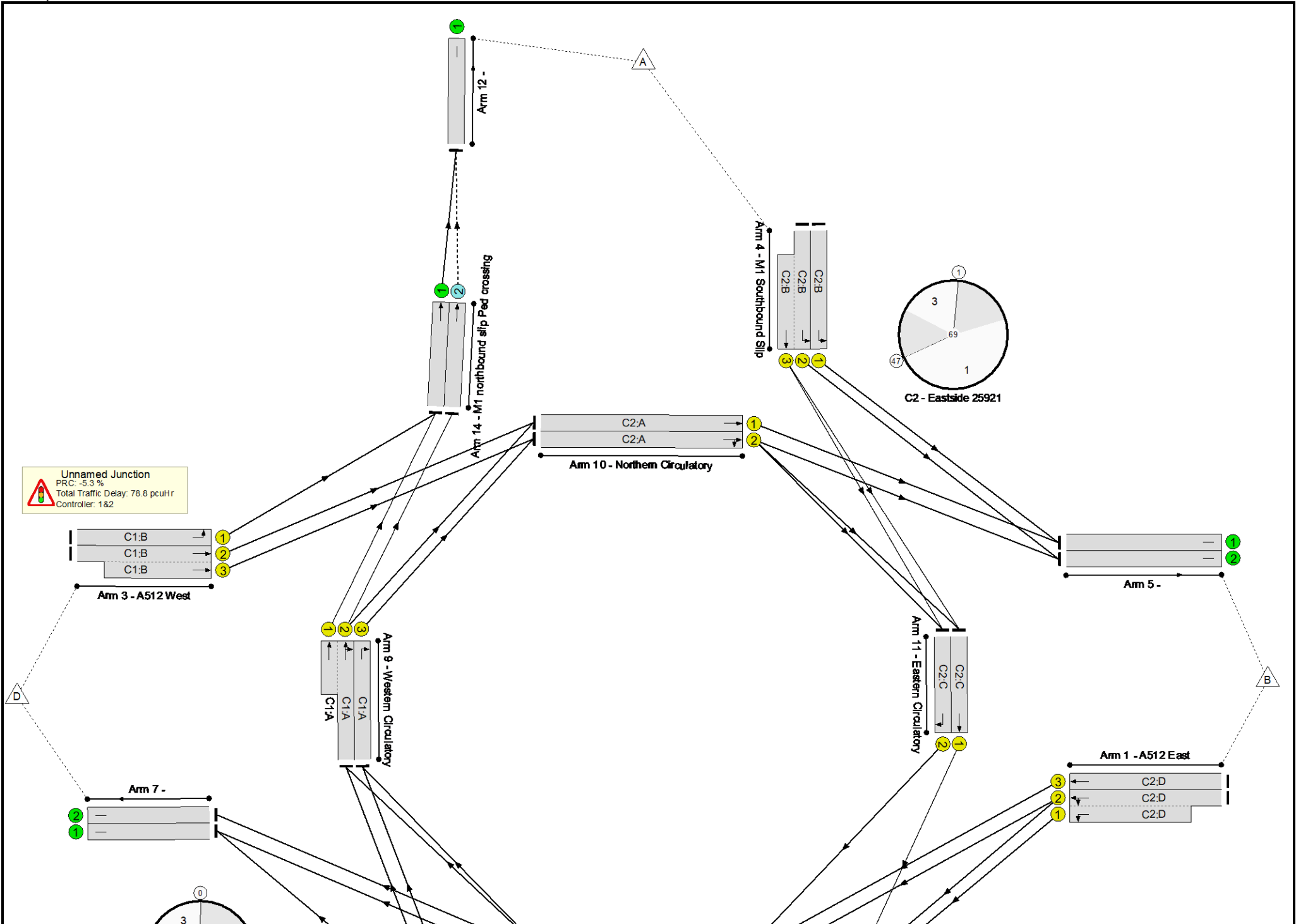
Stage	1	3
Duration	33	13
Change Point	1	47

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	33	-	1308	1949:1963	906+536	90.7 : 90.7%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	33	-	772	1955	963	80.1%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	358	1973:1963	66+313	94.6 : 94.6%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	294	1979	315	93.2%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	470	1926	865	54.3%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	1282	1937:1941	718+635	94.8 : 94.8%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	13	-	298	1937	393	75.8%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	13	-	694	1945:1948	395+395	90.0 : 85.8%
5/1		U	N/A	N/A	-		-	-	-	1040	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	982	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	755	1980	1980	38.1%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	549	0.0%
7/1		U	N/A	N/A	-		-	-	-	1118	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	822	1961	1336	61.5%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1111	1940	1321	84.1%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	713	1926:1941	135+733	82.1 : 82.1%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	294	1932	784	37.5%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	39	-	742	1953	1132	65.5%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	39	-	896	1937	1123	79.8%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	24	-	269	1997	724	37.2%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	24	-	339	1994	722	46.9%
12/1		U	N/A	N/A	-		-	-	-	1121	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1072	1940	1940	55.3%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	49	1940	479	10.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	49	0	0	38.4	40.4	0.0	78.8	-	-	-	-
Unnamed Junction	-	-	49	0	0	38.4	40.4	0.0	78.8	-	-	-	-
1/2+1/1	1308	1308	-	-	-	5.1	4.6	-	9.7	26.6	13.7	4.6	18.3
1/3	772	772	-	-	-	3.1	2.0	-	5.1	23.9	12.2	2.0	14.2
2/2+2/1	358	358	-	-	-	2.8	5.6	-	8.4	84.8	5.6	5.6	11.2
2/3	294	294	-	-	-	2.3	4.7	-	7.1	86.7	5.6	4.7	10.3
3/1	470	470	-	-	-	1.8	0.6	-	2.4	18.4	6.5	0.6	7.1
3/2+3/3	1282	1282	-	-	-	5.6	7.5	-	13.1	36.7	12.9	7.5	20.4
4/1	298	298	-	-	-	2.1	1.5	-	3.7	44.3	5.4	1.5	6.9
4/2+4/3	694	694	-	-	-	5.1	3.4	-	8.5	44.2	6.6	3.4	10.0
5/1	1040	1040	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	982	982	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	755	755	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1118	1118	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	822	822	-	-	-	1.2	0.8	-	2.0	8.8	4.3	0.8	5.1
8/2	1111	1111	-	-	-	1.1	2.6	-	3.7	12.0	7.6	2.6	10.2
9/2+9/1	713	713	-	-	-	3.0	2.2	-	5.3	26.7	13.1	2.2	15.3
9/3	294	294	-	-	-	0.3	0.3	-	0.6	7.7	0.6	0.3	0.9
10/1	742	742	-	-	-	1.6	0.9	-	2.6	12.6	4.5	0.9	5.4
10/2	896	896	-	-	-	1.4	1.9	-	3.3	13.5	6.0	1.9	7.9
11/1	269	269	-	-	-	1.3	0.3	-	1.6	21.8	5.1	0.3	5.4
11/2	339	339	-	-	-	0.2	0.4	-	0.7	7.2	0.4	0.4	0.8
12/1	1121	1121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

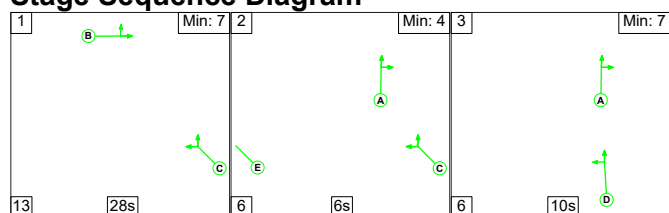
14/1	1072	1072	-	-	-	0.0	0.6	-	0.6	2.1	1.1	0.6	1.7
14/2	49	49	49	0	0	0.0	0.1	-	0.1	4.2	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):			-5.3	Total Delay for Signalled Lanes (pcuHr):		42.59	Cycle Time (s):		69	
C2 - Eastside 25921			PRC for Signalled Lanes (%):			-0.8	Total Delay for Signalled Lanes (pcuHr):		35.23	Cycle Time (s):		69	
			PRC Over All Lanes (%):			-5.3	Total Delay Over All Lanes(pcuHr):		78.81				

Full Input Data And Results

Scenario 11: '2a 2028 With Development Flows (AM)' (FG11: '2a 2028 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

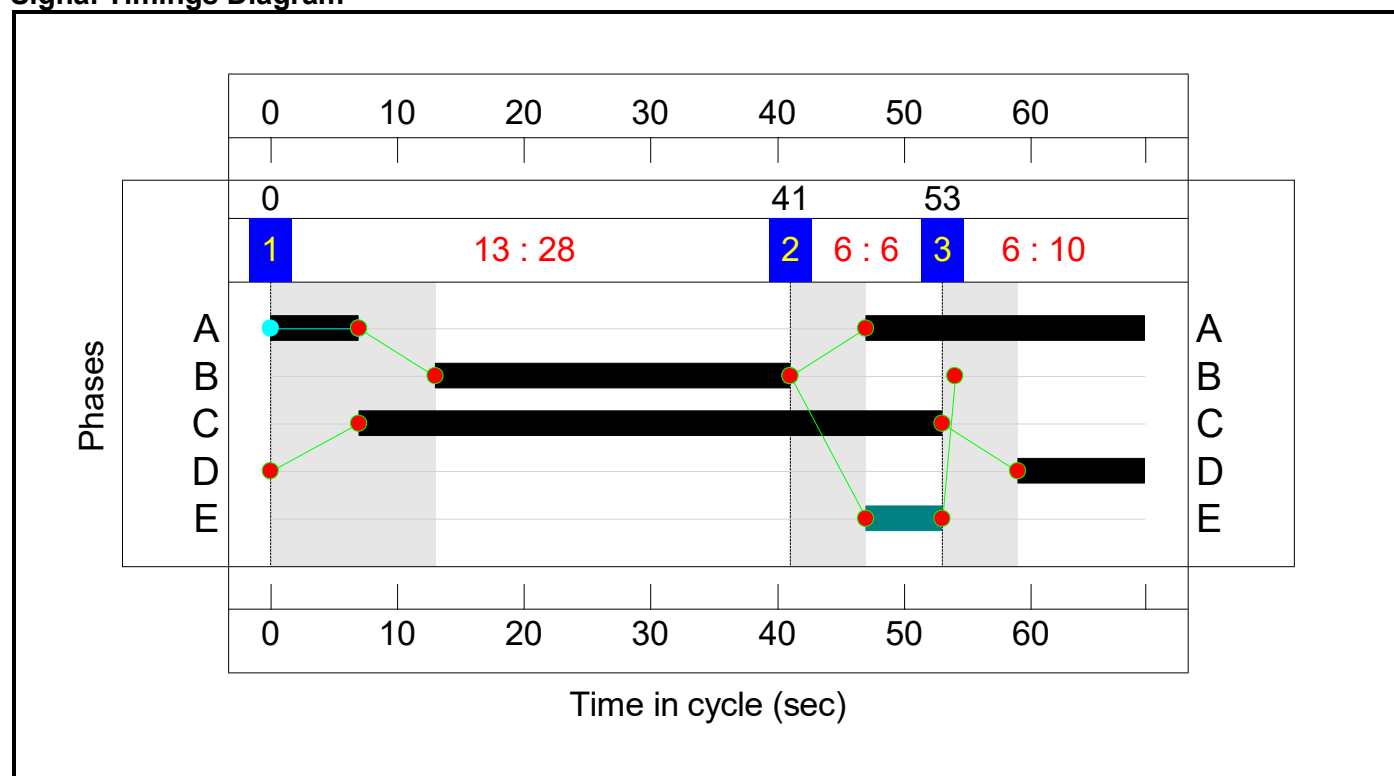
Stage Sequence Diagram



Stage Timings

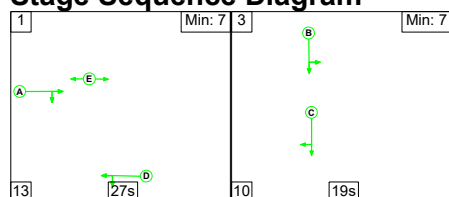
Stage	1	2	3
Duration	28	6	10
Change Point	0	41	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

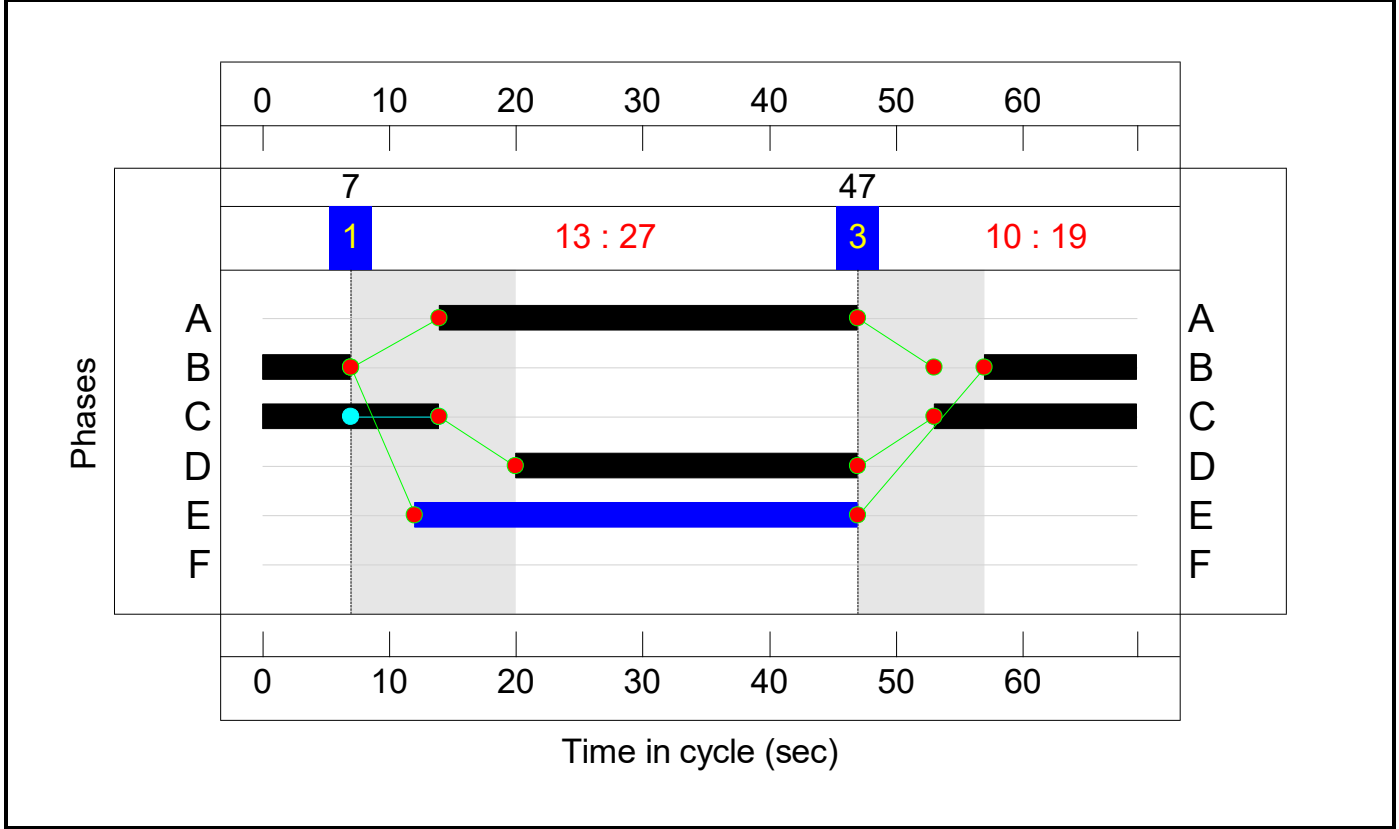
Stage Sequence Diagram



Stage Timings

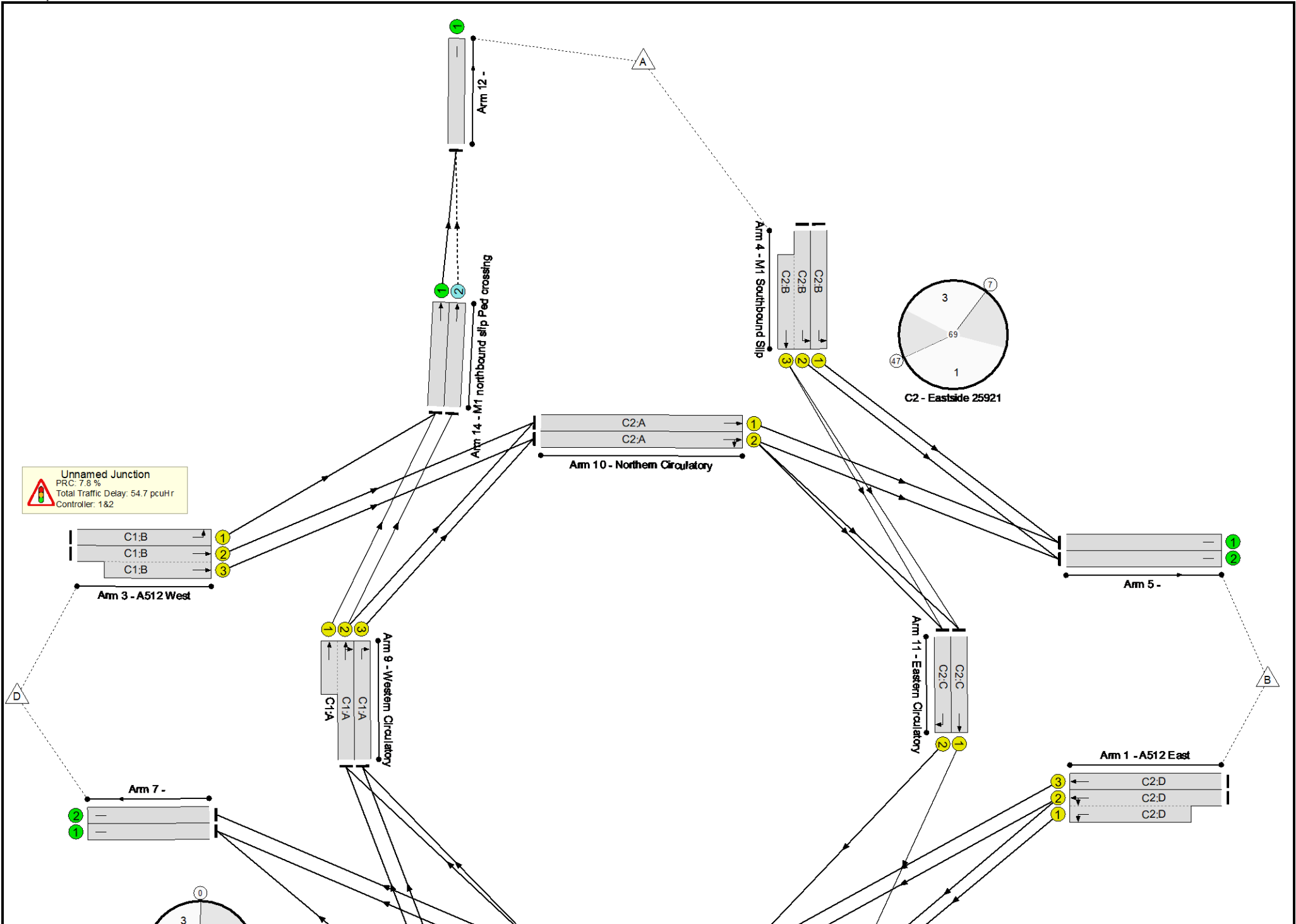
Stage	1	3
Duration	27	19
Change Point	7	47

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	83.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	83.5%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	27	-	743	1949:1963	791+291	68.7 : 68.7%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	27	-	592	1955	793	74.6%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	270	1973:1963	315+65	71.2 : 71.2%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	234	1979	315	74.2%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	28	-	371	1926	809	45.8%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	28	-	1130	1937:1941	679+674	83.5 : 83.5%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	19	-	375	1937	561	66.8%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	19	-	934	1945:1948	564+565	82.5 : 83.1%
5/1		U	N/A	N/A	-		-	-	-	1166	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	1085	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	377	1980	1980	19.0%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	632	0.0%
7/1		U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	543	1961	1336	40.7%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1061	1941	1322	80.2%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	29	-	816	1926:1941	339+668	81.0 : 81.0%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	29	-	234	1932	840	27.9%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	33	-	791	1953	962	82.2%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	33	-	797	1937	954	83.5%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	30	-	177	1997	897	19.7%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	30	-	469	1994	896	52.4%
12/1		U	N/A	N/A	-		-	-	-	963	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	912	1940	1940	47.0%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	51	1940	514	9.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	51	0	0	32.7	22.0	0.0	54.7	-	-	-	-
Unnamed Junction	-	-	51	0	0	32.7	22.0	0.0	54.7	-	-	-	-
1/2+1/1	743	743	-	-	-	3.3	1.1	-	4.4	21.3	8.4	1.1	9.5
1/3	592	592	-	-	-	2.9	1.4	-	4.3	26.3	9.5	1.4	11.0
2/2+2/1	270	270	-	-	-	2.0	1.2	-	3.2	43.2	4.0	1.2	5.3
2/3	234	234	-	-	-	1.8	1.4	-	3.2	49.0	4.2	1.4	5.6
3/1	371	371	-	-	-	1.5	0.4	-	1.9	18.5	5.0	0.4	5.5
3/2+3/3	1130	1130	-	-	-	5.1	2.5	-	7.6	24.2	8.8	2.5	11.3
4/1	375	375	-	-	-	2.2	1.0	-	3.2	31.1	6.3	1.0	7.2
4/2+4/3	934	934	-	-	-	5.9	2.3	-	8.3	31.9	8.3	2.3	10.7
5/1	1166	1166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	377	377	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	543	543	-	-	-	0.7	0.3	-	1.1	7.0	2.7	0.3	3.1
8/2	1061	1061	-	-	-	1.0	2.0	-	3.0	10.1	5.5	2.0	7.5
9/2+9/1	816	816	-	-	-	2.2	2.1	-	4.3	19.0	10.8	2.1	12.9
9/3	234	234	-	-	-	0.2	0.2	-	0.3	5.3	0.3	0.2	0.5
10/1	791	791	-	-	-	1.5	2.2	-	3.7	17.0	6.3	2.2	8.5
10/2	797	797	-	-	-	1.5	2.5	-	4.0	18.0	6.6	2.5	9.1
11/1	177	177	-	-	-	0.7	0.1	-	0.8	16.2	3.3	0.1	3.4
11/2	469	469	-	-	-	0.2	0.5	-	0.7	5.4	0.3	0.5	0.8
12/1	963	963	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

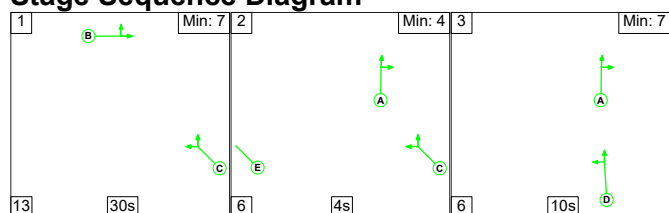
14/1	912	912	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4											
14/2	51	51	51	0	0	0.0	0.1	-	0.1	3.9	0.0	0.1	0.1											
														C1 - Westside 25911		PRC for Signalled Lanes (%):		7.8	Total Delay for Signalled Lanes (pcuHr):		24.61	Cycle Time (s):		69
														C2 - Eastside 25921		PRC for Signalled Lanes (%):		7.8	Total Delay for Signalled Lanes (pcuHr):		29.48	Cycle Time (s):		69
		PRC Over All Lanes (%):		7.8	Total Delay Over All Lanes(pcuHr):		54.70																	

Full Input Data And Results

Scenario 12: '2a 2028 With Development Flows (PM)' (FG12: '2a 2028 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

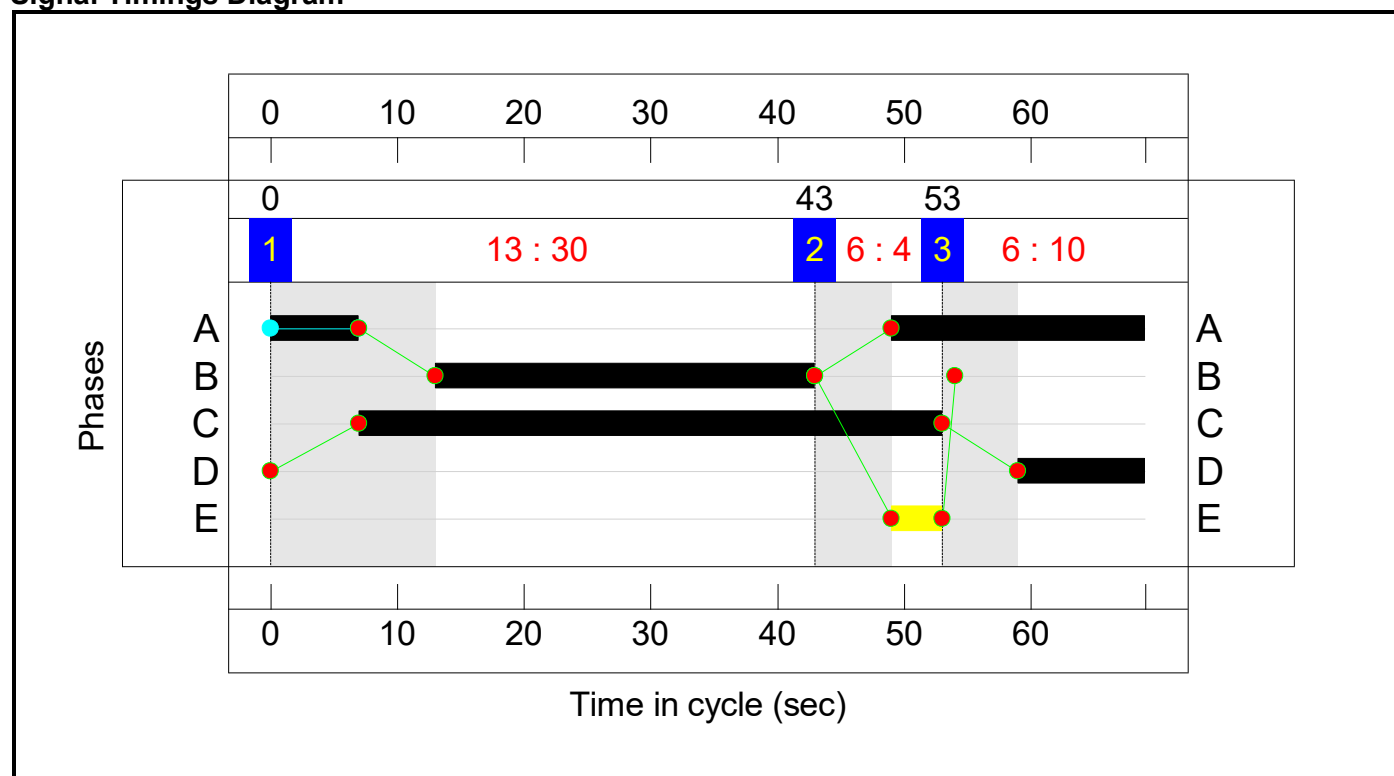
Stage Sequence Diagram



Stage Timings

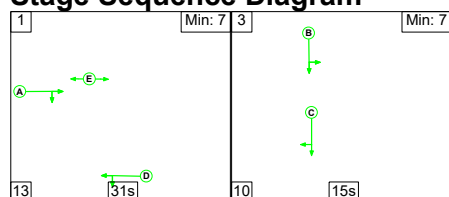
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

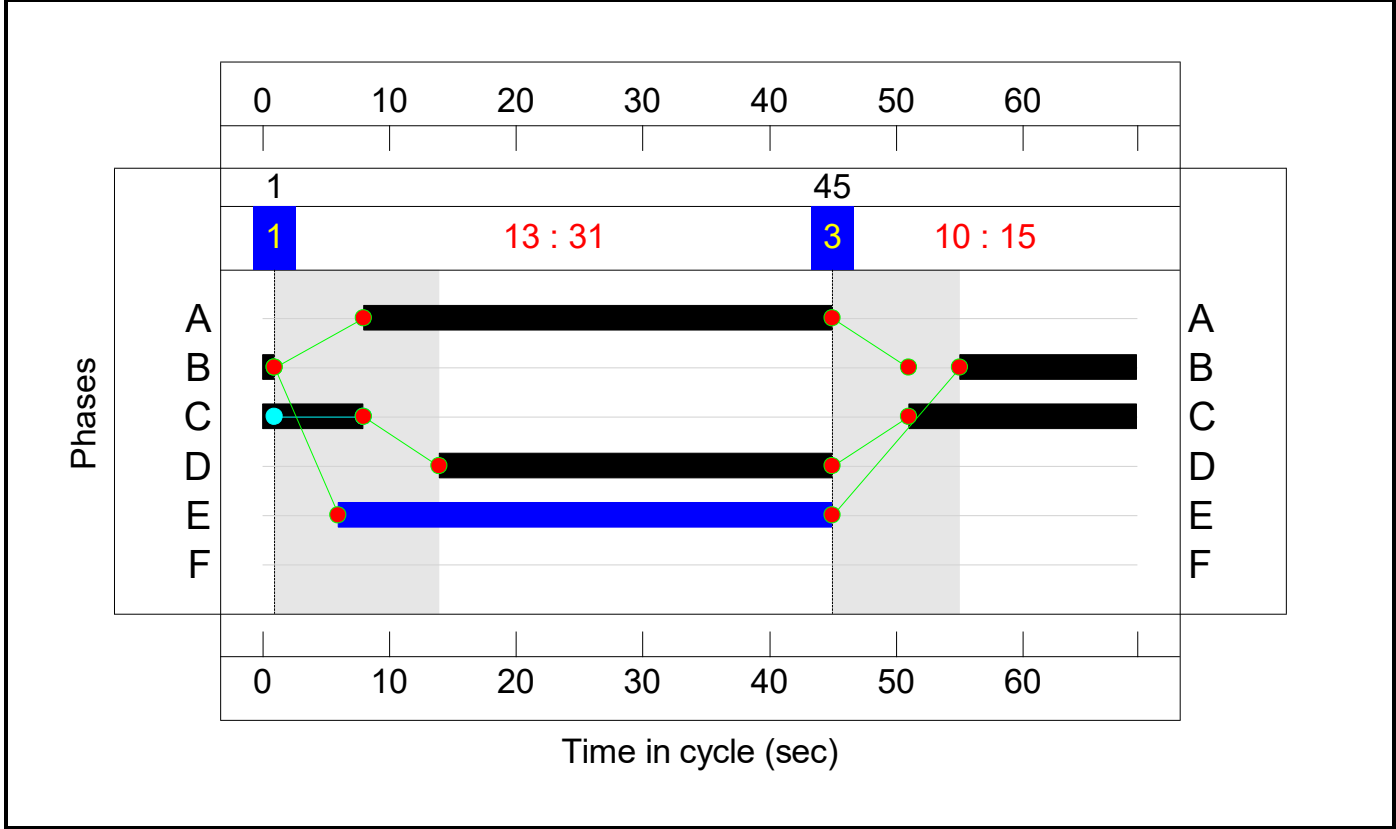
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	31	15
Change Point	1	45

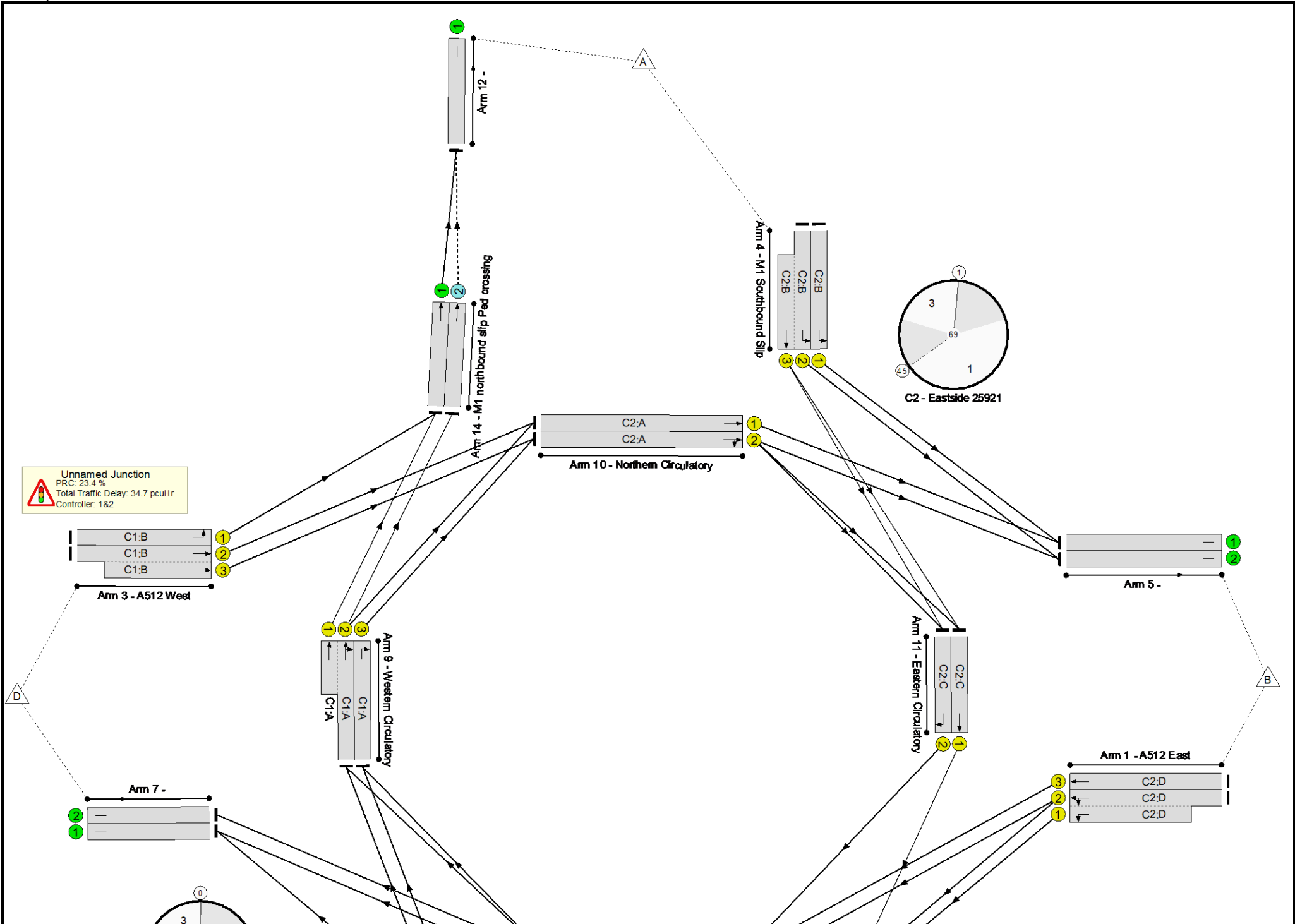
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	72.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	72.9%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	31	-	997	1949:1963	871+496	72.9 : 72.9%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	31	-	549	1955	907	60.6%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	240	1973:1963	64+313	63.6 : 63.6%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	178	1979	315	56.4%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	329	1926	865	38.0%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	836	1937:1941	706+706	59.2 : 59.2%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	15	-	213	1937	449	47.4%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	15	-	618	1945:1948	451+452	72.5 : 64.4%
5/1		U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	548	1980	1980	27.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	594	0.0%
7/1		U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	346	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	635	1961	1336	47.5%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	840	1940	1321	63.6%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	535	1926:1941	204+692	59.7 : 59.7%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	178	1932	784	22.7%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	37	-	459	1953	1076	42.7%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	37	-	596	1937	1067	55.9%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	26	-	186	1997	781	23.8%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	26	-	291	1994	780	37.3%
12/1		U	N/A	N/A	-		-	-	-	823	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	742	1940	1940	38.2%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	81	1940	552	14.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	81	0	0	24.3	10.4	0.0	34.7	-	-	-	-
Unnamed Junction	-	-	81	0	0	24.3	10.4	0.0	34.7	-	-	-	-
1/2+1/1	997	997	-	-	-	3.8	1.3	-	5.2	18.6	9.5	1.3	10.9
1/3	549	549	-	-	-	2.1	0.8	-	2.9	18.8	7.8	0.8	8.5
2/2+2/1	240	240	-	-	-	1.8	0.9	-	2.6	39.7	3.5	0.9	4.4
2/3	178	178	-	-	-	1.3	0.6	-	2.0	39.8	3.1	0.6	3.8
3/1	329	329	-	-	-	1.2	0.3	-	1.5	16.0	4.1	0.3	4.4
3/2+3/3	836	836	-	-	-	3.1	0.7	-	3.8	16.5	5.6	0.7	6.3
4/1	213	213	-	-	-	1.4	0.4	-	1.8	30.5	3.5	0.4	3.9
4/2+4/3	618	618	-	-	-	4.2	1.1	-	5.2	30.5	5.7	1.1	6.8
5/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	548	548	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	346	346	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	635	635	-	-	-	0.6	0.5	-	1.0	5.9	2.3	0.5	2.7
8/2	840	840	-	-	-	0.5	0.9	-	1.4	5.9	2.9	0.9	3.8
9/2+9/1	535	535	-	-	-	1.7	0.7	-	2.5	16.6	8.4	0.7	9.2
9/3	178	178	-	-	-	0.1	0.1	-	0.2	4.7	0.2	0.1	0.3
10/1	459	459	-	-	-	0.8	0.4	-	1.2	9.4	2.4	0.4	2.7
10/2	596	596	-	-	-	0.9	0.6	-	1.5	9.0	2.7	0.6	3.3
11/1	186	186	-	-	-	0.8	0.2	-	1.0	18.9	3.5	0.2	3.7
11/2	291	291	-	-	-	0.1	0.3	-	0.4	4.8	0.2	0.3	0.5
12/1	823	823	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

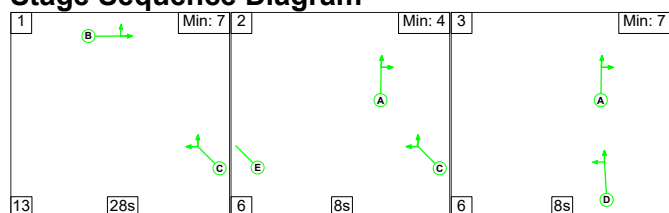
14/1	742	742	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	81	81	81	0	0	0.0	0.1	-	0.1	4.0	0.6	0.1	0.7
<div> <div> C1 - Westside 25911 C2 - Eastside 25921 </div> <div> PRC for Signalled Lanes (%): 41.5 PRC for Signalled Lanes (%): 23.4 PRC Over All Lanes (%): 23.4 </div> <div> Total Delay for Signalled Lanes (pcuHr): 15.02 Total Delay for Signalled Lanes (pcuHr): 23.11 Total Delay Over All Lanes(pcuHr): 34.72 </div> <div> Cycle Time (s): 69 Cycle Time (s): 69 </div> </div>													

Full Input Data And Results

Scenario 13: '2a 2038 With Development Flows (AM)' (FG13: '2a 2038 With Development Flows (AM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

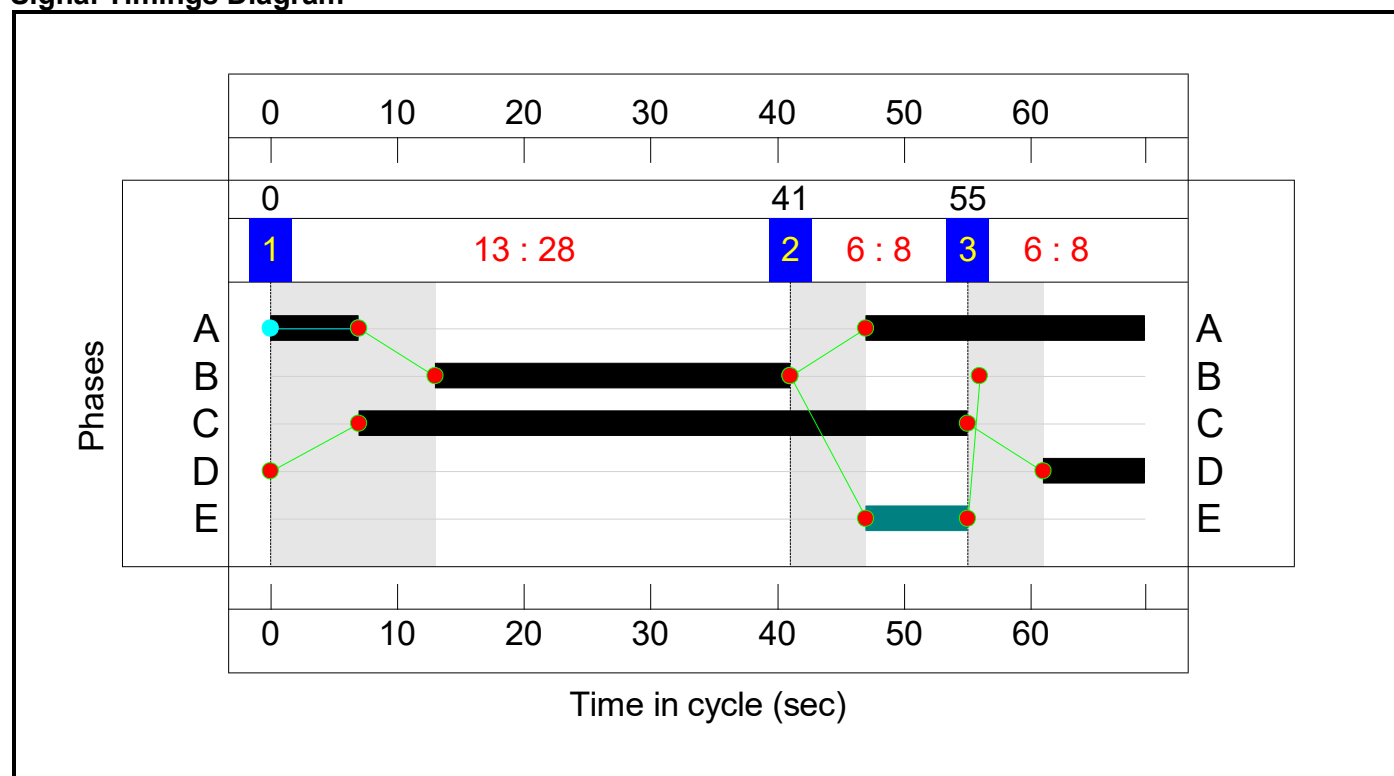
Stage Sequence Diagram



Stage Timings

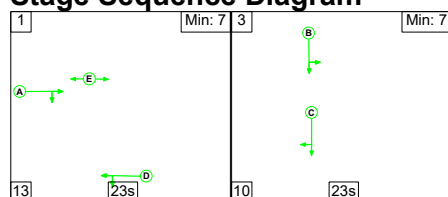
Stage	1	2	3
Duration	28	8	8
Change Point	0	41	55

Signal Timings Diagram



Controller :C2 - Eastside 25921

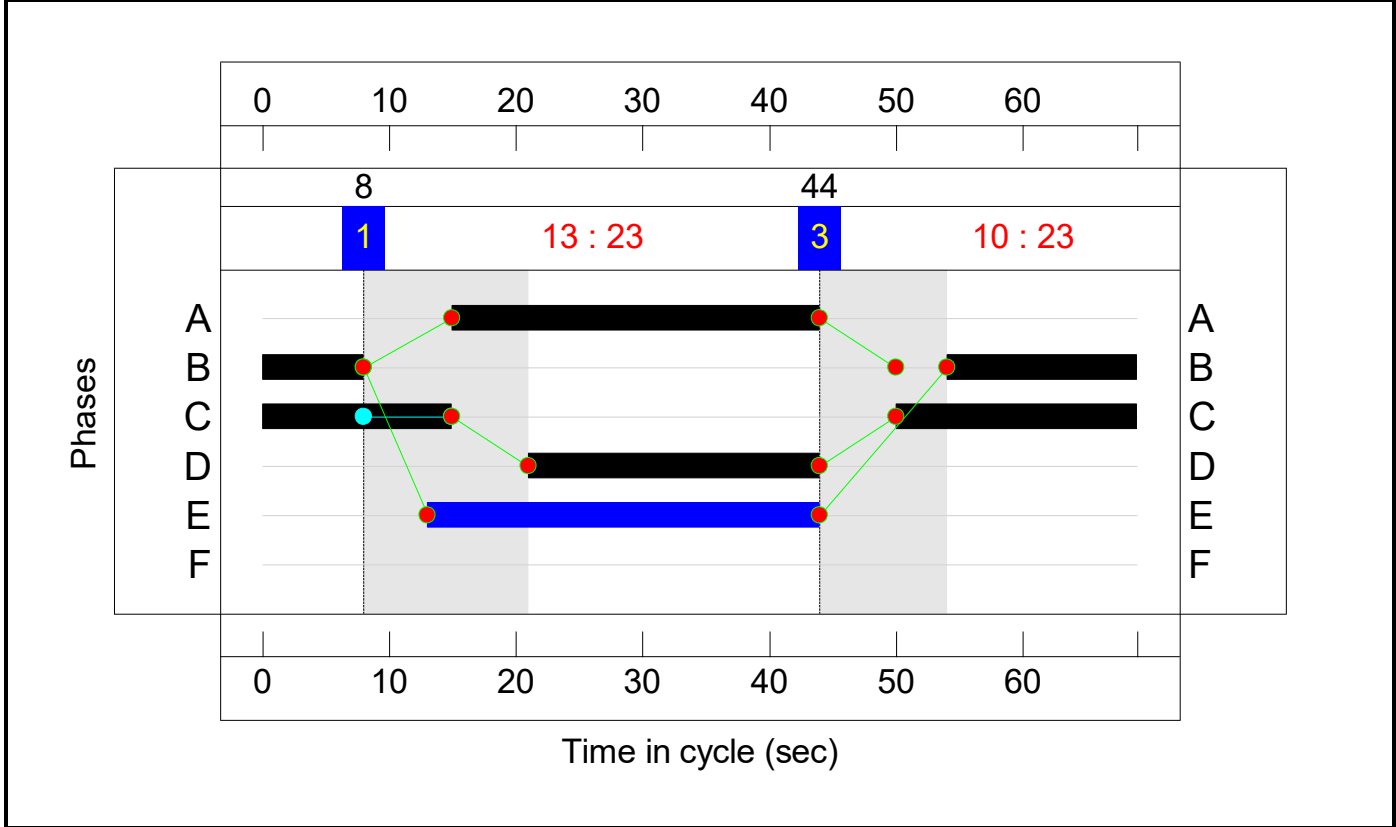
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	23	23
Change Point	8	44

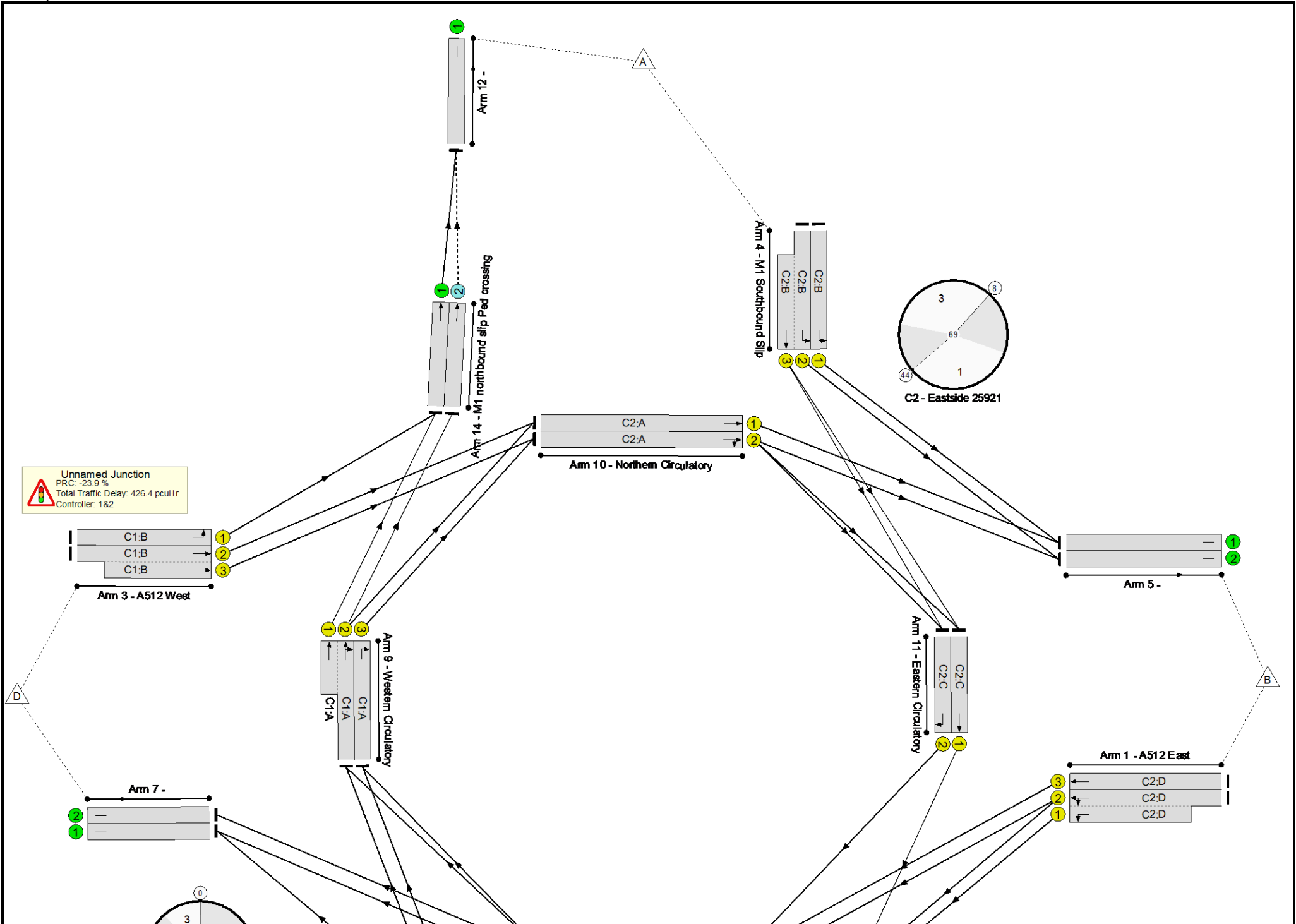
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	111.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	111.5%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	23	-	987	1949:1963	678+251	106.2 : 106.2%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	23	-	693	1955	680	101.9%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	8	-	338	1973:1963	257+53	108.8 : 108.8%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	8	-	281	1979	258	108.9%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	28	-	480	1926	809	59.3%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	28	-	1508	1937:1941	680+673	111.5 : 111.5%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	23	-	722	1937	674	107.2%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	23	-	929	1945:1948	177+678	108.8 : 108.8%
5/1		U	N/A	N/A	-		-	-	-	1760	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	934	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	556	1980	1980	24.9%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	921	0.0%
7/1		U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	813	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	48	-	720	1961	1393	48.7%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	48	-	1430	1945	1381	98.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	29	-	897	1926:1941	396+639	80.6 : 85.0%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	29	-	281	1932	840	30.7%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	29	-	1038	1953	849	110.4%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	29	-	1031	1937	842	110.5%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	34	-	289	1997	1013	22.3%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	34	-	737	1994	1011	67.0%
12/1		U	N/A	N/A	-		-	-	-	1097	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1034	1940	1940	52.8%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	63	1940	490	12.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	62	0	0	67.2	359.2	0.0	426.4	-	-	-	-
Unnamed Junction	-	-	62	0	0	67.2	359.2	0.0	426.4	-	-	-	-
1/2+1/1	987	945	-	-	-	7.0	35.7	-	42.7	155.8	14.6	35.7	50.4
1/3	693	680	-	-	-	4.7	16.8	-	21.5	111.8	13.5	16.8	30.3
2/2+2/1	338	315	-	-	-	3.2	18.3	-	21.5	229.1	5.6	18.3	23.9
2/3	281	258	-	-	-	3.2	15.9	-	19.1	244.6	6.0	15.9	21.9
3/1	480	480	-	-	-	2.1	0.7	-	2.8	20.9	7.1	0.7	7.8
3/2+3/3	1508	1353	-	-	-	12.3	82.2	-	94.6	225.7	25.4	82.2	107.6
4/1	722	674	-	-	-	6.4	30.1	-	36.5	182.0	14.8	30.1	44.9
4/2+4/3	929	870	-	-	-	7.6	42.9	-	50.5	195.7	16.9	42.9	59.7
5/1	1523	1523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	493	493	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	678	678	-	-	-	1.1	0.5	-	1.6	8.4	4.2	0.5	4.7
8/2	1358	1358	-	-	-	2.1	13.4	-	15.6	41.3	18.4	13.4	31.8
9/2+9/1	863	863	-	-	-	2.5	2.4	-	5.0	20.8	11.1	2.4	13.5
9/3	258	258	-	-	-	0.4	0.2	-	0.6	8.8	0.8	0.2	1.0
10/1	937	849	-	-	-	6.6	48.9	-	55.5	213.2	19.7	48.9	68.6
10/2	931	842	-	-	-	6.5	49.1	-	55.7	215.2	19.5	49.1	68.7
11/1	226	226	-	-	-	1.0	0.1	-	1.1	18.3	4.2	0.1	4.4
11/2	678	678	-	-	-	0.4	1.0	-	1.4	7.3	0.8	1.0	1.8
12/1	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

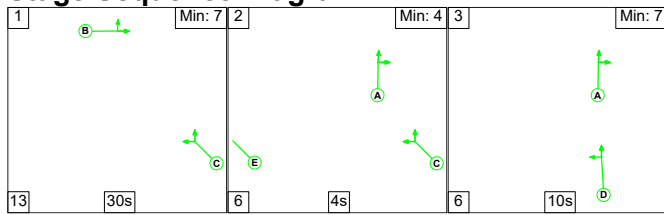
14/1	1024	1024	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	62	62	62	0	0	0.0	0.1	-	0.1	4.2	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):			-23.9	Total Delay for Signalled Lanes (pcuHr):		160.70	Cycle Time (s):		69	
C2 - Eastside 25921			PRC for Signalled Lanes (%):			-22.8	Total Delay for Signalled Lanes (pcuHr):		264.92	Cycle Time (s):		69	
			PRC Over All Lanes (%):			-23.9	Total Delay Over All Lanes(pcuHr):		426.42				

Full Input Data And Results

Scenario 14: '2a 2038 With Development Flows (PM)' (FG14: '2a 2038 With Development Flows (PM)', Plan 1: 'Network Control Plan 1')

Controller :C1 - Westside 25911

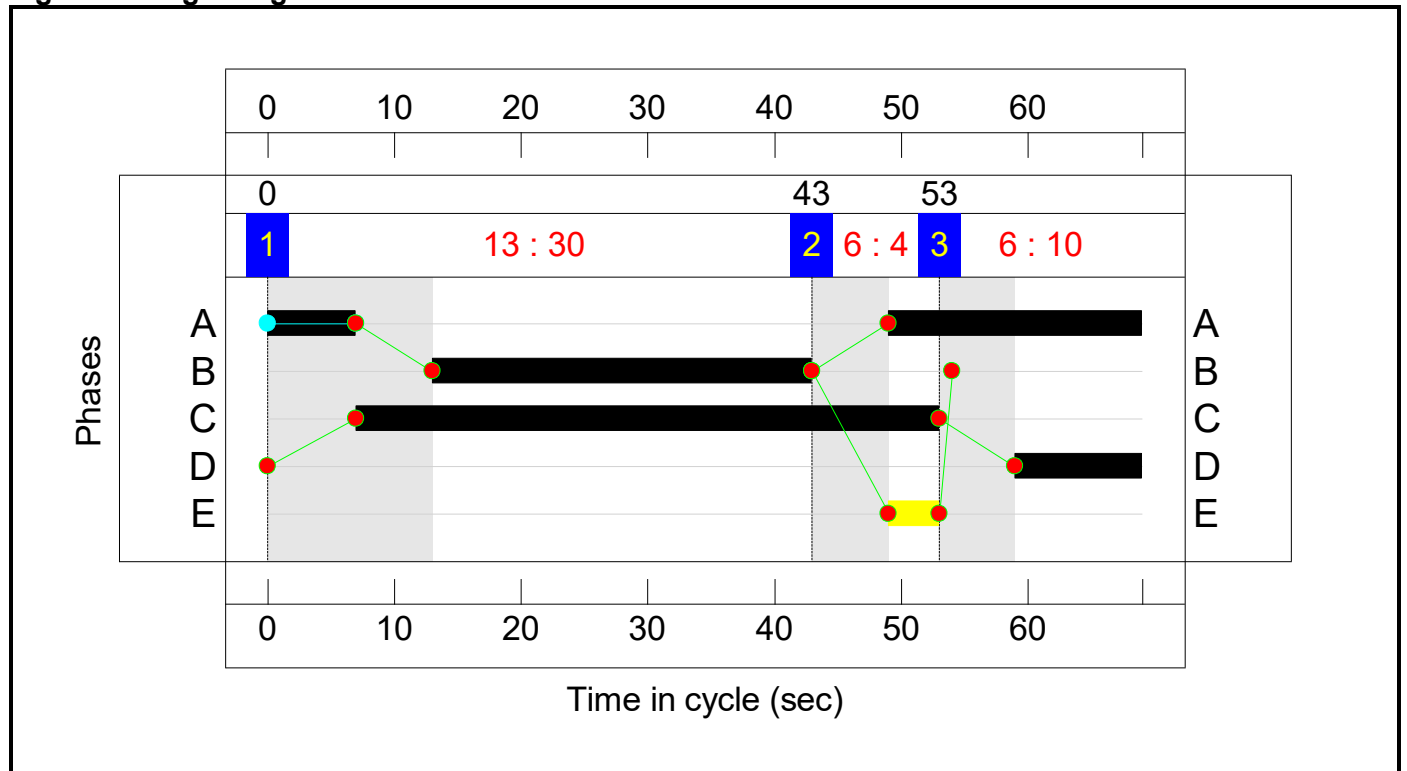
Stage Sequence Diagram



Stage Timings

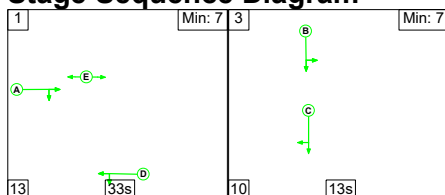
Stage	1	2	3
Duration	30	4	10
Change Point	0	43	53

Signal Timings Diagram



Controller :C2 - Eastside 25921

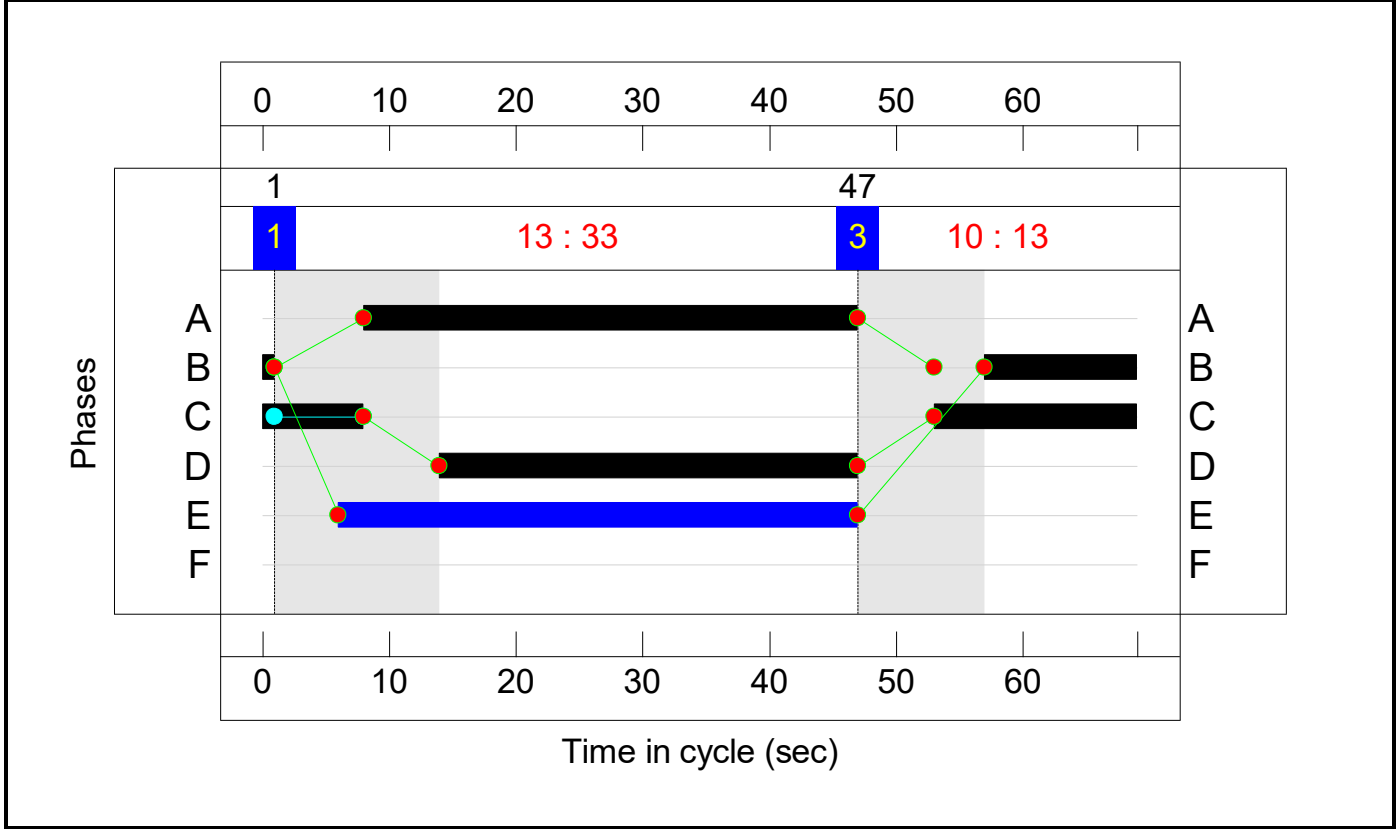
Stage Sequence Diagram



Stage Timings

Stage	1	3
Duration	33	13
Change Point	1	47

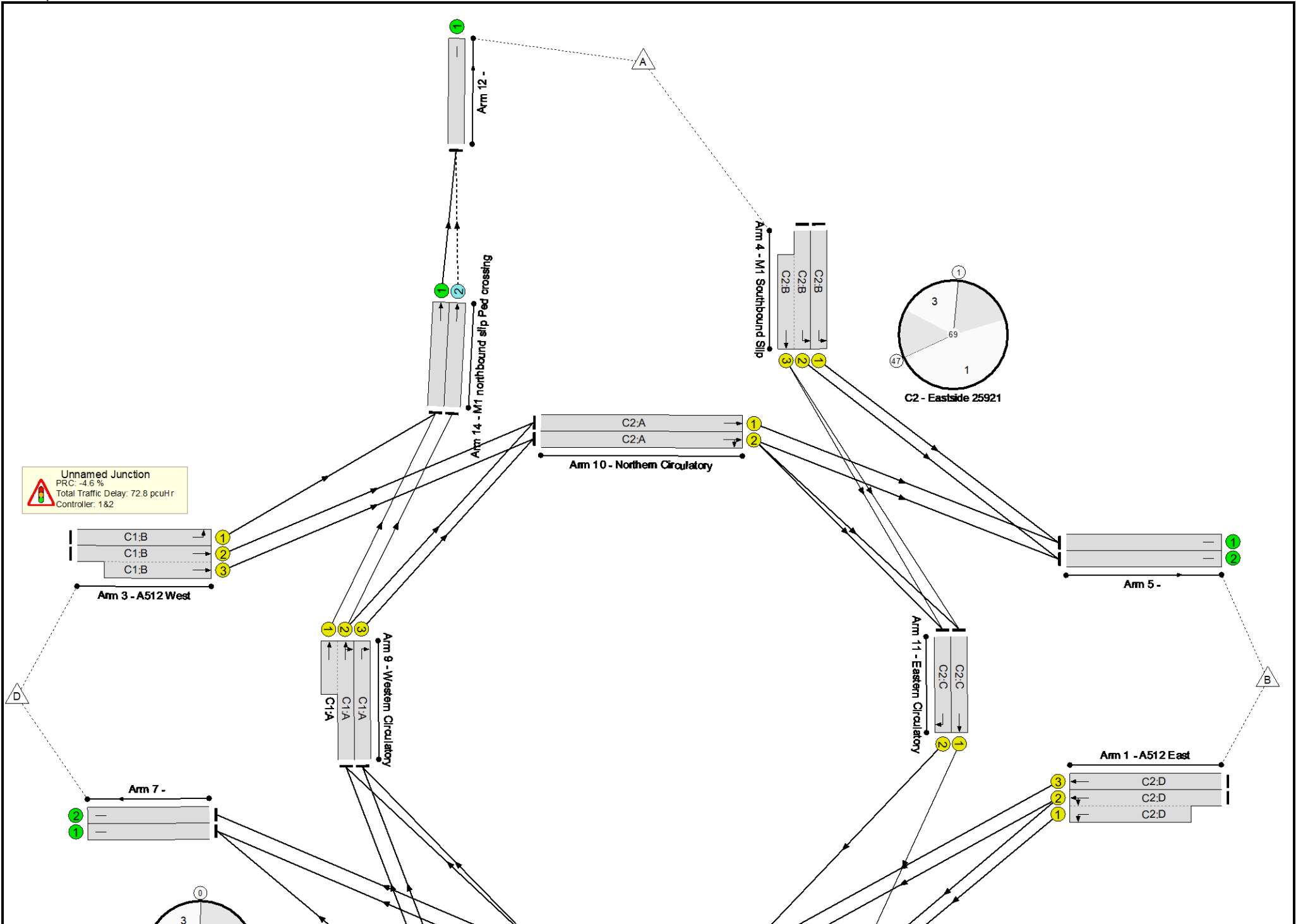
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 23	-	-	N/A	-	-		-	-	-	-	-	-	94.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.1%
1/2+1/1	A512 East Left Ahead	U	N/A	N/A	C2:D		1	33	-	1302	1949:1963	906+541	90.0 : 90.0%
1/3	A512 East Ahead	U	N/A	N/A	C2:D		1	33	-	773	1955	963	80.2%
2/2+2/1	M1 Northbound Slip Left Ahead	U	N/A	N/A	C1:D		1	10	-	372	1973:1963	93+313	91.7 : 91.7%
2/3	M1 Northbound Slip Ahead	U	N/A	N/A	C1:D		1	10	-	284	1979	315	90.0%
3/1	A512 West Left	U	N/A	N/A	C1:B		1	30	-	450	1926	865	52.0%
3/2+3/3	A512 West Ahead	U	N/A	N/A	C1:B		1	30	-	1283	1937:1941	716+647	94.1 : 94.1%
4/1	M1 Southbound Slip Left	U	N/A	N/A	C2:B		1	13	-	269	1937	393	68.4%
4/2+4/3	M1 Southbound Slip Left Ahead	U	N/A	N/A	C2:B		1	13	-	656	1945:1948	395+395	90.0 : 76.2%
5/1		U	N/A	N/A	-		-	-	-	1028	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	992	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	743	1980	1980	37.5%
6/2	Ahead	O	N/A	N/A	-		-	-	-	0	1980	551	0.0%
7/1		U	N/A	N/A	-		-	-	-	1102	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
8/1	Southern Circulatory Ahead	U	N/A	N/A	C1:C		1	46	-	815	1961	1336	61.0%
8/2	Southern Circulatory Ahead Right	U	N/A	N/A	C1:C		1	46	-	1074	1939	1321	81.3%
9/2+9/1	Western Circulatory Right Ahead	U	N/A	N/A	C1:A		1	27	-	739	1926:1941	158+719	84.3 : 84.3%

Full Input Data And Results

9/3	Western Circulatory Right	U	N/A	N/A	C1:A		1	27	-	284	1932	784	36.2%
10/1	Northern Circulatory Ahead	U	N/A	N/A	C2:A		1	39	-	759	1953	1132	67.0%
10/2	Northern Circulatory Ahead Right	U	N/A	N/A	C2:A		1	39	-	893	1937	1123	79.5%
11/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:C		1	24	-	256	1997	724	35.4%
11/2	Eastern Circulatory Right	U	N/A	N/A	C2:C		1	24	-	301	1994	722	41.7%
12/1		U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
14/1	M1 northbound slip Ped crossing Ahead	U	N/A	N/A	-		-	-	-	1056	1940	1940	54.4%
14/2	M1 northbound slip Ped crossing Ahead	O	N/A	N/A	-		-	-	-	48	1940	483	9.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	-	48	0	0	37.4	35.4	0.0	72.8	-	-	-	-
Unnamed Junction	-	-	48	0	0	37.4	35.4	0.0	72.8	-	-	-	-
1/2+1/1	1302	1302	-	-	-	5.1	4.2	-	9.3	25.7	13.6	4.2	17.8
1/3	773	773	-	-	-	3.2	2.0	-	5.1	23.9	12.2	2.0	14.2
2/2+2/1	372	372	-	-	-	2.9	4.4	-	7.3	70.3	5.3	4.4	9.7
2/3	284	284	-	-	-	2.2	3.7	-	5.9	74.8	5.3	3.7	8.9
3/1	450	450	-	-	-	1.7	0.5	-	2.2	18.0	6.1	0.5	6.7
3/2+3/3	1283	1283	-	-	-	5.6	6.9	-	12.5	35.0	12.2	6.9	19.0
4/1	269	269	-	-	-	1.9	1.1	-	3.0	39.7	4.7	1.1	5.8
4/2+4/3	656	656	-	-	-	4.8	2.4	-	7.2	39.4	6.6	2.4	9.0
5/1	1028	1028	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	992	992	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	743	743	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1102	1102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	420	420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	815	815	-	-	-	1.2	0.8	-	1.9	8.6	4.2	0.8	5.0
8/2	1074	1074	-	-	-	1.1	2.1	-	3.2	10.8	7.0	2.1	9.2
9/2+9/1	739	739	-	-	-	3.1	2.6	-	5.7	27.7	13.6	2.6	16.2
9/3	284	284	-	-	-	0.3	0.3	-	0.6	7.3	0.5	0.3	0.8
10/1	759	759	-	-	-	1.6	1.0	-	2.6	12.4	4.4	1.0	5.4
10/2	893	893	-	-	-	1.4	1.9	-	3.3	13.4	6.0	1.9	7.9
11/1	256	256	-	-	-	1.2	0.3	-	1.5	21.4	4.9	0.3	5.1
11/2	301	301	-	-	-	0.2	0.4	-	0.5	6.1	0.3	0.4	0.6
12/1	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

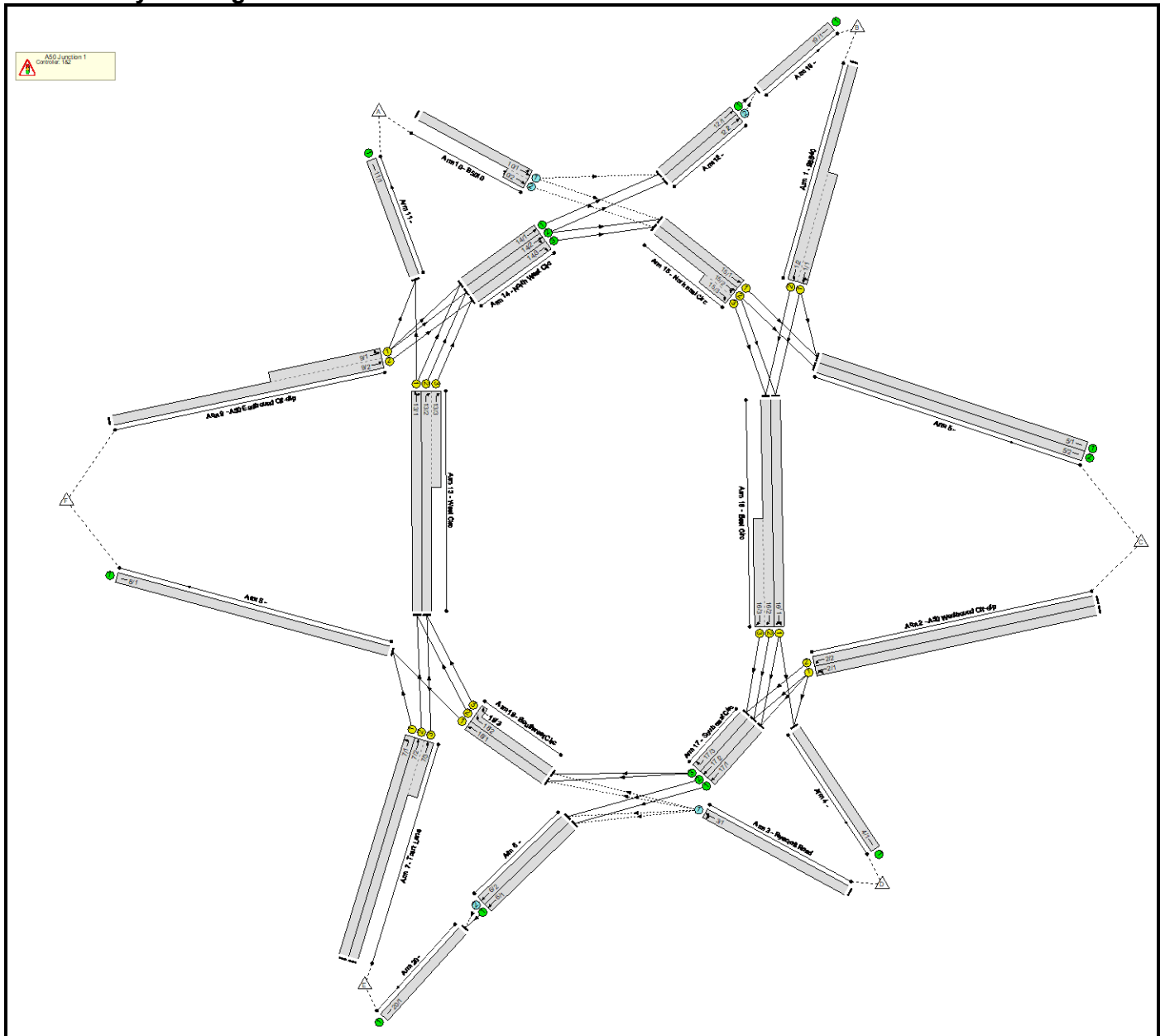
14/1	1056	1056	-	-	-	0.0	0.6	-	0.6	2.0	1.1	0.6	1.7
14/2	48	48	48	0	0	0.0	0.1	-	0.1	4.1	0.0	0.1	0.1
C1 - Westside 25911			PRC for Signalled Lanes (%):		-4.6	Total Delay for Signalled Lanes (pcuHr):		39.30	Cycle Time (s):		69		
C2 - Eastside 25921			PRC for Signalled Lanes (%):		0.0	Total Delay for Signalled Lanes (pcuHr):		32.55	Cycle Time (s):		69		
			PRC Over All Lanes (%):		-4.6	Total Delay Over All Lanes(pcuHr):		72.81					

APPENDIX 55: Junction 13: A50 Junction 1 Stage 1A/2A Modelling Results

Full Input Data And Results**User and Project Details**

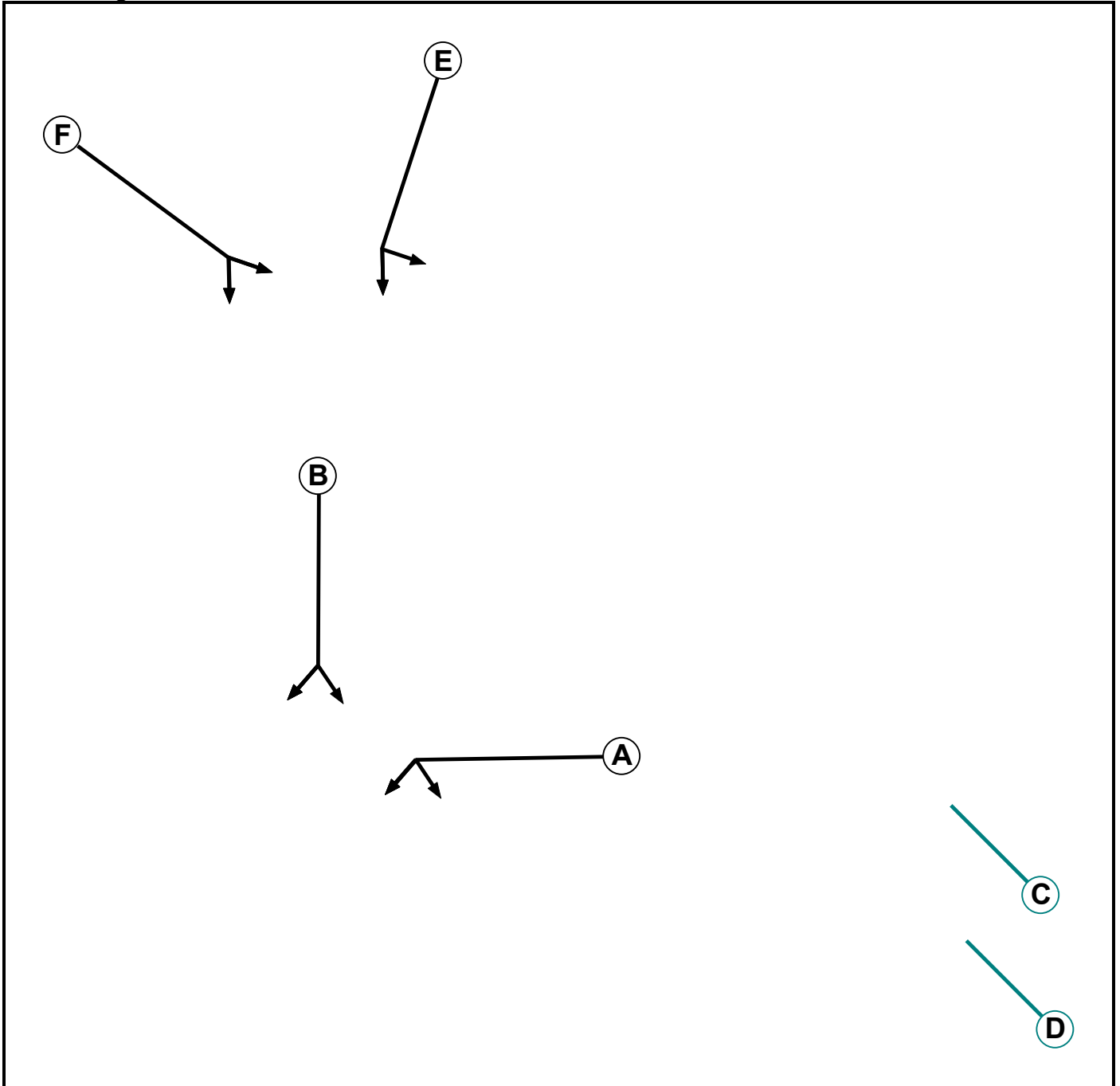
Project:	A50 Junction 1
Title:	A50 Junction 1
Location:	
Client:	SEGRO
Site Ref(s):	Junction 13
Date Completed:	27/03/2024
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	250622 A50 Junction 1 (Consented Scheme)_Stage 1a+2a.lsg3x
Author:	Charlie Cresswell
Company:	
Address:	

Network Layout Diagram



Controller :C1 - Eastside E36308

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		7	7
D	Dummy		7	7
E	Traffic		7	7
F	Traffic		7	7

Full Input Data And Results

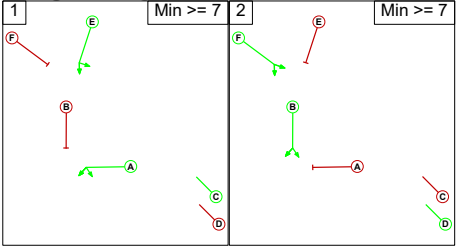
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		7	-	-	-	-
	B	5		-	-	-	-
	C	-	-		7	-	-
	D	-	-	5		-	-
	E	-	-	-	-		7
	F	-	-	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A C E
2	B D F

Stage Diagram



Phase Delays

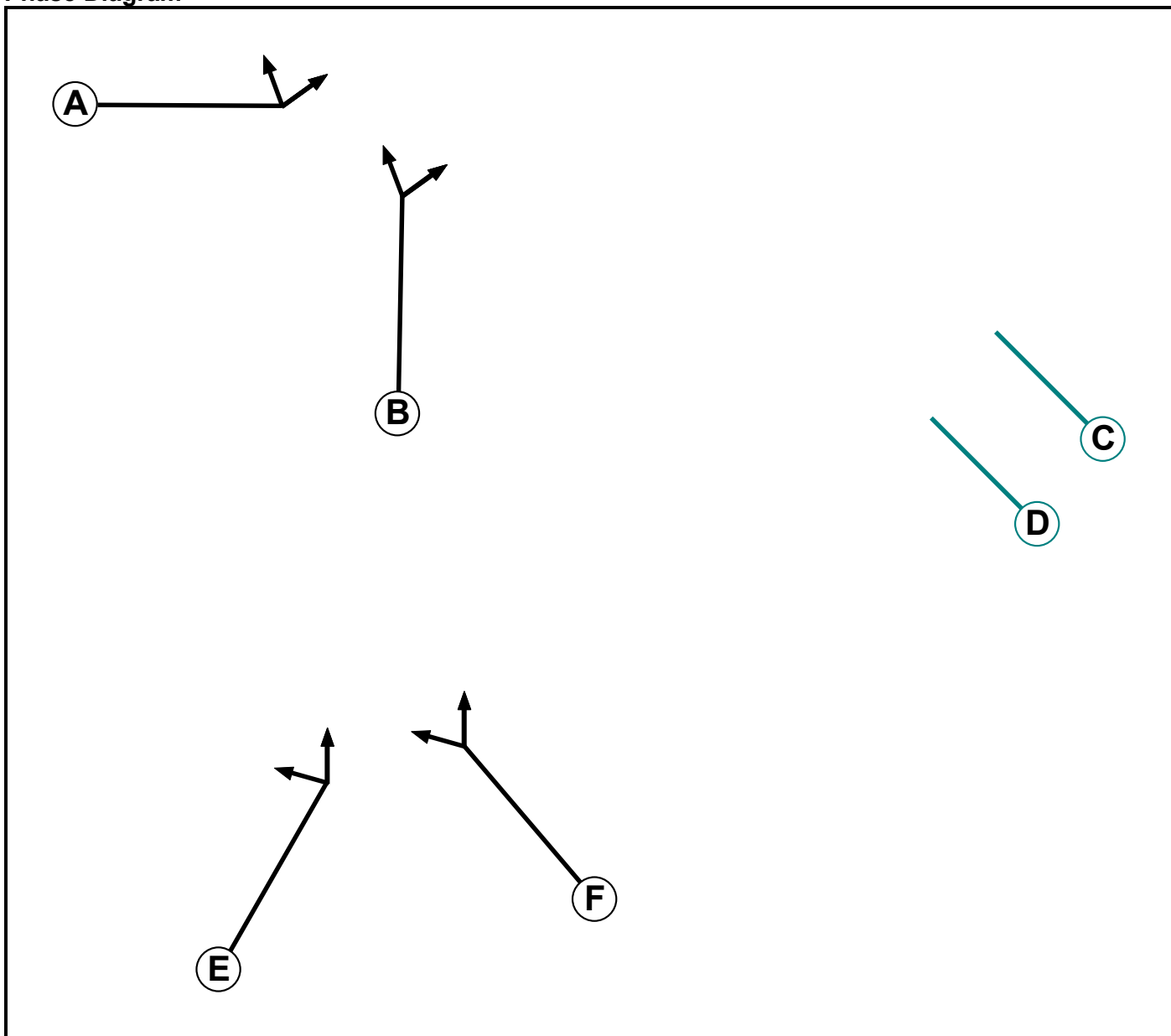
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage		
		1	2
	1		7
	2	5	

Controller :C2 - Westside E36309

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		7	7
D	Dummy		7	7
E	Traffic		7	7
F	Traffic		7	7

Full Input Data And Results

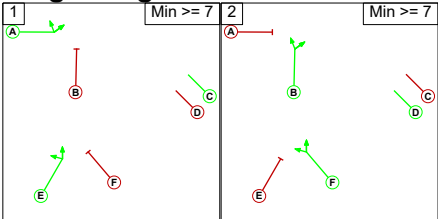
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		7	-	-	-	-
	B	5		-	-	-	-
	C	-	-		7	-	-
	D	-	-	5		-	-
	E	-	-	-	-		7
	F	-	-	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A C E
2	B D F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage		
	1	2	
	1		7
	2	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A50 Junction 1											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/1 (Ryecroft Road)	6/1 (Left)	1000	0	17/1	0.33	All	-	-	-	-	-
				17/2	0.33	All					
	6/2 (Left)	1000	0	17/1	0.33	All					
				17/2	0.33	All					
	18/1 (Ahead)	1000	0	17/1	0.33	All					
				17/2	0.33	All					
				17/3	0.33	All					
	18/2 (Ahead)	1000	0	17/1	0.33	All					
				17/2	0.33	All					
				17/3	0.33	All					
6/2	20/1 (Ahead)	715	0	6/1	0.22	All	-	-	-	-	-
10/1 (B5010)	12/1 (Left)	1000	0	14/1	0.33	All	-	-	-	-	-
				14/2	0.33	All					
				14/3	0.33	All					
	15/1 (Ahead)	1000	0	14/1	0.33	All					
				14/2	0.33	All					
				14/3	0.33	All					
10/2 (B5010)	15/2 (Ahead)	1000	0	14/1	0.33	All	-	-	-	-	-
				14/2	0.33	All					
				14/3	0.33	All					
12/2	19/1 (Ahead)	715	0	12/1	0.22	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A50 Junction 1												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (B6540)	U	E	2	3	17.4	Geom	-	4.00	0.00	Y	Arm 5 Left	45.00
											Arm 16 Ahead	45.00
1/2 (B6540)	U	E	2	3	60.0	Geom	-	4.00	0.00	N	Arm 16 Ahead	47.00
2/1 (A50 Westbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Left	39.00
											Arm 17 Ahead	39.00
2/2 (A50 Westbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	43.00
3/1 (Ryecroft Road)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	36.00
											Arm 18 Ahead	36.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	17.4	Geom	-	3.65	0.00	Y	Arm 20 Ahead	Inf
6/2	O		2	3	17.4	Geom	-	3.65	0.00	Y	Arm 20 Ahead	Inf
7/1 (Trent Lane)	U	E	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 8 Left	51.00
7/2 (Trent Lane)	U	E	2	3	60.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	54.00
7/3 (Trent Lane)	U	E	2	3	8.7	Geom	-	4.00	0.00	N	Arm 13 Ahead	58.00
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (A50 Eastbound Off-slip)	U	A	2	3	17.4	Geom	-	3.00	0.00	Y	Arm 11 Left	40.00
											Arm 14 Ahead	45.00
9/2 (A50 Eastbound Off-slip)	U	A	2	3	60.0	Geom	-	3.00	0.00	N	Arm 14 Ahead	50.00
10/1 (B5010)	O		2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Left	33.00
											Arm 15 Ahead	33.00
10/2 (B5010)	O		2	3	3.5	Geom	-	3.50	0.00	N	Arm 15 Ahead	43.00
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

12/1	U		2	3	12.2	Geom	-	3.50	0.00	Y	Arm 19 Ahead	Inf
12/2	O		2	3	12.2	Geom	-	3.50	0.00	Y	Arm 19 Ahead	Inf
13/1 (West Circ)	U	B	2	3	23.5	Geom	-	3.65	0.00	Y	Arm 11 Ahead	80.00
											Arm 14 Right	80.00
13/2 (West Circ)	U	B	2	3	24.0	Geom	-	3.65	0.00	Y	Arm 14 Right	77.00
13/3 (West Circ)	U	B	2	3	14.8	Geom	-	3.65	0.00	Y	Arm 14 Right	73.00
14/1 (North West Circ)	U		2	3	7.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	58.00
14/2 (North West Circ)	U		2	3	7.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	54.00
											Arm 15 Right	54.00
14/3 (North West Circ)	U		2	3	7.0	Geom	-	3.65	0.00	Y	Arm 15 Right	51.00
15/1 (Northeast Circ)	U	F	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 5 Ahead	61.00
15/2 (Northeast Circ)	U	F	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 5 Ahead	57.00
											Arm 16 Right	57.00
15/3 (Northeast Circ)	U	F	2	3	5.2	Geom	-	3.65	0.00	Y	Arm 16 Right	54.00
16/1 (East Circ)	U	B	2	3	26.1	Geom	-	3.65	0.00	Y	Arm 4 Ahead	62.00
											Arm 17 Ahead	62.00
16/2 (East Circ)	U	B	2	3	25.2	Geom	-	3.65	0.00	Y	Arm 17 Ahead	58.00
16/3 (East Circ)	U	B	2	3	16.5	Geom	-	3.65	0.00	Y	Arm 17 Ahead	55.00
17/1 (Southeast Circ)	U		2	3	9.6	Geom	-	3.65	0.00	Y	Arm 6 Ahead	42.00
17/2 (Southeast Circ)	U		2	3	9.0	Geom	-	3.65	0.00	Y	Arm 6 Ahead	39.00
17/3 (Southeast Circ)	U		2	3	8.7	Geom	-	3.65	0.00	Y	Arm 18 Right	35.00
18/1 (Southwest Circ)	U	F	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 8 Ahead	68.00
18/2 (Southwest Circ)	U	F	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 13 Right	64.00

Full Input Data And Results

18/3 (Southwest Circ)	U	F	2	3	1.0	Geom	-	3.65	0.00	Y	Arm 13 Right	58.00
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 Base Flows AM'	07:45	08:45	01:00	
2: '2023 Base Flows PM'	17:00	18:00	01:00	
3: '2028 WoD Flows AM'	07:45	08:45	01:00	
4: '2028 WoD Flows PM'	17:00	18:00	01:00	
5: '2028 WD Flows AM'	07:45	08:45	01:00	
6: '2028 WD Flows PM'	17:00	18:00	01:00	
7: '2038 WoD Flows AM'	07:45	08:45	01:00	
8: '2038 WoD Flows PM'	17:00	18:00	01:00	
9: '2038 WD Flows AM'	07:45	08:45	01:00	
10: '2038 WD Flows PM'	17:00	18:00	01:00	
11: '2a 2028 WD Flows AM'	07:45	08:45	01:00	
12: '2a 2028 WD Flows PM'	17:00	18:00	01:00	
13: '2a 2038 WD Flows AM'	07:45	08:45	01:00	
14: '2a 2038 WD Flows PM'	17:00	18:00	01:00	

Scenario 1: '2022 Base AM' (FG1: '2023 Base Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	65	88	5	95	72	325
	B	37	0	315	11	237	198	798
	C	64	269	0	13	419	0	765
	D	3	10	15	0	10	12	50
	E	49	145	292	12	0	347	845
	F	14	245	0	15	449	0	723
	Tot.	167	734	710	56	1210	629	3506

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM
Junction: A50 Junction 1	
1/1 (short)	416
1/2 (with short)	798(In) 382(Out)
2/1	432
2/2	333
3/1	50
4/1	56
5/1	579
5/2	131
6/1	923
6/2	287
7/1	347
7/2 (with short)	498(In) 80(Out)
7/3 (short)	418
8/1	629
9/1 (short)	259
9/2 (with short)	723(In) 464(Out)
10/1 (with short)	325(In) 153(Out)
10/2 (short)	172
11/1	167
12/1	567
12/2	167
13/1	410
13/2 (with short)	486(In) 343(Out)
13/3 (short)	143
14/1	502
14/2	343
14/3	607
15/1	264
15/2 (with short)	779(In) 567(Out)
15/3 (short)	212
16/1	537
16/2 (with short)	594(In) 287(Out)

Full Input Data And Results

16/3 (short)	307
17/1	913
17/2	287
17/3	640
18/1	282
18/2 (with short)	398(In) 330(Out)
18/3 (short)	68
19/1	734
20/1	1210

Lane Saturation Flows

Lane Saturation Flows									
Junction: A50 Junction 1									
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	75.7 %	1950	1950	
				Arm 16 Ahead	45.00	24.3 %			
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088	
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	3.0 %	1907	1907	
				Arm 17 Ahead	39.00	97.0 %			
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049	
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	20.0 %	1886	1886	
				Arm 18 Ahead	36.00	80.0 %			
4/1	Infinite Saturation Flow						Inf	Inf	
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	Infinite Saturation Flow						Inf	Inf	
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980	
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980	
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923	
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063	
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101	
8/1	Infinite Saturation Flow						Inf	Inf	
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	5.4 %	1853	1853	
				Arm 14 Ahead	45.00	94.6 %			
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995	
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	42.5 %	1894	1894	
				Arm 15 Ahead	33.00	57.5 %			
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034	
11/1	Infinite Saturation Flow						Inf	Inf	
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965	
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965	
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	37.3 %	1944	1944	
				Arm 14 Right	80.00	62.7 %			
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942	
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940	
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930	

Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	48.7 %	1926	1926
				Arm 15 Right	54.00	51.3 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	23.1 %	1929	1929
				Arm 16 Right	57.00	76.9 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	8.0 %	1933	1933
				Arm 17 Ahead	62.00	92.0 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2022 Base PM' (FG2: '2023 Base Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	51	61	3	65	79	259
	B	69	0	261	6	173	182	691
	C	121	279	0	16	330	0	746
	D	5	15	17	0	11	15	63
	E	107	235	415	17	0	501	1275
	F	20	199	0	14	383	0	616
	Tot.	322	779	754	56	962	777	3650

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM
Junction: A50 Junction 1	
1/1 (short)	349
1/2 (with short)	691(In) 342(Out)
2/1	346
2/2	400
3/1	63
4/1	56
5/1	612
5/2	142
6/1	710
6/2	252
7/1	501
7/2 (with short)	774(In) 212(Out)
7/3 (short)	562
8/1	777
9/1 (short)	219
9/2 (with short)	616(In) 397(Out)
10/1 (with short)	259(In) 112(Out)
10/2 (short)	147
11/1	322
12/1	554
12/2	225
13/1	606
13/2 (with short)	674(In) 515(Out)
13/3 (short)	159
14/1	503
14/2	515
14/3	556
15/1	351
15/2 (with short)	703(In) 463(Out)
15/3 (short)	240
16/1	409
16/2 (with short)	582(In) 252(Out)

Full Input Data And Results

16/3 (short)	330
17/1	699
17/2	252
17/3	730
18/1	276
18/2 (with short)	506(In) 394(Out)
18/3 (short)	112
19/1	779
20/1	962

Lane Saturation Flows

Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	74.8 %	1950	1950
				Arm 16 Ahead	45.00	25.2 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	4.6 %	1907	1907
				Arm 17 Ahead	39.00	95.4 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	17.5 %	1886	1886
				Arm 18 Ahead	36.00	82.5 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	9.1 %	1853	1853
				Arm 14 Ahead	45.00	90.9 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	45.5 %	1894	1894
				Arm 15 Ahead	33.00	54.5 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	49.8 %	1944	1944
				Arm 14 Right	80.00	50.2 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	43.7 %	1926	1926
				Arm 15 Right	54.00	56.3 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	30.7 %	1929	1929
				Arm 16 Right	57.00	69.3 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	9.8 %	1933	1933
				Arm 17 Ahead	62.00	90.2 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2028 WoD AM' (FG3: '2028 WoD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	101	90	39	113	94	437
	B	36	0	380	91	277	282	1066
	C	65	441	0	109	521	0	1136
	D	3	15	14	0	11	15	58
	E	42	182	303	82	0	409	1018
	F	14	389	0	127	548	0	1078
	Tot.	160	1128	787	448	1470	800	4793

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2028 WoD AM
Junction: A50 Junction 1	
1/1 (short)	646
1/2 (with short)	1066(In) 420(Out)
2/1	630
2/2	506
3/1	58
4/1	448
5/1	683
5/2	155
6/1	955
6/2	515
7/1	409
7/2 (with short)	660(In) 106(Out)
7/3 (short)	554
8/1	800
9/1 (short)	403
9/2 (with short)	1078(In) 675(Out)
10/1 (with short)	437(In) 191(Out)
10/2 (short)	246
11/1	160
12/1	929
12/2	199
13/1	585
13/2 (with short)	649(In) 412(Out)
13/3 (short)	237
14/1	828
14/2	412
14/3	912
15/1	303
15/2 (with short)	1158(In) 651(Out)
15/3 (short)	507
16/1	762
16/2 (with short)	927(In) 515(Out)

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16/3 (short)	412
17/1	944
17/2	515
17/3	918
18/1	391
18/2 (with short)	574(In) 479(Out)
18/3 (short)	95
19/1	1128
20/1	1470

Lane Saturation Flows

Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	58.8 %	1950	1950
				Arm 16 Ahead	45.00	41.2 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	17.3 %	1907	1907
				Arm 17 Ahead	39.00	82.7 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	19.0 %	1886	1886
				Arm 18 Ahead	36.00	81.0 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.5 %	1853	1853
				Arm 14 Ahead	45.00	96.5 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	52.9 %	1894	1894
				Arm 15 Ahead	33.00	47.1 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	25.0 %	1944	1944
				Arm 14 Right	80.00	75.0 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	48.3 %	1926	1926
				Arm 15 Right	54.00	51.7 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	23.8 %	1929	1929
				Arm 16 Right	57.00	76.2 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	44.5 %	1933	1933
				Arm 17 Ahead	62.00	55.5 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2028 WoD PM' (FG4: '2028 WoD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	68	74	5	79	91	317
	B	83	0	516	14	195	304	1112
	C	136	479	0	59	355	0	1029
	D	4	17	16	0	8	15	60
	E	88	295	519	26	0	608	1536
	F	24	394	0	32	469	0	919
	Tot.	335	1253	1125	136	1106	1018	4973

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2028 WoD PM
Junction: A50 Junction 1	
1/1 (short)	621
1/2 (with short)	1112(In) 491(Out)
2/1	414
2/2	615
3/1	60
4/1	136
5/1	974
5/2	151
6/1	815
6/2	291
7/1	608
7/2 (with short)	928(In) 249(Out)
7/3 (short)	679
8/1	1018
9/1 (short)	418
9/2 (with short)	919(In) 501(Out)
10/1 (with short)	317(In) 142(Out)
10/2 (short)	175
11/1	335
12/1	904
12/2	349
13/1	753
13/2 (with short)	910(In) 733(Out)
13/3 (short)	177
14/1	836
14/2	733
14/3	678
15/1	458
15/2 (with short)	853(In) 575(Out)
15/3 (short)	278
16/1	529
16/2 (with short)	769(In) 291(Out)

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16/3 (short)	478
17/1	807
17/2	291
17/3	1093
18/1	410
18/2 (with short)	735(In) 504(Out)
18/3 (short)	231
19/1	1253
20/1	1106

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	83.1 %	1950	1950
				Arm 16 Ahead	45.00	16.9 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	14.3 %	1907	1907
				Arm 17 Ahead	39.00	85.7 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	13.3 %	1886	1886
				Arm 18 Ahead	36.00	86.7 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	5.7 %	1853	1853
				Arm 14 Ahead	45.00	94.3 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	47.9 %	1894	1894
				Arm 15 Ahead	33.00	52.1 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	41.3 %	1944	1944
				Arm 14 Right	80.00	58.7 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	47.6 %	1926	1926
				Arm 15 Right	54.00	52.4 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	26.3 %	1929	1929
				Arm 16 Right	57.00	73.7 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	14.6 %	1933	1933
				Arm 17 Ahead	62.00	85.4 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2028 WD AM' (FG5: '2028 WD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	97	95	39	115	89	435
	B	35	0	396	89	280	272	1072
	C	65	427	0	110	535	0	1137
	D	3	17	18	0	13	17	68
	E	43	180	335	87	0	426	1071
	F	14	394	0	136	593	0	1137
	Tot.	160	1115	844	461	1536	804	4920

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2028 WD AM
Junction: A50 Junction 1	
1/1 (short)	625
1/2 (with short)	1072(In) 447(Out)
2/1	645
2/2	492
3/1	68
4/1	461
5/1	844
5/2	0
6/1	994
6/2	542
7/1	426
7/2 (with short)	645(In) 109(Out)
7/3 (short)	536
8/1	804
9/1 (short)	408
9/2 (with short)	1137(In) 729(Out)
10/1 (with short)	435(In) 192(Out)
10/2 (short)	243
11/1	160
12/1	945
12/2	170
13/1	600
13/2 (with short)	610(In) 523(Out)
13/3 (short)	87
14/1	848
14/2	523
14/3	816
15/1	448
15/2 (with short)	1059(In) 568(Out)
15/3 (short)	491
16/1	797
16/2 (with short)	938(In) 542(Out)
16/3 (short)	396

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17/1	981
17/2	542
17/3	888
18/1	378
18/2 (with short)	565(In) 491(Out)
18/3 (short)	74
19/1	1115
20/1	1536

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	63.4 %	1950	1950
				Arm 16 Ahead	45.00	36.6 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	17.1 %	1907	1907
				Arm 17 Ahead	39.00	82.9 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	19.1 %	1886	1886
				Arm 18 Ahead	36.00	80.9 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.4 %	1853	1853
				Arm 14 Ahead	45.00	96.6 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	50.5 %	1894	1894
				Arm 15 Ahead	33.00	49.5 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	24.3 %	1944	1944
				Arm 14 Right	80.00	75.7 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	32.5 %	1926	1926
				Arm 15 Right	54.00	67.5 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	0.0 %	1929	1929
				Arm 16 Right	57.00	100.0 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	44.0 %	1933	1933
				Arm 17 Ahead	62.00	56.0 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2028 WD PM' (FG6: '2028 WD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	71	70	7	66	90	304
	B	85	0	439	18	197	292	1031
	C	121	421	0	49	303	0	894
	D	4	17	16	0	8	14	59
	E	91	302	466	34	0	557	1450
	F	24	376	0	41	444	0	885
	Tot.	325	1187	991	149	1018	953	4623

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2028 WD PM
Junction: A50 Junction 1	
1/1 (short)	559
1/2 (with short)	1031(In) 472(Out)
2/1	352
2/2	542
3/1	59
4/1	149
5/1	653
5/2	338
6/1	667
6/2	351
7/1	557
7/2 (with short)	893(In) 270(Out)
7/3 (short)	623
8/1	953
9/1 (short)	400
9/2 (with short)	885(In) 485(Out)
10/1 (with short)	304(In) 141(Out)
10/2 (short)	163
11/1	325
12/1	829
12/2	358
13/1	683
13/2 (with short)	874(In) 502(Out)
13/3 (short)	372
14/1	758
14/2	502
14/3	857
15/1	214
15/2 (with short)	1020(In) 674(Out)
15/3 (short)	346
16/1	456
16/2 (with short)	818(In) 351(Out)
16/3 (short)	467

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17/1	659
17/2	351
17/3	1009
18/1	396
18/2 (with short)	664(In) 413(Out)
18/3 (short)	251
19/1	1187
20/1	1018

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	78.5 %	1950	1950
				Arm 16 Ahead	45.00	21.5 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	13.9 %	1907	1907
				Arm 17 Ahead	39.00	86.1 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	13.6 %	1886	1886
				Arm 18 Ahead	36.00	86.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	6.0 %	1853	1853
				Arm 14 Ahead	45.00	94.0 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	50.4 %	1894	1894
				Arm 15 Ahead	33.00	49.6 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	44.1 %	1944	1944
				Arm 14 Right	80.00	55.9 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	71.3 %	1926	1926
				Arm 15 Right	54.00	28.7 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	50.1 %	1929	1929
				Arm 16 Right	57.00	49.9 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	21.9 %	1933	1933
				Arm 17 Ahead	62.00	78.1 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2038 WoD AM' (FG7: '2038 WoD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	85	105	39	100	78	407
	B	41	0	474	105	301	266	1187
	C	68	415	0	116	522	0	1121
	D	3	17	23	0	13	17	73
	E	61	251	505	135	0	535	1487
	F	15	380	0	139	568	0	1102
	Tot.	188	1148	1107	534	1504	896	5377

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2038 WoD AM
Junction: A50 Junction 1	
1/1 (short)	622
1/2 (with short)	1187(In) 565(Out)
2/1	638
2/2	483
3/1	73
4/1	534
5/1	1107
5/2	0
6/1	921
6/2	583
7/1	535
7/2 (with short)	952(In) 198(Out)
7/3 (short)	754
8/1	896
9/1 (short)	395
9/2 (with short)	1102(In) 707(Out)
10/1 (with short)	407(In) 190(Out)
10/2 (short)	217
11/1	188
12/1	979
12/2	169
13/1	687
13/2 (with short)	832(In) 697(Out)
13/3 (short)	135
14/1	894
14/2	697
14/3	842
15/1	633
15/2 (with short)	1059(In) 656(Out)
15/3 (short)	403
16/1	804
16/2 (with short)	968(In) 583(Out)

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16/3 (short)	385
17/1	908
17/2	583
17/3	868
18/1	361
18/2 (with short)	567(In) 489(Out)
18/3 (short)	78
19/1	1148
20/1	1504

Lane Saturation Flows

Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	76.2 %	1950	1950
				Arm 16 Ahead	45.00	23.8 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	18.2 %	1907	1907
				Arm 17 Ahead	39.00	81.8 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	17.8 %	1886	1886
				Arm 18 Ahead	36.00	82.2 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.8 %	1853	1853
				Arm 14 Ahead	45.00	96.2 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	44.7 %	1894	1894
				Arm 15 Ahead	33.00	55.3 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	25.2 %	1944	1944
				Arm 14 Right	80.00	74.8 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	24.2 %	1926	1926
				Arm 15 Right	54.00	75.8 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	0.0 %	1929	1929
				Arm 16 Right	57.00	100.0 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	52.0 %	1933	1933
				Arm 17 Ahead	62.00	48.0 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2038 WoD PM' (FG8: '2038 WoD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	91	70	15	77	81	334
	B	128	0	513	49	340	316	1346
	C	117	405	0	71	329	0	922
	D	6	30	23	0	14	18	91
	E	124	436	518	85	0	560	1723
	F	21	328	0	61	439	0	849
	Tot.	396	1290	1124	281	1199	975	5265

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2038 WoD PM
Junction: A50 Junction 1	
1/1 (short)	651
1/2 (with short)	1346(In) 695(Out)
2/1	400
2/2	522
3/1	91
4/1	281
5/1	989
5/2	135
6/1	787
6/2	412
7/1	560
7/2 (with short)	1163(In) 361(Out)
7/3 (short)	802
8/1	975
9/1 (short)	349
9/2 (with short)	849(In) 500(Out)
10/1 (with short)	334(In) 161(Out)
10/2 (short)	173
11/1	396
12/1	867
12/2	423
13/1	823
13/2 (with short)	1049(In) 829(Out)
13/3 (short)	220
14/1	776
14/2	829
14/3	720
15/1	476
15/2 (with short)	893(In) 651(Out)
15/3 (short)	242
16/1	654
16/2 (with short)	937(In) 412(Out)

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16/3 (short)	525
17/1	773
17/2	412
17/3	1047
18/1	415
18/2 (with short)	709(In) 462(Out)
18/3 (short)	247
19/1	1290
20/1	1199

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	78.8 %	1950	1950
				Arm 16 Ahead	45.00	21.2 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	17.8 %	1907	1907
				Arm 17 Ahead	39.00	82.2 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	15.4 %	1886	1886
				Arm 18 Ahead	36.00	84.6 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	6.0 %	1853	1853
				Arm 14 Ahead	45.00	94.0 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	56.5 %	1894	1894
				Arm 15 Ahead	33.00	43.5 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	45.6 %	1944	1944
				Arm 14 Right	80.00	54.4 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	51.0 %	1926	1926
				Arm 15 Right	54.00	49.0 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	20.7 %	1929	1929
				Arm 16 Right	57.00	79.3 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	32.1 %	1933	1933
				Arm 17 Ahead	62.00	67.9 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2038 WD AM' (FG9: '2038 WD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	84	109	39	102	79	413
	B	38	0	479	103	303	265	1188
	C	65	412	0	115	522	0	1114
	D	3	17	25	0	14	18	77
	E	60	258	534	140	0	558	1550
	F	15	385	0	141	584	0	1125
	Tot.	181	1156	1147	538	1525	920	5467

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2038 WD AM
Junction: A50 Junction 1	
1/1 (short)	708
1/2 (with short)	1188(In) 480(Out)
2/1	637
2/2	477
3/1	77
4/1	538
5/1	1146
5/2	1
6/1	949
6/2	576
7/1	558
7/2 (with short)	992(In) 239(Out)
7/3 (short)	753
8/1	920
9/1 (short)	400
9/2 (with short)	1125(In) 725(Out)
10/1 (with short)	413(In) 193(Out)
10/2 (short)	220
11/1	181
12/1	1007
12/2	149
13/1	704
13/2 (with short)	848(In) 707(Out)
13/3 (short)	141
14/1	923
14/2	707
14/3	866
15/1	667
15/2 (with short)	1086(In) 608(Out)
15/3 (short)	478
16/1	836
16/2 (with short)	958(In) 576(Out)
16/3 (short)	382

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17/1	935
17/2	576
17/3	859
18/1	362
18/2 (with short)	560(In) 465(Out)
18/3 (short)	95
19/1	1156
20/1	1525

Lane Saturation Flows

Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	67.7 %	1950	1950
				Arm 16 Ahead	45.00	32.3 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	18.1 %	1907	1907
				Arm 17 Ahead	39.00	81.9 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	18.2 %	1886	1886
				Arm 18 Ahead	36.00	81.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.8 %	1853	1853
				Arm 14 Ahead	45.00	96.2 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	43.5 %	1894	1894
				Arm 15 Ahead	33.00	56.5 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	23.6 %	1944	1944
				Arm 14 Right	80.00	76.4 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	21.1 %	1926	1926
				Arm 15 Right	54.00	78.9 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	0.2 %	1929	1929
				Arm 16 Right	57.00	99.8 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	50.6 %	1933	1933
				Arm 17 Ahead	62.00	49.4 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2038 WD PM' (FG10: '2038 WD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	91	63	16	80	79	329
	B	131	0	489	53	359	315	1347
	C	115	394	0	74	329	0	912
	D	8	41	28	0	19	22	118
	E	129	457	497	98	0	570	1751
	F	20	320	0	65	442	0	847
	Tot.	403	1303	1077	306	1229	986	5304

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2038 WD PM
Junction: A50 Junction 1	
1/1 (short)	651
1/2 (with short)	1347(In) 696(Out)
2/1	403
2/2	509
3/1	118
4/1	306
5/1	959
5/2	118
6/1	807
6/2	422
7/1	570
7/2 (with short)	1181(In) 356(Out)
7/3 (short)	825
8/1	986
9/1 (short)	340
9/2 (with short)	847(In) 507(Out)
10/1 (with short)	329(In) 154(Out)
10/2 (short)	175
11/1	403
12/1	864
12/2	439
13/1	836
13/2 (with short)	1062(In) 846(Out)
13/3 (short)	216
14/1	773
14/2	846
14/3	723
15/1	470
15/2 (with short)	898(In) 647(Out)
15/3 (short)	251
16/1	691
16/2 (with short)	947(In) 422(Out)
16/3 (short)	525

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17/1	788
17/2	422
17/3	1034
18/1	416
18/2 (with short)	717(In) 480(Out)
18/3 (short)	237
19/1	1303
20/1	1229

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	75.1 %	1950	1950
				Arm 16 Ahead	45.00	24.9 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	18.4 %	1907	1907
				Arm 17 Ahead	39.00	81.6 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	16.1 %	1886	1886
				Arm 18 Ahead	36.00	83.9 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	5.9 %	1853	1853
				Arm 14 Ahead	45.00	94.1 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	59.1 %	1894	1894
				Arm 15 Ahead	33.00	40.9 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	45.8 %	1944	1944
				Arm 14 Right	80.00	54.2 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	51.9 %	1926	1926
				Arm 15 Right	54.00	48.1 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	18.2 %	1929	1929
				Arm 16 Right	57.00	81.8 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	33.6 %	1933	1933
				Arm 17 Ahead	62.00	66.4 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2a 2028 WD AM' (FG11: '2a 2028 WD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	105	90	34	120	93	442
	B	37	0	374	78	296	279	1064
	C	62	430	0	88	523	0	1103
	D	2	13	13	0	10	13	51
	E	45	196	313	73	0	417	1044
	F	13	368	0	98	524	0	1003
	Tot.	159	1112	790	371	1473	802	4707

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2a 2028 WD AM
Junction: A50 Junction 1	
1/1 (short)	596
1/2 (with short)	1064(In) 468(Out)
2/1	611
2/2	492
3/1	51
4/1	371
5/1	715
5/2	75
6/1	1038
6/2	435
7/1	417
7/2 (with short)	627(In) 103(Out)
7/3 (short)	524
8/1	802
9/1 (short)	381
9/2 (with short)	1003(In) 622(Out)
10/1 (with short)	442(In) 195(Out)
10/2 (short)	247
11/1	159
12/1	888
12/2	224
13/1	561
13/2 (with short)	623(In) 475(Out)
13/3 (short)	148
14/1	783
14/2	475
14/3	770
15/1	341
15/2 (with short)	1017(In) 641(Out)
15/3 (short)	376
16/1	788
16/2 (with short)	844(In) 435(Out)

Full Input Data And Results

16/3 (short)	409
17/1	1028
17/2	435
17/3	901
18/1	385
18/2 (with short)	557(In) 458(Out)
18/3 (short)	99
19/1	1112
20/1	1473

Lane Saturation Flows

Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	62.8 %	1950	1950
				Arm 16 Ahead	45.00	37.2 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	14.4 %	1907	1907
				Arm 17 Ahead	39.00	85.6 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	19.6 %	1886	1886
				Arm 18 Ahead	36.00	80.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.4 %	1853	1853
				Arm 14 Ahead	45.00	96.6 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	53.8 %	1894	1894
				Arm 15 Ahead	33.00	46.2 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	26.0 %	1944	1944
				Arm 14 Right	80.00	74.0 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	47.2 %	1926	1926
				Arm 15 Right	54.00	52.8 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	11.7 %	1929	1929
				Arm 16 Right	57.00	88.3 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	35.9 %	1933	1933
				Arm 17 Ahead	62.00	64.1 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2a 2028 WD PM' (FG12: '2a 2028 WD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	65	75	5	64	88	297
	B	85	0	467	13	195	286	1046
	C	122	407	0	41	300	0	870
	D	5	20	21	0	10	17	73
	E	93	301	517	24	0	566	1501
	F	26	393	0	31	474	0	924
	Tot.	331	1186	1080	114	1043	957	4711

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2a 2028 WD PM
Junction: A50 Junction 1	
1/1 (short)	603
1/2 (with short)	1046(In) 443(Out)
2/1	341
2/2	529
3/1	73
4/1	114
5/1	761
5/2	319
6/1	733
6/2	310
7/1	566
7/2 (with short)	935(In) 260(Out)
7/3 (short)	675
8/1	957
9/1 (short)	419
9/2 (with short)	924(In) 505(Out)
10/1 (with short)	297(In) 140(Out)
10/2 (short)	157
11/1	331
12/1	845
12/2	341
13/1	692
13/2 (with short)	903(In) 560(Out)
13/3 (short)	343
14/1	780
14/2	560
14/3	848
15/1	294
15/2 (with short)	1005(In) 679(Out)
15/3 (short)	326
16/1	496
16/2 (with short)	769(In) 310(Out)

Full Input Data And Results

16/3 (short)	459
17/1	723
17/2	310
17/3	988
18/1	391
18/2 (with short)	660(In) 432(Out)
18/3 (short)	228
19/1	1186
20/1	1043

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	77.4 %	1950	1950
				Arm 16 Ahead	45.00	22.6 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	12.0 %	1907	1907
				Arm 17 Ahead	39.00	88.0 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	13.7 %	1886	1886
				Arm 18 Ahead	36.00	86.3 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	6.2 %	1853	1853
				Arm 14 Ahead	45.00	93.8 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	46.4 %	1894	1894
				Arm 15 Ahead	33.00	53.6 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	44.1 %	1944	1944
				Arm 14 Right	80.00	55.9 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

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14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	60.9 %	1926	1926
				Arm 15 Right	54.00	39.1 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	47.0 %	1929	1929
				Arm 16 Right	57.00	53.0 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	14.7 %	1933	1933
				Arm 17 Ahead	62.00	85.3 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2a 2038 WD AM' (FG13: '2a 2038 WD Flows AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	90	103	30	105	79	407
	B	43	0	474	81	318	266	1182
	C	64	399	0	79	492	0	1034
	D	3	16	20	0	12	15	66
	E	64	269	513	105	0	551	1502
	F	13	359	0	93	523	0	988
	Tot.	187	1133	1110	388	1450	911	5179

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: 2a 2038 WD AM
Junction: A50 Junction 1	
1/1 (short)	651
1/2 (with short)	1182(In) 531(Out)
2/1	571
2/2	463
3/1	66
4/1	388
5/1	1108
5/2	2
6/1	991
6/2	459
7/1	551
7/2 (with short)	951(In) 291(Out)
7/3 (short)	660
8/1	911
9/1 (short)	372
9/2 (with short)	988(In) 616(Out)
10/1 (with short)	407(In) 193(Out)
10/2 (short)	214
11/1	187
12/1	964
12/2	169
13/1	689
13/2 (with short)	807(In) 700(Out)
13/3 (short)	107
14/1	874
14/2	700
14/3	723
15/1	634
15/2 (with short)	937(In) 621(Out)
15/3 (short)	316
16/1	796
16/2 (with short)	847(In) 459(Out)

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16/3 (short)	388
17/1	979
17/2	459
17/3	851
18/1	360
18/2 (with short)	545(In) 398(Out)
18/3 (short)	147
19/1	1133
20/1	1450

Lane Saturation Flows

Lane Saturation Flows								
Junction: A50 Junction 1								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	72.8 %	1950	1950
				Arm 16 Ahead	45.00	27.2 %		
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	13.8 %	1907	1907
				Arm 17 Ahead	39.00	86.2 %		
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	18.2 %	1886	1886
				Arm 18 Ahead	36.00	81.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	3.5 %	1853	1853
				Arm 14 Ahead	45.00	96.5 %		
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	46.6 %	1894	1894
				Arm 15 Ahead	33.00	53.4 %		
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034
11/1	Infinite Saturation Flow						Inf	Inf
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	25.3 %	1944	1944
				Arm 14 Right	80.00	74.7 %		
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930

Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	24.1 %	1926	1926
				Arm 15 Right	54.00	75.9 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	0.3 %	1929	1929
				Arm 16 Right	57.00	99.7 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	38.8 %	1933	1933
				Arm 17 Ahead	62.00	61.2 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2a 2038 WD PM' (FG14: '2a 2038 WD Flows PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	86	72	6	76	77	317
	B	131	0	545	22	343	307	1348
	C	113	372	0	45	314	0	844
	D	15	71	55	0	32	41	214
	E	129	440	563	38	0	558	1728
	F	21	326	0	28	449	0	824
	Tot.	409	1295	1235	139	1214	983	5275

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 14: 2a 2038 WD PM
Junction: A50 Junction 1	
1/1 (short)	697
1/2 (with short)	1348(In) 651(Out)
2/1	359
2/2	485
3/1	214
4/1	139
5/1	1031
5/2	204
6/1	867
6/2	347
7/1	558
7/2 (with short)	1170(In) 340(Out)
7/3 (short)	830
8/1	983
9/1 (short)	347
9/2 (with short)	824(In) 477(Out)
10/1 (with short)	317(In) 158(Out)
10/2 (short)	159
11/1	409
12/1	859
12/2	436
13/1	835
13/2 (with short)	1092(In) 850(Out)
13/3 (short)	242
14/1	773
14/2	850
14/3	719
15/1	486
15/2 (with short)	878(In) 667(Out)
15/3 (short)	211
16/1	615
16/2 (with short)	862(In) 347(Out)

Full Input Data And Results

16/3 (short)	515
17/1	835
17/2	347
17/3	1000
18/1	425
18/2 (with short)	757(In) 495(Out)
18/3 (short)	262
19/1	1295
20/1	1214

Lane Saturation Flows

Lane Saturation Flows									
Junction: A50 Junction 1									
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (B6540)	4.00	0.00	Y	Arm 5 Left	45.00	78.2 %	1950	1950	
				Arm 16 Ahead	45.00	21.8 %			
1/2 (B6540)	4.00	0.00	N	Arm 16 Ahead	47.00	100.0 %	2088	2088	
2/1 (A50 Westbound Off-slip)	3.65	0.00	Y	Arm 4 Left	39.00	12.5 %	1907	1907	
				Arm 17 Ahead	39.00	87.5 %			
2/2 (A50 Westbound Off-slip)	3.65	0.00	N	Arm 17 Ahead	43.00	100.0 %	2049	2049	
3/1 (Ryecroft Road)	3.50	0.00	Y	Arm 6 Left	36.00	15.0 %	1886	1886	
				Arm 18 Ahead	36.00	85.0 %			
4/1	Infinite Saturation Flow						Inf	Inf	
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	Infinite Saturation Flow						Inf	Inf	
6/1	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980	
6/2	3.65	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1980	1980	
7/1 (Trent Lane)	3.65	0.00	Y	Arm 8 Left	51.00	100.0 %	1923	1923	
7/2 (Trent Lane)	3.65	0.00	N	Arm 13 Ahead	54.00	100.0 %	2063	2063	
7/3 (Trent Lane)	4.00	0.00	N	Arm 13 Ahead	58.00	100.0 %	2101	2101	
8/1	Infinite Saturation Flow						Inf	Inf	
9/1 (A50 Eastbound Off-slip)	3.00	0.00	Y	Arm 11 Left	40.00	6.1 %	1853	1853	
				Arm 14 Ahead	45.00	93.9 %			
9/2 (A50 Eastbound Off-slip)	3.00	0.00	N	Arm 14 Ahead	50.00	100.0 %	1995	1995	
10/1 (B5010)	3.65	0.00	Y	Arm 12 Left	33.00	54.4 %	1894	1894	
				Arm 15 Ahead	33.00	45.6 %			
10/2 (B5010)	3.50	0.00	N	Arm 15 Ahead	43.00	100.0 %	2034	2034	
11/1	Infinite Saturation Flow						Inf	Inf	
12/1	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965	
12/2	3.50	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1965	1965	
13/1 (West Circ)	3.65	0.00	Y	Arm 11 Ahead	80.00	46.5 %	1944	1944	
				Arm 14 Right	80.00	53.5 %			
13/2 (West Circ)	3.65	0.00	Y	Arm 14 Right	77.00	100.0 %	1942	1942	
13/3 (West Circ)	3.65	0.00	Y	Arm 14 Right	73.00	100.0 %	1940	1940	
14/1 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	58.00	100.0 %	1930	1930	

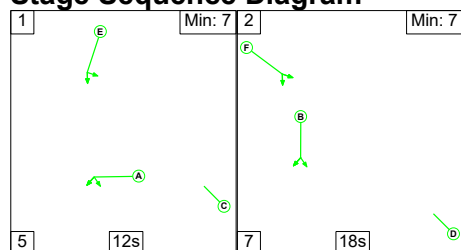
Full Input Data And Results

14/2 (North West Circ)	3.65	0.00	Y	Arm 12 Ahead	54.00	51.3 %	1926	1926
				Arm 15 Right	54.00	48.7 %		
14/3 (North West Circ)	3.65	0.00	Y	Arm 15 Right	51.00	100.0 %	1923	1923
15/1 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	61.00	100.0 %	1932	1932
15/2 (Northeast Circ)	3.65	0.00	Y	Arm 5 Ahead	57.00	30.6 %	1929	1929
				Arm 16 Right	57.00	69.4 %		
15/3 (Northeast Circ)	3.65	0.00	Y	Arm 16 Right	54.00	100.0 %	1926	1926
16/1 (East Circ)	3.65	0.00	Y	Arm 4 Ahead	62.00	15.3 %	1933	1933
				Arm 17 Ahead	62.00	84.7 %		
16/2 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	58.00	100.0 %	1930	1930
16/3 (East Circ)	3.65	0.00	Y	Arm 17 Ahead	55.00	100.0 %	1927	1927
17/1 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	42.00	100.0 %	1912	1912
17/2 (Southeast Circ)	3.65	0.00	Y	Arm 6 Ahead	39.00	100.0 %	1907	1907
17/3 (Southeast Circ)	3.65	0.00	Y	Arm 18 Right	35.00	100.0 %	1899	1899
18/1 (Southwest Circ)	3.65	0.00	Y	Arm 8 Ahead	68.00	100.0 %	1937	1937
18/2 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	64.00	100.0 %	1935	1935
18/3 (Southwest Circ)	3.65	0.00	Y	Arm 13 Right	58.00	100.0 %	1930	1930
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2022 Base AM' (FG1: '2023 Base Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

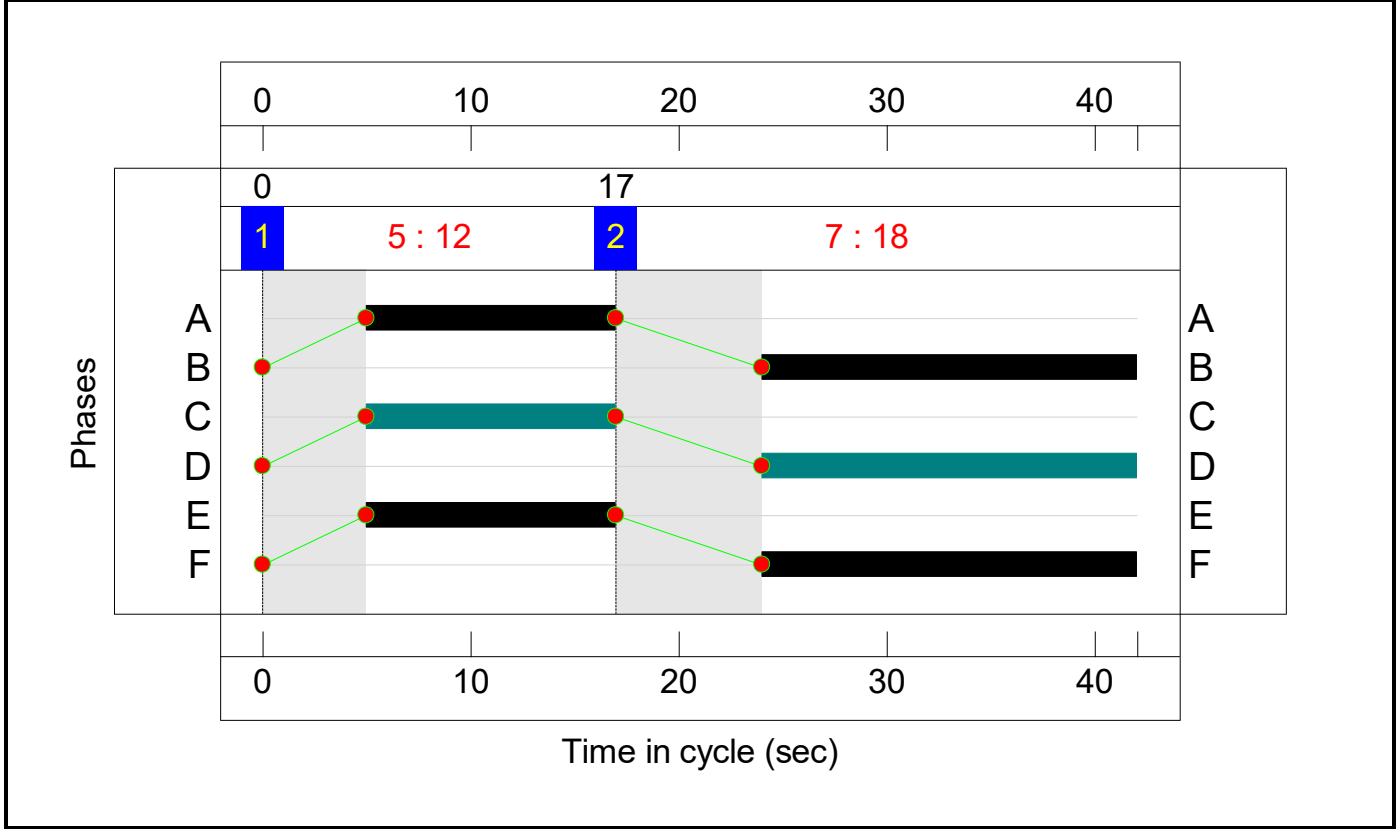
Stage Sequence Diagram



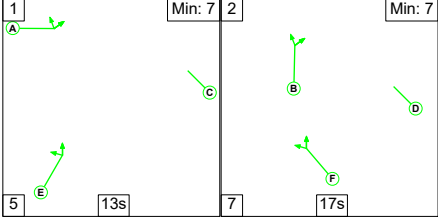
Stage Timings

Stage	1	2
Duration	12	18
Change Point	0	17

Signal Timings Diagram



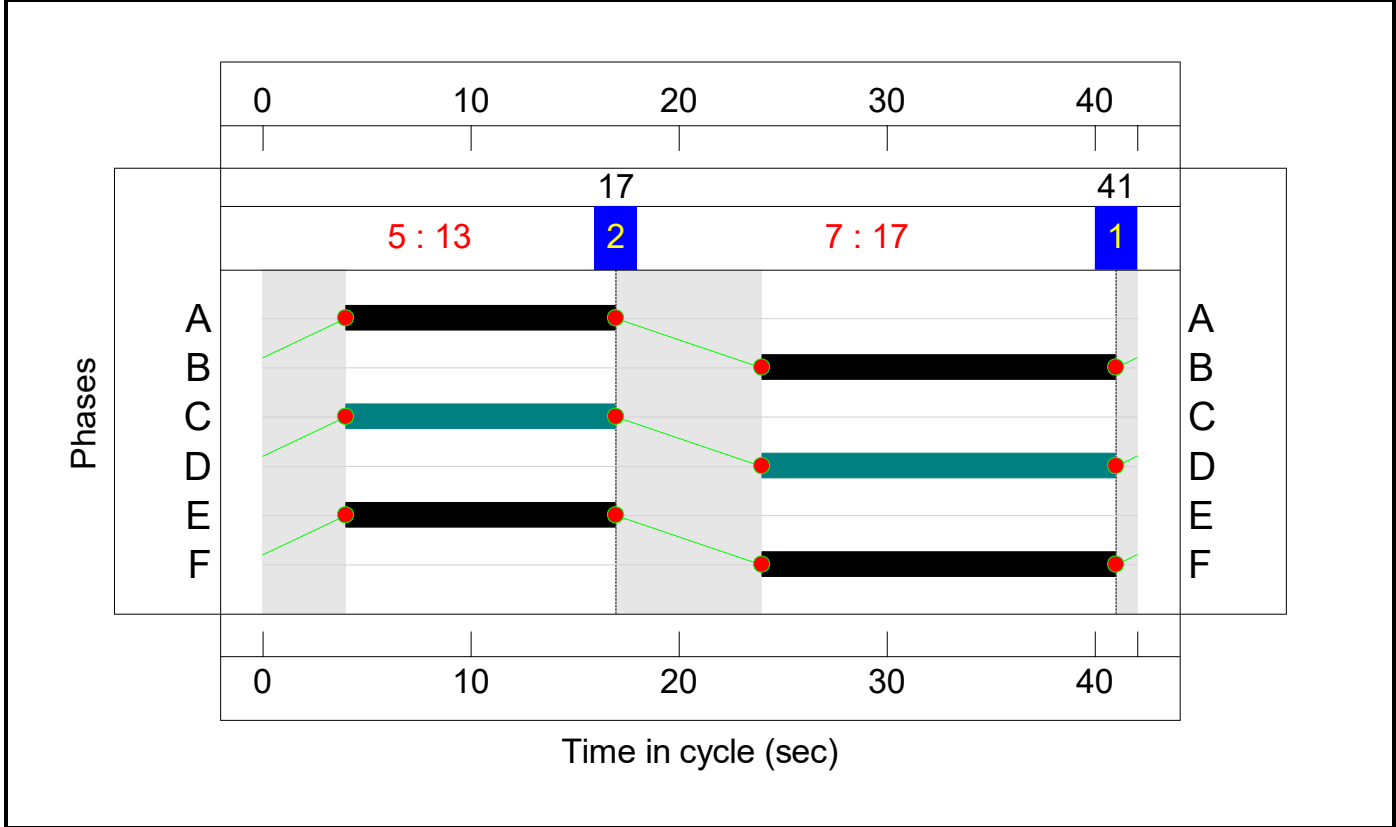
Controller :C2 - Westside E36309
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	13	17
Change Point	41	17

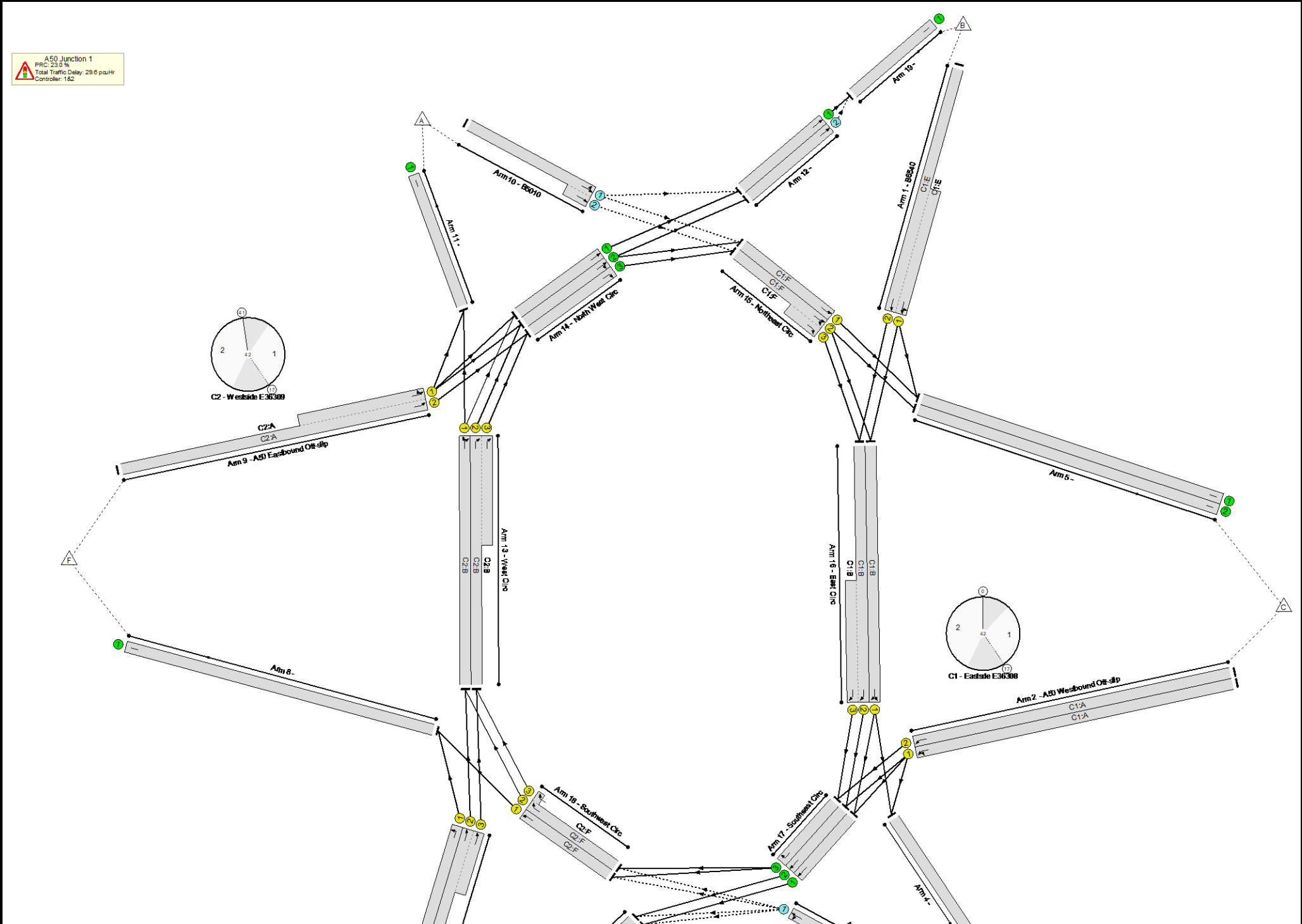
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	12	-	798	2088:1950	646+604	59.1 : 68.9%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	12	-	432	1907	590	73.2%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	12	-	333	2049	634	52.5%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	50	1886	444	11.3%
4/1		U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	923	1980	1980	46.6%
6/2	Ahead	O	N/A	N/A	-		-	-	-	287	1980	512	56.1%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	13	-	347	1923	641	54.1%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	13	-	498	2063:2101	134+700	59.7 : 59.7%
8/1		U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	13	-	723	1995:1853	665+618	69.8 : 41.9%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	325	1894:2034	550+550	27.8 : 31.3%
11/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	567	1965	1965	28.9%
12/2	Ahead	O	N/A	N/A	-		-	-	-	167	1965	590	28.3%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	17	-	410	1944	833	49.2%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	17	-	486	1942:1940	832+347	41.2 : 41.2%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	502	1930	1930	26.0%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	343	1926	1926	17.8%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	607	1923	1923	31.6%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	18	-	264	1932	874	30.2%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	18	-	779	1929:1926	775+290	73.2 : 73.2%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	18	-	537	1933	874	61.4%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	18	-	594	1930:1927	873+872	32.9 : 35.2%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	913	1912	1912	47.8%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	287	1907	1907	15.0%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	640	1899	1899	33.7%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	17	-	282	1937	830	34.0%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	17	-	398	1935:1930	697+144	47.4 : 47.4%
19/1		U	N/A	N/A	-		-	-	-	734	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1210	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1154	0	0	17.6	12.0	0.0	29.6	-	-	-	-
A50 Junction 1	-	-	1154	0	0	17.6	12.0	0.0	29.6	-	-	-	-
1/2+1/1	798	798	-	-	-	2.8	0.9	-	3.7	16.5	4.2	0.9	5.0
2/1	432	432	-	-	-	1.6	1.3	-	2.9	24.1	4.4	1.3	5.8
2/2	333	333	-	-	-	1.1	0.6	-	1.7	17.9	3.1	0.6	3.7
3/1	50	50	50	0	0	0.0	0.1	-	0.1	5.3	0.1	0.1	0.2
4/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	923	923	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
6/2	287	287	287	0	0	0.1	0.6	-	0.7	8.7	1.7	0.6	2.3
7/1	347	347	-	-	-	1.1	0.6	-	1.7	17.5	3.3	0.6	3.9
7/2+7/3	498	498	-	-	-	1.6	0.7	-	2.3	16.7	3.9	0.7	4.7
8/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	723	723	-	-	-	2.4	0.6	-	3.0	14.9	4.6	0.6	5.3
10/1+10/2	325	325	650	0	0	0.1	0.2	-	0.3	3.3	0.4	0.2	0.6
11/1	167	167	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	567	567	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	167	167	167	0	0	0.0	0.2	-	0.2	4.5	1.1	0.2	1.3
13/1	410	410	-	-	-	1.1	0.5	-	1.6	14.1	2.8	0.5	3.3
13/2+13/3	486	486	-	-	-	0.7	0.4	-	1.0	7.5	14.9	0.4	15.3
14/1	502	502	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
14/2	343	343	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
14/3	607	607	-	-	-	0.0	0.2	-	0.2	1.4	2.2	0.2	2.4
15/1	264	264	-	-	-	0.4	0.2	-	0.6	8.2	1.0	0.2	1.2

Full Input Data And Results

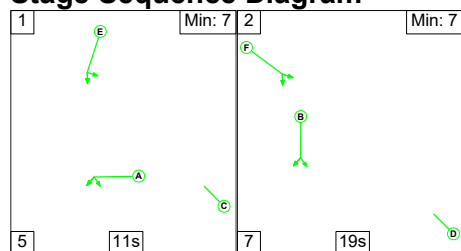
15/2+15/3	779	779	-	-	-	1.4	1.4	-	2.7	12.7	5.2	1.4	6.6
16/1	537	537	-	-	-	1.7	0.8	-	2.5	16.8	4.2	0.8	5.0
16/2+16/3	594	594	-	-	-	0.5	0.3	-	0.8	4.7	16.7	0.3	16.9
17/1	913	913	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
17/2	287	287	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/3	640	640	-	-	-	0.0	0.3	-	0.3	1.4	0.5	0.3	0.8
18/1	282	282	-	-	-	0.6	0.3	-	0.9	11.0	1.4	0.3	1.7
18/2+18/3	398	398	-	-	-	0.6	0.4	-	1.0	9.3	3.8	0.4	4.3
19/1	734	734	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1210	1210	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		23.0 29.0 23.0	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		14.83 11.50 29.56	Cycle Time (s): Cycle Time (s):		42 42		

Full Input Data And Results

Scenario 2: '2022 Base PM' (FG2: '2023 Base Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

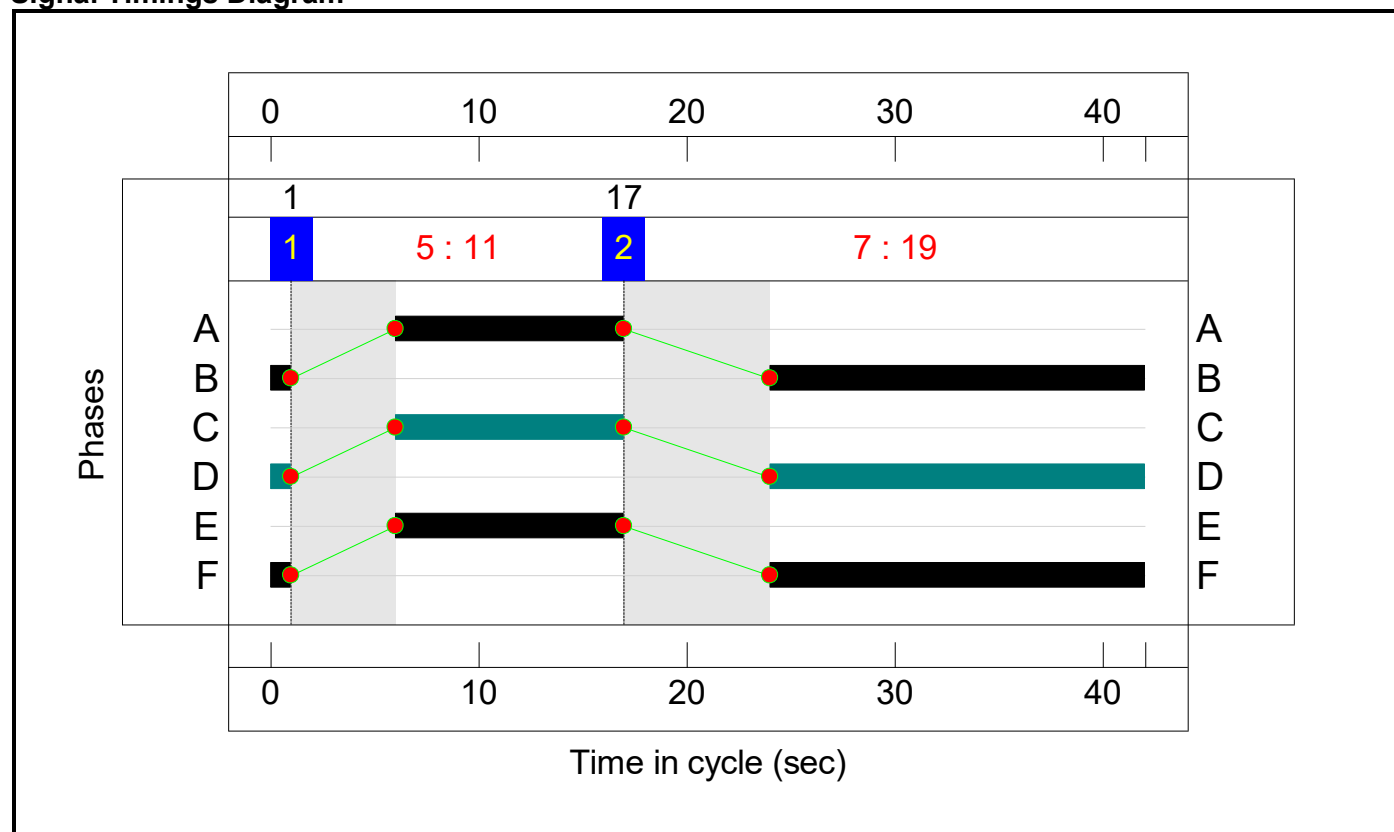
Stage Sequence Diagram



Stage Timings

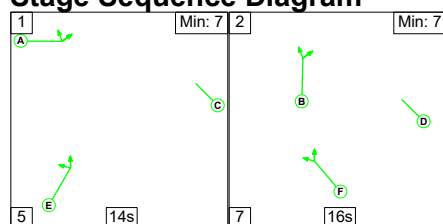
Stage	1	2
Duration	11	19
Change Point	1	17

Signal Timings Diagram



Controller :C2 - Westside E36309

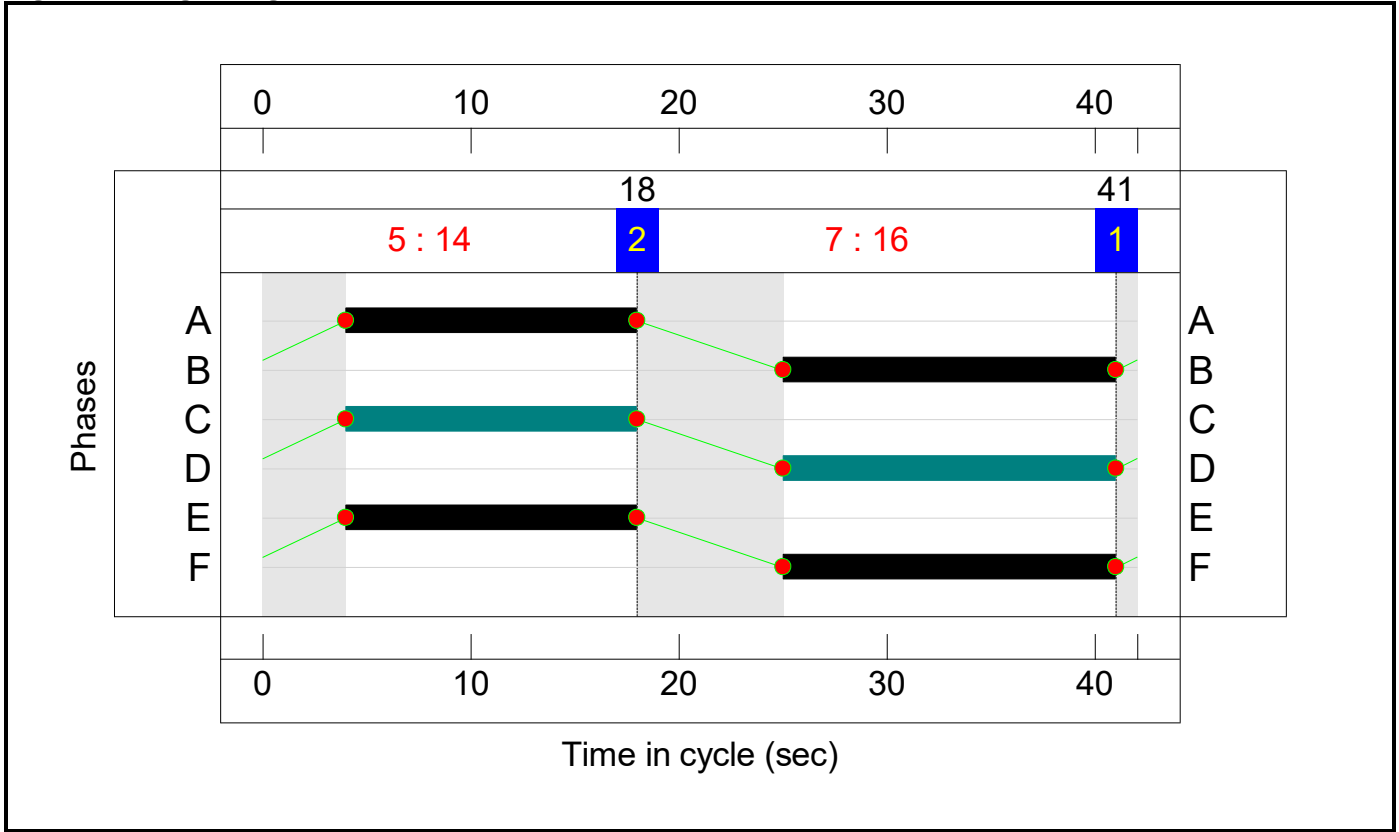
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	41	18

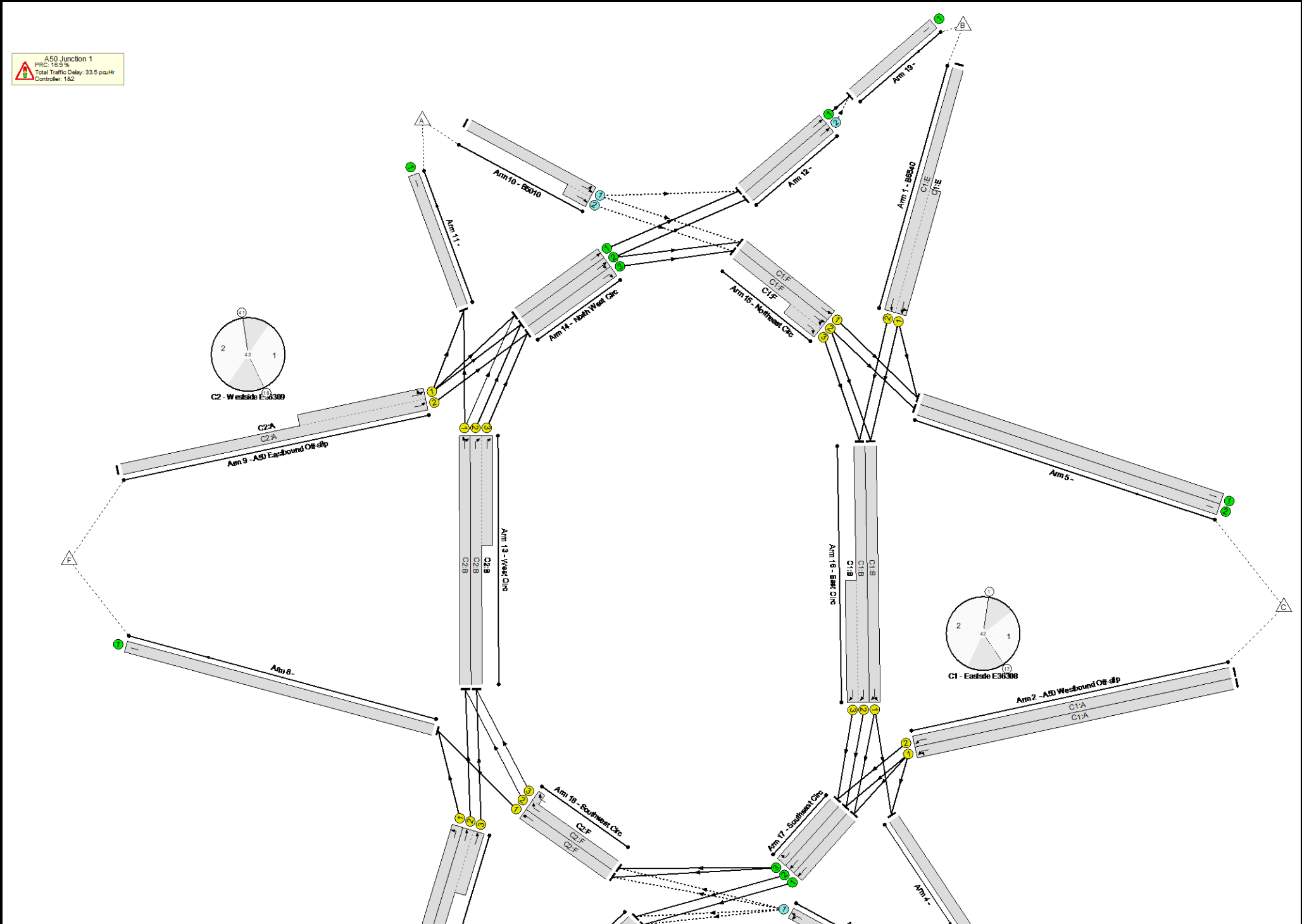
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	11	-	691	2088:1950	597+557	57.3 : 62.6%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	11	-	346	1907	545	63.5%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	11	-	400	2049	585	68.3%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	63	1886	484	13.0%
4/1		U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	612	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	710	1980	1980	35.9%
6/2	Ahead	O	N/A	N/A	-		-	-	-	252	1980	559	45.1%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	501	1923	687	72.9%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	774	2063:2101	283+750	74.9 : 74.9%
8/1		U	N/A	N/A	-		-	-	-	777	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	616	1995:1853	713+587	55.7 : 37.3%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	259	1894:2034	386+507	29.0 : 29.0%
11/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	554	1965	1965	28.2%
12/2	Ahead	O	N/A	N/A	-		-	-	-	225	1965	593	37.9%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	606	1944	787	77.0%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	674	1942:1940	786+243	65.5 : 65.5%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	503	1930	1930	26.1%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	515	1926	1926	26.7%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	556	1923	1923	28.9%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	19	-	351	1932	920	38.2%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	19	-	703	1929:1926	774+401	59.8 : 59.8%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	19	-	409	1933	920	44.4%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	19	-	582	1930:1927	835+918	30.2 : 36.0%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	699	1912	1912	36.6%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	252	1907	1907	13.2%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	730	1899	1899	38.4%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	276	1937	784	35.2%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	506	1935:1930	624+177	63.2 : 63.2%
19/1		U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	962	Inf	Inf	0.0%

Full Input Data And Results

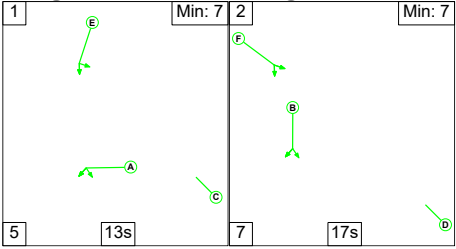
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1058	0	0	19.4	14.0	0.0	33.5	-	-	-	-
A50 Junction 1	-	-	1058	0	0	19.4	14.0	0.0	33.5	-	-	-	-
1/2+1/1	691	691	-	-	-	2.5	0.7	-	3.2	16.8	3.5	0.7	4.2
2/1	346	346	-	-	-	1.3	0.9	-	2.1	22.1	3.5	0.9	4.3
2/2	400	400	-	-	-	1.5	1.1	-	2.5	22.9	4.1	1.1	5.2
3/1	63	63	63	0	0	0.0	0.1	-	0.1	5.0	0.1	0.1	0.2
4/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	612	612	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	142	142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	710	710	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
6/2	252	252	252	0	0	0.0	0.4	-	0.4	6.1	1.2	0.4	1.6
7/1	501	501	-	-	-	1.6	1.3	-	3.0	21.3	5.0	1.3	6.3
7/2+7/3	774	774	-	-	-	2.4	1.5	-	3.9	18.1	5.6	1.5	7.1
8/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	616	616	-	-	-	1.8	0.5	-	2.2	13.1	3.6	0.5	4.1
10/1+10/2	259	259	518	0	0	0.1	0.2	-	0.3	4.4	0.5	0.2	0.7
11/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	554	554	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	225	225	225	0	0	0.0	0.3	-	0.3	5.5	1.8	0.3	2.1
13/1	606	606	-	-	-	2.3	1.6	-	3.9	23.4	5.6	1.6	7.2
13/2+13/3	674	674	-	-	-	1.3	0.9	-	2.3	12.1	15.1	0.9	16.0
14/1	503	503	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
14/2	515	515	-	-	-	0.0	0.2	-	0.2	1.3	1.6	0.2	1.8
14/3	556	556	-	-	-	0.0	0.2	-	0.2	1.3	1.1	0.2	1.3
15/1	351	351	-	-	-	0.8	0.3	-	1.1	11.4	1.9	0.3	2.2

Full Input Data And Results

15/2+15/3	703	703	-	-	-	1.1	0.7	-	1.9	9.5	3.5	0.7	4.2
16/1	409	409	-	-	-	0.7	0.4	-	1.1	10.1	2.3	0.4	2.7
16/2+16/3	582	582	-	-	-	0.4	0.2	-	0.6	4.0	16.6	0.2	16.9
17/1	699	699	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	252	252	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/3	730	730	-	-	-	0.0	0.3	-	0.3	1.5	1.6	0.3	1.9
18/1	276	276	-	-	-	0.7	0.3	-	0.9	12.1	1.5	0.3	1.8
18/2+18/3	506	506	-	-	-	0.9	0.9	-	1.7	12.2	4.9	0.9	5.8
19/1	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	962	962	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			31.7 16.9 16.9	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			12.65 17.95 33.49	Cycle Time (s): 42 Cycle Time (s): 42		

Full Input Data And Results
Scenario 3: '2028 WoD AM' (FG3: '2028 WoD Flows AM', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastside E36308

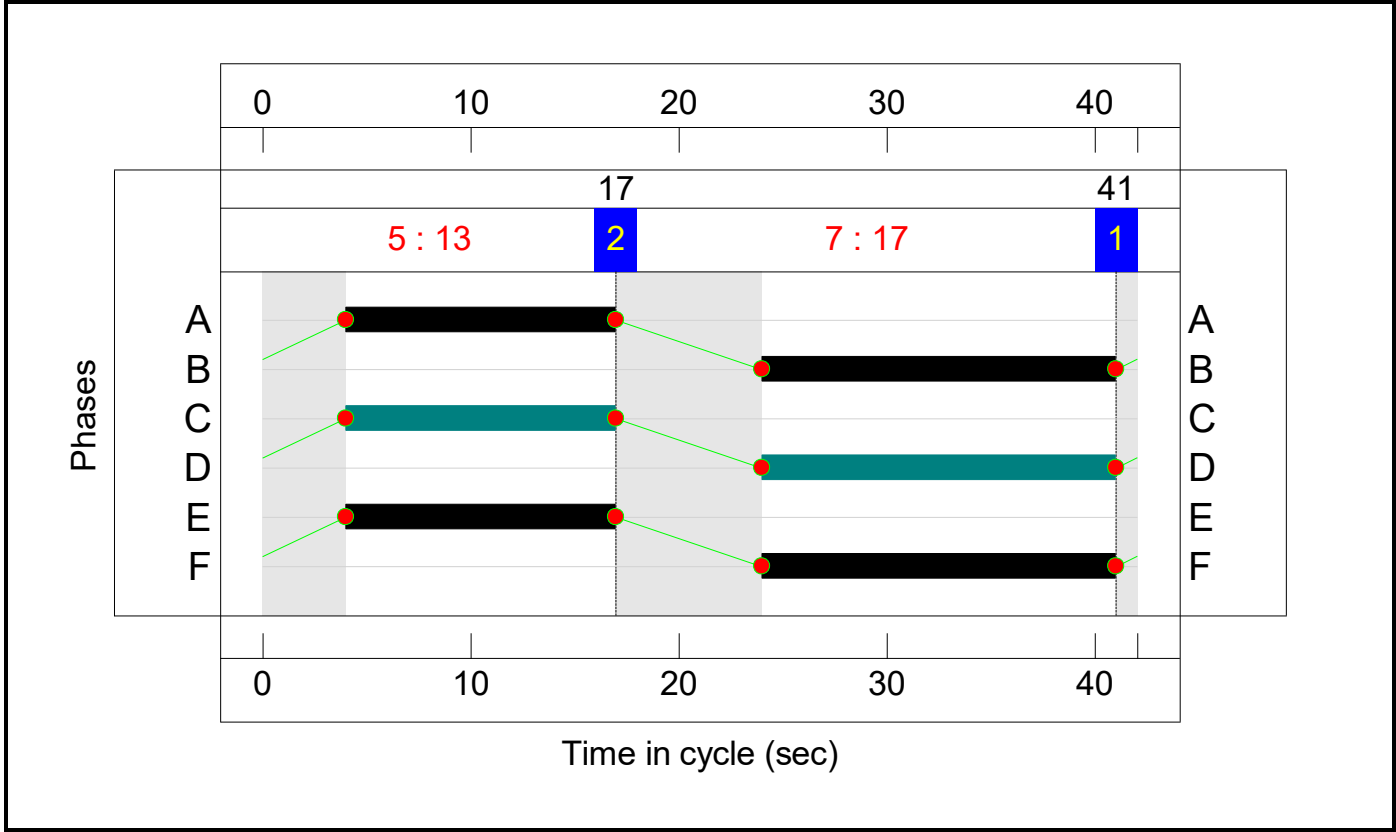
Stage Sequence Diagram



Stage Timings

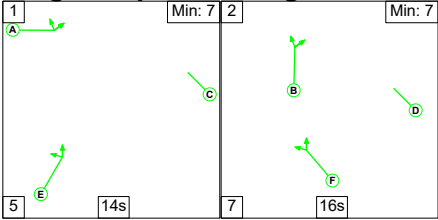
Stage	1	2
Duration	13	17
Change Point	41	17

Signal Timings Diagram



Controller :C2 - Westside E36309

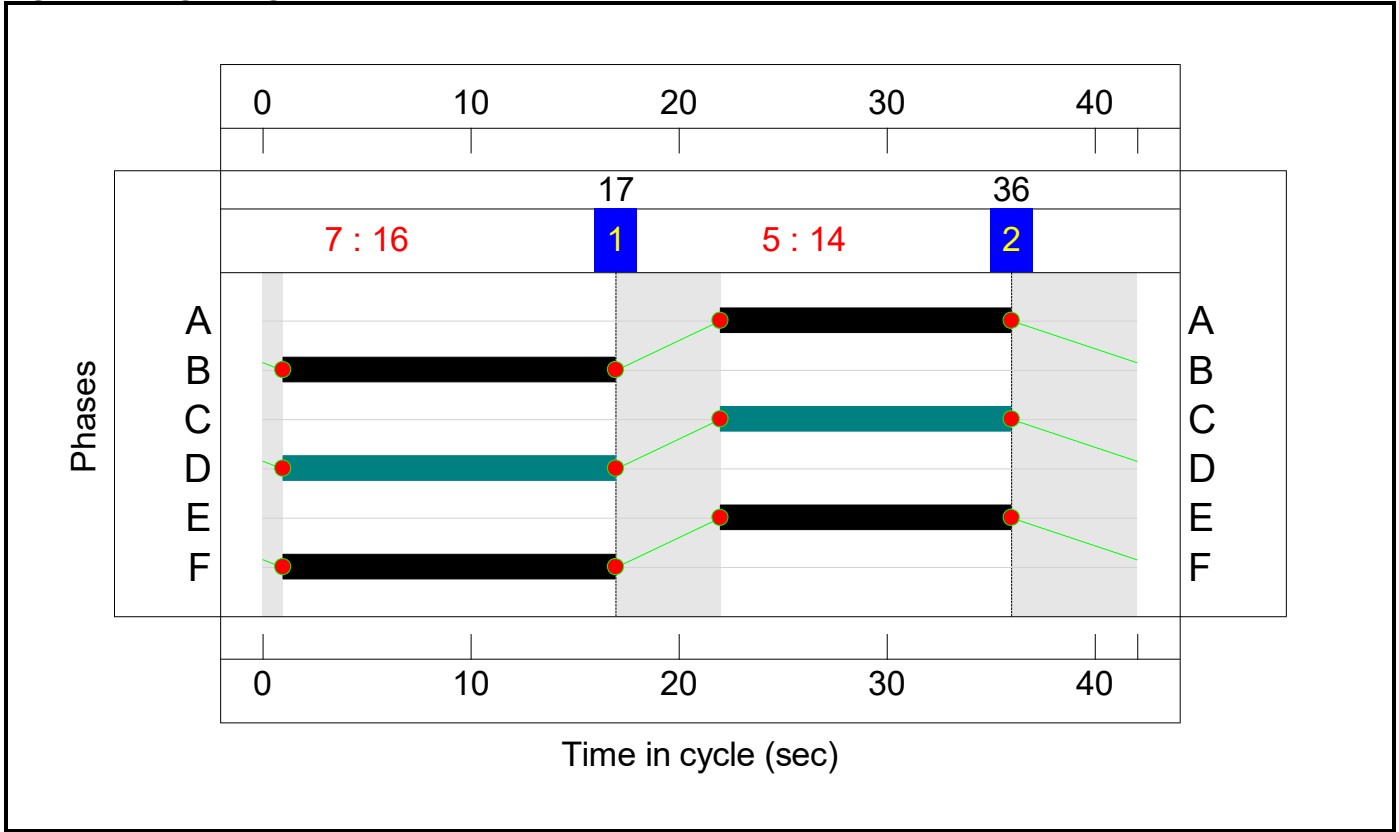
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	17	36

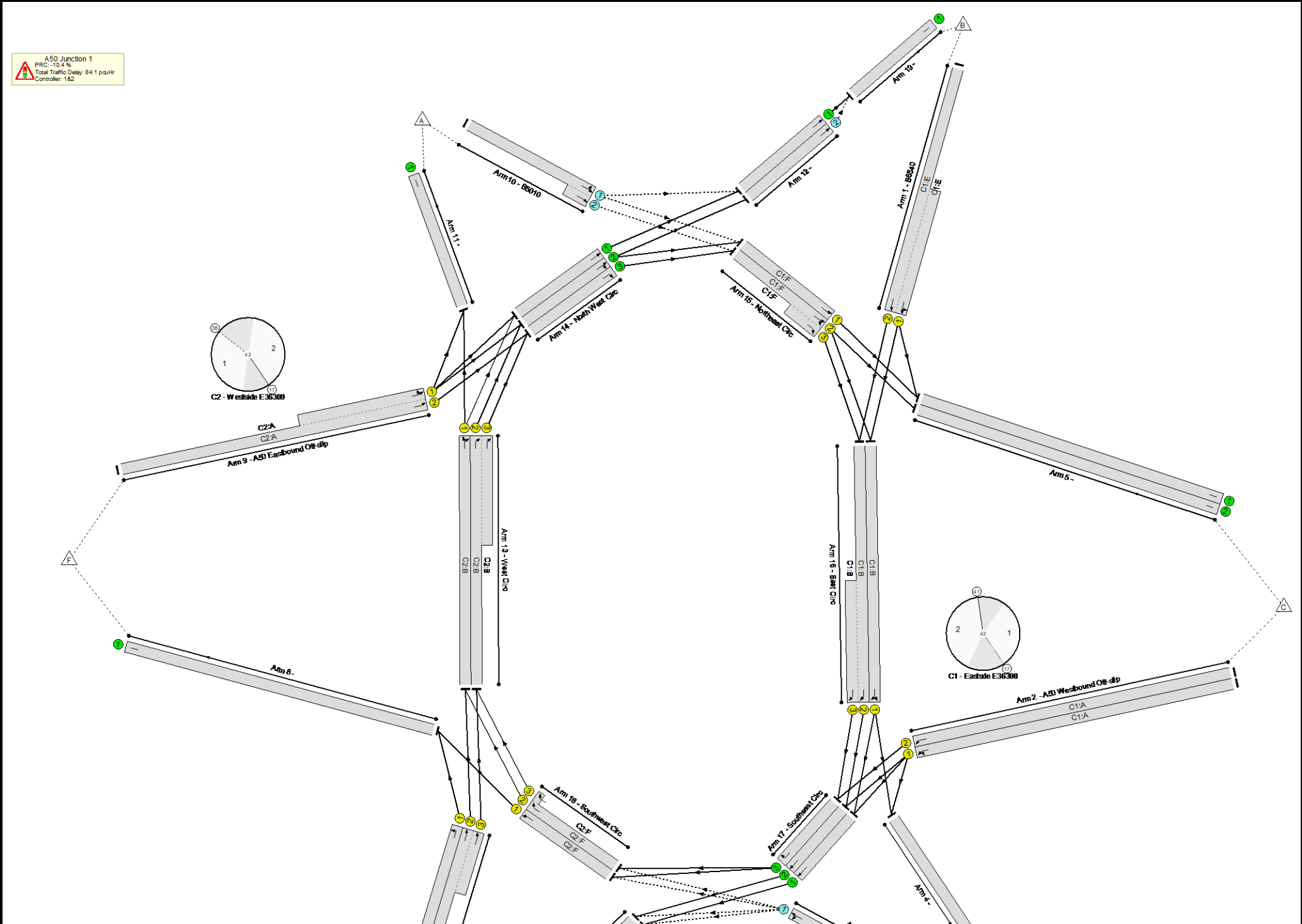
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	99.4%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	99.4%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	13	-	1066	2088:1950	659+650	63.8 : 99.4%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	13	-	630	1907	636	99.1%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	506	2049	683	74.1%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	58	1886	319	18.2%
4/1		U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	955	1980	1980	47.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	515	1980	507	97.9%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	409	1923	687	59.6%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	660	2063:2101	144+750	73.8 : 73.8%
8/1		U	N/A	N/A	-		-	-	-	800	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	1078	1995:1853	713+662	94.7 : 60.9%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	437	1894:2034	325+385	58.8 : 63.9%
11/1		U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	929	1965	1965	47.3%
12/2	Ahead	O	N/A	N/A	-		-	-	-	199	1965	511	39.0%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	585	1944	787	74.3%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	649	1942:1940	786+473	52.4 : 50.1%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	828	1930	1930	42.9%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	412	1926	1926	21.4%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	912	1923	1923	47.4%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	17	-	303	1932	828	36.6%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	17	-	1158	1929:1926	675+526	96.5 : 96.5%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	17	-	762	1933	828	89.8%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	17	-	927	1930:1927	827+826	60.1 : 49.9%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	944	1912	1912	48.8%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	515	1907	1907	26.0%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	918	1899	1899	48.3%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	391	1937	784	49.9%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	574	1935:1930	662+131	72.3 : 72.3%
19/1		U	N/A	N/A	-		-	-	-	1128	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1470	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1628	0	0	34.2	49.8	0.0	84.1	-	-	-	-
A50 Junction 1	-	-	1628	0	0	34.2	49.8	0.0	84.1	-	-	-	-
1/2+1/1	1066	1066	-	-	-	3.9	2.2	-	6.0	20.4	7.4	2.2	9.5
2/1	630	630	-	-	-	2.4	11.2	-	13.7	78.0	7.2	11.2	18.4
2/2	506	506	-	-	-	1.7	1.4	-	3.1	22.4	5.2	1.4	6.6
3/1	58	58	58	0	0	0.0	0.1	-	0.1	8.7	0.2	0.1	0.3
4/1	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	944	944	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
6/2	497	497	497	0	0	1.2	8.8	-	10.0	72.6	5.6	8.8	14.4
7/1	409	409	-	-	-	1.3	0.7	-	2.0	17.5	3.9	0.7	4.6
7/2+7/3	660	660	-	-	-	2.1	1.4	-	3.5	19.0	5.5	1.4	6.9
8/1	800	800	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	1078	1078	-	-	-	3.7	1.8	-	5.5	18.4	7.5	1.8	9.3
10/1+10/2	437	437	874	0	0	0.4	0.8	-	1.2	10.1	1.2	0.8	2.0
11/1	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	929	929	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
12/2	199	199	199	0	0	0.1	0.3	-	0.4	7.1	1.9	0.3	2.2
13/1	585	585	-	-	-	2.5	1.4	-	4.0	24.3	5.3	1.4	6.7
13/2+13/3	649	649	-	-	-	1.1	0.5	-	1.7	9.3	15.0	0.5	15.6
14/1	828	828	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
14/2	412	412	-	-	-	0.0	0.1	-	0.1	1.2	0.5	0.1	0.7
14/3	912	912	-	-	-	0.0	0.5	-	0.5	1.8	5.5	0.5	5.9
15/1	303	303	-	-	-	0.8	0.3	-	1.1	12.6	3.3	0.3	3.6

Full Input Data And Results

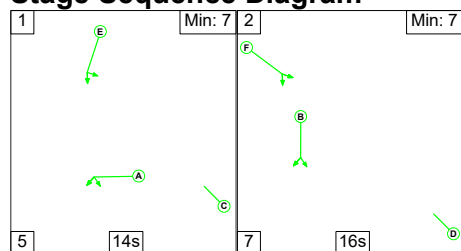
[illegible]

Full Input Data And Results

Scenario 4: '2028 WoD PM' (FG4: '2028 WoD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

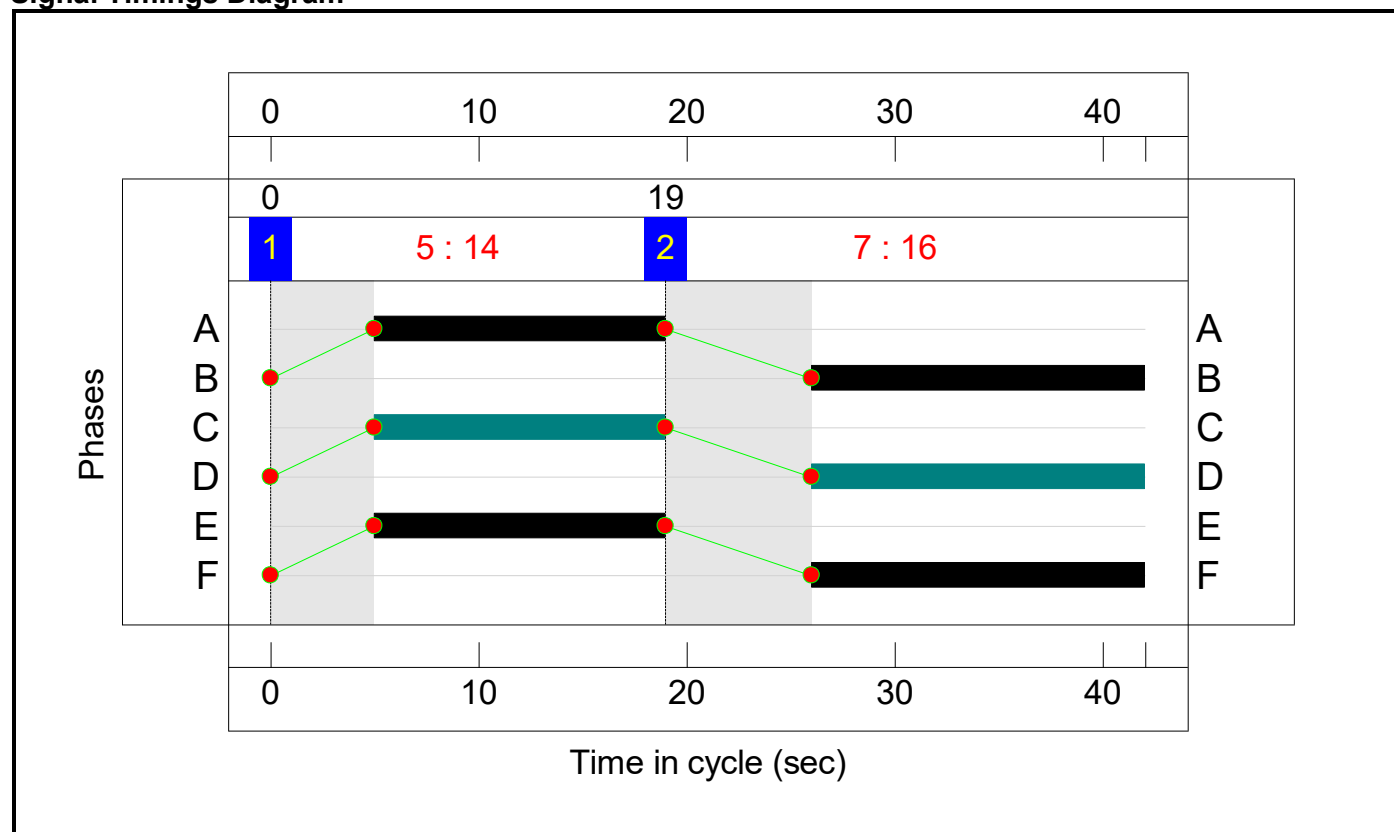
Stage Sequence Diagram



Stage Timings

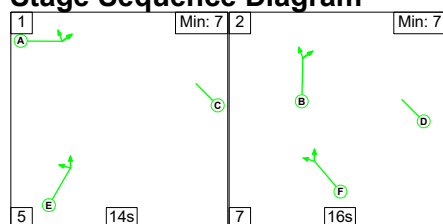
Stage	1	2
Duration	14	16
Change Point	0	19

Signal Timings Diagram



Controller :C2 - Westside E36309

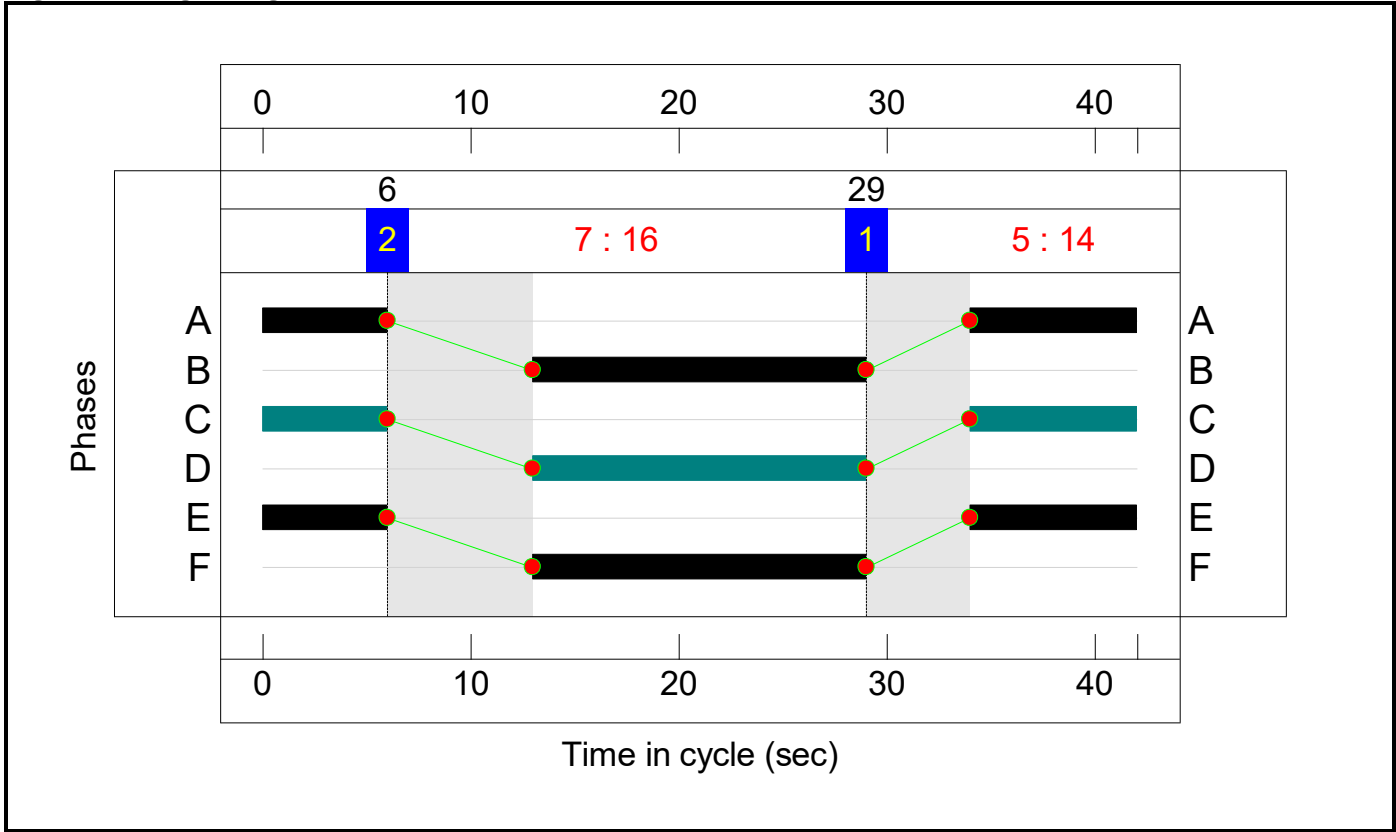
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	29	6

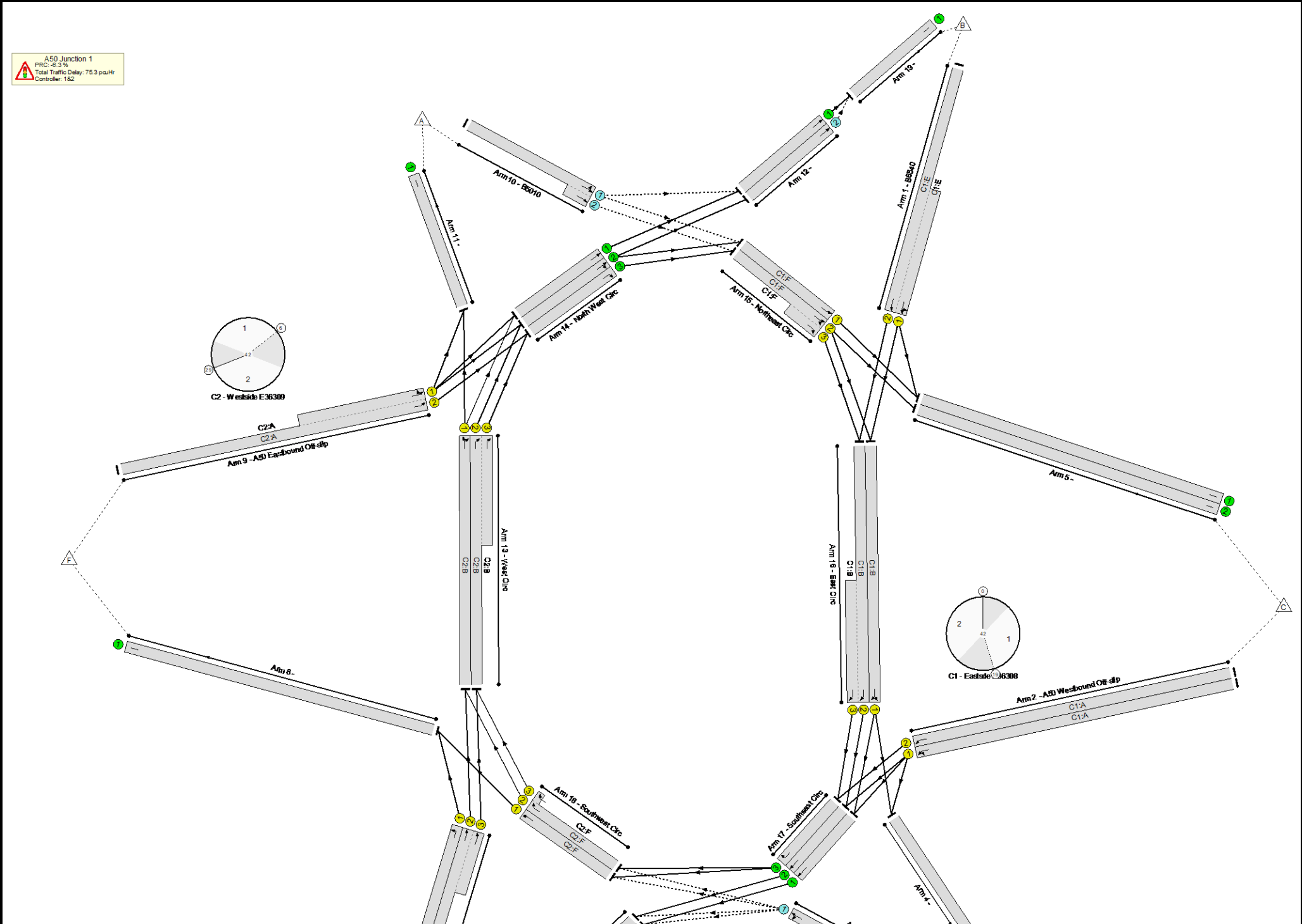
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	95.7%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	95.7%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	14	-	1112	2088:1950	746+696	65.8 : 89.2%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	14	-	414	1907	681	60.8%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	14	-	615	2049	732	84.0%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	60	1886	373	16.1%
4/1		U	N/A	N/A	-		-	-	-	136	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	815	1980	1980	41.2%
6/2	Ahead	O	N/A	N/A	-		-	-	-	291	1980	536	54.3%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	608	1923	687	88.5%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	928	2063:2101	275+750	90.5 : 90.5%
8/1		U	N/A	N/A	-		-	-	-	1018	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	919	1995:1853	713+662	70.3 : 63.2%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	317	1894:2034	320+332	44.4 : 52.8%
11/1		U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	904	1965	1965	46.0%
12/2	Ahead	O	N/A	N/A	-		-	-	-	349	1965	516	67.6%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	753	1944	787	95.7%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	910	1942:1940	786+190	93.3 : 93.3%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	836	1930	1930	43.3%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	733	1926	1926	38.1%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	678	1923	1923	35.3%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	16	-	458	1932	782	58.6%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	16	-	853	1929:1926	689+333	83.5 : 83.5%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	16	-	529	1933	782	67.6%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	16	-	769	1930:1927	599+780	48.6 : 61.3%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	807	1912	1912	42.2%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	291	1907	1907	15.3%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	1093	1899	1899	57.6%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	410	1937	784	52.3%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	735	1935:1930	559+256	90.1 : 90.1%
19/1		U	N/A	N/A	-		-	-	-	1253	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1106	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1334	0	0	33.4	42.0	0.0	75.3	-	-	-	-
A50 Junction 1	-	-	1334	0	0	33.4	42.0	0.0	75.3	-	-	-	-
1/2+1/1	1112	1112	-	-	-	3.7	1.7	-	5.4	17.5	6.7	1.7	8.4
2/1	414	414	-	-	-	1.3	0.8	-	2.0	17.8	3.9	0.8	4.7
2/2	615	615	-	-	-	2.1	2.5	-	4.6	27.2	6.5	2.5	9.0
3/1	60	60	60	0	0	0.0	0.1	-	0.1	7.8	0.2	0.1	0.3
4/1	136	136	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	815	815	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	291	291	291	0	0	0.3	0.6	-	0.8	10.5	3.1	0.6	3.7
7/1	608	608	-	-	-	2.1	3.5	-	5.7	33.7	6.6	3.5	10.1
7/2+7/3	928	928	-	-	-	3.1	4.4	-	7.5	29.0	7.4	4.4	11.7
8/1	1018	1018	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	919	919	-	-	-	2.9	1.0	-	3.9	15.4	5.0	1.0	6.0
10/1+10/2	317	317	634	0	0	0.4	0.5	-	0.9	9.8	0.9	0.5	1.4
11/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	904	904	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
12/2	349	349	349	0	0	0.5	1.0	-	1.5	15.5	3.8	1.0	4.9
13/1	753	753	-	-	-	3.2	7.7	-	10.8	51.8	8.2	7.7	15.9
13/2+13/3	910	910	-	-	-	2.3	5.9	-	8.2	32.4	15.2	5.9	21.1
14/1	836	836	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
14/2	733	733	-	-	-	0.0	0.3	-	0.3	1.5	4.3	0.3	4.6
14/3	678	678	-	-	-	0.0	0.3	-	0.3	1.5	2.7	0.3	3.0
15/1	458	458	-	-	-	0.3	0.7	-	1.0	8.1	1.1	0.7	1.8

Full Input Data And Results

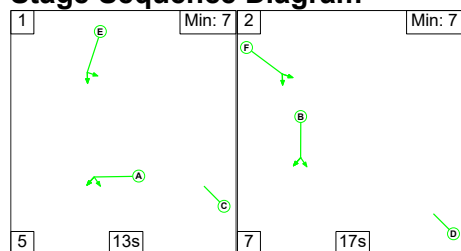
15/2+15/3	853	853	-	-	-	4.0	2.5	-	6.4	27.1	6.7	2.5	9.2
16/1	529	529	-	-	-	2.2	1.0	-	3.3	22.2	4.9	1.0	5.9
16/2+16/3	769	769	-	-	-	2.1	0.6	-	2.7	12.5	16.8	0.6	17.4
17/1	807	807	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
17/2	291	291	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/3	1093	1093	-	-	-	0.0	0.7	-	0.7	2.3	4.8	0.7	5.4
18/1	410	410	-	-	-	1.6	0.5	-	2.2	19.0	4.7	0.5	5.3
18/2+18/3	735	735	-	-	-	1.2	4.1	-	5.3	26.2	2.3	4.1	6.5
19/1	1253	1253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1106	1106	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		0.9 -6.3 -6.3	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		25.51 43.60 75.35	Cycle Time (s): Cycle Time (s):		42 42		

Full Input Data And Results

Scenario 5: '2028 WD AM' (FG5: '2028 WD Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

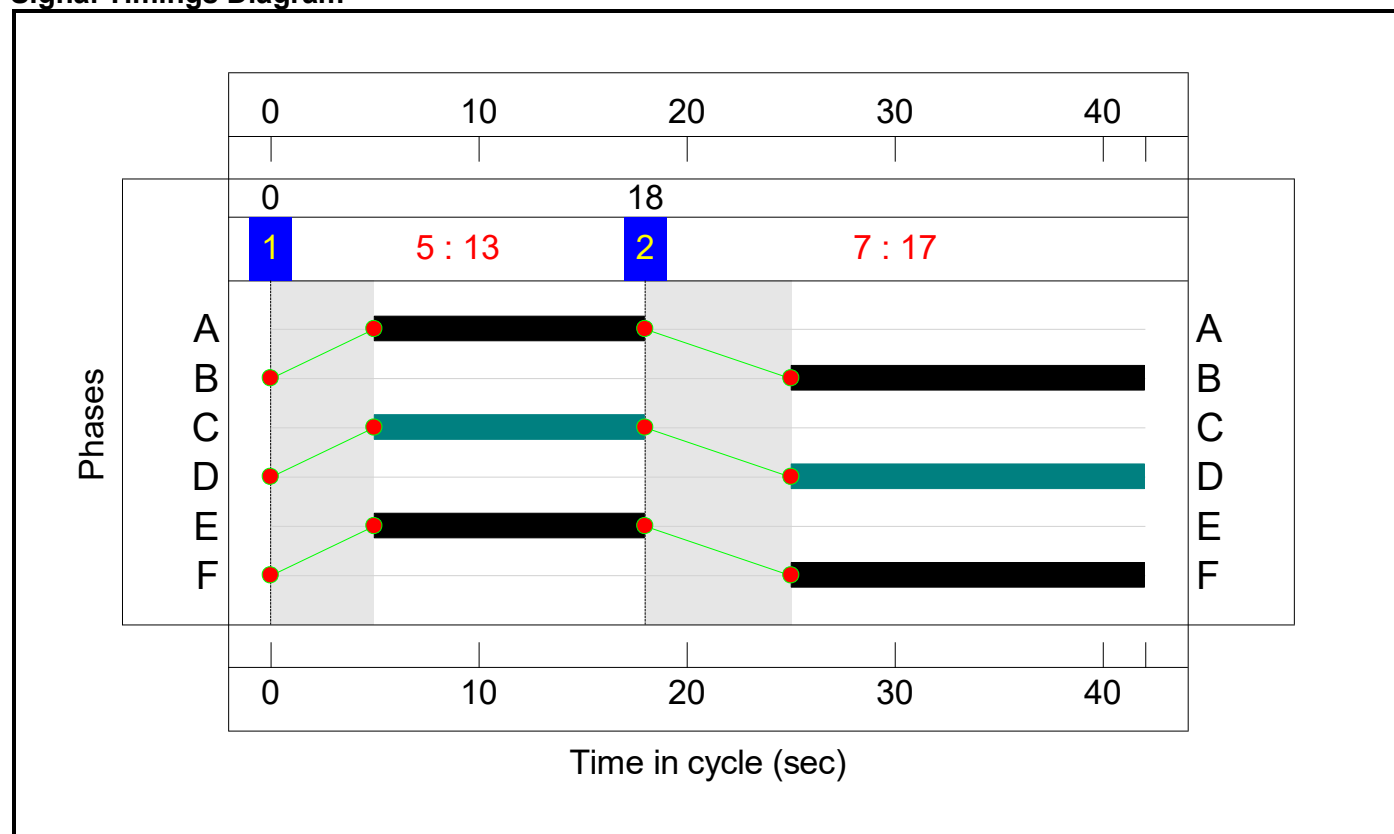
Stage Sequence Diagram



Stage Timings

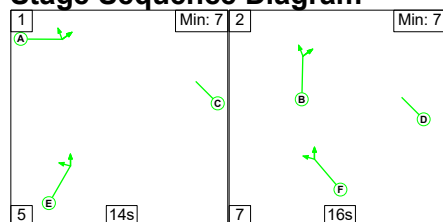
Stage	1	2
Duration	13	17
Change Point	0	18

Signal Timings Diagram



Controller :C2 - Westside E36309

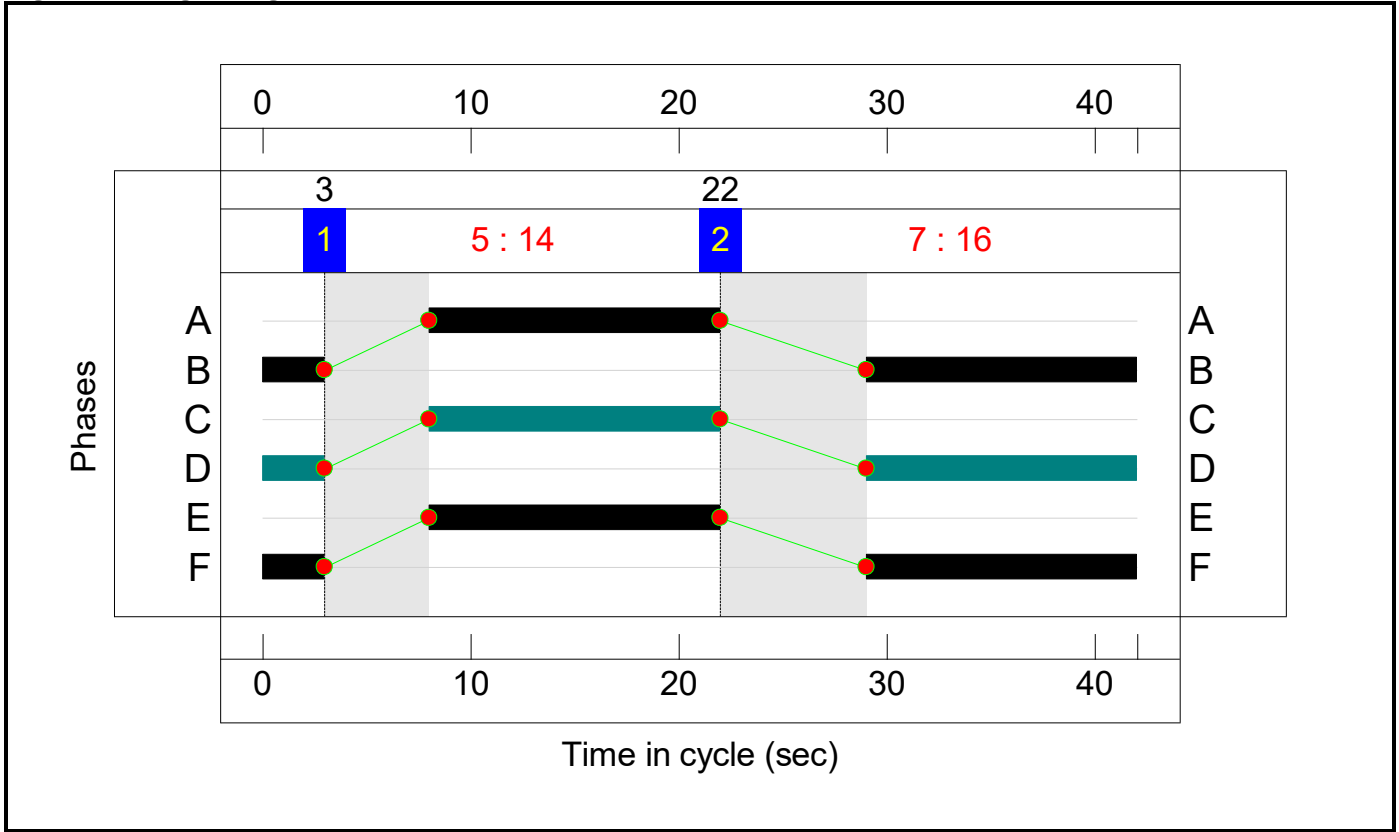
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	3	22

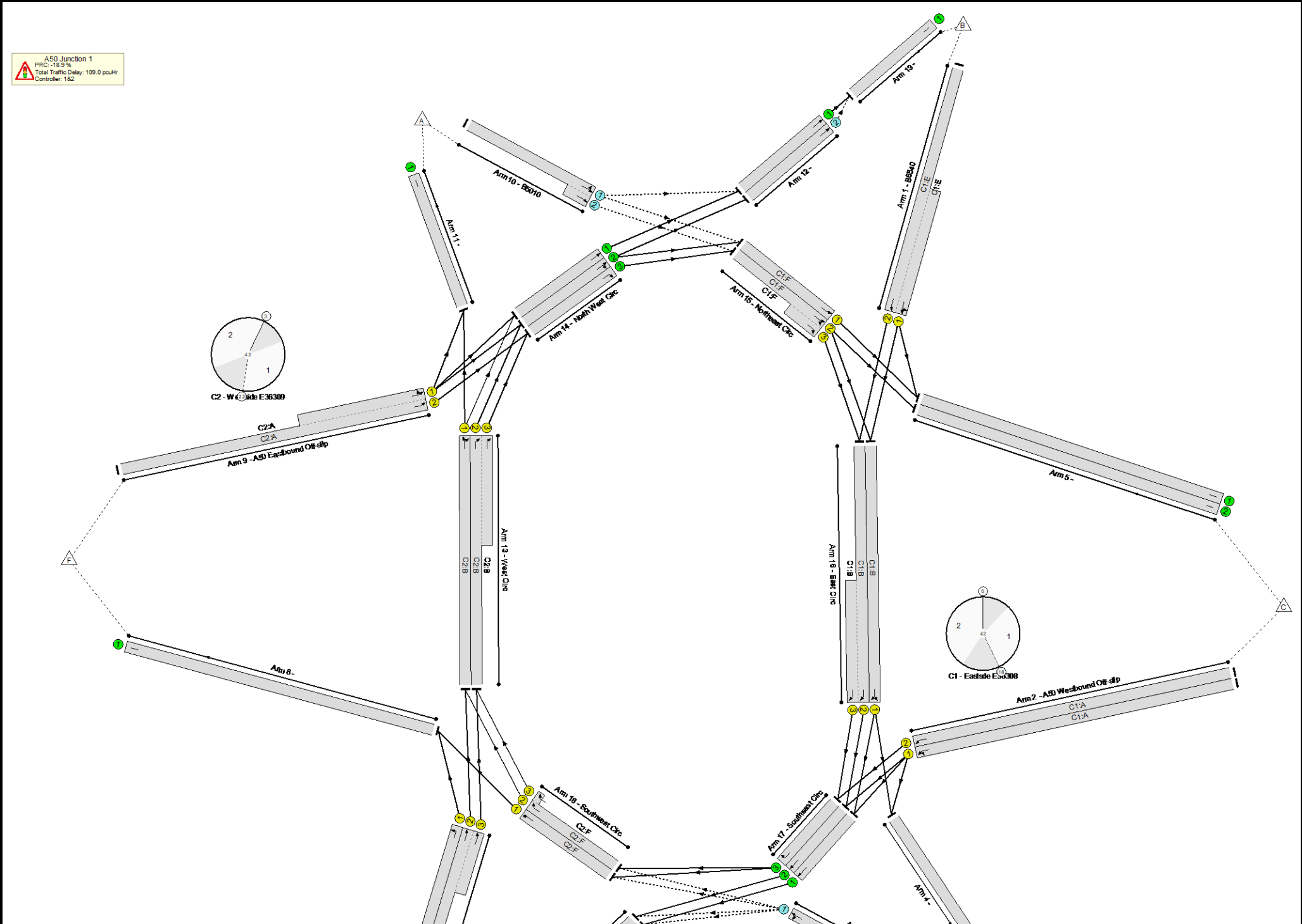
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	107.0%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	107.0%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	13	-	1072	2088:1950	696+650	64.2 : 96.2%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	13	-	645	1907	636	101.5%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	492	2049	683	72.0%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	68	1886	314	21.7%
4/1		U	N/A	N/A	-		-	-	-	461	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	994	1980	1980	49.5%
6/2	Ahead	O	N/A	N/A	-		-	-	-	542	1980	499	107.0%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	426	1923	687	62.0%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	645	2063:2101	153+750	71.4 : 71.4%
8/1		U	N/A	N/A	-		-	-	-	804	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	1137	1995:1853	713+605	102.3 : 67.5%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	435	1894:2034	303+341	63.5 : 71.3%
11/1		U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	945	1965	1965	48.1%
12/2	Ahead	O	N/A	N/A	-		-	-	-	170	1965	507	33.5%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	600	1944	787	76.3%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	610	1942:1940	786+131	66.5 : 66.5%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	848	1930	1930	43.9%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	523	1926	1926	27.2%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	816	1923	1923	41.6%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	17	-	448	1932	828	54.1%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	17	-	1059	1929:1926	664+574	84.2 : 84.2%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	17	-	797	1933	828	95.1%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	17	-	938	1930:1927	827+814	64.6 : 48.6%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	981	1912	1912	50.6%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	542	1907	1907	28.0%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	888	1899	1899	46.8%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	378	1937	784	48.2%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	565	1935:1930	686+103	71.6 : 71.6%
19/1		U	N/A	N/A	-		-	-	-	1115	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1536	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1607	0	0	34.1	74.8	0.0	109.0	-	-	-	-
A50 Junction 1	-	-	1607	0	0	34.1	74.8	0.0	109.0	-	-	-	-
1/2+1/1	1072	1072	-	-	-	3.9	1.9	-	5.8	19.4	7.1	1.9	9.0
2/1	645	636	-	-	-	2.7	15.2	-	17.9	100.1	7.6	15.2	22.9
2/2	492	492	-	-	-	1.7	1.3	-	3.0	21.6	4.9	1.3	6.2
3/1	68	68	68	0	0	0.0	0.1	-	0.2	9.5	0.2	0.1	0.3
4/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	980	980	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
6/2	534	499	499	0	0	2.5	23.3	-	25.8	173.5	18.7	23.3	42.0
7/1	426	426	-	-	-	1.3	0.8	-	2.1	18.0	4.0	0.8	4.8
7/2+7/3	645	645	-	-	-	2.0	1.2	-	3.3	18.2	5.4	1.2	6.6
8/1	804	804	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	1137	1120	-	-	-	4.3	11.3	-	15.6	49.4	8.7	11.3	20.0
10/1+10/2	435	435	870	0	0	0.5	1.0	-	1.5	12.7	1.2	1.0	2.2
11/1	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	945	945	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
12/2	170	170	170	0	0	0.0	0.3	-	0.3	5.6	1.0	0.3	1.3
13/1	600	600	-	-	-	2.6	1.6	-	4.2	25.3	5.4	1.6	7.0
13/2+13/3	610	610	-	-	-	1.2	1.0	-	2.1	12.6	15.0	1.0	16.0
14/1	848	848	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
14/2	523	523	-	-	-	0.0	0.2	-	0.2	1.3	1.6	0.2	1.8
14/3	800	800	-	-	-	0.0	0.4	-	0.4	1.7	6.1	0.4	6.4
15/1	448	448	-	-	-	2.0	0.6	-	2.6	20.9	4.1	0.6	4.6

Full Input Data And Results

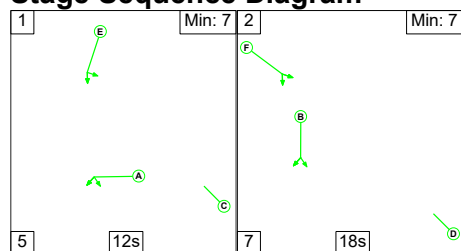
15/2+15/3	1043	1043	-	-	-	1.2	2.6	-	3.8	13.2	8.4	2.6	11.0
16/1	788	788	-	-	-	3.1	7.2	-	10.3	47.2	8.1	7.2	15.3
16/2+16/3	930	930	-	-	-	2.9	0.7	-	3.6	13.8	16.7	0.7	17.4
17/1	967	967	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
17/2	534	534	-	-	-	0.0	0.2	-	0.2	1.3	0.5	0.2	0.7
17/3	888	888	-	-	-	0.0	0.4	-	0.4	1.8	2.7	0.4	3.2
18/1	378	378	-	-	-	0.6	0.5	-	1.1	10.0	1.2	0.5	1.7
18/2+18/3	565	565	-	-	-	1.5	1.2	-	2.8	17.6	6.0	1.2	7.3
19/1	1115	1115	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1480	1480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			-12.7 -13.7 -18.9	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			47.00 31.18 108.97	Cycle Time (s): Cycle Time (s): 42		

Full Input Data And Results

Scenario 6: '2028 WD PM' (FG6: '2028 WD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

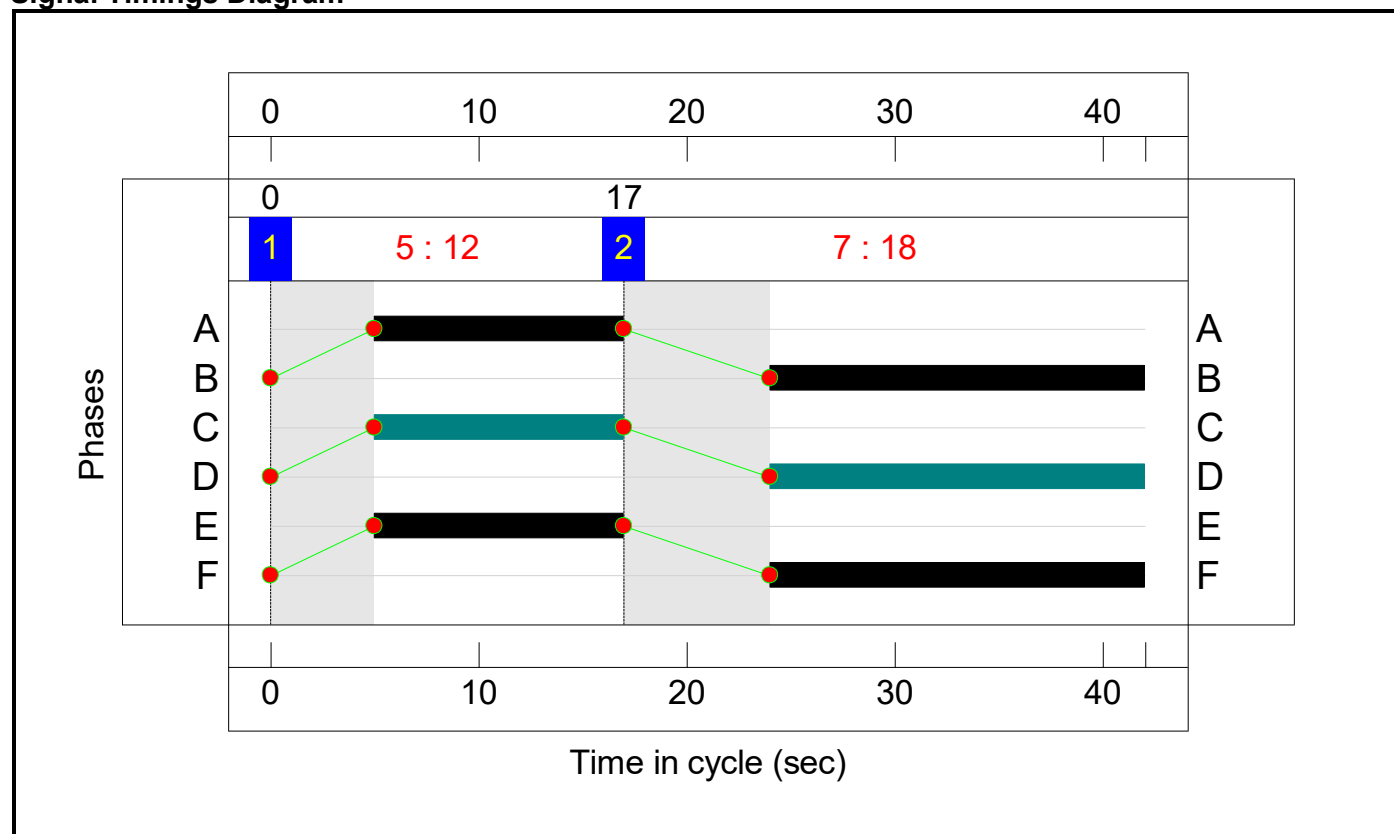
Stage Sequence Diagram



Stage Timings

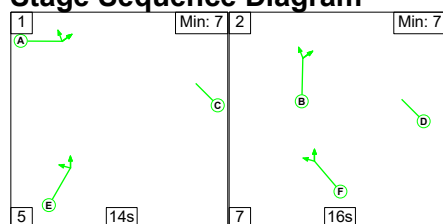
Stage	1	2
Duration	12	18
Change Point	0	17

Signal Timings Diagram



Controller :C2 - Westside E36309

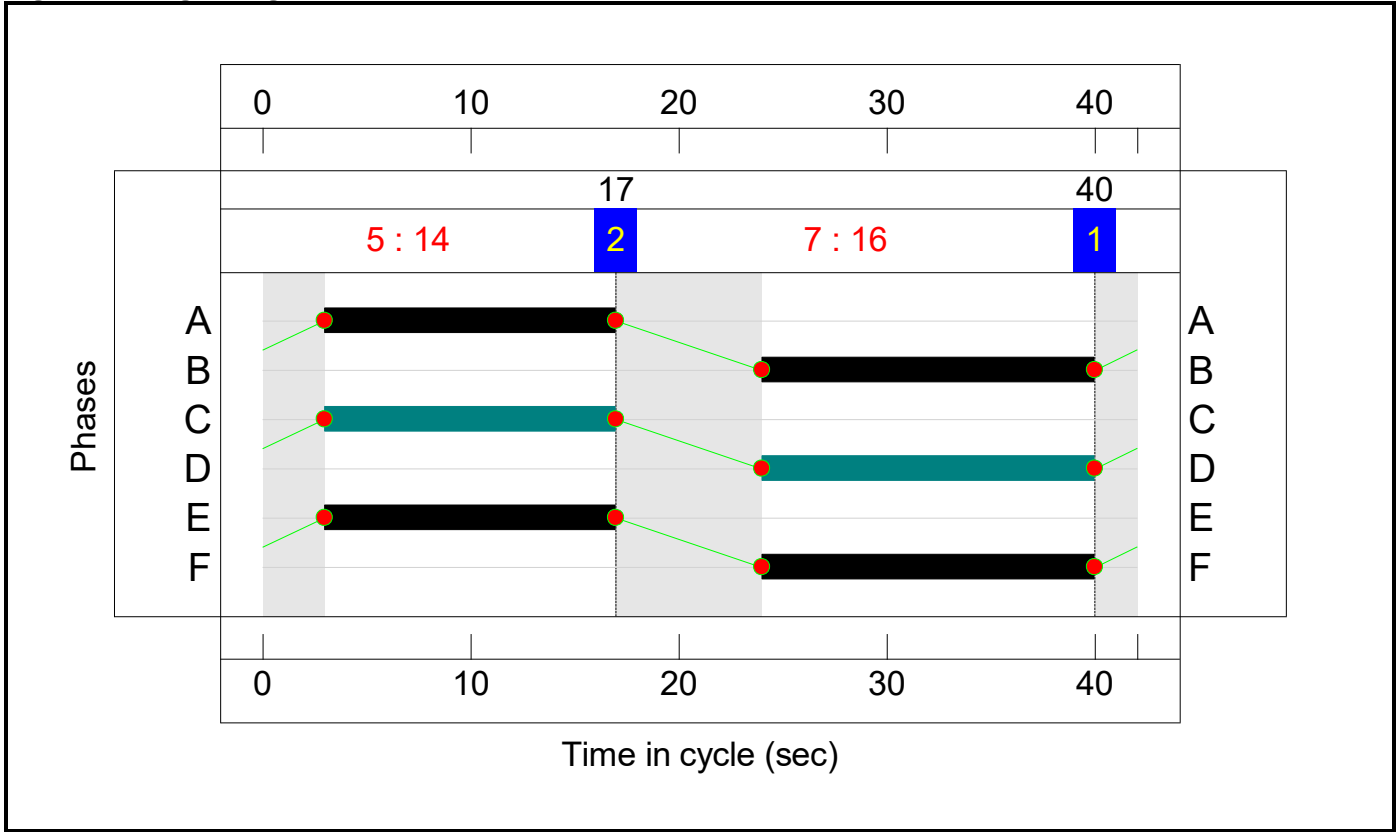
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	40	17

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A50 Junction 1
 PRC: 2.9 %
 Total Traffic Delay: 56.3 pair/hr
 Controller: 162

Diagram Labels:

- Arm 1 - 880/0
- Arm 2 - A50 Westbound Off-slip
- Arm 3 - 880/0
- Arm 4 - 880/0
- Arm 5 - 880/0
- Arm 6 - 880/0
- Arm 7 - 880/0
- Arm 8 - 880/0
- Arm 9 - A50 Eastbound Off-slip
- Arm 10 - 880/0
- Arm 11 - 880/0
- Arm 12 - 880/0
- Arm 13 - West C/O
- Arm 14 - North West C/O
- Arm 15 - Northwest C/O
- Arm 16 - East C/O
- Arm 17 - Southeast C/O

Diagram Details:

- The diagram shows a complex interchange with 17 arms, each with specific lane markings and traffic flow indicators.
- Two circular diagrams are included: one for C1 (Eastside E36308) and one for C2 (Westside E36308), showing lane configurations and traffic flow.
- The diagram is color-coded: green for main roads, yellow for off-slips, and blue for other lanes.
- Arrows indicate the direction of traffic flow for each arm.

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	92.6%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	92.6%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	12	-	1031	2088:1950	646+604	73.0 : 92.6%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	12	-	352	1907	590	59.6%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	12	-	542	2049	634	85.5%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	59	1886	405	14.6%
4/1		U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	667	1980	1980	33.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	351	1980	568	61.8%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	557	1923	687	81.1%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	893	2063:2101	325+750	83.0 : 83.0%
8/1		U	N/A	N/A	-		-	-	-	953	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	885	1995:1853	713+662	68.1 : 60.4%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	304	1894:2034	422+422	33.4 : 38.6%
11/1		U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	829	1965	1965	42.2%
12/2	Ahead	O	N/A	N/A	-		-	-	-	358	1965	533	67.2%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	683	1944	787	86.8%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	874	1942:1940	786+756	63.9 : 49.2%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	758	1930	1930	39.3%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	502	1926	1926	26.1%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	857	1923	1923	44.6%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	18	-	214	1932	874	24.5%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	18	-	1020	1929:1926	745+382	90.5 : 90.5%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	18	-	456	1933	874	52.1%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	18	-	818	1930:1927	827+872	42.4 : 53.6%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	659	1912	1912	34.5%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	351	1907	1907	18.4%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	1009	1899	1899	53.1%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	396	1937	784	50.5%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	664	1935:1930	515+313	80.2 : 80.2%
19/1		U	N/A	N/A	-		-	-	-	1187	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1018	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1376	0	0	28.7	27.6	0.0	56.3	-	-	-	-
A50 Junction 1	-	-	1376	0	0	28.7	27.6	0.0	56.3	-	-	-	-
1/2+1/1	1031	1031	-	-	-	3.9	2.3	-	6.2	21.6	6.2	2.3	8.5
2/1	352	352	-	-	-	1.2	0.7	-	1.9	19.8	3.4	0.7	4.2
2/2	542	542	-	-	-	2.1	2.8	-	4.8	32.0	5.9	2.8	8.6
3/1	59	59	59	0	0	0.0	0.1	-	0.1	6.7	0.1	0.1	0.2
4/1	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	667	667	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
6/2	351	351	351	0	0	0.2	0.8	-	1.0	10.0	3.6	0.8	4.4
7/1	557	557	-	-	-	1.9	2.1	-	4.0	25.7	5.9	2.1	8.0
7/2+7/3	893	893	-	-	-	2.9	2.4	-	5.3	21.2	6.6	2.4	9.0
8/1	953	953	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	885	885	-	-	-	2.8	0.9	-	3.7	15.0	4.7	0.9	5.6
10/1+10/2	304	304	608	0	0	0.2	0.3	-	0.5	5.8	0.6	0.3	0.9
11/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	829	829	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	358	358	358	0	0	0.6	1.0	-	1.6	16.2	3.9	1.0	4.9
13/1	683	683	-	-	-	2.7	3.1	-	5.8	30.7	6.8	3.1	9.9
13/2+13/3	874	874	-	-	-	2.2	0.7	-	2.8	11.6	15.1	0.7	15.8
14/1	758	758	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	502	502	-	-	-	0.0	0.2	-	0.2	1.3	1.1	0.2	1.3
14/3	857	857	-	-	-	0.0	0.4	-	0.4	1.7	2.2	0.4	2.6
15/1	214	214	-	-	-	0.6	0.2	-	0.7	12.3	1.4	0.2	1.5

Full Input Data And Results

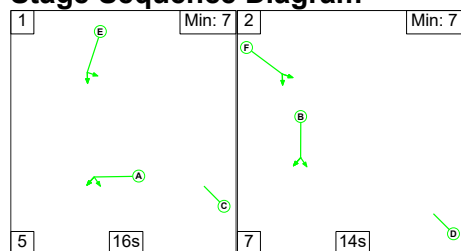
15/2+15/3	1020	1020	-	-	-	1.8	4.4	-	6.2	22.0	4.1	4.4	8.5
16/1	456	456	-	-	-	1.3	0.5	-	1.8	14.2	3.5	0.5	4.0
16/2+16/3	818	818	-	-	-	1.6	0.5	-	2.0	8.9	16.8	0.5	17.2
17/1	659	659	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
17/2	351	351	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
17/3	1009	1009	-	-	-	0.0	0.6	-	0.6	2.1	3.8	0.6	4.4
18/1	396	396	-	-	-	1.5	0.5	-	2.0	18.2	2.9	0.5	3.4
18/2+18/3	664	664	-	-	-	1.4	2.0	-	3.4	18.2	7.0	2.0	9.0
19/1	1187	1187	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1018	1018	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-2.9 3.7 -2.9	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			23.74 26.93 56.33	Cycle Time (s): Cycle Time (s):		42 42	

Full Input Data And Results

Scenario 7: '2038 WoD AM' (FG7: '2038 WoD Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

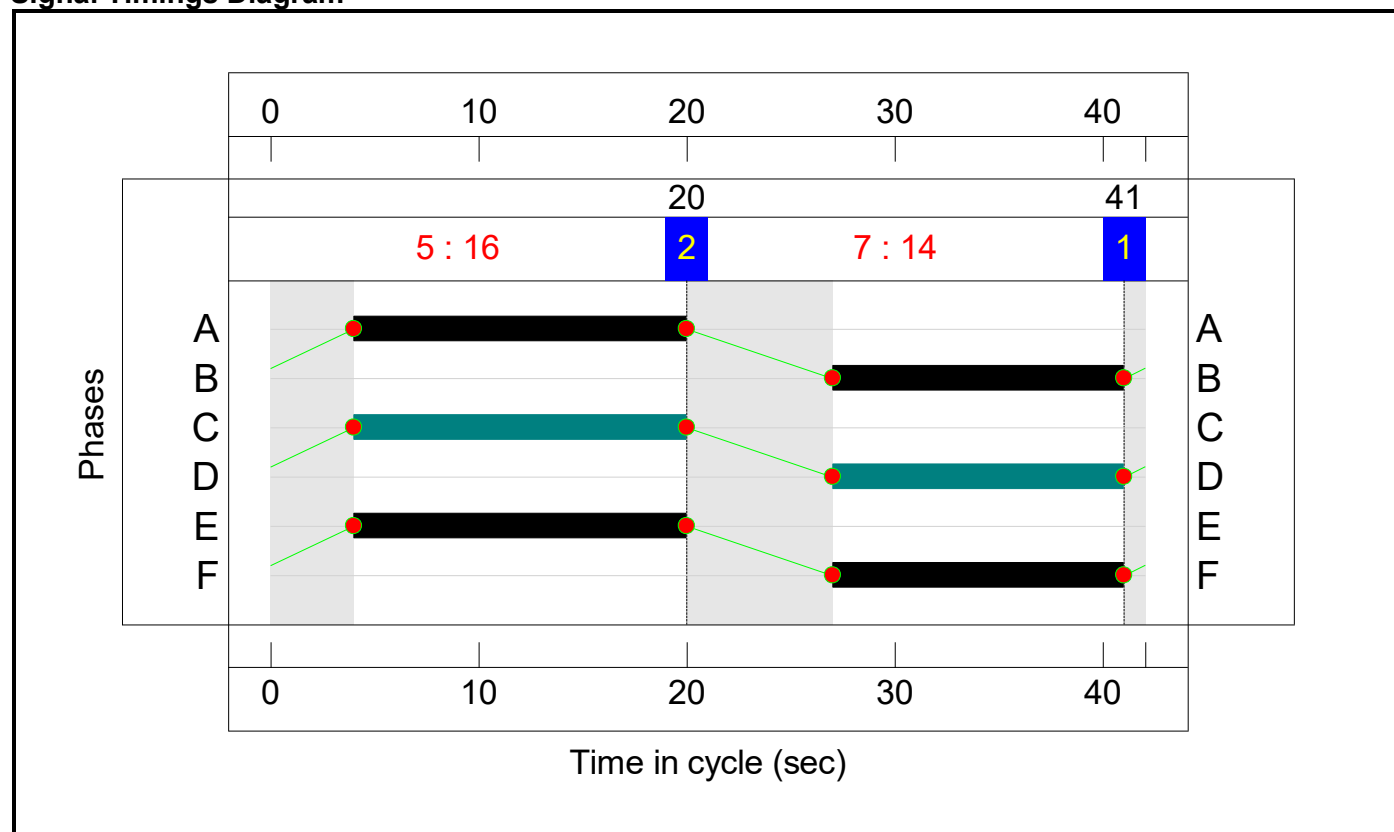
Stage Sequence Diagram



Stage Timings

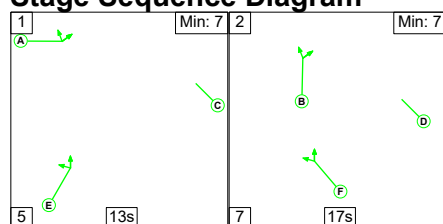
Stage	1	2
Duration	16	14
Change Point	41	20

Signal Timings Diagram



Controller :C2 - Westside E36309

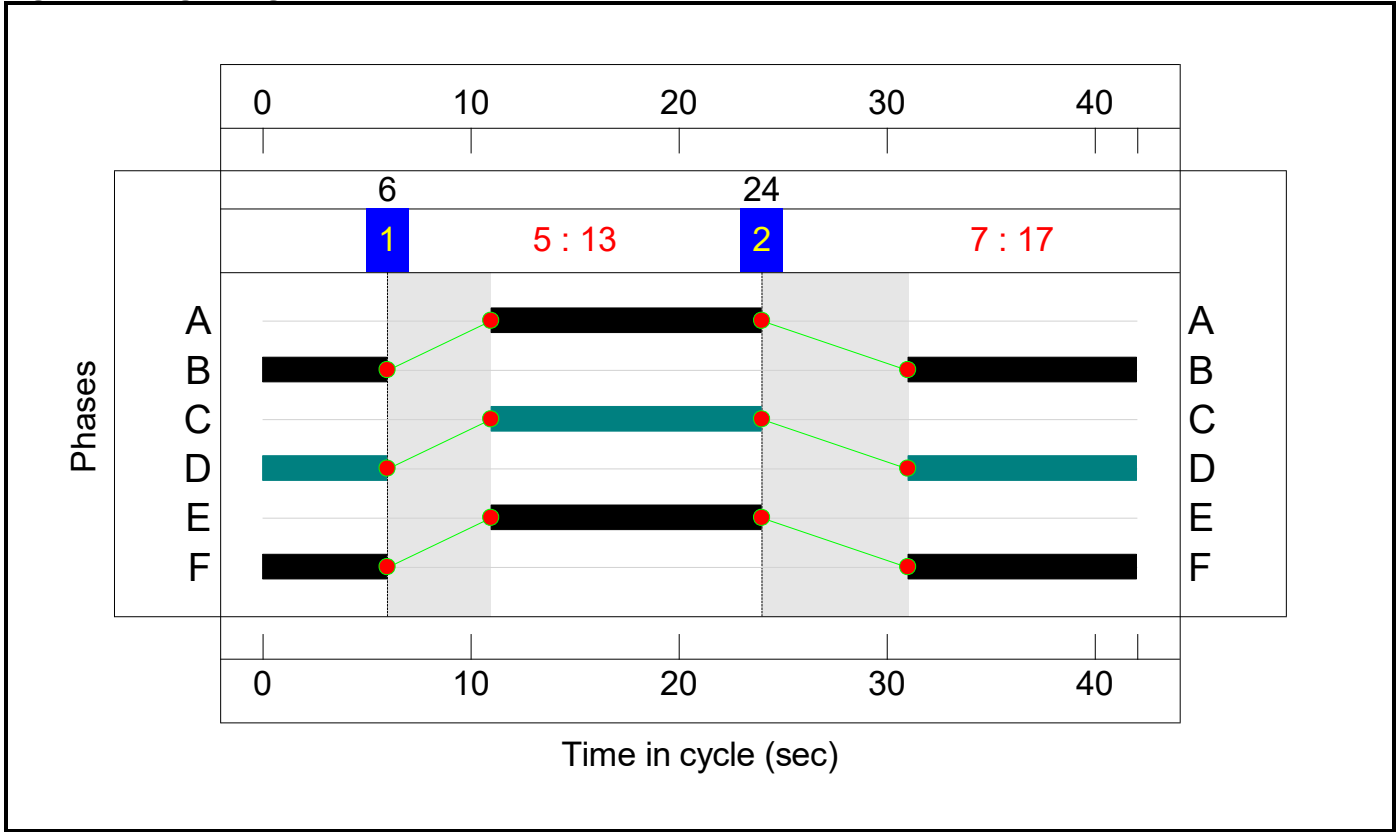
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	13	17
Change Point	6	24

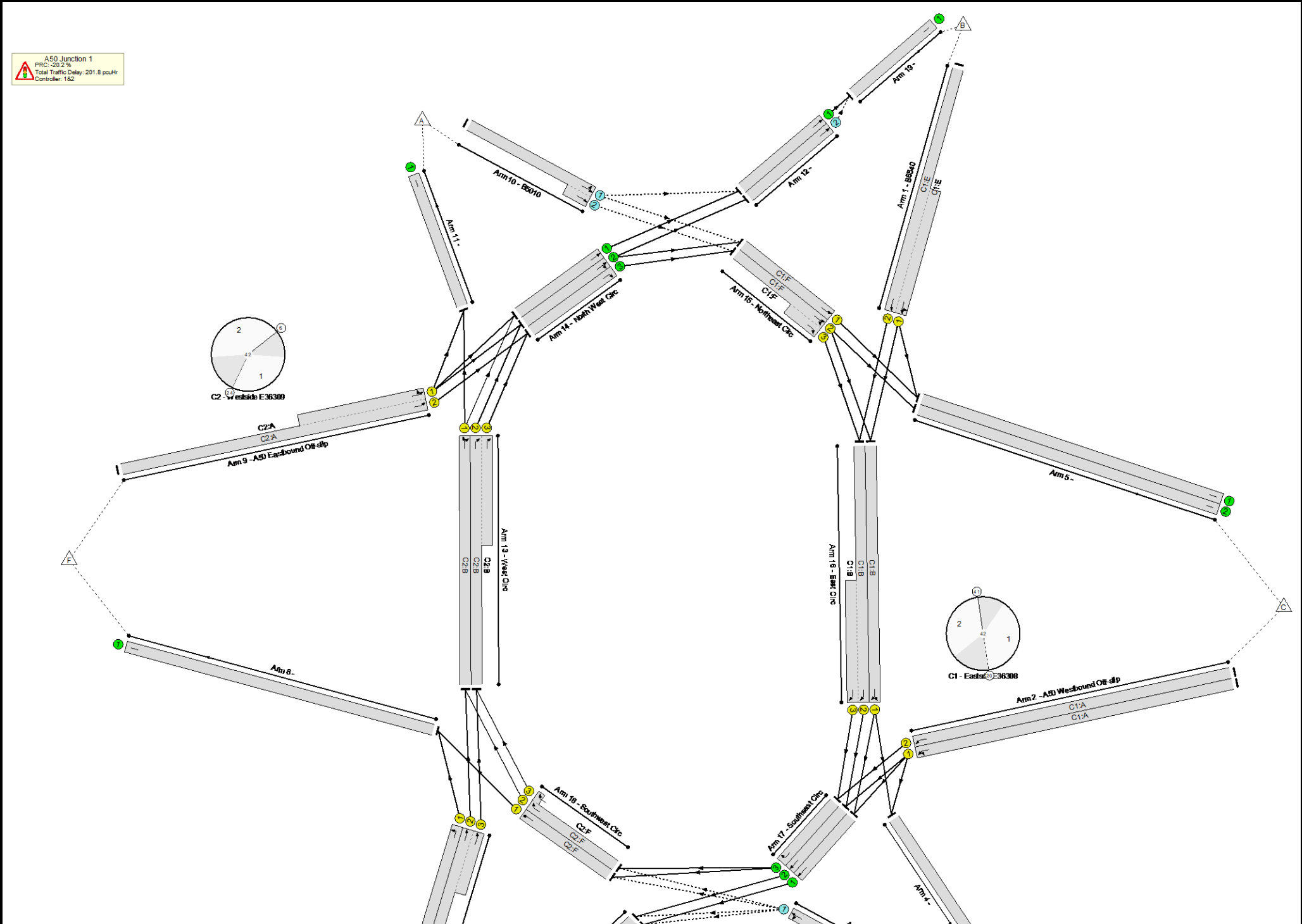
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	108.2%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	108.2%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	16	-	1187	2088:1950	845+789	66.9 : 78.8%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	16	-	638	1907	772	82.7%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	16	-	483	2049	829	58.2%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	73	1886	344	21.2%
4/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1107	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	921	1980	1980	43.3%
6/2	Ahead	O	N/A	N/A	-		-	-	-	583	1980	526	105.0%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	13	-	535	1923	641	83.5%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	13	-	952	2063:2101	184+700	107.7 : 107.7%
8/1		U	N/A	N/A	-		-	-	-	896	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	13	-	1102	1995:1853	665+618	106.3 : 64.0%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	407	1894:2034	300+300	63.4 : 72.4%
11/1		U	N/A	N/A	-		-	-	-	188	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	979	1965	1965	49.3%
12/2	Ahead	O	N/A	N/A	-		-	-	-	169	1965	502	32.1%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	17	-	687	1944	833	80.8%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	17	-	832	1942:1940	832+161	78.5 : 77.8%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	894	1930	1930	45.8%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	697	1926	1926	33.9%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	842	1923	1923	41.1%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	14	-	633	1932	690	86.5%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	14	-	1059	1929:1926	613+376	101.4 : 102.7%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	14	-	804	1933	690	108.2%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	14	-	968	1930:1927	689+688	80.2 : 55.7%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	908	1912	1912	44.2%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	583	1907	1907	29.0%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	868	1899	1899	45.6%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	17	-	361	1937	830	43.3%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	17	-	567	1935:1930	721+115	67.8 : 67.8%
19/1		U	N/A	N/A	-		-	-	-	1148	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1504	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1574	0	0	42.5	159.3	0.0	201.8	-	-	-	-
A50 Junction 1	-	-	1574	0	0	42.5	159.3	0.0	201.8	-	-	-	-
1/2+1/1	1187	1187	-	-	-	3.5	1.3	-	4.8	14.6	6.2	1.3	7.5
2/1	638	638	-	-	-	2.0	2.3	-	4.3	24.2	6.6	2.3	8.9
2/2	483	483	-	-	-	1.3	0.7	-	2.0	14.9	4.3	0.7	5.0
3/1	73	73	73	0	0	0.0	0.1	-	0.2	8.8	0.2	0.1	0.4
4/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1071	1071	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	858	858	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
6/2	553	526	526	0	0	2.4	20.1	-	22.5	146.5	19.2	20.1	39.3
7/1	535	535	-	-	-	1.9	2.4	-	4.3	29.2	5.6	2.4	8.1
7/2+7/3	952	884	-	-	-	4.5	39.9	-	44.4	167.9	10.8	39.9	50.7
8/1	894	894	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	1102	1060	-	-	-	4.8	24.0	-	28.8	93.9	8.7	24.0	32.7
10/1+10/2	407	407	814	0	0	0.6	1.0	-	1.6	14.3	1.2	1.0	2.3
11/1	184	184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	969	969	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
12/2	161	161	161	0	0	0.0	0.2	-	0.2	5.3	0.0	0.2	0.2
13/1	673	673	-	-	-	2.6	2.0	-	4.6	24.7	5.9	2.0	8.0
13/2+13/3	778	778	-	-	-	1.2	1.8	-	3.0	14.0	15.3	1.8	17.0
14/1	884	884	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
14/2	653	653	-	-	-	0.0	0.3	-	0.3	1.4	3.2	0.3	3.5
14/3	790	790	-	-	-	0.0	0.3	-	0.4	1.7	5.5	0.3	5.9
15/1	597	597	-	-	-	3.6	3.0	-	6.6	39.7	6.7	3.0	9.7

Full Input Data And Results

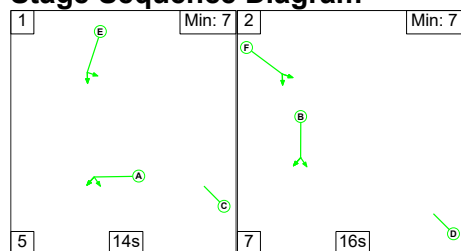
15/2+15/3	1007	970	-	-	-	2.5	21.2	-	23.7	84.5	10.0	21.2	31.1
16/1	747	690	-	-	-	5.6	33.9	-	39.5	190.4	9.6	33.9	43.4
16/2+16/3	936	936	-	-	-	3.8	1.1	-	4.8	18.5	16.8	1.1	17.9
17/1	845	845	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
17/2	553	553	-	-	-	0.0	0.2	-	0.2	1.3	2.1	0.2	2.3
17/3	866	866	-	-	-	0.0	0.4	-	0.4	1.8	2.1	0.4	2.6
18/1	359	359	-	-	-	0.3	0.4	-	0.7	6.9	0.7	0.4	1.0
18/2+18/3	567	567	-	-	-	1.9	1.0	-	2.9	18.4	6.0	1.0	7.1
19/1	1130	1130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1384	1384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<div style="display: flex; justify-content: space-between;"> <div>C1 - Eastside E36308 C2 - Westside E36309</div> <div>PRC for Signalled Lanes (%):-20.2 PRC for Signalised Lanes (%):-19.6 PRC Over All Lanes (%):-20.2</div> <div>Total Delay for Signalled Lanes (pcuHr): 85.66 Total Delay for Signalised Lanes (pcuHr): 88.73 Total Delay Over All Lanes(pcuHr): 201.84</div> <div>Cycle Time (s): 42 Cycle Time (s): 42</div> </div>													

Full Input Data And Results

Scenario 8: '2038 WoD PM' (FG8: '2038 WoD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

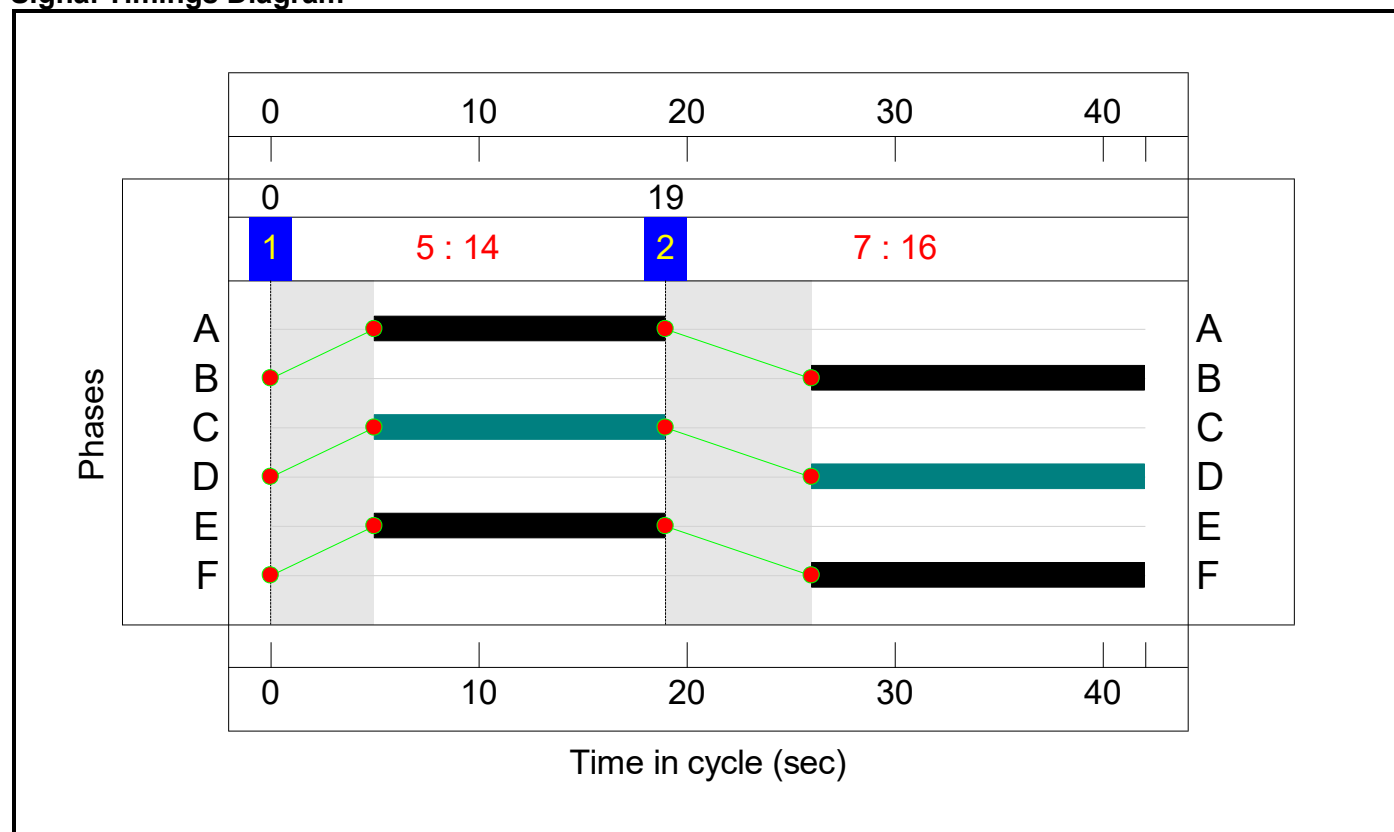
Stage Sequence Diagram



Stage Timings

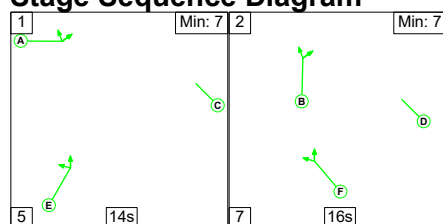
Stage	1	2
Duration	14	16
Change Point	0	19

Signal Timings Diagram



Controller :C2 - Westside E36309

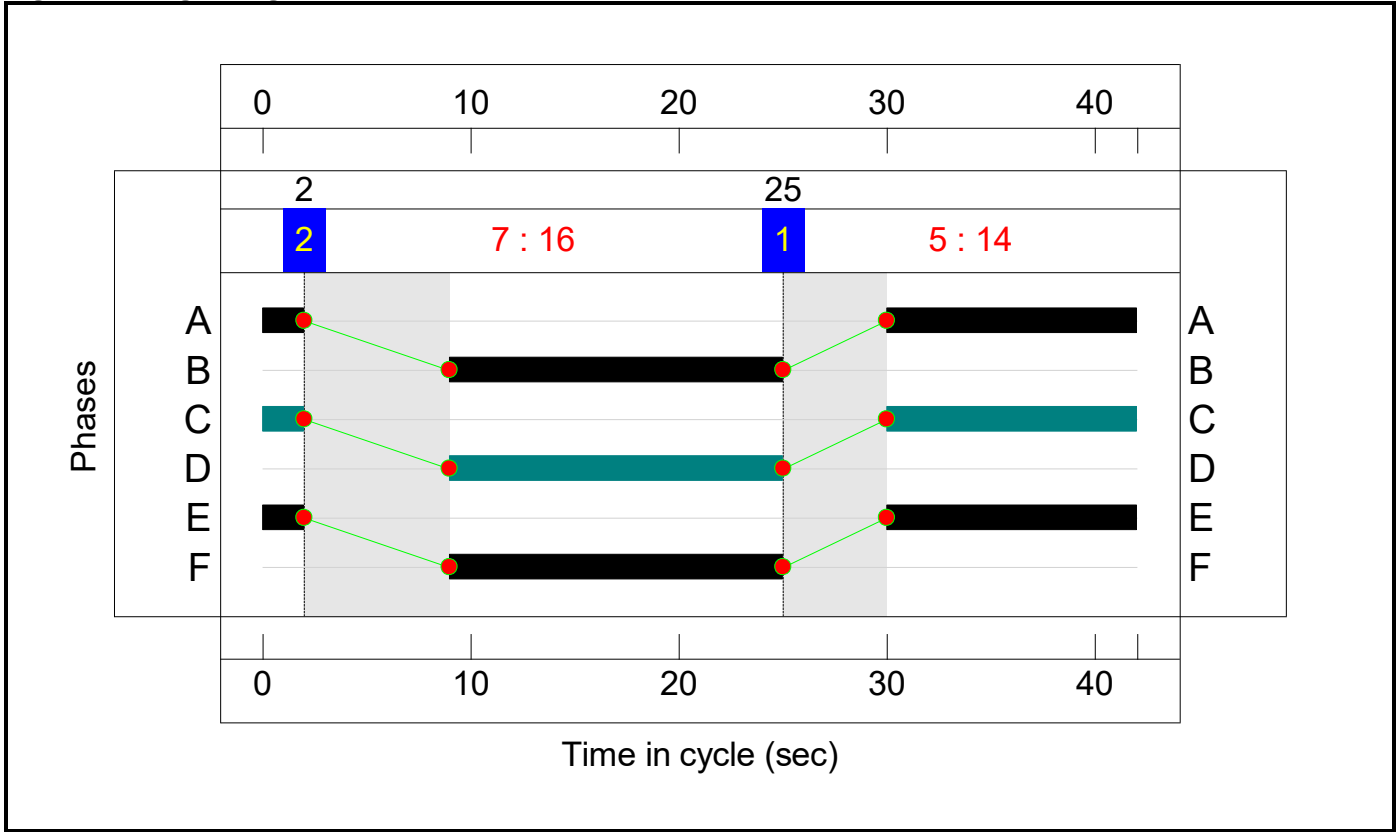
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	25	2

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A50 Junction 1
 PRC: 18.8 %
 Total Traffic Delay: 147.5 points
 Controller: 162

Diagram Details:

- Arms:** 17 arms are shown, labeled Arm 1 through Arm 17. Arms 1, 2, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17 are shown with lane configurations and traffic flow arrows. Arm 17 is labeled "Southwest Cir". Arm 16 is labeled "Southwest Cir". Arm 15 is labeled "Northwest Cir". Arm 14 is labeled "North West Cir". Arm 13 is labeled "West Cir". Arm 12 is labeled "Northwest Cir". Arm 11 is labeled "Northwest Cir". Arm 10 is labeled "Southwest Cir". Arm 9 is labeled "Eastbound Off-slip". Arm 8 is labeled "Eastbound Off-slip". Arm 7 is labeled "Eastbound Off-slip". Arm 6 is labeled "Eastbound Off-slip". Arm 5 is labeled "Eastbound Off-slip". Arm 4 is labeled "Eastbound Off-slip". Arm 3 is labeled "Eastbound Off-slip". Arm 2 is labeled "Westbound Off-slip". Arm 1 is labeled "Westbound Off-slip".
- Lane Configurations:** Lane configurations are indicated by numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756,

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	106.9%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	106.9%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	14	-	1346	2088:1950	746+696	93.2 : 93.5%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	14	-	400	1907	681	58.7%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	14	-	522	2049	732	71.3%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	91	1886	369	24.7%
4/1		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	989	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	787	1980	1980	39.7%
6/2	Ahead	O	N/A	N/A	-		-	-	-	412	1980	542	76.0%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	560	1923	687	81.5%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	1163	2063:2101	338+750	106.9 : 106.9%
8/1		U	N/A	N/A	-		-	-	-	975	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	849	1995:1853	713+662	70.2 : 52.7%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	334	1894:2034	318+318	50.6 : 54.3%
11/1		U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	867	1965	1965	43.2%
12/2	Ahead	O	N/A	N/A	-		-	-	-	423	1965	528	76.8%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	823	1944	787	102.0%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	1049	1942:1940	786+209	100.7 : 98.8%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	776	1930	1930	39.3%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	829	1926	1926	40.8%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	720	1923	1923	36.7%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	16	-	476	1932	782	57.6%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	16	-	893	1929:1926	708+263	89.9 : 91.9%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	16	-	654	1933	782	82.9%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	16	-	937	1930:1927	781+780	52.7 : 67.3%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	773	1912	1912	40.4%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	412	1907	1907	21.6%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	1047	1899	1899	55.1%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	415	1937	784	52.9%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	709	1935:1930	536+286	86.3 : 86.3%
19/1		U	N/A	N/A	-		-	-	-	1290	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1199	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1576	0	0	37.7	109.8	0.0	147.5	-	-	-	-
A50 Junction 1	-	-	1576	0	0	37.7	109.8	0.0	147.5	-	-	-	-
1/2+1/1	1346	1346	-	-	-	4.9	6.2	-	11.1	29.6	7.7	6.2	13.9
2/1	400	400	-	-	-	1.2	0.7	-	1.9	17.4	3.8	0.7	4.5
2/2	522	522	-	-	-	1.7	1.2	-	2.9	20.1	5.2	1.2	6.4
3/1	91	91	91	0	0	0.1	0.2	-	0.2	8.9	0.3	0.2	0.5
4/1	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	964	964	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	127	127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	787	787	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	412	412	412	0	0	0.8	1.5	-	2.3	20.1	4.6	1.5	6.2
7/1	560	560	-	-	-	1.9	2.1	-	4.0	26.0	5.9	2.1	8.0
7/2+7/3	1163	1091	-	-	-	5.4	44.0	-	49.5	153.2	11.6	44.0	55.7
8/1	975	975	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	849	849	-	-	-	2.6	0.8	-	3.5	14.6	5.0	0.8	5.8
10/1+10/2	334	334	668	0	0	0.5	0.5	-	1.0	11.2	1.5	0.5	2.1
11/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	849	849	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	405	405	405	0	0	0.7	1.6	-	2.3	20.3	4.5	1.6	6.1
13/1	803	787	-	-	-	3.6	18.7	-	22.3	99.9	9.6	18.7	28.2
13/2+13/3	997	992	-	-	-	2.5	17.7	-	20.2	72.9	15.3	17.7	33.0
14/1	758	758	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	786	786	-	-	-	0.0	0.3	-	0.3	1.6	5.4	0.3	5.7
14/3	706	706	-	-	-	0.0	0.3	-	0.3	1.5	2.7	0.3	3.0
15/1	451	451	-	-	-	0.3	0.7	-	1.0	7.9	2.9	0.7	3.5

Full Input Data And Results

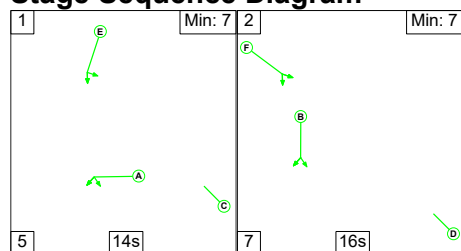
[illegible]

Full Input Data And Results

Scenario 9: '2038 WD AM' (FG9: '2038 WD Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

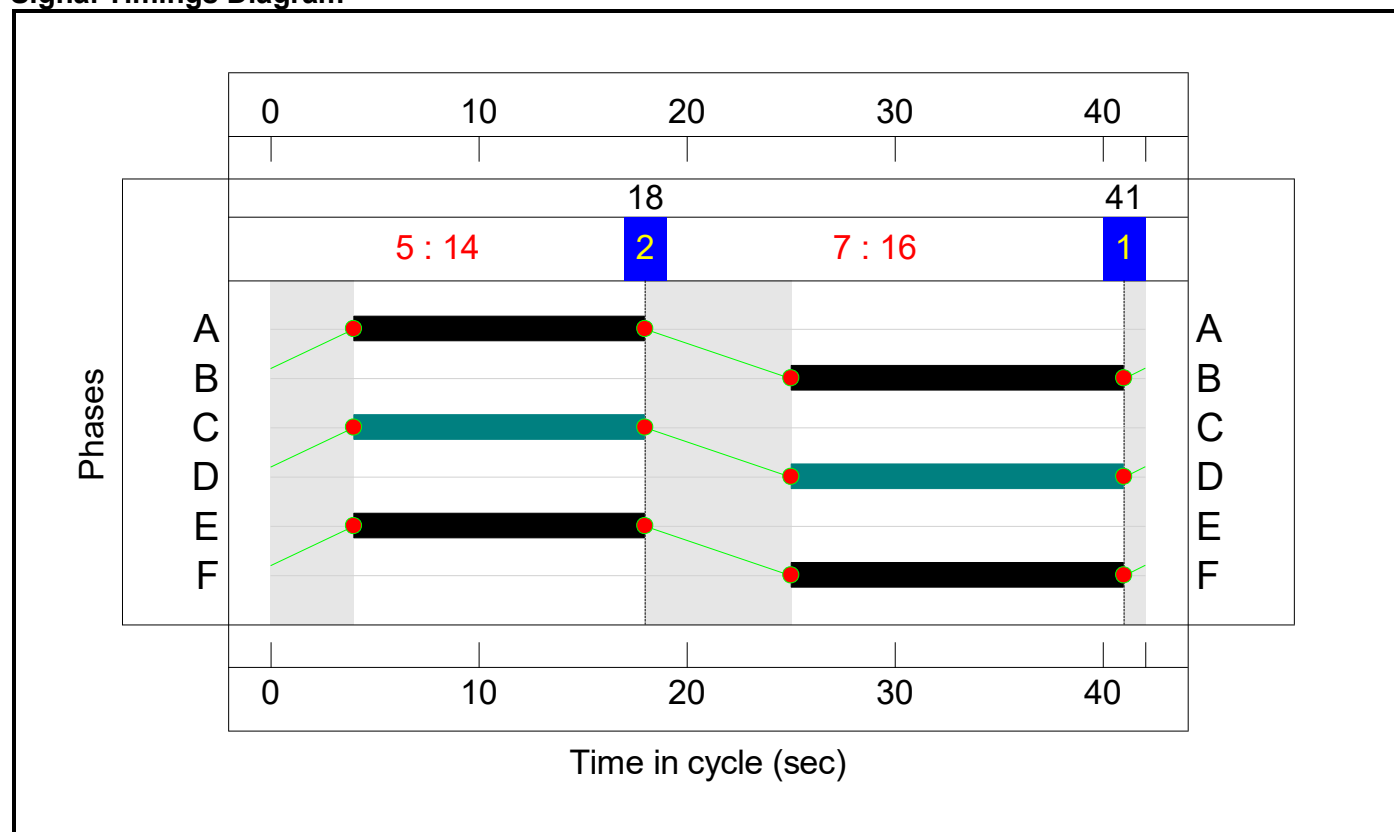
Stage Sequence Diagram



Stage Timings

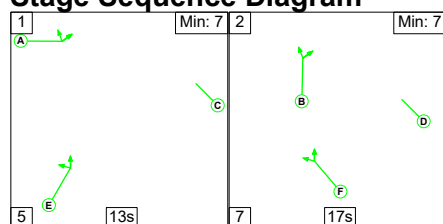
Stage	1	2
Duration	14	16
Change Point	41	18

Signal Timings Diagram



Controller :C2 - Westside E36309

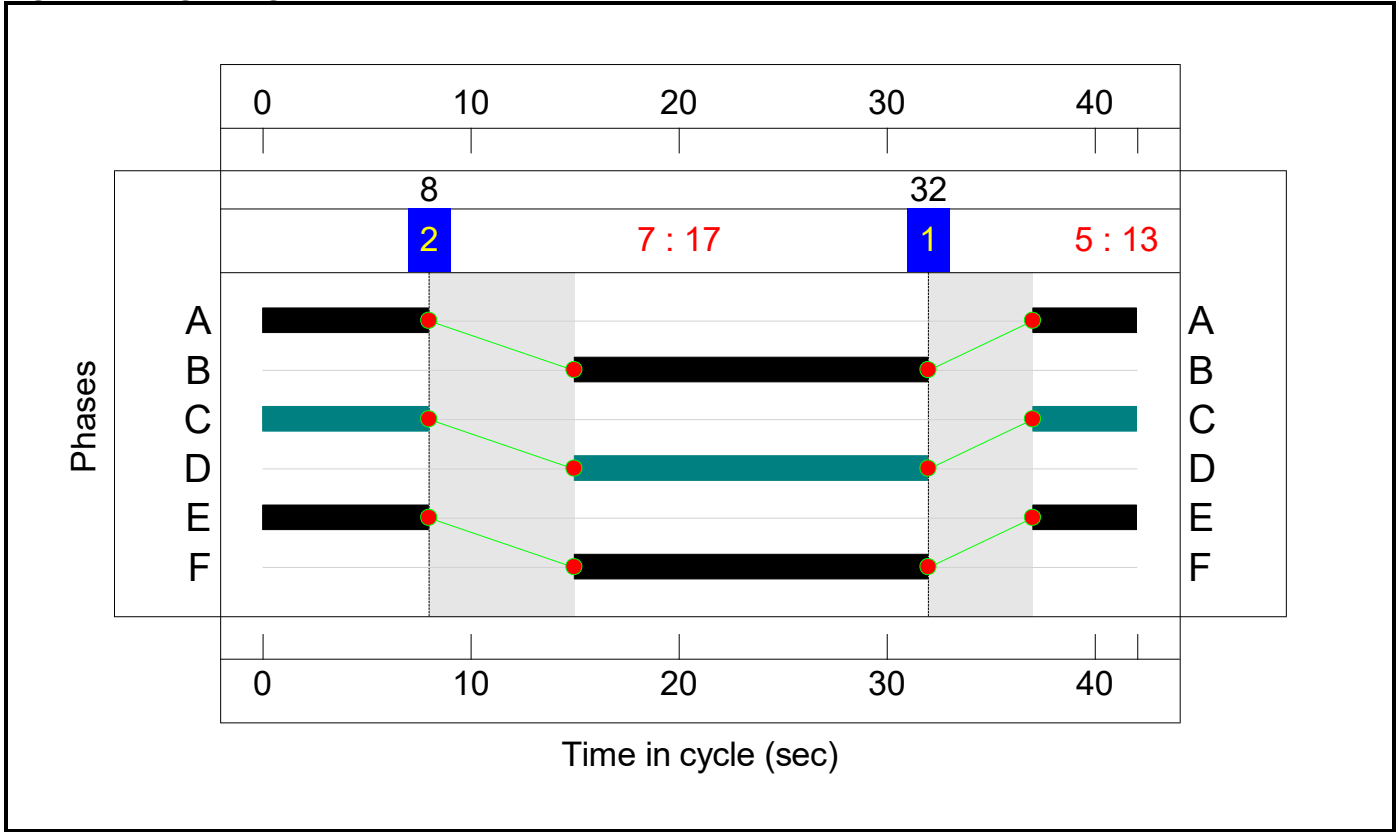
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	13	17
Change Point	32	8

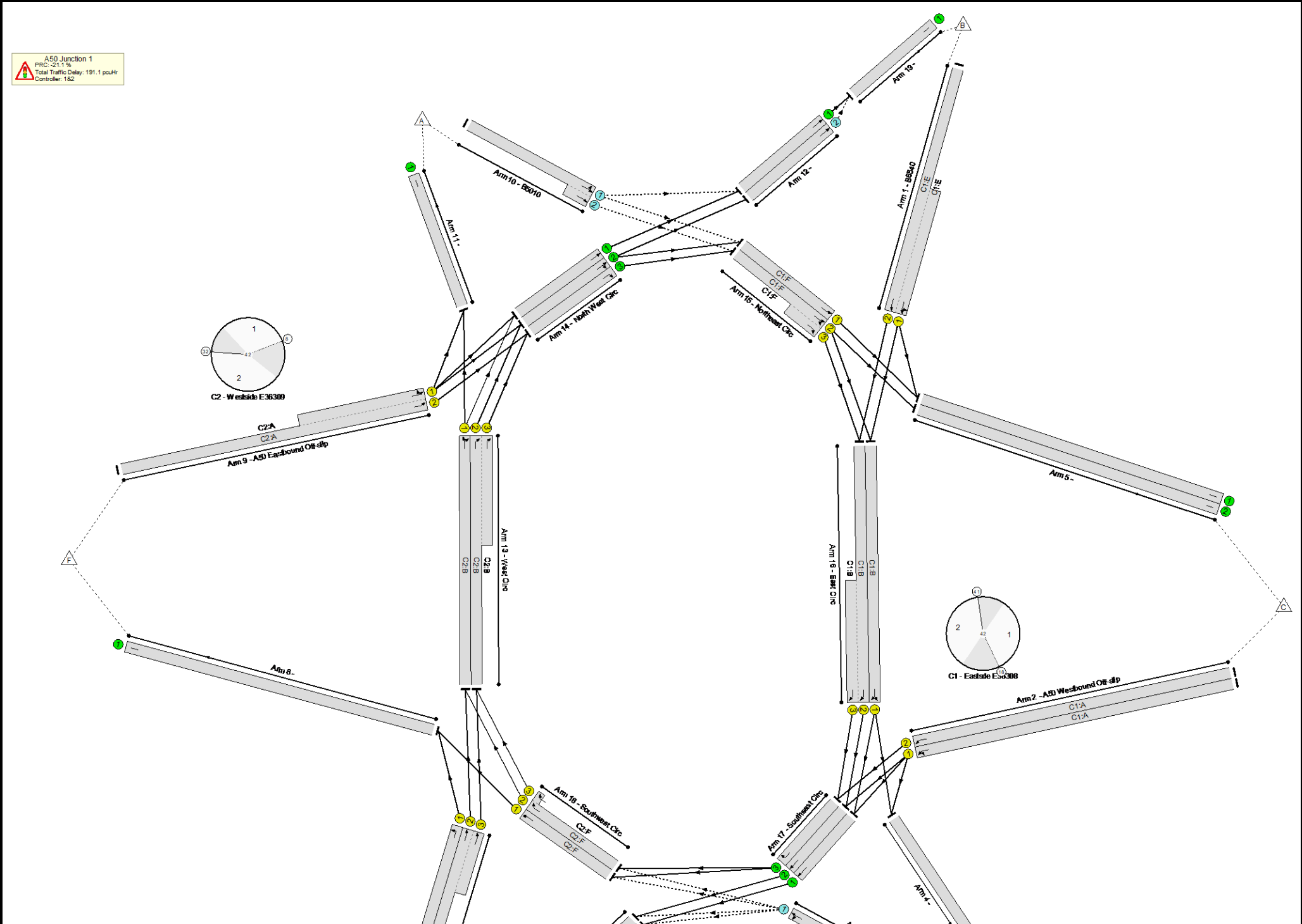
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	109.0%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	109.0%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	14	-	1188	2088:1950	699+696	68.7 : 101.7%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	14	-	637	1907	681	93.5%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	14	-	477	2049	732	65.2%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	77	1886	326	23.6%
4/1		U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	1	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	949	1980	1980	46.6%
6/2	Ahead	O	N/A	N/A	-		-	-	-	576	1980	512	107.0%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	13	-	558	1923	641	87.1%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	13	-	992	2063:2101	222+700	107.5 : 107.5%
8/1		U	N/A	N/A	-		-	-	-	920	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	13	-	1125	1995:1853	665+581	109.0 : 68.8%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	413	1894:2034	302+302	64.0 : 72.9%
11/1		U	N/A	N/A	-		-	-	-	181	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	1007	1965	1965	50.6%
12/2	Ahead	O	N/A	N/A	-		-	-	-	149	1965	496	28.9%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	17	-	704	1944	833	82.5%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	17	-	848	1942:1940	832+166	79.8 : 79.0%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	923	1930	1930	47.2%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	707	1926	1926	34.5%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	866	1923	1923	41.4%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	16	-	667	1932	782	80.5%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	16	-	1086	1929:1926	648+510	87.3 : 88.3%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	16	-	836	1933	782	101.0%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	16	-	958	1930:1927	781+706	70.2 : 54.1%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	935	1912	1912	47.5%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	576	1907	1907	28.7%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	859	1899	1899	45.2%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	17	-	362	1937	830	43.6%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	17	-	560	1935:1930	698+143	66.7 : 66.7%
19/1		U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1525	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1559	0	0	41.3	149.8	0.0	191.1	-	-	-	-
A50 Junction 1	-	-	1559	0	0	41.3	149.8	0.0	191.1	-	-	-	-
1/2+1/1	1188	1176	-	-	-	4.4	8.6	-	13.0	39.3	8.4	8.6	17.0
2/1	637	637	-	-	-	2.3	5.7	-	8.0	45.4	7.1	5.7	12.8
2/2	477	477	-	-	-	1.5	0.9	-	2.4	18.3	4.6	0.9	5.6
3/1	77	77	77	0	0	0.0	0.2	-	0.2	9.4	0.3	0.2	0.4
4/1	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1101	1101	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1	1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	922	922	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
6/2	548	512	512	0	0	2.6	23.7	-	26.3	173.0	19.2	23.7	42.9
7/1	558	558	-	-	-	2.0	3.1	-	5.2	33.3	6.0	3.1	9.2
7/2+7/3	992	923	-	-	-	5.0	40.8	-	45.8	166.1	10.9	40.8	51.7
8/1	920	920	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	1125	1065	-	-	-	4.9	34.3	-	39.2	125.5	8.6	34.3	42.9
10/1+10/2	413	413	826	0	0	0.6	1.1	-	1.7	14.5	1.2	1.1	2.3
11/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	995	995	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
12/2	143	143	143	0	0	0.0	0.2	-	0.2	5.1	0.0	0.2	0.2
13/1	688	688	-	-	-	2.7	2.3	-	5.0	26.1	6.6	2.3	8.9
13/2+13/3	795	795	-	-	-	1.3	1.9	-	3.3	14.7	15.3	1.9	17.2
14/1	911	911	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
14/2	664	664	-	-	-	0.0	0.3	-	0.3	1.4	3.2	0.3	3.5
14/3	796	796	-	-	-	0.0	0.4	-	0.4	1.7	5.5	0.4	5.9
15/1	630	630	-	-	-	0.6	2.0	-	2.6	15.1	2.3	2.0	4.3

Full Input Data And Results

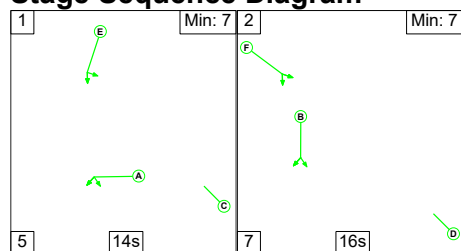
15/2+15/3	1016	1016	-	-	-	4.0	3.4	-	7.5	26.5	6.6	3.4	10.0
16/1	790	782	-	-	-	3.8	16.2	-	20.1	91.3	9.3	16.2	25.5
16/2+16/3	930	930	-	-	-	3.3	0.8	-	4.2	16.2	16.8	0.8	17.6
17/1	908	908	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
17/2	548	548	-	-	-	0.0	0.2	-	0.2	1.3	1.1	0.2	1.3
17/3	859	859	-	-	-	0.0	0.4	-	0.4	1.7	2.2	0.4	2.6
18/1	362	362	-	-	-	1.7	0.4	-	2.1	20.8	4.2	0.4	4.5
18/2+18/3	560	560	-	-	-	0.4	1.0	-	1.3	8.7	0.8	1.0	1.8
19/1	1138	1138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1434	1434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309													
PRC for Signalled Lanes (%):					-13.0	Total Delay for Signalled Lanes (pcuHr):			57.78	Cycle Time (s):			42
PRC for Signalled Lanes (%):					-21.1	Total Delay for Signalled Lanes (pcuHr):			101.80	Cycle Time (s):			42
PRC Over All Lanes (%):					-21.1	Total Delay Over All Lanes(pcuHr):			191.08				

Full Input Data And Results

Scenario 10: '2038 WD PM' (FG10: '2038 WD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

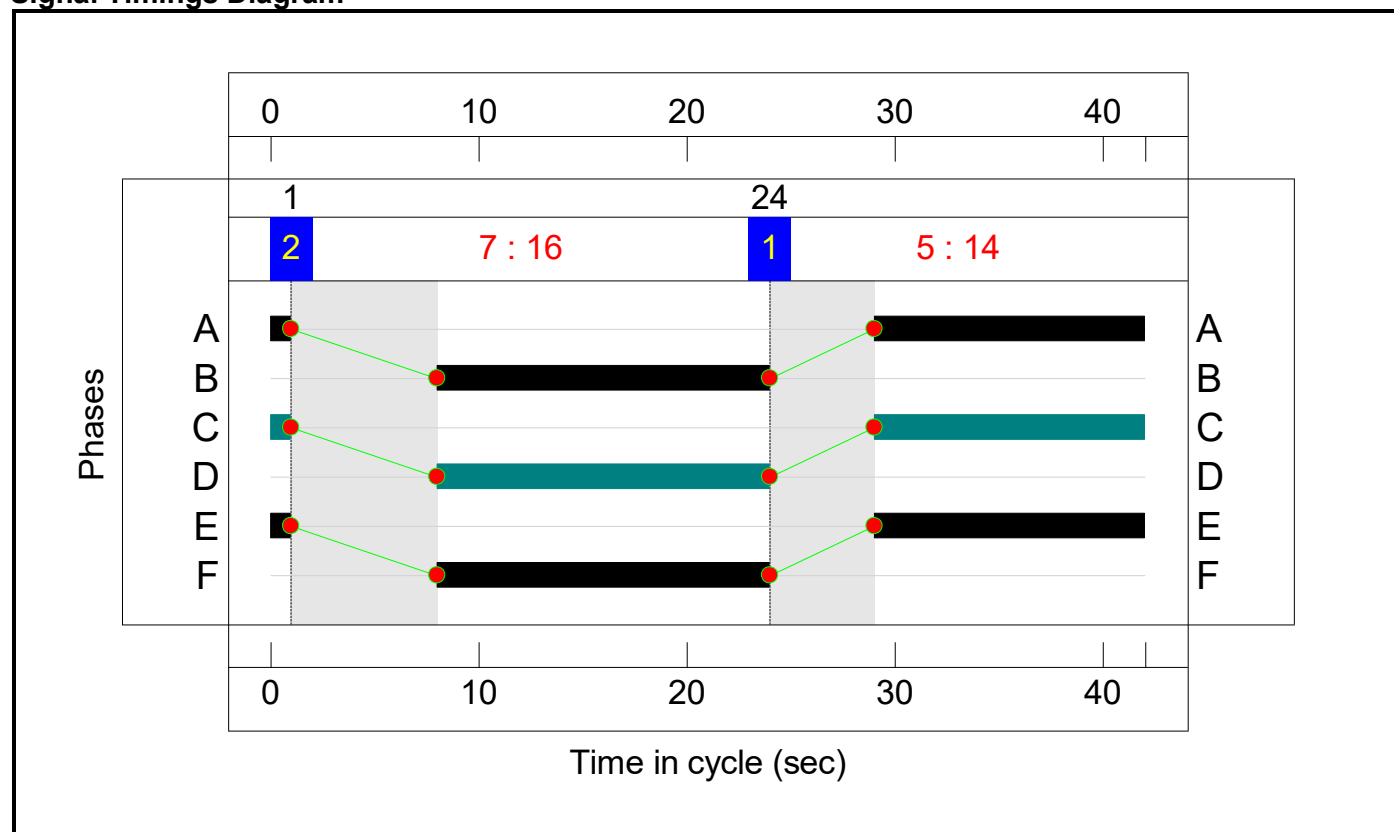
Stage Sequence Diagram



Stage Timings

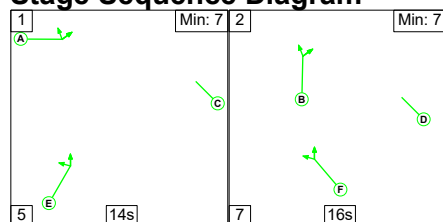
Stage	1	2
Duration	14	16
Change Point	24	1

Signal Timings Diagram



Controller :C2 - Westside E36309

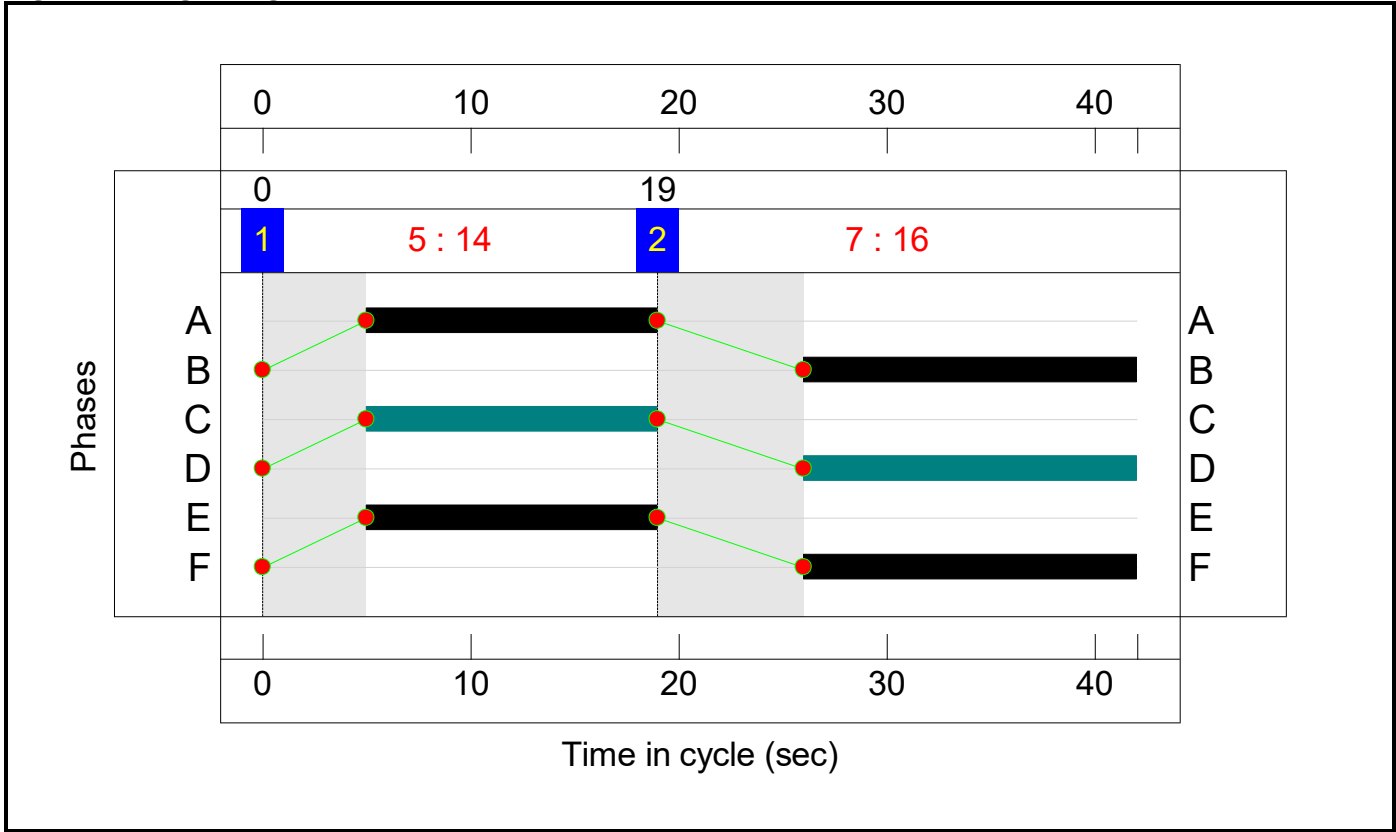
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	0	19

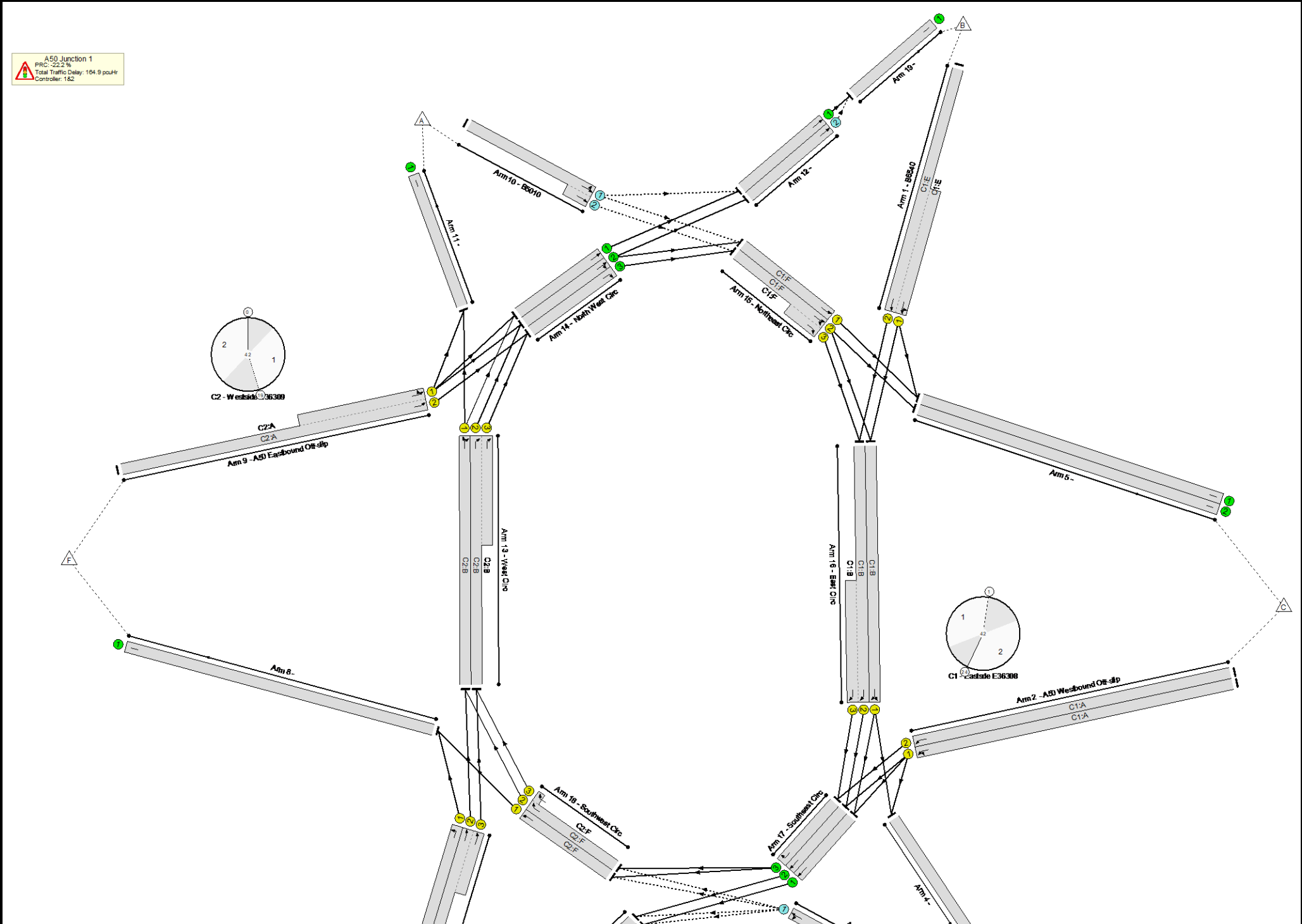
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	109.9%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	109.9%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	14	-	1347	2088:1950	746+696	93.3 : 93.5%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	14	-	403	1907	681	59.2%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	14	-	509	2049	732	69.6%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	118	1886	375	31.5%
4/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	959	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	118	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	807	1980	1980	40.8%
6/2	Ahead	O	N/A	N/A	-		-	-	-	422	1980	537	78.5%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	570	1923	687	83.0%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	1181	2063:2101	324+750	109.9 : 109.9%
8/1		U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	847	1995:1853	713+662	71.2 : 51.4%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	329	1894:2034	314+314	49.1 : 55.7%
11/1		U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	864	1965	1965	42.4%
12/2	Ahead	O	N/A	N/A	-		-	-	-	439	1965	532	78.3%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	836	1944	787	102.2%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	1062	1942:1940	786+201	100.6 : 98.0%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	773	1930	1930	38.4%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	846	1926	1926	40.8%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	723	1923	1923	36.6%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	16	-	470	1932	782	55.3%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	16	-	898	1929:1926	705+274	89.0 : 91.7%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	16	-	691	1933	782	87.2%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	16	-	947	1930:1927	781+780	54.0 : 67.3%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	788	1912	1912	41.2%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	422	1907	1907	22.1%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	1034	1899	1899	54.4%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	416	1937	784	53.1%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	717	1935:1930	548+271	87.6 : 87.6%
19/1		U	N/A	N/A	-		-	-	-	1303	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1229	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1614	0	0	38.7	126.2	0.0	164.9	-	-	-	-
A50 Junction 1	-	-	1614	0	0	38.7	126.2	0.0	164.9	-	-	-	-
1/2+1/1	1347	1347	-	-	-	4.9	6.3	-	11.1	29.7	7.7	6.3	14.0
2/1	403	403	-	-	-	1.2	0.7	-	2.0	17.5	3.8	0.7	4.5
2/2	509	509	-	-	-	1.6	1.1	-	2.8	19.5	4.9	1.1	6.1
3/1	118	118	118	0	0	0.1	0.2	-	0.3	9.4	0.5	0.2	0.7
4/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	922	922	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	108	108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	807	807	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	422	422	422	0	0	0.9	1.8	-	2.7	22.7	4.7	1.8	6.5
7/1	570	570	-	-	-	2.0	2.3	-	4.3	27.2	6.0	2.3	8.4
7/2+7/3	1181	1074	-	-	-	6.1	58.5	-	64.6	196.8	13.6	58.5	72.1
8/1	986	986	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	847	847	-	-	-	2.6	0.8	-	3.4	14.6	5.1	0.8	5.9
10/1+10/2	329	329	658	0	0	0.5	0.5	-	1.0	11.3	1.6	0.5	2.2
11/1	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	833	833	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	416	416	416	0	0	0.7	1.8	-	2.5	21.2	4.6	1.8	6.3
13/1	804	787	-	-	-	3.9	19.1	-	23.0	103.0	9.6	19.1	28.6
13/2+13/3	987	983	-	-	-	2.6	17.8	-	20.4	74.4	15.3	17.8	33.2
14/1	742	742	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	786	786	-	-	-	0.0	0.3	-	0.3	1.6	5.4	0.3	5.7
14/3	704	704	-	-	-	0.0	0.3	-	0.3	1.5	2.7	0.3	3.0
15/1	433	433	-	-	-	0.9	0.6	-	1.5	12.6	4.8	0.6	5.5

Full Input Data And Results

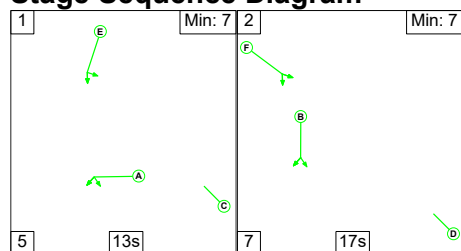
15/2+15/3	879	879	-	-	-	2.2	4.1	-	6.2	25.5	4.0	4.1	8.0
16/1	682	682	-	-	-	2.9	3.2	-	6.1	32.1	6.8	3.2	10.0
16/2+16/3	947	947	-	-	-	1.7	0.8	-	2.5	9.4	17.0	0.8	17.7
17/1	788	788	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
17/2	422	422	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
17/3	1034	1034	-	-	-	0.0	0.6	-	0.6	2.1	2.7	0.6	3.3
18/1	416	416	-	-	-	0.4	0.6	-	1.0	8.6	4.1	0.6	4.6
18/2+18/3	717	717	-	-	-	3.5	3.3	-	6.8	34.2	7.1	3.3	10.4
19/1	1249	1249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1229	1229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-3.9 -22.2 -22.2	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		32.12 123.55 164.89	Cycle Time (s): Cycle Time (s):		42 42		

Full Input Data And Results

Scenario 11: '2a 2028 WD AM' (FG11: '2a 2028 WD Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

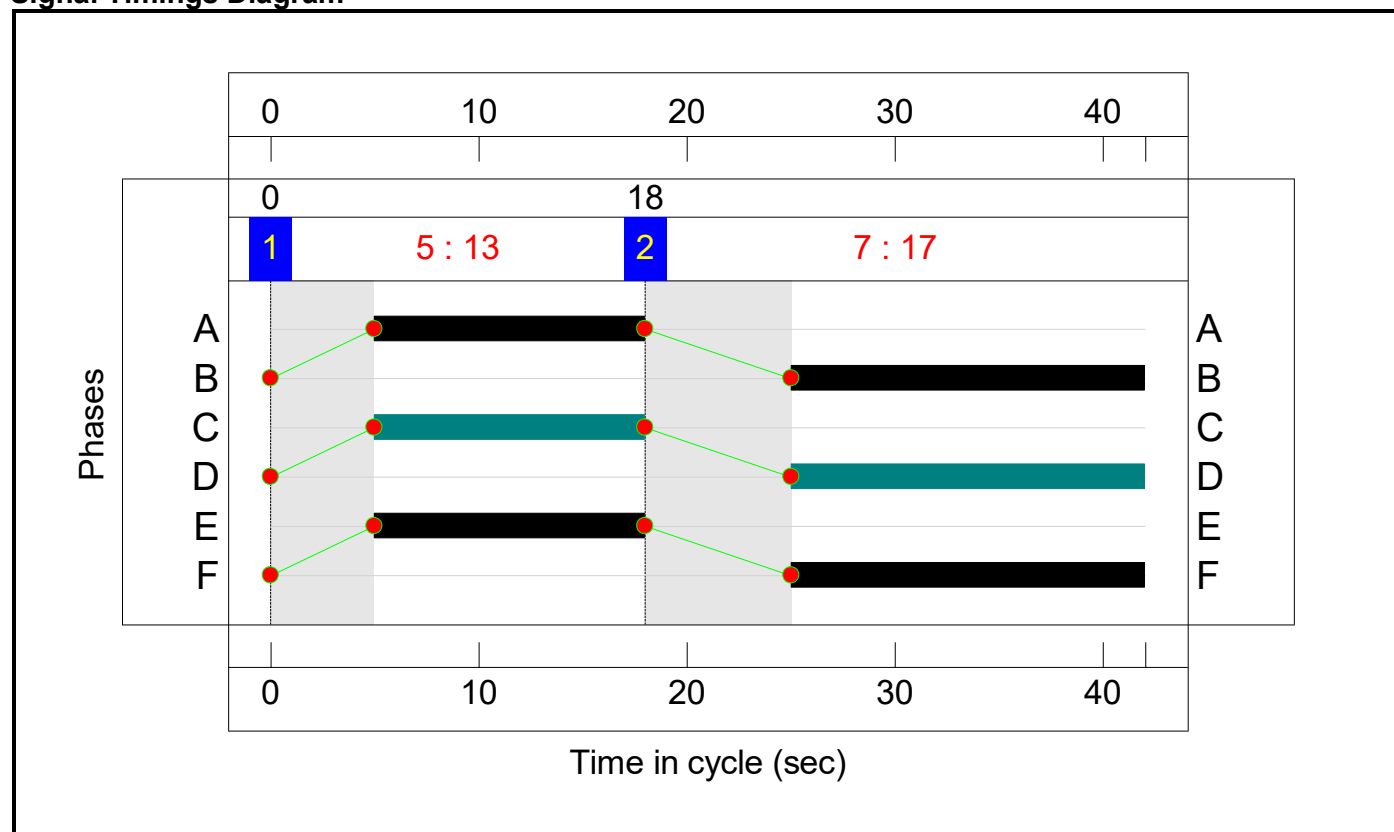
Stage Sequence Diagram



Stage Timings

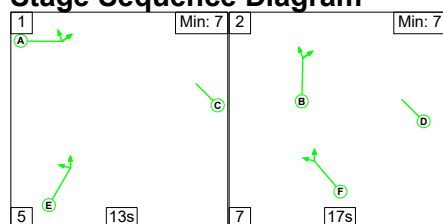
Stage	1	2
Duration	13	17
Change Point	0	18

Signal Timings Diagram



Controller :C2 - Westside E36309

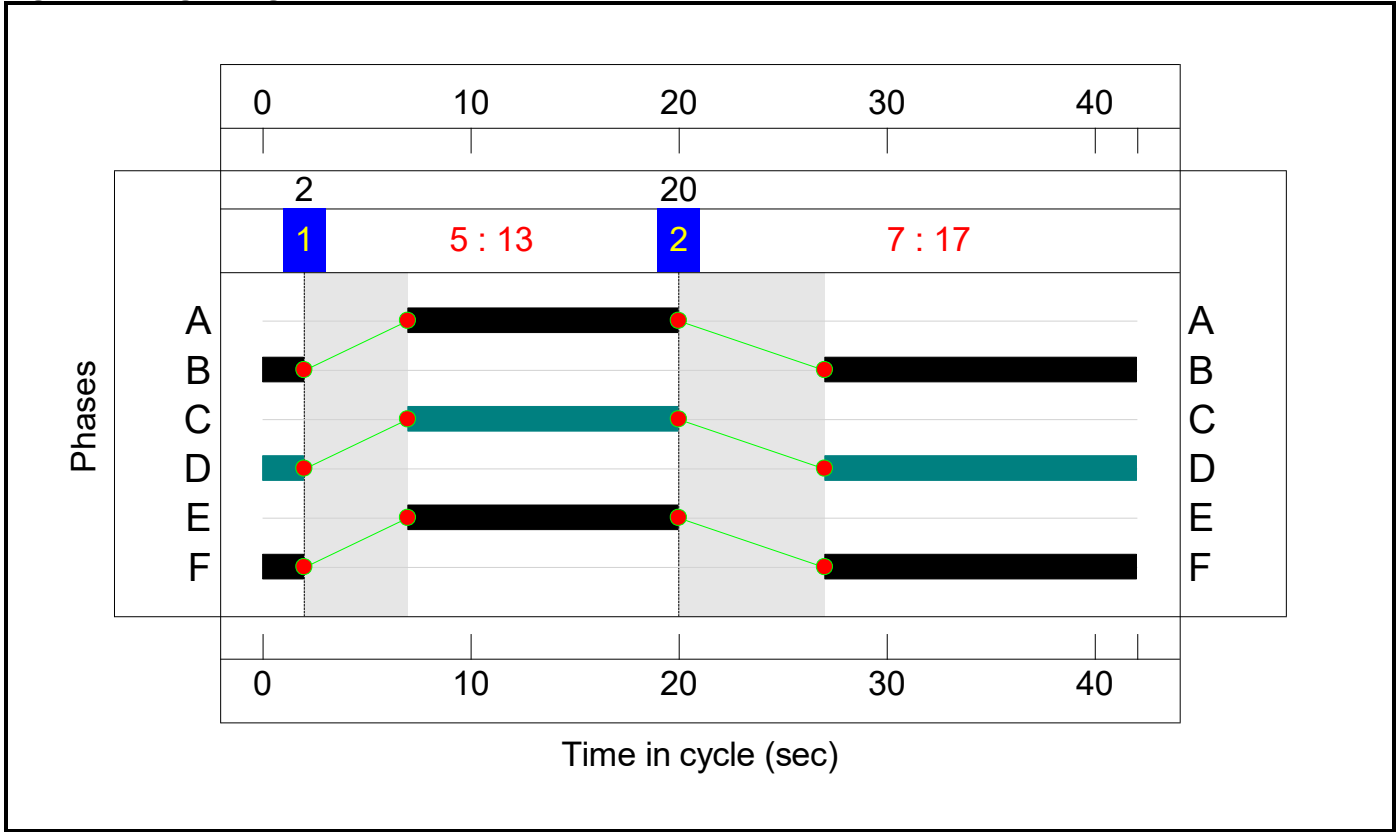
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	13	17
Change Point	2	20

Signal Timings Diagram



A50 Junction 1
 PRC: -6.8 %
 Total Traffic Delay: 68.4 pair/hr
 Controller: 162

C1 - Eastside E34308

C2 - Westside E36308

Arm 1 - A50 Westbound Off-slip
 C1A
 C1A

Arm 2 - A50 Westbound Off-slip
 C1A
 C1A

Arm 3 - A50 Westbound Off-slip
 C1A
 C1A

Arm 4 - A50 Westbound Off-slip
 C1A
 C1A

Arm 5 - A50 Westbound Off-slip
 C1A
 C1A

Arm 6 - A50 Westbound Off-slip
 C1A
 C1A

Arm 7 - A50 Westbound Off-slip
 C1A
 C1A

Arm 8 - A50 Westbound Off-slip
 C1A
 C1A

Arm 9 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 10 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 11 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 12 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 13 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 14 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 15 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 16 - A50 Eastbound Off-slip
 C2A
 C2A

Arm 17 - A50 Eastbound Off-slip
 C2A
 C2A

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	96.1%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	96.1%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	13	-	1064	2088:1950	696+650	67.2 : 91.7%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	13	-	611	1907	636	96.1%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	492	2049	683	72.0%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	51	1886	326	15.6%
4/1		U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	715	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1038	1980	1980	52.4%
6/2	Ahead	O	N/A	N/A	-		-	-	-	435	1980	487	89.4%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	13	-	417	1923	641	65.1%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	13	-	627	2063:2101	138+700	74.8 : 74.8%
8/1		U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	13	-	1003	1995:1853	665+618	93.5 : 61.7%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	442	1894:2034	325+397	59.9 : 62.2%
11/1		U	N/A	N/A	-		-	-	-	159	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	888	1965	1965	45.2%
12/2	Ahead	O	N/A	N/A	-		-	-	-	224	1965	520	43.1%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	17	-	561	1944	833	67.3%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	17	-	623	1942:1940	832+259	57.1 : 57.1%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	783	1930	1930	40.6%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	475	1926	1926	24.7%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	770	1923	1923	40.0%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	17	-	341	1932	828	41.2%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	17	-	1017	1929:1926	702+412	91.3 : 91.3%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	17	-	788	1933	828	95.1%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	17	-	844	1930:1927	827+826	52.6 : 49.5%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	1028	1912	1912	53.8%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	435	1907	1907	22.8%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	901	1899	1899	47.4%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	17	-	385	1937	830	46.4%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	17	-	557	1935:1930	692+149	66.2 : 66.2%
19/1		U	N/A	N/A	-		-	-	-	1112	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1473	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1594	0	0	29.6	38.8	0.0	68.4	-	-	-	-
A50 Junction 1	-	-	1594	0	0	29.6	38.8	0.0	68.4	-	-	-	-
1/2+1/1	1064	1064	-	-	-	3.8	1.9	-	5.7	19.1	6.6	1.9	8.5
2/1	611	611	-	-	-	2.3	7.6	-	10.0	58.8	7.0	7.6	14.6
2/2	492	492	-	-	-	1.7	1.3	-	3.0	21.6	4.9	1.3	6.2
3/1	51	51	51	0	0	0.0	0.1	-	0.1	8.3	0.1	0.1	0.2
4/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	75	75	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1038	1038	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
6/2	435	435	435	0	0	1.0	3.7	-	4.7	38.7	4.9	3.7	8.6
7/1	417	417	-	-	-	1.4	0.9	-	2.3	19.9	4.1	0.9	5.0
7/2+7/3	627	627	-	-	-	2.1	1.5	-	3.6	20.4	5.4	1.5	6.9
8/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	1003	1003	-	-	-	3.6	1.8	-	5.4	19.2	6.9	1.8	8.7
10/1+10/2	442	442	884	0	0	0.4	0.8	-	1.2	9.6	1.1	0.8	1.9
11/1	159	159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	888	888	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
12/2	224	224	224	0	0	0.1	0.4	-	0.5	7.4	2.0	0.4	2.4
13/1	561	561	-	-	-	2.1	1.0	-	3.1	19.9	4.6	1.0	5.7
13/2+13/3	623	623	-	-	-	1.0	0.7	-	1.7	9.6	15.0	0.7	15.7
14/1	783	783	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
14/2	475	475	-	-	-	0.0	0.2	-	0.2	1.2	1.1	0.2	1.2
14/3	770	770	-	-	-	0.0	0.3	-	0.3	1.6	4.9	0.3	5.2
15/1	341	341	-	-	-	1.2	0.3	-	1.6	16.4	2.5	0.3	2.8

Full Input Data And Results

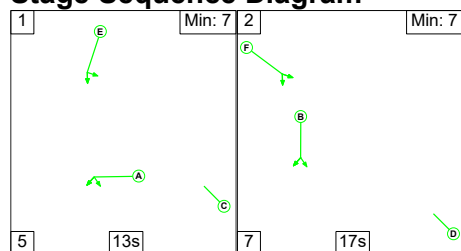
15/2+15/3	1017	1017	-	-	-	1.6	4.8	-	6.4	22.6	8.0	4.8	12.8
16/1	788	788	-	-	-	3.3	7.2	-	10.5	47.9	8.2	7.2	15.3
16/2+16/3	844	844	-	-	-	2.1	0.5	-	2.7	11.4	16.8	0.5	17.3
17/1	1028	1028	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
17/2	435	435	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
17/3	901	901	-	-	-	0.0	0.5	-	0.5	1.8	2.7	0.5	3.2
18/1	385	385	-	-	-	0.7	0.4	-	1.1	10.6	1.5	0.4	1.9
18/2+18/3	557	557	-	-	-	1.2	1.0	-	2.2	14.1	5.9	1.0	6.8
19/1	1112	1112	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1473	1473	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-6.8 -3.9 -6.8	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		39.68 19.31 68.42	Cycle Time (s): Cycle Time (s):		42 42		

Full Input Data And Results

Scenario 12: '2a 2028 WD PM' (FG12: '2a 2028 WD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

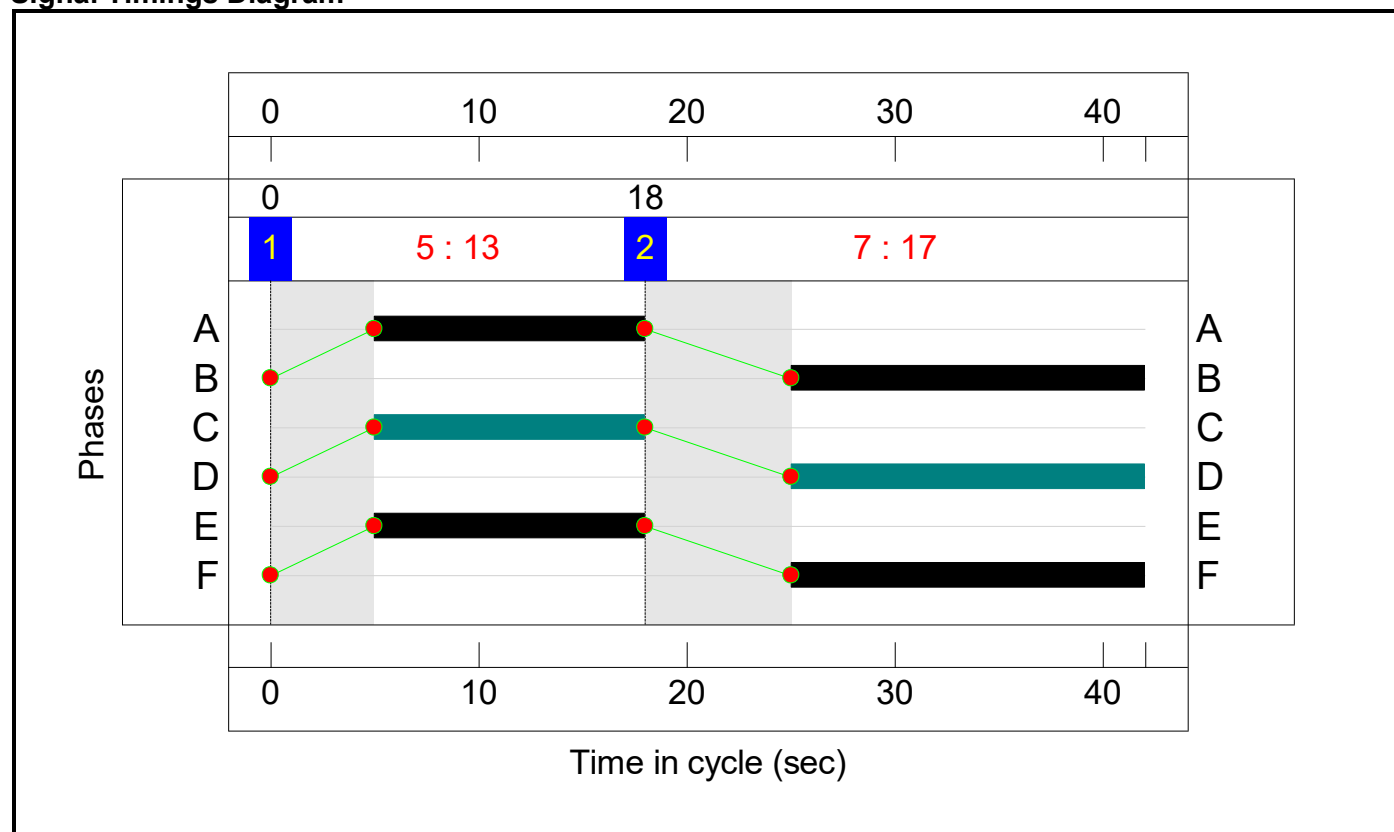
Stage Sequence Diagram



Stage Timings

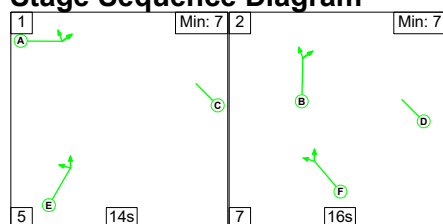
Stage	1	2
Duration	13	17
Change Point	0	18

Signal Timings Diagram



Controller :C2 - Westside E36309

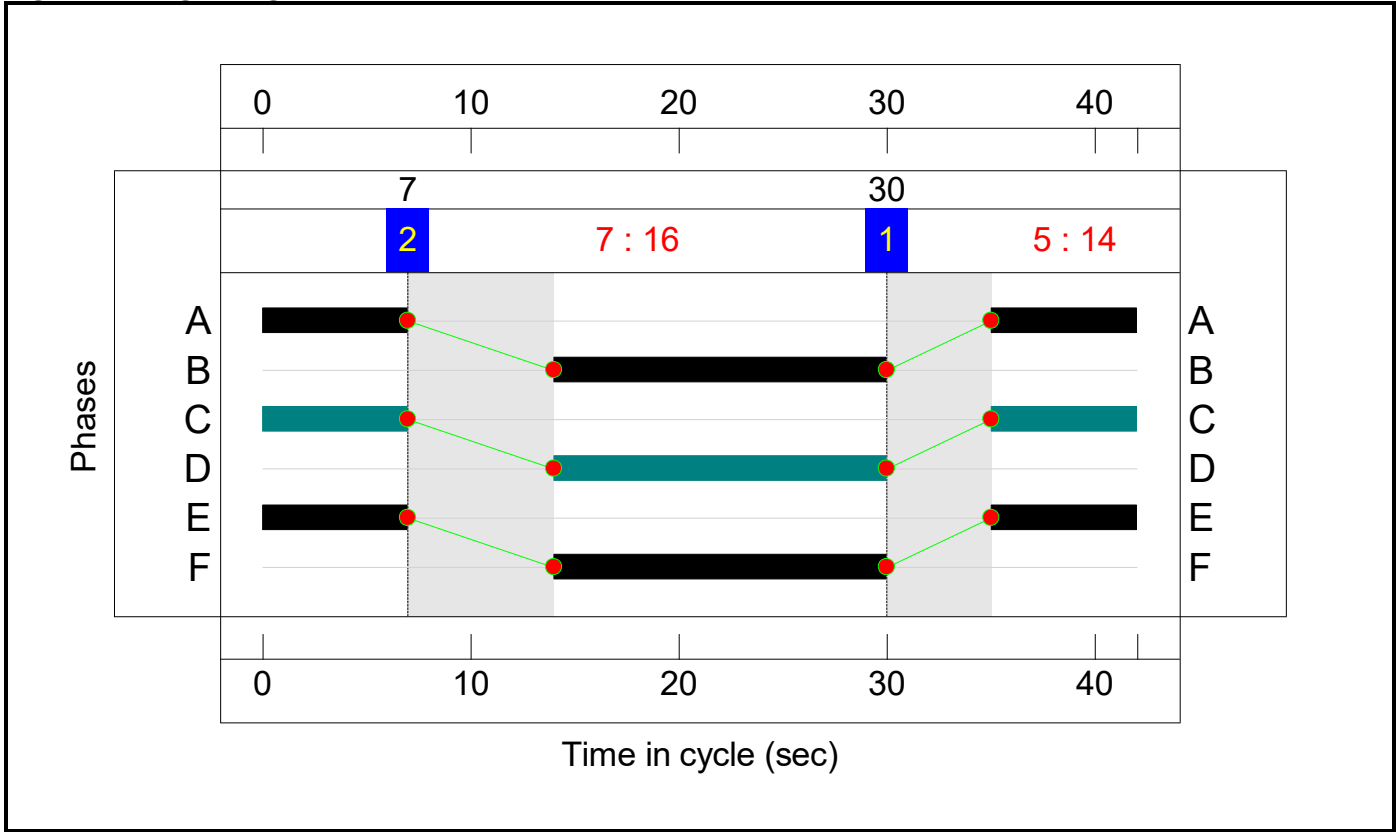
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	30	7

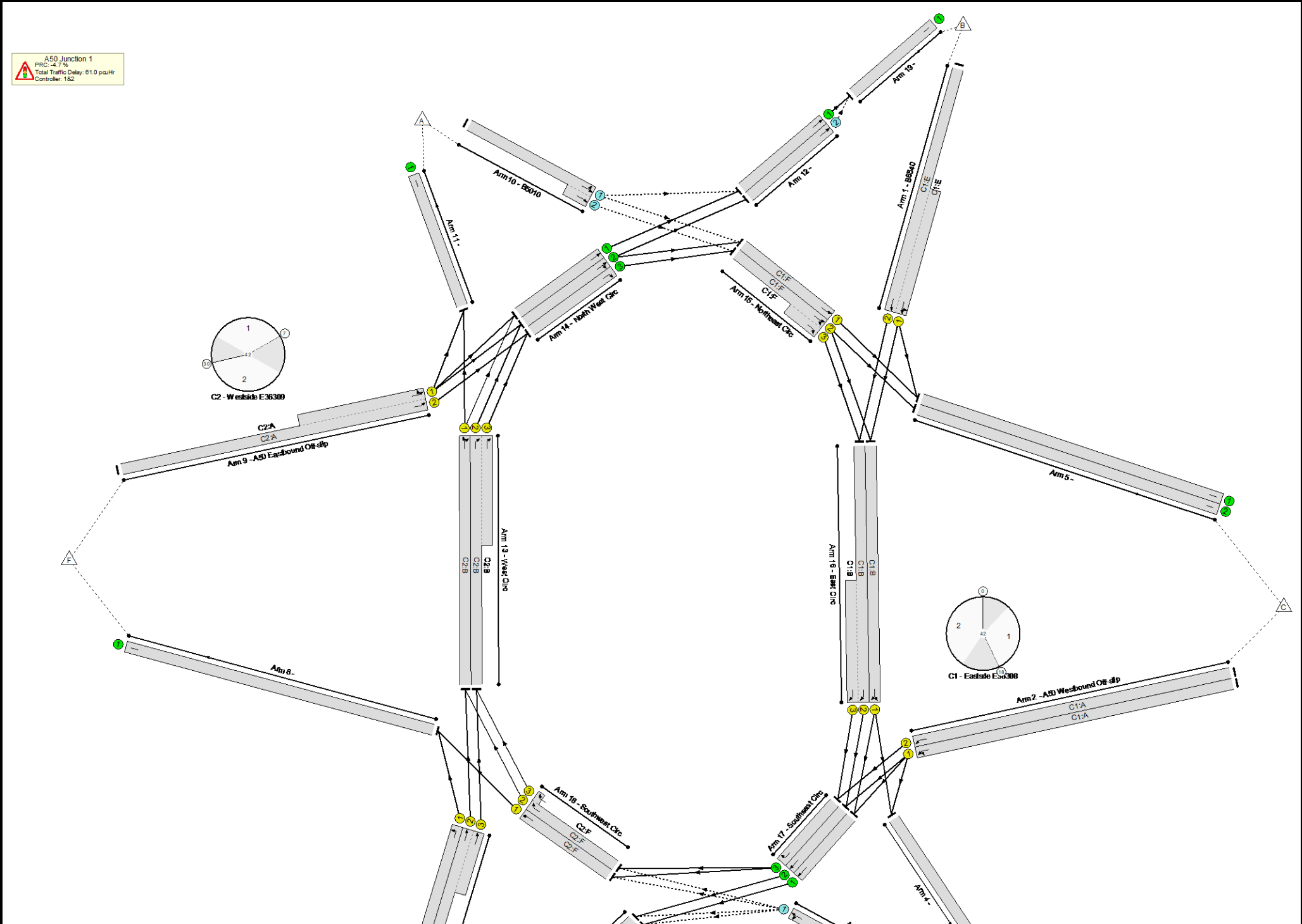
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	13	-	1046	2088:1950	696+650	63.6 : 92.8%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	13	-	341	1907	636	53.6%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	529	2049	683	77.5%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	73	1886	406	18.0%
4/1		U	N/A	N/A	-		-	-	-	114	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	761	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	733	1980	1980	37.0%
6/2	Ahead	O	N/A	N/A	-		-	-	-	310	1980	554	56.0%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	566	1923	687	82.4%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	935	2063:2101	289+750	90.0 : 90.0%
8/1		U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	924	1995:1853	713+662	70.9 : 63.3%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	297	1894:2034	398+398	35.2 : 39.4%
11/1		U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	845	1965	1965	43.0%
12/2	Ahead	O	N/A	N/A	-		-	-	-	341	1965	529	64.5%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	692	1944	787	87.9%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	903	1942:1940	786+521	71.2 : 65.8%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	780	1930	1930	40.4%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	560	1926	1926	29.1%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	848	1923	1923	44.1%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	17	-	294	1932	828	35.5%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	17	-	1005	1929:1926	720+346	94.3 : 94.3%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	17	-	496	1933	828	59.9%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	17	-	769	1930:1927	743+826	41.7 : 55.6%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	723	1912	1912	37.8%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	310	1907	1907	16.3%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	988	1899	1899	52.0%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	391	1937	784	49.9%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	660	1935:1930	538+284	80.4 : 80.4%
19/1		U	N/A	N/A	-		-	-	-	1186	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1043	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1318	0	0	29.9	31.1	0.0	61.0	-	-	-	-
A50 Junction 1	-	-	1318	0	0	29.9	31.1	0.0	61.0	-	-	-	-
1/2+1/1	1046	1046	-	-	-	3.7	1.7	-	5.4	18.7	6.7	1.7	8.4
2/1	341	341	-	-	-	1.1	0.6	-	1.7	17.5	3.2	0.6	3.8
2/2	529	529	-	-	-	1.8	1.7	-	3.5	24.0	5.4	1.7	7.1
3/1	73	73	73	0	0	0.0	0.1	-	0.1	7.0	0.2	0.1	0.3
4/1	114	114	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	761	761	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	733	733	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
6/2	310	310	310	0	0	0.1	0.6	-	0.7	8.7	2.1	0.6	2.8
7/1	566	566	-	-	-	1.9	2.3	-	4.2	26.7	6.0	2.3	8.2
7/2+7/3	935	935	-	-	-	3.1	4.1	-	7.3	28.0	7.3	4.1	11.5
8/1	957	957	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	924	924	-	-	-	2.9	1.0	-	4.0	15.4	5.1	1.0	6.1
10/1+10/2	297	297	594	0	0	0.2	0.3	-	0.5	6.6	0.6	0.3	0.9
11/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	845	845	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	341	341	341	0	0	0.5	0.9	-	1.4	14.9	3.7	0.9	4.6
13/1	692	692	-	-	-	2.8	3.4	-	6.2	32.2	7.1	3.4	10.5
13/2+13/3	903	903	-	-	-	2.1	1.1	-	3.2	12.6	15.2	1.1	16.3
14/1	780	780	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
14/2	560	560	-	-	-	0.0	0.2	-	0.2	1.3	2.2	0.2	2.4
14/3	848	848	-	-	-	0.0	0.4	-	0.4	1.7	2.7	0.4	3.1
15/1	294	294	-	-	-	0.2	0.3	-	0.5	5.7	0.7	0.3	1.0

Full Input Data And Results

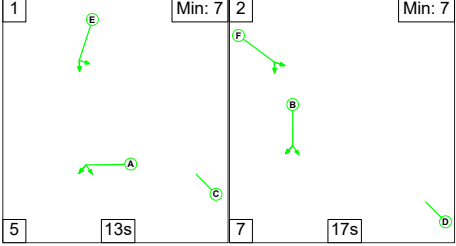
15/2+15/3	1005	1005	-	-	-	3.4	6.7	-	10.2	36.4	7.9	6.7	14.6
16/1	496	496	-	-	-	1.5	0.7	-	2.2	16.2	3.9	0.7	4.6
16/2+16/3	769	769	-	-	-	1.8	0.5	-	2.3	10.8	16.7	0.5	17.2
17/1	723	723	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	310	310	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/3	988	988	-	-	-	0.0	0.5	-	0.6	2.0	3.3	0.5	3.8
18/1	391	391	-	-	-	1.8	0.5	-	2.3	20.8	4.5	0.5	5.0
18/2+18/3	660	660	-	-	-	0.8	2.0	-	2.8	15.1	1.8	2.0	3.7
19/1	1186	1186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1043	1043	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):	-4.7 0.0 -4.7			Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):	25.79 29.80 61.00	Cycle Time (s): Cycle Time (s):	42 42			

Full Input Data And Results

Scenario 13: '2a 2038 WD AM' (FG13: '2a 2038 WD Flows AM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

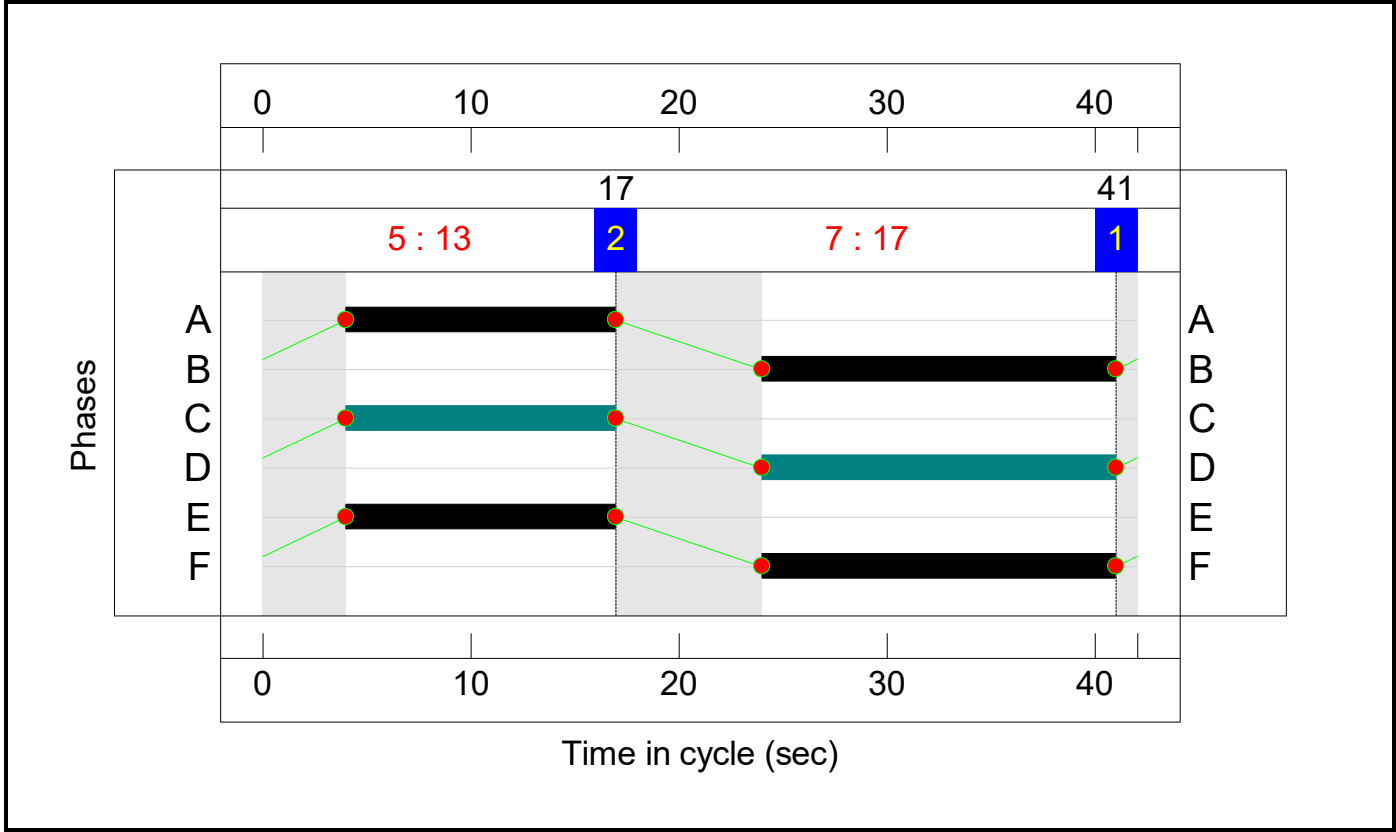
Stage Sequence Diagram



Stage Timings

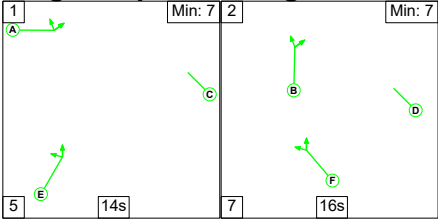
Stage	1	2
Duration	13	17
Change Point	41	17

Signal Timings Diagram



Controller :C2 - Westside E36309

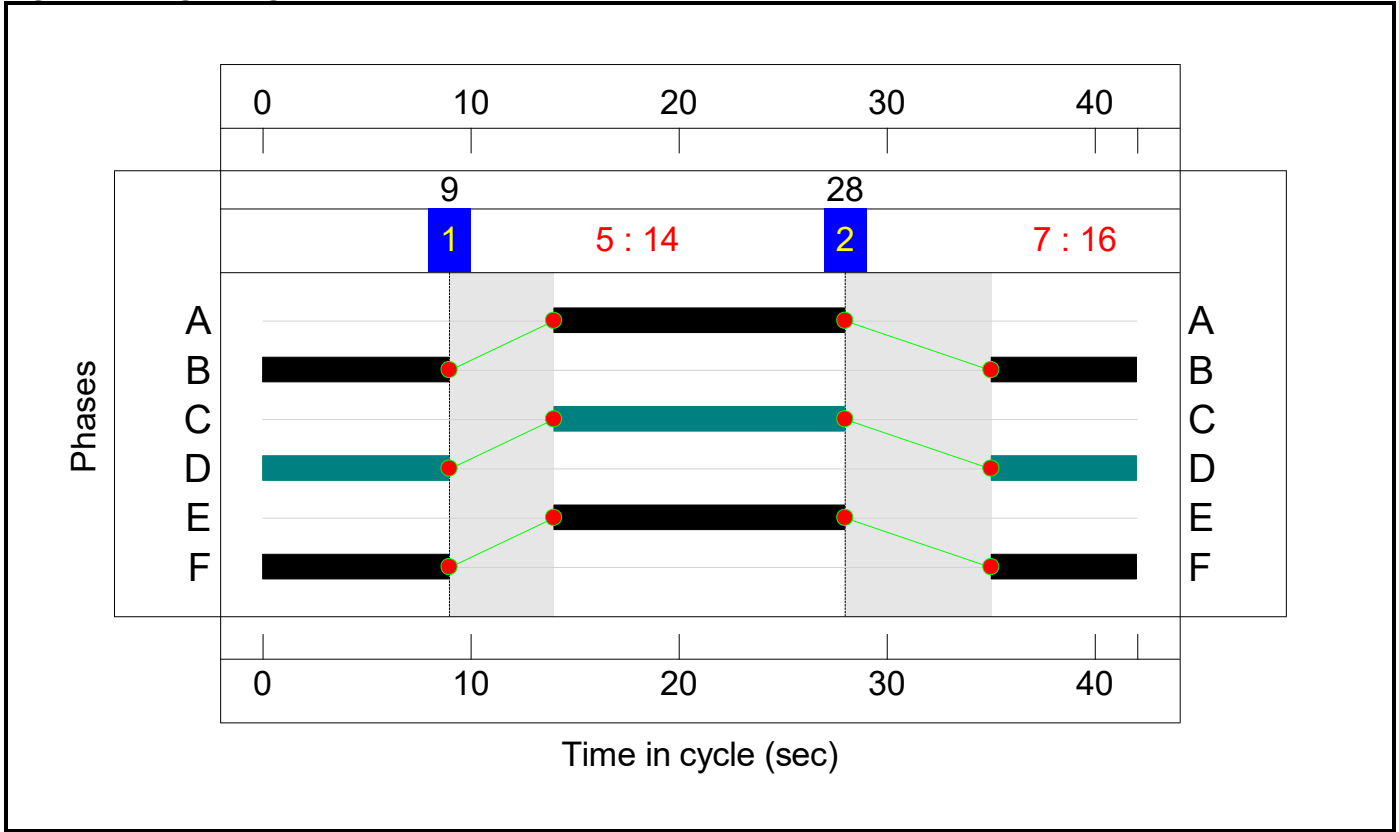
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	9	28

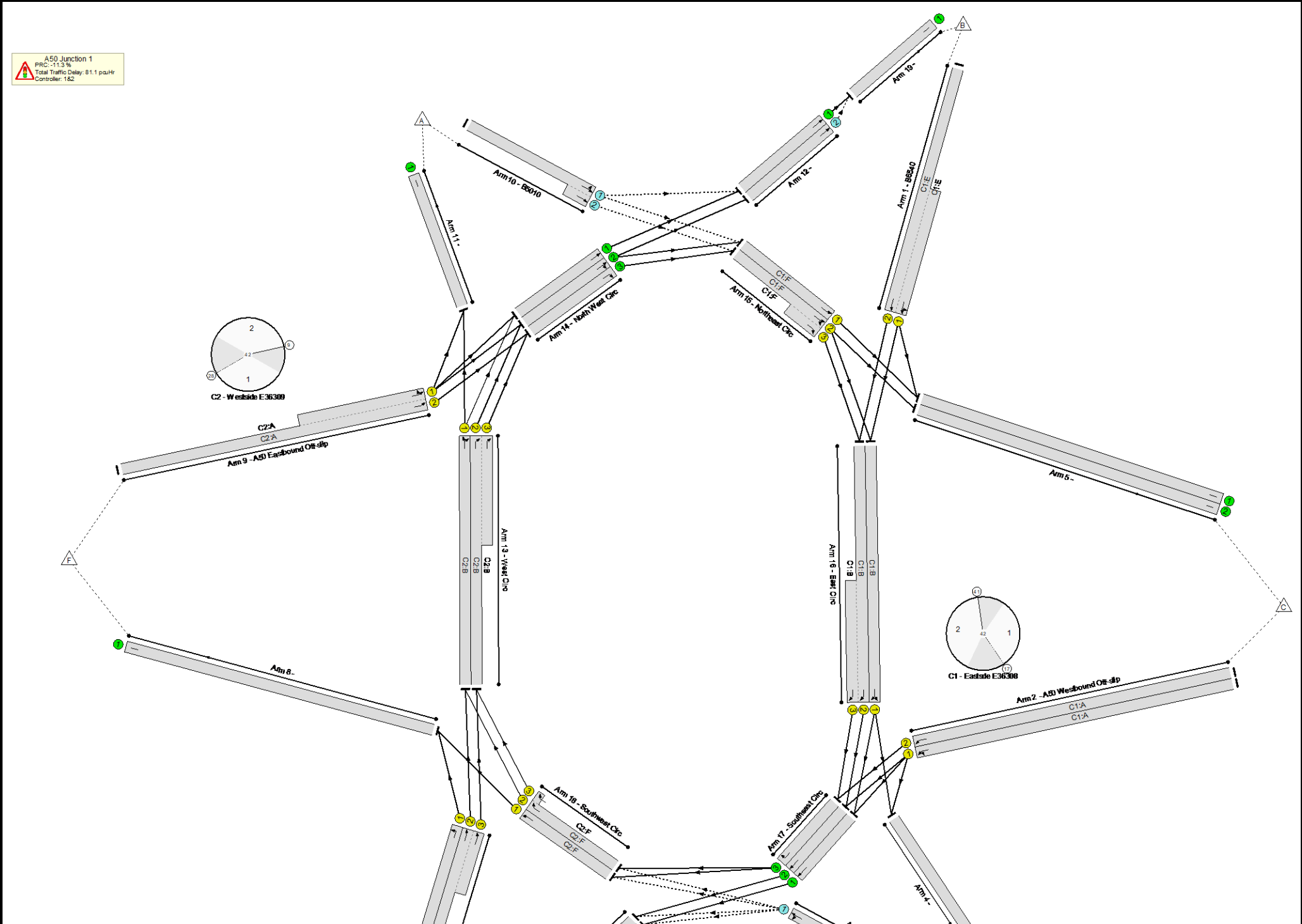
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	100.2%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	100.2%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	13	-	1182	2088:1950	696+650	76.3 : 100.2%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	13	-	571	1907	636	89.8%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	463	2049	683	67.8%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	66	1886	349	18.9%
4/1		U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	991	1980	1980	50.0%
6/2	Ahead	O	N/A	N/A	-		-	-	-	459	1980	497	92.4%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	551	1923	687	80.2%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	951	2063:2101	331+750	88.0 : 88.0%
8/1		U	N/A	N/A	-		-	-	-	911	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	988	1995:1853	713+662	86.5 : 56.2%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	407	1894:2034	305+305	63.2 : 70.1%
11/1		U	N/A	N/A	-		-	-	-	187	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	964	1965	1965	49.1%
12/2	Ahead	O	N/A	N/A	-		-	-	-	169	1965	503	33.6%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	689	1944	787	87.6%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	807	1942:1940	786+120	89.1 : 89.1%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	874	1930	1930	45.3%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	700	1926	1926	36.3%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	723	1923	1923	37.6%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	17	-	634	1932	828	76.6%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	17	-	937	1929:1926	715+364	86.8 : 86.8%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	17	-	796	1933	828	96.1%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	17	-	847	1930:1927	827+826	55.5 : 47.0%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	979	1912	1912	51.2%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	459	1907	1907	24.1%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	851	1899	1899	44.8%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	360	1937	784	45.9%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	545	1935:1930	590+218	67.5 : 67.5%
19/1		U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1450	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1508	0	0	34.3	46.8	0.0	81.1	-	-	-	-
A50 Junction 1	-	-	1508	0	0	34.3	46.8	0.0	81.1	-	-	-	-
1/2+1/1	1182	1181	-	-	-	4.4	4.0	-	8.4	25.5	7.6	4.0	11.6
2/1	571	571	-	-	-	2.1	3.9	-	6.0	38.1	6.2	3.9	10.1
2/2	463	463	-	-	-	1.6	1.0	-	2.6	20.2	4.6	1.0	5.7
3/1	66	66	66	0	0	0.0	0.1	-	0.2	8.3	0.2	0.1	0.3
4/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1107	1107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	991	991	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
6/2	459	459	459	0	0	1.2	4.8	-	6.0	47.2	5.2	4.8	10.0
7/1	551	551	-	-	-	1.9	2.0	-	3.8	25.0	5.7	2.0	7.6
7/2+7/3	951	951	-	-	-	3.1	3.5	-	6.6	25.0	7.1	3.5	10.6
8/1	911	911	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	988	988	-	-	-	3.3	1.3	-	4.5	16.5	6.7	1.3	7.9
10/1+10/2	407	407	814	0	0	0.6	1.0	-	1.6	14.0	1.2	1.0	2.2
11/1	187	187	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	964	964	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
12/2	169	169	169	0	0	0.0	0.3	-	0.3	5.4	0.6	0.3	0.9
13/1	689	689	-	-	-	2.7	3.3	-	6.0	31.2	6.7	3.3	10.0
13/2+13/3	807	807	-	-	-	1.9	3.8	-	5.7	25.4	15.2	3.8	19.0
14/1	874	874	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
14/2	700	700	-	-	-	0.0	0.3	-	0.3	1.5	3.8	0.3	4.1
14/3	723	723	-	-	-	0.0	0.3	-	0.3	1.6	4.4	0.3	4.7
15/1	634	634	-	-	-	2.8	1.6	-	4.4	25.0	7.1	1.6	8.7

Full Input Data And Results

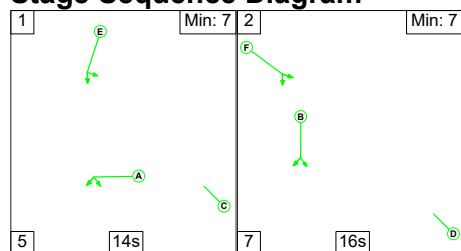
15/2+15/3	937	937	-	-	-	1.0	3.2	-	4.2	16.0	7.9	3.2	11.0
16/1	796	796	-	-	-	3.4	8.1	-	11.5	52.2	8.2	8.1	16.3
16/2+16/3	847	847	-	-	-	1.8	0.5	-	2.3	9.7	16.8	0.5	17.3
17/1	979	979	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
17/2	459	459	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
17/3	851	851	-	-	-	0.0	0.4	-	0.4	1.7	2.2	0.4	2.6
18/1	360	360	-	-	-	0.3	0.4	-	0.7	6.9	0.8	0.4	1.2
18/2+18/3	545	545	-	-	-	2.2	1.0	-	3.3	21.6	5.7	1.0	6.8
19/1	1133	1133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1450	1450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			-11.3 1.1 -11.3	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			39.41 30.61 81.12	Cycle Time (s): Cycle Time (s): 		
											42 42 		

Full Input Data And Results

Scenario 14: '2a 2038 WD PM' (FG14: '2a 2038 WD Flows PM', Plan 1: 'Network Control Plan 1')

Controller :C1 - Eastside E36308

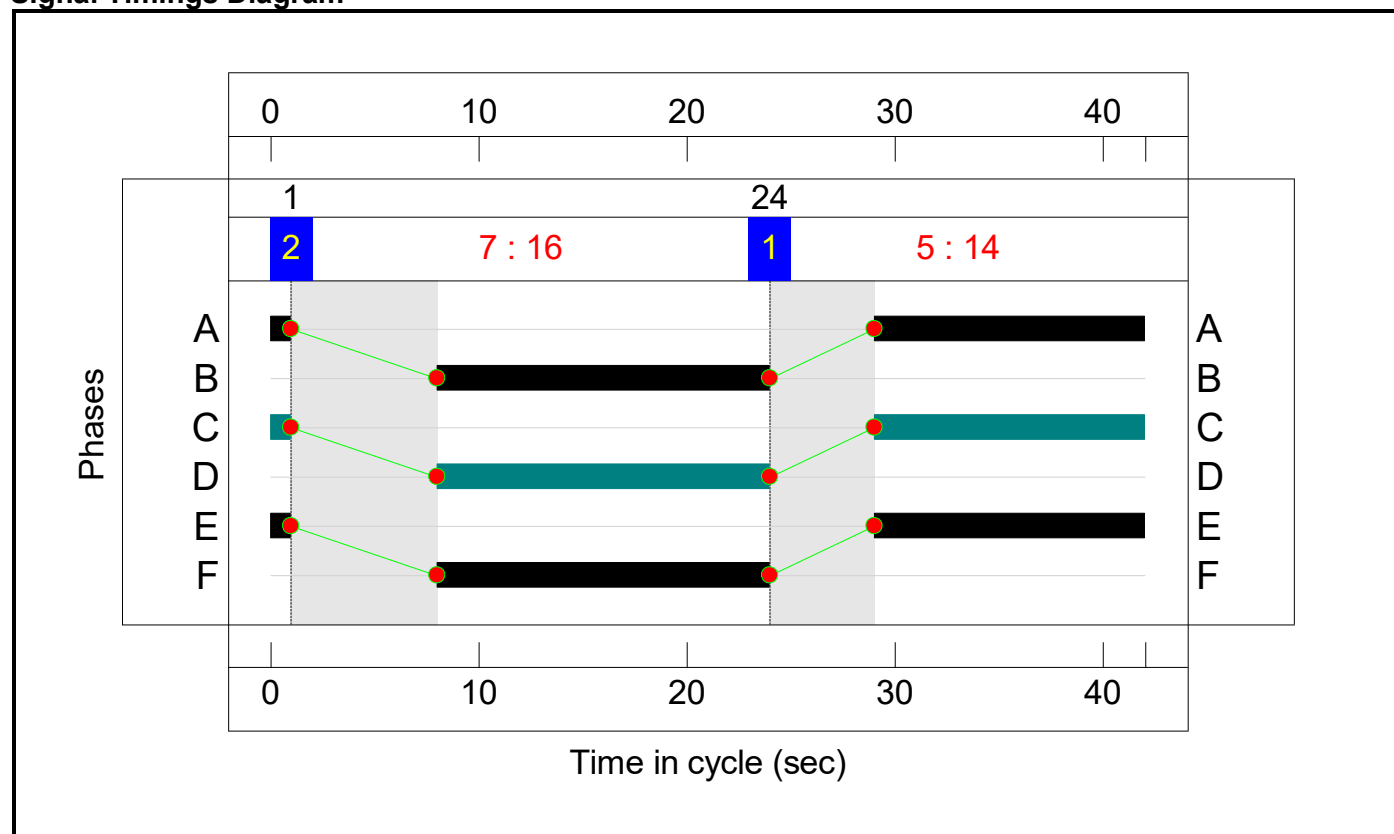
Stage Sequence Diagram



Stage Timings

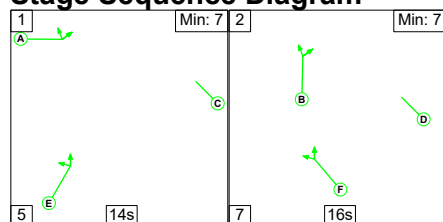
Stage	1	2
Duration	14	16
Change Point	24	1

Signal Timings Diagram



Controller :C2 - Westside E36309

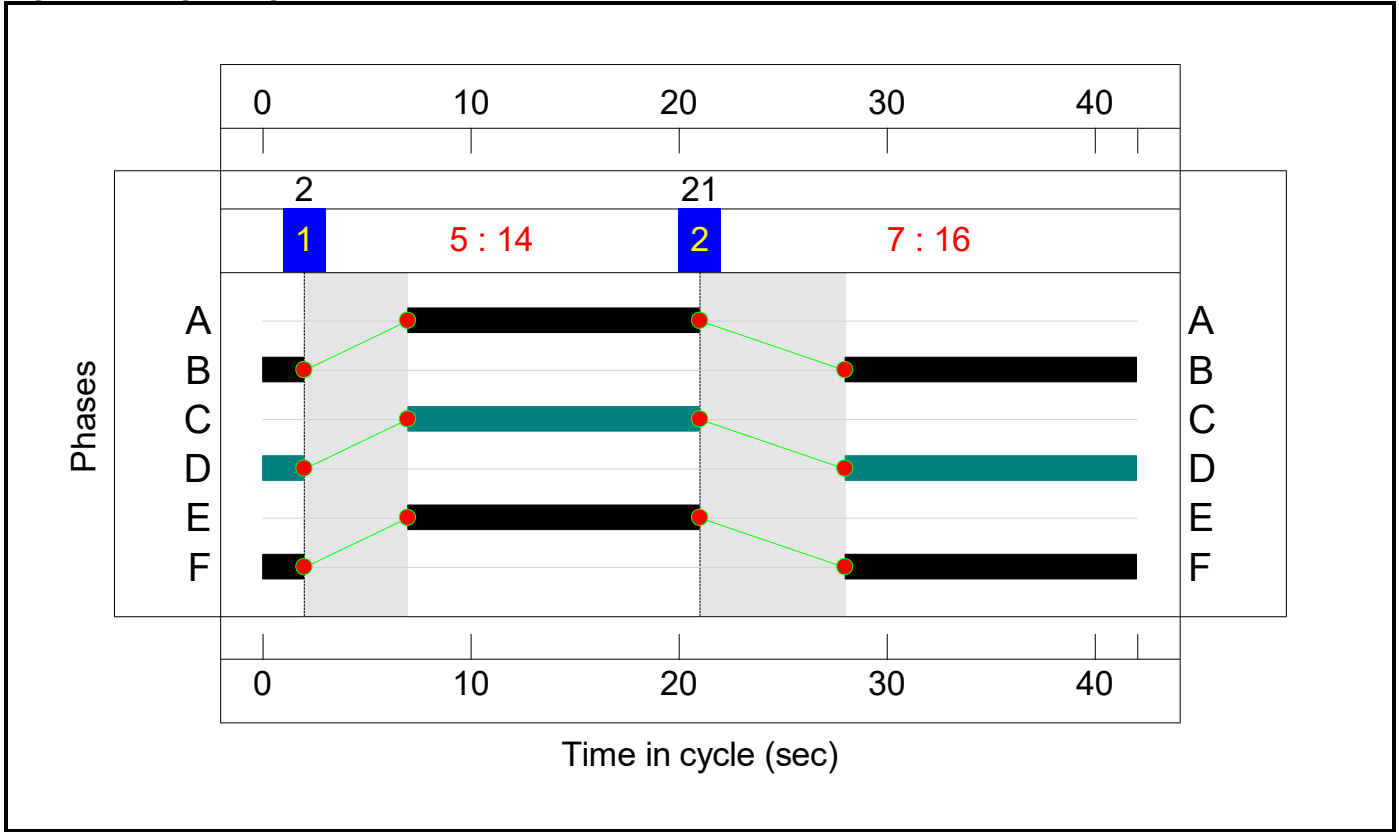
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	14	16
Change Point	2	21

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	110.6%
A50 Junction 1	-	-	N/A	-	-		-	-	-	-	-	-	110.6%
1/2+1/1	B6540 Left Ahead	U	N/A	N/A	C1:E		1	14	-	1348	2088:1950	746+696	87.3 : 100.1%
2/1	A50 Westbound Off-slip Left Ahead	U	N/A	N/A	C1:A		1	14	-	359	1907	681	52.7%
2/2	A50 Westbound Off-slip Ahead	U	N/A	N/A	C1:A		1	14	-	485	2049	732	66.3%
3/1	Ryecroft Road Left Ahead	O	N/A	N/A	-		-	-	-	214	1886	393	54.5%
4/1		U	N/A	N/A	-		-	-	-	139	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1031	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	867	1980	1980	43.8%
6/2	Ahead	O	N/A	N/A	-		-	-	-	347	1980	524	66.2%
7/1	Trent Lane Left	U	N/A	N/A	C2:E		1	14	-	558	1923	687	81.2%
7/2+7/3	Trent Lane Ahead	U	N/A	N/A	C2:E		1	14	-	1170	2063:2101	307+750	110.6 : 110.6%
8/1		U	N/A	N/A	-		-	-	-	983	Inf	Inf	0.0%
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	N/A	N/A	C2:A		1	14	-	824	1995:1853	713+662	66.9 : 52.4%
10/1+10/2	B5010 Left Ahead	O	N/A	N/A	-		-	-	-	317	1894:2034	322+322	49.0 : 49.3%
11/1		U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	859	1965	1965	42.2%
12/2	Ahead	O	N/A	N/A	-		-	-	-	436	1965	533	77.4%
13/1	West Circ Ahead Right	U	N/A	N/A	C2:B		1	16	-	835	1944	787	102.0%

Full Input Data And Results

13/2+13/3	West Circ Right	U	N/A	N/A	C2:B		1	16	-	1092	1942:1940	786+224	100.7 : 98.6%
14/1	North West Circ Ahead	U	N/A	N/A	-		-	-	-	773	1930	1930	38.5%
14/2	North West Circ Ahead Right	U	N/A	N/A	-		-	-	-	850	1926	1926	40.8%
14/3	North West Circ Right	U	N/A	N/A	-		-	-	-	719	1923	1923	36.3%
15/1	Northeast Circ Ahead	U	N/A	N/A	C1:F		1	16	-	486	1932	782	57.1%
15/2+15/3	Northeast Circ Ahead Right	U	N/A	N/A	C1:F		1	16	-	878	1929:1926	719+228	89.8 : 92.7%
16/1	East Circ Ahead Ahead2	U	N/A	N/A	C1:B		1	16	-	615	1933	782	78.1%
16/2+16/3	East Circ Ahead	U	N/A	N/A	C1:B		1	16	-	862	1930:1927	699+780	49.7 : 66.0%
17/1	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	835	1912	1912	43.7%
17/2	Southeast Circ Ahead	U	N/A	N/A	-		-	-	-	347	1907	1907	18.2%
17/3	Southeast Circ Right	U	N/A	N/A	-		-	-	-	1000	1899	1899	52.7%
18/1	Southwest Circ Ahead	U	N/A	N/A	C2:F		1	16	-	425	1937	784	54.2%
18/2+18/3	Southwest Circ Right	U	N/A	N/A	C2:F		1	16	-	757	1935:1930	537+284	92.1 : 92.1%
19/1		U	N/A	N/A	-		-	-	-	1295	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	1214	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	1607	0	0	37.3	128.1	0.0	165.4	-	-	-	-
A50 Junction 1	-	-	1607	0	0	37.3	128.1	0.0	165.4	-	-	-	-
1/2+1/1	1348	1347	-	-	-	4.9	6.6	-	11.5	30.7	8.1	6.6	14.7
2/1	359	359	-	-	-	1.1	0.6	-	1.6	16.3	3.3	0.6	3.8
2/2	485	485	-	-	-	1.5	1.0	-	2.5	18.6	4.7	1.0	5.7
3/1	214	214	214	0	0	0.2	0.6	-	0.8	13.1	1.0	0.6	1.6
4/1	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	991	991	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	186	186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	867	867	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
6/2	347	347	347	0	0	0.5	1.0	-	1.5	15.6	3.8	1.0	4.8
7/1	558	558	-	-	-	1.9	2.1	-	4.0	25.8	5.9	2.1	8.0
7/2+7/3	1170	1058	-	-	-	6.1	60.9	-	67.0	206.3	13.6	60.9	74.5
8/1	983	983	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	824	824	-	-	-	2.5	0.7	-	3.3	14.4	4.6	0.7	5.4
10/1+10/2	317	317	634	0	0	0.4	0.5	-	0.9	10.4	1.4	0.5	1.9
11/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	829	829	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	412	412	412	0	0	0.7	1.7	-	2.3	20.3	4.6	1.7	6.2
13/1	802	787	-	-	-	3.9	18.6	-	22.5	100.9	9.5	18.6	28.1
13/2+13/3	1012	1007	-	-	-	2.7	18.1	-	20.8	74.0	15.3	18.1	33.4
14/1	743	743	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	786	786	-	-	-	0.0	0.3	-	0.3	1.6	5.4	0.3	5.7
14/3	698	698	-	-	-	0.0	0.3	-	0.3	1.5	2.2	0.3	2.5
15/1	446	446	-	-	-	0.7	0.7	-	1.4	11.3	4.7	0.7	5.3

Full Input Data And Results

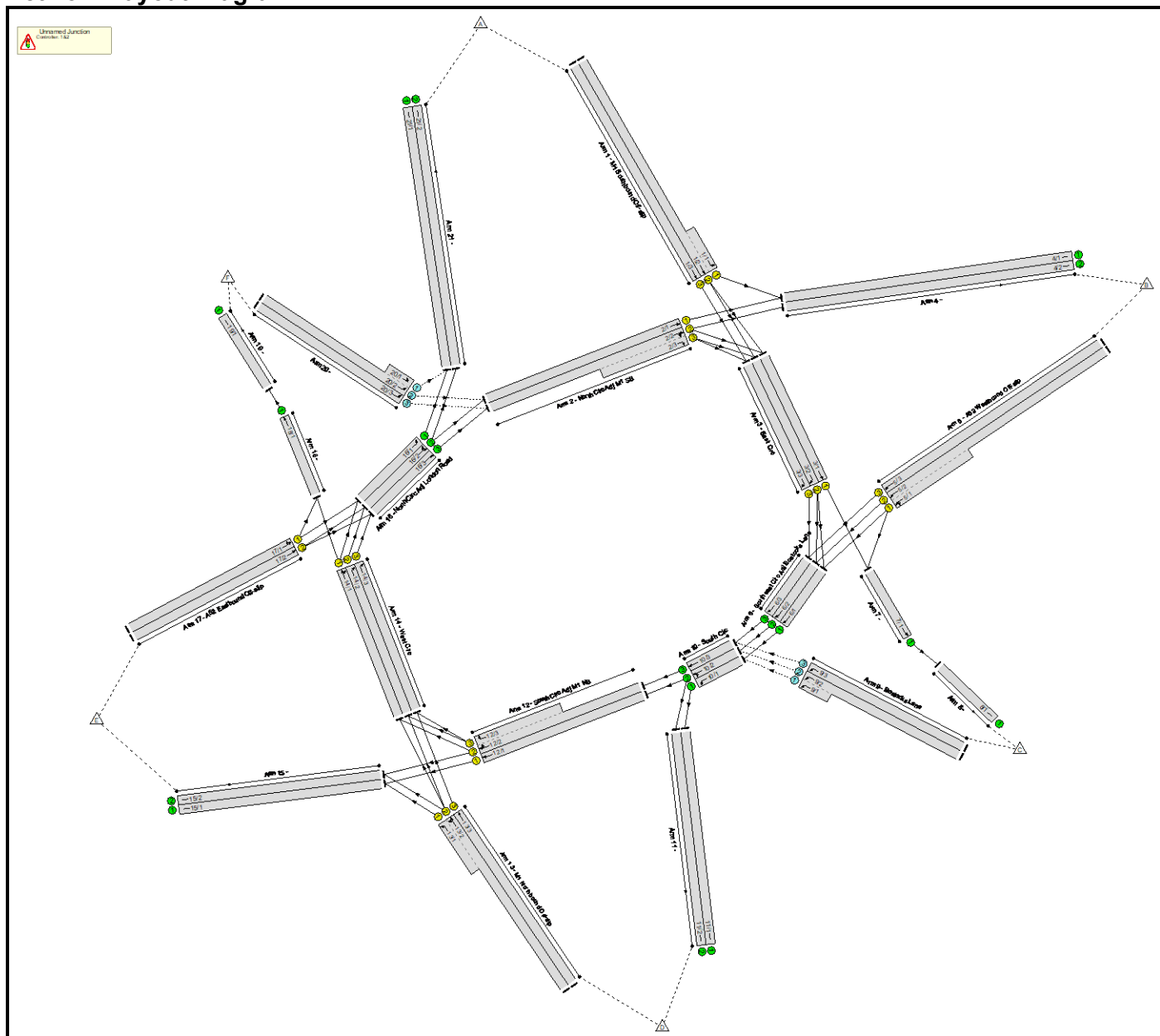
15/2+15/3	857	857	-	-	-	2.5	4.3	-	6.8	28.6	4.7	4.3	9.0
16/1	611	611	-	-	-	2.3	1.7	-	4.0	23.6	5.9	1.7	7.7
16/2+16/3	862	862	-	-	-	1.4	0.7	-	2.1	8.9	16.9	0.7	17.6
17/1	835	835	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
17/2	347	347	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
17/3	1000	1000	-	-	-	0.0	0.6	-	0.6	2.0	2.6	0.6	3.2
18/1	425	425	-	-	-	0.7	0.6	-	1.3	10.6	4.5	0.6	5.1
18/2+18/3	757	757	-	-	-	3.2	5.1	-	8.3	39.3	6.7	5.1	11.8
19/1	1241	1241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	1214	1214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Eastside E36308 C2 - Westside E36309			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			-11.2 -22.9 -22.9	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			29.98 127.15 165.41	Cycle Time (s): Cycle Time (s): 		
											42 42 		

APPENDIX 56: Junction 14: M1 Junction 25 Stage 1A/2A Modelling Results

Detailed Input Data And Results**User and Project Details**

Project:	M1 Junction 25
Title:	EMG2
Location:	
Client:	SERGO
Date Completed:	27/03/24
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	250512 M1 Junction 25 Stage 1a+2a.lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



Scenarios

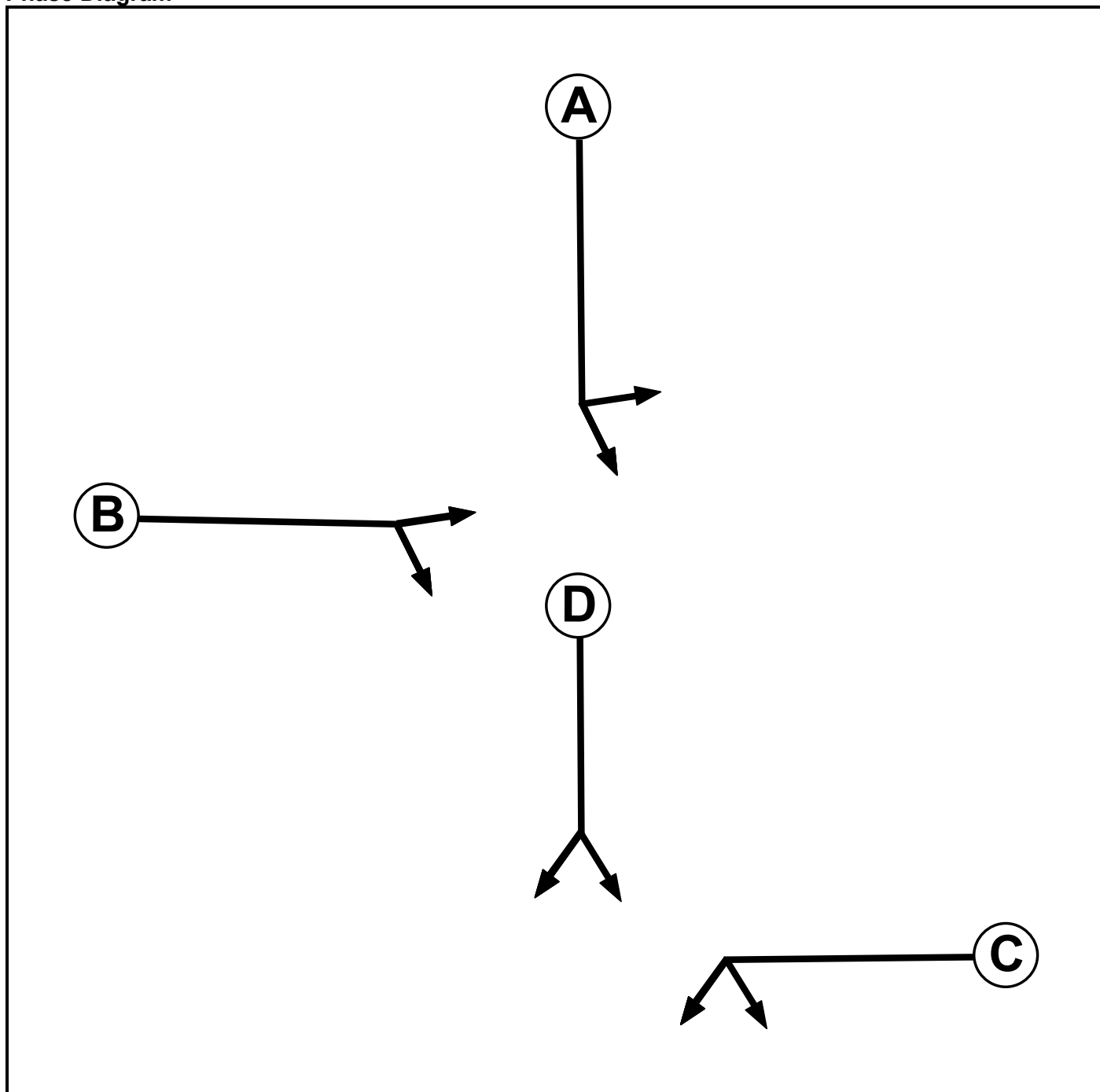
Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2022 AM	2022 AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-57.2	369.79
2	2022 PM	2022 PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-10.4	90.78
3	2028 WoD AM	2028 WoD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-61.0	782.29
4	2028 WoD PM	2028 WoD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-35.6	361.35
5	2028 WD AM	2028 WD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-64.5	790.86
6	2028 WD PM	2028 WD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-25.5	170.47
7	2038 WoD AM	2038 WoD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-64.7	838.55
8	2038 WoD PM	2038 WoD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-39.8	441.52
9	2038 WD AM	2038 WD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-98.8	799.79
10	2038 WD PM	2038 WD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-37.9	446.49
11	2a 2028 WD AM	2a 2028 WD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-66.2	716.26
12	2a 2028 WD PM	2a 2028 WD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-29.6	244.61
13	2a 2038 WD AM	2a 2038 WD AM Base	Network Control Plan 1 AM	07:45 - 08:45	60/75	-73.7	904.84
14	2a 2038 WD PM	2a 2038 WD PM Base	Network Control Plan 2 PM	17:00 - 18:00	60/75	-39.0	456.39

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1 - East Side T7772E06	Gen		Stage Stream 1	4	4	Unnamed Junction	
C2 - West Side T7771W07	Gen		Stage Stream 1	4	4	Unnamed Junction	

Controller :C1 - East Side T7772E06

Phase Diagram



Phase Input Data

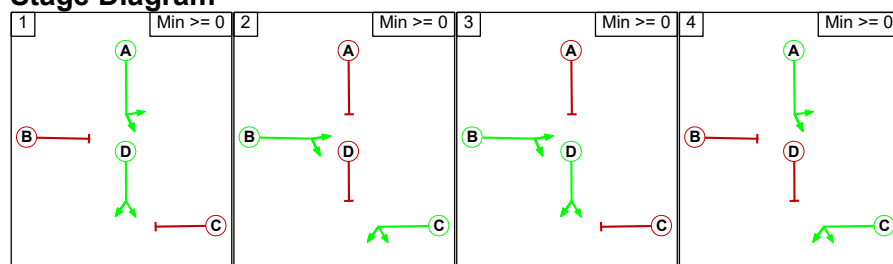
Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7

Phase Intergreens Matrix

Terminating Phase	Starting Phase				
		A	B	C	D
	A			6	-
	B	6		-	-
	C	-	-		6
	D	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A D
2	B C
3	B D
4	A C

Stage Diagram**Phase Delays**

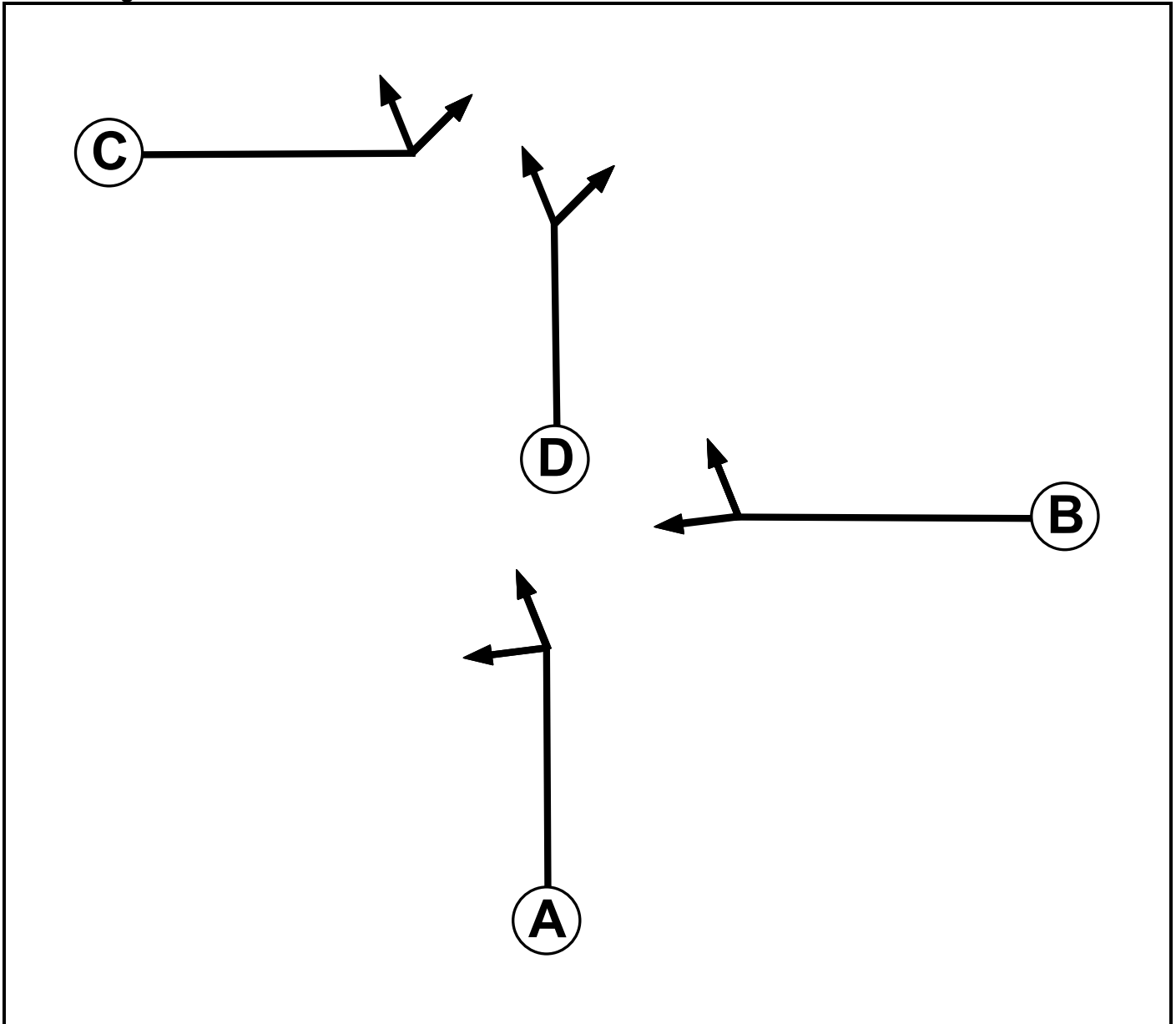
Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	D	Losing	11	11
3	4	D	Losing	11	11

Prohibited Stage Change

From Stage	To Stage				
	1	2	3	4	
	1	16	6	5	
	2	6	6	6	
	3	6	5	16	
	4	6	6	6	

Controller :C2 - West Side T7771W07

Phase Diagram



Phase Input Data

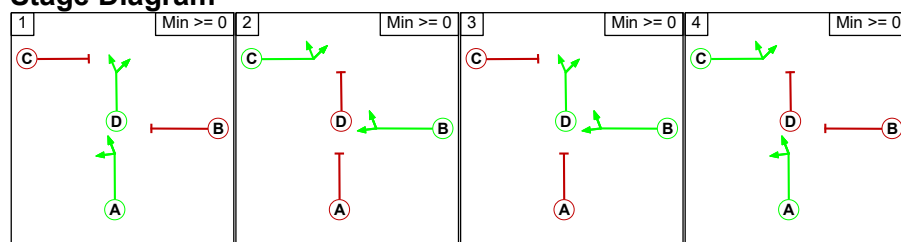
Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7

Phase Intergreens Matrix

Terminating Phase	Starting Phase				
		A	B	C	D
	A		6	-	-
	B	6		-	-
	C	-	-		6
	D	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A D
2	B C
3	B D
4	A C

Stage Diagram**Phase Delays**

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	D	Losing	11	11
3	4	D	Losing	11	11

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		16	6	5
	2	6		6	6
	3	6	5		16
	4	6	6	6	

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (M1 Southbound Off-slip)	U	A	2	3	7.5	Geom	-	3.65	0.00	Y	Arm 4 Left	44.00
1/2 (M1 Southbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 3 Ahead	48.00
1/3 (M1 Southbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 3 Ahead	51.00
2/1 (North Circ Adj M1 SB)	U	B	2	3	23.5	Geom	-	3.30	0.00	Y	Arm 4 Ahead	77.00
2/2 (North Circ Adj M1 SB)	U	B	2	3	23.5	Geom	-	3.30	0.00	Y	Arm 3 Right	74.00
											Arm 4 Ahead	74.00
2/3 (North Circ Adj M1 SB)	U	B	2	3	14.8	Geom	-	3.30	0.00	Y	Arm 3 Right	70.00
3/1 (East Circ)	U	D	2	3	17.4	Geom	-	3.65	0.00	Y	Arm 7 Ahead	86.00
3/2 (East Circ)	U	D	2	3	17.4	Geom	-	3.65	0.00	Y	Arm 6 Right	83.00
3/3 (East Circ)	U	D	2	3	17.4	Geom	-	3.65	0.00	Y	Arm 6 Right	79.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A52 Westbound Off-slip)	U	C	2	3	14.8	Geom	-	3.50	0.00	Y	Arm 6 Ahead	68.00
											Arm 7 Left	68.00
5/2 (A52 Westbound Off-slip)	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	71.00
5/3 (A52 Westbound Off-slip)	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	75.00
6/1 (Southeast Circ Adj Bostocks Lane)	U		2	3	8.7	Geom	-	3.65	0.00	Y	Arm 10 Ahead	107.00

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6/2 (Southeast Circ Adj Bostocks Lane)	U		2	3	8.7	Geom	-	3.65	0.00	Y	Arm 10 Ahead	104.00
6/3 (Southeast Circ Adj Bostocks Lane)	U		2	3	8.7	Geom	-	3.65	0.00	Y	Arm 10 Ahead	100.00
7/1	U		2	3	7.8	Geom	-	3.65	0.00	Y	Arm 8 Ahead	Inf
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (Bostocks Lane)	O		2	3	5.2	Geom	-	3.65	0.00	Y	Arm 10 Left	47.00
9/2 (Bostocks Lane)	O		2	3	60.0	Geom	-	3.65	0.00	Y	Arm 10 Left	51.00
9/3 (Bostocks Lane)	O		2	3	29.6	Geom	-	3.65	0.00	Y	Arm 10 Left	54.00
10/1 (South Circ)	U		2	3	4.3	Geom	-	3.65	0.00	Y	Arm 11 Left	Inf
10/2 (South Circ)	U		2	3	4.3	Geom	-	3.65	0.00	Y	Arm 11 Left	Inf
											Arm 12 Ahead	Inf
10/3 (South Circ)	U		2	3	4.3	Geom	-	3.65	0.00	Y	Arm 12 Ahead	Inf
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (South Circ Adj M1 NB)	U	B	2	3	20.9	Geom	-	3.65	0.00	Y	Arm 15 Ahead	66.00
12/2 (South Circ Adj M1 NB)	U	B	2	3	20.9	Geom	-	3.65	0.00	Y	Arm 14 Right	58.00
											Arm 15 Ahead	62.00
12/3 (South Circ Adj M1 NB)	U	B	2	3	14.8	Geom	-	3.65	0.00	Y	Arm 14 Right	59.00
13/1 (M1 Northbound Off-slip)	U	A	2	3	9.6	Geom	-	3.65	0.00	Y	Arm 15 Left	42.00
13/2 (M1 Northbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 14 Ahead	46.00
											Arm 15 Left	46.00
13/3 (M1 Northbound Off-slip)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 14 Ahead	49.00

Detailed Input Data And Results

14/1 (West Circ)	U	D	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 16 Right	68.00
											Arm 18 Ahead	68.00
14/2 (West Circ)	U	D	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 16 Right	65.00
14/3 (West Circ)	U	D	2	3	13.0	Geom	-	3.65	0.00	Y	Arm 16 Right	61.00
15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-
16/1 (North Circ Adj London Road)	U		2	3	7.8	Geom	-	3.65	0.00	Y	Arm 21 Left	103.00
16/2 (North Circ Adj London Road)	U		2	3	7.8	Geom	-	3.65	0.00	Y	Arm 2 Ahead	99.00
											Arm 21 Left	99.00
16/3 (North Circ Adj London Road)	U		2	3	7.8	Geom	-	3.65	0.00	Y	Arm 2 Ahead	96.00
17/1 (A52 Eastbound Off-slip)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 16 Ahead	56.00
											Arm 18 Left	56.00
17/2 (A52 Eastbound Off-slip)	U	C	2	3	60.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	59.00
18/1	U		2	3	9.6	Geom	-	3.65	0.00	Y	Arm 19 Ahead	Inf
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/1	O		2	3	4.7	Geom	-	3.65	0.00	Y	Arm 21 Left	49.00
20/2	O		2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	52.00
20/3	O		2	3	9.6	Geom	-	3.65	0.00	Y	Arm 2 Left	56.00
21/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
9/1 (Bostocks Lane)	10/1 (Left)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
				6/3	0.33	All					
9/2 (Bostocks Lane)	10/2 (Left)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
				6/3	0.33	All					
9/3 (Bostocks Lane)	10/3 (Left)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
				6/3	0.33	All					
20/1	21/1 (Left)	1000	0	16/1	0.33	All	-	-	-	-	-
				16/2	0.33	All					
				16/3	0.33	All					
20/2	2/1 (Left)	1000	0	16/1	0.33	All	-	-	-	-	-
				16/2	0.33	All					
				16/3	0.33	All					
20/3	2/2 (Left)	1000	0	16/1	0.33	All	-	-	-	-	-
				16/2	0.33	All					
				16/3	0.33	All					

Detailed Input Data And Results

Lane Connector Input Data

Junction: Unnamed Junction				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	4/1	Internal	5	35
1/2	3/1	Internal	10	35
1/2	3/2	Internal	10	35
1/3	3/3	Internal	10	35
2/1	4/1	Internal	5	35
2/2	3/1	Internal	10	35
2/2	4/2	Internal	5	35
2/3	3/2	Internal	10	35
2/3	3/3	Internal	10	35
3/1	7/1	Internal	5	35
3/2	6/1	Internal	5	35
3/2	6/2	Internal	5	35
3/3	6/3	Internal	5	35
5/1	6/1	Internal	5	35
5/1	7/1	Internal	5	35
5/2	6/2	Internal	5	35
5/3	6/3	Internal	5	35
6/1	10/1	Internal	3	35
6/2	10/2	Internal	3	35
6/3	10/3	Internal	3	35
7/1	8/1	Internal	5	35
9/1	10/1	Internal	3	35
9/2	10/2	Internal	3	35
9/3	10/3	Internal	3	35
10/1	11/1	Internal	5	35
10/2	11/2	Internal	5	35
10/2	12/1	Internal	12	35
10/3	12/2	Internal	12	35
12/1	15/1	Internal	5	35
12/2	14/1	Internal	8	35
12/2	15/2	Internal	5	35
12/3	14/2	Internal	8	35
12/3	14/3	Internal	8	35
13/1	15/1	Internal	5	35
13/2	14/1	Internal	8	35
13/2	14/2	Internal	8	35
13/2	15/2	Internal	5	35

Detailed Input Data And Results

13/3	14/3	Internal	8	35
14/1	16/1	Internal	5	35
14/1	18/1	Internal	6	35
14/2	16/2	Internal	5	35
14/3	16/3	Internal	5	35
16/1	21/1	Internal	5	35
16/2	2/1	Internal	14	35
16/2	21/2	Internal	5	35
16/3	2/2	Internal	14	35
17/1	16/1	Internal	5	35
17/1	18/1	Internal	6	35
17/2	16/2	Internal	5	35
17/2	16/3	Internal	5	35
18/1	19/1	Internal	5	35
20/1	21/1	Internal	5	35
20/2	2/1	Internal	14	35
20/3	2/2	Internal	14	35

Scenario 1: '2022 AM' (FG1: '2022 AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	68.9 %	1906	1906
				Arm 4 Ahead	74.00	31.1 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	42.4 %	1923	1923
				Arm 7 Left	68.00	57.6 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923
9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926

Detailed Input Data And Results

10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	39.4 %	1980	1980
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	60.6 %		
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	55.8 %	1931	1931
				Arm 15 Ahead	62.00	44.2 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	78.5 %	2053	2053
				Arm 15 Left	46.00	21.5 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	30.2 %	1937	1937
				Arm 18 Ahead	68.00	69.8 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	55.1 %	1950	1950
				Arm 21 Left	99.00	44.9 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	70.5 %	1928	1928
				Arm 18 Left	56.00	29.5 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf
20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921

Detailed Input Data And Results

20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 1

Scenario 2: '2022 PM' (FG2: '2022 PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	57.8 %	1906	1906
				Arm 4 Ahead	74.00	42.2 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	12.9 %	1923	1923
				Arm 7 Left	68.00	87.1 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

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9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	52.5 %	1980	1980
				Arm 12 Ahead	Inf	47.5 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	67.1 %	1931	1931
				Arm 15 Ahead	62.00	32.9 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	13.8 %	1937	1937
				Arm 18 Ahead	68.00	86.2 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	34.1 %	1950	1950
				Arm 21 Left	99.00	65.9 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	78.5 %	1928	1928
				Arm 18 Left	56.00	21.5 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 2

Scenario 3: '2028 WoD AM' (FG3: '2028 WoD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	56.3 %	1906	1906
				Arm 4 Ahead	74.00	43.7 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	58.4 %	1923	1923
				Arm 7 Left	68.00	41.6 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

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9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	46.8 %	1980	1980
				Arm 12 Ahead	Inf	53.2 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	59.3 %	1931	1931
				Arm 15 Ahead	62.00	40.7 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	39.0 %	1937	1937
				Arm 18 Ahead	68.00	61.0 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	51.7 %	1950	1950
				Arm 21 Left	99.00	48.3 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	77.5 %	1928	1928
				Arm 18 Left	56.00	22.5 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 3

Scenario 4: '2028 WoD PM' (FG4: '2028 WoD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	38.9 %	1906	1906
				Arm 4 Ahead	74.00	61.1 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	51.3 %	1923	1923
				Arm 7 Left	68.00	48.7 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	54.6 %	1980	1980
				Arm 12 Ahead	Inf	45.4 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	56.5 %	1931	1931
				Arm 15 Ahead	62.00	43.5 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	26.6 %	1937	1937
				Arm 18 Ahead	68.00	73.4 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	29.1 %	1950	1950
				Arm 21 Left	99.00	70.9 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	89.6 %	1928	1928
				Arm 18 Left	56.00	10.4 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 4

Scenario 5: '2028 WD AM' (FG5: '2028 WD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	57.2 %	1906	1906
				Arm 4 Ahead	74.00	42.8 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	58.0 %	1923	1923
				Arm 7 Left	68.00	42.0 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	51.6 %	1980	1980
				Arm 12 Ahead	Inf	48.4 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	58.4 %	1931	1931
				Arm 15 Ahead	62.00	41.6 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	39.1 %	1937	1937
				Arm 18 Ahead	68.00	60.9 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	51.6 %	1950	1950
				Arm 21 Left	99.00	48.4 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	78.1 %	1928	1928
				Arm 18 Left	56.00	21.9 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 5

Scenario 6: '2028 WD PM' (FG6: '2028 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	43.8 %	1906	1906
				Arm 4 Ahead	74.00	56.2 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	50.9 %	1923	1923
				Arm 7 Left	68.00	49.1 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	52.6 %	1980	1980
				Arm 12 Ahead	Inf	47.4 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	55.7 %	1931	1931
				Arm 15 Ahead	62.00	44.3 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	98.6 %	2053	2053
				Arm 15 Left	46.00	1.4 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	24.2 %	1937	1937
				Arm 18 Ahead	68.00	75.8 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	34.0 %	1950	1950
				Arm 21 Left	99.00	66.0 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	88.5 %	1928	1928
				Arm 18 Left	56.00	11.5 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 6

Scenario 7: '2038 WoD AM' (FG7: '2038 WoD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	48.9 %	1906	1906
				Arm 4 Ahead	74.00	51.1 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	67.1 %	1923	1923
				Arm 7 Left	68.00	32.9 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	49.4 %	1980	1980
				Arm 12 Ahead	Inf	50.6 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	58.4 %	1931	1931
				Arm 15 Ahead	62.00	41.6 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	93.4 %	2053	2053
				Arm 15 Left	46.00	6.6 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	37.9 %	1937	1937
				Arm 18 Ahead	68.00	62.1 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	55.2 %	1950	1950
				Arm 21 Left	99.00	44.8 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	82.3 %	1928	1928
				Arm 18 Left	56.00	17.7 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 7

Scenario 8: '2038 WoD PM' (FG8: '2038 WoD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right Arm 4 Ahead	74.00 74.00	41.5 % 58.5 %	1906	1906
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead Arm 7 Left	68.00 68.00	52.0 % 48.0 %	1923	1923
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	51.6 %	1980	1980
				Arm 12 Ahead	Inf	48.4 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	54.0 %	1932	1932
				Arm 15 Ahead	62.00	46.0 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	25.4 %	1937	1937
				Arm 18 Ahead	68.00	74.6 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	38.4 %	1950	1950
				Arm 21 Left	99.00	61.6 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	89.1 %	1928	1928
				Arm 18 Left	56.00	10.9 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 8

Scenario 9: '2038 WD AM' (FG9: '2038 WD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	45.4 %	1906	1906
				Arm 4 Ahead	74.00	54.6 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	66.8 %	1923	1923
				Arm 7 Left	68.00	33.2 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	47.4 %	1980	1980
				Arm 12 Ahead	Inf	52.6 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	53.4 %	1932	1932
				Arm 15 Ahead	62.00	46.6 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	76.1 %	2053	2053
				Arm 15 Left	46.00	23.9 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	30.9 %	1937	1937
				Arm 18 Ahead	68.00	69.1 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	48.8 %	1950	1950
				Arm 21 Left	99.00	51.2 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	81.9 %	1928	1928
				Arm 18 Left	56.00	18.1 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 9

Scenario 10: '2038 WD PM' (FG10: '2038 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	41.1 %	1906	1906
				Arm 4 Ahead	74.00	58.9 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	53.4 %	1923	1923
				Arm 7 Left	68.00	46.6 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	51.1 %	1980	1980
				Arm 12 Ahead	Inf	48.9 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	53.0 %	1932	1932
				Arm 15 Ahead	62.00	47.0 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	99.3 %	2053	2053
				Arm 15 Left	46.00	0.7 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	24.9 %	1937	1937
				Arm 18 Ahead	68.00	75.1 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	38.4 %	1950	1950
				Arm 21 Left	99.00	61.6 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	89.1 %	1928	1928
				Arm 18 Left	56.00	10.9 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 10

Scenario 11: '2a 2028 WD AM' (FG11: '2a 2028 WD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	56.0 %	1906	1906
				Arm 4 Ahead	74.00	44.0 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	59.2 %	1923	1923
				Arm 7 Left	68.00	40.8 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	54.9 %	1980	1980
				Arm 12 Ahead	Inf	45.1 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	51.4 %	1932	1932
				Arm 15 Ahead	62.00	48.6 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	100.0 %	2053	2053
				Arm 15 Left	46.00	0.0 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	35.8 %	1937	1937
				Arm 18 Ahead	68.00	64.2 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	49.6 %	1950	1950
				Arm 21 Left	99.00	50.4 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	77.9 %	1928	1928
				Arm 18 Left	56.00	22.1 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 11

Scenario 12: '2a 2028 WD PM' (FG12: '2a 2028 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right Arm 4 Ahead	74.00 74.00	43.8 % 56.2 %	1906	1906
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead Arm 7 Left	68.00 68.00	49.7 % 50.3 %	1923	1923
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	51.9 %	1980	1980
				Arm 12 Ahead	Inf	48.1 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	54.0 %	1932	1932
				Arm 15 Ahead	62.00	46.0 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	96.6 %	2053	2053
				Arm 15 Left	46.00	3.4 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	22.7 %	1937	1937
				Arm 18 Ahead	68.00	77.3 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	32.1 %	1950	1950
				Arm 21 Left	99.00	67.9 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	88.6 %	1928	1928
				Arm 18 Left	56.00	11.4 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 12

Scenario 13: '2a 2038 WD AM' (FG13: '2a 2038 WD AM Base', Plan 1: 'Network Control Plan 1 AM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right Arm 4 Ahead	74.00 74.00	45.2 % 54.8 %	1906	1906
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead Arm 7 Left	68.00 68.00	70.2 % 29.8 %	1923	1923
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	49.9 %	1980	1980
				Arm 12 Ahead	Inf	50.1 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	51.2 %	1932	1932
				Arm 15 Ahead	62.00	48.8 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	74.8 %	2053	2053
				Arm 15 Left	46.00	25.2 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	29.4 %	1937	1937
				Arm 18 Ahead	68.00	70.6 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	46.3 %	1950	1950
				Arm 21 Left	99.00	53.7 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	83.3 %	1928	1928
				Arm 18 Left	56.00	16.7 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 13

Scenario 14: '2a 2038 WD PM' (FG14: '2a 2038 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Off-slip)	3.65	0.00	Y	Arm 4 Left	44.00	100.0 %	1915	1915
1/2 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	48.00	100.0 %	2056	2056
1/3 (M1 Southbound Off-slip)	3.65	0.00	N	Arm 3 Ahead	51.00	100.0 %	2059	2059
2/1 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1908	1908
2/2 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	74.00	39.5 %	1906	1906
				Arm 4 Ahead	74.00	60.5 %		
2/3 (North Circ Adj M1 SB)	3.30	0.00	Y	Arm 3 Right	70.00	100.0 %	1904	1904
3/1 (East Circ)	3.65	0.00	Y	Arm 7 Ahead	86.00	100.0 %	1946	1946
3/2 (East Circ)	3.65	0.00	Y	Arm 6 Right	83.00	100.0 %	1945	1945
3/3 (East Circ)	3.65	0.00	Y	Arm 6 Right	79.00	100.0 %	1943	1943
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1 (A52 Westbound Off-slip)	3.50	0.00	Y	Arm 6 Ahead	68.00	52.8 %	1923	1923
				Arm 7 Left	68.00	47.2 %		
5/2 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	71.00	100.0 %	2061	2061
5/3 (A52 Westbound Off-slip)	3.50	0.00	N	Arm 6 Ahead	75.00	100.0 %	2064	2064
6/1 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	107.00	100.0 %	1953	1953
6/2 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	104.00	100.0 %	1952	1952
6/3 (Southeast Circ Adj Bostocks Lane)	3.65	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1951	1951
7/1	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	47.00	100.0 %	1919	1919
9/2 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	51.00	100.0 %	1923	1923

Detailed Input Data And Results

9/3 (Bostocks Lane)	3.65	0.00	Y	Arm 10 Left	54.00	100.0 %	1926	1926
10/1 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	100.0 %	1980	1980
10/2 (South Circ)	3.65	0.00	Y	Arm 11 Left	Inf	50.4 %	1980	1980
				Arm 12 Ahead	Inf	49.6 %		
10/3 (South Circ)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 15 Ahead	66.00	100.0 %	1936	1936
12/2 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	58.00	51.4 %	1932	1932
				Arm 15 Ahead	62.00	48.6 %		
12/3 (South Circ Adj M1 NB)	3.65	0.00	Y	Arm 14 Right	59.00	100.0 %	1931	1931
13/1 (M1 Northbound Off-slip)	3.65	0.00	Y	Arm 15 Left	42.00	100.0 %	1912	1912
13/2 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	46.00	92.8 %	2053	2053
				Arm 15 Left	46.00	7.2 %		
13/3 (M1 Northbound Off-slip)	3.65	0.00	N	Arm 14 Ahead	49.00	100.0 %	2057	2057
14/1 (West Circ)	3.65	0.00	Y	Arm 16 Right	68.00	24.8 %	1937	1937
				Arm 18 Ahead	68.00	75.2 %		
14/2 (West Circ)	3.65	0.00	Y	Arm 16 Right	65.00	100.0 %	1935	1935
14/3 (West Circ)	3.65	0.00	Y	Arm 16 Right	61.00	100.0 %	1932	1932
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1 (North Circ Adj London Road)	3.65	0.00	Y	Arm 21 Left	103.00	100.0 %	1952	1952
16/2 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	99.00	36.7 %	1950	1950
				Arm 21 Left	99.00	63.3 %		
16/3 (North Circ Adj London Road)	3.65	0.00	Y	Arm 2 Ahead	96.00	100.0 %	1950	1950
17/1 (A52 Eastbound Off-slip)	3.65	0.00	Y	Arm 16 Ahead	56.00	89.6 %	1928	1928
				Arm 18 Left	56.00	10.4 %		
17/2 (A52 Eastbound Off-slip)	3.65	0.00	N	Arm 16 Ahead	59.00	100.0 %	2067	2067
18/1	3.65	0.00	Y	Arm 19 Ahead	Inf	100.0 %	1980	1980
19/1	Infinite Saturation Flow						Inf	Inf

Detailed Input Data And Results

20/1	3.65	0.00	Y	Arm 21 Left	49.00	100.0 %	1921	1921
20/2	3.65	0.00	N	Arm 2 Left	52.00	100.0 %	2061	2061
20/3	3.65	0.00	Y	Arm 2 Left	56.00	100.0 %	1928	1928
21/1	Infinite Saturation Flow						Inf	Inf
21/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 14

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 AM Base'	07:45	08:45	01:00	
2: '2022 PM Base'	17:00	18:00	01:00	
3: '2028 WoD AM Base'	07:45	08:45	01:00	
4: '2028 WoD PM Base'	17:00	18:00	01:00	
5: '2028 WD AM Base'	07:45	08:45	01:00	
6: '2028 WD PM Base'	17:00	18:00	01:00	
7: '2038 WoD AM Base'	07:45	08:45	01:00	
8: '2038 WoD PM Base'	17:00	18:00	01:00	
9: '2038 WD AM Base'	07:45	08:45	01:00	
10: '2038 WD PM Base'	17:00	18:00	01:00	
11: '2a 2028 WD AM Base'	07:45	08:45	01:00	
12: '2a 2028 WD PM Base'	17:00	18:00	01:00	
13: '2a 2038 WD AM Base'	07:45	08:45	01:00	
14: '2a 2038 WD PM Base'	17:00	18:00	01:00	

Traffic Flows, Desired**FG1: '2022 AM Base'****Desired Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	357	308	0	642	160	1467
	B	342	0	197	480	0	100	1119
	C	208	167	0	239	223	57	894
	D	0	457	220	0	313	200	1190
	E	373	0	142	377	0	148	1040
	F	215	163	83	280	195	0	936
	Tot.	1138	1144	950	1376	1373	665	6646

FG2: '2022 PM Base'**Desired Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	262	242	0	338	158	1000
	B	368	0	373	387	0	133	1261
	C	219	132	0	101	177	76	705
	D	0	494	203	0	177	313	1187
	E	563	0	131	244	0	108	1046
	F	170	136	66	126	88	0	586
	Tot.	1320	1024	1015	858	780	788	5785

Detailed Input Data And Results

FG3: '2028 WoD AM Base'

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	358	246	0	687	131	1422
	B	570	0	213	793	0	115	1691
	C	186	122	0	210	181	35	734
	D	0	692	257	0	490	239	1678
	E	426	0	109	428	0	117	1080
	F	257	166	67	334	209	0	1033
	Tot.	1439	1338	892	1765	1567	637	7638

FG4: '2028 WoD PM Base'

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	326	241	0	680	153	1400
	B	631	0	288	863	0	108	1890
	C	199	78	0	132	151	33	593
	D	0	689	223	0	397	341	1650
	E	390	0	44	218	0	35	687
	F	229	100	42	226	111	0	708
	Tot.	1449	1193	838	1439	1339	670	6928

FG5: '2028 WD AM Base'

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	350	253	0	685	135	1423
	B	573	0	205	805	0	110	1693
	C	189	111	0	214	171	35	720
	D	0	688	272	0	500	252	1712
	E	413	0	104	422	0	111	1050
	F	263	158	67	343	200	0	1031
	Tot.	1438	1307	901	1784	1556	643	7629

Detailed Input Data And Results

FG6: '2028 WD PM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	305	231	0	660	147	1343
	B	585	0	280	821	0	105	1791
	C	183	65	0	110	147	32	537
	D	0	668	225	0	411	347	1651
	E	378	0	41	212	0	37	668
	F	212	95	41	210	109	0	667
	Tot.	1358	1133	818	1353	1327	668	6657

FG7: '2038 WoD AM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	337	226	0	684	133	1380
	B	513	0	134	708	0	80	1435
	C	195	89	0	221	147	30	682
	D	0	848	302	0	643	315	2108
	E	444	0	78	443	0	90	1055
	F	290	127	53	386	172	0	1028
	Tot.	1442	1401	793	1758	1646	648	7688

FG8: '2038 WoD PM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	423	288	0	768	190	1669
	B	568	0	253	838	0	90	1749
	C	230	80	0	149	174	37	670
	D	0	788	254	0	421	372	1835
	E	354	0	41	214	0	34	643
	F	206	94	39	212	101	0	652
	Tot.	1358	1385	875	1413	1464	723	7218

Detailed Input Data And Results

FG9: '2038 WD AM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	341	225	0	681	134	1381
	B	470	0	127	659	0	77	1333
	C	210	97	0	243	165	34	749
	D	0	868	309	0	644	322	2143
	E	464	0	85	472	0	98	1119
	F	282	126	54	386	171	0	1019
	Tot.	1426	1432	800	1760	1661	665	7744

FG10: '2038 WD PM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	417	283	0	781	186	1667
	B	562	0	247	850	0	87	1746
	C	226	78	0	150	176	36	666
	D	0	804	259	0	444	377	1884
	E	353	0	41	216	0	34	644
	F	205	92	39	212	105	0	653
	Tot.	1346	1391	869	1428	1506	720	7260

FG11: '2a 2028 WD AM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	349	253	0	680	142	1424
	B	569	0	199	803	0	115	1686
	C	187	107	0	218	162	36	710
	D	0	691	270	0	495	265	1721
	E	413	0	100	424	0	112	1049
	F	268	153	66	349	196	0	1032
	Tot.	1437	1300	888	1794	1533	670	7622

Detailed Input Data And Results

FG12: '2a 2028 WD PM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	269	214	0	652	137	1272
	B	599	0	288	821	0	107	1815
	C	191	67	0	114	168	34	574
	D	0	676	238	0	455	364	1733
	E	391	0	44	215	0	38	688
	F	211	95	40	199	118	0	663
	Tot.	1392	1107	824	1349	1393	680	6745

FG13: '2a 2038 WD AM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	331	227	0	691	132	1381
	B	487	0	123	714	0	72	1396
	C	195	83	0	234	140	28	680
	D	0	851	314	0	668	323	2156
	E	447	0	76	471	0	87	1081
	F	288	122	50	401	166	0	1027
	Tot.	1417	1387	790	1820	1665	642	7721

FG14: '2a 2038 WD PM Base'

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	405	278	0	800	177	1660
	B	571	0	249	847	0	83	1750
	C	226	79	0	145	181	35	666
	D	0	818	262	0	465	377	1922
	E	350	0	40	213	0	32	635
	F	206	94	38	209	108	0	655
	Tot.	1353	1396	867	1414	1554	704	7288

Detailed Input Data And Results

Scenario 1: '2022 AM' (FG1: '2022 AM Base', Plan 1: 'Network Control Plan 1 AM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	357	308	0	642	160	1467
	B	342	0	197	480	0	100	1119
	C	208	167	0	239	223	57	894
	D	0	457	220	0	313	200	1190
	E	373	0	142	377	0	148	1040
	F	215	163	83	280	195	0	936
	Tot.	1138	1144	950	1376	1373	665	6646

Traffic Flows, Difference

Difference :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 2: '2022 PM' (FG2: '2022 PM Base', Plan 2: 'Network Control Plan 2 PM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	262	242	0	338	158	1000
	B	368	0	373	387	0	133	1261
	C	219	132	0	101	177	76	705
	D	0	494	203	0	177	313	1187
	E	563	0	131	244	0	108	1046
	F	170	136	66	126	88	0	586
	Tot.	1320	1024	1015	858	780	788	5785

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 3: '2028 WoD AM' (FG3: '2028 WoD AM Base', Plan 1: 'Network Control Plan 1 AM')**Traffic Flows, Actual****Actual Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	358	246	0	687	131	1422
	B	570	0	213	793	0	115	1691
	C	186	122	0	210	181	35	734
	D	0	692	257	0	490	239	1678
	E	426	0	109	428	0	117	1080
	F	257	166	67	334	209	0	1033
	Tot.	1439	1338	892	1765	1567	637	7638

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Detailed Input Data And Results

Scenario 4: '2028 WoD PM' (FG4: '2028 WoD PM Base', Plan 2: 'Network Control Plan 2 PM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	326	241	0	680	153	1400
	B	631	0	288	863	0	108	1890
	C	199	78	0	132	151	33	593
	D	0	689	223	0	397	341	1650
	E	390	0	44	218	0	35	687
	F	229	100	42	226	111	0	708
	Tot.	1449	1193	838	1439	1339	670	6928

Traffic Flows, Difference

Difference :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 5: '2028 WD AM' (FG5: '2028 WD AM Base', Plan 1: 'Network Control Plan 1 AM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	350	253	0	685	135	1423
	B	573	0	205	805	0	110	1693
	C	189	111	0	214	171	35	720
	D	0	688	272	0	500	252	1712
	E	413	0	104	422	0	111	1050
	F	263	158	67	343	200	0	1031
	Tot.	1438	1307	901	1784	1556	643	7629

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 6: '2028 WD PM' (FG6: '2028 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Traffic Flows, Actual****Actual Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	305	231	0	660	147	1343
	B	585	0	280	821	0	105	1791
	C	183	65	0	110	147	32	537
	D	0	668	225	0	411	347	1651
	E	378	0	41	212	0	37	668
	F	212	95	41	210	109	0	667
	Tot.	1358	1133	818	1353	1327	668	6657

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Detailed Input Data And Results

Scenario 7: '2038 WoD AM' (FG7: '2038 WoD AM Base', Plan 1: 'Network Control Plan 1 AM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	337	226	0	684	133	1380
	B	513	0	134	708	0	80	1435
	C	195	89	0	221	147	30	682
	D	0	848	302	0	643	315	2108
	E	444	0	78	443	0	90	1055
	F	290	127	53	386	172	0	1028
	Tot.	1442	1401	793	1758	1646	648	7688

Traffic Flows, Difference

Difference :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 8: '2038 WoD PM' (FG8: '2038 WoD PM Base', Plan 2: 'Network Control Plan 2 PM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	423	288	0	768	190	1669
	B	568	0	253	838	0	90	1749
	C	230	80	0	149	174	37	670
	D	0	788	254	0	421	372	1835
	E	354	0	41	214	0	34	643
	F	206	94	39	212	101	0	652
	Tot.	1358	1385	875	1413	1464	723	7218

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 9: '2038 WD AM' (FG9: '2038 WD AM Base', Plan 1: 'Network Control Plan 1 AM')**Traffic Flows, Actual****Actual Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	341	225	0	681	134	1381
	B	470	0	127	659	0	77	1333
	C	210	97	0	243	165	34	749
	D	0	868	309	0	644	322	2143
	E	464	0	85	472	0	98	1119
	F	282	126	54	386	171	0	1019
	Tot.	1426	1432	800	1760	1661	665	7744

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Detailed Input Data And Results

Scenario 10: '2038 WD PM' (FG10: '2038 WD PM Base', Plan 2: 'Network Control Plan 2 PM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	417	283	0	781	186	1667
	B	562	0	247	850	0	87	1746
	C	226	78	0	150	176	36	666
	D	0	804	259	0	444	377	1884
	E	353	0	41	216	0	34	644
	F	205	92	39	212	105	0	653
	Tot.	1346	1391	869	1428	1506	720	7260

Traffic Flows, Difference

Difference :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 11: '2a 2028 WD AM' (FG11: '2a 2028 WD AM Base', Plan 1: 'Network Control Plan 1 AM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	349	253	0	680	142	1424
	B	569	0	199	803	0	115	1686
	C	187	107	0	218	162	36	710
	D	0	691	270	0	495	265	1721
	E	413	0	100	424	0	112	1049
	F	268	153	66	349	196	0	1032
	Tot.	1437	1300	888	1794	1533	670	7622

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 12: '2a 2028 WD PM' (FG12: '2a 2028 WD PM Base', Plan 2: 'Network Control Plan 2 PM')**Traffic Flows, Actual****Actual Flow :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	269	214	0	652	137	1272
	B	599	0	288	821	0	107	1815
	C	191	67	0	114	168	34	574
	D	0	676	238	0	455	364	1733
	E	391	0	44	215	0	38	688
	F	211	95	40	199	118	0	663
	Tot.	1392	1107	824	1349	1393	680	6745

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Detailed Input Data And Results

Scenario 13: '2a 2038 WD AM' (FG13: '2a 2038 WD AM Base', Plan 1: 'Network Control Plan 1 AM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	331	227	0	691	132	1381
	B	487	0	123	714	0	72	1396
	C	195	83	0	234	140	28	680
	D	0	851	314	0	668	323	2156
	E	447	0	76	471	0	87	1081
	F	288	122	50	401	166	0	1027
	Tot.	1417	1387	790	1820	1665	642	7721

Traffic Flows, Difference

Difference :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Scenario 14: '2a 2038 WD PM' (FG14: '2a 2038 WD PM Base', Plan 2: 'Network Control Plan 2 PM')

Traffic Flows, Actual

Actual Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	405	278	0	800	177	1660
	B	571	0	249	847	0	83	1750
	C	226	79	0	145	181	35	666
	D	0	818	262	0	465	377	1922
	E	350	0	40	213	0	32	635
	F	206	94	38	209	108	0	655
	Tot.	1353	1396	867	1414	1554	704	7288

Traffic Flows, Difference**Difference :**

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0
	D	0	0	0	0	0	0	0
	E	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0	0

Traffic Lane Flows

Lane	Scenario 1: 2022 AM	Scenario 2: 2022 PM	Scenario 3: 2028 WoD AM	Scenario 4: 2028 WoD PM	Scenario 5: 2028 WD AM	Scenario 6: 2028 WD PM
Junction: Unnamed Junction						
1/1 (short)	357	262	358	326	350	305
1/2 (with short)	890(In) 533(Out)	649(In) 387(Out)	883(In) 525(Out)	848(In) 522(Out)	852(In) 502(Out)	831(In) 526(Out)
1/3	577	351	539	552	571	512
2/1	586	470	644	382	625	434
2/2 (with short)	1498(In) 646(Out)	1150(In) 692(Out)	1740(In) 769(Out)	1349(In) 794(Out)	1740(In) 775(Out)	1232(In) 701(Out)
2/3 (short)	852	458	971	555	965	531
3/1	753	642	679	550	696	538
3/2	1066	563	1238	832	1208	804
3/3	588	391	551	556	577	534
4/1	943	732	1002	708	975	739
4/2	201	292	336	485	332	394
5/1 (short)	342	428	512	591	488	570
5/2 (with short)	677(In) 335(Out)	760(In) 332(Out)	1006(In) 494(Out)	1151(In) 560(Out)	1010(In) 522(Out)	1101(In) 531(Out)
5/3	442	501	685	739	683	690
6/1	772	348	989	658	934	659
6/2	774	602	1042	1037	1079	966
6/3	1030	892	1236	1295	1260	1224
7/1	950	1015	892	838	901	818
8/1	950	1015	892	838	901	818
9/1 (short)	193	101	198	132	196	108
9/2 (with short)	462(In) 269(Out)	278(In) 177(Out)	391(In) 193(Out)	283(In) 151(Out)	385(In) 189(Out)	257(In) 149(Out)
9/3	432	427	343	310	335	280
10/1	965	449	1187	790	1130	767
10/2	1043	779	1235	1188	1268	1115
10/3	1462	1319	1579	1605	1595	1504
11/1	965	449	1187	790	1130	767
11/2	411	409	578	649	654	586
12/1	632	370	657	539	614	529
12/2 (with short)	1462(In) 969(Out)	1319(In) 709(Out)	1579(In) 1033(Out)	1605(In) 927(Out)	1595(In) 1063(Out)	1504(In) 873(Out)
12/3 (short)	493	610	546	678	532	631
13/1 (short)	188	177	490	397	500	402
13/2 (with short)	769(In) 581(Out)	696(In) 519(Out)	1085(In) 595(Out)	990(In) 593(Out)	1108(In) 608(Out)	1034(In) 632(Out)

Detailed Input Data And Results

13/3	421	491	593	660	604	617
14/1	741	789	852	865	873	833
14/2	749	812	902	882	888	905
14/3	421	495	593	708	604	619
15/1	820	547	1147	936	1114	931
15/2	553	233	420	403	442	396
16/1	578	504	736	532	737	488
16/2	768	980	924	970	905	997
16/3	940	870	1130	970	1130	872
17/1	502	503	521	337	507	323
17/2	538	543	559	350	543	345
18/1	665	788	637	670	643	668
19/1	665	788	637	670	643	668
20/1 (short)	215	170	257	229	263	212
20/2 (with short)	378(In) 163(Out)	306(In) 136(Out)	423(In) 166(Out)	329(In) 100(Out)	421(In) 158(Out)	307(In) 95(Out)
20/3	558	280	610	379	610	360
21/1	793	674	993	761	1000	700
21/2	345	646	446	688	438	658

Detailed Input Data And Results

Lane	Scenario 7: 2038 WoD AM	Scenario 8: 2038 WoD PM	Scenario 9: 2038 WD AM	Scenario 10: 2038 WD PM	Scenario 11: 2a 2028 WD AM	Scenario 12: 2a 2028 WD PM
Junction: Unnamed Junction						
1/1 (short)	337	423	341	417	349	269
1/2 (with short)	860(In) 523(Out)	1008(In) 585(Out)	836(In) 495(Out)	1004(In) 587(Out)	858(In) 509(Out)	786(In) 517(Out)
1/3	520	661	545	663	566	486
2/1	612	492	553	488	609	424
2/2 (with short)	1886(In) 885(Out)	1331(In) 804(Out)	2015(In) 986(Out)	1358(In) 825(Out)	1747(In) 778(Out)	1268(In) 736(Out)
2/3 (short)	1001	527	1029	533	969	532
3/1	659	622	673	622	689	536
3/2	1269	824	1274	837	1078	786
3/3	549	661	570	663	713	535
4/1	949	915	894	905	958	693
4/2	452	470	538	486	342	414
5/1 (short)	407	527	382	530	488	572
5/2 (with short)	842(In) 435(Out)	1091(In) 564(Out)	786(In) 404(Out)	1097(In) 567(Out)	1002(In) 514(Out)	1109(In) 537(Out)
5/3	593	658	547	649	684	706
6/1	1000	653	1032	667	1037	653
6/2	977	1009	901	1020	844	954
6/3	1142	1319	1117	1312	1397	1241
7/1	793	875	800	869	888	824
8/1	793	875	800	869	888	824
9/1 (short)	184	149	204	150	189	113
9/2 (with short)	368(In) 184(Out)	323(In) 174(Out)	408(In) 204(Out)	326(In) 176(Out)	380(In) 191(Out)	282(In) 169(Out)
9/3	314	347	341	340	330	292
10/1	1184	802	1236	817	1226	766
10/2	1161	1183	1105	1196	1035	1123
10/3	1456	1666	1458	1652	1727	1533
11/1	1184	802	1236	817	1226	766
11/2	574	611	524	611	568	583
12/1	587	572	581	585	467	540
12/2 (with short)	1456(In) 999(Out)	1666(In) 1023(Out)	1458(In) 935(Out)	1652(In) 1014(Out)	1727(In) 1175(Out)	1533(In) 865(Out)
12/3 (short)	457	643	523	638	552	668
13/1 (short)	593	421	439	439	495	433
13/2 (with short)	1354(In) 761(Out)	1111(In) 690(Out)	1296(In) 857(Out)	1139(In) 700(Out)	1109(In) 614(Out)	1082(In) 649(Out)

Detailed Input Data And Results

13/3	754	724	847	745	612	651
14/1	898	924	821	914	869	831
14/2	853	961	853	956	901	930
14/3	754	724	847	745	612	652
15/1	1180	993	1020	1024	962	973
15/2	466	471	641	482	571	420
16/1	759	513	696	507	705	484
16/2	878	1037	875	1030	920	1026
16/3	1275	979	1404	1002	1136	911
17/1	509	312	540	313	506	333
17/2	546	331	579	331	543	355
18/1	648	723	665	720	670	680
19/1	648	723	665	720	670	680
20/1 (short)	290	206	282	205	268	211
20/2 (with short)	417(In) 127(Out)	300(In) 94(Out)	408(In) 126(Out)	297(In) 92(Out)	421(In) 153(Out)	306(In) 95(Out)
20/3	611	352	611	356	611	357
21/1	1049	719	978	712	973	695
21/2	393	639	448	634	464	697

Detailed Input Data And Results

Lane	Scenario 13: 2a 2038 WD AM	Scenario 14: 2a 2038 WD PM
Junction: Unnamed Junction		
1/1 (short)	331	405
1/2 (with short)	838(In) 507(Out)	995(In) 590(Out)
1/3	543	665
2/1	522	471
2/2 (with short)	2012(In) 974(Out)	1390(In) 860(Out)
2/3 (short)	1038	530
3/1	667	618
3/2	1287	842
3/3	574	665
4/1	853	876
4/2	534	520
5/1 (short)	413	528
5/2 (with short)	837(In) 424(Out)	1096(In) 568(Out)
5/3	559	654
6/1	1086	659
6/2	915	1030
6/3	1133	1319
7/1	790	867
8/1	790	867
9/1 (short)	182	145
9/2 (with short)	374(In) 192(Out)	326(In) 181(Out)
9/3	306	340
10/1	1268	804
10/2	1107	1211
10/3	1439	1659
11/1	1268	804
11/2	552	610
12/1	555	601
12/2 (with short)	1439(In) 905(Out)	1659(In) 1005(Out)
12/3 (short)	534	654
13/1 (short)	452	413
13/2 (with short)	1308(In) 856(Out)	1140(In) 727(Out)

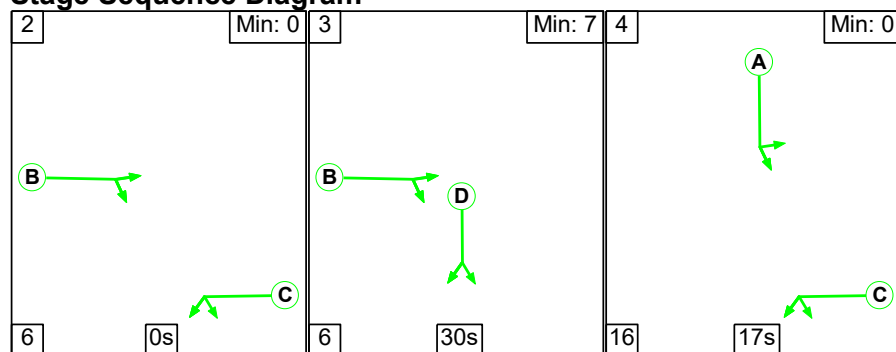
Detailed Input Data And Results

13/3	848	782
14/1	786	894
14/2	851	952
14/3	848	782
15/1	1007	1014
15/2	658	540
16/1	666	498
16/2	863	1026
16/3	1395	1035
17/1	522	308
17/2	559	327
18/1	642	704
19/1	642	704
20/1 (short)	288	206
20/2 (with short)	410(In) 122(Out)	300(In) 94(Out)
20/3	617	355
21/1	954	704
21/2	463	649

Scenario 1: '2022 AM' (FG1: '2022 AM Base', Plan 1: 'Network Control Plan 1 AM')

Controller :C1 - East Side T7772E06

Stage Sequence Diagram

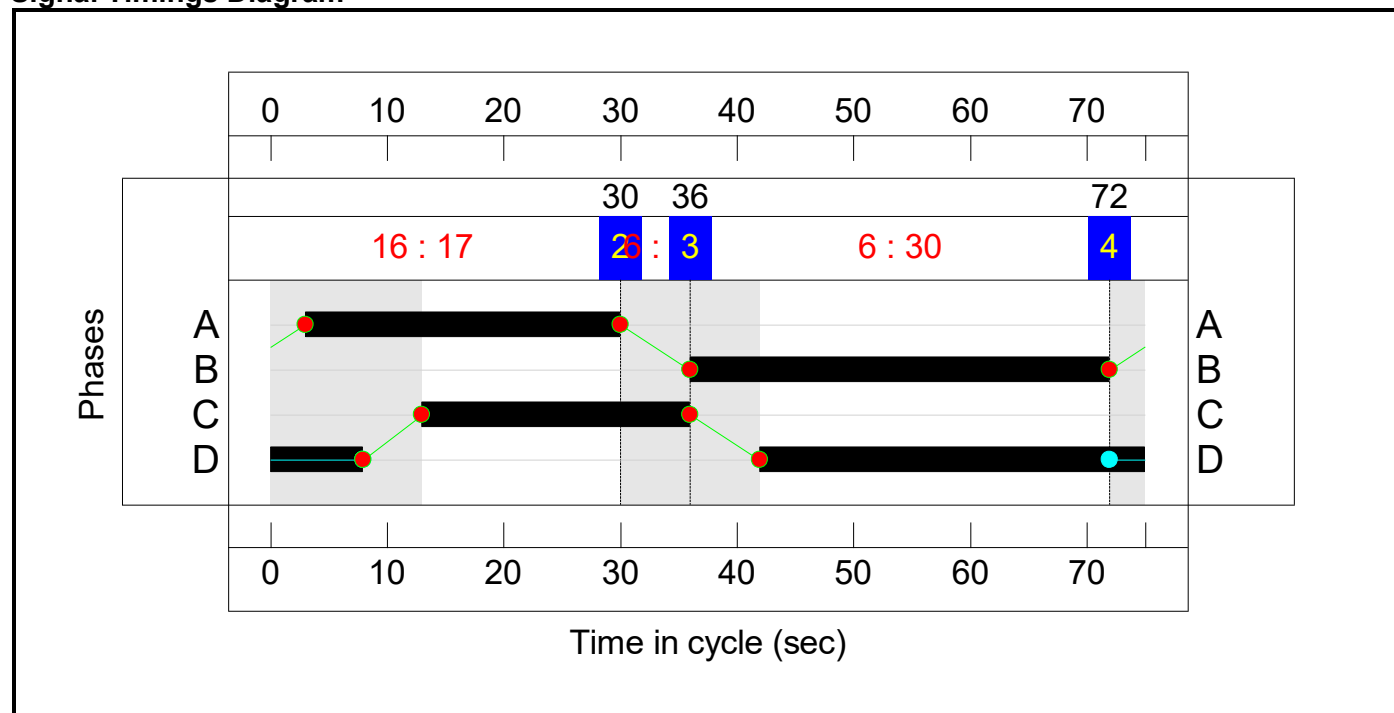


Stage Timings

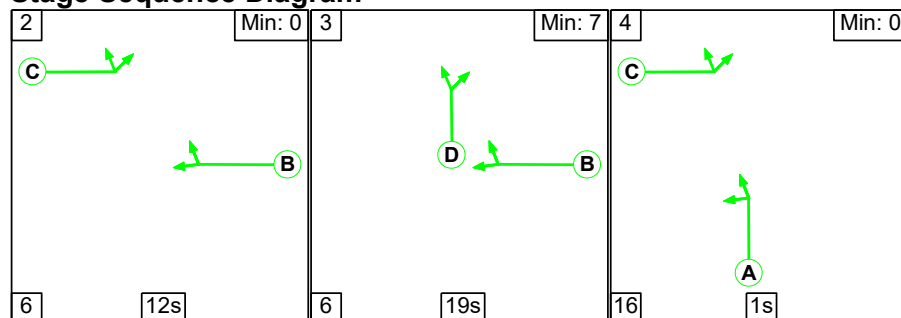
Stage	2	3	4
Duration	0	30	17
Change Point	30	36	72

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	M1 Southbound Off-slip Ahead Left M1 Southbound Off-slip	Traffic	27	3	30
B	North Circ Adj M1 SB Right Ahead Eastbound Circ	Traffic	36	36	72
C	A52 Westbound Off-slip Ahead Left A52 Westbound	Traffic	23	13	36
D	East Circ Right Ahead East Circ	Traffic	41	42	8

Signal Timings Diagram

Controller :C2 - West Side T7771W07

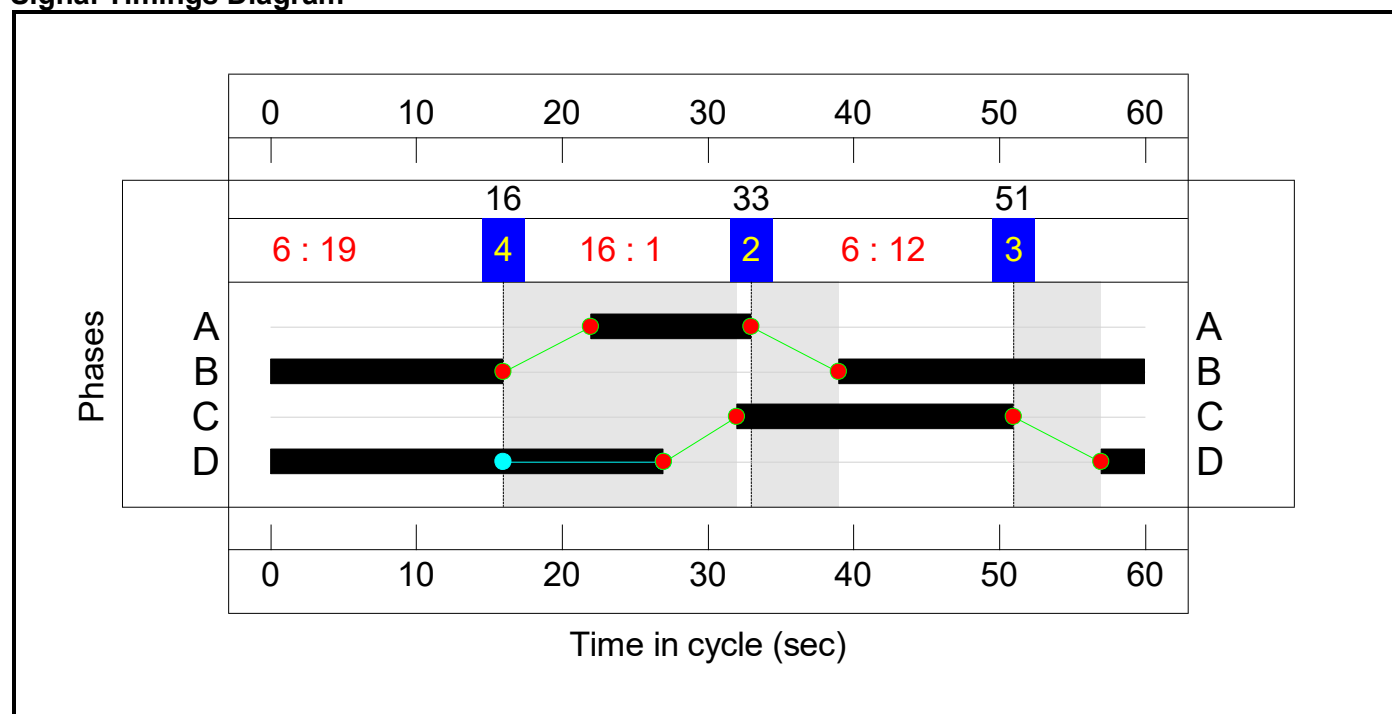
Stage Sequence Diagram

Stage Timings

Stage	2	3	4
Duration	12	19	1
Change Point	33	51	16

Phase Timings

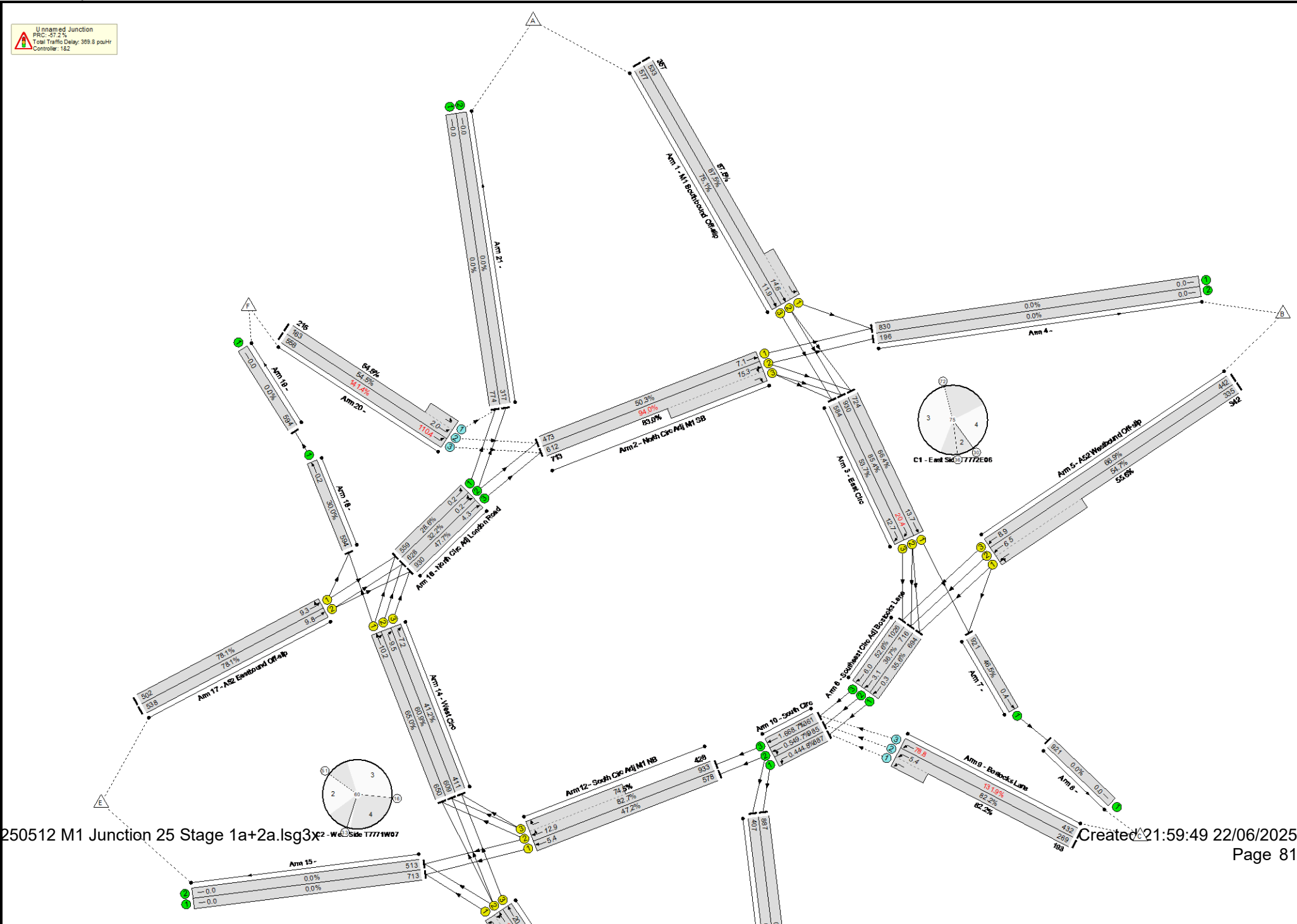
Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	M1 Northbound Off-slip Ahead Left M1 Northbound Off-slip	Traffic	11	22	33
B	South Circ Adj M1 NB Right Ahead Westbound Circ	Traffic	37	39	16
C	A52 Eastbound Off-slip Ahead Left A52 Eastbound Entry	Traffic	19	32	51
D	West Circ Right Ahead West Circ	Traffic	30	57	27

Signal Timings Diagram

Lane Green Times

Junction: Unnamed Junction					
Lane	Description	Type	Phases	Start Green	End Green
1/1	M1 Southbound Off-slip Left	U	A	3	30
1/2	M1 Southbound Off-slip Ahead	U	A	3	30
1/3	M1 Southbound Off-slip Ahead	U	A	3	30
2/1	North Circ Adj M1 SB Ahead	U	B	36	72
2/2	North Circ Adj M1 SB Right Ahead	U	B	36	72
2/3	North Circ Adj M1 SB Right	U	B	36	72
3/1	East Circ Ahead	U	D	42	8
3/2	East Circ Right	U	D	42	8
3/3	East Circ Right	U	D	42	8
5/1	A52 Westbound Off-slip Ahead Left	U	C	13	36
5/2	A52 Westbound Off-slip Ahead	U	C	13	36
5/3	A52 Westbound Off-slip Ahead	U	C	13	36
12/1	South Circ Adj M1 NB Ahead	U	B	39	16
12/2	South Circ Adj M1 NB Right Ahead	U	B	39	16
12/3	South Circ Adj M1 NB Right	U	B	39	16
13/1	M1 Northbound Off-slip Left	U	A	22	33
13/2	M1 Northbound Off-slip Ahead Left	U	A	22	33
13/3	M1 Northbound Off-slip Ahead	U	A	22	33
14/1	West Circ Right Ahead	U	D	57	27
14/2	West Circ Right	U	D	57	27
14/3	West Circ Right	U	D	57	27
17/1	A52 Eastbound Off-slip Ahead Left	U	C	32	51
17/2	A52 Eastbound Off-slip Ahead	U	C	32	51

Detailed Input Data And Results



Detailed Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: EMG2	-	-	N/A	-	-		-	-	-	-	-	-	-	141.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	-	141.5%
1/2+1/1	M1 Southbound Off-slip Ahead Left	U	N/A	N/A	C1:A		1	27	-	-	890	2056:1915	609+408	87.5 : 87.5%
1/3	M1 Southbound Off-slip Ahead	U	N/A	N/A	C1:A		1	27	-	-	577	2059	769	75.1%
2/1	North Circ Adj M1 SB Ahead	U	N/A	N/A	C1:B		1	36	-	-	586	1908	941	50.3%
2/2+2/3	North Circ Adj M1 SB Right Ahead	U	N/A	N/A	C1:B		1	36	-	-	1498	1906:1904	652+859	94.0 : 83.0%
3/1	East Circ Ahead	U	N/A	N/A	C1:D		1	41	-	-	753	1946	1090	66.4%
3/2	East Circ Right	U	N/A	N/A	C1:D		1	41	-	-	1066	1945	1089	85.4%
3/3	East Circ Right	U	N/A	N/A	C1:D		1	41	-	-	588	1943	1088	53.7%
4/1		U	N/A	N/A	-		-	-	-	-	943	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	-	201	Inf	Inf	0.0%
5/2+5/1	A52 Westbound Off-slip Ahead Left	U	N/A	N/A	C1:C		1	23	-	-	677	2061:1923	613+615	54.7 : 55.6%
5/3	A52 Westbound Off-slip Ahead	U	N/A	N/A	C1:C		1	23	-	-	442	2064	660	66.9%
6/1	Southeast Circ Adj Bostocks Lane Ahead	U	N/A	N/A	-		-	-	-	-	772	1953	1953	35.6%
6/2	Southeast Circ Adj Bostocks Lane Ahead	U	N/A	N/A	-		-	-	-	-	774	1952	1952	36.7%
6/3	Southeast Circ Adj Bostocks Lane Ahead	U	N/A	N/A	-		-	-	-	-	1030	1951	1951	52.6%

Detailed Input Data And Results

7/1	Ahead	U	N/A	N/A	-		-	-	-	-	950	1980	1980	46.5%
8/1		U	N/A	N/A	-		-	-	-	-	950	Inf	Inf	0.0%
9/2+9/1	Bostocks Lane Left	O	N/A	N/A	-		-	-	-	-	462	1923:1919	327+235	82.2 : 82.2%
9/3	Bostocks Lane Left	O	N/A	N/A	-		-	-	-	-	432	1926	327	131.9%
10/1	South Circ Left	U	N/A	N/A	-		-	-	-	-	965	1980	1980	44.8%
10/2	South Circ Left Ahead	U	N/A	N/A	-		-	-	-	-	1043	1980	1980	49.7%
10/3	South Circ Ahead	U	N/A	N/A	-		-	-	-	-	1462	1980	1980	68.7%
11/1		U	N/A	N/A	-		-	-	-	-	965	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	-	411	Inf	Inf	0.0%
12/1	South Circ Adj M1 NB Ahead	U	N/A	N/A	C2:B		1	37	-	-	632	1936	1226	47.2%
12/2+12/3	South Circ Adj M1 NB Right Ahead	U	N/A	N/A	C2:B		1	37	-	-	1462	1931:1931	1128+574	82.7 : 74.5%
13/2+13/1	M1 Northbound Off-slip Ahead Left	U	N/A	N/A	C2:A		1	11	-	-	769	2053:1912	411+133	141.5 : 141.5%
13/3	M1 Northbound Off-slip Ahead	U	N/A	N/A	C2:A		1	11	-	-	421	2057	411	102.3%
14/1	West Circ Right Ahead	U	N/A	N/A	C2:D		1	30	-	-	741	1937	1001	65.0%
14/2	West Circ Right	U	N/A	N/A	C2:D		1	30	-	-	749	1935	1000	60.9%
14/3	West Circ Right	U	N/A	N/A	C2:D		1	30	-	-	421	1932	998	41.2%
15/1		U	N/A	N/A	-		-	-	-	-	820	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	-	553	Inf	Inf	0.0%
16/1	North Circ Adj London Road Left	U	N/A	N/A	-		-	-	-	-	578	1952	1952	28.6%
16/2	North Circ Adj London Road Ahead Left	U	N/A	N/A	-		-	-	-	-	768	1950	1950	32.2%

Detailed Input Data And Results

16/3	North Circ Adj London Road Ahead	U	N/A	N/A	-		-	-	-	-	940	1950	1950	47.7%
17/1	A52 Eastbound Off-slip Ahead Left	U	N/A	N/A	C2:C		1	19	-	-	502	1928	643	78.1%
17/2	A52 Eastbound Off-slip Ahead	U	N/A	N/A	C2:C		1	19	-	-	538	2067	689	78.1%
18/1	Ahead	U	N/A	N/A	-		-	-	-	-	665	1980	1980	30.0%
19/1		U	N/A	N/A	-		-	-	-	-	665	Inf	Inf	0.0%
20/2+20/1	Left Left2	O	N/A	N/A	-		-	-	-	-	378	2061:1921	299+395	54.5 : 54.5%
20/3	Left	O	N/A	N/A	-		-	-	-	-	558	1928	395	141.4%
21/1		U	N/A	N/A	-		-	-	-	-	793	Inf	Inf	0.0%
21/2		U	N/A	N/A	-		-	-	-	-	345	Inf	Inf	0.0%

Detailed Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: EMG2	-	-	2402	0	0	74.7	295.1	0.0	369.8	-	-	-	-	
Unnamed Junction	-	-	2402	0	0	74.7	295.1	0.0	369.8	-	-	-	-	
1/2+1/1	890	890	-	-	-	4.8	3.3	-	8.1	33.0	11.3	3.3	14.6	
1/3	577	577	-	-	-	3.3	1.5	-	4.8	29.7	10.4	1.5	11.9	
2/1	473	473	-	-	-	1.7	0.5	-	2.2	16.6	6.6	0.5	7.1	
2/2+2/3	1325	1325	-	-	-	5.5	3.4	-	8.9	24.2	11.9	3.4	15.3	
3/1	724	724	-	-	-	2.5	1.0	-	3.5	17.2	12.8	1.0	13.7	
3/2	930	930	-	-	-	2.2	2.8	-	5.0	19.3	17.6	2.8	20.4	
3/3	584	584	-	-	-	4.6	0.6	-	5.1	31.7	12.1	0.6	12.7	
4/1	830	830	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	196	196	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2+5/1	677	677	-	-	-	3.9	0.6	-	4.5	24.2	5.9	0.6	6.5	
5/3	442	442	-	-	-	2.7	1.0	-	3.7	30.2	7.9	1.0	8.9	
6/1	694	694	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3	
6/2	716	716	-	-	-	0.0	0.3	-	0.3	1.5	2.8	0.3	3.1	
6/3	1026	1026	-	-	-	0.0	0.6	-	0.6	2.0	5.5	0.6	6.0	
7/1	921	921	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4	
8/1	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
9/2+9/1	462	462	924	0	0	1.2	2.2	-	3.4	26.5	3.2	2.2	5.4	
9/3	432	327	327	0	0	5.6	54.3	-	59.9	499.2	24.5	54.3	78.8	
10/1	887	887	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
10/2	985	985	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5	
10/3	1361	1361	-	-	-	0.0	1.1	-	1.1	2.9	0.6	1.1	1.6	
11/1	887	887	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	