

Appendix 10
TN5: M1 Junction 15
Technical Note



M1J15 NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

TECHNICAL NOTE 5: M1 JUNCTION 15

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1.0 INTRODUCTION

- 1.1 ADC Infrastructure Ltd is commissioned by Roxhill (Junction 15) Ltd to provide transport advice with regards to their Nationally Significant Infrastructure Project (NSIP) for the development of a Strategic Rail Freight Interchange (SRFI) facility adjacent to M1 Junction 15 in Northamptonshire (known as Northampton Gateway SRFI).
- 1.2 The site was recently subject to a now withdrawn planning application for the development of just under 2.7 million sqft of B8 warehouse and distribution uses. As part of the Transport Assessment undertaken to support that scheme, an existing capacity constraint was identified at M1 Junction 15, and accordingly a highway mitigation scheme for the junction was agreed in principle with Highways England (HE). Given that the Northampton Gateway SRFI will comprise a significantly greater amount of floor space, the need for improvement works at M1 Junction 15 is a prerequisite.
- 1.3 ADC Infrastructure have undertaken extensive option testing modelling at M1 Junction 15 using the LinSig software package, with design input from BWB Consulting Ltd. This work has been undertaken to sufficiently advance the highway mitigation proposals at the junction, to allow the proposals to be tested as part of the strategic transport modelling work using the Northamptonshire Strategic Transport Model (NSTM).
- 1.4 This Technical Note therefore presents the evolution of the M1 Junction 15 layout design and details the junction modelling that has informed the design process. This document is intended to remain 'live' during the period of the Environmental Impact Assessment for the development, detailing the interactive refinement of the design. The document is structured as follows:
 - Section 2 summarises the modelling of the existing junction layout.
 - Section 3 details the methodology used to generate the reference case models and identifies the impact of the development at the junction.
 - Section 4 describes the design process for the proposed mitigation and describes the main options that have been tested.
 - Section 5 describes the further iterations of the design, incorporating comments from HE.

2.0 EXISTING JUNCTION

General arrangement and operation

- 2.1 The existing M1 Junction 15 is a grade-separated 'dumb-bell' interchange with northern and southern roundabouts connected by a single bridge deck over the M1 motorway, as shown on **Figure 1**. M1 Junction 15 connects the A45 to the north, Saxon Avenue to the northeast and the A508 to the south.



Figure 1: M1 Junction 15

- 2.2 The northern roundabout effectively has four approaches and has an inscribed circle diameter (ICD) of 80 metres. Both the M1 southbound off-slip and the A45 entries are subject to traffic signal control. The Saxon Avenue approach is priority controlled. There are no controlled pedestrian crossings at the northern roundabout.
- 2.3 The southern roundabout effectively has three approaches and an ICD of 70 metres. The M1 northbound off-slip is subject to traffic signal control and the A508 approach is priority controlled. There is a Toucan crossing across the M1 northbound on-slip.
- 2.4 The junction operates a MOVA (microprocessor optimised vehicle actuation) control system.
- 2.5 At peak times the junction is acknowledged to suffer from congestion, with significant queuing and delay experienced at the A45 and A508 approaches. A queue survey was undertaken on 1 May 2014 which showed that average queue lengths on the A45 approach reach approximately 160 to 200 metres in the morning and evening peak periods. Queuing on the

A508 approach was shown to be approximately 240 metres in the morning peak and approximately 420 metres in the evening peak.

- 2.6 To better understand how the junction operates in terms of general performance, lane usage and saturation flows, a site visit was undertaken in 26 October 2016. Detailed measurements of saturation flow and degree of saturation have not been taken since this model is intended to give an indication of the scale of the development impact and then be used as a design tool to make decisions on the proposed mitigation strategy. The anticipated mitigation will significantly alter the way the junction operates and so measured values become redundant. It should also be noted that the impact of the development and suitability of proposed mitigation will ultimately be judged using the NSTM and a VISSIM microsimulation model.
- 2.7 Notwithstanding the above, spot-check measurements of saturation flow were taken and showed that they are broadly in-line with RR67 values calculated from the geometry of the approaches.
- 2.8 Driving around the junction, it is very noticeable how difficult it can be to navigate, particularly the south roundabout where the road markings are worn. Further, the lane allocation around the three-lane circulating carriageways at the A508 and A45 approaches are very confusing. For instance, vehicles from the M1 northbound off-slip can turn right in all three lanes despite there being two exit lanes onto M1 northbound, whilst vehicles from the bridge can only turn right in two lanes, making it difficult for vehicles at the A508 give-way line to judge entry onto the roundabout.

LinSig modelling

- 2.9 Considering the size and complexity of M1 Junction 15, a base model was built using 2014 survey traffic flows to ensure that the impact of the proposed development traffic can be adequately understood. The traffic survey results (including queue survey results) are provided at **Appendix A**.
- 2.10 It should be noted that LinSig provides average results based on uniform traffic flows and fixed signal timings and, therefore, does not take into account the advantages afforded by the demand responsive MOVA control system at the junction. However, the purpose of this modelling exercise is to demonstrate the impact of the proposed development traffic on the highway network using representative traffic signal models, so that informed decisions can be made about appropriate mitigation strategies. Therefore, LinSig is an adequate tool in this instance.
- 2.11 A model of the junction has been constructed using LinSig version 3.2. The current TR2500 controller configurations were provided by HE and the phase, stage and intergreen data has been incorporated into the model. Average peak hour cycle times have also been provided by HE. For the priority controlled Saxon Avenue and A508 approaches, formula used in Arcady have been used to provide suitable values for the 'maximum flow while giving way' and coefficient.
- 2.12 The above parameters and on-site observations have been incorporated into the existing layout model. To check that the model is a good representation of the junction, a queue comparison has been undertaken for the peak hours and the results are summarised in **Table 1** below.

Scenario		A45 Southbound			Saxon Avenue		M1 Southbound Offslip			M1 Southbound Circ		
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3
AM Peak	Measured	20	22	27	1	3	20	20	5	13	14	2
	Modelled	15	17	25	4		12	14		9	11	2
PM Peak	Measured	14	19	34	1	4	12	9	3	14	14	3
	Modelled	15	17	55	6		11	13		14	9	2

Scenario		M1 Northbound Offslip			M1 Northbound Circ			A508 Northampton Rd		
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3
AM Peak	Measured	8	9	3	7	8	6	43	15	3
	Modelled	14	17		18	12	12	47		1
PM Peak	Measured	14	16	3	8	9	7	71	15	5
	Modelled	20	24		17	12	14	97		1

Table 1: M1 Junction 15 2014 queue comparison.

2.13 **Table 1** shows that there is good correlation between the average measured and modelled values in both peak periods. In most instances, the modelled queue is slightly higher than the measured value indicating that the saturation flows and give-way parameters are appropriate and will lend themselves to a robust analysis of the development impact.

2.14 The LinSig results of the 2014 modelling are provided at **Appendix B** and are summarised in **Table 2** below.

Scenario		Base model	
		PRC (%)	Delay (pcuHr)
2014	AM	-16.1%	111.25
	PM	-35.6%	204.67

Table 2: Summary of 2014 M1 Junction 15 model

2.15 **Table 2** shows that the junction is operating with a negative practical reserve capacity (PRC) in both peak periods, indicating that the junction does not have sufficient capacity to handle the current traffic demand, with one or more links over 90% saturated.

3.0 REFERENCE CASE

Northampton Growth Management Scheme

- 3.1 HE (formerly the Highways Agency) in partnership with Northamptonshire County Council (NCC) and other local authorities in west Northamptonshire undertook a study of the A45/M1 around Northampton. Following consideration of the forecast strategic road network impacts it was concluded that the A45/M1 Northampton Growth Management Scheme (NGMS) should be implemented. The NGMS includes a list of proposed schemes which will formulate the overall strategy for improvements to the A45/M1 corridor, consequently accommodating future developments and mitigating the impacts of the potential increase of traffic flows of the strategic road network in the Northampton area. The NGMS includes a small improvement scheme at M1 Junction 15. The scheme could potentially provide a capacity improvement of around 9% at the junction.
- 3.2 However, at the 1 December 2016 meeting of the Transport Working Group (TWG), HE advised that there is no certainty when an improvement at Junction 15 would be delivered, as other NGMS junctions have been identified as priorities. Therefore, HE confirmed that the existing layout should be used as the reference case for the development testing.

M1J13 to M1J16 Smart Motorway Project

- 3.3 Works to up-grade the M1 between Junctions 19 to 16 to all lane running are currently ongoing as part of HE's Smart Motorway Project (SMP). These works are due to be completed in 2017 and will reduce congestion of this section of the M1. To complement that scheme, HE have confirmed works to extend all lane running to include M1 Junctions 16 to 13. The design of the M1 Junction 16 to Junction 13 scheme is expected to be complete in 2017, with work commencing in 2018 followed by a 32-month construction programme. However, the works do not include improvements to Junction 15 itself.

Traffic flows

- 3.4 The impact of the proposed development will ultimately be assessed using the NSTM2. Traffic flows will be extracted from the NSTM2 and used in a VISSIM microsimulation model to demonstrate the suitability of the transport mitigation strategy for M1 Junction 15. The NSTM2 modelling methodology is set out in ADC Technical Note 1, which identifies assessment years of 2021 and 2031.
- 3.5 To enable option testing at M1 Junction 15 to be undertaken in advance of the NSTM2 being available, the 2014 surveyed traffic flows have been growthed to the 2021 and 2031 assessment years using Temprow version 7.0. The development traffic has been calculated from the agreed trip generation detailed in ADC Technical Note 2 and assigned to the highway network using the agreed HGV distribution (ADC Technical Note 3) for HGV trips, and a distribution extracted from the current NSTM2 for the light vehicle trips.

LinSig modelling

- 3.6 The 2021 and 2031 'no development' and 'with development' traffic flow groups for the morning and evening peak hours were added to the LinSig model for the existing junction, with all other parameters remaining constant. The results of the reference case modelling are provided in **Appendix B** and summarised in **Table 3** below.

		Reference case (no development)		Reference case (with development)	
		PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2021	AM	-32.7%	350	-99.0%	1218
	PM	-46.5%	470	-104.2%	1458
2031	AM	-54.4%	745	-104.3%	1737
	PM	-90.8%	1005	-137.4%	1998

Table 3: Summary of reference case modelling

- 3.7 The results in **Table 3** show that the junction would not have enough capacity to cater for the traffic demand and would operate with significant congestion in all modelled scenarios. **Table 3** also shows that the development would have a significant impact on performance with considerable deterioration of PRC and total delay in 2021 and 2031 for both peak periods. The results in **Appendix B** show that in all modelled scenarios, it is the A45, M1 northbound off-slip and the A508 approaches which suffer from the most congestion.

NSTM2 Traffic flows

- 3.8 The above assessment was undertaken prior to the availability of the NSTM2 model data. The 2031 NSTM2 traffic flows were subsequently made available and so the LinSig model of the existing junction has been updated with the 2031 D1 reference case (no development, no mitigation) and 2031 G1 with development (with development, no mitigation) scenarios.
- 3.9 The results of the 2031 D1 reference case and 2031 G1 development case modelling are provided in **Appendix B** and summarised in **Table 4** below.

	2031 D1 reference case (no development)		2031 G1 reference case (with development)	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
AM	-95.4%	971	-115.2%	1001
PM	-40.7%	473	-81.7%	979

Table 4: Summary of NSTM2 2031 D1 reference case and 2031 G1 development case modelling

- 3.10 The results in **Table 4** show that the junction would not have enough capacity to cater for the traffic demand and would operate with significant congestion in all 2031 NSTM2 modelled scenarios. **Table 4** also shows that the development would have a significant impact on performance with considerable deterioration of PRC and total delay in 2031 for both peak periods.
- 3.11 Comparing the results shown in **Table 3** and **Table 4** show that the predicted performance of the junction differs between the modelling with manually calculated 2031 traffic flows and the modelling with 2031 NSTM2 traffic flows. This is due to the ability of the NSTM2 to reassign traffic across the network, with traffic choosing to switch routes due to increased delay.
- 3.12 However, it is clear that the development has a significant impact when assessed under both methodologies. Further, the results shown in **Appendix B** for the respective modelling methodologies show that the same arms (A45, M1 southbound off-slip and A508) suffer the most congestion in all assessments indicating that these arms in particular require careful consideration when devising a mitigation strategy.

4.0 PROPOSED MITIGATION

Constraints and objectives

- 4.1 The existing M1 Junction 15 consists of a grade-separated 'dumbbell' arrangement with roundabouts either side of a single bridge over the motorway. This type of arrangement is efficient in terms of the number of structures required and the inherent maintenance liability, but it can constrain the size and capacity of the junction and its ability to handle large volumes of traffic. Therefore, consideration was given to providing an additional bridge structure, but that option was rejected on cost grounds, along with impact on the north facing slip roads. An early constraint was therefore the retention of a single bridge over the motorway.
- 4.2 The design methodology for the mitigation has been focused on achieving the following goals within the identified constraints:
- Achieving better than nil-detriment junction performance when compared to the reference case 'no development' scenarios.
 - Maximising the length of circulating links to improve queue storage.
 - Improve the legibility of the junction to improve lane discipline and make it easier to navigate.
 - Provide betterment for the existing priority controlled approaches at A508 and Saxon Avenue.

Mitigation Option A

- 4.3 The reference case LinSig model was used as a design tool to inform the iterative option testing process. Design support was provided by BWB Consulting who informed the process with regards to the geometric constraints. The initial result of this process was the Option A layout arrangement shown at **Figure 2** below.

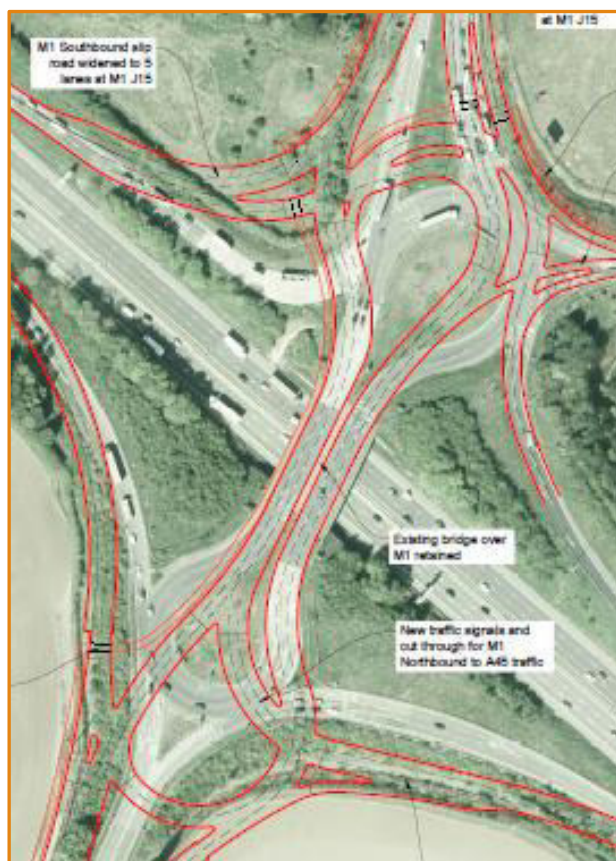


Figure 2: Mitigation Option A presented at the December 2016 consultation

- 4.4 In general terms, the Option A improvement scheme shown in **Figure 2** provides the following:
- Widening on the A45 approach to provide 5 lanes.
 - Signalising the Saxon Avenue approach
 - Provision of three full lanes southbound over the bridge.
 - Longer section of three lanes on the M1 northbound off-slip with a flared lane to A508.
 - Duelling of the A508 approach and exit, with five lanes provided at the entry.
 - A cut-through for M1 northbound traffic to the A45/Saxon Avenue
 - Widening on the M1 southbound off-slip to provide five entry lanes.
- It should be noted that the SMP scheme shortens the length of the M1 slip roads and this has been incorporated into the LinSig modelling.
- 4.5 A significant design feature is the cut-through for traffic from M1 northbound off-slip to A45/Saxon Avenue at the southern roundabout. This allows the circulating carriageway at the A508 to be reduced from five lanes to two lanes and increases the internal storage capacity. It also makes the junction easier to navigate which would improve lane usage and lane discipline.
- 4.6 The Option A layout shown at **Figure 2** was presented to HE at the 3 November 2016 TWG meeting and initial comments received on 6 January 2017 were generally positive. This layout was also presented at the informal public consultation events which took place from 12th to 14th December 2016.
- 4.7 The Option A arrangement was assessed in LinSig using the manually calculated 2031 'with development' traffic flows and the modelling results are provided at **Appendix C** and summarised in **Table 5** below.

		Reference case (no development)		Option A mitigation case (with development)	
		PRC (%)	Delay (pcuHr)	PRC (%)	delay (pcuHr)
2021	AM	-32.7%	350	5.6%	127
	PM	-46.5%	470	0.3%	171
2031	AM	-54.4%	745	-9.7%	188
	PM	-90.8%	1005	-23.0%	364

Table 5: Comparison of junction performance in reference case and mitigation case

- 4.8 **Table 5** shows that the proposed scheme would provide significant betterment, operating within capacity during the 2021 morning and evening peak hours. Further, in 2031 the proposed improvements would deliver a significantly better than nil-detriment outcome. The model shows that all internal queueing could be accommodated and there would not be significant queueing on the motorway slip roads.

Mitigation Option B

- 4.9 As part of the December 2016 consultation exercise, Northampton Borough Council expressed a desire for the provision of a right-turn movement from Saxon Avenue to the A45 northbound at the northern roundabout.
- 4.10 ADC Infrastructure and BWB Consulting therefore conducted further modelling and design work to understand the implications of this request and have principally considered two right-turn options. The first right-turn option considered was a standard arrangement as shown on **Figure 3** below. The second option considered would provide a cut-through from Saxon Avenue to the A45 northbound. However, the second option was dismissed as geometrically it could not be implemented.

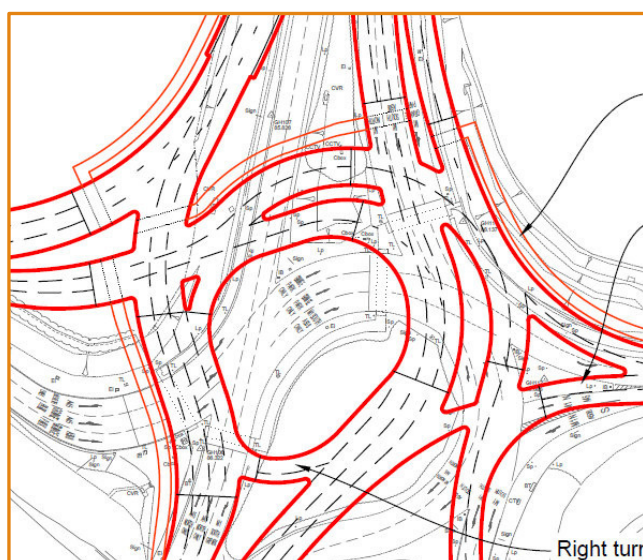


Figure 3: Mitigation Option B - Saxon Avenue right-turn

4.11 The model output for Option B shown in **Figure 3** is provided at **Appendix D** and a summary of the results are shown in **Table 6**, along with the results for the Option A arrangement with no right-turn provision at the northern roundabout, as shown at **Figure 2**.

Scenario		PRC (%)		mean maximum queue (pcu) on M1 southbound off-slip		Saxon Ave to A45 average journey time (s)	
		Option A (no right turn)	Option B (with right turn)	Option A (no right turn)	Option B (with right turn)	Option A (no right turn)	Option B (with right turn)
2021	AM	5.6%	5.7%	10.2	13.7	176	144
	PM	0.3%	-4.0%	8.9	11.7	212	140
2031	AM	-9.7%	-32.9%	12.5	100.0	282	370
	PM	-23.0%	-41.3%	14.7	83.7	433	561

Table 6: Comparison of junction performance with and without right-turn from Saxon Avenue

4.12 **Table 6** shows that in 2021, the capacity performance for both Option A and Option B is similar with both having a positive PRC in the morning peak hour, demonstrating that the junction is operating within acceptable capacity parameters. The Option A 'no right-turn' option also has a positive PRC in the evening hour, though the Option B 'right-turn' option would operate slightly over capacity. Further, while the junction is performing relatively well, there is a modest improvement in journey time for right-turners from Saxon Avenue in both 2021 morning and evening peak hours with the right-turn arrangement in place.

4.13 However, there is a significant difference between the two options when considering the 2031 assessment year, with the Option A 'no right-turn' option performing significantly better. Of significant concern is the queueing on the M1 southbound off-slip in both peak hours for the Option B 'right-turn' option, which would extend beyond the end of the slip road onto the main line of the M1. This is especially significant as the length of this slip road would be reduced under the committed M1J13 to J16 SMP.

4.14 This level of queueing on a slip road would cause significant safety and operational problems. To counteract this, queue loops towards the end of the slip road would be required to constantly hurry-call for a green signal at the junction, which would in-turn compromise the operation of the roundabout. This would mean traffic on the other approaches would have to be held back. This effect is not explicitly modelled in LinSig, but the requirement to control queueing on the circulating carriageway for right-turners from Saxon Avenue is modelled and shows that vehicles

on Saxon Avenue are held back. This effect is demonstrated by the significant increase in journey time for right-turners from Saxon Avenue in the Option B 'right turn' arrangement.

- 4.15 However, the problems associated with introducing the right-turn from Saxon Avenue are not solely related to capacity and queuing on the M1 southbound off-slip. Provision of the right-turn introduces another stopline on the circulating carriageway meaning that traffic from the M1 northbound off-slip and the A508 travelling north to the A45 would have to pass through four stoplines before exiting the roundabout. This would be extremely difficult to coordinate in practice, and would further limit the performance of the junction that could be delivered.
- 4.16 Also, the length of the right-turn lane would be very short providing little room to allow vehicles to queue, and whilst this has an impact on performance, it is also a safety concern as HGVs from Grange Park having to queue at this stopline would block the circulating carriageway.
- 4.17 Therefore, it is concluded that despite the moderate improvement in journey time for right-turners from Saxon Avenue in the 2021 scenarios, the Option B right-turn facility should not be provided as it would be detrimental to the performance of the junction in 2031, resulting in:
- significant queueing issues on the M1 southbound off-slip
 - safety concerns on the circulating carriageway associated with queuing HGVs
 - longer journey time for right-turners using Saxon Avenue when compared to the option without the right-turn.
- 4.18 These findings were discussed at the TWG meeting on 23 February 2017 and NCC suggested that a comparison of the journey time from Saxon Avenue to the A45 northbound would be useful to gauge the impact of the development traffic and proposed mitigation scheme on drivers wishing to undertake this movement. This comparison is provided in the following section.

Mitigation Option C

- 4.19 Once the work investigating the provision of a right-turn from Saxon Avenue was concluded, the next iteration considered ways to simplify and 'clean up' the layout of the northern roundabout, which due to its geometry and four approach arms, is especially constrained.
- 4.20 To achieve this, Option C provides a cut-through from M1 southbound off-slip to A508 was considered as shown in **Figure 4** below, and provided at BWB drawing **NGW-BWB-GEN-XX-SK-D-SK02-S3-P2** This creates a three-stage node with the Saxon Avenue approach, but further consideration of the Option A layout shown at **Figure 2** showed that due to the short link-lengths at this node, it effectively operates in three-stages anyway and modelling demonstrated that there would only be slight detriment to performance. However, the benefits of the Option C arrangement in terms of longer link lengths that can better store queueing vehicles and easier navigation around the junction which will promote better lane usage and better lane discipline, far out-weight the disadvantages of the three-stage node.

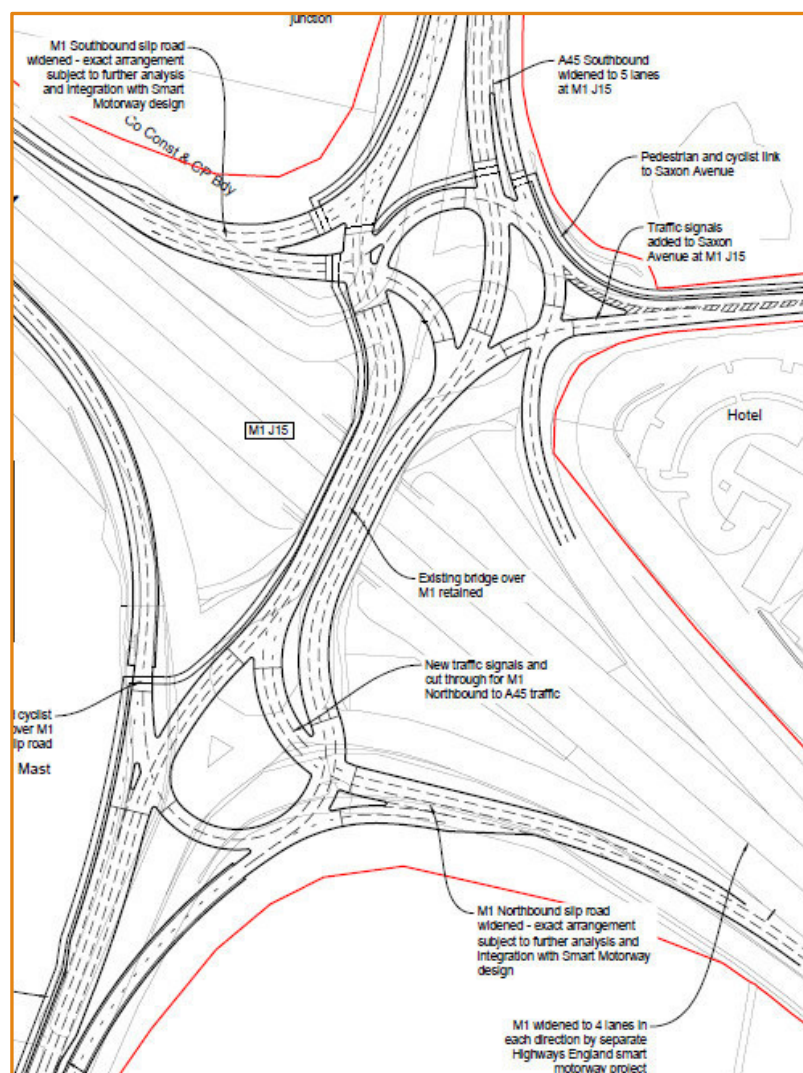


Figure 4: Mitigation Option C

4.21 This modelling results for the Option C arrangement, using the manually calculated 2031 'with development' traffic flows are presented in **Appendix E** and the results are summarised in **Table 7** below.

		Reference case (no development)			Option C mitigation case (with development)		
		PRC (%)	Delay (pcuHr)	Saxon Ave to A45 average journey time (s)	PRC (%)	Delay (pcuHr)	Saxon Ave to A45 average journey time (s)
2021	AM	-32.7%	350	126	5.7%	147	176
	PM	-46.5%	470	195	-1.5%	189	243
2031	AM	-54.4%	745	262	-12.1%	252	244
	PM	-90.8%	1005	297	-25.6%	425	282

Table 7: Comparison of junction performance in reference case and mitigation case

4.22 **Table 7** shows that the Option C scheme would provide significant betterment when compared to the reference case scenarios, operating with practical reserve capacity during the 2021 morning peak hour and just 1.5% over design capacity in the evening peak hour (i.e. 91.5% of capacity). Further, in 2031 the proposed improvements would deliver a significantly better than nil-detriment outcome. The model shows that all internal queueing could be accommodated and there would not be significant queueing on the motorway slip roads.

- 4.23 **Table 8** shows the journey times from Saxon Avenue to the A45 for the reference case 'no development' and for the three mitigation arrangements discussed in this report. In 2021, journey times from Saxon Avenue to the A45 increase in both peak periods due to the proposed development despite the three mitigation proposals. This can in part be attributed to the increased junction size and the signalisation of the Watering Lane junction. The only exception is the 2021 evening peak where the Option B layout in **Figure 3**, which proposed the right-turn movement from Saxon Avenue. This delivers a slight improvement in journey time, but is not a viable layout for the reasons given at paragraph 4.17.
- 4.24 In 2031, **Table 8** shows that mitigation Option A and Option B (shown at **Figure 2** and **Figure 3**, respectively) would result in increases in journey time, particularly in Option B for the reasons explained in the earlier sections of this report.

Saxon Avenue to A45NB average journey time (s)					
		Reference Case	Option A layout	Option B layout	Option C layout
2021	AM	126	176	144	176
	PM	195	212	140	243
2031	AM	262	282	370	244
	PM	297	433	561	282

Table 7: Comparison of Saxon Avenue to A45 journey times

- 4.25 However, **Table 8** shows that the preferred Option C mitigation scheme presented in **Figure 4** would provide an improvement in journey time from Saxon Avenue to the A45 in both 2031 peak periods when compared to the reference case 'no development' scenario. This is largely possible due to the increased length of the internal links at the northern roundabout that are provided in the **Figure 4** layout, allowing more queuing vehicles to be stored and therefore providing Saxon Avenue with more green time. This additional green time keeps the degree of saturation on the Saxon Avenue approach below 100% which means that most vehicles will clear the stopline in one cycle.
- 4.26 The tabulated data in this technical note is presented graphically at **Figure 5**, which provides a comparison of the junction PRC and journey time from Saxon Avenue to the A45 northbound for the reference case layout and each of the mitigation layout options. The x-axis on the graph is the assessment year scenario. The bar charts, shown on the left-hand y-axis, represent the junction PRC. The line charts, shown on the right-hand y-axis, represent the journey time from Saxon Avenue to the A45.
- 4.27 **Figure 5** illustrates that as the junction becomes busier (i.e. the 2031 scenarios), the **Figure 3** (Option B) layout (right-turn) preforms worst in terms on junction capacity, which has a knock-on effect on journey times. The capacity performance of the **Figure 2** (Option A) layout and **Figure 4** (Option C) layout are similar in all assessment scenarios. However, as the junction becomes busier in the 2031 scenarios, the short circulating links at the northern roundabout in the **Figure 2** (Option A) layout limit the green time that can be provided to Saxon Avenue, meaning that not all vehicles can clear the stop line in one cycle and hence journey time increases. In the **Figure 4** (Option C) arrangement, despite having a 3-stage node, the layout allows the short internal links to be removed and hence more green time can be provided to Saxon Avenue. This means that more vehicles clear the stop line in one cycle and hence journey times reduce. It can be seen from the graph that the yellow line (preferred layout) drops below the blue (reference case) in the 2031 scenarios, meaning that the **Figure 4** (Option C) layout provides an improvement on journey time from Saxon Avenue compared to the reference case.

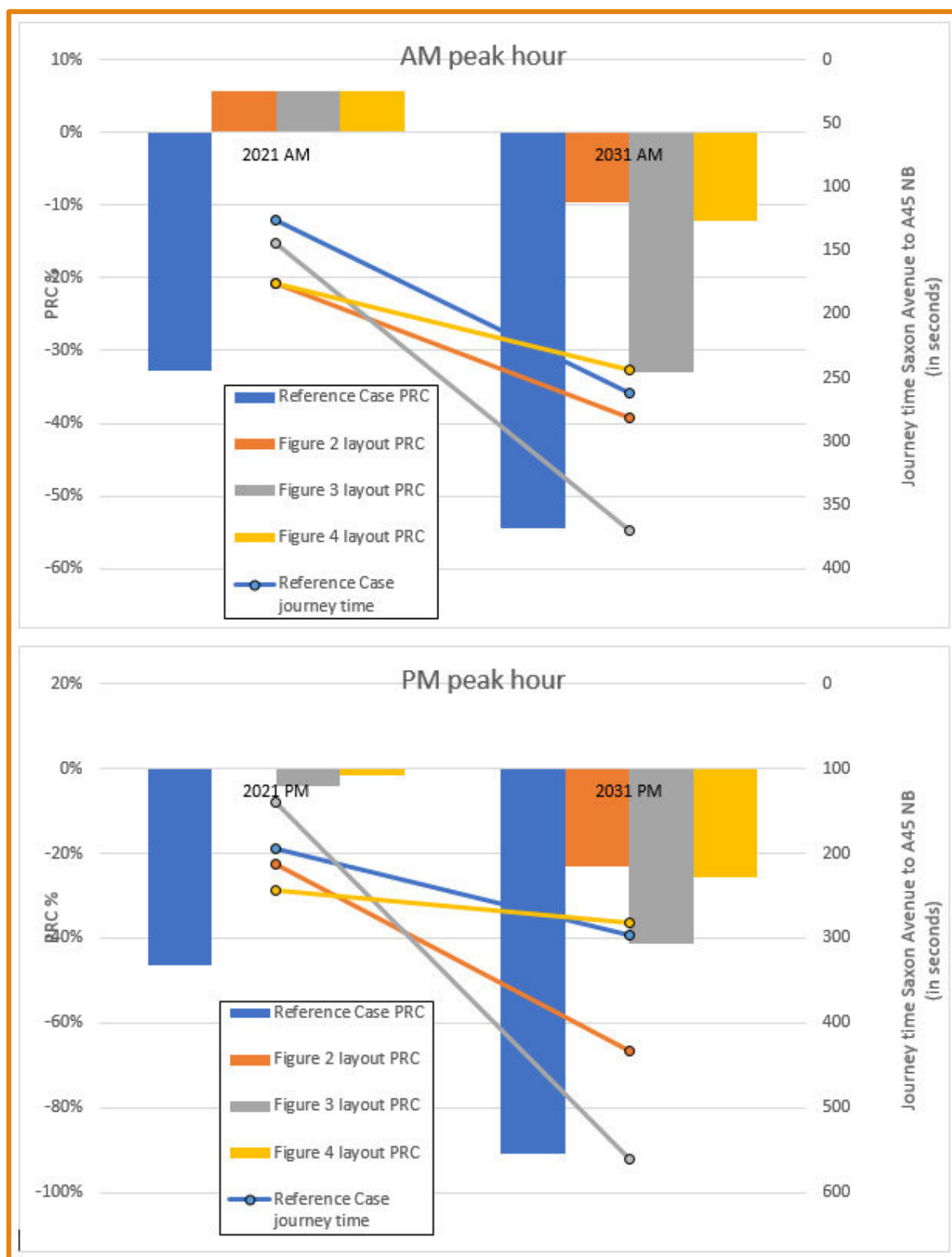


Figure 5: Summary of junction PRC and journey time from Saxon Avenue to A45 northbound

- 4.28 Therefore, considering the overall improvement in junction performance, the improvement in Saxon Avenue to the A45 journey times in 2031, and the improved legibility of the junction, the arrangement shown in **Figure 4** (Option C) is the preferred scheme.
- 4.29 It is therefore concluded that the junction arrangement shown at drawing **NGW-BWB-GEN-XX-SK-D-SK02-S3-P2** represents the preferred option for mitigating the impact of the development at M1 Junction 15 and should be used for onwards testing in the NSTM2.

Watering Lane

- 4.30 The provision of three lanes on the A45 northbound from M1 J15 creates an issue with regards to the junction with Watering Lane. It is acknowledged that the current arrangement is far from ideal, with exiting traffic having to merge into two lanes of high speed traffic, often with numerous HGVs parked in the nearby layby reducing visibility. This movement would be made more difficult when the A45 is increased to three lanes as is proposed as part of the M1J15 works.
- 4.31 To overcome the interface issue created by the requirement for three exit lanes on the A45, and improve the safety conditions for vehicles exiting Watering lane, it is proposed that the signal control be introduced at the junction. Initial traffic flows provided from the NSTM2 suggest that two lanes would be required on the exit from Watering Lane. This has been modelled in the latest option testing and is considered to provide an appropriate solution. However, the latest design work indicates that only a single lane exit would be possible within the existing highway boundary land constraints. It is therefore proposed to model the exit as a single lane in the NSTM2 to allow the implications to be considered.

5.0 FURTHER DESIGN ITERATIONS

HE Development Control comments

- 5.1 Aecom, on behalf of HE, provided comments on v4 of this Technical Note on 27 April 2017, as shown at **Appendix F**. These comments focused on the capacity assessments undertaken for the proposed Option C scheme and its ability to mitigate the impact of the development, concluding as follows:

"We can therefore confirm that the submitted preliminary design is considered appropriate from a capacity point of view. We acknowledge that Junction 15 would operate over capacity in a "do nothing" 2021 future year scenario, with no development and no improvement scheme and that the proposed scheme would bring an improvement to the SRN. However, the appropriateness of the scheme will have to be demonstrated through the VISSIM microsimulation testing, as agreed with the TWG."

- 5.2 The VISSIM microsimulation testing is ongoing and the development of the model and its results will be discussed in detail in the Transport Assessment.

HE Asset Management Team comments

- 5.3 Aecom also provided comments on mitigation Option C from the Asset Management Team at HE, shown at **Appendix F**. Whilst these comments generally focus more on the detail of the proposed scheme, concerns were raised on the perceived complexity of the design solution, particularly at the northern roundabout, and how this would impact on the legibility of the layout for drivers and highway maintenance.
- 5.4 Other issues raised were wide ranging including the interface with the SMP, drainage, signage, street lighting and technology. These issues can largely be overcome through appropriate design and will be detailed elsewhere. This section of the Technical Note addresses the issue of the complexity of the proposed northern roundabout arrangement.
- 5.5 ADC Infrastructure and BWB met with the HE Asset Management Team on 15 May 2017 to discuss their comments on the preferred arrangement layout. Minutes of the meeting are provided at **Appendix F**.
- 5.6 During the meeting, HE confirmed that the principles of the proposed layout south of the M1 are generally acceptable, subject to development of the design and capacity testing.
- 5.7 HE also stated that in their view the layout of the northern roundabout required further work and analysis, with concerns relating to maintenance and perceived complexity. ADC Infrastructure and BWB stated that a suitable signage strategy could be provided to overcome any concerns regarding complexity and legibility to drivers. Further, observations of the VISSIM model did not indicate any specific issues relating to driver decision and that traffic appears to flow appropriately at the junction.
- 5.8 Nonetheless, HE's concerns regarding access for maintenance at the northern roundabout were accepted. In particular, HE considered that the layout of the circulating carriageway could create significant maintenance issues, potentially requiring complex traffic management arrangements to undertake simple maintenance operations, and further concerns relating to traffic management in the event of incidents on the M1 southbound and A45 approaches.
- 5.9 To further the discussion during the meeting, ADC Infrastructure and BWB tabled the Option A arrangement shown at **Figure 2** of this document. This arrangement is essentially the same as the Option C scheme at the southern roundabout, but has a more conventional arrangement

at the northern roundabout, with two-stage nodes at each approach and no cut-through for right-turning traffic from the M1 southbound approach.

- 5.10 HE intimated that the alternative, more conventional roundabout layout may be preferable as it offered better opportunity to undertake routine maintenance tasks.

Revised mitigation arrangement

- 5.11 As previously reported, there is little difference in the performance of the Option A and Option C arrangements shown at **Figure 2** and **Figure 4**. This is demonstrated in **Table 9** below, which is a summary of the LinSig results using the manually calculated 2031 'with development' traffic flows. The Option A arrangement at **Figure 2** actually performs marginally better in three of the scenarios tested, but as shown in **Table 8** in the previous section the LinSig modelling indicated that the Option C arrangement would provide the shortest journey times from Saxon Avenue to the A45 northbound.

Scenario		PRC (%)		Total Delay (pcuhr)	
		Option A	Option C	Option A	Option C
2021	AM	5.6%	5.7%	127	147
	PM	0.3%	-1.5%	171	189
2031	AM	-9.7%	-12.1%	188	252
	PM	-23.0%	-25.6%	364	425

Table 9: Comparison of the junction Option A and Option C arrangements

- 5.12 As discussed in paragraph 4.25, LinSig predicts that Option C would achieve better journey times in 2031 from Saxon Avenue to the A45 due to the increased length of the internal links at the northern roundabout, allowing more queuing vehicles to be stored and therefore providing Saxon Avenue with more green time. This additional green time keeps the degree of saturation on the Saxon Avenue approach below 100% in Option C which means that most vehicles will clear the stopline in one cycle. In the evening peak hour for Option A, the degree of saturation is slightly above 100% of its capacity and therefore there is a increase in journey predicted in comparison to Option C.
- 5.13 LinSig is not a dynamic model, meaning it models traffic flows aggregated across an hour, with fixed traffic signal timings. Therefore, due to this limitation and the sensitivity of the model when operating over 100% of its capacity, large variations in journey times are possible due to the difference of just one second per cycle. However, in reality the junction will be under MOVA control which changes the green time every cycle in response to the real-time demand, and therefore it optimises the junction performance and minimise delay. The actual difference in journey time between Option A and Option C would therefore be expected to be marginal.
- 5.14 Further to the above, the Option A and Option C alternative layouts were tested using the HE validated VISSIM model and the NSTM2 2031 J1a (with development, with M1 J15, A508 dualling, Roade Bypass mitigation) traffic flows. The comparison confirmed the LinSig modelling findings, that overall there is very little between the two schemes in operational performance. However, it also demonstrated that there is little difference between the journey times from the Saxon Avenue approach to the A45 northbound, as shown in **Table 10** below (it should be noted that the VISSIM model covers a much larger area than the LinSig model, and records journey times over the full length of the journey, which is why they are considerably longer than reported in **Table 8**). The small variation in journey times between the two layouts is because the VISSIM model is able to reflect the effects of MOVA control at the junction by running PC

MOVA, which provides optimised signal timings every cycle to respond to the changing demand.

Journey time from Saxon Avenue to A45			
	Option A	Option C	Difference
AM Peak	00:12:58	00:13:16	00:00:18
PM Peak	00:14:10	00:13:35	00:00:35

Table 10: Comparison of the journey times between Option A and Option C arrangements in VISSIM

- 5.15 It should also be noted that the feedback from the MOVA design Engineer responsible for the PC MOVA control system in VISSIM (and ultimately implementation on-street) indicated that whilst suitable control strategies are achievable for both schemes, the control strategy for the arrangement shown at **Figure 2** (Option A) requires less complexity and is therefore easier to achieve in practice and with greater flexibility.
- 5.16 Therefore, given that there is very little difference in the performance of the two arrangements, the Option A design solution for the northern roundabout shown in **Figure 2** has been developed further as the preferred solution, providing an equivalent level of improvement in performance in comparison to the Option C, whilst minimising complexity and allowing appropriate maintenance and traffic management strategies to be adopted as requested by HE.
- 5.17 Further refinements to the arrangement have been made to incorporate the HE comments on splitter islands, the alignment of the A45 approach and the pedestrian facilities at the junction. The resulting junction arrangement shown at drawing **NGW-BWB-GEN-XX-SK-D-SK02-S3-P6**.
- 5.18 The LinSig model of the junction has been updated and modelled with the latest traffic flows from NSTM2 for the 2031 development case (scenario J1a– with development and the proposed M1J15, M1J15a, Roadie bypass mitigation schemes) and the 2031 D1 reference case (no development, no mitigation). The results are provided at **Appendix G** and summarised in **Table 11** below.

		Reference case (D1 no development)		Option A mitigation case (J1a with development)	
		PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2031	AM	-95.4%	971	-23.2%	348
	PM	-40.7%	473	-7.3%	148

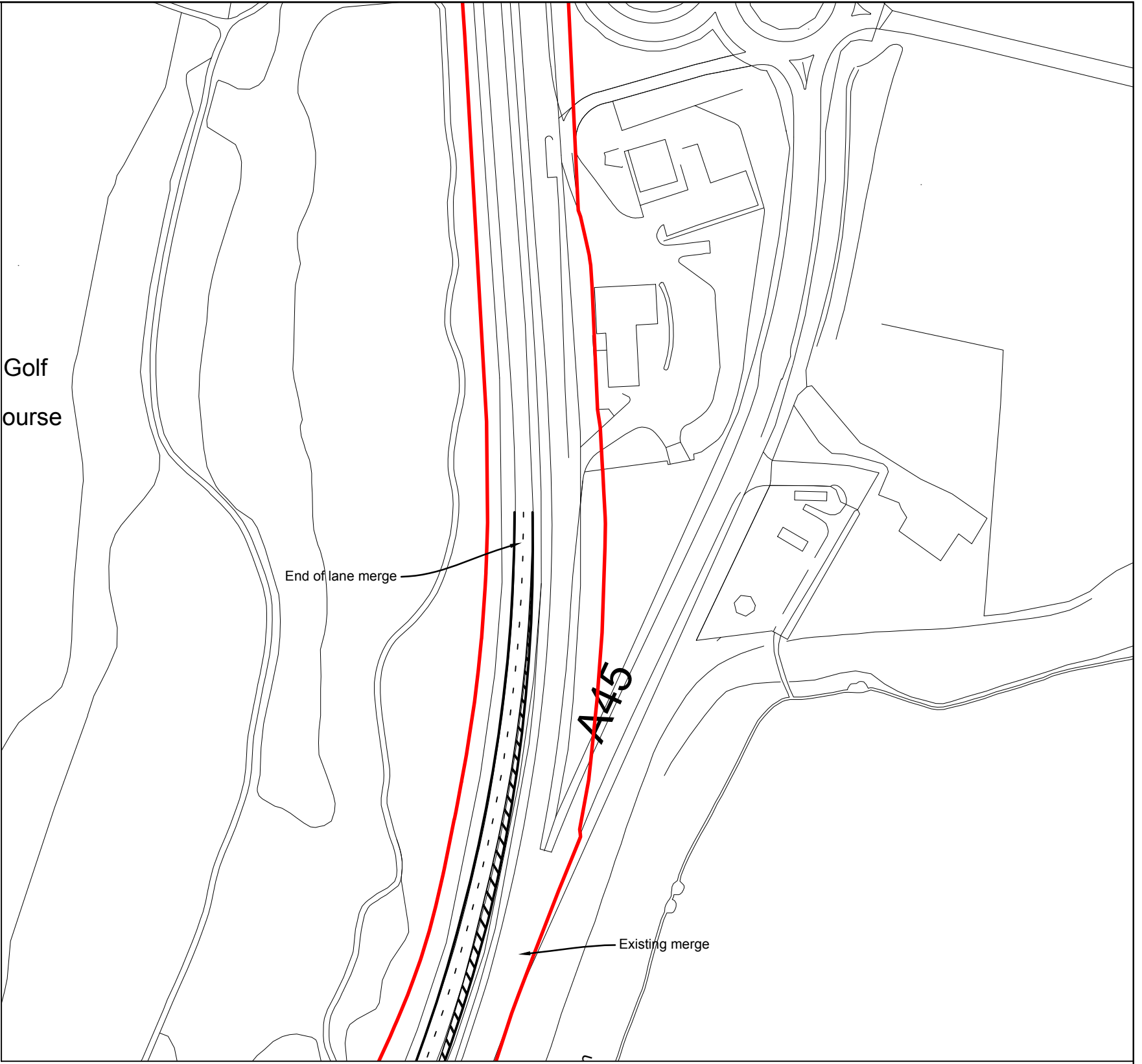
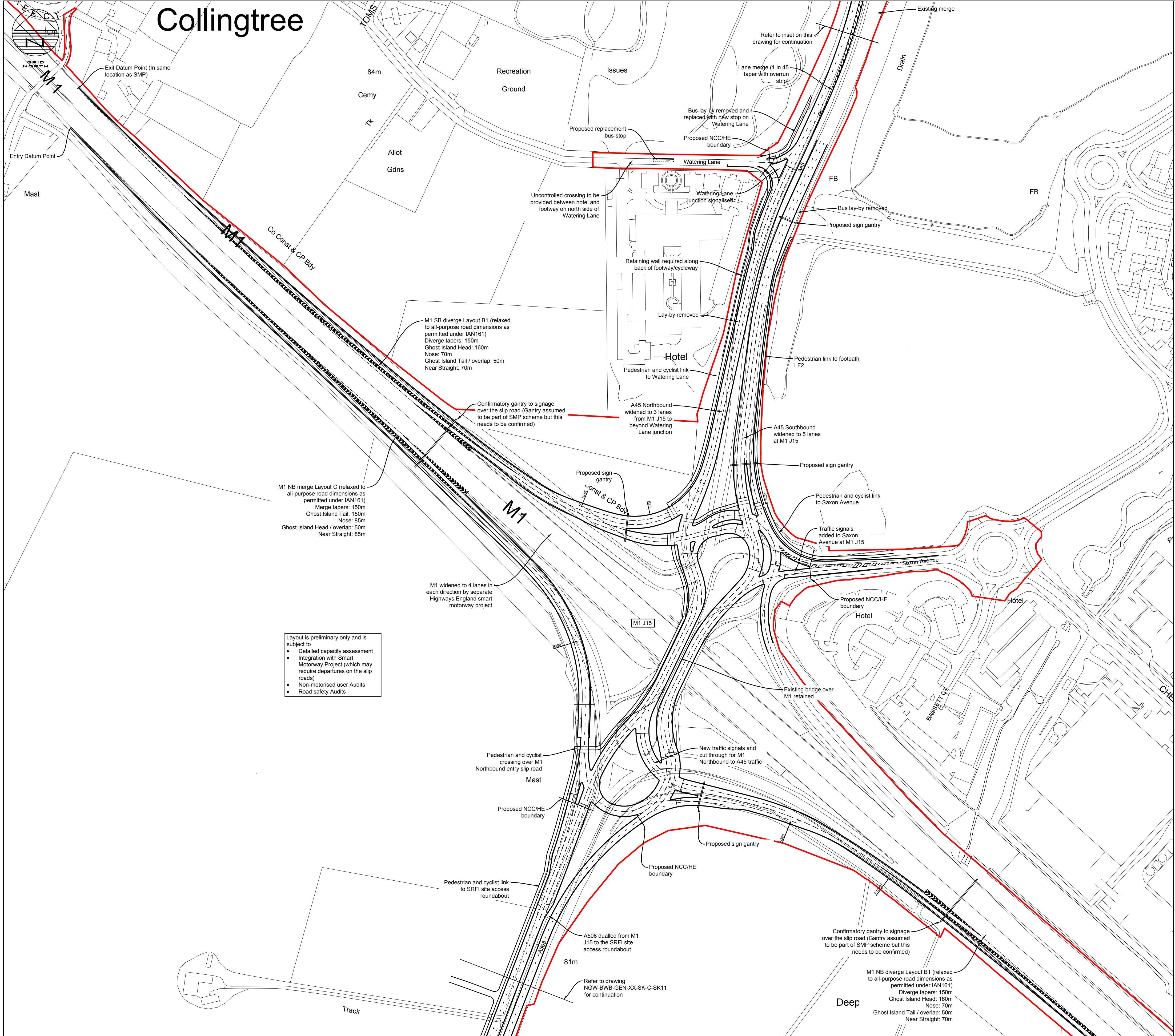
Table 11: Comparison of junction performance in reference case and mitigation case

- 5.19 The model results show that the Option A junction would provide significant benefit when compared to the existing layout in the 2031 D1 reference case scenario (no development, no improvement) and therefore represents the preferred option for mitigating the impact of the development at M1 Junction 15. It should be noted that the traffic data used will change following further iterations of the NSTM2 and/or the availability of the 02/2013 Circular compliant assessment scenarios and the model of the proposed Option A mitigation arrangement will be updated with these traffic flows when available.
- 5.20 The VISSIM modelling is ongoing and the model development report and results will be presented in the TA.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 This technical note has considered the impact of the proposed development on traffic conditions at M1 J15.
- 6.2 Detailed LinSig modelling, based on manually calculated 2031 traffic flows and 2031 traffic flows extracted from the NSTM2, show that the junction would not have enough capacity to cater for the traffic demand without the development. The modelling also shows that the development would have a significant impact on performance with considerable deterioration in performance by 2031 for both the morning and evening peak periods.
- 6.3 Three mitigation options have been considered, with Option A and Option C showing significantly improved performance when compared to the existing junction. Option B would provide a right-turn facility at the northern roundabout and was considered as part of a detailed assessment of journey times from Saxon Avenue to the A45. However, Option B was dismissed as it would result in:
- significant queueing issues on the M1 southbound off-slip
 - safety concerns on the circulating carriageway associated with queuing HGVs
 - longer journey time for right-turners using Saxon Avenue when compared to the option without the right-turn.
- 6.4 Option C was initially selected as the preferred arrangement, because whilst there was very little difference between the options in terms of practical reserve capacity, the Option C arrangement demonstrated better journey times from Saxon Avenue to the A45 in the 2031 LinSig scenarios.
- 6.5 Highways England were consulted on the Option C layout and highlighted concerns relating to maintenance, traffic management and perceived complexity of the northern roundabout.
- 6.6 Further modelling was undertaken using Highways England's validated VISSIM model and traffic flows from the NSTM2. The VISSIM model showed that both options delivered similar levels of performance in terms of queueing and journey times, including those from Saxon Avenue to the A45.
- 6.7 Therefore, Option A has been identified as the preferred arrangement, as it better lends itself to appropriate maintenance and traffic management strategies.

DRAWINGS



Notes

1. Do not scale this drawing. All dimensions must be checked/verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.
5. Refer to Appendix 7/1 of the contract specification for details of proposed Pavement Types and restrictions.

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Legend	
	Proposed limits of bypass works for purposes of screening

ISSUES & REVISIONS					
Rev	Date	Details of issue / revision	Drw	Rev	
P1	17.02.17	Preliminary Issue	SRH	SRH	
P2	27.02.17	Saxon Avenue amended to 2 lane approach	SRH	SRH	
P3	12.06.17	Changes from modelling, HE review & topo survey	SRH	SRH	
P4	21.06.17	North side of junction redesigned	SRH	SRH	
P5	19.07.17	M1 slip roads updated	SRH	SRH	
P6	06.09.17	Gantries added, other minor updates	SRH	SRH	

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Client

Drawn: S. Hilditch
BWB Ref: NTH 2315

Reviewed: S. Hilditch
Date: 17.02.17
Scale@A1: 1:2000

Project Title

**NORTHAMPTON
GATEWAY RAIL FREIGHT
INTERCHANGE**

Drawing Status

FOR COMMENT

Drawing Title

**M1 JUNCTION 15
GENERAL ARRANGEMENT**

Project - Originator - Zone - Level - Type - Role - Number

NGW-BWB-GEN-XX-SK-C-SK02

Status

S3

Rev

P6

APPENDIX A

TRAFFIC COUNT DATA

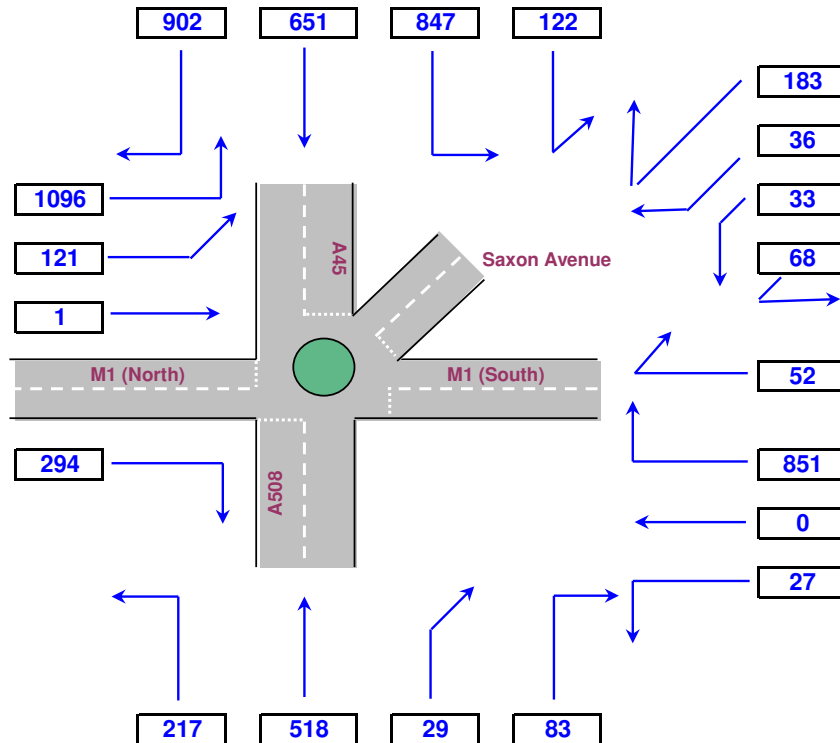
Junction: (1) A45 London Road / Saxon Avenue / M1 / A508 Northampton Road

Vehicle Class:

Start Time:

End Time:

☐ Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific

Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

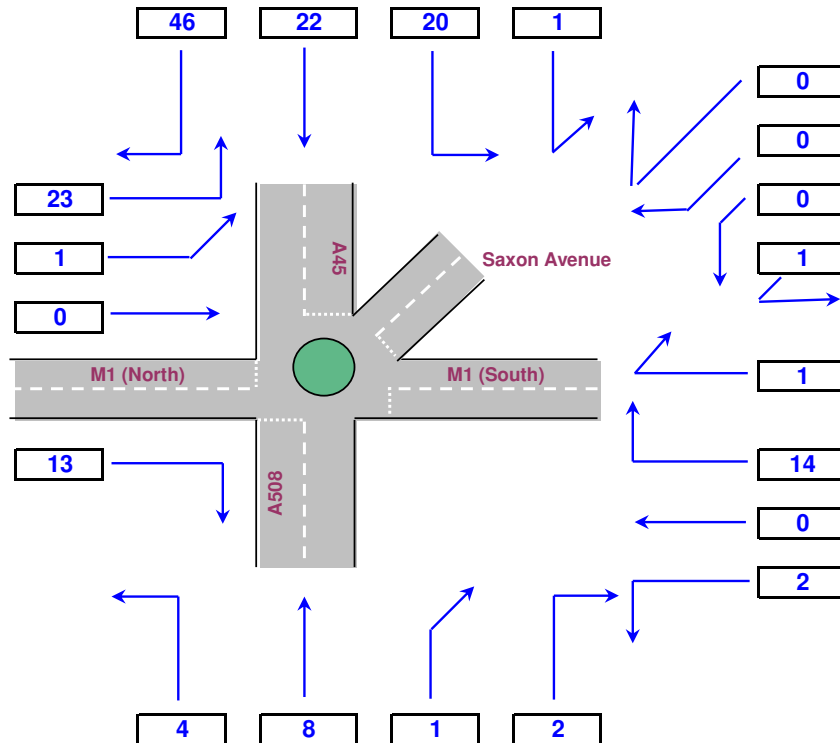
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Vehicle Class:

Start Time:

End Time:

☐ Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

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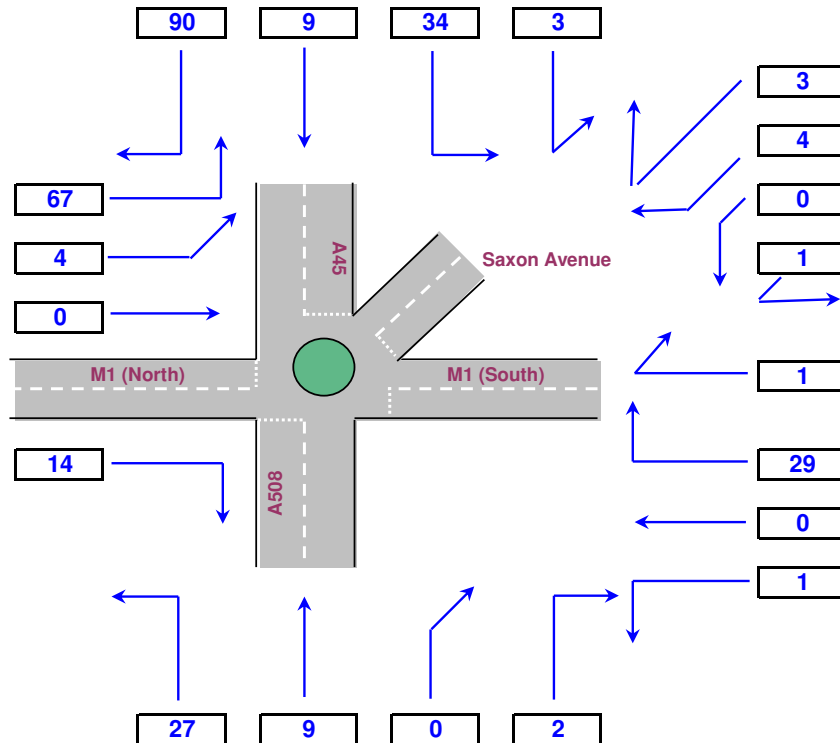
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Vehicle Class:

Start Time:

End Time:

☐ Peak Hour



NORTH
↑

Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific

Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

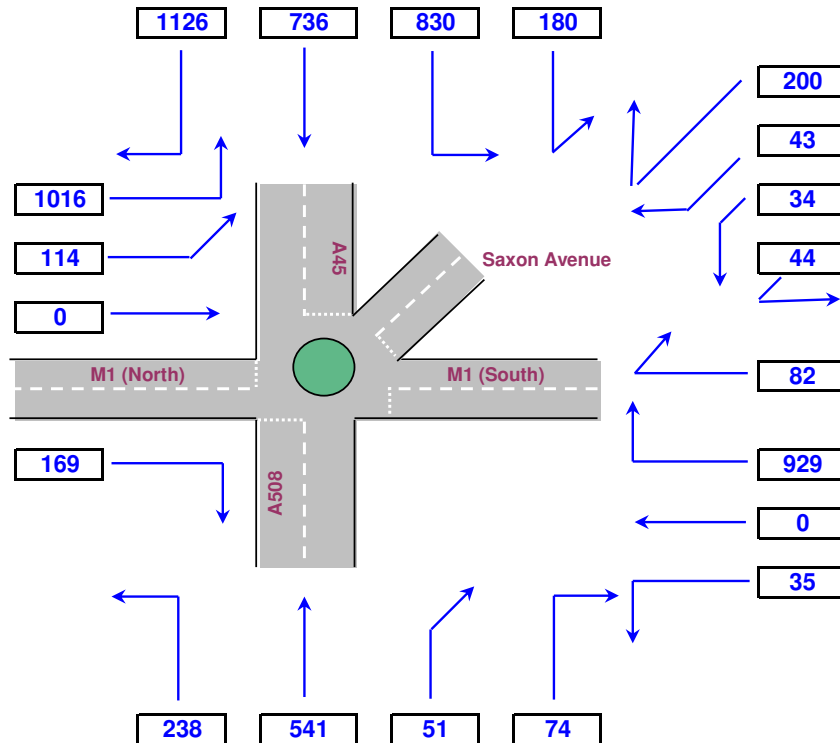
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Vehicle Class: **ALL CLASSES**

Start Time: **1) 1700**

End Time: **1) 1800**

☐ Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific

Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

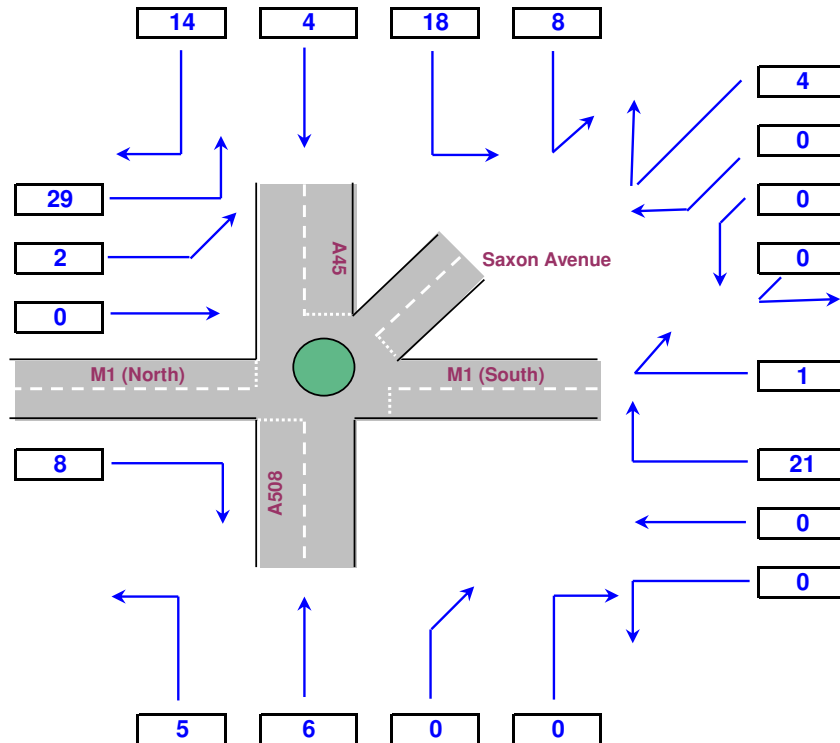
Junction: (1) A45 London Road / Saxon Avenue / M1 / A508 Northampton Road

Vehicle Class:

Start Time:

End Time:

☐ Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

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Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

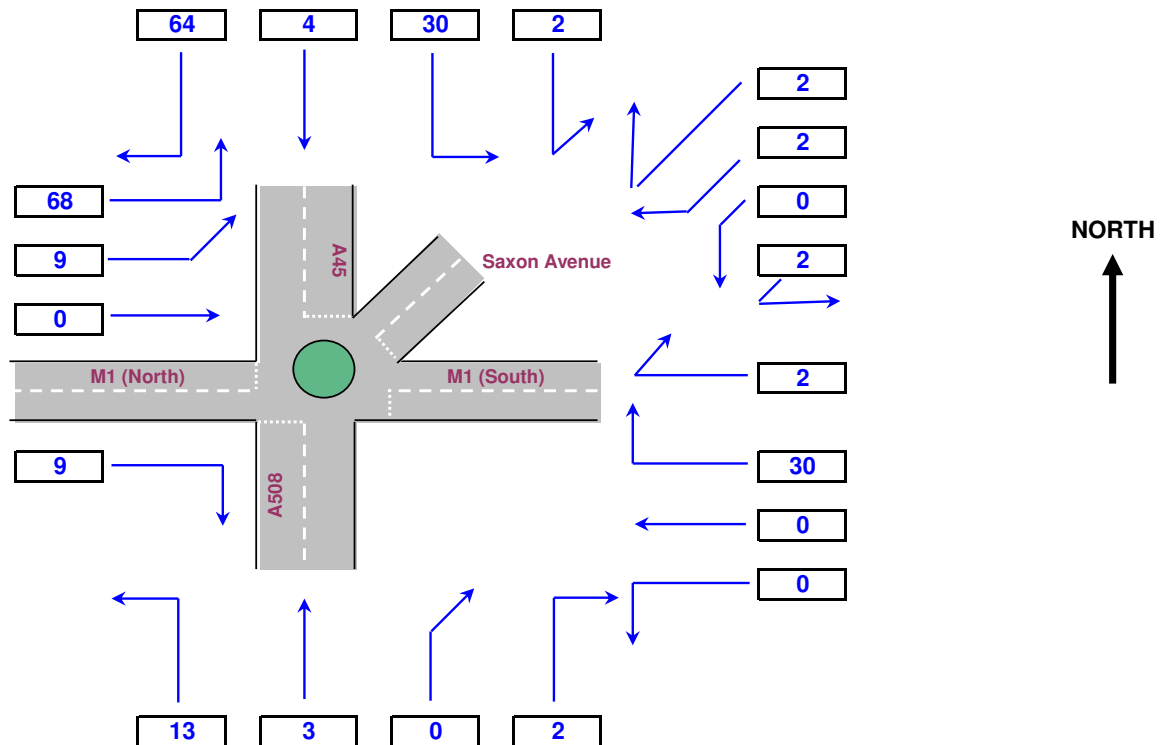
Junction: (1) A45 London Road / Saxon Avenue / M1 / A508 Northampton Road

Vehicle Class:

Start Time:

End Time:

☐ Peak Hour



Note: The above diagram represents the Junction surveyed, although may not be the exact layout of the actual location.

Important This spreadsheet & Interactive Vehicle Flow Diagram was produced based on specific

Note: parameters. Consequently, alteration to the spreadsheet format or it's properties may result in malfunction.

	London Road																																			
	LANE 1								LANE 2								LANE 3																			
Time	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs				
06:30:51	0	4	1	0	0	0	5	5.5	0	2	1	0	0	0	3	3.5	0	4	0	2	0	0	0	6	7.6	0	4	0	2	0	0	6	7.6			
06:32:03	0	4	1	0	0	0	5	5.5	0	1	4	0	0	0	5	7.0	0	3	1	1	1	1	0	6	8.6	0	4	0	1	1	1	0	6	8.6		
06:33:15	0	4	1	1	0	0	6	7.3	0	3	3	0	0	0	6	7.5	0	6	1	1	1	1	0	9	11.6	0	4	0	1	1	1	0	9	11.6		
06:34:26	0	2	0	1	0	0	3	3.8	0	2	0	0	0	0	2	2.0	0	3	1	1	1	0	0	5	6.3	0	2	0	1	0	0	0	5	6.3		
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07:14:43	0	14	3	0	0	1	18	20.5	0	23	4	0	0	0	27	29.0	0	33	2	2	2	0	0	39	44.2	0	14	3	0	0	0	0	0	39	44.2	
07:15:58	0	17	3	0	0	0	21	23.5	0	18	3	1	0	0	22	24.3	0	33	2	0	3	0	0	38	42.9	0	17	3	0	0	0	0	0	38	42.9	
07:17:11	0	12	3	1	1	0	17	20.6	0	15	3	0	0	0	18	19.5	0	33	4	1	0	0	0	38	40.8	0	12	3	1	0	0	0	0	38	40.8	
07:18:22	0	15	2	2	1	0	20	23.9	0	23	1	0	0	0	24	24.5	0	33	4	2	0	0	0	39	42.6	0	15	2	0	0	0	0	0	39	42.6	
07:19:38	0	16	3	1	2	0	22	26.9	0	24	4	0	0	0	28	30.0	0	27	2	0	0	0	0	29	30.0	0	16	3	0	0	0	0	0	29	30.0	
07:20:53	0	16	3	0	1	0	20	22.8	0	33	5	1	1	0	40	44.6	0	24	2	0	2	1	0	29	33.6	0	16	3	0	0	0	0	0	29	33.6	
07:22:05	0	16	4	0	2	0	22	26.6	0	33	5	0	0	0	38	40.5	0	33	2	4	0	0	0	39	43.2	0	16	4								

08:39:58	0	3	0	0	0	0	3	3.0	0	7	2	0	1	0	10	12.3	0	24	2	0	2	0	28	31.6
08:41:13	0	18	3	2	2	0	25	30.7	0	12	3	1	0	0	16	18.3	0	23	2	0	1	0	26	28.3
08:42:24	0	15	3	1	1	0	20	23.6	0	14	2	1	0	0	17	18.8	0	22	3	1	2	0	28	32.9
08:43:37	0	22	4	0	1	0	27	30.3	0	17	4	0	0	0	21	23.0	0	23	2	0	3	0	28	32.9
08:44:50	0	18	2	1	1	0	22	25.1	0	13	2	0	1	0	16	18.3	0	19	3	1	4	0	27	34.5
08:46:06	0	9	0	1	0	0	10	10.8	0	16	4	0	1	0	21	24.3	0	13	3	4	2	0	22	29.3
08:47:20	0	4	0	1	2	0	7	10.4	0	6	2	0	0	0	8	9.0	0	9	1	1	0	0	11	12.3
08:48:36	0	10	1	1	0	0	12	13.3	0	16	2	1	2	0	21	25.4	0	0	0	0	3	0	3	6.9
08:49:46	0	9	3	0	1	0	13	15.8	0	12	2	0	0	0	14	15.0	0	6	5	0	2	0	13	18.1
08:50:57	0	8	2	0	1	0	11	13.3	0	12	2	0	1	0	15	17.3	0	13	2	2	2	0	19	24.2
08:52:11	0	9	2	1	0	0	12	13.8	0	10	2	1	0	0	13	14.8	0	14	3	0	3	0	20	25.4
08:53:26	0	6	0	0	0	0	6	6.0	0	11	2	1	0	0	14	15.8	0	12	2	2	1	0	17	20.9
08:54:37	0	3	0	0	0	0	3	3.0	0	9	3	0	0	0	12	13.5	0	7	2	3	0	0	12	15.4
08:55:49	0	8	0	0	0	0	8	8.0	0	7	2	1	0	0	10	11.8	0	6	1	1	1	0	9	11.6
08:57:03	0	6	2	0	0	0	8	9.0	0	12	1	0	1	0	14	15.8	0	10	1	1	1	0	13	15.6
08:58:17	0	7	1	2	2	0	12	16.7	0	13	3	0	0	0	16	17.5	0	10	0	0	1	0	11	12.3
08:59:28	0	4	1	1	0	0	6	7.3	0	18	2	0	0	0	20	21.0	0	6	2	1	2	0	11	15.4
09:00:39	0	6	0	0	0	0	6	6.0	0	11	2	0	0	0	13	14.0	0	12	3	0	2	0	17	21.1
Average (PCUs)								19.6								22.2								27.2
09:01:55	0	8	0	1	1	0	10	12.1	0	13	1	0	0	0	14	14.5	0	10	2	0	3	0	15	19.9
09:03:09	0	9	1	1	0	0	11	12.3	0	8	1	0	0	0	9	9.5	0	1	1	0	0	0	3	4.8
09:04:24	0	2	1	1	0	0	4	5.3	0	9	2	0	0	0	11	12.0	0	3	0	1	0	0	4	4.8
09:05:39	0	3	1	0	2	0	6	9.1	0	7	0	1	0	1	9	10.8	0	2	1	0	0	0	3	3.5
09:06:50	0	2	0	0	1	0	3	4.3	0	12	2	1	0	0	15	16.8	0	9	1	1	1	0	12	14.6
09:08:03	0	3	1	0	0	0	4	4.5	0	13	2	0	1	0	16	18.3	0	4	0	2	1	0	7	9.9
09:09:16	0	2	1	0	0	0	3	3.5	0	14	3	1	0	0	18	20.3	0	5	3	0	0	0	8	9.5
09:10:30	0	3	0	0	0	0	3	3.0	0	10	2	0	1	0	13	15.3	0	2	2	2	1	0	7	10.9
09:11:42	0	10	1	0	0	1	12	13.5	0	19	3	0	0	0	22	23.5	0	5	2	2	0	0	9	11.6
09:12:54	0	4	2	1	2	0	9	13.4	0	15	2	1	0	0	18	19.8	0	18	5	1	0	1	25	29.3
09:14:09	0	9	3	0	2	0	14	18.1	0	11	2	0	0	0	13	14.0	0	6	2	0	3	0	11	15.9
09:15:21	0	4	3	0	0	0	7	8.5	0	7	2	1	0	0	10	11.8	0	5	1	0	0	0	6	6.5
09:16:33	0	7	1	0	0	0	8	8.5	0	10	3	0	1	0	14	16.8	0	2	3	0	0	0	5	6.5
09:17:49	0	16	3	0	1	0	20	22.8	0	14	2	0	0	0	16	17.0	0	13	6	1	2	0	22	28.4
09:19:01	0	12	1	2	1	0	16	19.4	0	12	3	0	0	0	15	16.5	0	3	1	0	0	0	4	4.5
09:20:12	0	6	0	1	3	0	10	14.7	0	9	2	0	0	0	11	12.0	0	3	0	0	0	0	3	3.0
09:21:28	0	5	1	1	2	0	9	12.9	0	15	3	0	0	0	18	19.5	0	11	1	2	2	0	16	20.7
09:22:43	0	3	0	0	0	0	3	3.0	0	9	3	0	1	0	13	15.8	0	8	3	2	0	0	13	16.1
09:23:57	0	2	2	0	0	0	4	5.0	0	8	2	0	1	0	11	13.3	0	3	0	2	0	0	5	6.6
09:25:10	0	2	1	0	0	0	3	3.5	0	9	2	1	0	0	12	13.8	0	3	0	0	0	0	3	3.0
09:26:21	0	4	1	1	0	0	6	7.3	0	5	1	0	0	0	6	6.5	0	2	2	0	0	0	4	5.0
09:27:32	0	4	2	0	0	0	6	7.0	0	7	2	1	0	0	10	11.8	0	2	1	0	0	0	3	3.5
09:28:44	0	5	0	0	1	0	6	7.2	0	6	2	0	1	0	9	11.3	0	2	2	0	0	0	4	5.0

16:01:29	0	1	1	1	2	0	5	8.9	0	10	1	1	0	0	12	13.3	0	7	0	0	1	0	8	9.3
16:03:00	0	3	0	0	0	0	3	3.0	0	4	3	0	0	0	7	8.5	0	5	0	0	0	0	5	5.0
16:04:02	0	2	2	0	0	0	4	5.0	0	7	0	0	0	0	7	7.0	0	5	1	0	0	0	6	6.5
16:05:30	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	4	1	0	0	0	5	5.5
16:06:33	0	4	1	1	0	0	6	7.3	0	16	2	0	0	0	18	19.0	0	10	4	2	5	0	21	31.1
16:07:32	0	4	2	0	0	0	6	7.0	0	14	2	0	1	0	17	19.3	0	9	6	2	2	0	19	26.2
16:09:03	0	5	0	0	1	0	6	7.3	0	12	2	0	0	0	14	15.0	0	14	1	1	2	0	18	21.9
16:10:04	0	5	0	1	0	0	6	6.8	0	10	0	0	0	0	10	10.0	0	7	0	1	1	0	9	11.1
16:11:07	0	2	0	1	0	0	3	3.8	0	6	2	0	0	0	8	9.0	0	4	0	0	0	0	4	4.0
16:12:37	0	2	0	0	0	0	2	2.0	0	22	2	1	1	0	26	29.1	0	19	8	0	1	0	28	33.3
16:13:35	0	5	3	0	0	1	9	11.5	0	7	2	1	0	0	10	11.8	0	22	3	0	1	0	26	28.8
16:14:32	0	3	1	0	0	0	4	4.5	0	9	2	0	0	0	11	12.0	0	18	6	0	1	1	25	31.3
16:16:00	0	8	0	2	0	0	10	11.6	0	6	2	0	0	0	8	9.0	0	23	4	1	2	1	30	37.4
16:17:02	0	4	0	0	0	0	4	4.0	0	10	2	0	1	0	13	15.3	0	33	3	1	1	0	38	41.6
16:18:04	0	6	1	0	0	0	7	7.5	0	7	5	3	0	0	15	19.9	0	19	3	0	3	0	25	30.4
16:19:32	0	10	0	0	2	0	12	14.6	0	10	2	0	0	0	12	13.0	0	19	3	2	0	0	24	27.1
16:20:31	0	4	2	1	0	0	7	8.8	0	7	1	0	0	0	8	8.5	0	14	3	2	2	0	21	26.7
16:21:29	0	5	0	0	0	0	5	5.0	0	11	2	0	0	0	13	14.0	0	13	4	0	1	0	18	21.3
16:22:59	1	6	2	0	0	0	9	9.5	1	6	2	0	1	0	10	11.8	0	22	2	1	1	0	26	29.1
16:23:56	0	8	1	0	1	0	10	11.8	0	8	2	0	0	0	10	11.0	1	10	1	0	0	0	12	12.0
16:24:54	0	4	3	0	0	0	7	8.5	0	5	1	0	0	0	6	6.5	0	12	2	0	0	1	14	17.0
16:26:25	0	2	2	0	0	0	4	5.0	0	7	0	1	1	0	9	11.1	0	12	1	0	1	0	14	15.8
16:27:25	0	6	0	0	0	0	6	6.0	0	22	3	0	0	0	25	26.5	0	11	1	1	1	0	14	16.6
16:28:23	0	4	1	1	0	0	6	7.3	0	6	4	0	0	0	10	12.0	0	24	4	0	3	0	31	36.9
16:29:50	0	10	0	0	0	0	10	10.0	0	10	2	0	1	0	13	15.3	0	13	3	0	4	0	20	26.7
16:30:50	0	3	1	0	0	0	4	4.5	0	6	4	0	0	0	10	12.0	0	22	4	0	1	0	27	30.3
16:31:53	0	3	0	0	2	0	5	7.6	0	7	2	0	0	0	9	10.0	0	17	0	1	1	0	19	21.1
16:33:23	0	4	1	0	2	0	7	10.1	0	8	2	0	0	0	10	11.0	0	12	1	0	1	0	14	15.8
16:34:22	0	2	2	1	0	0	5	6.8	0	17	4	0	0	0	21	23.0	0	16	2	1	2	0	21	25.4
16:35:21	0	9	2	1	0	0	12	13.8	0	21	3	1	1	0	26	29.6	0	24	1	1	0	0	26	27.3
16:36:50	0	2	0	0	0	0	2	2.0	0	33	1	1	0	0	35	36.3	0	33	4	0	1	0	38	41.3
16:37:53	0	1	2	0	0	0	3	4.0	0	22	2	0	0	0	24	25.0	0	33	2	0	3	0	38	42.9
16:38:51	0	6	1	0	2	0	9	12.1	0	33	4	0	0	0	37	39.0	0	33	2	0	3	0	38	42.9
16:40:20	0	3	2	0	1	0	6	8.3	0	27	0	0	0	0	27	27.0	0	33	2	0	2	0	37	40.6
16:41:18	0	9	1	0	0	0	10	10.5	1	22	1	0	1	0	25	26.3	0	33	3	0	2	0	38	42.1
16:42:15	0	4	0	0	0	0	4	4.0	0	17	2	1	1	0	21	24.1	0	33	3	0	2	0	38	42.1
16:43:44	0	10	2	0	1	0	13	15.3	0	28	0	1	0	0	29	29.8	0	33	3	1	1	0	38	41.6
16:44:41	0	19	0	0	0	0	19	19.0	0	33	4	0	0	0	37	39.0	0	24	3	2	0	0	29	32.1
16:45:43	0	11	3	0	0	0	14	15.5	0	22	4	0	1	0	27	30.3	0	23	3	3	0	0	29	32.9
16:47:14	0	7	0	0	1	0	8	9.3	0	16	3	0	0	0	19	20.5	0	24	2	1	1	0	28	31.1
16:48:16	0	8	1	0	0	0	9	9.5	0	14	2	0	0	0	16	17.0	0	22	2	0	3	0	27	31.9
16:49:19	0	12	1	1	0	0	14	15.3	0	10	2	1	0	0	13	14.8	0	18	3	0	0	0	21	22.5
16:50:48	0	5	0	0	1	0	6	7.3	0	6	0	0	0	0	6	6.0	0	9	2	0	0	0	11	12.0
16:51:48	0	9	0	0	1	0	10	11.3	0	17	3	0	0	0	20	21.5	0	9	2	0	2	0	13	16.6
16:52:50	0	8	0	0	1	0	9	10.3	0	10	1	0	0	0	11	11.5	0	23	4	0	1	0	28	31.3
16:54:18	0	6	0	0	0	0	6	6.0	0	8	0	0	0	0	8	8.0	0	23	2	0	2	0	27	30.6
16:55:16	0	7	1	0	0	0	8	8.5	0	11	2	1	1	0	15	18.1	0	24	3	0	2	0	29	33.1
16:56:19	0	4	0	0	2	0	6	8.6	0	7	1	0	0	0	8	8.5	0	33	3	0	1	0	37	39.8
16:57:48	0	5	1	0	0	0	6	6.5	0	18	3	0	1	0	22	24.8	0	24	2	0	1	0	27	29.3
16:58:48	0	4	0	0	1	0	5	6.3	0	33	4	0	1	0	38	41.3	0	27	4	2	1	0	34	38.9
16:59:50	0	8	1	0	0	0	9	9.5	0	20	5	0	0	0	25	27.5	0	33	3	1	2	0	39	43.9
17:01:21	0	14	0	0	2	0	16	18.6	0	9	2	0	1	0	12	14.3	0	33	2	0	1	0	36	38.3
17:02:21	0	6	0	0	1	0	7	8.3	0	11	2	0	0	0	13	14.0	0	33	2	0	2	0	37	40.6
17:03:22	0	4	0	0	0	0	4	4.0	0	10	2	0	0	0	12	13.0	0	23	2	0	1	0	26	28.3
17:04:49	0	10	0	0	1	0	11	12.3	0	5	1	0	1	0	7	8.8	0	14	2	0	5	0	21	28.5
17:05:50	0	2	1	0	1	0	4	5.8	0	16	3	0	1	0	20	22.8	0	17	4	1	2	0	24	29.4
17:06:48	0	20	3	1	0	0	24	26.3	0	33	3	0	0	0	36	37.5	0	33	2	0	1	0	36	38.3
17:08:16	0	33	1	0	0	0	34	34.5	0	26	2	0	0	0	28	29.0	0	20	2	0	1	0	23	25.3
17:09:13	0	14	1	1	0	0	16	17.3	0	13	2	0	0	0	15	16.0	0	26	3	1	0	0	30	32.3
17:10:11	0	18	3	3	0	0	24	27.9	0	8	2	0	0	0	10	11.0	0	33	4	0	2	0	39	43.6
17:11:41	0	12	1	0	0	0	13	13.5	0	14	2	0	1	0	17	19.3	0	24	2	0	3	0	29	33.9
17:12:43	0	8	2	0	0	0	10	11.0	0	16	3	0	0	0	19	20.5	0	22	3	0	1	0	26	28.8
17:13:45	0	3	0	0	0	0	3	3.0	0	33	4	0	0	0	37	39.0	0	21	4	0	0	0	25	27.0
17:15:16	0	11	1	0	0	0	12	12.5	0	11	4	0	0	0	15	17.0	0	24	4	1	0	0	29	31.8
17:16:14	0	5	2	0	0	0	7	8.0	0	12	2	0	0	0	14	15.0	0	33	2	1	1	0	37	40.1
17:17:14	0	4	0	0	0	0	4	4.0	0	16	4	0	0	0	20	22.0	0	20	2	2	0	0	24	26.6
17:18:45	0	5	0	0	0	0	5	5.0	0	15	3	0	0	0	18	19.5	0	33	3	3	0	0	39	42.9
17:19:46	0	7	0	0	0	0	7	7.0	0	11	2	0	0	0	13	14.0	0	33	2	1	2	0	38	42.4
17:20:45	0	18	1	0	1	0	20	21.8	0	17	3	0	0	0	20	21.5	0	24	2	0	2	0	28	31.6

17:22:16	0	14	2	0	0	0	16	17.0	0	19	4	0	0	0	23	25.0	0	33	4	0	3	0	40	45.9
17:23:18	0	22	2	0	1	0	25	27.3	0	18	2	0	0	0	20	21.0	0	21	3	0	3	0	27	32.4
17:24:21	0	16	1	0	1	0	18	19.8	0	33	3	0	1	0	37	39.8	0	33	2	0	3	0	38	42.9
17:25:50	0	12	0	0	1	0	13	14.3	1	25	2	0	0	0	28	28.5	0	24	2	0	4	0	30	36.2
17:26:48	0	20	1	1	0	0	22	23.3	0	20	4	0	0	0	24	26.0	0	33	4	0	0	0	37	39.0
17:27:46	0	18	0	1	0	0	19	19.8	1	9	3	0	0	0	13	14.0	0	33	5	0	1	0	39	42.8
17:29:14	0	10	1	1	0	0	12	13.3	0	7	0	0	0	1	8	9.0	0	23	2	0	1	0	26	28.3
17:30:13	0	15	1	1	1	0	18	20.6	0	7	1	0	0	0	8	8.5	0	17	3	1	2	0	23	27.9
17:31:12	0	7	0	0	2	0	9	11.6	0	15	2	0	0	0	17	18.0	0	12	3	0	0	0	15	16.5
17:32:40	0	14	0	1	1	0	16	18.1	0	33	4	0	0	0	37	39.0	0	13	3	0	1	0	17	19.8
17:33:37	0	22	1	1	0	0	24	25.3	0	20	4	0	1	0	25	28.3	0	24	2	0	0	0	26	27.0
17:34:40	0	23	2	1	1	0	27	30.1	0	22	3	2	0	1	28	32.1	0	23	2	1	0	0	26	27.8
17:36:11	0	10	0	1	0	0	11	11.8	0	11	1	0	0	0	12	12.5	0	22	3	0	0	0	25	26.5
17:37:12	0	3	0	0	0	0	3	3.0	1	23	5	0	0	0	29	31.0	0	21	2	0	2	0	25	28.6
17:38:13	0	3	0	0	0	0	3	3.0	0	17	3	0	0	0	20	21.5	0	33	2	0	0	0	35	36.0
17:39:40	0	6	1	0	0	0	7	7.5	0	19	2	0	0	0	21	22.0	0	33	3	0	3	0	39	44.4
17:40:41	0	8	0	0	2	0	10	12.6	0	24	5	0	0	0	29	31.5	0	33	2	0	3	0	38	42.9
17:41:42	0	13	1	0	1	0	15	16.8	0	13	2	0	0	0	15	16.0	0	33	3	0	3	0	39	44.4
17:43:09	0	12	0	2	1	0	15	17.9	0	15	3	0	0	0	18	19.5	0	27	23	0	3	0	53	68.4
17:44:11	0	7	0	0	0	0	7	7.0	0	10	1	0	0	0	11	11.5	0	22	2	0	1	0	25	27.3
17:45:14	0	9	1	0	3	0	13	17.4	0	33	5	0	0	0	38	40.5	0	33	3	0	1	0	37	39.8
17:46:45	0	8	0	0	2	0	10	12.6	0	17	0	0	0	0	17	17.0	1	33	2	1	3	0	40	45.2
17:47:48	0	18	0	0	0	0	18	18.0	0	6	2	0	0	0	8	9.0	0	20	32	0	4	0	56	77.2
17:48:47	0	17	1	1	0	0	19	20.3	0	8	0	0	0	0	8	8.0	0	25	2	0	1	0	28	30.3
17:50:18	0	22	1	0	1	0	24	25.8	0	5	0	0	0	0	5	5.0	0	33	4	0	1	0	38	41.3
17:51:21	0	7	0	0	0	0	7	7.0	0	13	2	1	0	0	16	17.8	0	28	3	1	2	0	34	38.9
17:52:22	0	10	0	0	0	0	10	10.0	0	10	1	0	0	0	11	11.5	0	33	2	0	3	0	38	42.9
17:53:51	0	6	0	0	0	0	6	6.0	0	14	2	1	0	0	17	18.8	0	16	2	1	2	0	21	25.4
17:54:54	0	15	2	0	0	0	17	18.0	0	8	1	0	0	0	9	9.5	0	10	0	0	1	0	11	12.3
17:55:55	0	9	0	1	1	0	11	13.1	0	15	3	0	0	0	18	19.5	0	12	3	0	0	1	15	18.5
17:57:23	0	8	1	0	0	1	10	11.5	0	3	0	0	0	0	3	3.0	0	11	1	0	2	0	14	17.1
17:58:24	0	6	0	0	2	0	8	10.6	0	10	0	0	0	0	10	10.0	0	12	2	0	0	0	14	15.0
17:59:26	0	3	1	0	1	0	5	6.8	0	9	0	0	0	0	9	9.0	0	19	0	0	0	1	19	21.0
18:00:56	0	14	1	0	0	0	15	15.5	0	12	2	0	0	1	15	17.0	0	7	0	0	1	0	8	9.3
Average (PCUs)							14.5								19.3								33.6	
18:01:55	0	12	1	0	0	0	13	13.5	0	16	1	0	0	0	17	17.5	0	20	2	0	0	0	22	23.0
18:02:57	0	5	0	0	0	0	5	5.0	0	21	3	0	1	0	25	27.8	0	21	3	0	0	0	24	25.5
18:04:27	0	10	0	0	0	0	10	10.0	0	9	1	0	0	0	10	10.5	0	19	4	0	1	0	24	27.3
18:05:24	0	20	3	0	0	0	23	24.5	0	4	0	0	0	0	4	4.0	0	18	3	0	1	0	22	24.8
18:06:22	0	5	0	0	1	0	6	7.3	0	10	2	0	0	0	12	13.0	0	7	0	0	0	0	7	7.0
18:07:53	0	6	0	0	0	0	6	6.0	0	8	1	1	0	0	10	11.3	0	10	1	0	0	0	11	11.5
18:08:55	0	3	1	0	1	0	5	6.8	0	4	0	0	0	0	4	4.0	0	9	1	0	0	0	10	10.5
18:09:56	0	4	0	1	0	0	5	5.8	0	5	0	0	0	0	5	5.0	0	7	0	0	0	0	7	7.0
18:11:26	1	13	1	0	1	0	16	17.3	0	5	0	0	0	0	5	5.0	0	8	0	0	0	0	8	8.0
18:12:25	0	23	1	1	1	0	26	28.6	0	2	1	0	0	0	3	3.5	0	12	2	0	0	0	14	15.0
18:13:23	0	11	1	0	1	0	13	14.8	0	8	2	0	0	0	10	11.0	0	5	1	0	1	0	7	8.8
18:14:51	0	1	0	0	0	0	1	1.0	0	18	3	0	0	0	21	22.5	0	6	1	0	0	0	7	7.5
18:15:49	1	10	1	2	1	0	15	17.9	0	17	3	0	1	0	21	23.8	0	9	1	2	1	0	13	16.4
18:16:48	0	6	1	0	0	0	7	7.5	0	17	2	0	0	0	19	20.0	0	17	2	1	2	0	22	26.4
18:18:20	1	8	0	0	2	0	11	13.1	0	11	1	0	0	0	12	12.5	0	24	2	1	2	0	29	33.4
18:19:19	0	3	0	0	0	0	3	3.0	0	8	0	0	0	0	8	8.0	0	13	0	0	2	0	15	17.6
18:20:19	0	5	0	0	1	0	6	7.3	0	4	1	0	0	0	5	5.5	0	10	1	0	1	0	12	13.8
18:21:51	0	5	0	0	0	0	5	5.0	0	7	0	0	1	0	8	9.3	0	12	2	0	1	0	15	17.3
18:22:48	0	4	0	0	0	0	4	4.0	0	10	0	0	0	0	10	10.0	0	10	0	0	0	0	10	10.0
18:23:49	0	12	0	0	1	0	13	14.3	0	3	0	0	0	0	3	3.0	0	7	1	0	2	0	10	13.1
18:25:16	0	14	2	0	1	0	17	19.3	0	3	0	0	0	0	3	3.0	0	4	0	0	0	0	4	4.0
18:26:16	0	19	1	0	3	0	23	27.4	0	6	0	0	0	0	6	6.0	0	5	1	0	0	0	6	6.5
18:27:14	0	18	2	0	0	0	20	21.0	0	4	0	0	0	0	4	4.0	0	1	0	0	1	0	2	3.3
18:28:43	0	15	0	0	0	0	15	15.0	0	10	0	0	1	0	11	12.3	0	5	0	0	0	0	5	5.0
18:29:42	0	3	1	1	0	0	5	6.3	0	8	3	0	0	0	11	12.5	0	7	0	0	1	0	8	9.3
18:30:41	0	4	1	0	1	0	6	7.8	0	5	1	0	0	0	6	6.5	0	5	0	0	0	0	5	5.0
18:32:13	0	3	1	0	0	0	4	4.5	0	6	0	0	0	0	6	6.0	0	7	0	0	0	0	7	7.0
18:33:16	0	4	1	1	1	0	7	9.6	0	5	0	1	0	0	6	6.8	0	3	0	0	0	0	3	3.0
18:34:18	0	2	0	0	1	0	3	4.3	0	6	1	0	0	0	7	7.5	0	1	0	0	1	0	2	3.3
18:35:50	0	3	0	0	0	0	3	3.0	0	5	1	0	0	0	6	6.5	0	2	1	0	0	0	3	3.5
18:36:48	0	1	0	1	2	0	4	7.4	0	4	0	0	0	0	4	4.0	0	5	0	2	0	0	7	8.6
18:37:48	0	3	1	0	0	0	4	4.5	0	5	0	1	0	0	6	6.8	0	5	1	1	0	0	7	8.3
18:39:18	0	7	0	0	1	0	8	9.3	0	5	0	0	0	0	5	5.0	0	10	2	0	1	0	13	15.3
18:40:20	0	2	0	0	0	0	2	2.0	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0
18:41:19	0	2	0	0	0	0	2	2.0	0	7	2	0	0	0	9	10.0	0	3	0	0	1	0	4	5.3
18:42:47	0	6	0	0	0	0	6	6.0	0	8	2	0	0	0	10	11.0	0	3	0	0	0	0	3	3.0
18:43:45	0	5	0	0	1	0	6	7.3	0	10	0	0	0	0</										



Northampton maximum and spot queues, Thursday 1st May 2014

Time	Saxon Avenue																																
	Lane 1														Lane 2																		
	SPOT							MAX							SPOT							MAX											
M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs		
06.30 - 06.35	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0	0	6	1	0	0	0	7	7.5	
06.35 - 06.40	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	1	1.0	0	0	0	1	0	0	1	1.8	0	2	2	1	0	0	5	6.8	
06.40 - 06.45	0	0	0	0	0	0	0	0.0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0.0	0	4	2	0	0	0	6	7.0	
06.45 - 06.50	0	2	0	0	0	0	2	2.0	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0	0	7	1	0	1	0	9	10.8	
06.50 - 06.55	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	3	0	0	0	0	3	3.0	
06.55 - 07.00	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	3	3.0	0	1	0	0	0	1	2	3.0	
07.00 - 07.05	0	0	0	0	0	0	0	0.0	0	2	1	0	0	0	3	3.5	0	2	0	1	0	0	3	3.8	0	3	1	0	0	0	5	6.8	
07.05 - 07.10	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	9	1	0	0	0	10	10.5	
07.10 - 07.15	0	2	0	0	0	0	2	2.0	0	5	0	0	0	0	5	5.0	0	4	0	0	0	0	4	4.0	0	8	1	1	0	0	10	11.3	
07.15 - 07.20	0	0	0	0	0	0	0	0.0	0	4	0	0	0	0	4	4.0	0	2	0	0	0	0	2	2.0	0	7	0	0	0	0	7	7.0	
07.20 - 07.25	0	0	1	0	0	0	1	1.5	0	2	1	0	0	0	3	3.5	0	1	0	0	1	0	2	3.3	0	6	0	2	0	0	8	9.6	
07.25 - 07.30	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	3	3.0	0	3	0	0	0	0	3	3.0	0	5	1	0	1	0	7	8.8	
07.30 - 07.35	0	1	0	0	0	0	1	1.0	0	5	0	0	0	0	5	5.0	0	3	2	0	0	0	5	6.0	0	8	0	1	0	0	9	9.8	
07.35 - 07.40	0	4	0	0	0	0	4	4.0	0	5	0	0	0	0	5	5.0	0	9	0	0	0	0	9	9.0	0	10	1	0	0	0	11	11.5	
07.40 - 07.45	0	0	0	0	0	0	0	0.0	0	4	0	0	0	0	4	4.0	0	1	0	0	0	0	1	1.0	0	9	0	0	0	0	9	9.0	
07.45 - 07.50	0	0	0	0	0	0	0	0.0	0	1	1	0	0	0	2	2.5	0	5	2	0	2	0	9	12.6	0	4	2	0	1	0	7	9.3	
07.50 - 07.55	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	0	6	0	0	0	0	6	6.0	0	6	1	0	1	2	10	13.8	
07.55 - 08.00	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	0	7	0	0	0	0	7	7.0	
08.00 - 08.05	0	1	0	0	0	0	1	1.0	1	3	0	0	0	0	4	3.5	0	5	0	0	0	0	5	5.0	1	7	0	0	0	0	8	7.5	
08.05 - 08.10	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	2	2.0	0	5	0	0	1	0	6	7.3	0	5	0	0	1	0	6	7.3	
08.10 - 08.15	0	2	0	0	0	0	2	2.0	0	4	2	0	0	0	6	7.0	0	4	0	0	0	0	4	4.0	0	7	2	1	0	0	10	11.8	
08.15 - 08.20	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	8	0	0	0	0	1	9	10.0
08.20 - 08.25	0	1	0	0	0	0	1	1.0	0	4	0	0	0	0	4	4.0	0	1	0	0	0	0	1	1.0	0	8	0	0	0	0	8	8.0	
08.25 - 08.30	0	3	0	0	0	0	3	3.0	0	5	0	0	0	0	5	5.0	0	5	0	0	0	0	5	5.0	0	10	0	0	0	0	10	10.0	
08.30 - 08.35	0	0	0	0	0	0	0	0.0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0.0	0	8	0	0	0	1	0	9	10.3
08.35 - 08.40	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0	0	5	0	0	0	0	5	5.0	
08.40 - 08.45	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	3	3.0	0	5	0	0	1	0	6	7.3	0	7	0	0	0	0	7	7.0	
08.45 - 08.50	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	3	3.0	0	1	2	0	1	0	4	6.3	0	8	0	0	0	1	0	9	10.3
08.50 - 08.55	0	1	0	0	0	0	1	1.0	0	3	0	0	0	0	3	3.0	0	3	0	0	0	0	3	3.0	0	7	0	0	0	0	7	7.0	
08.55 - 09.00	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	5	0	0	0	1	0	6	7.3
Average (PCUs)								0.9							3.5								3.3									8.5	
09.00 - 09.05	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	3	1	1	0	0	5	6.3	
09.05 - 09.10	0	0	0	0	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	0	2	2.0	
09.10 - 09.15	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	3	3.0	
09.15 - 09.20	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	2	0	0	0	1	0	3	4.3
09.20 - 09.25	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	3	0	0	0	1	0	4	5.3
09.25 - 09.30	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	0	0	0	1	0	1	2.3	

16.00-16.05	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	0	6	0	0	0	0	6	6.0	
16.05-16.10	0	2	0	0	0	0	2	2.0	0	5	0	0	0	0	0	5	5.0	0	2	1	0	0	0	3	3.5	0	8	1	0	0	1	10	11.5	
16.10-16.15	0	0	0	1	0	0	0	1.5	0	1	1	0	0	0	0	2	2.5	0	1	0	0	0	0	1	1.0	0	2	1	0	1	0	4	5.8	
16.15-16.20	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0	0	4	0	0	0	0	4	4.0	
16.20-16.25	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	2	1	0	0	0	3	3.5	
16.25-16.30	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.5	0	0	0	0	0	0	0	0.0	0	1	1	0	0	0	2	2.5	
16.30-16.35	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	0	4	0	0	1	0	5	6.3	
16.35-16.40	0	1	0	0	0	0	1	1.0	0	5	0	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0	0	4	0	0	0	0	4	4.0	
16.40-16.45	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0	0	4	1	0	0	0	5	5.5	
16.45-16.50	0	2	0	0	0	0	2	2.0	0	5	0	0	0	0	0	5	5.0	0	8	0	0	1	1	10	12.3	0	8	0	0	1	1	10	12.3	
16.50-16.55	0	0	0	0	0	0	0	0.0	0	2	1	0	0	0	0	3	3.5	0	3	0	0	1	0	4	5.3	0	5	2	0	0	1	8	10.0	
16.55-17.00	0	1	0	0	0	0	1	1.0	0	3	0	0	0	0	0	3	3.0	0	2	0	1	0	0	3	3.8	0	5	1	0	2	0	8	11.1	
17.00-17.05	0	2	1	0	0	0	3	3.5	0	5	1	0	0	0	0	6	6.5	0	6	0	0	0	0	6	6.0	0	7	0	0	2	0	9	11.6	
17.05-17.10	0	0	0	0	0	0	0	0.0	0	5	0	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0.0	0	8	1	0	0	0	9	9.5	
17.10-17.15	0	0	0	0	0	0	0	0.0	0	2	1	0	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0	0	5	1	0	0	0	6	6.5	
17.15-17.20	0	2	0	0	0	0	2	2.0	0	4	0	0	0	0	0	4	4.0	0	2	0	1	0	0	3	3.8	0	7	0	0	0	0	7	7.0	
17.20-17.25	0	3	0	0	0	0	3	3.0	0	4	0	0	0	0	0	4	4.0	0	1	0	0	0	0	1	1.0	0	6	0	0	0	0	6	6.0	
17.25-17.30	0	3	0	0	0	0	3	3.0	0	5	0	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0.0	0	9	1	0	0	0	10	10.5	
17.30-17.35	0	0	0	0	0	0	0	0.0	0	5	0	0	0	0	0	5	5.0	0	10	1	0	0	0	11	11.5	0	10	1	0	0	0	11	11.5	
17.35-17.40	0	0	0	0	0	0	0	0.0	0	5	0	0	0	0	0	5	5.0	0	9	1	0	0	0	10	10.5	0	10	2	0	0	0	12	13.0	
17.40-17.45	0	2	0	0	0	0	2	2.0	0	4	0	0	0	0	0	4	4.0	0	3	0	0	0	0	3	3.0	0	11	0	1	1	0	13	15.1	
17.45-17.50	0	0	0	0	0	0	0	0.0	0	2	2	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0	0	6	0	0	0	0	6	6.0	
17.50-17.55	0	1	1	0	0	0	2	2.5	0	1	2	0	0	0	0	3	3.0	0	1	0	0	0	1	1.0	1.0	0	3	1	0	0	0	4	4.5	
17.55-18.00	0	0	0	0	0	0	0	0.0	0	2	1	0	0	0	0	3	3.5	0	5	0	0	0	0	1	6	7.0	0	5	3	0	0	0	8	9.5
Average (PCUs)								1.3								4.5																	9.2	
18.00-18.05	0	3	0	0	0	0	3	3.0	0	5	0	0	0	0	0	5	5.0	0	1	0	0	0	0	1	1.0	0	9	0	0	0	0	9	9.0	
18.05-18.10	0	1	0	0	0	0	1	1.0	0	3	0	0	0	0	0	3	3.0	0	3	0	0	0	0	3	3.0	0	6	0	0	0	0	6	6.0	
18.10-18.15	0	0	0	0	0	0	0	0.0	0	1	1	0	0	0	0	2	2.5	0	4	0	0	0	1	5	6.3	0	4	0	1	0	0	5	5.8	
18.15-18.20	0	2	0	0	0	0	2	2.0	0	4	0	0	0	0	0	4	4.0	0	0	0	0	1	0	1	2.3	0	7	0	0	1	0	8	9.3	
18.20-18.25	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	3	3.0	
18.25-18.30	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	3	3.0	
18.30-18.35	0	0	0	0	0	0	0	0.0	0	3	0	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0.0	0	5	0	0	0	0	5	5.0	
18.35-18.40	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	2	0	0	1	0	3	4.3	
18.40-18.45	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.5	0	0	0	0	0	0	0	0.0	0	2	1	0	1	0	4	5.8	
18.45-18.50	0	0	1	0	0	0	1	1.5	0	2	1	0	0	0	0	3	3.5	0	0	0	0	1	0	1	2.3	0	4	0	1	0	0	5	5.8	
18.50-18.55	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	0	1	0	0	1	0	2	3.3	
18.55-19.00	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	1	0	0	1	0	2	3.3	

	M1 NB Offslip																								
	Lane 1								Lane 2								Lane 3								
Time	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	
06:30:36	0	1	1	0	1	0	3	4.8	0	1	1	0	0	0	2	2.5	0	2	0	0	0	0	2	2.0	
06:31:29	0	1	0	0	0	0	1	1.0	0	1	1	0	0	0	2	2.5	0	3	0	0	0	1	0	4	5.3
06:32:31	0	1	1	0	1	0	3	4.8	0	2	0	1	0	0	3	3.8	0	0	0	0	0	0	0	0	0.0
06:33:08	0	2	1	0	0	0	3	3.5	0	5	1	0	0	0	6	6.5	0	0	0	0	1	0	0	1	1.8
06:33:55	0	1	0	0	1	0	2	3.3	0	4	1	0	0	0	5	5.5	0	1	0	0	0	0	0	1	1.0
06:34:52	0	2	1	1	1	0	5	7.6	0	5	0	1	1	0	7	9.1	0	2	1	1	1	0	0	4	5.3
06:35:30	0	1	0	0	1	0	2	3.3	0	4	2	0	0	0	6	7.0	0	0	1	0	1	0	2	3.8	
06:36:20	0	2	1	1	0	0	4	5.3	0	2	0	1	0	0	3	3.8	0	2	2	0	0	0	0	4	5.0
06:37:22	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	0	1	1	0	0	0	0	2	2.5
06:38:03	0	3	1	0	0	0	4	4.5	0	3	1	0	1	0	5	6.8	0	2	1	0	0	0	0	3	3.5
06:38:50	0	2	0	0	1	0	3	4.3	0	3	0	0	0	0	3	3.0	0	2	2	1	0	0	0	3	3.5
06:39:50	0	1	0	1	1	0	3	5.1	0	3	0	0	0	0	3	3.0	0	0	0	0	0	1	0	1	2.3
06:40:28	0	1	1	0	1	0	3	4.8	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	0	1	1.0
06:41:19	0	2	1	0	0	0	3	3.5	0	3	0	1	0	0	4	4.8	0	2	1	0	0	0	0	3	3.5
06:42:05	0	0	0	0	0	0	0	0.0	0	3	0	0	1	0	4	5.3	0	2	0	1	0	0	0	3	3.8
06:43:04	0	1	1	0	0	0	2	2.5	0	2	0	0	0	0	2	2.0	0	3	1	0	0	0	0	4	4.5
06:44:03	0	1	1	0	2	0	4	7.1	0	2	2	0	0	0	4	5.0	0	2	0	0	1	0	0	3	4.3
06:45:03	0	2	0	0	0	0	2	2.0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0.0
06:45:42	0	1	2	1	0	0	4	5.8	0	2	0	0	2	0	4	6.6	0	2	0	0	0	0	0	2	2.0
06:46:29	0	2	0	1	2	0	5	8.4	0	5	0	0	0	0	5	5.0	0	3	1	0	0	0	0	4	4.5
06:47:30	0	2	0	0	2	0	4	6.6	0	4	1	0	0	0	5	5.5	0	3	0	0	0	0	0	3	3.0
06:48:07	0	2	1	0	0	0	3	3.5	0	5	0	1	0	0	6	6.8	0	4	0	0	0	0	0	4	4.0
06:48:58	0	2	0	1	0	0	3	3.8	0	4	0	1	1	0	6	8.1	0	3	1	0	0	0	0	4	4.5
06:49:44	0	4	2	2	0	0	8	10.6	0	4	1	1	0	0	6	7.3	0	0	2	1	0	0	0	3	4.8
06:50:35	0	4	0	0	1	0	5	6.3	0	4	0	0	0	0	4	4.0	0	2	1	0	0	0	0	3	3.5
06:51:37	0	4	0	1	1	0	6	8.1	0	5	1	0	0	0	6	6.5	0	3	1	0	1	0	0	5	6.8
06:52:15	0	5	3	2	2	0	12	17.7	0	4	1	0	1	0	6	7.8	0	2	1	0	0	0	0	3	3.5
06:52:55	0	3	2	0	1	0	6	8.3	0	4	0	0	0	0	4	4.0	0	2	1	0	0	0	0	3	3.5
06:53:43	0	3	0	0	0	0	3	3.0	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	0	3	3.5
06:54:44	0	4	2	2	1	0	9	12.9	0	4	0	0	1	0	5	6.3	0	0	1	0	0	0	0	1	1.5
06:55:22	0	3	1	1	1	0	6	8.6	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	0	2	2.0
06:57:11	0	4	0	0	0	0	4	4.0	0	6	0	0	3	0	9	12.9	0	1	2	0	0	0	0	3	4.0
06:57:50	0	5	2	0	0	0	7	8.0	0	7	2	0	0	0	9	10.0	0	1	0	0	0	0	0	1	1.0
06:58:36	0	5	1	1	2	0	9	12.9	0	7	3	0	0	0	10	11.5	0	1	0	0	0	0	0	1	1.0
06:59:24	0	4	2	0	1	0	7	9.3	0	4	0	1	0	0	5	5.8	0	0	0	0	0	0	0	0	0.0
07:00:23	0	4	1	0	0	0	5	5.5	0	3	0	0	0	2	5	7.6	0	2	0	0	0	0	0	2	2.0
07:01:04	0	5	0	1	0	0	6	6.8	0	3	2	0	2	0	7	10.6	0	3	0	0	0	0	0	3	3.0
07:01:44	0	5	2	2	1	0	10	13.9	0	4	0	0	0	0	4	4.0	0	2	1	0	0	0	0	3	3.5
07:02:23	0	3	1	0	2	0	6	9.1	0	5	1	0	0	0	6	6.5	0	3	0	0	0	0	0	3	3.0
07:03:13	0	3	0	0	1	0	4	5.3	0	4	1	0	1	0	6	7.8	0	2	0	0	0	0	0	2	2.0
07:04:02	0	4	1	0	1	0	6	7.8	0	5	0	0	1	0	6	7.3	0	3	1	0	0	0	0	4	4.5
07:05:59	0	2	2	1	1	0	6	9.1	0	8	0	1	2	0	11	14.4	0	2	1	0	0	0	0	3	3.5
07:06:56	0	4	1	0	0	0	5	5.5	0	7	0	0	0	0	7	7.0	0	0	1	0	0	0	0	1	1.5
07:07:36	0	5	1	1	0	0	7	8.3	0	7	2	1	0	0	10	11.8	0	1	0	1	0	0	0	2	2.8
07:08:25	0	4	2	0	0	0	6	7.0	0	8	0	0	0	0	8	8.0	0	1	1	0	0	0	0	2	2.5
07:09:27	0	3	1	1	2	0	7	10.9	0	5	0	0	0	0	5	5.0	0	3	0	1	0	0	0	4	4.8
07:10:06	0	3	0	0	1	0	4	5.3	0	5	1	0	0	0	6	6.5	0	2	0	0	0	0	0	2	2.0
07:10:56	0	3	1	1	1	0	6	8.6	0	5	2	0	0	0	7	8.0	0	3	0	0	0	0	0	3	3.0
07:11:54	0	3	1	0	1	0	5	6.8	0	5	0	0	2	0	7	9.6	0	0	1	0	0	0	0	1	1.5
07:12:33	0	5	1	1	1	0	8	10.6	0	8	0	2	0	0	10	11.6	0	2	2	0	0	0	0	4	5.0
07:13:21	0	5	1	0	1	0	7	8.8	0	8	0	1	0	0	9	9.8	0	1	1	0	0	0	0	2	2.5
07:14:20	0	6	1	0	1	0	8	9.8	0	9	2	2	0	0	13	15.6	0	1	2	0	0	0	0	3	4.0
07:14:58	0	5	2	1	1	0	9	12.1	0	9	3	1	0	0	13	15.3	0	2	1	0	0	0	0	3	3.5
07:15:46	0	8	1	1	1	0	11	13.6	0	12	0	1	0	0	13	13.8	0	5	1	0	0	0	0	6	6.5
07:16:42	0	7	1	0	0	0	8	8.5	0	11	0	0	1	0	12	13.3	0	4	0	0	0	0	0	4	4.0
07:17:23	0	7	2	1	0	0	10	11.8	0	12	3	0	1	0	16	18.8	0	5	0	0	0	1	0	6	7.3
07:18:12	0	7	1	0	1	0	9	10.8	0	11	0	1	0	0	12	12.8	0	4	1	0	0	0	0	5	5.5
07:19:13	0	6	2	1	0	0	9	10.8	0	10	0	0	0	0	10	10.0	0	3	0	0	0	0	0	3	3.0
07:19:52	0	5	0	0	0	0	5	5.0	0	9	2	0	0	0	11	12.0	0								

08:14:52	0	7	2	0	1	0	10	12.3	0	9	0	0	0	0	9	9.0	0	3	0	1	1	0	5	7.1
08:16:21	0	6	2	0	0	0	8	9.0	0	9	2	0	0	0	11	12.0	0	3	0	0	0	0	3	3.0
08:17:48	0	4	0	0	0	0	4	4.0	0	10	0	1	0	0	11	11.8	0	3	0	0	0	0	3	3.0
08:19:20	0	6	2	0	0	0	8	9.0	0	10	0	0	1	0	11	12.3	0	4	0	0	0	0	4	4.0
08:20:51	0	5	0	1	1	0	7	9.1	0	6	2	1	0	0	9	10.8	0	3	1	0	0	0	4	4.5
08:22:20	0	4	0	0	0	0	4	4.0	0	5	1	0	0	0	6	6.5	0	2	0	0	0	0	2	2.0
08:23:48	0	5	1	0	0	0	6	6.5	0	6	0	1	0	0	7	7.8	0	2	1	0	0	0	3	3.5
08:25:17	0	5	1	1	0	0	7	8.3	0	5	2	1	0	0	8	9.8	0	3	1	0	0	0	4	4.5
08:26:45	0	7	1	1	0	0	9	10.3	0	8	1	0	1	0	10	11.8	0	2	0	0	0	0	2	2.0
08:28:16	0	6	0	0	0	0	6	6.0	0	7	0	0	0	0	7	7.0	0	1	0	0	0	0	1	1.0
08:29:47	0	7	1	0	0	0	8	8.5	0	7	2	0	0	0	9	10.0	0	1	1	0	0	0	2	2.5
08:32:44	0	5	2	1	1	0	9	12.1	0	5	1	1	0	0	7	8.3	0	0	2	0	0	0	2	3.0
08:34:10	0	4	1	0	0	0	5	5.5	0	5	0	0	0	0	5	5.0	0	0	1	0	0	0	1	1.5
08:35:40	0	5	2	0	0	0	7	8.0	0	6	1	0	0	0	7	7.5	0	0	1	0	0	0	1	1.5
08:37:11	0	4	1	1	1	0	7	9.6	0	5	0	0	0	0	5	5.0	0	1	0	0	1	0	2	3.3
08:38:38	0	3	2	0	0	0	5	6.0	0	4	1	0	0	0	5	5.5	0	2	1	0	0	0	3	3.5
08:40:07	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0
08:41:35	0	3	0	1	0	0	4	4.8	0	3	1	0	1	0	5	6.8	0	1	0	0	0	0	1	1.0
08:43:04	0	3	0	0	0	0	3	3.0	0	4	0	1	0	0	5	5.8	0	2	0	0	0	0	2	2.0
08:44:31	0	4	0	0	2	0	6	8.6	0	4	2	1	0	0	7	8.8	0	1	0	0	0	0	1	1.0
08:46:00	0	3	1	0	0	0	4	4.5	0	4	1	0	0	0	5	5.5	0	1	0	0	0	0	1	1.0
08:47:28	0	4	0	0	0	0	4	4.0	0	4	0	0	0	0	4	4.0	0	1	1	0	0	0	2	2.5
08:48:57	0	4	1	1	2	0	8	11.9	0	4	0	0	1	0	5	6.3	0	1	0	0	0	0	1	1.0
08:50:24	0	3	1	0	1	0	5	6.8	0	5	2	1	0	0	8	9.8	0	0	0	0	0	0	0	0.0
08:51:53	0	3	0	0	0	0	3	3.0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0.0
08:53:20	0	4	0	0	0	0	4	4.0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0.0
08:54:50	0	3	1	0	0	0	4	4.5	0	4	1	1	0	0	6	7.3	0	1	0	0	0	0	1	1.0
08:56:19	0	3	2	1	1	0	7	10.1	0	3	0	0	0	0	3	3.0	0	1	1	0	0	0	2	2.5
08:57:50	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0
08:59:18	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0
Average (PCUs)							7.7								9.1									2.5
09:00:44	0	2	1	0	0	0	3	3.5	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0.0
09:02:10	0	4	0	0	0	0	4	4.0	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5
09:03:41	0	2	0	0	0	0	2	2.0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	1	1.5
09:05:09	0	3	0	0	0	0	3	3.0	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0.0
09:06:40	0	2	0	0	0	0	2	2.0	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0.0
09:08:09	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0
09:09:39	0	5	0	0	0	0	5	5.0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0.0
09:11:12	0	2	2	0	1	0	5	7.3	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0.0
09:12:42	0	3	1	0	0	0	4	4.5	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	1	1.0
09:14:11	0	3	1	0	0	0	4	4.5	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0.0
09:15:39	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0
09:17:10	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	1	1.5
09:18:42	0	1	2	0	1	0	4	6.3	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0.0
09:20:09	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	3	3.0	0	1	1	0	0	0	2	2.5
09:21:38	0	3	0	0	0	0	3	3.0	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0.0
09:23:04	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0.0
09:24:35	0	1	1	0	0	0	2	2.5	0	1	2	0	0	0	3	4.0	0	0	0	0	0	0	0	0.0
09:26:05	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0
09:27:36	0	2	0	0	1	0	3	4.3	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0
09:29:04	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0

16:01:09	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5	0	1	0	0	0	0	1	1.0
16:02:11	0	2	1	0	1	0	4	5.8	0	6	0	0	0	0	6	6.0	0	2	0	0	1	0	3	4.3
16:04:02	0	1	0	0	0	0	1	1.0	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0.0
16:05:54	0	4	0	1	0	0	5	5.8	0	5	0	0	0	0	5	5.0	0	0	0	1	1	0	2	4.1
16:07:07	0	3	2	0	1	0	6	8.3	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0
16:08:55	0	4	3	0	0	0	7	8.5	0	5	2	0	1	0	8	10.3	0	0	0	0	0	0	0	0.0
16:10:43	0	2	0	0	0	0	2	2.0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0.0
16:12:31	0	4	0	0	0	0	4	4.0	0	6	0	0	2	0	8	10.6	0	0	1	0	0	0	1	1.5
16:14:20	0	3	3	0	0	0	6	7.5	0	3	0	0	1	0	4	5.3	0	2	0	0	0	0	2	2.0
16:16:09	0	1	4	0	0	0	5	7.0	0	6	1	0	0	0	7	7.5	0	0	1	1	0	0	2	3.3
16:17:19	0	4	0	0	2	0	6	8.6	0	3	4	0	0	0	7	9.0	0	2	0	0	0	0	2	2.0
16:19:08	0	7	0	0	0	0	7	7.0	0	7	2	0	2	0	11	14.6	0	0	0	0	0	0	0	0.0
16:20:57	0	3	1	0	1	0	5	6.8	0	9	1	0	1	0	11	12.8	0	0	0	0	0	0	0	0.0
16:22:49	0	7	2	1	2	0	12	16.4	0	10	1	1	1	0	12	13.3	0	4	0	0	0	0	4	4.0
16:23:59	0	4	2	0	0	0	6	7.0	0	7	1	0	0	0	8	8.5	0	0	0	1	2	0	3	6.4
16:25:08	0	6	0	2	0	0	8	9.6	0	10	0	0	0	0	10	10.0	0	5	0	0	0	0	5	5.0
16:26:59	0	5	0	0	0	0	5	5.0	0	5	0	1	0	0	6	6.8	0	2	0	0	0	0	2	2.0
16:28:51	0	4	2	0	2	0	8	11.6	0	6	2	0	2	0	10	13.6	0	0	0	0	0	0	0	0.0
16:30:43	0	3	2	0	0	0	5	6.0	0	5	0	0	0	0	5	5.0	0	2	2	0	0	0	4	5.0
16:31:53	0	4	0	-1	0	0	3	2.2	0	7	2	0	0	0	9	10.0	0	0	0	0	0	0	0	0.0
16:33:44	0	6	3	0	0	0	9	10.5	0	9	0	0	0	0	9	9.0	0	0	0	0	1	0	1	2.3
16:35:33	0	2	0	0	0	0	2	2.0	0	7	2	0	1	0	10	12.3	0	3	1	0	0	0	4	4.5
16:36:44	0	6	2	0	1	0	9	11.3	0	10	3	0	0	0	13	14.5	0	0	1	0	0	0	1	1.5
16:38:34	0	3	1	0	0	0	4	4.5	0	9	0	0	0	0	9	9.0	0	3	0	0	0	0	3	3.0
16:40:22	0	6	3	0	0	0	9	10.5	0	9	0	0	2	0	11	13.6	0	0	0	0	1	0	1	2.3
16:41:32	0	6	0	0	1	0	7	8.3	0	8	0	0	1	0	9	10.3	0	0	2	0	0	0	2	3.0
16:43:22	0	3	3	0	2	0	8	12.1	0	5	2	1	0	0	8	9.8	0	3	0	0	0	0	3	3.0
16:45:13	0	6	0	0	0	0	6	6.0	0	7	2	0	0	0	9	10.0	0	0	0	0	0	0	0	0.0
16:46:23	0	6	5	0	0	0	11	13.5	0	6	0	0	1	0	7	8.3	0	1	0	0	0	0	1	1.0
16:48:12	0	5	0	1	0	0	6	6.8	0	5	0	0	0	0	5	5.0	0	1	0	0	0	0	1	1.0
16:50:04	0	4	4	0	0	0	8	10.0	0	6	5	1	0	0	12	15.3	0	2	0	0	0	0	2	2.0
16:51:12	0	5	0	0	1	0	6	7.3	0	6	4	0	1	0	11	14.3	0	1	0	0	0	0	1	1.0
16:53:03	0	6	3	0	0	0	9	10.5	0	7	0	1	0	0	8	8.8	0	0	0	1	0	0	1	1.8
16:54:51	0	3	2	0	0	0	5	6.0	0	6	3	0	0	0	9	10.5	0	0	0	0	0	0	0	0.0
16:56:00	0	7	0	0	0	0	7	7.0	0	3	3	0	0	0	6	7.5	0	2	0	0	0	0	2	2.0
16:57:50	0	7	2	0	0	0	9	10.0	0	5	0	0	0	0	5	5.0	0	2	1	0	0	0	3	3.5
16:59:42	0	5	3	1	1	0	10	13.6	0	8	0	0	1	0	9	10.3	0	1	0	0	0	0	1	1.0
17:01:11	0	4	0	0	0	0	4	4.0	0	7	4	0	0	0	11	13.0	0	1	0	0	0	0	1	1.0
17:02:52	0	5	0	1	2	0	8	11.4	0	5	4	0	1	0	10	13.3	0	0	0	0	0	0	0	0.0
17:04:22	0	3	3	0	0	0	6	7.5	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0.0
17:06:11	0	4	3	0	0	0	7	8.5	0	8	0	1	0	0	9	9.8	0	4	0	1	1	0	6	8.1
17:07:39	0	4	0	0	1	0	5	6.3	0	7	3	0	0	0	10	11.5	0	0	0	0	0	0	0	0.0
17:09:21	0	5	0	0	0	0	5	5.0	0	8	0	0	1	0	9	10.3	0	3	0	0	0	0	3	3.0
17:10:48	0	2	2	0	0	0	4	5.0	0	7	3	0	0	0	10	11.5	0	0	0	0	0	0	0	0.0
17:12:39	0	7	0	1	2	0	10	13.4	0	9	0	0	0	0	9	9.0	0	0	1	0	0	0	1	1.5
17:14:07	0	4	0	0	0	0	4	4.0	0	8	5	0	0	0	13	15.5	0	0	0	0	0	0	0	0.0
17:15:48	0	6	4	0	0	0	10	12.0	0	5	0	0	0	0	5	5.0	0	3	0	0	2	0	5	7.6
17:17:18	0	5	4	0	0	0	9	11.0	0	7	0	0	0	0	7	7.0	0	3	1	0	1	0	5	6.8
17:19:08	0	9	5	0	2	0	16	21.1	0	13	5	0	1	0	19	22.8	0	0	0	0	0	0	0	0.0
17:20:39	0	9	2	0	1	0	12	14.3	0	12	0	0	0	0	12	12.0	0	0	0	0	0	0	0	0.0
17:22:21	0	10	1	0	0	0	11	11.5	0	10	0	0	0	0	10	10.0	0	5	0	0	1	0	6	7.3
17:23:48	0	7	5	0	0	0	12	14.5	0	13	0	0	0	0	13	13.0	0	0	0	0	0	0	0	0.0
17:25:18	0	12	3	0	2	0	17	21.1	0	15	4	0	0	0	19	21.0	0	3	2	0	1	0	6	8.3
17:27:00	0	12	1	0	0	0	13	13.5	0	11	4	0	1	0	16	19.3	0	3	0	0	0	0	3	3.0
17:28:30	0	13	3	1	0	0	17	19.3	0	14	0	0	1	0	15	16.3	0	3	0	0	0	0	3	3.0
17:30:21	0	15	3	0	1	0	19	21.8	0	11	0	0	0	0	11	11.0	0	0	2	0	0	0	2	3.0

17:32:10	0	12	2	1	0	0	15	16.8	0	17	0	1	2	0	20	23.4	0	0	0	0	0	0	0	0.0
17:33:38	0	10	3	0	0	0	13	14.5	0	16	4	0	2	0	22	26.6	0	4	1	0	0	0	5	5.5
17:35:17	0	12	0	0	0	0	12	12.0	0	14	4	0	3	0	21	26.9	0	4	0	1	0	0	5	5.8
17:36:55	0	11	3	0	2	0	16	20.1	0	16	4	0	2	0	22	26.6	0	3	0	0	0	0	3	3.0
17:38:45	0	14	1	0	0	0	15	15.5	0	17	5	0	2	0	24	29.1	0	0	0	0	0	0	0	0.0
17:40:16	0	9	2	0	0	0	11	12.0	0	14	5	0	1	0	20	23.8	0	0	1	0	0	0	1	1.5
17:41:54	0	15	5	0	0	0	20	22.5	0	17	0	1	2	0	20	23.4	0	2	2	0	0	0	4	5.0
17:43:33	0	12	0	0	0	0	12	12.0	0	17	5	1	1	0	24	28.6	0	0	0	0	0	0	0	0.0
17:45:21	0	9	3	0	0	0	12	13.5	0	13	3	0	1	0	17	19.8	0	4	0	1	0	0	5	5.8
17:46:53	0	9	3	0	1	0	13	15.8	0	11	0	0	0	0	11	11.0	0	3	0	0	0	0	3	3.0
17:48:34	0	10	3	1	0	0	14	16.3	0	12	3	1	0	0	16	18.3	0	0	0	0	1	0	1	2.3
17:50:13	0	9	1	0	0	0	10	10.5	0	12	3	0	0	0	15	16.5	0	4	0	0	0	0	4	4.0
17:52:01	0	13	2	2	1	0	18	21.9	0	10	2	0	0	0	12	13.0	0	4	0	1	1	0	6	8.1
17:53:29	0	12	2	1	0	0	15	16.8	0	13	2	0	2	0	17	20.6	0	3	1	0	0	0	4	4.5
17:55:07	0	12	3	2	0	0	17	20.1	0	9	3	0	3	0	15	20.4	0	4	1	0	0	0	5	5.5
17:56:36	0	11	1	0	1	0	13	14.8	0	14	0	1	0	0	15	15.8	0	4	0	0	0	0	4	4.0
17:58:27	0	8	2	0	0	0	10	11.0	0	10	0	0	0	0	10	10.0	0	2	0	0	0	0	2	2.0
17:59:54	0	5	2	0	2	0	9	12.6	0	9	2	0	0	0	11	12.0	0	2	0	0	0	0	2	2.0
Average (PCUs)								13.6								16.4								3.1
18:01:33	0	8	0	0	0	0	8	8.0	0	10	3	0	0	0	13	14.5	0	2	2	0	1	0	5	7.3
18:02:45	0	7	2	0	2	0	11	14.6	0	10	3	0	0	0	13	14.5	0	1	0	0	0	0	1	1.0
18:03:54	0	11	2	0	0	0	13	14.0	0	8	0	0	0	0	8	8.0	0	3	0	0	0	0	3	3.0
18:04:55	0	10	1	0	1	0	12	13.8	0	7	0	0	0	0	7	7.0	0	3	0	0	0	0	3	3.0
18:06:22	0	11	1	0	2	0	14	17.1	0	5	3	0	0	0	8	9.5	0	0	1	1	1	0	3	5.6
18:07:35	0	11	0	1	1	0	13	15.1	0	7	2	1	2	0	12	16.4	0	3	0	0	0	0	3	3.0
18:08:44	0	8	0	1	0	0	9	9.8	0	7	2	0	1	0	10	12.3	0	2	1	0	0	0	3	3.5
18:09:44	0	7	2	0	0	0	9	10.0	0	6	0	0	0	0	6	6.0	0	2	0	0	0	0	2	2.0
18:11:13	0	7	2	0	0	0	9	10.0	0	5	0	0	0	0	5	5.0	0	0	0	0	1	0	1	2.3
18:12:21	0	6	1	0	0	0	7	7.5	0	6	1	0	0	0	7	7.5	0	1	0	0	0	0	1	1.0
18:13:33	0	4	1	1	0	0	6	7.3	0	7	0	0	0	0	7	7.0	0	0	0	0	0	0	0	0.0
18:14:33	0	6	1	0	0	0	7	7.5	0	7	2	0	0	0	9	10.0	0	2	0	0	0	0	2	2.0
18:16:04	0	7	0	0	0	0	7	7.0	0	8	2	0	0	0	10	11.0	0	2	0	0	0	0	2	2.0
18:17:12	0	7	1	0	0	0	8	8.5	0	7	0	0	0	0	7	7.0	0	1	0	0	0	0	1	1.0
18:18:22	0	10	1	0	0	0	11	11.5	0	8	0	0	0	0	8	8.0	0	0	1	0	0	0	1	1.5
18:19:20	0	9	0	0	0	0	9	9.0	0	5	2	0	1	0	8	10.3	0	5	0	0	0	0	5	5.0
18:20:49	0	10	0	0	0	0	10	10.0	0	7	0	0	0	0	7	7.0	0	0	0	0	1	0	1	2.3
18:21:59	0	10	1	0	2	0	13	16.1	0	6	0	0	0	0	6	6.0	0	0	0	1	0	0	1	1.8
18:23:06	0	9	2	0	0	0	11	12.0	0	10	3	0	1	0	14	16.8	0	4	1	0	0	0	5	5.5
18:24:03	0	9	0	0	0	0	9	9.0	0	9	0	0	0	0	9	9.0	0	3	0	0	0	0	3	3.0
18:25:11	0	10	3	1	1	0	15	18.6	0	10	3	0	1	0	14	16.8	0	0	0	1	0	0	1	1.8
18:26:24	0	9	2	1	0	0	12	13.8	0	9	0	0	0	0	9	9.0	0	3	2	1	0	0	6	7.8
18:27:23	0	7	1	0	0	0	8	8.5	0	6	1	0	1	0	8	9.8	0	0	0	0	0	0	0	0.0
18:28:33	0	6	2	0	0	0	8	9.0	0	7	1	0	0	0	8	8.5	0	0	0	0	0	0	0	0.0
18:29:42	0	7	2	0	0	0	9	10.0	0	6	0	0	0	0	6	6.0	0	5	0	0	0	0	5	5.0
18:30:41	0	7	1	0	0	0	8	8.5	0	7	2	0	1	0	10	12.3	0	0	0	0	1	0	1	2.3
18:31:51	0	8	2	1	2	0	13	17.4	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0.0
18:33:01	0	5	1	0	0	0	6	6.5	0	8	3	0	0	0	11	12.5	0	5	0	0	0	0	5	5.0
18:34:03	0	9	0	1	0	0	10	10.8	0	6	3	1	0	0	10	12.3	0	0	0	0	1	0	1	2.3
18:35:15	0	8	0	1	0	0	9	9.8	0	8	3	0	0	0	11	12.5	0	5	1	0	0	0	6	6.5
18:36:22	0	10	3	1	0	0	14	16.3	0	8	0	0	0	0	8	8.0	0	0	0	0	1	0	1	2.3
18:37:25	0	7	3	0	3	0	13	18.4	0	6	4	0	0	0	10	12.0	0	4	0	0	0	0	4	4.0
18:38:33	0	10	0	0	0	0	10	10.0	0	6	0	1	1	0	8	10.1	0	0	1	0	0	0	1	1.5
18:39:42	0	9	4	0	0	0	13	15.0	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0.0
18:40:43	0	11	0	0	0	0	11	11.0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0.0
18:41:55	0	6	0	0	2	0	8	10.6	0	6	4	0	0	0	10	12.0	0	0	0	0	0	0	0	0.0
18:42:54	0	9	4	0	0	0	13	15.0	0	6	0	0	0	0	6	6.0	0	4	1	0	1	0	6	7.8
18:43:46	0	11	3	0	0	0	14	15.5	0	5	3	0	0	0	8	9.5	0	4	0	0	0	0	4	4.0
18:44:47	0	9	0	0	0	0	9	9.0	0	8	4	1	0	0	13	15.8	0	5	0	0	1	0	6	7.3
18:45:48	0	8	2	0	2	0	12	15.6	0	8	0	0	1	0	9	10.3	0	0	0	0	0	0	0	0.0
18:46:46	0	9	3	0	0	0	12	13.5	0	5	0	0	0	0	5	5.0	0	0	0	1	0	0	1	1.8
18:47:44	0	6	2	0	1	0	9	11.3	0	9	0	0	0	0	9	9.0	0	4	0	0	0	0	4	4.0
18:48:43	0	10	0	0	2	0	12	14.6	0	8	4	0	0	0	12	14.0	0	0	2	0	1	0	3	5.3
18:49:45	0	10	0	0	1	0	11	12.3	0	5	3	0	0	0	8	9.5	0	3	0	0	0	0	3	3.0
18:50:44	0	11	1	0	2	0	14	17.1	0	8	0	0	1	0	9	10.3	0	4	0	0	0	0	4	4.0
18:51:32	0	8	1	0	2	0	11	14.1	0	8	0	0	0	0	8	8.0	0	3	0	0	0	0	3	3.0
18:52:31	0	7	2	0	1	0	10	12.3	0	12	3	0	1	0	16	18.8	0	2	1	0	0	0	3	3.5
18:53:21	0	7	2	1	0	0	10	11.8	0	9	2	0	0	0	11	12.0	0	2	0	0	0	0	2	2.0
18:54:22	0	7	2	2	1	0	12	15.9	0	12	3	0	0	0	15	16.5	0	2	0	0	1	0	3	4.3
18:55:19	0	6	0	0	1	0	7	8.3	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0.0
18:56:19	0	9	0	1	2	0	12	15.4	0	10	0	0	0	0	10	10.0	0	0	1	0	0	0	1	1.5
18:57:16	0	5	3	0	0	0	8	9.5	0	9	2	0	0	0	11	12.0	0	2	0	0	0	0	2	2.0
18:58:13	0	9	0	0	0	0	9	9.0	0	6	0	0	0	0	6	6.0	0	3	2	1	0	0	6	7.8
18:59:00	0	8	3	0	0	0	11	12.5	0															

PCU Values					
M/C	Car	LGV	OGV1	OGV2	Bus
0.5	1	1.5	1.8	2.3	2

	Circulating at Northbound Offlip																																
	Lane 1								Lane 2								Lane 3																
Time	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	
06:31:16	0	1	0	0	0	1	2	3.0	0	2	2	0	0	0	4	5.0	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
06:32:18	0	2	1	0	0	0	3	3.5	0	1	0	1	0	0	2	2.8	0	2	2	0	0	0	0	2	2.0	0	2	1	0	0	0	2	2.0
06:32:52	0	1	2	0	0	0	3	4.0	0	0	3	0	0	0	3	4.5	0	2	1	1	1	0	0	4	5.3	0	1	1	0	0	0	2	2.5
06:33:45	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	0	1	2	0	0	0	3	4.0	0	2	1	0	0	0	3	4.0	
06:34:39	0	1	0	0	0	0	1	1.0	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	
06:35:14	0	0	2	0	0	0	2	3.0	0	1	2	0	0	0	3	4.0	0	2	2	0	0	0	4	5.0	0	2	2	0	0	0	4	5.0	
06:36:07	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	
06:37:08	0	1	1	0	0	0	2	2.5	0	1	1	0	1	0	3	4.8	0	1	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5
06:37:51	0	0	1	0	0	0	1	1.5	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	
06:38:39	0	1	1	0	0	0	2	2.5	0	2	0	0	0	0	2	2.0	0	2	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5
06:39:38	0	2	0	1	0	0	3	3.8	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	
06:40:17	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
06:41:05	0	1	2	0	0	0	3	4.0	0	2	0	0	1	0	3	4.3	0	1	2	0	0	0	3	4.0	0	1	2	0	0	0	3	4.0	
06:41:53	0	2	0	0	0	0	2	2.0	0	1	1	0	0	0	2	2.5	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	
06:42:50	0	1	2	0	0	0	3	4.0	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	
06:43:50	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	2	2.5	
06:44:53	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	0	1	0	0	0	0	1	1.0	0	2	1	0	0	0	1	1.0	
06:45:31	0	3	0	0	0	0	3	3.0	0	0	1	0	1	0	2	3.8	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.5	
06:46:19	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	
06:47:17	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	
06:47:55	0	2	0	0	0	0	2	2.0	0	2	2	0	0	0	4	5.0	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	
06:48:47	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	2	3.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0.0	
06:49:29	0	2	0	0	0	0	2	2.0	0	1	1	0	0	0	2	2.5	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	1	1.0	
06:50:23	0	2	1	0	0	0	3	3.5	0	1	3	0	0	0	4	5.5	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	2	2.5	
06:51:27	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
06:52:02	0	2	2	0	0	0	4	5.0	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0	0	2	1	0	0	0	1	1.0	
06:52:41	0	2	1	0	0	0	3	3.5	0	1	2	0	0	0	3	4.0	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
06:53:29	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	2	2.5	
06:54:33	0	1	0	0	0	0	1	1.0	0	1	0	0	0	0	1	1.0	0	3	1	0	0	0	4	4.5	0	2	0	0	0	0	2	2.0	
06:55:10	0	1	2	0	0	0	3	4.0	0	1	2	0	0	0	3	4.0	0	2	0	0	0	1	0	3	4.3	0	1	2	0	0	0	3	4.3
06:57:00	0	2	0	0	0	0	2	2.0	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	0	1	1	0	0	0	2	2.5	
06:57:37	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
06:58:21	0	2	0	0	0	0	2	2.0	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	
06:59:13	0	2	1	0	0	0	3	3.5	0	1	2	0	0	0	3	4.0	0	2	2	1	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
07:00:12	0	2	2	0	0	0	4	5.0	0	3	1	0	0	0	4	4.5	0	4	0	0	0	0	4	4.0	0	2	2	0	0	0	4	4.0	
07:00:52	0	4	0	0	0	0	4	4.0	0	1	1	0	0	0	2	2.5	0	2	2	0	0	0	4	5.0	0	4	0	0	0	0	4	5.0	
07:01:31	0	1	1	0	0	0	2	2.5	0	2	0	0	0	0	2	2.0	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
07:02:12	0	2	2	0	0	0	4	5.0	0	2	2	0	0	0	4	5.0	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	4	4.5	
07:03:00	0	2	1	0	0	0	3	3.5	0	4	0	0	1	0	5	6.3	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
07:03:50	0	1	2	0	0	0	3	4.0	0	2	2	0	0	0	4	5.0	0	1	2	0	0	0	3	4.0	0	2	1	0	0	0	3	4.0	
07:05:46	0	3	1	0	0	0	4	4.5	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
07:06:44	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	
07:07:24	0	2	0	0	0	0	2	2.0	0	1	2	0	0	0	3	4.0	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	4	4.5	
07:08:10	0	2	1	0	0	0	3	3.5	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	
07:09:12	0	1	1	0	0	0	2	2.5	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	1	1.0	
07:09:52	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	1	1.0	0	1	3	0	0	0	4	5.5	0	2	1	0	0	0	4	5.5	
07:10:45	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	4	4.5	

08:16:09	0	4	0	0	0	0	4	4.0	0	3	1	0	0	0	4	4.5	0	3	1	0	0	0	4	4.5
08:17:36	0	3	1	0	0	0	4	4.5	0	6	1	0	1	0	8	9.8	0	4	2	0	0	0	6	7.0
08:19:05	0	3	2	0	0	0	5	6.0	0	5	2	0	3	0	10	14.9	0	3	0	0	1	0	4	5.3
08:20:38	0	5	2	0	0	0	7	8.0	0	4	1	0	0	0	5	5.5	0	4	0	0	0	0	4	4.0
08:22:08	0	5	2	0	0	0	7	8.0	0	2	2	0	2	0	6	9.6	0	4	1	0	0	0	5	5.5
08:23:35	0	4	2	0	0	0	6	7.0	0	5	1	0	1	0	7	8.8	0	3	1	1	0	0	5	6.3
08:25:01	0	3	1	0	0	0	4	4.5	0	4	2	0	0	0	6	7.0	0	4	0	0	0	0	4	4.0
08:26:32	0	6	3	0	1	0	10	12.8	0	5	3	1	2	0	11	15.9	0	4	4	0	2	0	10	14.6
08:28:04	0	4	1	0	0	0	5	5.5	0	3	2	0	0	0	5	6.0	0	4	0	0	0	0	4	4.0
08:29:35	0	6	2	0	0	1	9	11.0	0	3	1	0	0	0	4	4.5	0	5	1	0	0	0	6	6.5
08:32:32	0	5	3	0	1	0	9	11.8	0	4	3	0	2	0	9	13.1	0	3	1	0	1	0	5	6.8
08:33:59	0	4	2	0	1	0	7	9.3	0	5	3	0	1	0	9	11.8	0	5	1	0	0	0	6	6.5
08:35:27	0	6	1	0	0	0	7	7.5	0	5	2	0	0	0	7	8.0	0	4	1	0	0	0	5	5.5
08:36:58	0	5	1	0	0	0	6	6.5	0	3	2	1	0	0	6	7.8	0	5	3	0	0	0	8	9.5
08:38:25	0	5	2	0	0	0	7	8.0	0	5	2	0	0	0	7	8.0	0	6	1	0	0	0	7	7.5
08:39:56	0	6	1	0	0	0	7	7.5	0	6	3	0	1	0	10	12.8	0	4	2	0	2	0	8	11.6
08:41:20	0	4	2	0	0	1	7	9.0	0	4	3	0	0	0	7	8.5	0	5	2	0	0	0	7	8.0
08:42:52	0	5	1	0	0	0	6	6.5	0	4	2	0	1	0	7	9.3	0	3	1	1	1	0	6	8.6
08:44:21	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5	0	5	2	0	0	0	7	8.0
08:45:46	0	3	3	0	1	0	7	9.8	0	3	2	0	0	0	5	6.0	0	4	1	0	0	0	5	5.5
08:47:16	0	5	2	0	0	0	7	8.0	0	4	2	0	0	0	6	7.0	0	4	0	0	0	0	4	4.0
08:48:42	0	4	2	0	0	0	6	7.0	0	4	3	0	0	0	7	8.5	0	5	1	0	0	0	6	6.5
08:50:11	0	4	3	0	0	0	7	8.5	0	5	2	0	0	0	7	8.0	0	5	1	0	0	0	6	6.5
08:51:43	0	3	3	0	1	0	7	9.8	0	4	3	0	1	0	8	10.8	0	4	2	0	0	0	6	7.0
08:53:04	0	3	1	0	0	0	4	4.5	0	6	2	0	0	0	8	9.0	0	4	1	0	0	0	5	5.5
08:54:40	0	2	2	0	0	0	4	5.0	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5
08:56:03	0	4	2	0	0	0	6	7.0	0	3	2	0	2	0	7	10.6	0	3	0	0	0	0	3	3.0
08:57:35	0	3	1	0	0	0	4	4.5	0	4	1	1	0	0	6	7.3	0	4	0	0	0	0	4	4.0
08:59:03	0	4	2	0	0	0	6	7.0	0	4	2	0	0	0	6	7.0	0	3	0	0	0	0	3	3.0
Average (PCUs)								6.9							8.1									6.1
09:00:32	0	3	1	0	0	0	4	4.5	0	4	1	0	0	0	5	5.5	0	3	1	0	0	0	4	4.5
09:01:56	0	3	0	0	0	0	3	3.0	0	5	0	0	0	0	5	5.0	0	4	0	0	0	0	4	4.0
09:03:27	0	2	2	0	0	0	4	5.0	0	4	1	0	1	0	6	7.8	0	3	0	0	0	0	3	3.0
09:04:53	0	3	1	0	0	0	4	4.5	0	4	1	0	0	0	5	5.5	0	2	1	0	0	0	3	3.5
09:06:24	0	2	1	0	2	0	5	8.1	0	3	2	0	0	0	5	6.0	0	3	0	0	1	0	4	5.3
09:07:57	0	4	0	0	0	0	4	4.0	0	4	0	0	0	0	4	4.0	0	1	2	0	0	0	3	4.0
09:09:28	0	2	2	0	0	0	4	5.0	0	3	1	0	0	0	4	4.5	0	1	1	0	0	0	2	2.5
09:10:57	0	3	1	0	0	0	4	4.5	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0
09:12:31	0	2	1	0	1	0	4	5.8	0	5	1	0	0	0	6	6.5	0	3	0	0	0	0	3	3.0
09:13:59	0	2	2	0	0	0	4	5.0	0	3	2	0	1	0	6	8.3	0	2	0	0	1	0	3	4.3
09:15:28	0	2	0	0	0	0	2	2.0	0	4	1	0	2	0	7	10.1	0	3	0	0	0	0	3	3.0
09:16:55	0	4	0	0	0	0	4	4.0	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	3	3.5
09:18:32	0	3	1	0	0	0	4	4.5	0	3	0	0	0	0	3	3.0	0	2	1	0	0	0	3	3.5
09:19:54	0	4	0	0	0	0	4	4.0	0	5	0	0	0	0	5	5.0	0	1	1	0	0	0	2	2.5
09:21:23	0	2	1	0	0	0	3	3.5	0	4	1	0	0	0	5	5.5	0	2	0	0	0	0	2	2.0
09:22:50	0	3	1	0	0	0	4	4.5	0	4	0	0	1	0	5	6.3	0	1	1	0	0	0	2	2.5
09:24:23	0	2	1	0	0	0	3	3.5	0	4	1	0	0	0	5	5.5	0	1	0	0	1	0	2	3.3
09:25:50	0	2	2	0	0	0	4	5.0	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0
09:27:24	0	3	0	0	0	0	3	3.0	0	3	2	0	0	0	5	6.0	0	3	0	0	0	0	3	3.0
09:28:52	0	2	0	0	0	0	2	2.0	0	3	1	0	0	0	4	4.5	0	1	1	0	0	0	2	2.5

16:00:55	0	1	0	0	1	0	2	3.3	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
16:01:56	0	1	1	0	0	0	2	2.5	0	2	1	0	1	0	4	5.8	0	2	1	0	0	0	3	3.5
16:03:49	0	3	1	0	0	0	4	4.5	0	2	2	0	2	0	6	9.6	0	2	3	0	0	0	5	6.5
16:05:43	0	1	0	0	0	0	1	1.0	0	4	1	0	0	0	5	5.5	0	4	2	0	0	0	6	7.0
16:06:57	0	2	2	0	1	0	5	7.3	0	2	1	0	0	0	3	3.5	0	3	2	0	0	0	5	6.0
16:08:43	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	1	1.0	0	3	1	0	2	0	6	9.1
16:10:30	0	2	1	0	0	1	4	5.5	0	2	2	0	2	0	6	9.6	0	3	0	0	0	0	3	3.0
16:12:17	0	1	2	0	0	0	3	4.0	0	2	1	0	1	0	4	5.8	0	2	1	0	0	0	3	3.5
16:14:09	0	4	2	0	0	0	6	7.0	0	5	0	0	0	0	5	5.0	0	5	0	0	0	0	5	5.0
16:15:56	0	1	2	0	0	0	3	4.0	0	2	1	0	1	0	4	5.8	0	2	2	0	0	0	4	5.0
16:17:05	0	2	1	0	1	0	4	5.8	0	3	1	0	0	0	4	4.5	0	3	2	0	0	0	5	6.0
16:18:52	0	0	1	0	1	0	2	3.8	0	2	2	0	0	0	4	5.0	0	3	1	0	0	0	4	4.5
16:20:42	0	1	1	0	0	0	2	2.5	0	2	2	0	0	0	4	5.0	0	2	1	0	1	0	4	5.8
16:22:39	0	3	1	0	0	0	4	4.5	0	1	2	1	0	0	4	5.8	0	2	2	0	1	0	5	7.3
16:23:45	0	1	0	0	0	0	1	1.0	0	1	1	0	2	0	4	7.1	0	3	1	0	0	0	4	4.5
16:24:57	0	2	1	0	0	0	3	3.5	0	0	1	0	1	0	2	3.8	0	1	1	0	0	0	2	2.5
16:26:43	0	2	2	0	0	0	4	5.0	0	2	2	0	0	0	4	5.0	0	2	2	0	0	0	4	5.0
16:28:36	0	5	3	0	1	0	9	11.8	0	4	2	0	0	0	6	7.0	0	5	1	0	0	0	6	6.5
16:30:31	0	2	2	0	0	0	4	5.0	0	2	1	0	1	0	4	5.8	0	2	1	0	0	0	3	3.5
16:31:39	0	4	2	0	0	0	6	7.0	0	2	2	0	0	0	4	5.0	0	3	0	0	0	0	3	3.0
16:33:29	0	4	1	0	1	0	6	7.8	0	1	1	1	2	0	5	8.9	0	0	2	0	1	0	3	5.3
16:35:18	0	2	1	1	0	0	4	5.3	0	3	2	0	0	0	5	6.0	0	2	2	0	0	0	4	5.0
16:36:29	0	3	2	0	0	0	5	6.0	0	1	2	0	2	0	5	8.6	0	2	2	0	0	0	4	5.0
16:38:22	0	2	2	0	0	0	4	5.0	0	1	1	0	2	0	4	7.1	0	4	1	0	0	0	5	5.5
16:40:09	0	5	3	0	0	0	8	9.5	0	4	0	0	0	0	4	4.0	0	3	0	0	0	0	3	3.0
16:41:19	0	1	0	0	1	0	2	3.3	0	3	1	1	0	0	5	6.3	0	2	0	0	2	0	4	6.6
16:43:11	0	2	1	0	0	0	3	3.5	0	2	2	0	0	0	4	5.0	0	4	1	0	0	0	5	5.5
16:44:58	0	2	1	0	0	0	3	3.5	0	2	1	0	2	0	5	8.1	0	6	1	0	0	0	7	7.5
16:46:08	0	4	2	0	2	0	8	11.6	0	5	0	0	1	0	6	7.3	0	4	2	0	1	0	7	9.3
16:47:58	0	2	2	0	0	0	4	5.0	0	6	0	0	0	0	6	6.0	0	4	1	1	0	0	6	7.3
16:49:51	0	2	1	0	1	0	4	5.8	0	3	2	0	0	0	5	6.0	0	5	1	0	0	0	6	6.5
16:50:56	0	5	3	0	2	0	10	14.1	0	5	2	1	1	0	9	12.1	0	7	2	0	1	0	10	12.3
16:52:52	0	2	2	0	0	0	4	5.0	0	3	1	0	0	0	4	4.5	0	4	1	0	0	0	5	5.5
16:54:39	0	2	2	0	0	0	4	5.0	0	3	1	1	1	0	6	8.6	0	6	0	0	0	0	6	6.0
16:55:46	0	3	3	0	1	0	7	9.8	0	4	2	0	0	0	6	7.0	0	4	0	0	1	0	5	6.3
16:57:38	0	5	1	0	1	0	7	8.8	0	5	1	0	0	0	6	6.5	0	5	1	0	0	0	6	6.5
16:59:28	0	6	1	0	0	0	7	7.5	0	3	1	0	0	0	4	4.5	0	4	0	1	0	0	5	5.8
17:01:00	0	3	2	0	0	0	5	6.0	0	3	2	0	2	0	7	10.6	0	7	0	0	0	0	7	7.0
17:02:38	0	2	2	0	0	0	4	5.0	0	6	0	0	0	0	6	6.0	0	5	1	0	0	0	6	6.5
17:04:08	0	4	1	0	0	0	5	5.5	0	3	1	0	1	0	5	6.8	0	4	2	0	0	0	6	7.0
17:05:55	0	4	2	0	0	0	6	7.0	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5
17:07:24	0	5	1	0	1	0	7	8.8	0	4	0	0	0	0	4	4.0	0	4	1	0	2	0	7	10.1
17:09:07	0	4	1	0	0	0	5	5.5	0	3	2	0	1	0	6	8.3	0	4	1	0	0	0	5	5.5
17:10:34	0	4	2	0	0	0	6	7.0	0	4	3	0	0	0	7	8.5	0	5	0	0	0	0	5	5.0
17:12:25	0	7	3	0	0	0	10	11.5	0	5	2	0	0	0	7	8.0	0	7	0	0	0	0	7	7.0
17:13:54	0	4	2	0	0	0	6	7.0	0	6	2	0	0	0	8	9.0	0	5	1	0	0	0	6	6.5
17:15:35	0	6	1	0	0	0	7	7.5	0	8	1	0	0	0	9	9.5	0	4	0	0	2	0	6	8.6
17:17:07	0	7	3	0	0	0	10	11.5	0	9	4	1	2	0	16	21.4	0	7	3	0	1	0	11	13.8
17:18:52	0	5	2	0	0	0	7	8.0	0	6	1	0	0	0	7	7.5	0	5	1	0	0	0	6	6.5
17:20:23	0	5	1	0	0	0	6	6.5	0	6	2	0	0	0	8	9.0	0	5	2	0	0	0	7	8.0
17:22:05	0	5	2	0	0	0	7	8.0	0	4	1	0	2	0	7	10.1	0	5	0	0	1	0	6	7.3
17:23:34	0	7	2	0	0	0	9	10.0	0	6	3	0	0	0	9	10.5	0	7	0	0	0	0	7	7.0
17:25:05	0	5	1	0	0	0	6	6.5	0	6	4	0	1	0	11	14.3	0	4	2	0	0	0	6	7.0
17:26:50	0	5	2	0	1	0	8	10.3	0	4	3	0	0	0	7	8.5	0	5	0	1	0	0	6	6.8
17:28:19	0	4	3	0	0	0	7	8.5	0	7	1	0	0	0	8	8.5	0	6	0	0	0	0	6	6.0
17:30:06	1	5	2	0	0	0	8	8.5	0	4	2	0	1	0	7	9.3	0	5	1	0	0	0	6	6.5
17:31:56	0	8	0	0	0	0	8	8.0	0	5	2	0	0	0	7	8.0	0	4	2	0	1	0	7	9.1

17:33:23	0	3	2	0	1	0	6	8.3	0	5	1	0	0	0	6	6.5	0	2	1	0	0	0	3	3.5
17:35:05	0	4	1	0	0	0	5	5.5	0	3	3	1	2	0	9	13.9	0	4	1	0	0	0	5	5.5
17:36:40	0	4	1	0	0	0	5	5.5	0	8	0	0	0	0	8	8.0	0	6	1	0	0	0	7	7.5
17:38:34	0	6	3	0	0	0	9	10.5	0	6	1	0	0	0	7	7.5	0	4	0	0	0	0	4	4.0
17:40:05	0	5	0	0	0	0	5	5.0	0	6	2	0	0	0	8	9.0	0	4	1	1	0	0	6	7.3
17:41:39	0	5	2	0	0	0	7	8.0	0	5	1	0	0	0	6	6.5	0	5	0	0	0	0	5	5.0
17:43:19	0	3	1	0	1	0	5	6.8	0	4	1	0	3	0	8	12.4	0	8	2	1	1	0	12	15.1
17:45:08	0	6	2	0	0	0	8	9.0	0	6	1	0	0	0	7	7.5	0	5	1	0	0	0	6	6.5
17:46:40	0	5	2	0	0	0	7	8.0	0	7	0	0	0	0	7	7.0	0	6	0	0	0	0	6	6.0
17:48:18	0	6	3	0	0	0	9	10.5	0	4	2	0	2	0	8	11.6	0	5	0	0	1	0	6	7.3
17:50:01	0	4	2	0	0	0	6	7.0	0	4	2	0	1	0	7	9.3	0	3	3	0	0	0	6	7.5
17:51:47	0	3	0	0	0	0	3	3.0	0	0	1	0	1	0	2	3.8	0	0	0	0	0	0	0	0.0
17:53:18	0	4	2	0	0	0	6	7.0	0	3	1	0	0	0	4	4.5	0	4	2	0	2	0	8	11.6
17:54:54	0	4	2	0	0	0	6	7.0	0	3	2	0	0	0	5	6.0	0	7	0	0	0	0	7	7.0
17:56:23	0	6	1	0	0	0	7	7.5	0	5	2	0	0	0	7	8.0	0	5	2	0	0	0	7	8.0
17:58:16	0	4	1	0	0	0	5	5.5	0	7	2	0	0	0	9	10.0	0	5	2	1	0	0	8	9.8
17:59:44	0	4	2	0	0	0	6	7.0	0	4	1	0	0	0	5	5.5	0	4	3	0	1	0	8	10.8
Average (PCUs)							7.5								8.7								7.3	
18:01:19	0	5	2	0	0	0	7	8.0	0	5	2	0	0	0	7	8.0	0	6	1	0	0	0	7	7.5
18:02:31	0	4	2	0	0	0	6	7.0	0	4	2	0	1	0	7	9.3	0	8	0	0	0	0	8	8.0
18:03:42	0	3	2	0	0	0	5	6.0	0	4	2	0	0	0	6	7.0	0	6	1	0	0	0	7	7.5
18:04:44	0	6	2	0	0	0	8	9.0	0	6	4	0	2	0	12	16.6	0	8	3	0	0	0	11	12.5
18:06:10	0	4	2	0	0	1	7	9.0	0	4	1	0	2	0	7	10.1	0	5	1	0	1	0	7	8.8
18:07:20	0	4	1	0	0	0	5	5.5	0	5	0	0	0	0	5	5.0	0	7	0	0	0	0	7	7.0
18:08:31	0	5	0	0	0	0	5	5.0	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5
18:09:33	0	4	1	0	0	0	5	5.5	0	6	2	0	0	0	8	9.0	0	8	0	0	0	0	8	8.0
18:11:00	0	5	1	0	0	0	6	6.5	0	4	1	1	1	0	7	9.6	0	6	2	0	0	0	8	9.0
18:12:06	0	4	0	0	0	0	4	4.0	0	5	2	0	0	0	7	8.0	0	6	2	0	0	1	9	11.0
18:13:18	0	3	1	0	0	0	4	4.5	0	4	3	0	1	0	8	10.8	0	4	3	0	0	0	7	8.5
18:14:22	0	5	2	0	0	0	7	8.0	0	6	0	0	0	0	6	6.0	0	7	1	0	0	0	8	8.5
18:15:52	0	3	1	0	0	0	4	4.5	0	5	2	0	0	0	7	8.0	0	5	1	0	1	0	7	8.8
18:16:58	0	6	2	0	0	0	8	9.0	0	5	1	0	0	0	6	6.5	0	4	1	1	0	0	6	7.3
18:18:07	0	3	0	0	1	0	4	5.3	0	5	3	0	1	0	9	11.8	0	6	1	0	0	0	7	7.5
18:19:06	0	4	2	0	0	0	6	7.0	0	4	4	0	2	0	10	14.6	0	5	2	0	0	0	7	8.0
18:20:37	0	4	1	0	0	0	5	5.5	0	7	2	0	0	0	9	10.0	0	5	1	0	2	0	8	11.1
18:21:44	0	5	2	0	0	0	7	8.0	0	5	1	0	0	0	6	6.5	0	7	0	0	0	0	7	7.0
18:22:54	0	4	1	0	0	0	5	5.5	0	5	1	0	0	0	6	6.5	0	6	1	0	0	0	7	7.5
18:23:53	0	5	2	0	0	0	7	8.0	0	6	2	1	1	0	10	13.1	0	8	1	0	0	0	9	9.5
18:24:59	0	4	2	0	0	0	6	7.0	0	7	1	0	0	0	8	8.5	0	6	1	0	0	0	7	7.5
18:26:12	0	6	0	0	0	0	6	6.0	0	6	0	0	0	0	6	6.0	0	3	3	0	2	0	8	12.1
18:27:09	0	4	1	0	0	0	5	5.5	0	7	0	0	0	0	7	7.0	0	5	1	0	1	0	7	8.8
18:28:22	0	2	3	0	1	0	6	8.8	0	4	2	0	1	0	7	9.3	0	4	2	0	0	0	6	7.0
18:29:27	0	3	1	0	0	0	4	4.5	0	7	1	0	1	0	9	10.8	0	1	1	0	2	0	4	7.1
18:30:27	0	4	1	0	0	0	5	5.5	0	4	2	0	0	0	6	7.0	0	3	2	0	0	0	5	6.0
18:31:37	0	5	1	0	0	0	6	6.5	0	5	2	0	1	0	8	10.3	0	3	1	0	0	0	4	4.5
18:32:46	0	3	1	0	0	0	4	4.5	0	4	1	0	0	0	5	5.5	0	2	0	0	1	0	3	4.3
18:33:52	0	2	2	0	0	0	4	5.0	0	4	2	0	0	0	6	7.0	0	3	1	0	0	0	4	4.5
18:35:01	0	5	1	0	0	0	6	6.5	0	5	1	0	0	0	6	6.5	0	3	1	1	0	0	5	6.3
18:36:08	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
18:37:12	0	3	2	0	0	0	5	6.0	0	2	3	0	2	0	7	11.1	0	2	1	0	0	0	3	3.5
18:38:22	0	3	1	0	0	0	4	4.5	0	4	3	0	0	0	7	8.5	0	4	0	0	0	0	4	4.0
18:39:31	0	4	1	0	0	0	5	5.5	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0
18:40:28	0	3	1	0	0	0	4	4.5	0	0	2	0	1	0	3	5.3	0	1	1	0	0	0	2	2.5
18:41:41	0	3	1	0	0	0	4	4.5	0	2	1	0	1	0	4	5.8	0	2	1	0	0	0	3	3.5
18:42:41	0	5	1	0	0	0	6	6.5	0	3	2	0	1	0	6	8.3	0	5	0	0	0	0	5	5.0
18:43:31	0	3	0	0	0	1	4	5.0	0	3	1	0	0	0	4	4.5	0	3	1	0	1	0	5	6.8
18:44:34	0	4	3	0	0	0	7	8.5	0	1	2	0	0	0	3	4.0	0	3	2	0	0	0	5	6.0
18:45:32	0	3	2	0	0	0	5	6.0	0	2	1	0	2	0	5	8.1	0	4	0	0	0	0	4	4.0
18:46:31	0	3	1	0	0	0	4	4.5	0	2	0	0	1	0	3	4.3	0	2	1	0	1	0	4	5.8
18:47:29	0	5	1	0	0	0	6	6.5	0	4	2	0	0	0	6	7.0	0	2	2	0	0	0	4	5.0
18:48:32	0	2	0	0	0	0	2	2.0	0	2	2	0	0	0	4	5.0	0	4	1	0	0	0	5	5.5
18:49:35	0	2	2	0	0	0	4	5.0	0	3	2	0	0	0	5	6.0	0	2	0	0	0	0	2	2.0
18:50:28	0	1	0	0	0	0	1	1.0	0	0	1	1	0	0	2	3.3	0	1	0	0	0	0	1	1.0
18:51:22	0	2	1	0	0	0	3	3.5	0	2	2	0	0	0	4	5.0	0	2	1	0	0	0	3	3.5
18:52:20	0	4	2	0	0	0	6	7.0	0	3	0	0	1	0	4	5.3	0	1	1	0	2	0	4	7.1
18:53:08	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0
18:54:11	0	3	1	0	0	0	4	4.5	0	3	0	0	0	0	3	3.0	0	4	1	0	0	0	5	5.5
18:55:08	0	2	1	0	0	0	3	3.5	0	3	1	0	0	0	4	4.5	0	3	1	0	0	0	4	4.5
18:56:07	0	2	0	0	0	0	2	2.0	0	3	0	0	2	0	5	7.6	0	4	0	0	0	0	4	4.0
18:57:03	0	1	2	0	0	0	3	4.0	0	1	3	0	0	0	4	5.5	0	3	0	0	0	0	3	3.0
18:58:01	0	3	0	0	0	0	3	3.0	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	3	3.5
18:58:48	0	1	0	0	0	0	1	1.0	0	2	1	0	2	0	5	8.1	0	1	0	0	0	0	1	1.0
18:59:42	0	2	0	0	0	0	2	2.0	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0

	M1 Southbound Offslip																								
	Lane 1								Lane 2								Lane 3								
Time	M/C	CAR	LGW	OGV1	OGV2	BUS	Total	PCUs	M/C	CAR	LGW	OGV1	OGV2	BUS	Total	PCUs	M/C	CAR	LGW	OGV1	OGV2	BUS	Total	PCUs	
06:31:01	1	0	0	0	2	0	3	5.1	0	0	2	0	0	0	2	3.0	0	0	0	0	0	0	0	0	0.0
06:32:05	0	1	0	0	2	0	3	5.6	0	1	0	0	0	0	1	1.0	0	2	0	0	0	1	0	3	4.3
06:33:32	0	3	0	0	1	0	4	5.3	0	2	0	0	0	0	2	2.0	0	1	0	1	0	0	0	2	2.8
06:34:59	0	2	0	0	1	0	3	4.3	0	0	2	0	0	0	2	3.0	0	0	0	0	0	0	0	0	0.0
06:36:31	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
06:38:01	0	2	0	0	1	0	3	4.3	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	0	3	3.5
06:39:33	0	5	1	1	3	0	10	15.2	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	0	2	2.0
06:41:04	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	0	2	2.0
06:42:32	0	1	1	0	3	0	5	9.4	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	0	2	2.0
06:44:01	0	1	5	0	1	0	7	10.8	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.5
06:45:33	0	1	1	1	0	0	3	4.3	0	2	0	0	0	0	2	2.0	0	0	0	0	0	1	0	1	2.3
06:47:00	0	1	4	1	0	0	6	8.8	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	0	1	1.0
06:48:30	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	1	0	0	0	0	0	1	1.0
06:50:02	0	1	0	0	2	0	3	5.6	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
06:51:35	0	2	2	0	0	0	4	5.0	0	1	1	0	0	0	2	2.5	0	3	0	0	1	0	4	5.3	
06:53:06	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0	0	2	0	0	0	0	0	2	2.0
06:54:36	0	3	2	0	1	0	6	8.3	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
06:56:09	0	1	0	1	1	0	3	5.1	0	5	0	0	0	0	5	5.0	0	1	1	0	0	0	0	2	2.5
06:57:38	0	1	1	0	1	0	3	4.8	0	4	0	0	0	0	4	4.0	0	6	1	0	0	1	0	8	9.8
06:59:07	0	4	0	0	0	0	4	4.0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	1	0	1	2.3
07:00:40	0	3	0	1	1	0	5	7.1	0	2	0	0	0	0	2	2.0	0	1	0	1	2	0	4	7.4	
07:02:11	0	2	0	0	1	0	3	4.3	0	3	1	0	1	0	5	6.8	0	2	1	1	1	0	5	7.6	
07:03:41	0	6	1	0	2	0	9	12.1	0	3	0	0	0	0	3	3.0	1	2	0	0	0	0	3	2.5	
07:05:09	0	1	1	1	3	0	6	11.2	0	1	1	0	1	0	3	4.8	0	0	2	0	2	0	4	7.6	
07:08:11	0	4	0	1	1	0	6	8.1	0	2	1	0	0	0	3	3.5	0	1	2	1	0	0	4	5.8	
07:09:40	0	0	0	1	1	0	2	4.1	0	0	0	0	0	0	0	0.0	0	3	1	0	0	0	4	4.5	
07:11:12	0	0	0	0	1	0	1	2.3	0	1	0	0	0	0	1	1.0	0	2	0	0	0	0	0	2	2.0
07:12:41	0	0	0	0	1	0	1	2.3	0	3	1	0	0	0	4	4.5	0	2	2	0	0	0	4	5.0	
07:14:14	0	4	0	0	0	0	4	4.0	0	1	1	0	0	0	2	2.5	0	1	0	1	0	0	2	2.8	
07:15:47	0	2	1	0	1	0	4	5.8	0	1	2	1	0	0	4	5.8	0	0	1	0	0	0	1	1.5	
07:17:15	0	5	1	0	0	0	6	6.5	0	5	0	0	0	0	5	5.0	0	4	1	0	0	0	5	5.5	
07:18:44	0	6	1	0	2	0	9	12.1	0	2	1	0	0	0	3	3.5	0	1	1	0	0	0	2	2.5	
07:20:14	0	4	3	0	1	0	8	10.8	0	6	1	0	0	0	7	7.5	0	0	1	0	0	0	1	1.5	
07:21:41	0	3	0	0	1	0	4	5.3	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	2	2.0	
07:23:09	0	1	0	0	2	0	3	5.6	1	3	3	0	0	0	7	8.0	0	4	0	0	0	0	4	4.0	
07:24:39	0	2	4	1	2	0	9	14.4	0	2	1	0	0	0	3	3.5	0	3	2	0	0	0	5	6.0	
07:26:08	0	3	2	1	3	0	9	14.7	0	10	3	0	0	0	13	14.5	0	1	1	1	1	0	4	6.6	
07:27:38	0	1	3	1	2	0	7	11.9	0	6	0	1	1	0	8	10.1	0	4	1	0	0	0	5	5.5	
07:29:10	0	7	1	0	1	0	9	10.8	0	5	1	0	0	0	6	6.5	0	4	1	0	0	0	5	5.5	
07:30:39	0	3	3	1	2	0	9	13.9	0	7	3	0	0	0	10	11.5	0	2	1	0	1	0	4	5.8	
07:32:11	0	2	4	1	4	0	11	19.0	0	5	0	0	1	0	6	7.3	0	3	0	0	0	0	3	3.0	
07:33:41	0	5	3	0	3	0	11	16.4	0	5	0	0	0	0	5	5.0	0	2	3	0	1	0	6	8.8	
07:35:11	0	3	1	0	4	0	8	13.7	0	9	1	0	0	0	10	10.5	0	3	1	0	0	0	4	4.5	
07:36:39	0	8	3	0	3	0	14	19.4	0	2	3	0	0	0	5	6.5	0	2	0	0	0	0	2	2.0	
07:38:11	0	2	1	1	2	0	6	9.9	0	1	0	0	0	0	1	1.0	0	4	2	0	0	0	6	7.0	
07:39:44	0	2	2	1	1	0	6	9.1	0	5	1	0	0	0	6	6.5	0	3	0	0	1	0	4	5.3	
07:41:13	0	5	1	2	1	0	9	12.4	0	14	1	0	0	0	15	15.5	0	4	0	0	1	0	5	6.3	
07:42:44	0	3	6	0	4	0	13	21.2	0	8	0	0	0	0	8	8.0	0	2	0	0	0	0	2	2.0	
07:44:13	0	7	3	0	1	0	11	13.8	0	5	0	0	0	0	5	5.0	0	1	0	0	0	0	1	1.0	
07:45:42	0	4	0	1	1	0	6	8.1	0	2	1	0	0	0	3	3.5	0	2	2	0	0	0	4	5.0	
07:47:15	0	4	1	2	1	0	8	11.4	0	5	1	1	0	0	7	8.3	0	4	1	0	1	0	6	7.8	
07:48:48	0	3	3	0	1	0	7	9.8	0	9	0	0	1	0	10	11.3	1	7	1	0	0	0	9	9.0	
07:50:15	0	12	0	1	1	0	14	16.1	0	7	0	0	0	0	7	7.0	0	6	0	1	0	0	7	7.8	
07:51:46	0	14	2	1	1	0	18	21.1	0	10	0	0	0	0	10	10.0	0	5	2	0	0	0	7	8.0	
07:53:15	0	10	5	0	0	0	15	17.5	0	14	1	0	1	0	16	17.8	0	4	1	0	0	0	5	5.5	
07:54:45	0	8	4	0	3	0	15	20.9	0	11	0	0	0	0	11	11.0	0	5	0	0	1	0	6	7.3	
07:56:15	0	9	3	1	1	0	14	17.6	0	10	0	0	1	0	11	12.3	0	4	1	0	0	0	5	5.5	
07:57:47	0	6	3	1	1	0	11	14.6	0	16	0	0	0	0	16	16.0	0	4	0	1	0	0	5	5.8	
07:59:19	0	6	34	1	2	0	43	63.4	0	18	3	0	0	0	21	22.5	0	0	0	0	0	0	0	0	0.0
08:00:47	0	5	1	1	4	0	11	17.5	0	10	0	0	0	0	10	10.0	0	6	0						

09:03:40	0	8	6	1	1	0	16	21.1	0	16	0	0	0	0	16	16.0	0	3	0	0	0	0	3	3.0
09:05:09	0	5	1	2	2	0	10	14.7	0	10	2	0	0	0	12	13.0	0	3	0	1	2	0	6	9.4
09:06:38	0	9	1	1	1	0	12	14.6	0	8	0	0	0	0	8	8.0	0	3	0	1	0	0	4	4.8
09:08:09	0	11	2	1	1	0	15	18.1	1	6	0	0	0	0	7	6.5	0	4	1	0	0	0	5	5.5
09:09:42	0	7	2	0	4	0	13	19.2	0	10	1	0	0	0	11	11.5	0	5	1	0	0	0	6	6.5
09:11:14	0	12	0	0	0	0	12	12.0	0	9	0	1	0	0	10	10.8	0	2	1	0	1	0	4	5.8
09:12:46	0	6	2	0	1	0	9	11.3	0	10	2	0	0	0	12	13.0	0	4	0	0	0	0	4	4.0
09:14:15	0	10	1	0	1	0	12	13.8	0	8	2	0	0	0	10	11.0	0	4	1	0	0	0	5	5.5
09:15:44	0	9	1	0	2	0	12	15.1	0	8	1	0	0	0	9	9.5	0	8	0	0	0	0	8	8.0
09:17:11	0	8	2	0	0	0	10	11.0	0	1	0	0	0	0	1	1.0	0	1	0	1	0	0	2	2.8
09:18:43	0	7	5	2	0	0	14	18.1	0	12	0	0	0	0	12	12.0	0	3	0	0	1	0	4	5.3
09:20:15	0	5	2	0	3	0	10	14.9	0	9	0	0	0	0	9	9.0	0	2	0	0	0	0	2	2.0
09:21:45	0	3	5	1	1	0	10	14.6	0	8	1	0	0	0	9	9.5	0	3	4	0	0	0	7	9.0
09:23:13	0	5	0	0	3	0	8	11.9	0	7	0	0	0	0	7	7.0	0	4	0	0	0	0	4	4.0
09:24:45	0	4	1	0	2	0	7	10.1	0	6	0	0	1	0	7	8.3	0	5	0	1	0	0	6	6.8
09:26:17	0	8	1	2	3	0	14	20.0	0	13	1	0	0	0	14	14.5	0	1	1	0	0	0	2	2.5
09:27:45	0	7	3	0	1	0	11	13.8	0	3	0	2	0	0	5	6.6	0	0	0	0	0	0	0	0.0
09:29:17	0	4	3	0	1	0	8	10.8	0	3	0	0	0	0	3	3.0	0	1	0	0	1	0	2	3.3

16:00:48	0	7	1	1	1	0	10	12.6	0	4	1	0	0	0	5	5.5	0	6	0	0	1	0	7	8.3
16:02:29	0	6	3	0	2	0	11	15.1	0	3	1	0	1	0	5	6.8	0	2	0	0	0	0	2	2.0
16:04:11	0	2	0	1	0	0	3	3.8	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0
16:05:20	0	6	1	0	1	0	8	9.8	0	0	0	0	0	0	0	0.0	0	1	0	1	0	0	2	2.8
16:06:43	0	10	0	0	2	0	12	14.6	0	3	0	0	0	0	3	3.0	0	3	0	0	0	0	3	3.0
16:08:16	0	3	3	0	0	0	6	7.5	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0.0
16:09:17	0	4	2	0	1	0	7	9.3	0	2	0	0	0	0	2	2.0	0	0	0	0	1	0	1	2.3
16:10:44	0	1	2	2	1	0	6	9.9	0	3	1	0	0	0	4	4.5	0	1	0	0	1	0	2	3.3
16:12:15	0	7	2	0	0	0	9	10.0	0	4	1	0	0	0	5	5.5	0	1	0	0	0	0	1	1.0
16:13:14	0	5	0	0	3	0	8	11.9	0	8	0	0	1	0	9	10.3	0	1	1	0	0	0	2	2.5
16:14:47	0	1	2	0	1	0	4	6.3	0	3	4	0	0	0	7	9.0	0	0	0	1	1	0	2	4.1
16:16:15	0	6	2	0	3	0	11	15.9	0	8	2	0	1	0	11	13.3	0	1	0	0	0	0	1	1.0
16:17:12	0	4	3	0	3	0	10	15.4	0	5	3	0	0	0	8	9.5	0	1	0	0	0	0	1	1.0
16:18:39	0	4	2	0	0	0	6	7.0	0	1	1	0	0	0	2	2.5	0	3	3	0	0	0	6	7.5
16:20:11	0	6	0	0	0	0	6	6.0	0	4	3	0	1	0	8	10.8	0	2	0	0	1	0	3	4.3
16:21:10	0	3	0	1	1	0	5	7.1	0	1	0	0	1	0	2	3.3	0	1	1	0	0	0	2	2.5
16:22:39	0	9	3	1	1	0	14	17.6	0	6	1	0	1	0	8	9.8	0	1	0	0	0	0	1	1.0
16:24:08	0	9	2	0	3	1	15	20.9	0	5	2	1	0	0	8	9.8	0	5	1	0	0	0	6	6.5
16:25:05	0	4	2	0	2	0	8	11.6	0	5	0	0	0	1	6	7.0	0	4	0	0	1	0	5	6.3
16:26:34	0	13	1	1	1	0	16	18.6	0	1	0	0	0	0	1	1.0	0	8	2	0	0	0	10	11.0
16:28:05	0	4	2	0	1	0	7	9.3	0	6	0	1	0	0	7	7.8	0	2	0	0	0	0	2	2.0
16:29:02	0	10	0	2	2	0	14	18.2	0	9	1	0	0	0	10	10.5	0	3	1	0	0	0	4	4.5
16:30:35	0	6	2	0	1	0	9	11.3	0	4	1	0	1	0	6	7.8	0	2	1	0	0	0	3	3.5
16:32:04	0	8	2	1	1	0	12	15.1	0	4	2	0	0	0	6	7.0	0	2	0	0	0	0	2	2.0
16:33:03	0	1	1	0	1	0	3	4.8	0	2	0	0	0	0	2	2.0	0	1	0	0	1	0	2	3.3
16:34:34	0	3	1	1	1	0	6	8.6	0	4	1	0	1	0	6	7.8	0	2	1	0	0	0	3	3.5
16:36:06	0	8	2	0	3	0	13	17.9	0	10	2	0	0	0	12	13.0	0	3	2	0	0	0	5	6.0
16:37:05	0	4	1	0	4	0	9	14.7	0	3	3	0	0	0	6	7.5	0	3	0	0	0	0	3	3.0
16:38:34	0	1	0	1	2	0	4	7.4	0	0	1	0	1	0	2	3.8	0	0	0	0	0	0	0	0.0
16:40:02	0	2	1	1	2	0	6	9.9	0	9	1	0	0	0	10	10.5	0	3	0	1	0	0	4	4.8
16:41:02	0	6	0	1	0	1	8	9.8	0	9	1	0	0	0	10	10.5	0	5	2	0	0	0	7	8.0
16:42:33	0	4	3	0	1	0	8	10.8	0	5	2	0	0	0	7	8.0	0	5	1	0	1	0	7	8.8
16:44:04	0	2	1	0	1	0	4	5.8	0	3	2	1	0	0	6	7.8	0	1	1	0	0	0	2	2.5
16:45:04	0	4	0	1	1	0	6	8.1	0	0	2	0	0	0	2	3.0	0	1	1	0	0	0	2	2.5
16:46:32	0	5	1	1	3	0	10	15.2	0	8	1	0	0	0	9	9.5	0	2	1	0	0	0	3	3.5
16:48:01	0	6	2	0	1	0	9	11.3	0	5	1	1	0	0	7	8.3	0	2	0	0	0	0	2	2.0
16:48:59	0	5	1	0	2	0	8	11.1	0	4	1	0	0	0	5	5.5	0	3	0	1	0	0	4	4.8
16:50:32	0	6	0	0	0	0	6	6.0	0	4	0	0	0	0	4	4.0	0	2	0	0	1	0	3	4.3
16:51:59	0	8	1	1	0	0	10	11.3	0	5	0	0	0	0	5	5.0	0	5	1	0	0	0	6	6.5
16:52:58	0	7	0	0	1	0	8	9.3	0	7	1	0	0	0	8	8.5	0	3	1	0	0	0	4	4.5
16:54:27	0	3	0	0	1	0	4	5.3	0	10	0	0	0	0	10	10.0	0	5	0	0	0	0	5	5.0
16:55:55	0	7	1	0	4	0	12	17.7	0	7	1	1	0	0	9	10.3	0	2	0	0	0	0	2	2.0
16:56:55	0	7	3	0	2	0	12	16.1	0	4	4	0	0	0	8	10.0	0	4	0	0	0	0	4	4.0
16:58:24	0	1	0	1	3	0	5	9.7	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	1	1.0
16:59:55	0	2	2	1	4	0	9	16.0	0	10	2	0	0	0	12	13.0	0	2	1	0	0	0	3	3.5
17:00:52	2	6	1	2	1	0	12	14.4	0	5	1	0	1	0	7	8.8	0	2	2	0	0	0	4	5.0
17:02:21	0	9	3	0	2	0	14	18.1	0	2	3	1	0	0	6	8.3	0	1	0	0	0	0	1	1.0
17:03:53	0	6	2	1	1	0	10	13.1	0	6	4	0	0	0	10	12.0	0	2	0	0	0	0	2	2.0
17:04:51	0	3	2	1	1	0	7	10.1	0	6	2	0	0	0	8	9.0	0	3	0	0	0	0	3	3.0
17:06:22	0	8	3	0	1	0	12	14.8	0	9	2	0	0	0	11	12.0	0	1	1	0	0	0	2	2.5
17:07:54	0	6	1	0	2	0	9	12.1	0	4	1	0	0	0	5	5.5	0	6	2	0	1	0	9	11.3
17:08:52	0	5	1	0	1	0	7	8.8	0	6	0	1	0	0	7	7.8	0	2	0	0	0	0	2	2.0
17:10:22	0	6	1	0	1	0	8	9.8	0	10	2	0	0	0	12	13.0	0	2	0	0	0	0	2	2.0
17:12:50	0	5	4	2	3	0	14	21.5	0	3	0	1	1	0	5	7.1	0	1	0	0	0	0	1	1.0
17:14:20	0	6	2	1	0	0	9	10.8	0	5	0	0	0	0	5	5.0	0	1	1	0	0	0	2	2.5
17:15:49	0	2	0	2	2	0	6	10.2	0	7	0	0	0	0	7	7.0	0	2	2	0	0	0	4	5.0
17:16:51	0	3	1	0	4	0	8	13.7	0	7	3	0	0	0	10	11.5	0	6	0	0	0	0	6	6.0
17:18:21	0	5	1	0	1	0	7	8.8	0	5	0	0	0	0	5	5.0	0	1	1	0	0	0	2	2.5
17:19:51	0	3	3	0	0	0	6	7.5	0	4	1	0	0	0	5	5.5	0	4	0	0	0	0	4	4.0
17:20:50	0	7	1	0	1	0	9	10.8	0	3	2	0	1	0	6	8.3	0	4	0	0	0	0	4	4.0
17:22:18	0	5	1	0	1	0	7	8.8	0	8	0	0	0	0	8	8.0	0	1	0	0	0	0	1	1.0
17:23:47	0	7	1	1	2	0	11	14.9	1	9	1	0	0	0	11	11.0	0	3	1	0	1	0	5	6.8
17:24:48	0	11	2	0	2	0	15	18.6	0	6	3	0	0	0	9	10.5	0	2	3	0	0	0	5	6.5
17:26:19	0	9	1	0	3	0	13	17.4	0	7	3	0	1	0	11	13.8	0	4	0	0	0	0	4	4.0
17:27:49	0	8	0	2	1	0	11	13.9	0	4	0	0	0	0	4	4.0	0	1	0	0	0	0	1	1.0
17:28:48	0	8	0	0	2	0	10	12.6	0	10	0	0	0	0	10	10.0	0	2	2	0	0	0	4	5.0
17:30:20	0	6	0	2	1	0	9	11.9	0	8	2	0	0	0	10	11.0	0	1	0	0	1	0	2	3.3
17:31:52	0	9	2	0	0	0	11	12.0	0	5	2	0	0	0	7	8.0	0	2	0	0	0	0	2	2.0
17:34:24	0	7	0	2	0	0	9	10.6	0	10	1	0	0	0	11	11.5	0	4	0	0	0	0	4	4.0
17:35:57	0	6	1	0	1	0	8	9.8	0	3	1	0	0	0	4	4.5	0	1	0	0	0	0	1	1.0
17:36:57	0	5	1	0	0	0	6	6.5	0	4	1	0	1	0	6	7.8	0	1	0	0	0	0	1	1.0
17:38:26	0	5	0	0	2	0	7	9.6	0	6	1	0	0	0	7	7.5	0	1	0	0	0	0	1	1.0
17:39:53	0	12	1	0	1	0	14	15.8	0	6	0	0	0	0	6	6.0	0	3	0	1	0	0	4	4.8
17:40:55	0	14	0	1	0	0	15	15.8																

18:00:46	0	4	1	1	2	0	8	11.9	0	6	0	1	0	0	7	7.8	0	3	0	0	0	0	3	3.0
18:02:17	0	6	0	1	1	0	8	10.1	0	10	0	0	0	0	10	10.0	0	2	0	0	0	0	2	2.0
18:03:45	0	5	0	1	1	0	7	9.1	0	6	1	0	1	0	8	9.8	0	2	0	0	0	0	2	2.0
18:04:47	0	6	0	0	1	2	9	12.3	0	9	1	1	0	0	11	12.3	0	0	0	0	0	0	0	0.0
18:06:16	0	9	1	0	2	0	12	15.1	0	8	1	0	0	0	9	9.5	0	6	1	0	0	0	7	7.5
18:07:43	0	11	0	0	1	0	12	13.3	0	10	0	0	0	0	10	10.0	0	3	0	0	0	0	3	3.0
18:08:42	0	6	2	0	0	0	8	9.0	0	5	1	0	0	0	6	6.5	0	1	0	0	0	0	1	1.0
18:10:12	0	4	0	0	1	0	5	6.3	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0.0
18:11:40	0	5	1	0	1	0	7	8.8	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0.0
18:12:42	0	8	0	0	0	0	8	8.0	0	8	0	0	0	0	8	8.0	0	3	0	0	0	0	3	3.0
18:14:15	0	3	1	1	1	0	6	8.6	0	7	3	0	0	0	10	11.5	0	1	0	0	0	0	1	1.0
18:15:46	0	7	2	0	1	0	10	12.3	0	5	1	0	0	0	6	6.5	0	3	0	0	0	0	3	3.0
18:16:43	1	5	1	1	0	0	8	8.8	0	7	2	0	0	0	9	10.0	0	3	0	0	0	0	3	3.0
18:18:13	0	7	0	0	1	0	8	9.3	0	4	0	0	0	0	4	4.0	0	2	0	0	0	0	2	2.0
18:19:41	0	6	0	0	1	0	7	8.3	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0
18:20:39	0	7	0	0	0	0	7	7.0	0	13	1	1	2	0	17	20.9	0	3	0	0	1	0	4	5.3
18:22:10	0	8	1	0	0	0	9	9.5	0	8	1	0	0	0	9	9.5	0	3	1	0	0	0	4	4.5
18:23:41	0	8	0	0	3	0	11	14.9	0	6	1	0	0	0	7	7.5	0	8	0	0	0	0	8	8.0
18:24:39	0	13	2	0	0	0	15	16.0	0	6	0	0	0	0	6	6.0	0	2	0	0	0	0	2	2.0
18:26:07	0	12	1	0	0	0	13	13.5	0	9	3	0	0	0	12	13.5	0	1	0	0	0	0	1	1.0
18:27:37	0	6	0	1	0	0	7	7.8	0	11	1	0	0	0	12	12.5	0	3	0	0	2	0	5	7.6
18:28:37	0	3	1	0	1	0	5	6.8	0	4	0	0	0	0	4	4.0	0	3	0	0	0	0	3	3.0
18:30:08	0	5	0	0	0	0	5	5.0	0	5	0	0	0	0	5	5.0	0	3	0	0	0	0	3	3.0
18:31:38	0	4	0	0	1	0	5	6.3	0	7	0	0	1	0	8	9.3	0	5	1	0	0	0	6	6.5
18:32:37	0	8	0	0	1	0	9	10.3	1	5	1	0	0	0	7	7.0	0	1	1	0	0	0	2	2.5
18:34:06	0	4	0	0	0	0	4	4.0	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	1	1.0
18:35:35	0	7	1	0	1	0	9	10.8	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	1	1.0
18:36:32	0	6	0	1	2	0	9	12.4	0	4	1	0	1	0	6	7.8	0	2	0	0	0	0	2	2.0
18:38:00	0	1	2	0	0	0	3	4.0	0	4	0	0	0	0	4	4.0	0	4	0	0	1	0	5	6.3
18:39:28	0	8	0	0	0	0	8	8.0	0	6	1	0	0	0	7	7.5	0	0	0	0	0	0	0	0.0
18:40:29	0	5	4	0	0	0	9	11.0	0	9	0	0	0	0	9	9.0	0	7	0	0	0	0	7	7.0
18:41:57	0	2	1	1	0	0	4	5.3	0	3	0	0	0	0	3	3.0	0	4	1	0	0	0	5	5.5
18:43:26	0	3	0	0	2	0	5	7.6	0	5	1	0	0	0	6	6.5	0	2	1	0	0	0	3	3.5
18:44:27	0	2	1	0	1	0	4	5.8	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0
18:45:55	0	11	0	0	0	0	11	11.0	0	8	2	0	0	0	10	11.0	0	3	0	0	1	0	4	5.3
18:47:23	0	6	0	1	1	0	8	10.1	0	5	0	0	0	0	5	5.0	0	3	0	0	0	0	3	3.0
18:48:22	0	5	0	0	2	0	7	9.6	0	8	5	0	0	0	13	15.5	0	1	0	0	0	0	1	1.0
18:49:51	0	7	0	1	1	0	9	11.1	0	3	0	0	0	0	3	3.0	0	3	0	0	0	0	3	3.0
18:51:23	0	7	2	1	1	0	11	14.1	0	9	1	0	0	0	10	10.5	0	1	0	0	0	0	1	1.0
18:52:23	0	2	0	1	1	0	4	6.1	0	6	0	0	0	0	6	6.0	0	2	0	0	0	0	2	2.0
18:53:53	0	5	1	0	0	0	6	6.5	0	3	1	0	1	0	5	6.8	0	1	0	0	0	0	1	1.0
18:55:22	0	2	0	0	0	0	2	2.0	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	3	3.0
18:56:24	0	6	1	1	0	0	8	9.3	0	5	0	0	0	0	5	5.0	0	1	0	0	0	0	1	1.0
18:57:52	0	5	1	1	1	0	8	10.6	0	9	0	0	0	0	9	9.0	0	2	0	0	0	0	2	2.0
18:59:24	0	6	1	0	0	0	7	7.5	0	9	0	0	0	0	9	9.0	0	2	0	0	0	0	2	2.0

	Circulating at Southbound Offslip																								
	Lane 1								Lane 2								Lane 3								
Time	M/G	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	M/C	Car	LGV	OGV1	OGV2	Bus	Total	PCUs	
06:30:10	0	1	3	0	0	0	4	5.5	0	4	0	0	0	0	4	4.0	0	1	0	0	0	0	0	1	1.0
06:31:14	0	2	1	0	0	0	3	3.5	0	5	1	0	1	0	7	8.8	0	1	0	0	0	0	0	1	1.0
06:32:50	0	1	2	0	0	0	3	4.0	0	4	1	0	0	0	5	5.5	0	0	1	0	0	0	0	1	1.5
06:34:09	0	3	1	0	0	0	4	4.5	0	3	1	0	0	0	4	4.5	0	1	0	0	0	0	0	1	1.0
06:35:46	0	1	2	0	0	0	3	4.0	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	0	2	2.0
06:37:14	0	1	1	0	0	0	2	2.5	0	4	1	0	1	0	6	7.8	0	1	1	0	0	0	0	2	2.5
06:38:43	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
06:40:12	0	3	1	0	1	0	5	6.8	0	3	1	0	0	0	4	4.5	0	0	1	0	0	0	0	1	1.5
06:41:49	0	2	1	0	2	0	5	8.1	0	3	2	0	0	0	5	6.0	0	1	0	0	0	0	0	1	1.0
06:43:15	0	3	0	0	1	0	4	5.3	0	2	2	0	0	0	4	5.0	0	0	0	0	0	0	0	0	0.0
06:44:54	0	2	1	0	2	0	5	8.1	0	2	0	0	0	0	2	2.0	0	1	0	0	0	0	0	1	1.0
06:46:12	0	3	1	0	1	0	5	6.8	0	3	1	0	1	0	5	6.8	0	0	0	0	0	0	0	0	0.0
06:47:50	0	1	0	0	0	0	1	1.0	0	1	1	0	0	0	2	2.5	0	0	0	0	0	0	0	0	0.0
06:49:11	0	1	0	0	1	0	2	3.3	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	0	1	1.0
06:50:48	0	2	0	0	0	0	2	2.0	0	4	0	0	1	0	5	6.3	0	2	0	0	0	0	0	2	2.0
06:52:15	0	2	1	0	0	0	3	3.5	0	3	3	0	0	0	6	7.5	0	1	0	0	0	0	0	1	1.0
06:53:54	0	2	1	0	1	0	4	5.8	0	2	0	0	0	0	2	2.0	0	1	1	0	0	0	0	2	2.5
06:55:22	0	1	0	0	1	0	2	3.3	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	0	1	1.0
06:56:52	0	1	0	0	0	0	1	1.0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0
06:58:25	0	1	2	0	0	0	3	4.0	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	0	1	1.0
06:59:50	0	2	1	0	0	0	3	3.5	0	3	0	0	0	0	3	3.0	0	1	0	0	0	0	0	1	1.0
07:01:25	0	1	0	0	1	0	2	3.3	0	2	2	0	0	0	4	5.0	0	0	0	0	0	0	0	0	0.0
07:02:58	0	2	0	0	0	0	2	2.0	0	3	2	0	0	0	5	6.0	0	1	0	0	0	0	0	1	1.0
07:04:26	0	1	1	0	1	0	3	4.8	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	0	2	2.0
07:07:23	0	3	0	0	0	0	3	3.0	0	2	2	0	0	0	4	5.0	0	2	0	0	0	0	0	2	2.0
07:08:50	0	3	0	0	0	0	3	3.0	0	5	0	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.5
07:10:31	0	1	2	0	1	0	4	6.3	0	2	1	0	1	0	4	5.8	0	1	1	0	0	0	0	2	2.5
07:12:00	0	2	1	0	1	0	4	5.8	0	4	0	0	1	0	5	6.3	0	2	0	0	0	0	0	2	2.0
07:13:33	0	2	1	0	0	0	3	3.5	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0
07:15:01	0	1	1	1	0	1	4	6.3	0	2	2	0	0	0	4	5.0	0	1	0	0	0	0	0	1	1.0
07:16:36	0	2	2	0	1	0	5	7.3	0	2	3	0	0	0	5	6.5	0	2	1	0	0	0	0	3	3.5
07:18:06	0	3	3	0	2	0	8	12.1	0	3	0	0	0	0	3	3.0	0	3	0	0	0	0	0	3	3.0
07:19:29	0	3	0	0	1	0	4	5.3	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0	0.0
07:21:02	0	3	0	0	0	0	3	3.0	0	2	1	0	0	0	3	3.5	0	4	0	0	0	0	0	4	4.0
07:22:24	0	2	4	0	0	0	6	8.0	0	4	0	0	0	0	4	4.0	0	3	0	0	0	0	0	3	3.0
07:24:00	0	3	1	0	0	0	4	4.5	0	2	0	0	0	0	2	2.0	0	3	0	0	0	0	0	3	3.0
07:25:29	0	3	1	0	1	0	5	6.8	0	3	1	0	0	0	4	4.5	0	1	1	0	0	0	0	2	2.5
07:26:53	0	4	2	0	2	0	8	11.6	0	2	1	0	0	0	3	3.5	0	2	1	0	0	0	0	3	3.5
07:28:18	0	4	1	0	0	0	5	5.5	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	0	2	2.0
07:29:55	0	2	2	0	0	0	4	5.0	0	2	1	0	1	0	4	5.8	0	2	1	0	0	0	0	3	3.5
07:31:23	0	4	1	0	1	0	6	7.8	0	3	0	0	0	0	3	3.0	0	2	0	0	0	0	0	2	2.0
07:32:55	0	2	1	0	0	0	3	3.5	0	5	1	0	2	0	8	11.1	0	1	1	0	0	0	0	2	2.5
07:34:28	0	2	2	0	3	0	7	11.9	0	3	1	0	0	0	4	4.5	0	1	1	0	0	0	0	2	2.5
07:35:59	0	2	3	0	0	0	5	6.5	0	2	1	0	0	0	3	3.5	0	2	0	0	0	0	0	2	2.0
07:37:23	0	3	0	0	0	0	3	3.0	0	7	2	0	0	0	9	10.0	0	1	0	0	0	0	0	1	1.0
07:38:59	0	3	1	0	0	0	4	4.5	0	8	1	0	1	0	10	11.8	0	2	0	0	0	0	0	2	2.0
07:40:30	0	6	2	0	0	0	8	9.0	0	10	2	0	0	0	12	13.0	0	2	0	0	0	0	0	2	2.0
07:41:58	0	9	1	0	1	0	11	12.8	0	12	2	0	0	0	14	15.0	0	0	0	0	0	0	0	0	0.0
07:43:22	0	7	1	0	2	0	10	13.1	0	13	2	0	0	0	15	16.0	0	1	0	0	0	0	0	1	1.0
07:44:51	0	11	4	0	0	0	15	17.0	0	13	0	0	0	0	13	13.0	0	1	1	0	0	0	0	2	2.5
07:46:28	0	10	3	0	3	0	16	21.4	0	15	2	0	0	0	17	18.0	0	2	1	0	0	0	0	3	3.5
07:48:08	0	7	1	0	0	0	8	8.5	0	13	4	0	0	0	17	19.0	0	4	0	0	0	0	0	4	4.0
07:49:38	0	7	2	0	0	0	9	10.0	0	12	2	0	0	0	14	15.0	0	0	1	0	0	0	0	1	1.5
07:51:04	0	8	3	0	1	0	12	14.8	0	10	2	0	0	0	12	13.0	0	1	0	0	0	0	0	1	1.0
07:52:35	0	10	3	0	0	0	13	14.5	0	14	2	0	0	0	16	17.0	0	1	1	0	0	0	0	2	2.5
07:54:07	0	9	4	0	0	0	13	15.0	0	15	3	0	1	0	19	21.8	0	3	0	0	0	0	0	3	3.5
07:55:32	0	7	4	0	1	0	12	15.3	0	15	0	0	0	0	15	15.0	0	1	1	0	0	0	0	2	2.5
07:57:05	0	10	4	0	2	0	16	20.6	0	13	2	0	0	0	15	16.0	0	3	0	0	0	0	0	3	3.0
07:58:33	0	7	2	0	0	0	9	10.0	0	15	2	0	0	0	17	18.0	0	2	0	0	0	0	0	2	2.0
08:00:01	0	8	3	0	0	1	12	14.5	0	13	4	0	0	0	17	19.0	0	2	0	0	0	0	0	2	2.0
08:01:28	0	12	2	0	0	0	14	15.0	0	12	5	0	1	0	18	21.8	0	3	0	0	0	0	0	3	3.0
08:02:58	0	10	4	0	0	0	14	16.0	0	10	6	0	2	0	18	23.6	0	4	1	0	0	0	0	5	5.5
08:04:31	0	12	4	0	0	0	16	18.0	0	14	5	0	0	0	19	21.5	0	3	1	0	0	0	0	4	4.5
08:05:50	0	8	4	0	1	0	13	16.3	0	10	5	0	0	0	15	17.5	0	0	2	0	0	0	0	2	3.0
08:07:24	0	6	3	0	0	0	9	10.5	0	8	5	0	0	0	13	15.5	0	3	0	0	0	0	0	3	3.0
08:08:57	0	4	2	0	1	0	7	9.3	0	9	3	0	0	0	12	13.5	0	1	0	0	0	0	0	1	1.0
08:10:14	0	4	1	0	2	0	7	10.1	0	9	2	0	1	0	12	14.3	0	1	1	0	0	0	0	2	2.5
08:11:53	0	8	3	0	0	0	11	12.5	0	11	4	0	0	0	15	17.0	0	2	0	0	0	0	0	2	2.0
08:13:16	0	5	2	1	0	0	8	9.8	0	8	3	0	0	0	11	12.5	0	2	0	0	0	0	0	2	2.0
08:14:52	0	6	3	0	3	0	12	17.4	0	9	2	0	2												

09:03:00	0	5	0	0	0	0	5	5.0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0.0
09:04:29	0	6	0	0	1	0	7	8.3	0	4	1	0	0	0	5	5.5	0	0	1	0	0	0	1	1.5
09:05:48	0	6	1	0	0	0	7	7.5	0	5	1	0	0	0	6	6.5	0	0	0	0	0	0	0	0.0
09:07:28	0	5	0	0	1	0	6	7.3	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0
09:08:54	0	6	0	0	0	0	6	6.0	0	5	0	0	0	0	5	5.0	0	2	0	0	0	0	2	2.0
09:10:30	0	3	1	0	2	0	6	9.1	0	4	0	0	0	0	4	4.0	0	1	1	0	0	0	2	2.5
09:12:03	0	4	2	0	0	0	6	7.0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0.0
09:13:30	0	3	2	0	0	0	5	6.0	0	4	0	0	1	0	5	6.3	0	1	1	0	0	0	2	2.5
09:14:54	0	3	0	0	0	0	3	3.0	0	3	1	0	0	0	4	4.5	0	1	0	0	0	0	1	1.0
09:16:30	0	3	3	0	0	0	6	7.5	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0.0
09:18:04	0	2	0	0	1	0	3	4.3	0	4	0	0	1	0	5	6.3	0	2	0	0	0	0	2	2.0
09:19:37	0	1	3	0	1	0	5	7.8	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0.0
09:21:02	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0
09:22:22	0	4	0	0	0	0	4	4.0	0	3	1	0	0	0	4	4.5	0	2	0	0	0	0	2	2.0
09:23:54	0	3	2	0	0	0	5	6.0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	1	1.5
09:25:28	0	4	0	0	0	0	4	4.0	0	3	1	0	0	0	4	4.5	0	2	0	0	0	0	2	2.0
09:26:57	0	2	1	0	0	0	3	3.5	0	4	0	0	0	0	4	4.0	0	1	0	0	0	0	1	1.0
09:28:35	0	3	1	0	0	0	4	4.5	0	2	1	0	0	0	3	3.5	0	1	0	0	0	0	1	1.0

16:00:12	0	5	1	0	0	0	6	6.5	0	4	3	0	0	0	7	8.5	0	2	2	0	0	0	4	5.0	
16:01:57	0	7	1	0	0	0	8	8.5	0	5	2	0	0	0	7	8.0	0	0	1	0	0	0	1	1.5	
16:03:42	0	6	2	0	1	0	9	11.3	0	5	2	0	1	0	8	10.3	0	1	0	0	0	0	1	1.0	
16:04:44	0	4	1	0	0	0	5	5.5	0	7	1	0	0	0	8	8.5	0	0	2	0	0	0	2	3.0	
16:06:04	0	6	2	0	0	0	8	9.0	0	5	2	0	0	0	7	8.0	0	2	0	0	0	0	2	2.0	
16:07:40	0	4	3	0	0	0	7	8.5	0	5	3	0	0	0	8	9.5	0	2	2	0	0	0	4	5.0	
16:08:35	0	5	0	0	0	0	5	5.0	0	5	2	0	0	0	7	8.0	0	0	0	0	0	0	0	0.0	
16:10:16	0	4	1	0	0	0	5	5.5	0	8	2	0	0	0	10	11.0	0	3	1	0	0	0	4	4.5	
16:11:39	0	6	2	0	0	0	8	9.0	0	7	0	0	1	0	8	9.3	0	1	2	0	0	0	3	4.0	
16:12:35	0	8	1	0	0	0	9	9.5	0	6	2	0	0	0	8	9.0	0	1	0	0	1	0	2	3.3	
16:14:09	0	6	2	0	0	0	8	9.0	0	9	4	0	0	0	13	15.0	0	0	1	0	0	0	1	1.5	
16:15:41	0	9	4	0	0	0	13	15.0	0	11	2	0	0	0	13	14.0	0	0	2	0	0	0	2	3.0	
16:16:34	0	14	2	1	0	1	18	20.8	0	13	5	0	0	0	18	20.5	0	5	2	0	0	0	7	8.0	
16:18:04	0	12	5	0	0	0	17	19.5	0	13	5	0	0	0	18	20.5	0	0	1	0	0	0	1	1.5	
16:19:34	0	15	3	0	0	0	18	19.5	0	13	4	0	0	0	17	19.0	0	0	2	0	0	0	2	3.0	
16:20:38	0	11	3	0	0	0	14	15.5	0	12	3	0	0	0	15	16.5	0	1	0	0	0	0	1	1.0	
16:21:58	0	12	3	0	1	0	16	18.8	0	15	2	0	0	0	17	18.0	0	0	2	0	0	0	2	3.0	
16:23:39	0	14	2	0	0	0	16	17.0	0	11	2	0	0	0	13	14.0	0	3	1	0	0	0	4	4.5	
16:24:31	0	10	2	0	1	0	13	15.3	0	13	4	0	0	0	17	19.0	0	2	0	0	0	0	2	2.0	
16:25:57	0	11	2	0	0	0	13	14.0	0	13	2	0	1	0	16	18.3	0	0	2	0	0	0	2	3.0	
16:27:37	0	11	2	0	3	0	16	20.9	0	14	3	0	0	0	17	18.5	0	2	1	0	0	0	3	3.5	
16:28:34	0	10	4	0	0	0	14	16.0	0	11	5	0	1	0	17	20.8	0	0	0	0	0	0	0	0.0	
16:30:02	0	13	1	0	0	0	14	14.5	0	15	5	0	0	0	20	22.5	0	1	0	0	0	0	1	1.0	
16:31:30	0	11	0	0	2	0	13	15.6	0	12	4	0	0	0	16	18.0	0	2	1	0	0	0	3	3.5	
16:32:23	0	8	2	0	0	0	10	11.0	0	8	3	0	1	0	12	14.8	0	1	0	0	0	0	1	1.0	
16:34:05	0	5	2	0	0	0	7	8.0	0	10	4	0	0	0	14	16.0	0	0	2	0	0	0	2	3.0	
16:35:29	0	6	2	0	1	0	9	11.3	0	7	2	0	1	0	10	12.3	0	1	2	0	0	0	3	4.0	
16:36:33	0	5	3	0	0	0	8	9.5	0	7	2	0	0	0	9	10.0	0	2	1	0	0	0	3	3.5	
16:38:00	0	6	2	0	0	0	8	9.0	0	8	1	0	0	0	9	9.5	0	4	0	0	0	0	4	4.0	
16:39:34	0	8	1	0	0	0	9	9.5	0	8	3	0	0	0	11	12.5	0	0	0	0	0	0	0	0.0	
16:40:28	0	8	2	0	0	0	10	11.0	0	6	0	0	2	0	8	10.6	0	2	0	0	1	0	3	4.3	
16:42:00	0	7	3	0	1	0	11	13.8	0	6	1	0	0	0	7	7.5	0	1	1	0	0	0	2	2.5	
16:43:30	0	8	2	0	0	0	10	11.0	0	7	2	0	0	0	9	10.0	0	2	1	0	0	0	3	3.5	
16:44:27	0	5	2	0	0	0	7	8.0	0	6	1	0	0	0	7	7.5	0	2	0	0	0	0	2	2.0	
16:46:01	0	9	3	0	2	0	14	18.1	0	7	2	0	0	0	9	10.0	0	3	2	0	0	0	5	6.0	
16:47:29	0	9	2	0	0	0	11	12.0	0	7	2	0	0	0	9	10.0	0	2	0	0	0	0	2	2.0	
16:48:25	0	5	2	0	0	0	7	8.0	0	5	1	0	0	0	6	6.5	0	0	0	0	0	0	0	0.0	
16:50:02	0	7	0	0	1	0	8	9.3	0	7	2	0	0	0	9	10.0	0	1	2	0	0	0	3	4.0	
16:51:28	0	4	1	0	0	0	5	5.5	0	3	3	0	1	0	7	9.8	0	4	0	0	0	0	4	4.0	
16:52:21	0	3	1	0	0	0	4	4.5	0	2	2	0	0	0	4	5.0	0	1	1	0	0	0	2	2.5	
16:53:46	0	4	0	0	0	0	4	4.0	0	5	2	0	1	0	8	10.3	0	1	1	0	0	0	2	2.5	
16:55:25	0	6	0	0	0	0	6	6.0	0	1	2	0	1	0	4	6.3	0	2	1	0	0	0	3	3.5	
16:56:25	0	4	2	1	0	0	7	8.8	0	4	1	0	2	0	7	10.1	0	1	1	0	1	0	3	4.8	
16:57:49	0	4	2	0	0	0	6	7.0	0	8	3	0	0	0	11	12.5	0	1	0	0	0	0	1	1.0	
16:59:17	0	5	1	0	1	0	7	8.8	0	6	2	0	0	0	8	9.0	0	2	2	0	0	0	4	5.0	
17:00:05	0	4	2	0	0	0	6	7.0	0	5	0	0	0	0	5	5.0	0	2	1	0	0	0	3	3.5	
17:01:29	0	5	2	0	2	0	9	12.6	0	7	3	0	0	0	10	11.5	0	1	1	0	0	0	2	2.5	
17:03:04	0	8	2	0	2	0	12	15.6	0	5	2	0	2	0	9	12.6	0	0	2	0	0	0	2	3.0	
17:04:07	0	11	3	0	1	0	15	17.8	0	8	4	0	0	0	12	14.0	0	3	0	0	0	0	3	3.0	
17:05:35	0	13	3	0	0	0	16	17.5	0	8	2	0	1	0	11	13.3	0	1	2	0	0	0	3	4.0	
17:07:10	0	14	3	0	0	0	17	18.5	0	9	1	0	1	0	11	12.8	0	2	1	0	0	0	3	3.5	
17:08:12	0	13	2	0	1	0	16	18.3	0	9	2	0	0	0	11	12.0	0	2	2	0	0	0	4	5.0	
17:09:32	0	12	3	0	0	0	15	16.5	0	11	5	0	0	0	16	18.5	0	0	2	0	0	0	2	3.0	
17:12:05	0	9	3	0	0	0	12	13.5	0	3	2	0	0	0	5	6.0	0	0	0	0	1	0	1	2.3	
17:13:37	0	7	1	0	1	0	9	10.8	0	4	1	0	1	0	6	7.8	0	2	1	0	0	0	3	3.5	
17:14:59	0	10	2	0	0	0	12	13.0	0	10	3	0	0	0	13	14.5	0	1	2	0	0	0	3	4.0	
17:16:05	0	6	2	0	0	0	8	9.0	0	4	2	0	0	0	6	7.0	0	0	1	0	0	0	1	1.5	
17:17:41	0	9	3	0	0	0	12	13.5	0	5	2	0	1	0	8	10.3	0	1	2	0	0	0	3	4.0	
17:19:08	0	11	2	1	0	0	14	15.8	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0.0	
17:20:03	0	12	5	0	0	0	17	19.5	0	12	4	0	0	0	16	18.0	0	2	0	0	0	0	2	2.0	
17:21:40	0	12	6	0	1	0	19	23.3	0	14	5	0	0	0	19	21.5	0	1	1	0	0	0	2	2.5	
17:22:57	0	15	3	0	2	0	20	24.1	0	14	3	0	0	0	17	18.5	0	2	0	0	0	0	2	2.0	
17:23:59	0	11	3	0	1	0	15	17.8	0	11	5	0	0	0	16	18.5	0	2	0	0	0	0	2	2.0	
17:25:35	0	14	4	0	0	0	18	20.0	0	14	5	0	2	0	21	26.1	0	0	1	0	0	0	1	1.5	
17:27:01	0	13	3	0	0	0	16	17.5	0	10	4	0	1	0	15	18.3	0	1	2	0	0	0	3	4.0	
17:28:00	0	10	2	0	3	0	15	19.9	0	12	5	0	0	0	17	19.5	0	2	1	0	0	1	4	5.5	
17:29:38	0	7	2	0	0	0	9	10.0	0	13	6	0	0	0	19	22.0	0	0	0	0	0	0	0	0.0	
17:31:06	0	9	3	0	0	0	12	13.5	0	10	2	0	0	0	12	13.0	0	0	1	0	0	0	1	2	3.5
17:33:34	0	6	3	0	2	0	11	15.1	0	15	3	0	0	0	18	19.5	0	4	1	0	0	0	5	5.5	
17:35:07	0	5	3	0	0	0	8	9.5	0	11	2	0	0	0	13	14.0	0	0	0	0	0	0	0	0.0	
17:36:18	0	3	1	0	0	0	4	4.5	0	7	0	1	0	0	8	8.8	0	0	0	0	0	0	0	0.0	
17:37:36	0	4	1	0	0	0	5	5.5	0	6	1	0	1	0	8	9.8	0	1	0	0	0	0	1	1.0	
17:39:07	0	4	2	0	0	0	6	7.0	0	4	1	0	0	0	5	5.5	0	2	1</						

Average (PCUs)									13.7								13.6								2.6	
18:01:36	0	15	3	0	0	0	0	18	19.5	0	14	2	0	1	0	17	19.3	0	2	2	0	0	0	4	5.0	
18:03:07	0	13	2	0	1	0	0	16	18.3	0	14	3	0	0	0	17	18.5	0	2	2	0	0	0	4	5.0	
18:04:02	0	14	3	0	0	0	0	17	18.5	0	14	3	0	0	0	17	18.5	0	0	1	0	0	0	1	1.5	
18:05:33	0	11	3	0	0	0	0	14	15.5	0	14	4	0	0	0	18	20.0	0	1	2	0	0	0	3	4.0	
18:07:03	0	14	2	0	0	0	0	16	17.0	0	13	3	0	0	0	16	17.5	0	2	1	0	0	0	3	3.5	
18:08:00	0	11	3	0	1	0	0	15	17.8	0	10	1	0	0	0	11	11.5	0	0	0	0	0	1	1	2.0	
18:09:33	0	13	3	0	0	0	0	16	17.5	0	8	1	0	0	0	9	9.5	0	0	0	0	1	0	1	2.3	
18:11:02	0	11	4	0	0	0	0	15	17.0	0	8	2	0	1	0	11	13.3	0	3	0	0	1	1	0	4	5.3
18:11:58	0	10	4	0	0	0	0	14	16.0	0	7	1	0	0	0	8	8.5	0	2	1	0	0	0	3	3.5	
18:13:28	0	12	5	0	0	0	0	17	19.5	0	10	2	0	0	0	12	13.0	0	0	0	0	0	0	0	0.0	
18:15:08	0	10	4	0	0	0	0	14	16.0	0	7	1	0	1	0	9	10.8	0	0	0	0	0	0	0	0.0	
18:16:07	0	15	6	0	0	0	0	21	24.0	0	12	2	0	0	0	14	15.0	0	3	2	1	0	0	6	7.8	
18:17:33	0	12	4	0	0	0	0	16	18.0	0	13	2	0	0	0	15	16.0	0	1	0	0	0	0	1	1.0	
18:19:07	0	15	4	0	1	0	0	20	23.3	0	14	4	0	0	0	18	20.0	0	0	1	0	0	0	1	1.5	
18:20:11	0	14	3	0	0	0	0	17	18.5	0	11	3	0	0	0	14	15.5	0	1	2	0	0	0	3	4.0	
18:21:42	0	11	5	0	0	0	0	16	18.5	0	13	1	0	0	0	14	14.5	0	2	0	0	0	0	2	2.0	
18:23:03	0	13	3	0	2	0	0	18	22.1	0	13	3	0	0	0	16	17.5	0	2	2	0	0	0	4	5.0	
18:24:10	0	8	2	0	0	0	0	10	11.0	0	6	1	0	0	0	7	7.5	0	0	0	0	0	0	0	0.0	
18:25:30	0	4	2	0	0	0	0	6	7.0	0	3	2	0	1	0	6	8.3	0	1	1	0	0	0	2	2.5	
18:27:09	0	5	2	0	0	0	0	7	8.0	0	3	2	0	0	0	5	6.0	0	0	1	0	0	0	1	1.5	
18:28:02	0	5	1	0	2	0	0	8	11.1	0	5	1	0	0	0	6	6.5	0	1	1	0	0	1	3	4.5	
18:29:32	0	6	1	0	0	0	0	7	7.5	0	3	1	0	1	0	5	6.8	0	2	2	0	0	0	4	5.0	
18:31:10	0	5	1	0	0	0	0	6	6.5	0	4	0	0	0	0	4	4.0	0	1	1	0	0	0	2	2.5	
18:32:01	0	8	2	0	1	0	0	11	13.3	0	4	2	0	0	0	6	7.0	0	4	0	0	0	0	4	4.0	
18:33:34	0	9	3	0	0	0	0	12	13.5	0	5	1	0	0	0	6	6.5	0	1	2	0	0	0	3	4.0	
18:35:01	0	9	2	0	2	0	0	13	16.6	0	5	1	0	0	0	6	6.5	0	0	0	0	0	0	0	0.0	
18:36:03	0	8	3	0	0	0	0	11	12.5	0	4	1	0	1	0	6	7.8	0	2	0	0	0	0	2	2.0	
18:37:26	0	8	2	0	0	0	0	10	11.0	0	4	2	0	0	0	6	7.0	0	4	1	0	0	0	5	5.5	
18:38:58	0	8	2	0	0	0	0	10	11.0	0	3	1	0	0	0	4	4.5	0	6	2	0	0	0	8	9.0	
18:40:00	0	7	1	0	0	0	0	8	8.5	0	5	0	0	0	0	5	5.0	0	8	0	0	0	0	8	8.0	
18:41:30	0	8	1	0	1	0	0	10	11.8	0	6	1	0	0	0	7	7.5	0	3	1	0	1	0	5	6.8	
18:42:51	0	8	1	0	2	0	0	11	14.1	0	8	1	0	1	0	10	11.8	0	5	0	0	0	0	5	5.0	
18:43:52	0	7	0	0	1	0	8	9.3	0	6	0	0	0	0	0	6	6.0	0	3	2	0	0	0	5	6.0	
18:45:13	0	10	2	0	0	0	0	12	13.0	0	6	1	0	0	0	7	7.5	0	1	0	0	0	0	1	1.0	
18:46:44	0	8	0	0	0	0	0	8	8.0	0	5	0	0	0	0	5	5.0	0	0	2	0	0	0	2	3.0	
18:47:55	0	5	1	0	0	0	0	6	6.5	0	7	0	0	0	0	7	7.0	0	1	0	0	0	0	1	1.0	
18:52:17	0	6	2	0	1	0	0	9	11.3	0	1	1	0	1	0	3	4.8	0	2	0	0	0	0	2	2.0	
18:50:48	0	7	1	0	0	0	0	8	8.5	0	5	2	0	0	0	7	8.0	0	0	1	0	0	0	1	1.5	
18:51:48	0	9	0	0	0	0	0	9	9.0	0	3	2	0	0	0	5	6.0	0	2	1	0	0	0	3	3.5	
18:53:15	0	7	0	0	0	0	0	7	7.0	0	3	2	0	0	0	5	6.0	0	2	0	0	0	0	2	2.0	
18:54:53	0	8	1	0	0	0	0	9	9.5	0	6	1	0	0	0	7	7.5	0	4	1	0	0	0	5	5.5	
18:55:51	0	8	0	0	0	0	0	8	8.0	0	5	1	0	0	0	6	6.5	0	2	2	0	0	0	4	5.0	
18:57:19	0	7	1	0	1	0	0	9	10.8	0	9	2	0	0	0	11	12.0	0	1	0	0	0	0	1	1.0	
18:58:54	0	6	0	0	0	0	0	6	6.0	0	7	0	0	0	0	7	7.0	0	1	1	0	0	0	2	2.5	

APPENDIX B

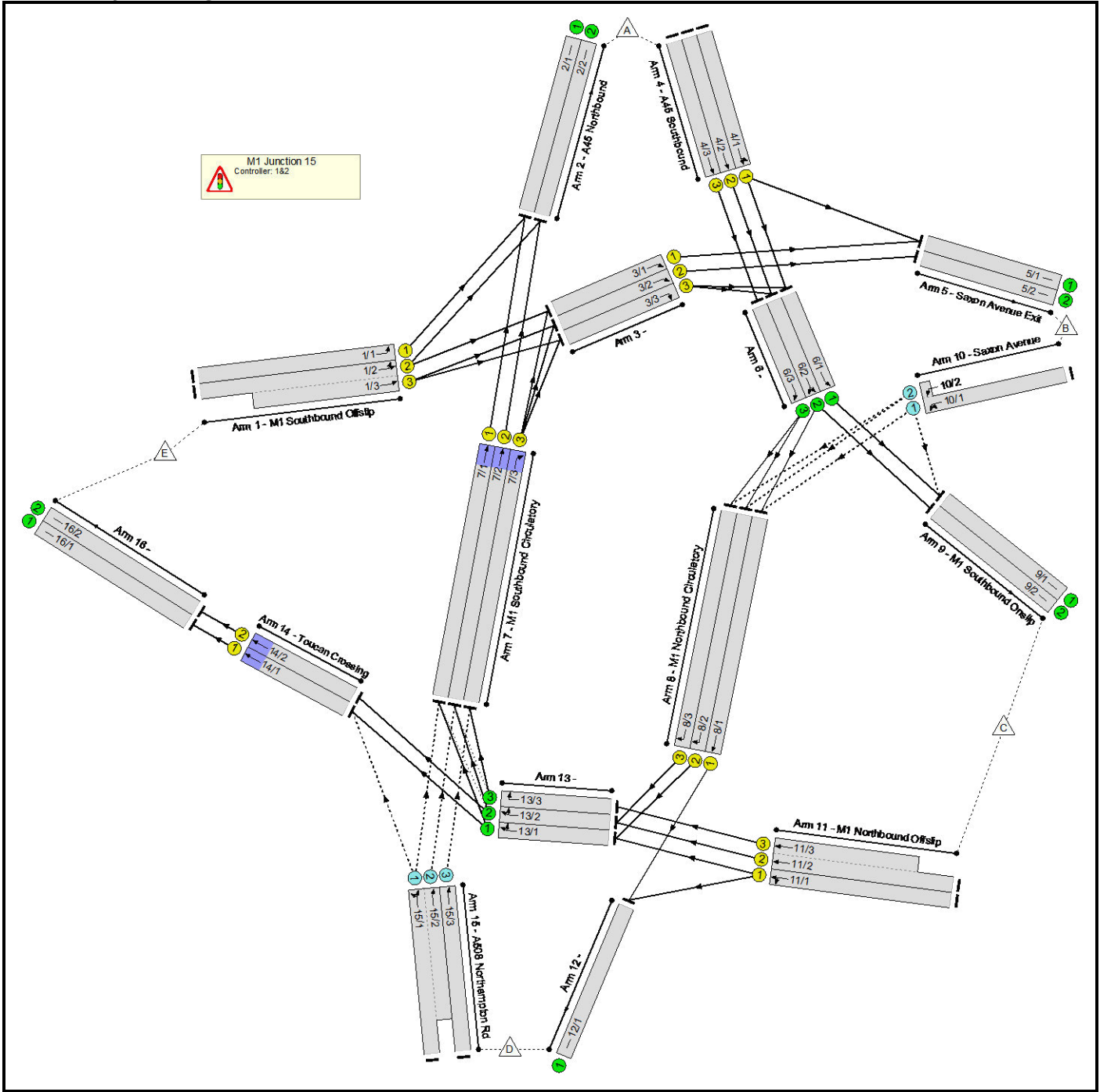
BASE AND REFERENCE CASE LINSIG MODELLING RESULTS

Full Input Data And Results

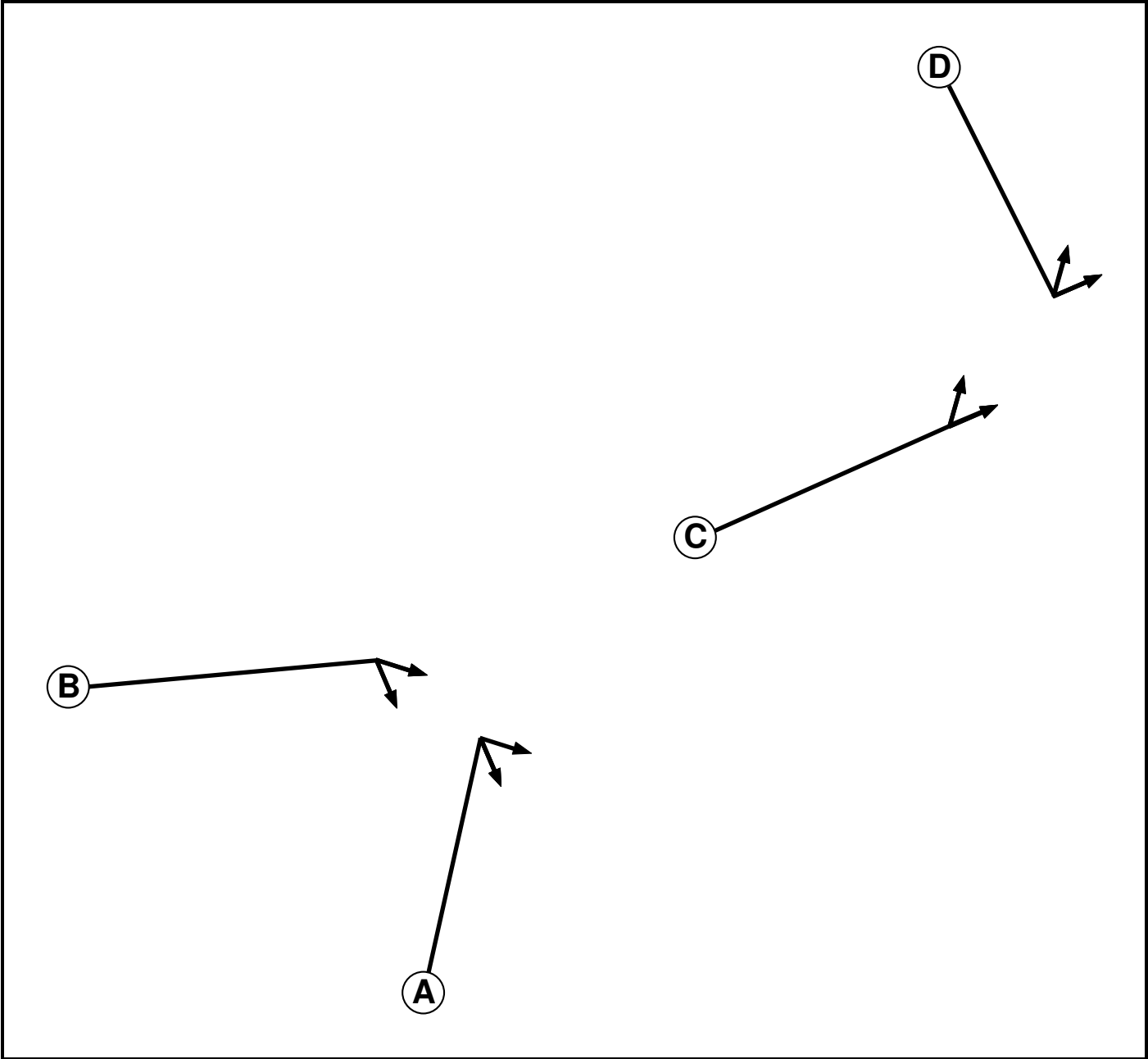
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Base Model
Location:	Northampton
File name:	170307 M1 Junction 15 Base Model without WL.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western Street, Nottingham
Notes:	

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Phase Intergreens Matrix

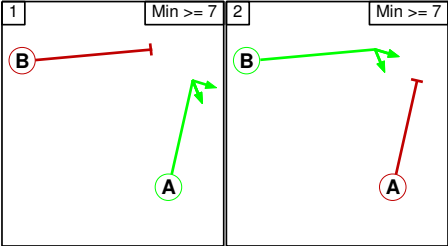
Terminating Phase	Starting Phase				
		A	B	C	D
	A		7	-	-
	B	7		-	-
	C	-	-		7
	D	-	-	6	

Phases in Stage

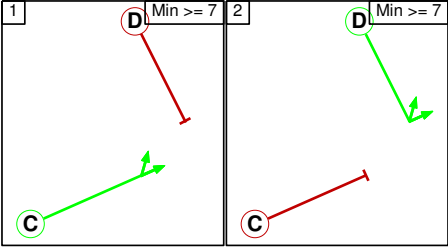
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

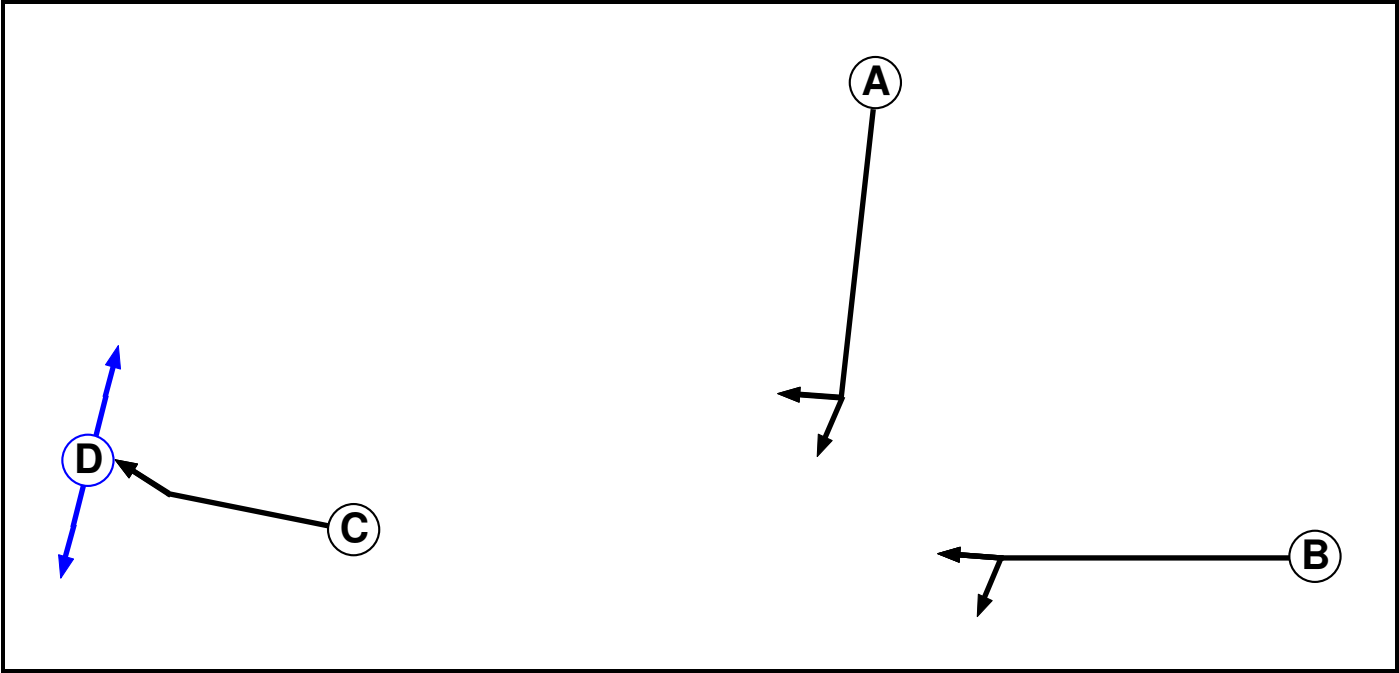
Stage Stream: 1

From Stage	To Stage		
		1	2
	1		7
	2	7	

Stage Stream: 2

From Stage	To Stage		
	1	2	
	1		7
	2	6	

C2 - Westside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7

Phase Intergreens Matrix

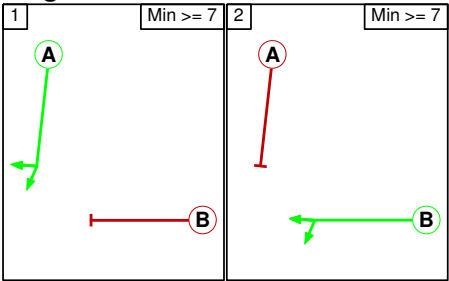
Terminating Phase	Starting Phase				
		A	B	C	D
	A		5	-	-
	B	7		-	-
	C	-	-		5
	D	-	-	7	

Phases in Stage

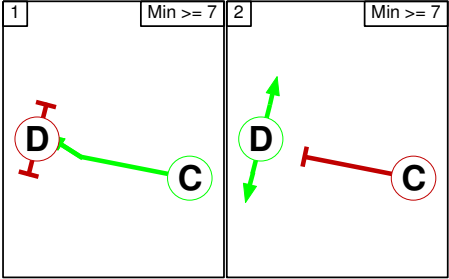
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Stage Stream: 2

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

Give-Way Lane Input Data

Junction: M1 Junction 15											
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)
10/1 (Saxon Avenue)	8/1 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	9/1 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
10/2 (Saxon Avenue)	8/2 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	8/3 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
15/1 (A508 Northampton Rd)	7/1 (Ahead)	800	0	13/1	0.22	All	-	-	-	-	-
				13/2	0.22	All					
				13/3	0.22	All					
	14/1 (Left)	800	0	13/1	0.22	All					
				13/2	0.22	All					
				13/3	0.22	All					
15/2 (A508 Northampton Rd)	7/2 (Ahead)	800	0	13/1	0.22	All	-	-	-	-	-
				13/2	0.22	All					
				13/3	0.22	All					
15/3 (A508 Northampton Rd)	7/3 (Ahead)	800	0	13/1	0.21	All	-	-	-	-	-
				13/2	0.21	All					
				13/3	0.21	All					

Lane Input Data

Junction: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	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 Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 2 Left	Inf
1/2 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
											Arm 3 Ahead	Inf
1/3 (M1 Southbound Offslip)	U	C	2	3	14.0	Geom	-	3.65	0.00	Y	Arm 3 Ahead	Inf
2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
3/1	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/2	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/3	U	B	2	3	12.2	User	1900	-	-	-	-	-
4/1 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	Y	Arm 5 Left	Inf
											Arm 6 Ahead	Inf
4/2 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
4/3 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
5/2 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
6/1	U		2	3	10.4	Inf	-	-	-	-	-	-
6/2	U		2	3	10.4	Inf	-	-	-	-	-	-
6/3	U		2	3	10.4	Inf	-	-	-	-	-	-
7/1 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/2 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/3 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
8/1 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-

8/2 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
8/3 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
9/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
9/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
10/1 (Saxon Avenue)	O		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (Saxon Avenue)	O		2	3	1.0	Inf	-	-	-	-	-	-
11/1 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Left	Inf
											Arm 13 Ahead	Inf
11/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
11/3 (M1 Northbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
12/1	U		2	3	4.3	Inf	-	-	-	-	-	-
13/1	U		2	3	10.4	Inf	-	-	-	-	-	-
13/2	U		2	3	10.4	Inf	-	-	-	-	-	-
13/3	U		2	3	10.4	Inf	-	-	-	-	-	-
14/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
14/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
15/1 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
15/2 (A508 Northampton Rd)	O		2	3	23.0	Inf	-	-	-	-	-	-
15/3 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
16/1	U		2	3	60.0	Inf	-	-	-	-	-	-
16/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2014 Morning Peak Hour'	08:00	09:00	01:00	
2: '2014 Evening Peak Hour'	17:00	18:00	01:00	
3: '2021 Back AM'	08:00	09:00	01:00	
4: '2021 Back PM'	17:00	18:00	01:00	
9: '2021 Total AM'	08:00	09:00	01:00	$F3+F5+(2 \times F7)$
10: '2021 Total PM'	17:00	18:00	01:00	$F4+F6+(2 \times F8)$
11: '2031 Back AM'	08:00	09:00	01:00	
12: '2031 Back PM'	17:00	18:00	01:00	
13: '2031 Total AM'	08:00	09:00	01:00	$F11+F5+(2 \times F7)$
14: '2031 Total PM'	17:00	18:00	01:00	$F12+F6+(2 \times F8)$

Scenario 1: '2014 AM Peak' (FG1: '2014 Morning Peak Hour', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	13	128	903	689	1039	2772
	B	187	0	70	34	40	331
	C	896	54	0	30	0	980
	D	538	30	87	0	250	905
	E	1188	126	1	322	0	1637
	Tot.	2822	338	1061	1075	1329	6625

Traffic Lane Flows

Lane	Scenario 1: 2014 AM Peak
Junction: M1 Junction 15	
1/1	561
1/2 (with short)	1076(In) 627(Out)
1/3 (short)	449
2/1	1351
2/2	1471
3/1	68
3/2	142
3/3	410
4/1	825
4/2	895
4/3	1052
5/1	196
5/2	142
6/1	740
6/2	1262
6/3	1052
7/1	790
7/2	844
7/3	171
8/1	1045
8/2	554
8/3	725
9/1	810
9/2	251
10/1 (with short)	331(In) 104(Out)
10/2 (short)	227
11/1	393
11/2 (with short)	587(In) 433(Out)
11/3 (short)	154
12/1	1075
13/1	917
13/2	1158
13/3	154
14/1	791
14/2	538
15/1 (with short)	788(In) 394(Out)
15/2 (short)	394

15/3	117
16/1	791
16/2	538

Lane Saturation Flows

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
				Arm 3 Ahead	Inf	0.0 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	15.5 %	1980	1980
				Arm 6 Ahead	Inf	84.5 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	7.6 % 92.4 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2014 PM Peak' (FG2: '2014 Evening Peak Hour', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	56	190	878	749	1204	3077
	B	208	0	46	34	45	333
	C	983	86	0	35	0	1104
	D	552	51	76	0	256	935
	E	1114	125	0	186	0	1425
	Tot.	2913	452	1000	1004	1505	6874

Traffic Lane Flows

Lane	Scenario 2: 2014 PM Peak
Junction: M1 Junction 15	
1/1	522
1/2 (with short)	903(In) 592(Out)
1/3 (short)	311
2/1	1435
2/2	1478
3/1	104
3/2	158
3/3	262
4/1	871
4/2	946
4/3	1260
5/1	294
5/2	158
6/1	719
6/2	1170
6/3	1260
7/1	913
7/2	886
7/3	213
8/1	969
8/2	666
8/3	847
9/1	765
9/2	235
10/1 (with short)	333(In) 80(Out)
10/2 (short)	253
11/1	419
11/2 (with short)	685(In) 449(Out)
11/3 (short)	236
12/1	1004
13/1	1050
13/2	1296
13/3	236
14/1	866
14/2	639
15/1 (with short)	808(In) 404(Out)
15/2 (short)	404

15/3	127
16/1	866
16/2	639

Lane Saturation Flows

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
				Arm 3 Ahead	Inf	0.0 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	21.8 %	1980	1980
				Arm 6 Ahead	Inf	78.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

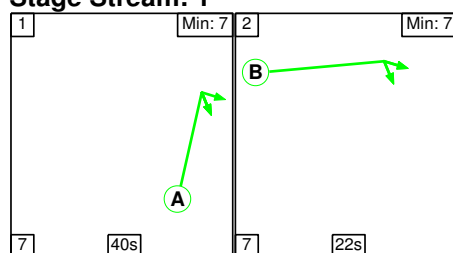
11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	8.4 % 91.6 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2014 AM Peak' (FG1: '2014 Morning Peak Hour', Plan 1: 'Network Control Plan 1')

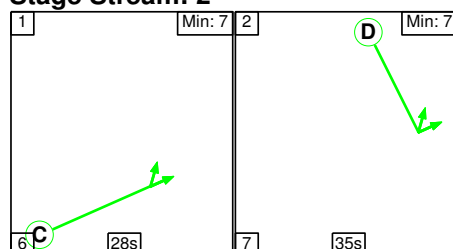
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

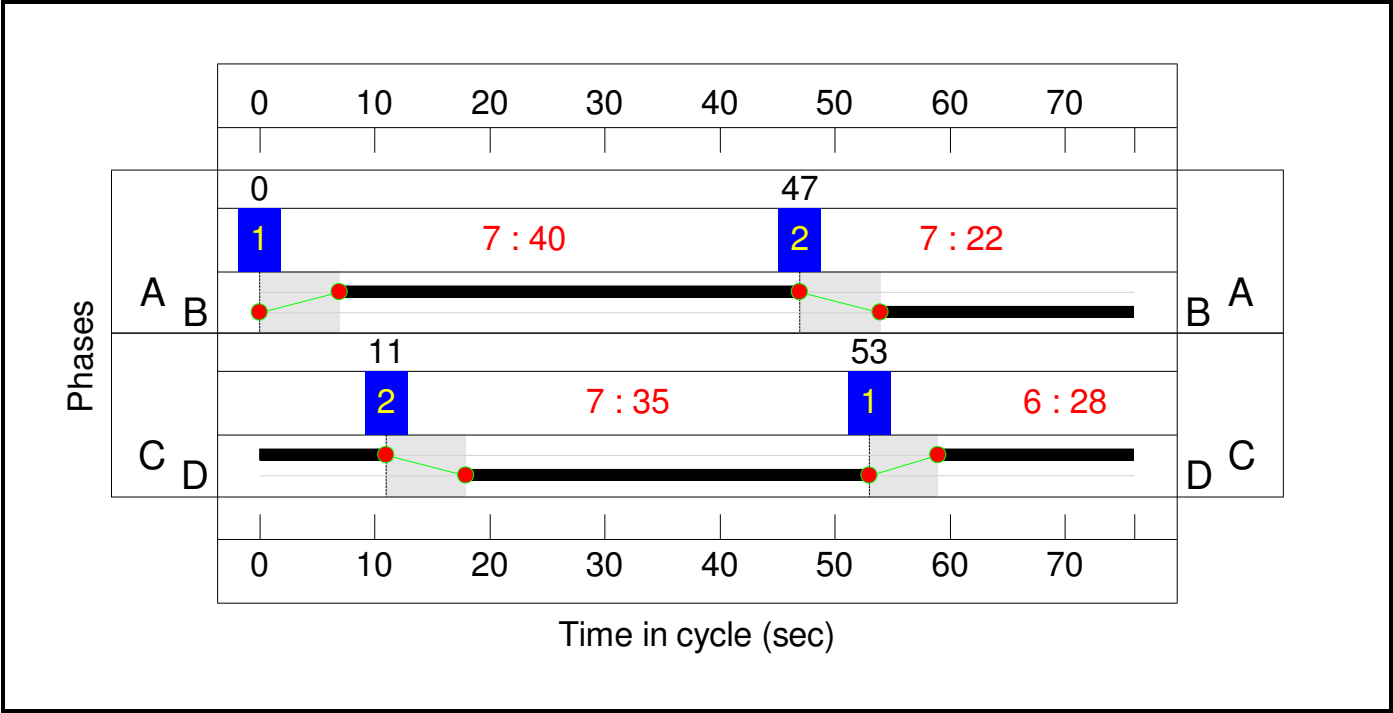
Stage Stream: 1

Stage	1	2
Duration	40	22
Change Point	0	47

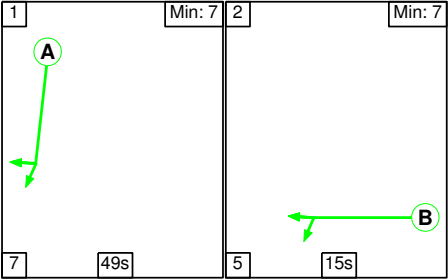
Stage Stream: 2

Stage	1	2
Duration	28	35
Change Point	53	11

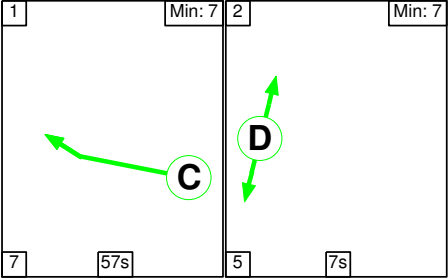
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



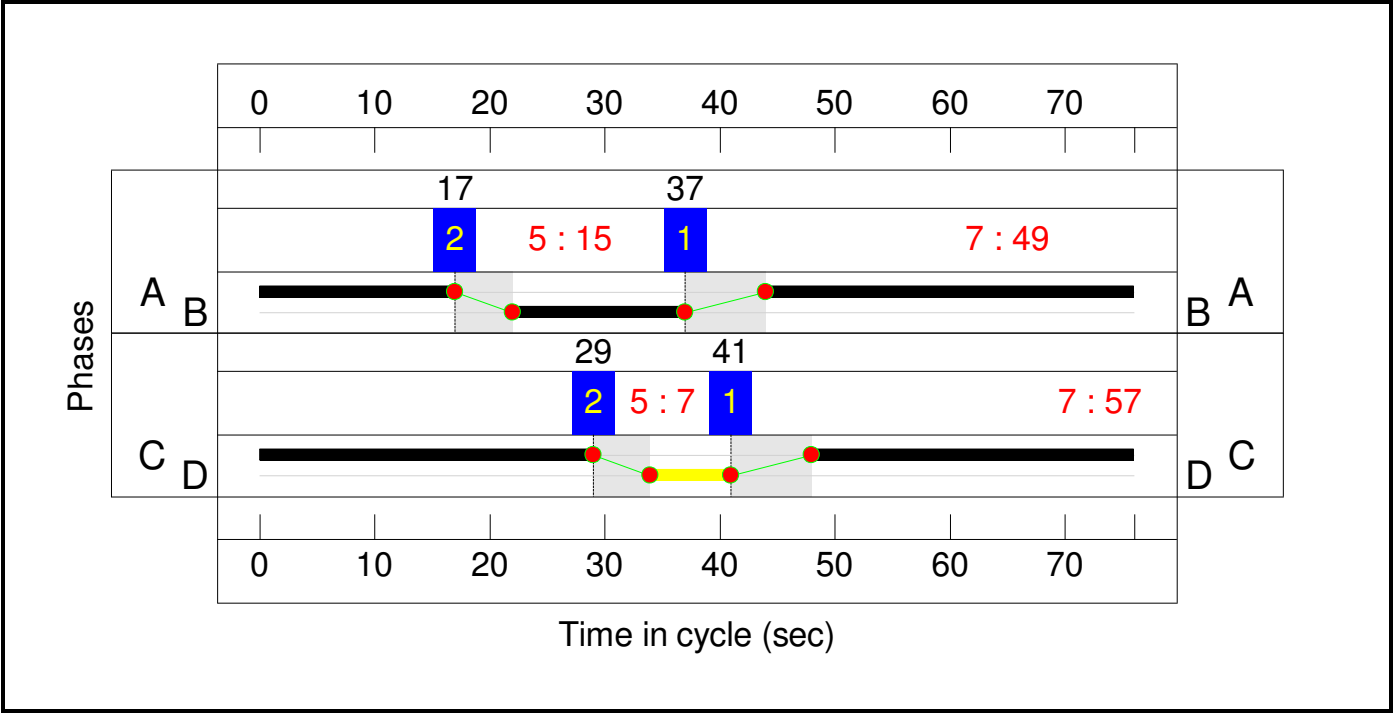
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	49	15
Change Point	37	17

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	41	29

Signal Timings Diagram



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 15 Base Model	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	561	1980	756	74.3%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	28	-	1076	2120:1980	742+531	84.5 : 84.5%
3/1	Ahead	U	1:1	N/A	C1:B		1	22	-	68	1900	575	11.8%
3/2	Ahead	U	1:1	N/A	C1:B		1	22	-	142	1900	575	24.7%
3/3	Right	U	1:1	N/A	C1:B		1	22	-	410	1900	575	71.3%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	40	-	825	1980	1068	77.2%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	40	-	895	2120	1144	78.3%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	40	-	1052	2120	1144	92.0%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	790	2000	947	82.7%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	844	2000	947	87.3%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	171	2000	947	18.1%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1045	2000	1316	79.4%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	554	2000	1316	42.1%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	725	2000	1316	55.1%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	331	Inf : Inf	143+311	73.0 : 73.0%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	393	1980	417	94.3%

11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	587	2120:2120	446+159	97.0 : 97.0%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	791	1995	1523	51.2%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	538	1995	1523	35.3%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	788	Inf : Inf	377+377	104.5 : 104.5%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	117	Inf	380	30.8%

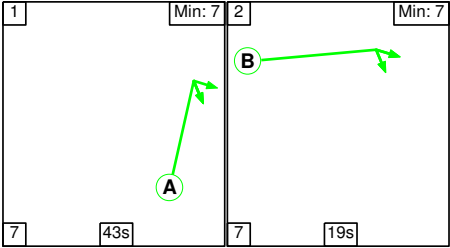
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Base Model	-	-	2287	0	0	47.8	64.0	0.0	111.8	-	-	-	-
M1 Junction 15	-	-	2287	0	0	47.8	64.0	0.0	111.8	-	-	-	-
1/1	561	561	-	-	-	3.2	1.4	-	4.6	29.4	10.1	1.4	11.6
1/2+1/3	1076	1076	-	-	-	5.9	2.7	-	8.6 (5.1+3.5)	28.7 (29.5:27.7)	11.5	2.7	14.1
3/1	68	68	-	-	-	0.3	0.1	-	0.4	21.4	1.4	0.1	1.5
3/2	142	142	-	-	-	0.4	0.2	-	0.6	15.5	1.0	0.2	1.1
3/3	410	410	-	-	-	1.8	1.2	-	3.0	26.7	3.5	1.2	4.7
4/1	825	825	-	-	-	3.2	1.7	-	4.8	21.1	13.8	1.7	15.4
4/2	895	895	-	-	-	3.5	1.8	-	5.2	21.1	14.9	1.8	16.7
4/3	1052	1052	-	-	-	4.7	5.2	-	9.8	33.6	20.2	5.2	25.3
7/1	784	784	-	-	-	1.8	2.3	-	4.2	19.1	7.0	2.3	9.4
7/2	827	827	-	-	-	1.5	3.3	-	4.7	20.6	8.1	3.3	11.3
7/3	171	171	-	-	-	0.5	0.1	-	0.6	12.7	1.9	0.1	2.0
8/1	1045	1045	-	-	-	3.3	1.9	-	5.2	18.1	15.0	1.9	16.9
8/2	554	554	-	-	-	1.8	0.4	-	2.2	14.3	11.4	0.4	11.7
8/3	725	725	-	-	-	1.9	0.6	-	2.5	12.6	11.6	0.6	12.2
10/1+10/2	331	331	662	0	0	1.2	1.3	-	2.6 (0.7+1.8)	27.9 (25.8:28.9)	4.0	1.3	5.4
11/1	393	393	-	-	-	3.2	5.6	-	8.8	80.9	8.1	5.6	13.7
11/2+11/3	587	587	-	-	-	4.7	8.4	-	13.1 (9.8+3.3)	80.3 (81.4:77.2)	9.0	8.4	17.4
14/1	780	780	-	-	-	0.0	0.5	-	0.6	2.6	0.4	0.5	0.9
14/2	538	538	-	-	-	0.0	0.3	-	0.3	1.8	0.0	0.3	0.3
15/1+15/2	788	754	1508	0	0	4.5	24.9	-	29.4 (14.7+14.7)	134.4 (134.4:134.4)	21.7	24.9	46.6
15/3	117	117	117	0	0	0.2	0.2	-	0.4	12.1	0.8	0.2	1.0
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -2.2 Total Delay for Signalled Lanes (pcuHr): 23.97 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 3.1 Total Delay for Signalled Lanes (pcuHr): 22.68 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -7.8 Total Delay for Signalled Lanes (pcuHr): 31.91 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 75.6 Total Delay for Signalled Lanes (pcuHr): 0.85 Cycle Time (s): 76 PRC Over All Lanes (%): -16.1 Total Delay Over All Lanes(pcuHr): 111.79													

Scenario 2: '2014 PM Peak' (FG2: '2014 Evening Peak Hour', Plan 1: 'Network Control Plan 1')

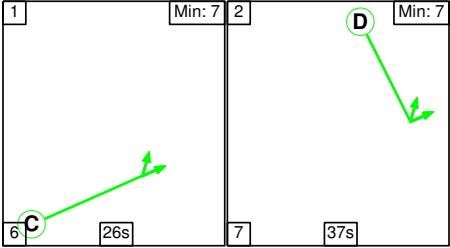
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

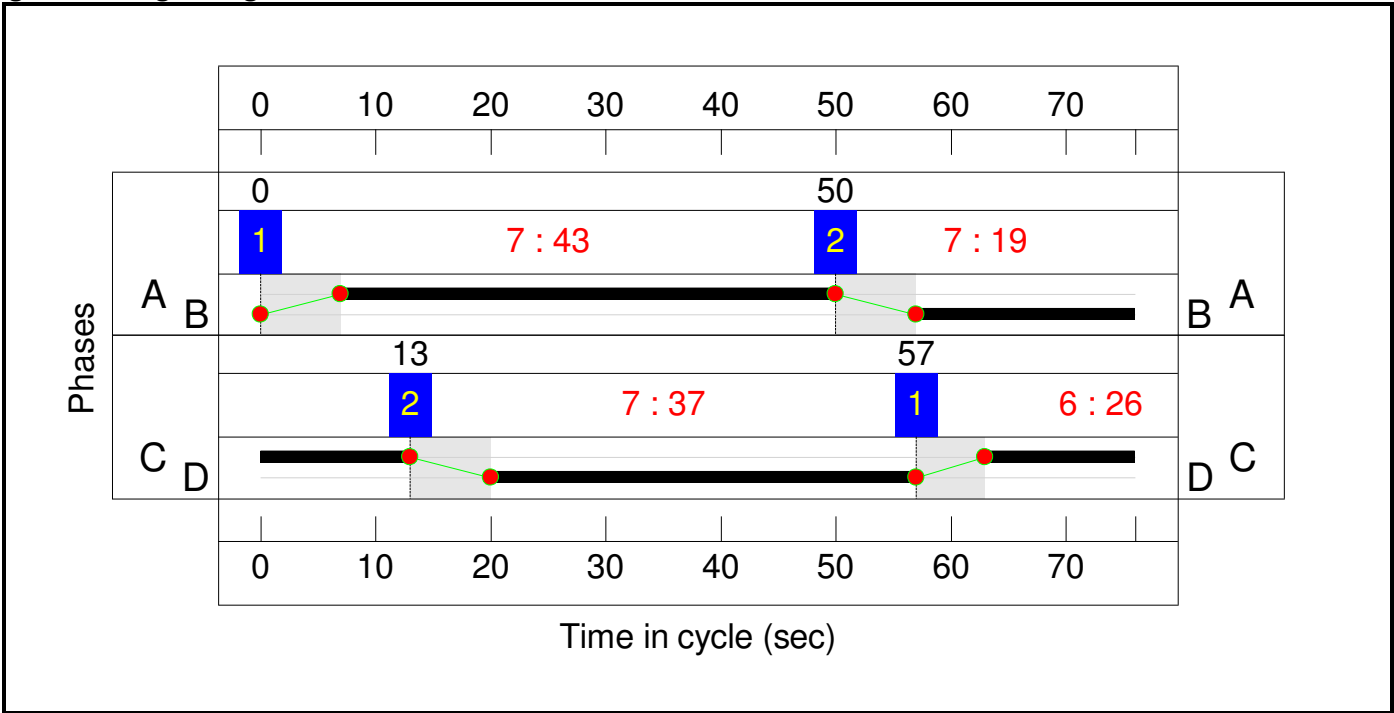
Stage Stream: 1

Stage	1	2
Duration	43	19
Change Point	0	50

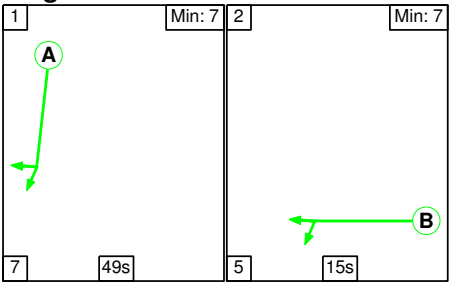
Stage Stream: 2

Stage	1	2
Duration	26	37
Change Point	57	13

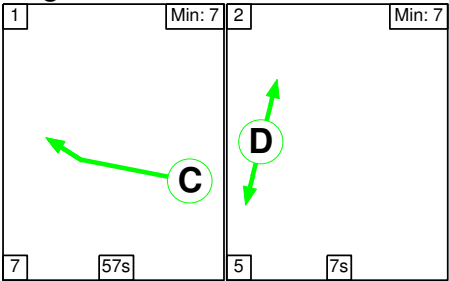
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



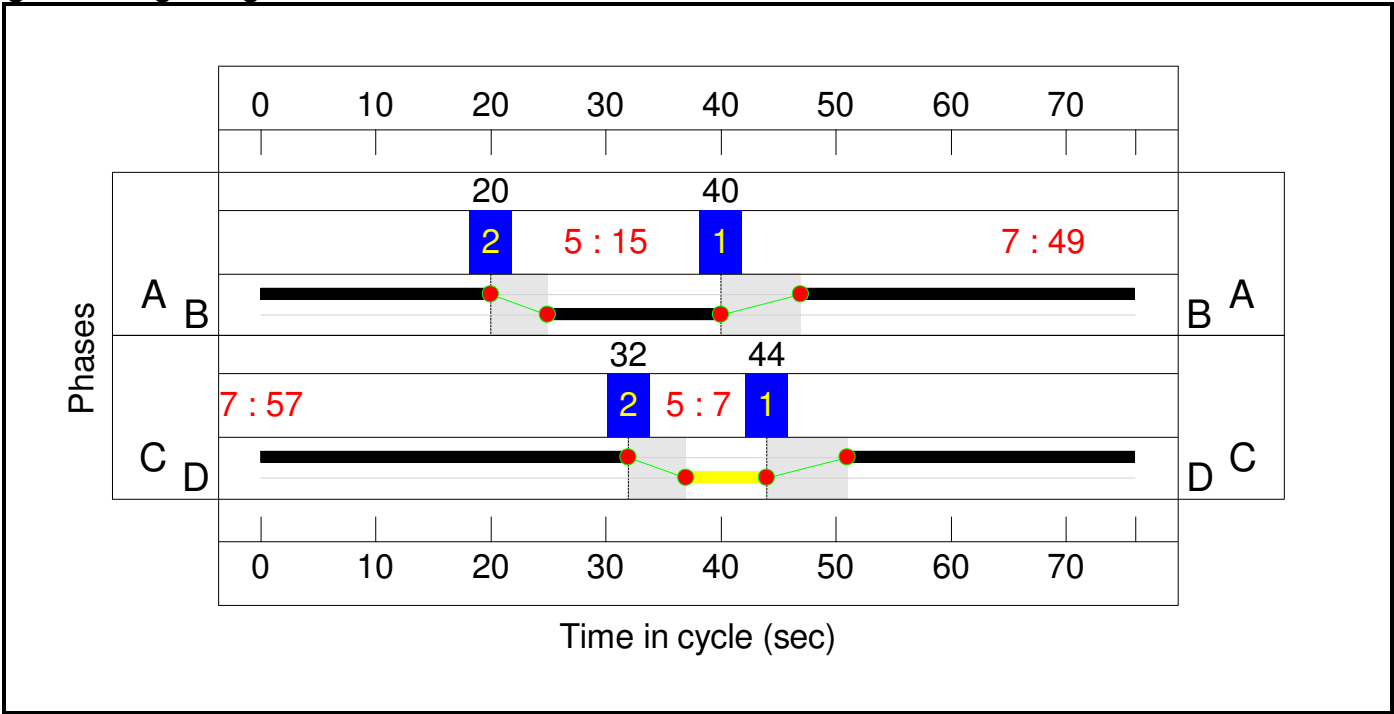
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	49	15
Change Point	40	20

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	44	32

Signal Timings Diagram



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 15 Base Model	-	-	N/A	-	-		-	-	-	-	-	-	122.2%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	122.2%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	26	-	522	1980	703	74.2%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	26	-	903	2120:1980	717+377	82.6 : 82.6%
3/1	Ahead	U	1:1	N/A	C1:B		1	19	-	104	1900	500	20.8%
3/2	Ahead	U	1:1	N/A	C1:B		1	19	-	158	1900	500	31.6%
3/3	Right	U	1:1	N/A	C1:B		1	19	-	262	1900	500	52.4%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	43	-	871	1980	1146	76.0%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	43	-	946	2120	1227	77.1%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	43	-	1260	2120	1227	102.7%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	913	2000	1000	88.2%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	886	2000	1000	81.1%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	37	-	213	2000	1000	21.3%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	969	2000	1316	73.6%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	666	2000	1316	49.3%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	847	2000	1316	63.2%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	333	Inf : Inf	92+292	86.5 : 86.5%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	419	1980	417	100.5%

11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	685	2120:2120	446+235	100.6 : 100.6%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	866	1995	1523	52.8%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	639	1995	1523	40.9%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	808	Inf : Inf	331+331	122.2 : 122.2%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	127	Inf	333	38.1%

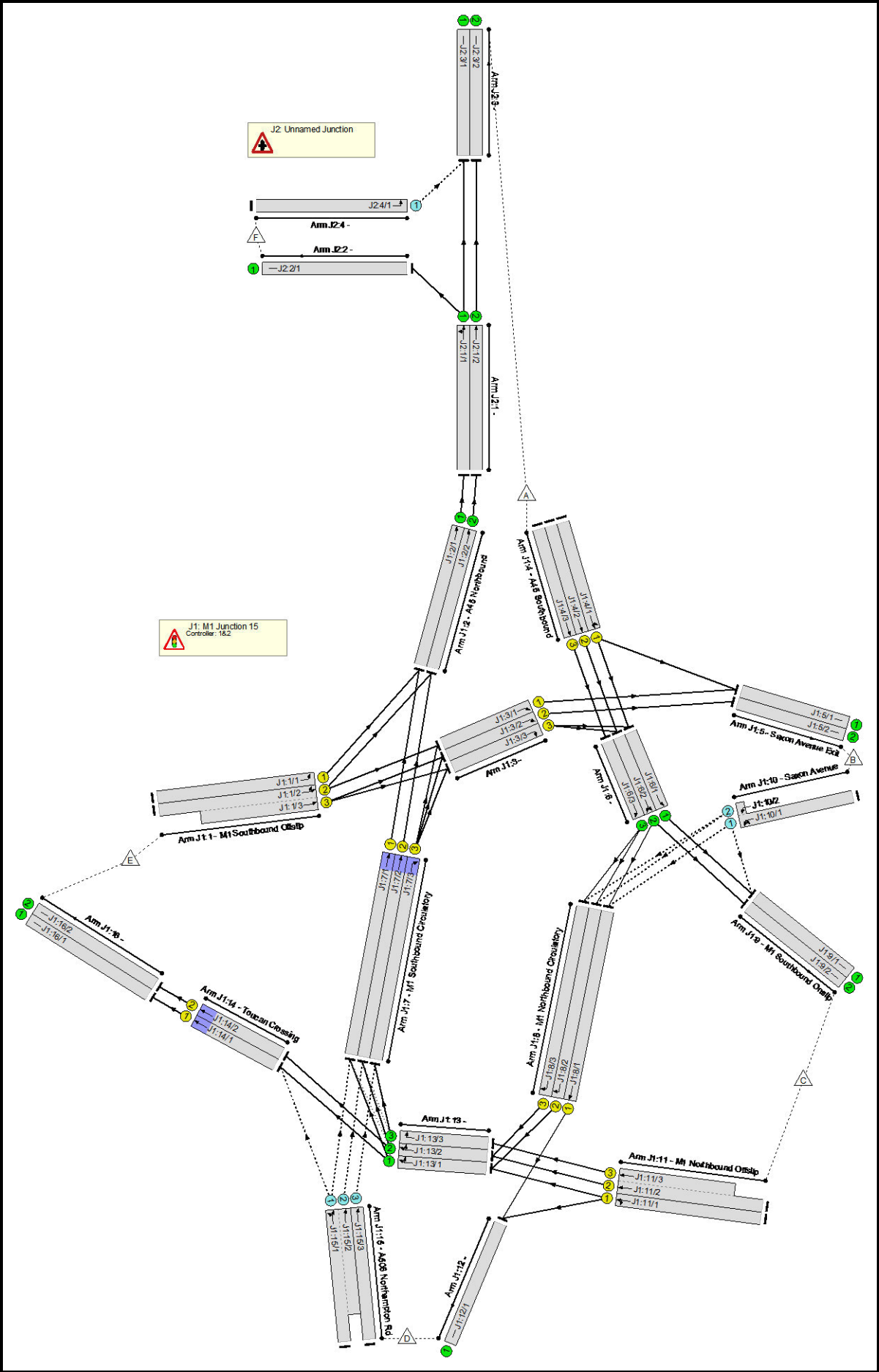
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Base Model	-	-	2116	0	0	57.6	149.0	0.0	206.6	-	-	-	-
M1 Junction 15	-	-	2116	0	0	57.6	149.0	0.0	206.6	-	-	-	-
1/1	522	522	-	-	-	3.1	1.4	-	4.5	31.2	9.6	1.4	11.0
1/2+1/3	903	903	-	-	-	5.2	2.3	-	7.5 (5.1+2.4)	30.1 (31.2:28.0)	11.0	2.3	13.3
3/1	104	104	-	-	-	0.6	0.1	-	0.7	23.7	2.2	0.1	2.3
3/2	158	158	-	-	-	0.5	0.2	-	0.7	16.5	1.3	0.2	1.6
3/3	262	262	-	-	-	1.3	0.5	-	1.8	24.8	2.6	0.5	3.1
4/1	871	871	-	-	-	2.9	1.6	-	4.5	18.5	13.8	1.6	15.4
4/2	946	946	-	-	-	3.2	1.7	-	4.9	18.5	15.0	1.7	16.6
4/3	1260	1227	-	-	-	6.7	27.7	-	34.4	98.3	27.3	27.7	55.0
7/1	882	882	-	-	-	3.0	3.5	-	6.6	26.8	10.8	3.5	14.4
7/2	811	811	-	-	-	1.2	2.1	-	3.3	14.8	6.8	2.1	8.9
7/3	213	213	-	-	-	0.5	0.1	-	0.6	10.0	2.0	0.1	2.1
8/1	969	969	-	-	-	4.2	1.4	-	5.6	20.9	17.2	1.4	18.6
8/2	649	649	-	-	-	2.5	0.5	-	2.9	16.3	13.4	0.5	13.8
8/3	831	831	-	-	-	2.4	0.9	-	3.2	14.0	13.1	0.9	13.9
10/1+10/2	333	333	666	0	0	1.7	2.9	-	4.6 (1.1+3.6)	50.1 (47.3:51.0)	5.3	2.9	8.1
11/1	419	417	-	-	-	3.6	10.8	-	14.4	123.3	8.9	10.8	19.7
11/2+11/3	685	682	-	-	-	5.6	14.2	-	19.7 (13.1+6.6)	103.7 (105.1:101.0)	9.5	14.2	23.7
14/1	804	804	-	-	-	0.0	0.6	-	0.6	2.6	0.3	0.6	0.8
14/2	623	623	-	-	-	0.0	0.3	-	0.4	2.0	0.0	0.3	0.4
15/1+15/2	808	661	1323	0	0	9.2	75.9	-	85.2 (42.6+42.6)	379.4 (379.4:379.4)	21.9	75.9	97.8
15/3	127	127	127	0	0	0.2	0.3	-	0.5	15.5	1.0	0.3	1.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -14.1 Total Delay for Signalled Lanes (pcuHr): 46.94 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 2.1 Total Delay for Signalled Lanes (pcuHr): 22.54 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -11.8 Total Delay for Signalled Lanes (pcuHr): 45.89 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 70.4 Total Delay for Signalled Lanes (pcuHr): 0.92 Cycle Time (s): 76 PRC Over All Lanes (%): -35.7 Total Delay Over All Lanes(pcuHr): 206.64													

Full Input Data And Results

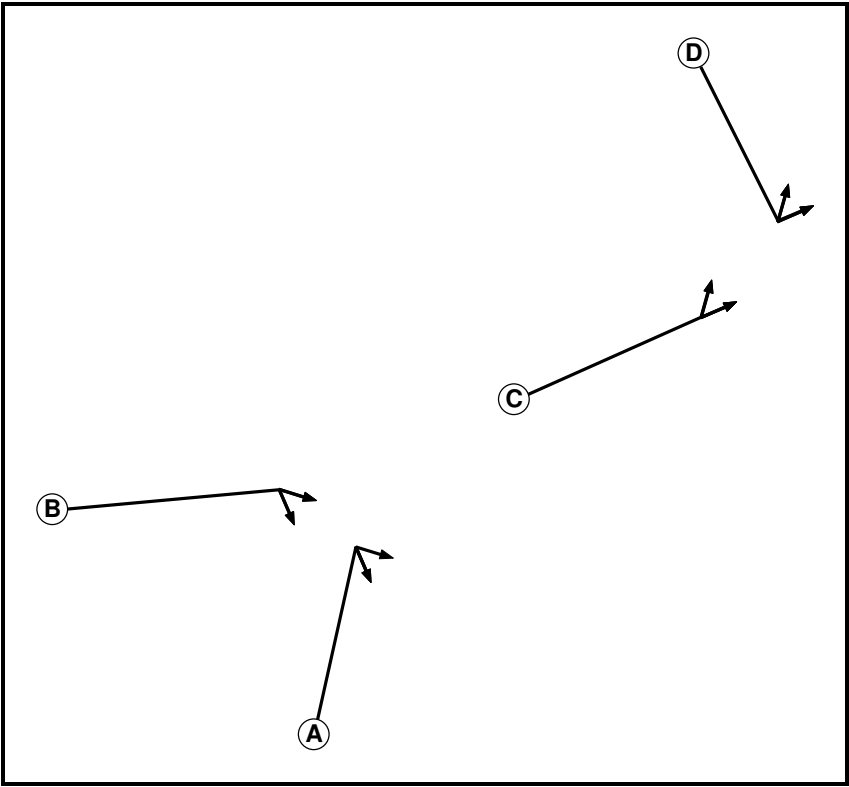
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Reference Case Model
Location:	Northampton
File name:	170308 M1 Junction 15 Ref Case Model.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western Street, Nottingham
Notes:	

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Phase Intergreens Matrix

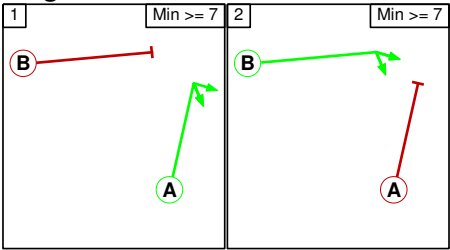
	Starting Phase				
Terminating Phase		A	B	C	D
	A		7	-	-
	B	7		-	-
	C	-	-		7
	D	-	-	6	

Phases in Stage

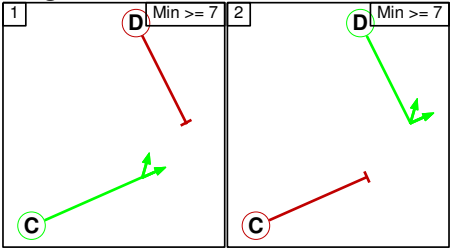
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Stage Stream: 2

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Prohibited Stage Change

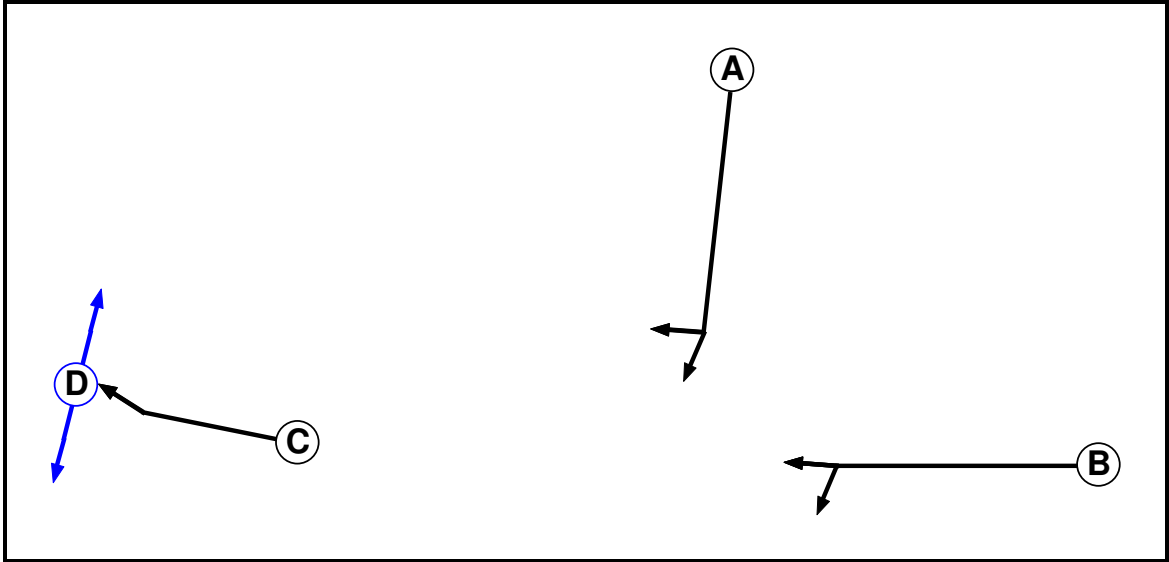
Stage Stream: 1

		To Stage		
From Stage		1	2	
	1			7
	2	7		

Stage Stream: 2

		To Stage		
From Stage		1	2	
	1			7
	2	6		

C2 - Westside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7

Phase Intergreens Matrix

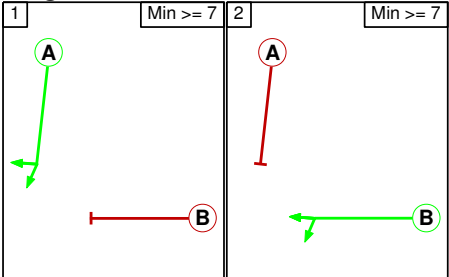
	Starting Phase				
Terminating Phase	A	B	C	D	
	A	5	-	-	
	B	7	-	-	
	C	-	-	5	
	D	-	-	7	

Phases in Stage

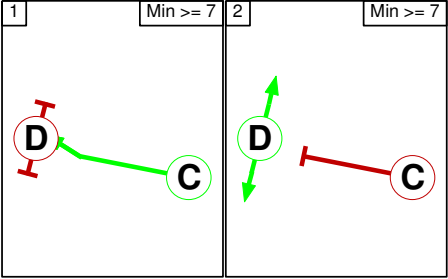
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

Give-Way Lane Input Data

Junction: J1: M1 Junction 15											
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)
J1:10/1 (Saxon Avenue)	J1:8/1 (Left)	838	0	J1:6/1	0.23	All	-	-	-	-	-
				J1:6/2	0.23	All					
				J1:6/3	0.23	All					
	J1:9/1 (Left)	838	0	J1:6/1	0.23	All					
				J1:6/2	0.23	All					
				J1:6/3	0.23	All					
J1:10/2 (Saxon Avenue)	J1:8/2 (Left)	838	0	J1:6/1	0.23	All	-	-	-	-	-
				J1:6/2	0.23	All					
				J1:6/3	0.23	All					
	J1:8/3 (Left)	838	0	J1:6/1	0.23	All					
				J1:6/2	0.23	All					
				J1:6/3	0.23	All					
J1:15/1 (A508 Northampton Rd)	J1:7/1 (Ahead)	800	0	J1:13/1	0.22	All	-	-	-	-	-
				J1:13/2	0.22	All					
				J1:13/3	0.22	All					
	J1:14/1 (Left)	800	0	J1:13/1	0.22	All					
				J1:13/2	0.22	All					
				J1:13/3	0.22	All					
J1:15/2 (A508 Northampton Rd)	J1:7/2 (Ahead)	800	0	J1:13/1	0.22	All	-	-	-	-	-
				J1:13/2	0.22	All					
				J1:13/3	0.22	All					
J1:15/3 (A508 Northampton Rd)	J1:7/3 (Ahead)	800	0	J1:13/1	0.21	All	-	-	-	-	-
				J1:13/2	0.21	All					
				J1:13/3	0.21	All					

Junction: J2: 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)
J2:4/1	J2:3/1 (Left)	715	0	J2:1/1	0.19	All	-	-	-	-	-

Lane Input Data

Junction: J1: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J1:2 Left	Inf
J1:1/2 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
											Arm J1:3 Ahead	Inf
J1:1/3 (M1 Southbound Offslip)	U	C	2	3	14.0	Geom	-	3.65	0.00	Y	Arm J1:3 Ahead	Inf
J1:2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:3/1	U	B	2	3	12.2	User	1900	-	-	-	-	-
J1:3/2	U	B	2	3	12.2	User	1900	-	-	-	-	-
J1:3/3	U	B	2	3	12.2	User	1900	-	-	-	-	-
J1:4/1 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	Y	Arm J1:5 Left	Inf
											Arm J1:6 Ahead	Inf
J1:4/2 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:4/3 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:5/2 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:6/2	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:6/3	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:7/1 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
J1:7/2 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
J1:7/3 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
J1:8/1 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-

J1:8/2 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
J1:8/3 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
J1:9/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:9/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:10/1 (Saxon Avenue)	O		2	3	60.0	Inf	-	-	-	-	-	-
J1:10/2 (Saxon Avenue)	O		2	3	1.0	Inf	-	-	-	-	-	-
J1:11/1 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J1:12 Left	Inf
											Arm J1:13 Ahead	Inf
J1:11/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:13 Ahead	Inf
J1:11/3 (M1 Northbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	N	Arm J1:13 Ahead	Inf
J1:12/1	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:13/1	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:13/2	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:13/3	U		2	3	10.4	Inf	-	-	-	-	-	-
J1:14/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:16 Ahead	Inf
J1:14/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:16 Ahead	Inf
J1:15/1 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
J1:15/2 (A508 Northampton Rd)	O		2	3	23.0	Inf	-	-	-	-	-	-
J1:15/3 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
J1:16/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:16/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:1/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1	U		2	3	5.0	Inf	-	-	-	-	-	-
J2:3/2	U		2	3	5.0	Inf	-	-	-	-	-	-
J2:4/1	O		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Back AM'	08:00	09:00	01:00	
2: '2021 Back PM'	17:00	18:00	01:00	
7: '2021 Total AM'	08:00	09:00	01:00	F1+F3+(2*F5)
8: '2021 Total PM'	17:00	18:00	01:00	F2+F4+(2*F6)
9: '2031 Back AM'	08:00	09:00	01:00	
10: '2031 Back PM'	17:00	18:00	01:00	
11: '2031 Total AM'	08:00	09:00	01:00	F9+F3+(2*F5)
12: '2031 Total PM'	17:00	18:00	01:00	F10+F4+(2*F6)

Scenario 1: '2021 AM Back' (FG1: '2021 Back AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	15	146	1030	785	1184	0	3160
	B	214	0	80	39	46	0	379
	C	911	61	0	34	0	110	1116
	D	559	34	100	0	285	55	1033
	E	1244	144	1	367	0	110	1866
	F	443	0	0	0	0	0	443
	Tot.	3386	385	1211	1225	1515	275	7997

Traffic Lane Flows

Lane	Scenario 1: 2021 AM Back
Junction: J1: M1 Junction 15	
J1:1/1	664
J1:1/2 (with short)	1202(In) 692(Out)
J1:1/3 (short)	510
J1:2/1	1568
J1:2/2	1650
J1:3/1	64
J1:3/2	175
J1:3/3	468
J1:4/1	943
J1:4/2	1018
J1:4/3	1199
J1:5/1	210
J1:5/2	175
J1:6/1	847
J1:6/2	1436
J1:6/3	1199
J1:7/1	904
J1:7/2	960
J1:7/3	195
J1:8/1	1191
J1:8/2	709
J1:8/3	750
J1:9/1	927
J1:9/2	284
J1:10/1 (with short)	379(In) 119(Out)
J1:10/2 (short)	260
J1:11/1	302
J1:11/2 (with short)	814(In) 412(Out)
J1:11/3 (short)	402
J1:12/1	1225
J1:13/1	977
J1:13/2	1162
J1:13/3	402
J1:14/1	871
J1:14/2	644
J1:15/1 (with short)	899(In) 450(Out)
J1:15/2 (short)	449

J1:15/3	134
J1:16/1	871
J1:16/2	644
Junction: J2: Unnamed Junction	
J2:1/1	1568
J2:1/2	1650
J2:2/1	275
J2:3/1	1736
J2:3/2	1650
J2:4/1	443

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	99.7 %	2120	2120
				Arm J1:3 Ahead	Inf	0.3 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	15.5 %	1980	1980
				Arm J1:6 Ahead	Inf	84.5 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	99.7 %	2120	2120
				Arm J1:3 Ahead	Inf	0.3 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	15.5 %	1980	1980
				Arm J1:6 Ahead	Inf	84.5 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 AM Total' (FG7: '2021 Total AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	15	146	1030	1074	1184	0	3449
	B	214	0	80	42	46	0	382
	C	911	61	0	344	0	110	1426
	D	679	37	190	0	374	55	1335
	E	1244	144	1	672	0	110	2171
	F	443	0	0	0	0	0	443
	Tot.	3506	388	1301	2132	1604	275	9206

Traffic Lane Flows

Lane	Scenario 2: 2021 AM Total
Junction: J1: M1 Junction 15	
J1:1/1	734
J1:1/2 (with short)	1437(In) 744(Out)
J1:1/3 (short)	693
J1:2/1	1673
J1:2/2	1665
J1:3/1	166
J1:3/2	76
J1:3/3	863
J1:4/1	1086
J1:4/2	1164
J1:4/3	1199
J1:5/1	312
J1:5/2	76
J1:6/1	1035
J1:6/2	1932
J1:6/3	1199
J1:7/1	939
J1:7/2	1045
J1:7/3	288
J1:8/1	1788
J1:8/2	682
J1:8/3	777
J1:9/1	1115
J1:9/2	186
J1:10/1 (with short)	382(In) 122(Out)
J1:10/2 (short)	260
J1:11/1	453
J1:11/2 (with short)	973(In) 488(Out)
J1:11/3 (short)	485
J1:12/1	2132
J1:13/1	791
J1:13/2	1265
J1:13/3	485
J1:14/1	913
J1:14/2	691
J1:15/1 (with short)	1108(In) 554(Out)
J1:15/2 (short)	554

J1:15/3	227
J1:16/1	913
J1:16/2	691
Junction: J2: Unnamed Junction	
J2:1/1	1673
J2:1/2	1665
J2:2/1	275
J2:3/1	1841
J2:3/2	1665
J2:4/1	443

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	83.3 %	2120	2120
				Arm J1:3 Ahead	Inf	16.7 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	13.4 %	1980	1980
				Arm J1:6 Ahead	Inf	86.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	83.3 %	2120	2120
				Arm J1:3 Ahead	Inf	16.7 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	13.4 %	1980	1980
				Arm J1:6 Ahead	Inf	86.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2021 PM Back' (FG2: '2021 Back PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	64	216	1001	854	1373	0	3508
	B	237	0	52	39	51	0	379
	C	1040	98	0	40	0	81	1259
	D	590	58	86	0	292	40	1066
	E	1189	143	0	212	0	81	1625
	F	518	0	0	0	0	0	518
	Tot.	3638	515	1139	1145	1716	202	8355

Traffic Lane Flows

Lane	Scenario 3: 2021 PM Back
Junction: J1: M1 Junction 15	
J1:1/1	611
J1:1/2 (with short)	1014(In) 659(Out)
J1:1/3 (short)	355
J1:2/1	1602
J1:2/2	1720
J1:3/1	124
J1:3/2	175
J1:3/3	298
J1:4/1	996
J1:4/2	1075
J1:4/3	1437
J1:5/1	340
J1:5/2	175
J1:6/1	823
J1:6/2	1330
J1:6/3	1437
J1:7/1	991
J1:7/2	1061
J1:7/3	242
J1:8/1	1105
J1:8/2	857
J1:8/3	868
J1:9/1	875
J1:9/2	264
J1:10/1 (with short)	379(In) 91(Out)
J1:10/2 (short)	288
J1:11/1	397
J1:11/2 (with short)	862(In) 432(Out)
J1:11/3 (short)	430
J1:12/1	1145
J1:13/1	1214
J1:13/2	1300
J1:13/3	430
J1:14/1	972
J1:14/2	744
J1:15/1 (with short)	922(In) 461(Out)
J1:15/2 (short)	461

J1:15/3	144
J1:16/1	972
J1:16/2	744
Junction: J2: Unnamed Junction	
J2:1/1	1602
J2:1/2	1720
J2:2/1	202
J2:3/1	1918
J2:3/2	1720
J2:4/1	518

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	21.7 %	1980	1980
				Arm J1:6 Ahead	Inf	78.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	21.7 %	1980	1980
				Arm J1:6 Ahead	Inf	78.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2021 PM Total' (FG8: '2021 Total PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	64	216	1001	1020	1373	0	3674
	B	237	0	52	40	51	0	380
	C	1040	98	0	188	0	81	1407
	D	898	59	429	0	627	40	2053
	E	1189	143	0	360	0	81	1773
	F	518	0	0	0	0	0	518
	Tot.	3946	516	1482	1608	2051	202	9805

Traffic Lane Flows

Lane	Scenario 4: 2021 PM Total
Junction: J1: M1 Junction 15	
J1:1/1	649
J1:1/2 (with short)	1124(In) 684(Out)
J1:1/3 (short)	440
J1:2/1	1722
J1:2/2	1908
J1:3/1	142
J1:3/2	158
J1:3/3	789
J1:4/1	1080
J1:4/2	1157
J1:4/3	1437
J1:5/1	358
J1:5/2	158
J1:6/1	1078
J1:6/2	1732
J1:6/3	1437
J1:7/1	1073
J1:7/2	1287
J1:7/3	586
J1:8/1	1420
J1:8/2	854
J1:8/3	871
J1:9/1	1130
J1:9/2	352
J1:10/1 (with short)	380(In) 92(Out)
J1:10/2 (short)	288
J1:11/1	445
J1:11/2 (with short)	962(In) 482(Out)
J1:11/3 (short)	480
J1:12/1	1608
J1:13/1	1111
J1:13/2	1353
J1:13/3	480
J1:14/1	1276
J1:14/2	775
J1:15/1 (with short)	1565(In) 783(Out)
J1:15/2 (short)	782

J1:15/3	488
J1:16/1	1276
J1:16/2	775
Junction: J2: Unnamed Junction	
J2:1/1	1722
J2:1/2	1908
J2:2/1	202
J2:3/1	2038
J2:3/2	1908
J2:4/1	518

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	90.8 %	2120	2120
				Arm J1:3 Ahead	Inf	9.2 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	20.0 %	1980	1980
				Arm J1:6 Ahead	Inf	80.0 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	90.8 %	2120	2120
				Arm J1:3 Ahead	Inf	9.2 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	20.0 %	1980	1980
				Arm J1:6 Ahead	Inf	80.0 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2031 AM Back' (FG9: '2031 Back AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	17	169	1190	908	1368	0	3652
	B	246	0	93	44	52	0	435
	C	1070	72	0	40	0	110	1292
	D	653	39	114	0	329	55	1190
	E	1455	166	1	424	0	110	2156
	F	443	0	0	0	0	0	443
	Tot.	3884	446	1398	1416	1749	275	9168

Traffic Lane Flows

Lane	Scenario 5: 2031 AM Back
Junction: J1: M1 Junction 15	
J1:1/1	793
J1:1/2 (with short)	1363(In) 772(Out)
J1:1/3 (short)	591
J1:2/1	1835
J1:2/2	1881
J1:3/1	79
J1:3/2	198
J1:3/3	539
J1:4/1	1094
J1:4/2	1173
J1:4/3	1385
J1:5/1	248
J1:5/2	198
J1:6/1	982
J1:6/2	1655
J1:6/3	1385
J1:7/1	1042
J1:7/2	1109
J1:7/3	225
J1:8/1	1376
J1:8/2	808
J1:8/3	875
J1:9/1	1075
J1:9/2	323
J1:10/1 (with short)	435(In) 137(Out)
J1:10/2 (short)	298
J1:11/1	408
J1:11/2 (with short)	884(In) 443(Out)
J1:11/3 (short)	441
J1:12/1	1416
J1:13/1	1176
J1:13/2	1318
J1:13/3	441
J1:14/1	1026
J1:14/2	723
J1:15/1 (with short)	1037(In) 519(Out)
J1:15/2 (short)	518

J1:15/3	153
J1:16/1	1026
J1:16/2	723
Junction: J2: Unnamed Junction	
J2:1/1	1835
J2:1/2	1881
J2:2/1	275
J2:3/1	2003
J2:3/2	1881
J2:4/1	443

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	15.4 %	1980	1980
				Arm J1:6 Ahead	Inf	84.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	15.4 %	1980	1980
				Arm J1:6 Ahead	Inf	84.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

J1:10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:12 Left	Inf	9.8 %	1980	1980
				Arm J1:13 Ahead	Inf	90.2 %		
J1:11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:13 Ahead	Inf	100.0 %	2120	2120
J1:11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:13 Ahead	Inf	100.0 %	2120	2120
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:13/1	Infinite Saturation Flow						Inf	Inf
J1:13/2	Infinite Saturation Flow						Inf	Inf
J1:13/3	Infinite Saturation Flow						Inf	Inf
J1:14/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:16 Ahead	Inf	100.0 %	1995	1995
J1:14/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:16 Ahead	Inf	100.0 %	1995	1995
J1:15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:16/1	Infinite Saturation Flow						Inf	Inf
J1:16/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: 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)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:3/2	Infinite Saturation Flow						Inf	Inf
J2:4/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2031 AM Total' (FG11: '2031 Total AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	17	169	1190	1197	1368	0	3941
	B	246	0	93	47	52	0	438
	C	1070	72	0	350	0	110	1602
	D	773	42	204	0	418	55	1492
	E	1455	166	1	729	0	110	2461
	F	443	0	0	0	0	0	443
	Tot.	4004	449	1488	2323	1838	275	10377

Traffic Lane Flows

Lane	Scenario 6: 2031 AM Total
Junction: J1: M1 Junction 15	
J1:1/1	837
J1:1/2 (with short)	1624(In) 822(Out)
J1:1/3 (short)	802
J1:2/1	1900
J1:2/2	1936
J1:3/1	151
J1:3/2	129
J1:3/3	934
J1:4/1	1234
J1:4/2	1322
J1:4/3	1385
J1:5/1	320
J1:5/2	129
J1:6/1	1167
J1:6/2	2154
J1:6/3	1385
J1:7/1	1063
J1:7/2	1208
J1:7/3	318
J1:8/1	1973
J1:8/2	762
J1:8/3	921
J1:9/1	1260
J1:9/2	228
J1:10/1 (with short)	438(In) 140(Out)
J1:10/2 (short)	298
J1:11/1	507
J1:11/2 (with short)	1095(In) 550(Out)
J1:11/3 (short)	545
J1:12/1	2323
J1:13/1	919
J1:13/2	1471
J1:13/3	545
J1:14/1	1013
J1:14/2	825
J1:15/1 (with short)	1246(In) 624(Out)
J1:15/2 (short)	622

J1:15/3	246
J1:16/1	1013
J1:16/2	825
Junction: J2: Unnamed Junction	
J2:1/1	1900
J2:1/2	1936
J2:2/1	275
J2:3/1	2068
J2:3/2	1936
J2:4/1	443

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	88.6 %	2120	2120
				Arm J1:3 Ahead	Inf	11.4 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	13.7 %	1980	1980
				Arm J1:6 Ahead	Inf	86.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	88.6 %	2120	2120
				Arm J1:3 Ahead	Inf	11.4 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	13.7 %	1980	1980
				Arm J1:6 Ahead	Inf	86.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2031 PM Back' (FG10: '2031 Back PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	74	252	1164	992	1595	0	4077
	B	276	0	61	45	60	0	442
	C	1222	114	0	46	0	81	1463
	D	692	68	101	0	339	40	1240
	E	1396	166	0	247	0	81	1890
	F	518	0	0	0	0	0	518
	Tot.	4178	600	1326	1330	1994	202	9630

Traffic Lane Flows

Lane	Scenario 7: 2031 PM Back
Junction: J1: M1 Junction 15	
J1:1/1	729
J1:1/2 (with short)	1161(In) 748(Out)
J1:1/3 (short)	413
J1:2/1	1857
J1:2/2	2005
J1:3/1	122
J1:3/2	226
J1:3/3	348
J1:4/1	1163
J1:4/2	1245
J1:4/3	1669
J1:5/1	374
J1:5/2	226
J1:6/1	961
J1:6/2	1543
J1:6/3	1669
J1:7/1	1128
J1:7/2	1257
J1:7/3	283
J1:8/1	1284
J1:8/2	999
J1:8/3	1006
J1:9/1	1022
J1:9/2	304
J1:10/1 (with short)	442(In) 106(Out)
J1:10/2 (short)	336
J1:11/1	447
J1:11/2 (with short)	1016(In) 509(Out)
J1:11/3 (short)	507
J1:12/1	1330
J1:13/1	1400
J1:13/2	1515
J1:13/3	507
J1:14/1	1163
J1:14/2	831
J1:15/1 (with short)	1071(In) 540(Out)
J1:15/2 (short)	531

J1:15/3	169
J1:16/1	1163
J1:16/2	831
Junction: J2: Unnamed Junction	
J2:1/1	1857
J2:1/2	2005
J2:2/1	202
J2:3/1	2173
J2:3/2	2005
J2:4/1	518

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	21.7 %	1980	1980
				Arm J1:6 Ahead	Inf	78.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
				Arm J1:3 Ahead	Inf	0.0 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	21.7 %	1980	1980
				Arm J1:6 Ahead	Inf	78.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2031 PM Total' (FG12: '2031 Total PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	74	252	1164	1158	1595	0	4243
	B	276	0	61	46	60	0	443
	C	1222	114	0	194	0	81	1611
	D	1000	69	444	0	674	40	2227
	E	1396	166	0	395	0	81	2038
	F	518	0	0	0	0	0	518
	Tot.	4486	601	1669	1793	2329	202	11080

Traffic Lane Flows

Lane	Scenario 8: 2031 PM Total
Junction: J1: M1 Junction 15	
J1:1/1	744
J1:1/2 (with short)	1294(In) 757(Out)
J1:1/3 (short)	537
J1:2/1	1931
J1:2/2	2239
J1:3/1	117
J1:3/2	232
J1:3/3	839
J1:4/1	1243
J1:4/2	1331
J1:4/3	1669
J1:5/1	369
J1:5/2	232
J1:6/1	1213
J1:6/2	1948
J1:6/3	1669
J1:7/1	1187
J1:7/2	1506
J1:7/3	627
J1:8/1	1599
J1:8/2	970
J1:8/3	1035
J1:9/1	1274
J1:9/2	395
J1:10/1 (with short)	443(In) 107(Out)
J1:10/2 (short)	336
J1:11/1	511
J1:11/2 (with short)	1100(In) 550(Out)
J1:11/3 (short)	550
J1:12/1	1793
J1:13/1	1287
J1:13/2	1585
J1:13/3	550
J1:14/1	1439
J1:14/2	890
J1:15/1 (with short)	1714(In) 857(Out)
J1:15/2 (short)	857

J1:15/3	513
J1:16/1	1439
J1:16/2	890
Junction: J2: Unnamed Junction	
J2:1/1	1931
J2:1/2	2239
J2:2/1	202
J2:3/1	2247
J2:3/2	2239
J2:4/1	518

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	96.8 %	2120	2120
				Arm J1:3 Ahead	Inf	3.2 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	20.3 %	1980	1980
				Arm J1:6 Ahead	Inf	79.7 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	96.8 %	2120	2120
				Arm J1:3 Ahead	Inf	3.2 %		
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1980	1980
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	20.3 %	1980	1980
				Arm J1:6 Ahead	Inf	79.7 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:6/2	Infinite Saturation Flow						Inf	Inf
J1:6/3	Infinite Saturation Flow						Inf	Inf
J1:7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

J1:10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:12 Left	Inf	38.0 %	1980	1980
				Arm J1:13 Ahead	Inf	62.0 %		
J1:11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:13 Ahead	Inf	100.0 %	2120	2120
J1:11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:13 Ahead	Inf	100.0 %	2120	2120
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:13/1	Infinite Saturation Flow						Inf	Inf
J1:13/2	Infinite Saturation Flow						Inf	Inf
J1:13/3	Infinite Saturation Flow						Inf	Inf
J1:14/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:16 Ahead	Inf	100.0 %	1995	1995
J1:14/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:16 Ahead	Inf	100.0 %	1995	1995
J1:15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:16/1	Infinite Saturation Flow						Inf	Inf
J1:16/2	Infinite Saturation Flow						Inf	Inf

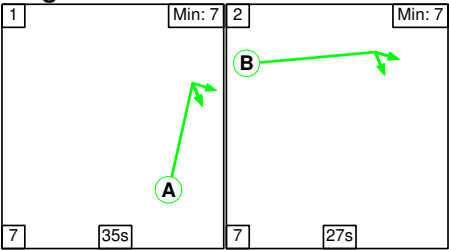
Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:3/2	Infinite Saturation Flow						Inf	Inf
J2:4/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2021 AM Back' (FG1: '2021 Back AM', Plan 1: 'Network Control Plan 1')

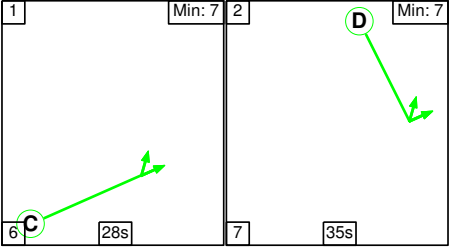
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

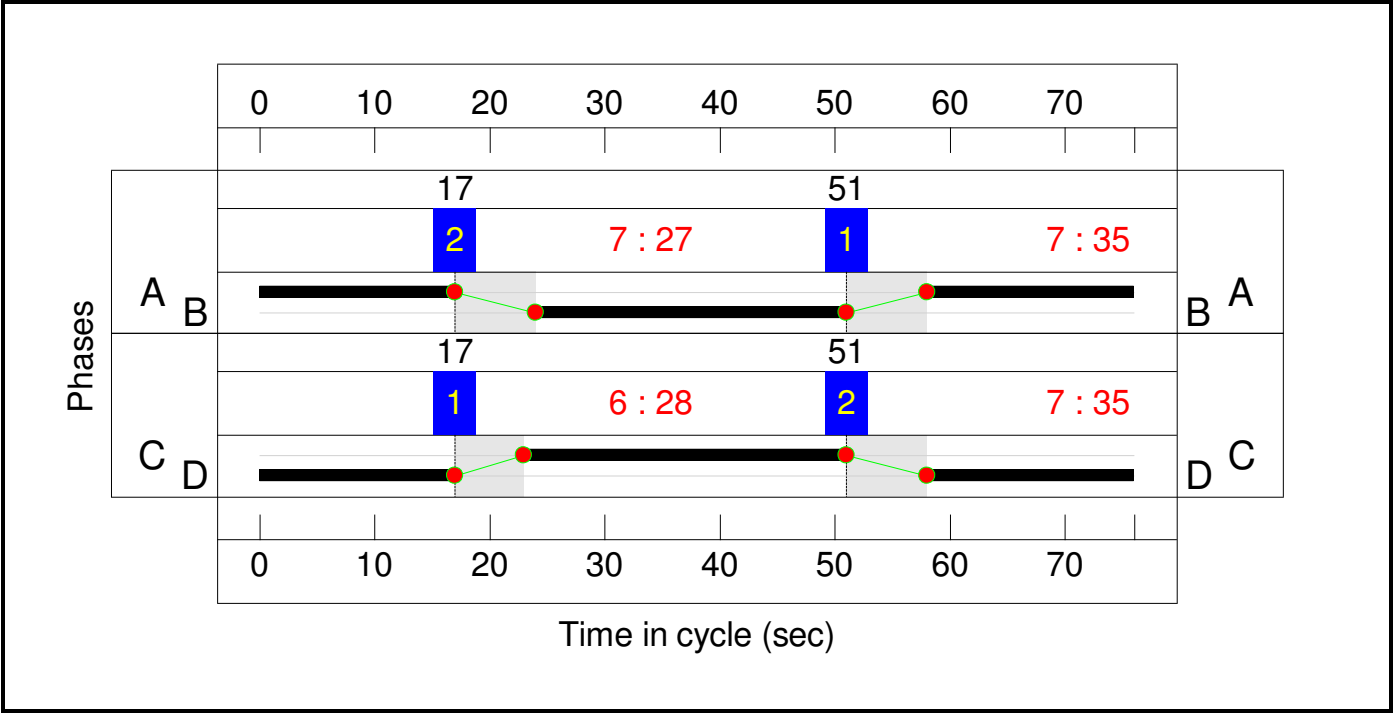
Stage Stream: 1

Stage	1	2
Duration	35	27
Change Point	51	17

Stage Stream: 2

Stage	1	2
Duration	28	35
Change Point	17	51

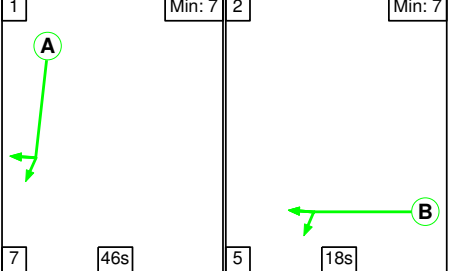
Signal Timings Diagram



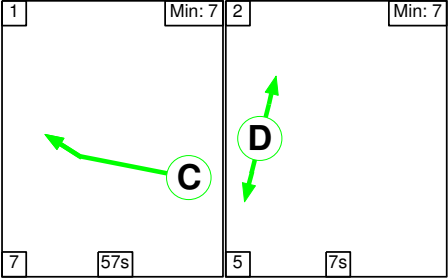
C2 - Westside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

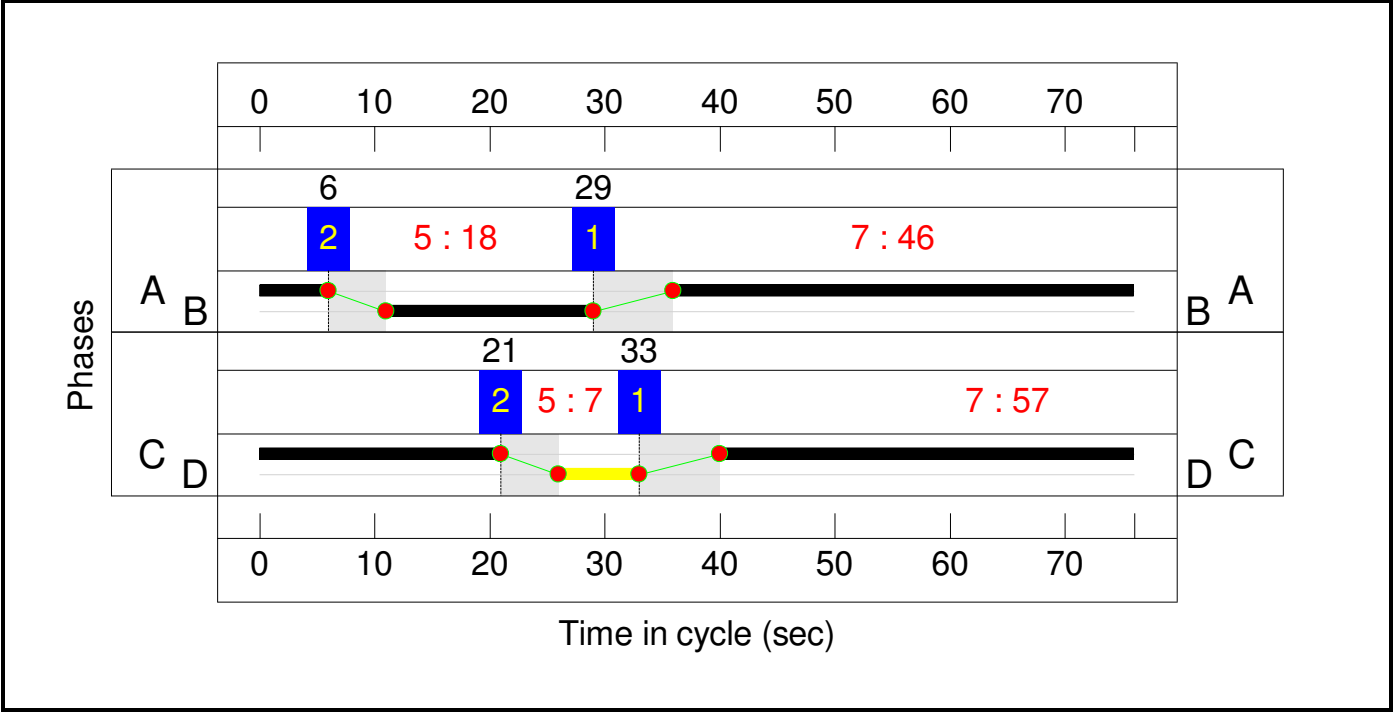
Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	29	6

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	33	21

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	119.4%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	119.4%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	664	1980	756	87.9%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	28	-	1202	2120:1980	741+546	93.4 : 93.4%
3/1	Ahead	U	1:1	N/A	C1:B		1	27	-	64	1900	700	9.1%
3/2	Ahead	U	1:1	N/A	C1:B		1	27	-	175	1900	700	25.0%
3/3	Right	U	1:1	N/A	C1:B		1	27	-	468	1900	700	66.9%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	35	-	943	1980	938	100.5%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	35	-	1018	2120	1004	101.4%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	35	-	1199	2120	1004	119.4%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	904	2000	947	92.5%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	960	2000	947	93.7%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	195	2000	947	20.6%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1191	2000	1237	95.4%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	709	2000	1237	49.8%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	750	2000	1237	52.4%

10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	379	Inf : Inf	153+333	78.0 : 78.0%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	302	1980	495	61.0%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	814	2120:2120	530+530	77.7 : 75.8%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	871	1995	1523	48.1%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	644	1995	1523	35.7%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	899	Inf : Inf	378+378	119.2 : 118.9%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	134	Inf	383	35.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	104.9%
4/1	Left	O	N/A	N/A	-		-	-	-	443	Inf	422	104.9%

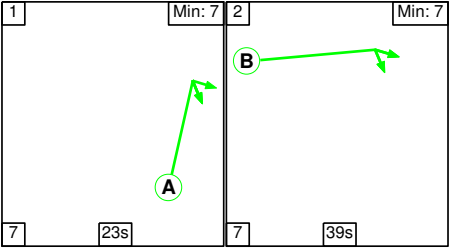
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	2825	0	0	84.9	265.3	0.0	350.1	-	-	-	-
J1: M1 Junction 15	-	-	2403	0	0	83.6	248.4	0.0	331.9	-	-	-	-
1/1	664	664	-	-	-	4.0	3.4	-	7.4	40.2	12.9	3.4	16.3
1/2+1/3	1202	1202	-	-	-	6.9	6.2	-	13.1 (7.7+5.4)	39.2 (40.0:38.0)	13.3	6.2	19.4
3/1	64	64	-	-	-	0.6	0.1	-	0.6	34.7	1.3	0.1	1.4
3/2	175	175	-	-	-	0.4	0.2	-	0.6	12.0	0.9	0.2	1.1
3/3	468	468	-	-	-	1.1	1.0	-	2.1	16.1	3.8	1.0	4.8
4/1	943	938	-	-	-	5.5	16.7	-	22.1	84.5	20.0	16.7	36.7
4/2	1018	1004	-	-	-	6.2	19.8	-	26.0	91.9	21.8	19.8	41.6
4/3	1199	1004	-	-	-	14.8	100.4	-	115.2	345.8	29.4	100.4	129.8
7/1	876	876	-	-	-	7.6	5.3	-	13.0	53.3	18.2	5.3	23.6
7/2	888	888	-	-	-	6.2	6.2	-	12.4	50.2	18.1	6.2	24.3
7/3	195	195	-	-	-	0.8	0.1	-	1.0	17.7	2.6	0.1	2.8
8/1	1180	1180	-	-	-	5.7	8.1	-	13.8	42.1	20.8	8.1	28.9
8/2	616	616	-	-	-	2.4	0.5	-	2.9	16.9	9.0	0.5	9.5
8/3	649	649	-	-	-	2.7	0.6	-	3.2	17.8	9.6	0.6	10.2
10/1+10/2	379	379	758	0	0	1.4	1.7	-	3.1 (0.9+2.2)	29.8 (27.0:31.1)	5.2	1.7	6.9
11/1	302	302	-	-	-	2.1	0.8	-	2.9	34.5	5.6	0.8	6.4
11/2+11/3	814	814	-	-	-	6.0	1.6	-	7.6 (3.9+3.8)	33.7 (33.8:33.6)	8.0	1.6	9.6
14/1	733	733	-	-	-	0.1	0.5	-	0.5	2.7	0.8	0.5	1.3
14/2	544	544	-	-	-	0.0	0.3	-	0.3	1.8	0.0	0.3	0.3
15/1+15/2	899	755	1511	0	0	8.9	74.9	-	83.7 (42.1+41.6)	335.3 (337.1:333.4)	26.1	74.9	101.0
15/3	134	134	134	0	0	0.1	0.3	-	0.4	11.1	0.7	0.3	1.0

J2: Unnamed Junction	-	-	422	0	0	1.3	16.9	0.0	18.2	-	-	-	-
4/1	443	422	422	0	0	1.3	16.9	-	18.2	147.6	26.8	16.9	43.7
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -32.7 Total Delay for Signalled Lanes (pcuHr): 166.61 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -4.1 Total Delay for Signalled Lanes (pcuHr): 46.80 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -6.0 Total Delay for Signalled Lanes (pcuHr): 30.42 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 86.9 Total Delay for Signalled Lanes (pcuHr): 0.83 Cycle Time (s): 76 PRC Over All Lanes (%): -32.7 Total Delay Over All Lanes(pcuHr): 350.11													

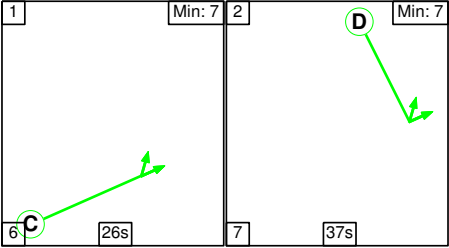
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

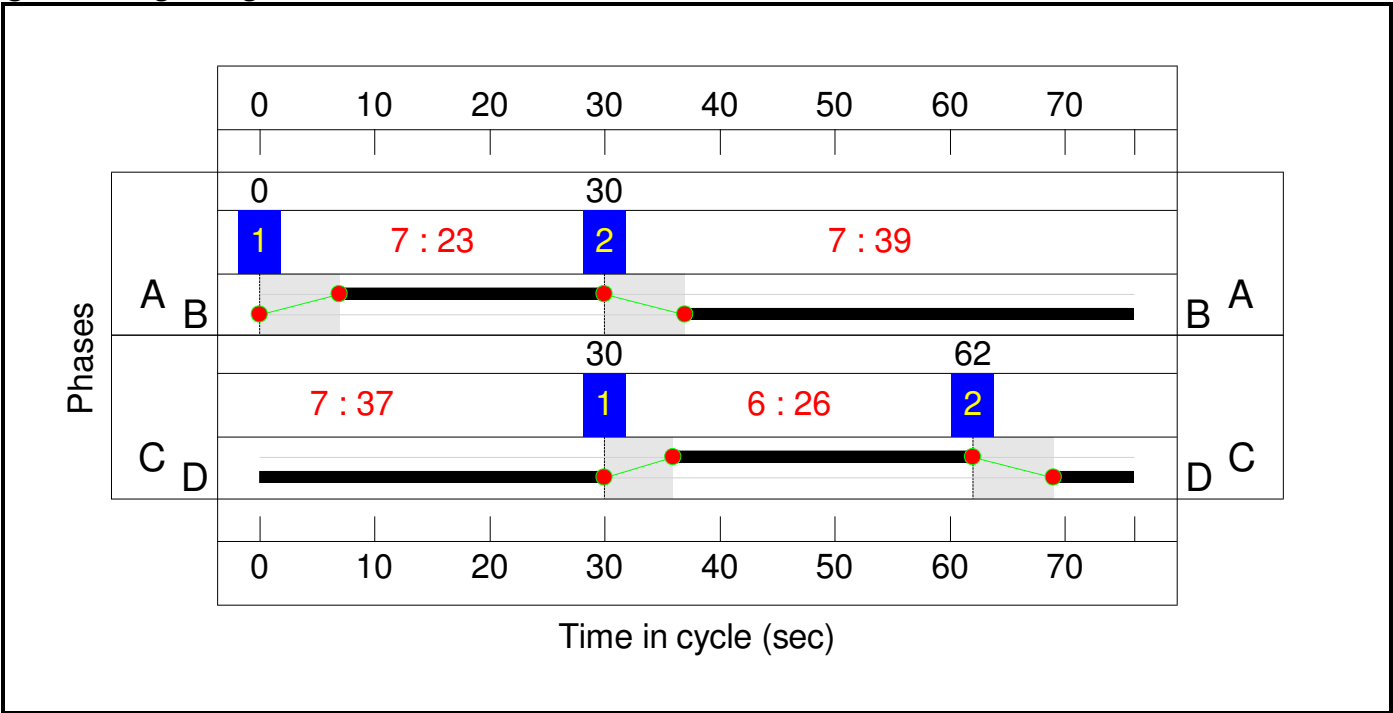
Stage Stream: 1

Stage	1	2
Duration	23	39
Change Point	0	30

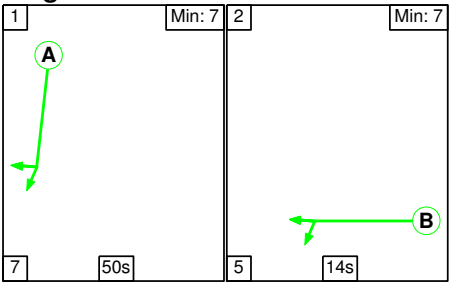
Stage Stream: 2

Stage	1	2
Duration	26	37
Change Point	30	62

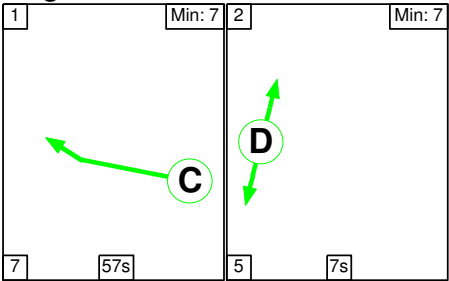
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



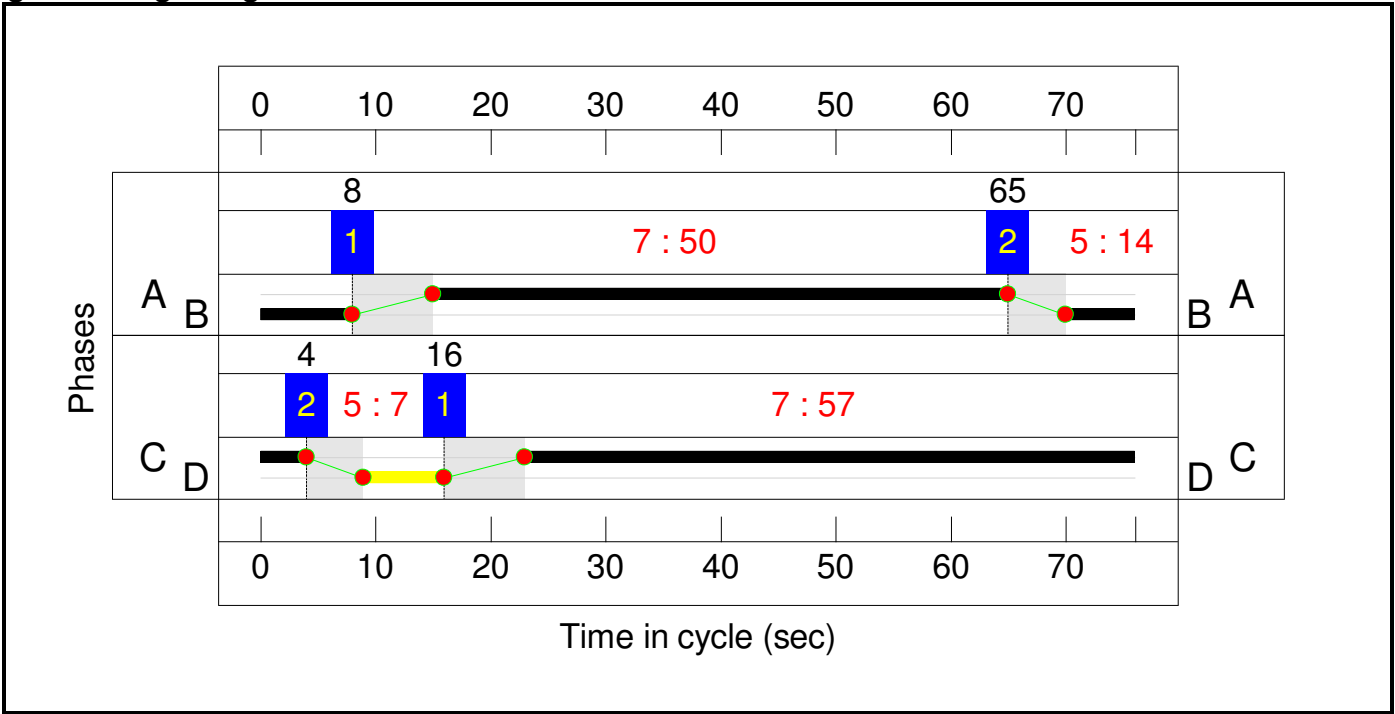
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	50	14
Change Point	8	65

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	16	4

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	179.1%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	179.1%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	26	-	734	1980	703	104.3%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	26	-	1437	2120:1980	705+657	105.5 : 105.5%
3/1	Ahead	U	1:1	N/A	C1:B		1	39	-	166	1900	1000	15.5%
3/2	Ahead	U	1:1	N/A	C1:B		1	39	-	76	1900	1000	7.1%
3/3	Right	U	1:1	N/A	C1:B		1	39	-	863	1900	1000	82.8%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	23	-	1086	1980	625	173.7%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	23	-	1164	2120	669	173.9%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	23	-	1199	2120	669	179.1%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	939	2000	1000	82.1%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	1045	2000	1000	86.0%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	37	-	288	2000	1000	28.0%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	50	-	1788	2000	1342	96.6%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	50	-	682	2000	1342	32.9%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	50	-	777	2000	1342	36.3%

10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	382	Inf : Inf	180+383	67.9 : 67.9%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	14	-	453	1980	391	115.9%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	14	-	973	2120:2120	418+418	116.6 : 115.9%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	913	1995	1523	39.2%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	691	1995	1523	26.7%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1108	Inf : Inf	439+439	126.3 : 126.3%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	227	Inf	447	50.7%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	104.2%
4/1	Left	O	N/A	N/A	-		-	-	-	443	Inf	425	104.2%

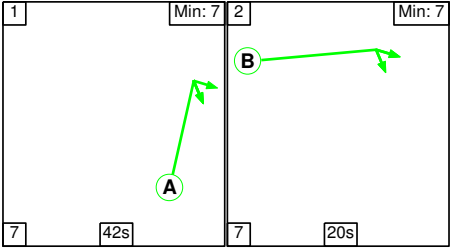
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	3171	0	0	143.9	1074.4	0.0	1218.3	-	-	-	-
J1: M1 Junction 15	-	-	2745	0	0	142.9	1058.6	0.0	1201.5	-	-	-	-
1/1	734	703	-	-	-	5.9	23.2	-	29.1	142.5	16.1	23.2	39.3
1/2+1/3	1437	1362	-	-	-	11.7	45.5	-	57.2 (29.6+27.6)	143.2 (143.0:143.4)	23.2	45.5	68.7
3/1	155	155	-	-	-	0.2	0.1	-	0.3	6.1	0.7	0.1	0.8
3/2	71	71	-	-	-	0.2	0.0	-	0.3	13.8	0.9	0.0	0.9
3/3	828	828	-	-	-	1.1	2.3	-	3.4	14.9	15.5	2.3	17.9
4/1	1086	625	-	-	-	24.7	231.5	-	256.2	849.3	32.7	231.5	264.2
4/2	1164	669	-	-	-	26.5	248.4	-	274.9	850.2	35.0	248.4	283.4
4/3	1199	669	-	-	-	28.0	265.9	-	293.9	882.4	36.7	265.9	302.6
7/1	821	821	-	-	-	1.8	2.2	-	4.1	17.8	6.0	2.2	8.2
7/2	860	860	-	-	-	1.8	3.0	-	4.8	19.9	7.0	3.0	10.0
7/3	280	280	-	-	-	0.8	0.2	-	1.0	13.4	3.0	0.2	3.2
8/1	1297	1297	-	-	-	5.0	9.9	-	14.9	41.5	23.6	9.9	33.5
8/2	442	442	-	-	-	0.2	0.2	-	0.5	3.7	1.2	0.2	1.4
8/3	487	487	-	-	-	0.2	0.3	-	0.5	3.4	1.0	0.3	1.3
10/1+10/2	382	382	764	0	0	0.6	1.0	-	1.6 (0.5+1.2)	15.5 (14.3:16.0)	3.3	1.0	4.4
11/1	453	391	-	-	-	6.4	34.4	-	40.8	324.3	10.9	34.4	45.3
11/2+11/3	973	837	-	-	-	13.3	71.5	-	84.8 (43.2+41.6)	313.8 (319.0:308.6)	11.5	71.5	83.0
14/1	597	597	-	-	-	0.0	0.3	-	0.4	2.2	0.9	0.3	1.2
14/2	406	406	-	-	-	0.0	0.2	-	0.2	1.7	0.4	0.2	0.6
15/1+15/2	1108	877	1754	0	0	14.4	117.7	-	132.1 (66.1+66.1)	429.2 (429.2:429.2)	34.8	117.7	152.5
15/3	227	227	227	0	0	0.1	0.5	-	0.6	10.2	1.3	0.5	1.8

J2: Unnamed Junction	-	-	425	0	0	1.0	15.9	0.0	16.8	-	-	-	-
4/1	443	425	425	0	0	1.0	15.9	-	16.8	136.5	28.1	15.9	43.9
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -99.0 Total Delay for Signalled Lanes (pcuHr): 828.97 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -17.2 Total Delay for Signalled Lanes (pcuHr): 96.08 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -29.6 Total Delay for Signalled Lanes (pcuHr): 141.48 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 129.5 Total Delay for Signalled Lanes (pcuHr): 0.56 Cycle Time (s): 76 PRC Over All Lanes (%): -99.0 Total Delay Over All Lanes(pcuHr): 1218.27													

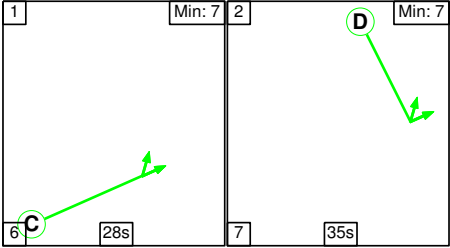
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

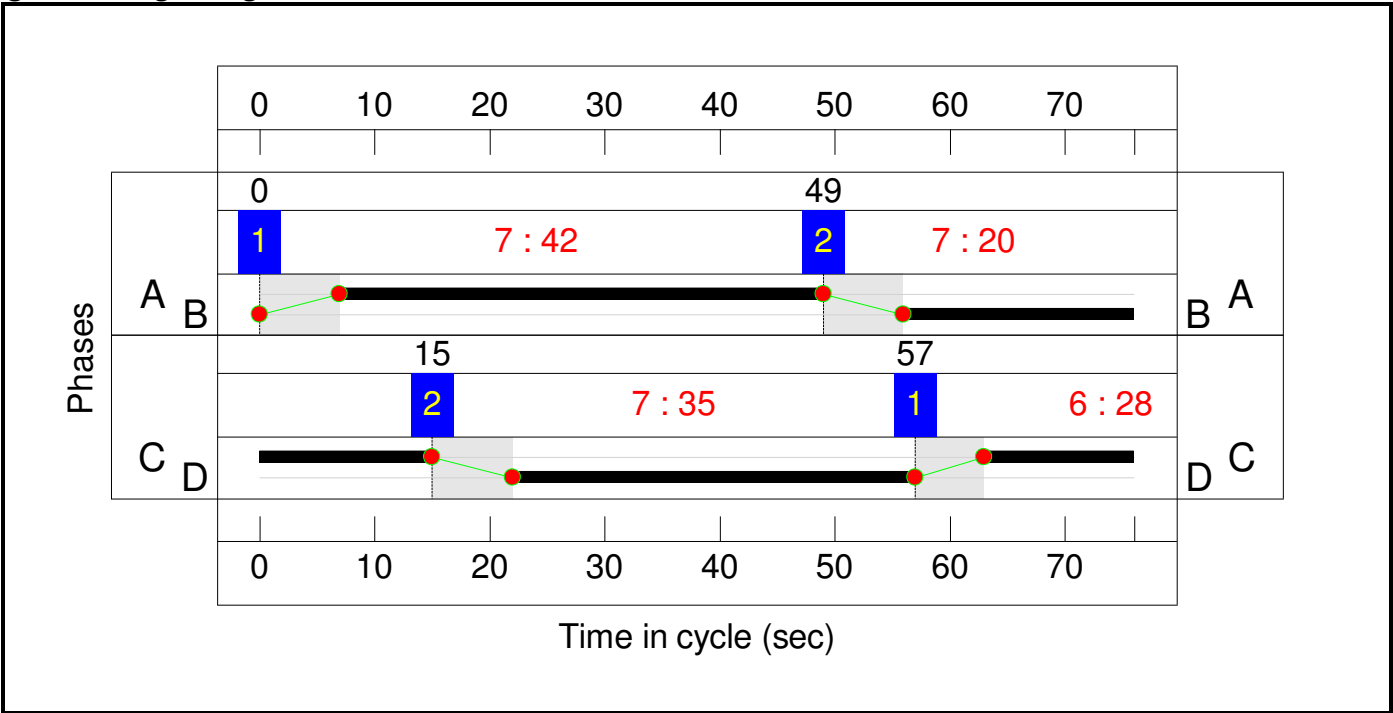
Stage Stream: 1

Stage	1	2
Duration	42	20
Change Point	0	49

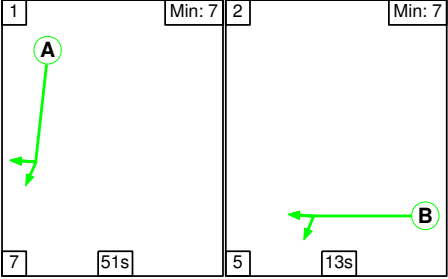
Stage Stream: 2

Stage	1	2
Duration	28	35
Change Point	57	15

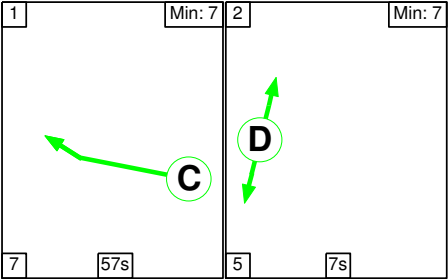
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



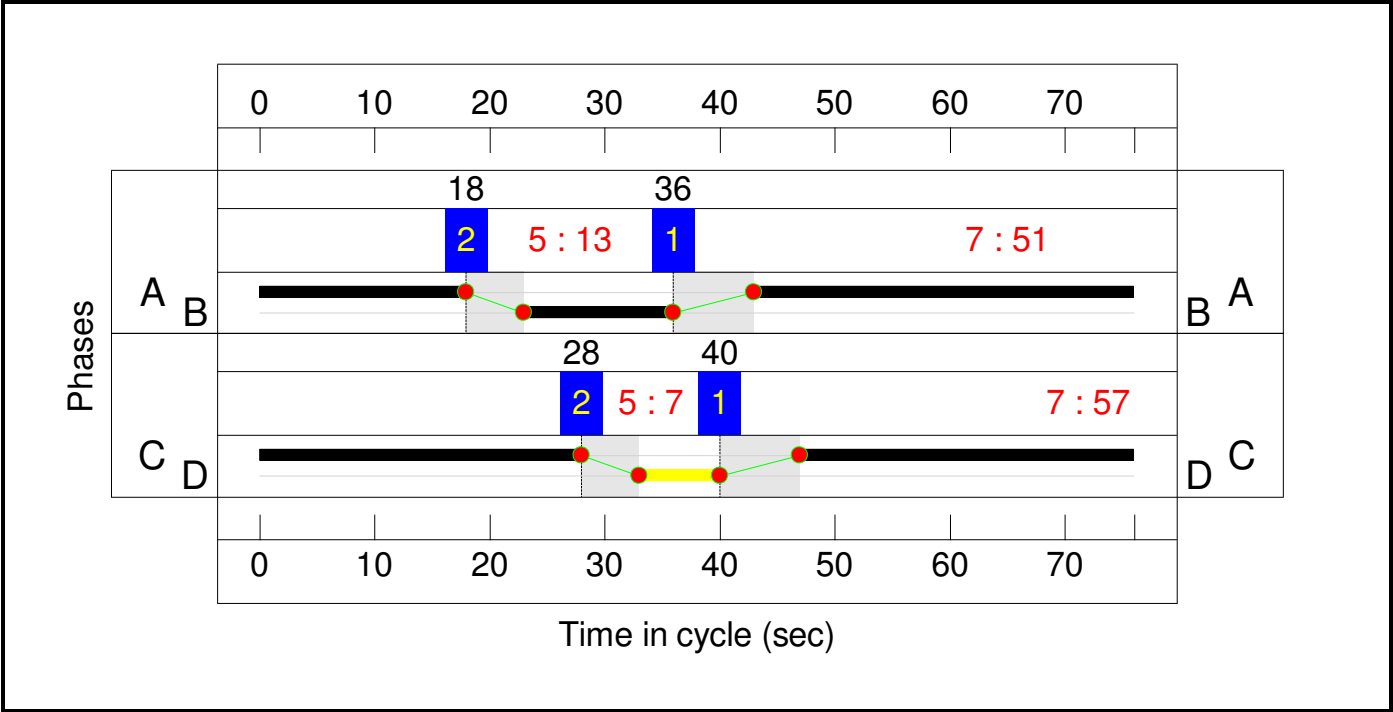
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	51	13
Change Point	36	18

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	40	28

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	131.9%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	131.9%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	611	1980	756	80.9%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	28	-	1014	2120:1980	752+405	87.7 : 87.7%
3/1	Ahead	U	1:1	N/A	C1:B		1	20	-	124	1900	525	22.5%
3/2	Ahead	U	1:1	N/A	C1:B		1	20	-	175	1900	525	32.8%
3/3	Right	U	1:1	N/A	C1:B		1	20	-	298	1900	525	56.8%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	42	-	996	1980	1120	88.9%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	42	-	1075	2120	1199	89.6%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	42	-	1437	2120	1199	119.8%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	991	2000	947	94.0%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	1061	2000	947	94.7%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	242	2000	947	24.6%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	51	-	1105	2000	1368	80.8%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	857	2000	1368	54.2%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	868	2000	1368	54.5%

10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	379	Inf : Inf	93+295	97.6 : 97.6%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	13	-	397	1980	365	108.8%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	13	-	862	2120:2120	391+391	110.6 : 110.1%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	972	1995	1523	52.0%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	744	1995	1523	41.1%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	922	Inf : Inf	350+350	131.9 : 131.9%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	144	Inf	352	40.9%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	120.6%
4/1	Left	O	N/A	N/A	-		-	-	-	518	Inf	430	120.6%

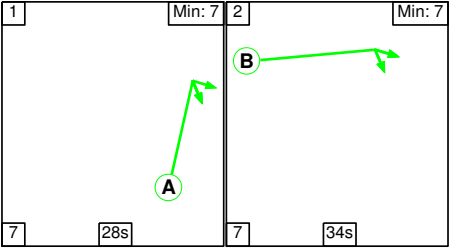
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	2730	0	0	82.0	388.3	0.0	470.3	-	-	-	-
J1: M1 Junction 15	-	-	2300	0	0	77.3	341.4	0.0	418.7	-	-	-	-
1/1	611	611	-	-	-	3.6	2.1	-	5.6	33.1	11.4	2.1	13.4
1/2+1/3	1014	1014	-	-	-	5.6	3.4	-	9.0 (6.1+2.9)	32.0 (33.1:29.8)	12.4	3.4	15.8
3/1	118	118	-	-	-	0.5	0.1	-	0.6	18.9	2.2	0.1	2.4
3/2	172	172	-	-	-	0.7	0.2	-	1.0	20.1	1.6	0.2	1.9
3/3	298	298	-	-	-	1.5	0.7	-	2.2	26.2	3.2	0.7	3.9
4/1	996	996	-	-	-	4.0	3.8	-	7.8	28.1	18.3	3.8	22.0
4/2	1075	1075	-	-	-	4.3	4.1	-	8.4	28.1	19.7	4.1	23.8
4/3	1437	1199	-	-	-	14.6	121.7	-	136.4	341.6	35.4	121.7	157.1
7/1	891	891	-	-	-	2.6	6.4	-	9.0	36.4	10.9	6.4	17.3
7/2	897	897	-	-	-	1.8	7.0	-	8.8	35.2	10.0	7.0	17.0
7/3	233	233	-	-	-	0.3	0.2	-	0.4	6.7	1.7	0.2	1.9
8/1	1105	1105	-	-	-	4.1	2.1	-	6.2	20.1	20.0	2.1	22.1
8/2	741	741	-	-	-	1.9	0.6	-	2.5	12.2	13.0	0.6	13.5
8/3	746	746	-	-	-	2.1	0.6	-	2.7	12.8	13.5	0.6	14.1
10/1+10/2	379	379	758	0	0	2.1	7.6	-	9.8 (2.3+7.5)	92.7 (89.3:93.8)	6.7	7.6	14.3
11/1	397	365	-	-	-	4.5	20.9	-	25.4	230.2	9.1	20.9	29.9
11/2+11/3	862	781	-	-	-	10.1	45.2	-	55.4 (28.2+27.1)	231.2 (235.3:227.2)	10.0	45.2	55.2
14/1	792	792	-	-	-	0.1	0.5	-	0.6	2.8	0.6	0.5	1.1
14/2	626	626	-	-	-	0.0	0.3	-	0.3	2.0	0.0	0.3	0.3
15/1+15/2	922	699	1398	0	0	12.7	113.5	-	126.2 (63.1+63.1)	492.6 (492.6:492.6)	25.2	113.5	138.7
15/3	144	144	144	0	0	0.3	0.3	-	0.6	14.9	1.2	0.3	1.5

J2: Unnamed Junction	-	-	430	0	0	4.6	46.9	0.0	51.6	-	-	-	-
4/1	518	430	430	0	0	4.6	46.9	-	51.6	358.5	32.8	46.9	79.8
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -33.1 Total Delay for Signalled Lanes (pcuHr): 156.26 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -5.2 Total Delay for Signalled Lanes (pcuHr): 32.85 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -22.9 Total Delay for Signalled Lanes (pcuHr): 92.08 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 73.0 Total Delay for Signalled Lanes (pcuHr): 0.96 Cycle Time (s): 76 PRC Over All Lanes (%): -46.5 Total Delay Over All Lanes(pcuHr): 470.27													

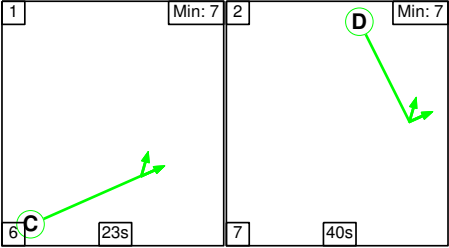
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

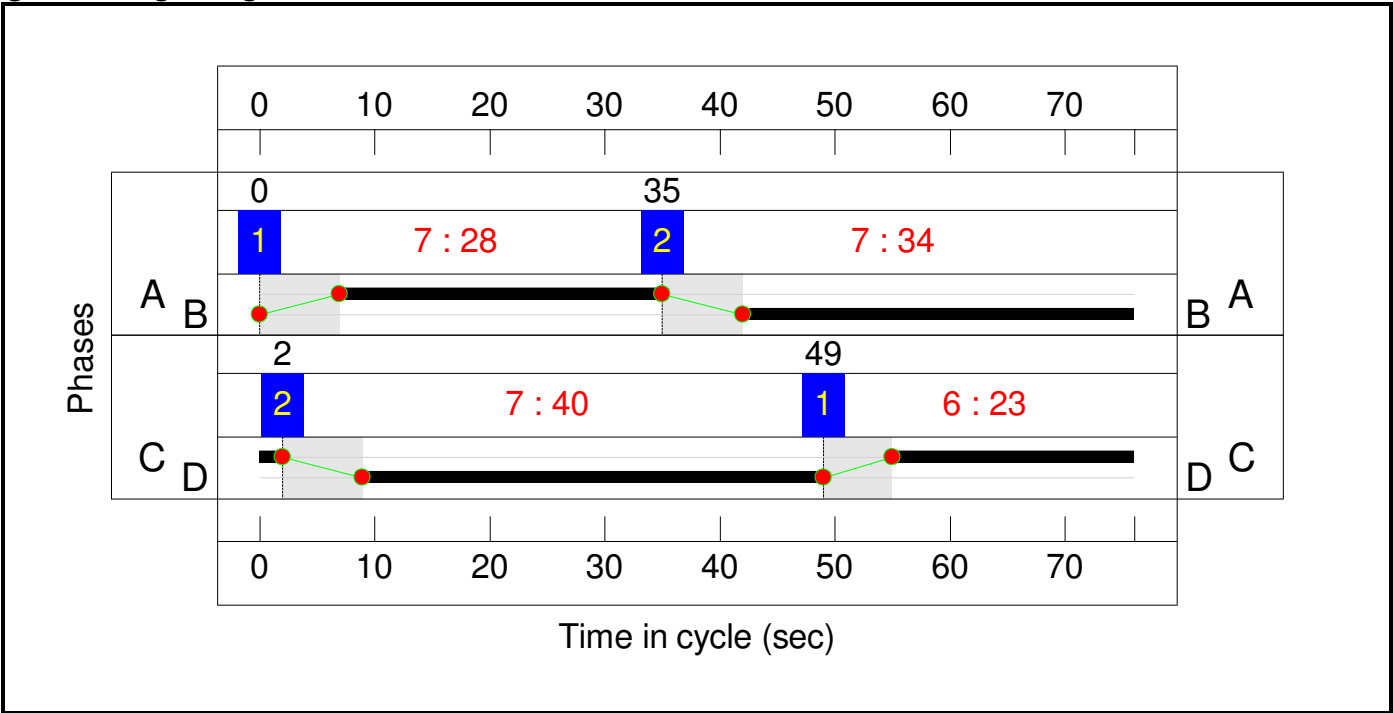
Stage Stream: 1

Stage	1	2
Duration	28	34
Change Point	0	35

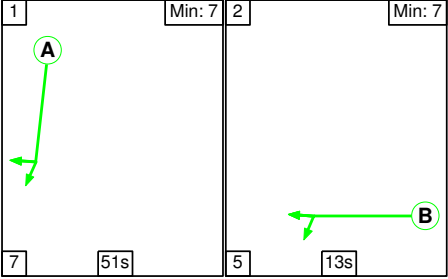
Stage Stream: 2

Stage	1	2
Duration	23	40
Change Point	49	2

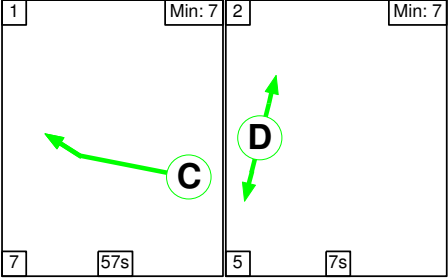
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



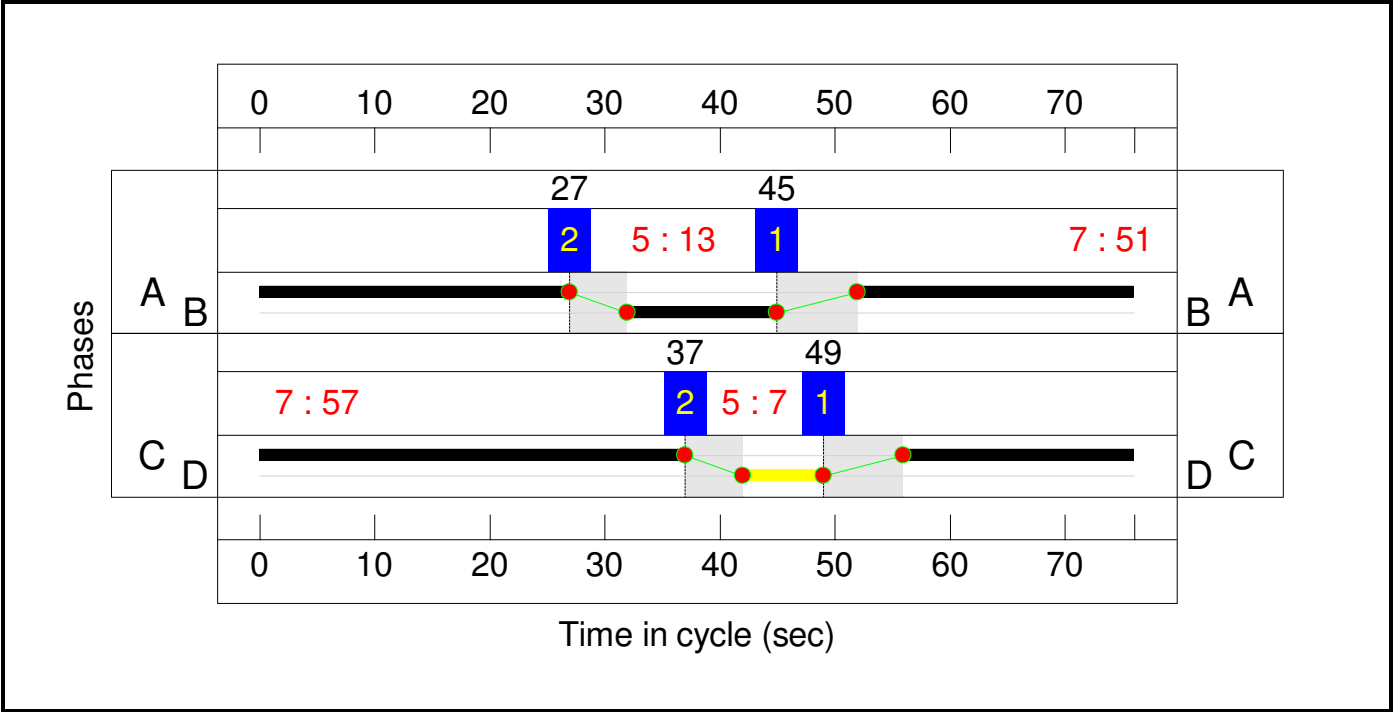
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	51	13
Change Point	45	27

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	49	37

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	183.8%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	183.8%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	23	-	649	1980	625	103.8%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	23	-	1124	2120:1980	663+427	103.1 : 103.1%
3/1	Ahead	U	1:1	N/A	C1:B		1	34	-	142	1900	875	14.6%
3/2	Ahead	U	1:1	N/A	C1:B		1	34	-	158	1900	875	16.6%
3/3	Right	U	1:1	N/A	C1:B		1	34	-	789	1900	875	84.3%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	28	-	1080	1980	756	142.9%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	28	-	1157	2120	809	143.0%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	28	-	1437	2120	809	177.6%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	40	-	1073	2000	1079	79.5%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	40	-	1287	2000	1079	77.7%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	40	-	586	2000	1079	47.2%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	51	-	1420	2000	1368	81.3%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	854	2000	1368	41.9%

8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	871	2000	1368	38.2%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	380	Inf : Inf	111+348	82.7 : 82.7%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	13	-	445	1980	365	122.0%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	13	-	962	2120:2120	391+391	123.4 : 122.9%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1276	1995	1523	47.6%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	775	1995	1523	29.0%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1565	Inf : Inf	426+426	183.8 : 183.6%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	488	Inf	430	113.6%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	119.6%
4/1	Left	O	N/A	N/A	-		-	-	-	518	Inf	433	119.6%

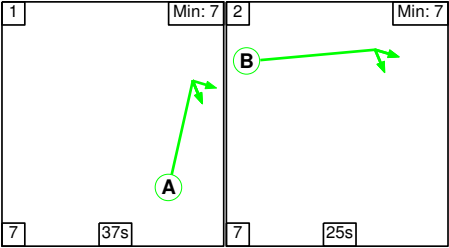
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	3327	0	0	172.3	1286.2	0.0	1458.5	-	-	-	-
J1: M1 Junction 15	-	-	2894	0	0	167.6	1241.0	0.0	1408.6	-	-	-	-
1/1	649	625	-	-	-	5.7	20.0	-	25.7	142.7	14.2	20.0	34.2
1/2+1/3	1124	1103	-	-	-	8.3	27.4	-	35.7 (22.1+13.7)	114.4 (116.1:111.8)	15.6	27.4	42.9
3/1	127	127	-	-	-	0.5	0.1	-	0.6	17.3	1.5	0.1	1.6
3/2	145	145	-	-	-	0.4	0.1	-	0.5	12.3	1.2	0.1	1.3
3/3	738	738	-	-	-	2.3	2.6	-	4.8	23.6	8.5	2.6	11.1
4/1	1080	756	-	-	-	18.7	163.9	-	182.6	608.5	29.6	163.9	193.5
4/2	1157	809	-	-	-	20.0	175.7	-	195.7	608.9	31.8	175.7	207.4
4/3	1437	809	-	-	-	31.9	315.2	-	347.1	869.4	43.6	315.2	358.8
7/1	857	857	-	-	-	6.7	1.9	-	8.6	36.2	15.9	1.9	17.8
7/2	839	839	-	-	-	4.3	1.7	-	6.1	26.0	13.4	1.7	15.1
7/3	509	509	-	-	-	1.0	0.4	-	1.4	10.0	3.9	0.4	4.3
8/1	1113	1113	-	-	-	4.0	2.1	-	6.2	20.0	13.6	2.1	15.7
8/2	574	574	-	-	-	1.6	0.4	-	2.0	12.2	7.9	0.4	8.3
8/3	523	523	-	-	-	2.0	0.3	-	2.3	16.0	8.4	0.3	8.7
10/1+10/2	380	380	760	0	0	1.0	2.3	-	3.3 (0.7+2.6)	31.2 (28.2:32.2)	5.0	2.3	7.3
11/1	445	365	-	-	-	6.3	42.7	-	49.1	396.8	11.1	42.7	53.8
11/2+11/3	962	781	-	-	-	13.9	93.1	-	106.9 (54.0+52.9)	400.2 (403.4:397.0)	12.1	93.1	105.2
14/1	724	724	-	-	-	0.1	0.5	-	0.6	2.8	0.7	0.5	1.2
14/2	441	441	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
15/1+15/2	1565	852	1704	0	0	35.0	357.6	-	392.6 (196.6+196.0)	903.1 (903.8:902.4)	49.6	357.6	407.2
15/3	488	430	430	0	0	3.8	32.9	-	36.7	270.7	25.5	32.9	58.4

J2: Unnamed Junction	-	-	433	0	0	4.6	45.2	0.0	49.9	-	-	-	-
4/1	518	433	433	0	0	4.6	45.2	-	49.9	346.5	32.4	45.2	77.6
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -97.4 Total Delay for Signalled Lanes (pcuHr): 731.27 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -15.3 Total Delay for Signalled Lanes (pcuHr): 77.54 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -37.1 Total Delay for Signalled Lanes (pcuHr): 166.46 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 89.3 Total Delay for Signalled Lanes (pcuHr): 0.78 Cycle Time (s): 76 PRC Over All Lanes (%): -104.2 Total Delay Over All Lanes(pcuHr): 1458.47													

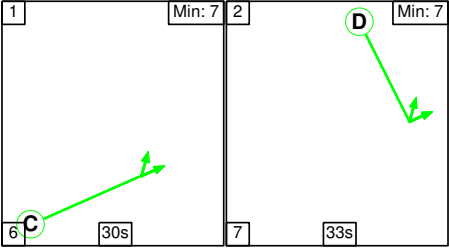
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

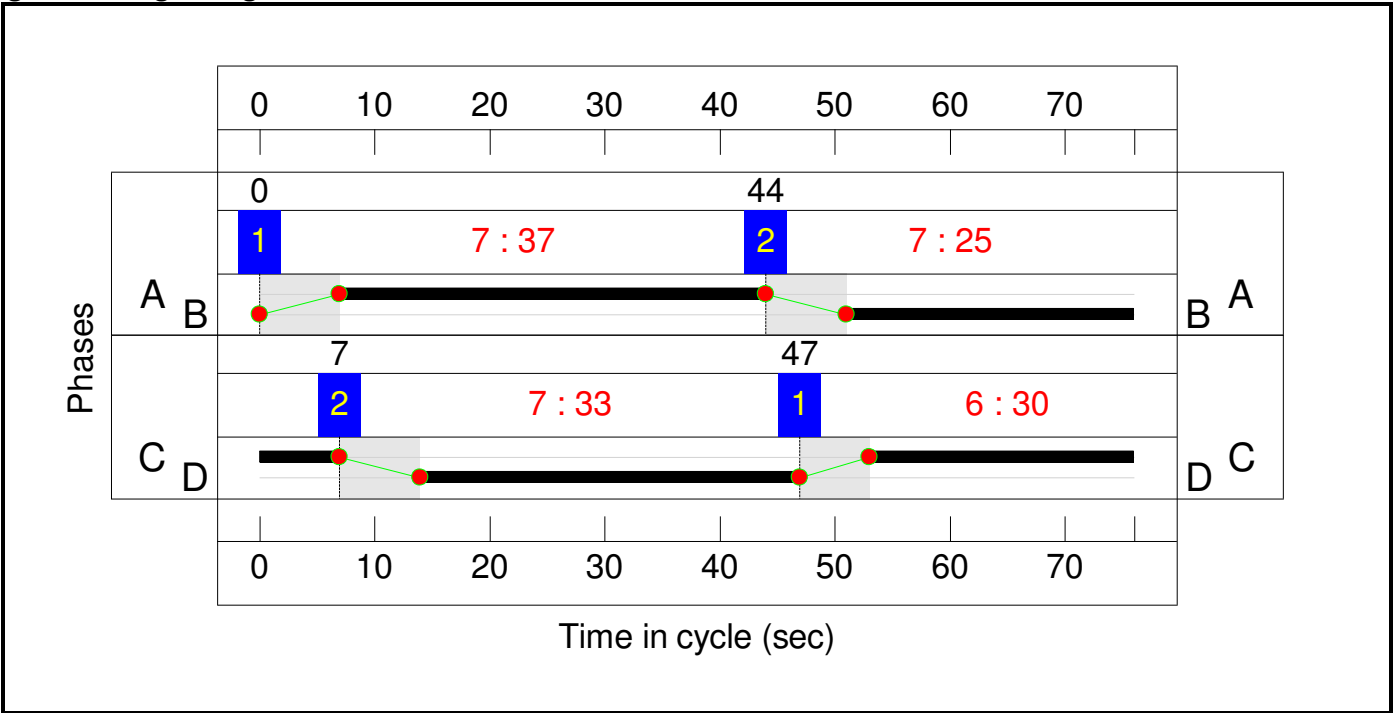
Stage Stream: 1

Stage	1	2
Duration	37	25
Change Point	0	44

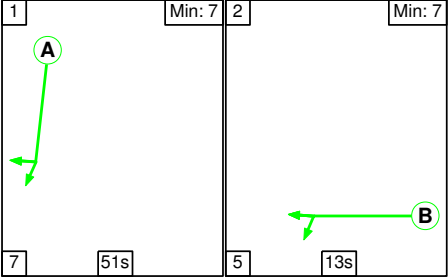
Stage Stream: 2

Stage	1	2
Duration	30	33
Change Point	47	7

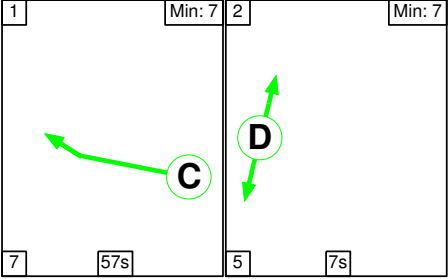
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



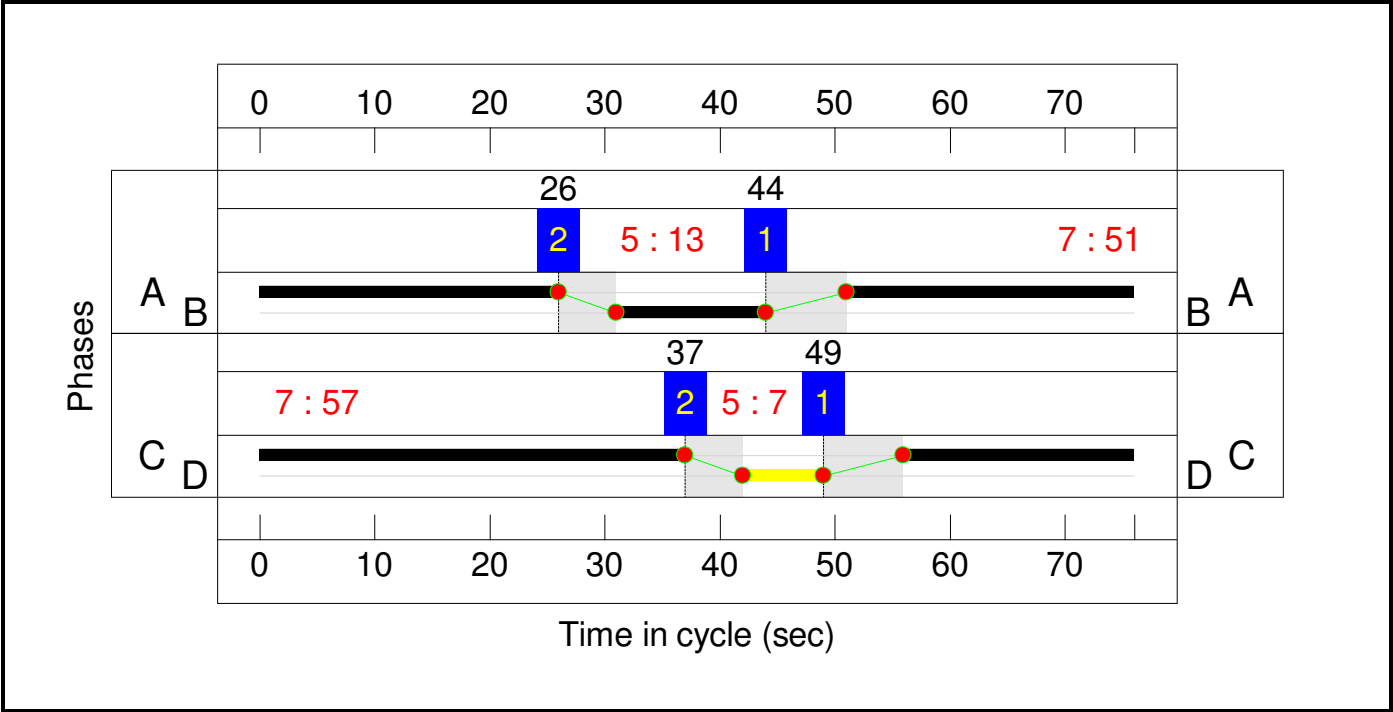
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	51	13
Change Point	44	26

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	49	37

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	139.0%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	139.0%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	30	-	793	1980	808	98.2%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	30	-	1363	2120:1980	770+590	100.2 : 100.2%
3/1	Ahead	U	1:1	N/A	C1:B		1	25	-	79	1900	650	11.4%
3/2	Ahead	U	1:1	N/A	C1:B		1	25	-	198	1900	650	29.9%
3/3	Right	U	1:1	N/A	C1:B		1	25	-	539	1900	650	82.9%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	37	-	1094	1980	990	110.5%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	37	-	1173	2120	1060	110.7%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	37	-	1385	2120	1060	130.7%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	33	-	1042	2000	895	101.0%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	33	-	1109	2000	895	101.6%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	33	-	225	2000	895	24.2%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	51	-	1376	2000	1368	94.1%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	808	2000	1368	47.7%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	875	2000	1368	51.3%

10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	435	Inf : Inf	136+295	101.0 : 101.0%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	13	-	408	1980	365	111.9%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	13	-	884	2120:2120	391+391	113.4 : 112.9%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1026	1995	1523	51.4%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	723	1995	1523	36.3%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1037	Inf : Inf	373+373	139.0 : 138.7%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	153	Inf	378	40.5%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.4%
4/1	Left	O	N/A	N/A	-		-	-	-	443	Inf	394	112.4%

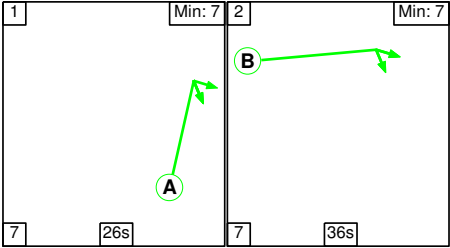
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	2902	0	0	116.4	628.8	0.0	745.2	-	-	-	-
J1: M1 Junction 15	-	-	2508	0	0	113.9	600.5	0.0	714.4	-	-	-	-
1/1	793	793	-	-	-	4.9	10.9	-	15.8	71.7	16.5	10.9	27.4
1/2+1/3	1363	1362	-	-	-	7.8	19.1	-	27.0 (15.4+11.6)	71.2 (71.9:70.4)	18.5	19.1	37.7
3/1	74	74	-	-	-	0.5	0.1	-	0.6	28.9	1.6	0.1	1.6
3/2	195	195	-	-	-	0.5	0.2	-	0.8	14.0	1.2	0.2	1.4
3/3	539	539	-	-	-	1.7	2.3	-	4.0	27.0	4.3	2.3	6.6
4/1	1094	990	-	-	-	9.4	56.8	-	66.2	217.8	25.3	56.8	82.1
4/2	1173	1060	-	-	-	10.1	61.3	-	71.4	219.1	27.1	61.3	88.4
4/3	1385	1060	-	-	-	18.5	164.6	-	183.2	476.1	36.1	164.6	200.7
7/1	904	895	-	-	-	9.8	17.6	-	27.3	108.8	18.2	17.6	35.7
7/2	909	895	-	-	-	7.2	19.0	-	26.2	103.8	18.4	19.0	37.4
7/3	217	217	-	-	-	0.9	0.2	-	1.1	18.4	3.2	0.2	3.3
8/1	1288	1288	-	-	-	5.1	6.8	-	11.9	33.3	25.3	6.8	32.1
8/2	653	653	-	-	-	1.9	0.5	-	2.4	13.2	10.2	0.5	10.6
8/3	702	702	-	-	-	2.4	0.5	-	2.9	14.8	11.4	0.5	12.0
10/1+10/2	435	431	861	0	0	2.2	11.6	-	13.9 (4.2+9.6)	114.6 (110.4:116.6)	17.1	11.6	28.7
11/1	408	365	-	-	-	4.9	25.6	-	30.5	268.9	9.5	25.6	35.1
11/2+11/3	884	781	-	-	-	10.8	55.5	-	66.3 (33.7+32.6)	270.0 (273.8:266.1)	10.5	55.5	65.9
14/1	782	782	-	-	-	0.1	0.5	-	0.7	3.0	0.6	0.5	1.1
14/2	553	553	-	-	-	0.0	0.3	-	0.3	1.9	0.0	0.3	0.3
15/1+15/2	1037	747	1494	0	0	14.8	146.8	-	161.6 (81.1+80.5)	560.9 (562.3:559.6)	27.2	146.8	174.1
15/3	153	153	153	0	0	0.2	0.3	-	0.5	12.8	1.0	0.3	1.4

J2: Unnamed Junction	-	-	394	0	0	2.6	28.3	0.0	30.9	-	-	-	-
4/1	443	394	394	0	0	2.6	28.3	-	30.9	250.8	27.7	28.3	56.0
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -45.2 Total Delay for Signalled Lanes (pcuHr): 326.11 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -12.9 Total Delay for Signalled Lanes (pcuHr): 97.40 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -26.0 Total Delay for Signalled Lanes (pcuHr): 113.95 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 75.3 Total Delay for Signalled Lanes (pcuHr): 0.94 Cycle Time (s): 76 PRC Over All Lanes (%): -54.4 Total Delay Over All Lanes(pcuHr): 745.24													

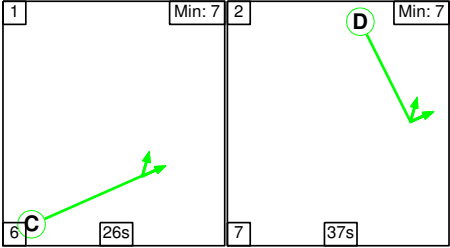
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

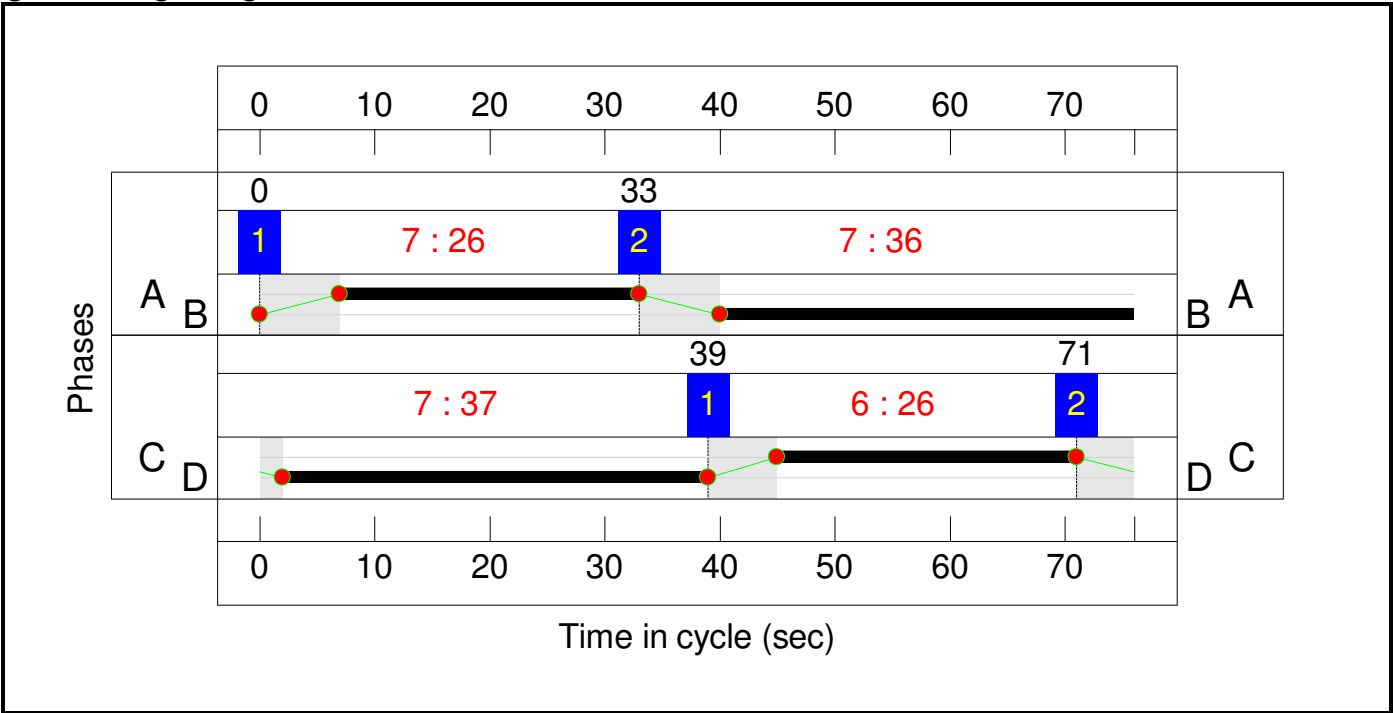
Stage Stream: 1

Stage	1	2
Duration	26	36
Change Point	0	33

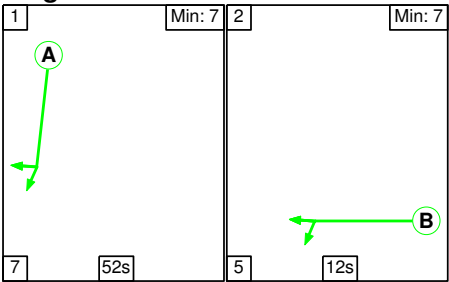
Stage Stream: 2

Stage	1	2
Duration	26	37
Change Point	39	71

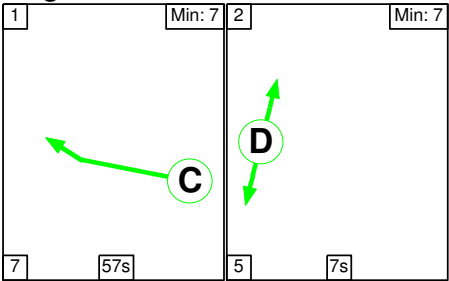
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



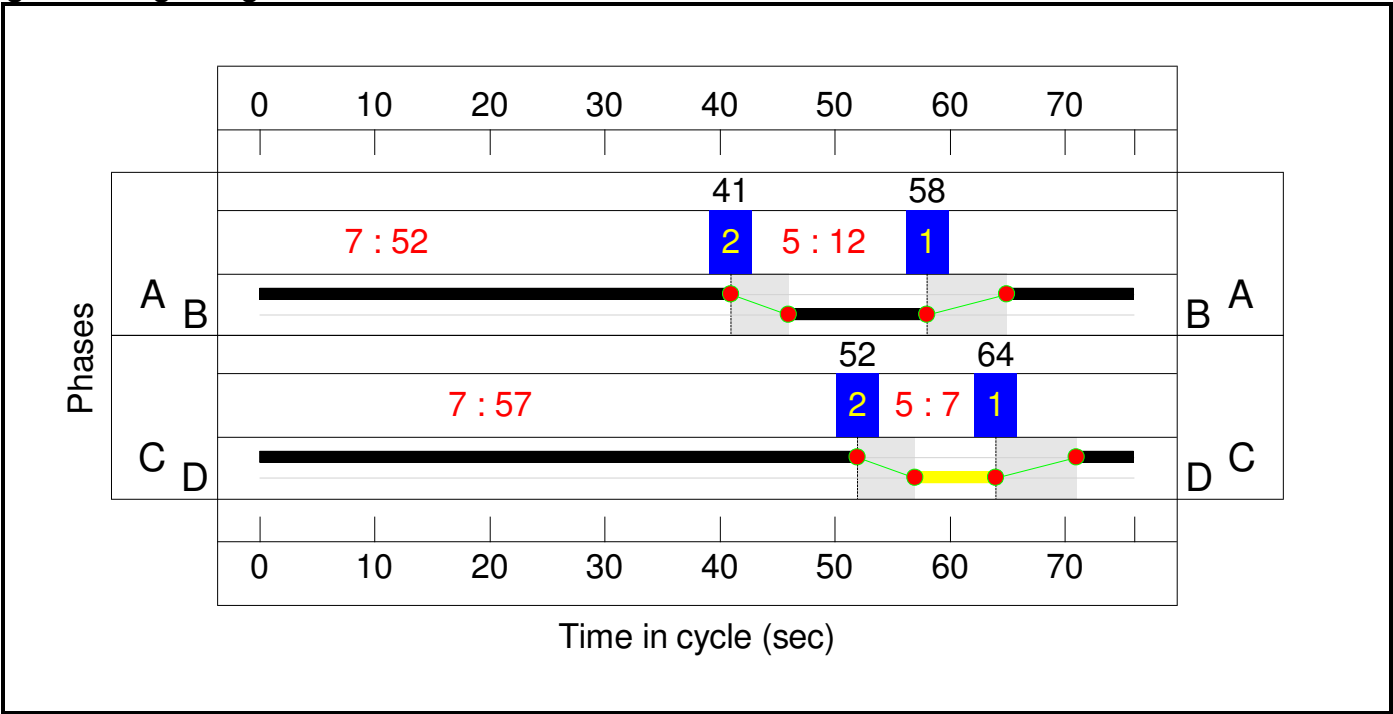
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	52	12
Change Point	58	41

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	64	52

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	183.9%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	183.9%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	26	-	837	1980	703	119.0%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	26	-	1624	2120:1980	704+687	116.7 : 116.7%
3/1	Ahead	U	1:1	N/A	C1:B		1	36	-	151	1900	925	13.6%
3/2	Ahead	U	1:1	N/A	C1:B		1	36	-	129	1900	925	11.5%
3/3	Right	U	1:1	N/A	C1:B		1	36	-	934	1900	925	89.7%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	26	-	1234	1980	703	175.4%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	26	-	1322	2120	753	175.5%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	26	-	1385	2120	753	183.9%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	1063	2000	1000	79.1%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	1208	2000	1000	83.0%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	37	-	318	2000	1000	29.4%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	52	-	1973	2000	1395	97.0%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	52	-	762	2000	1395	35.0%

8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	52	-	921	2000	1395	40.3%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	438	Inf : Inf	164+349	85.3 : 85.3%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	12	-	507	1980	339	149.7%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	12	-	1095	2120:2120	363+363	151.7 : 150.3%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1013	1995	1523	40.7%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	825	1995	1523	30.9%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1246	Inf : Inf	439+439	142.2 : 141.7%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	246	Inf	446	55.2%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	102.8%
4/1	Left	O	N/A	N/A	-		-	-	-	443	Inf	431	102.8%

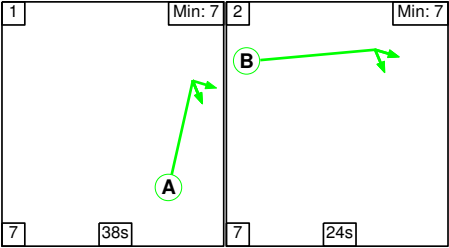
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	3308	0	0	182.6	1554.3	0.0	1736.9	-	-	-	-
J1: M1 Junction 15	-	-	2877	0	0	181.7	1540.3	0.0	1722.0	-	-	-	-
1/1	837	703	-	-	-	11.5	69.8	-	81.3	349.5	22.8	69.8	92.6
1/2+1/3	1624	1391	-	-	-	16.8	119.9	-	136.7 (69.1+67.6)	303.0 (302.7:303.4)	26.4	119.9	146.3
3/1	125	125	-	-	-	0.3	0.1	-	0.4	11.7	0.9	0.1	1.0
3/2	107	107	-	-	-	0.3	0.1	-	0.4	13.3	0.9	0.1	1.0
3/3	829	829	-	-	-	1.4	4.0	-	5.4	23.6	4.3	4.0	8.3
4/1	1234	703	-	-	-	27.6	266.4	-	294.0	857.7	37.3	266.4	303.7
4/2	1322	753	-	-	-	29.5	285.6	-	315.1	858.1	39.9	285.6	325.5
4/3	1385	753	-	-	-	32.2	317.0	-	349.3	907.8	42.6	317.0	359.6
7/1	791	791	-	-	-	3.3	1.9	-	5.2	23.7	15.2	1.9	17.1
7/2	830	830	-	-	-	4.0	2.4	-	6.4	27.6	15.1	2.4	17.4
7/3	294	294	-	-	-	0.9	0.2	-	1.1	13.0	3.9	0.2	4.2
8/1	1353	1353	-	-	-	2.4	10.8	-	13.2	35.0	18.4	10.8	29.2
8/2	489	489	-	-	-	0.8	0.3	-	1.1	7.8	3.8	0.3	4.1
8/3	562	562	-	-	-	1.0	0.3	-	1.3	8.3	4.2	0.3	4.5
10/1+10/2	438	438	876	0	0	1.0	2.7	-	3.7 (1.1+2.6)	30.5 (28.3:31.6)	5.2	2.7	7.9
11/1	507	339	-	-	-	10.5	85.6	-	96.1	682.3	15.7	85.6	101.3
11/2+11/3	1095	725	-	-	-	19.6	186.3	-	206.0 (104.3+101.6)	677.2 (682.9:671.4)	15.6	186.3	201.9
14/1	620	620	-	-	-	0.1	0.3	-	0.5	2.6	2.5	0.3	2.9
14/2	470	470	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
15/1+15/2	1246	878	1755	0	0	18.2	185.8	-	204.1 (102.6+101.5)	589.6 (591.9:587.4)	39.5	185.8	225.4
15/3	246	246	246	0	0	0.1	0.6	-	0.8	11.1	1.2	0.6	1.8

J2: Unnamed Junction	-	-	431	0	0	0.9	14.0	0.0	14.9	-	-	-	-
4/1	443	431	431	0	0	0.9	14.0	-	14.9	120.9	28.1	14.0	42.0
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): Stream: 2 PRC for Signalled Lanes (%): Stream: 1 PRC for Signalled Lanes (%): Stream: 2 PRC for Signalled Lanes (%): PRC Over All Lanes (%) -104.3 -32.2 -68.5 121.1 -104.3 Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 964.61 230.58 317.60 0.67 1736.89 Cycle Time (s): Cycle Time (s): Cycle Time (s): Cycle Time (s): 76 76 76 76 													

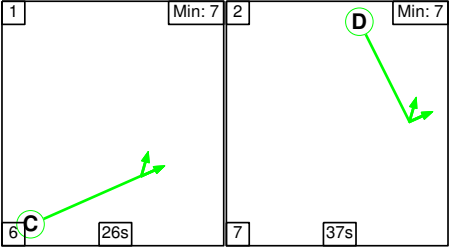
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

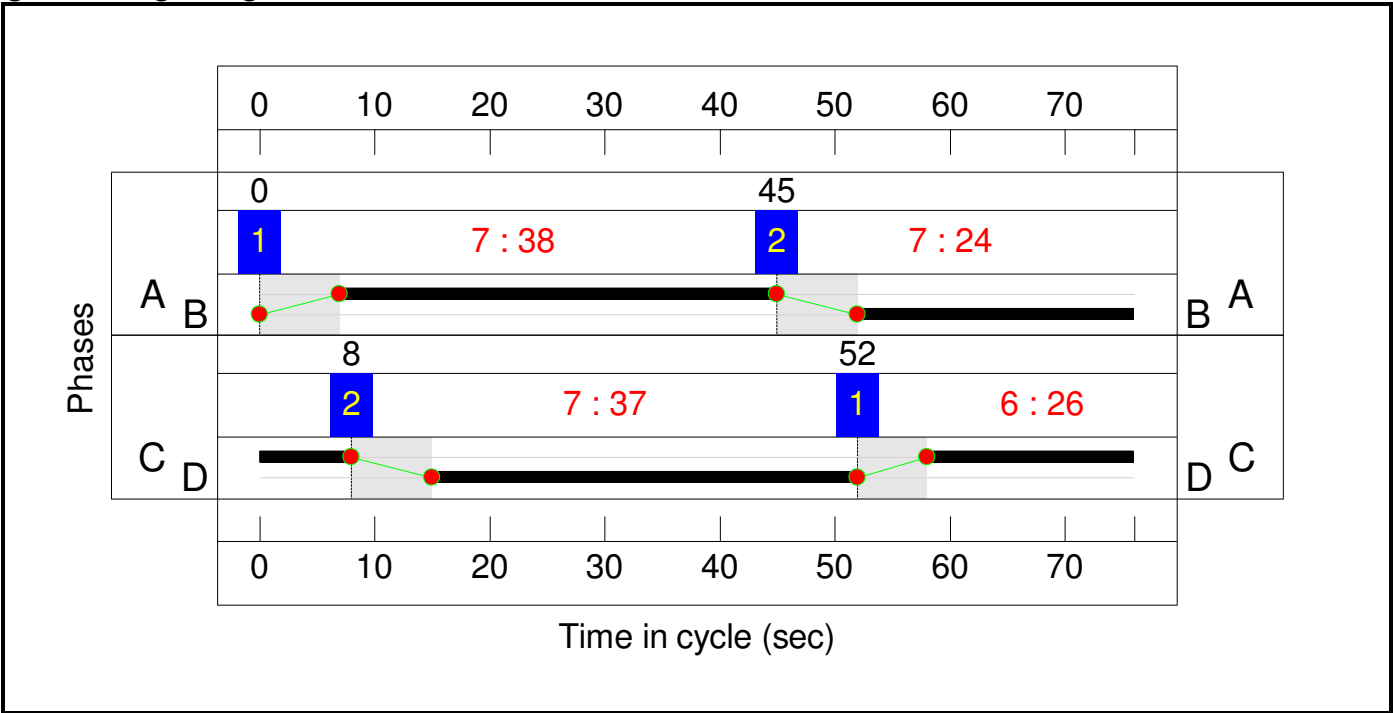
Stage Stream: 1

Stage	1	2
Duration	38	24
Change Point	0	45

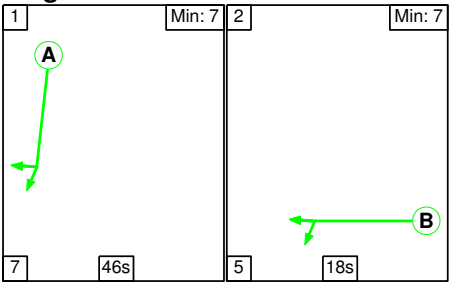
Stage Stream: 2

Stage	1	2
Duration	26	37
Change Point	52	8

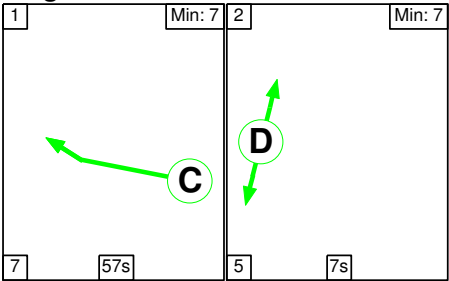
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



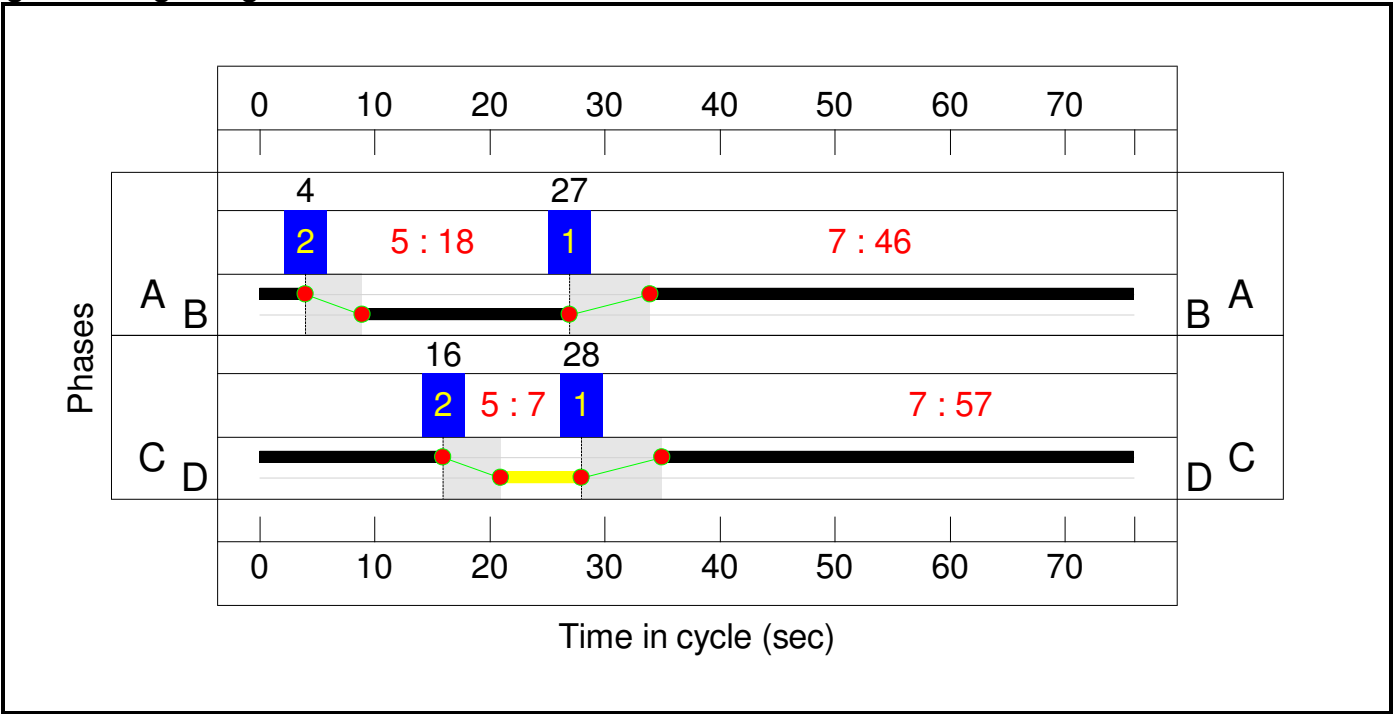
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	27	4

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	28	16

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	171.8%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	171.8%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	26	-	729	1980	703	103.6%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	26	-	1161	2120:1980	716+395	104.5 : 104.5%
3/1	Ahead	U	1:1	N/A	C1:B		1	24	-	122	1900	625	19.5%
3/2	Ahead	U	1:1	N/A	C1:B		1	24	-	226	1900	625	35.1%
3/3	Right	U	1:1	N/A	C1:B		1	24	-	348	1900	625	54.1%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	38	-	1163	1980	1016	114.5%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	38	-	1245	2120	1088	114.4%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	38	-	1669	2120	1088	153.4%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	1128	2000	1000	102.6%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	37	-	1257	2000	1000	102.8%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	37	-	283	2000	1000	28.3%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1284	2000	1237	92.8%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	999	2000	1237	56.4%

8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	1006	2000	1237	58.3%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	442	Inf : Inf	104+330	101.8 : 101.8%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	447	1980	495	90.3%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	1016	2120:2120	530+530	96.0 : 95.7%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1163	1995	1523	48.3%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	831	1995	1523	36.8%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1071	Inf : Inf	314+314	171.8 : 168.9%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	169	Inf	319	53.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	132.4%
4/1	Left	O	N/A	N/A	-		-	-	-	518	Inf	391	132.4%

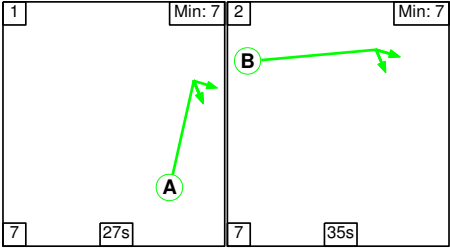
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	2686	0	0	128.5	876.9	0.0	1005.4	-	-	-	-
J1: M1 Junction 15	-	-	2295	0	0	122.0	811.6	0.0	933.6	-	-	-	-
1/1	729	703	-	-	-	6.1	21.3	-	27.4	135.3	15.9	21.3	37.3
1/2+1/3	1161	1113	-	-	-	9.4	33.7	-	43.1 (28.0+15.0)	133.5 (134.9:131.1)	20.8	33.7	54.4
3/1	122	122	-	-	-	0.6	0.1	-	0.7	22.1	2.6	0.1	2.7
3/2	219	219	-	-	-	0.4	0.3	-	0.7	11.7	1.5	0.3	1.8
3/3	338	338	-	-	-	0.9	0.6	-	1.4	15.3	2.5	0.6	3.1
4/1	1163	1016	-	-	-	11.0	77.2	-	88.3	273.3	27.7	77.2	104.9
4/2	1245	1088	-	-	-	11.8	82.3	-	94.1	272.2	29.6	82.3	111.9
4/3	1669	1088	-	-	-	28.6	292.0	-	320.6	691.5	47.5	292.0	339.5
7/1	1026	1000	-	-	-	3.8	23.8	-	27.6	96.8	24.0	23.8	47.9
7/2	1028	1000	-	-	-	2.6	24.4	-	27.0	94.4	22.3	24.4	46.7
7/3	283	283	-	-	-	0.3	0.2	-	0.5	6.5	2.0	0.2	2.2
8/1	1148	1148	-	-	-	5.6	5.7	-	11.4	35.7	23.8	5.7	29.5
8/2	697	697	-	-	-	1.2	0.6	-	1.9	9.6	10.6	0.6	11.2
8/3	721	721	-	-	-	1.4	0.7	-	2.1	10.5	10.7	0.7	11.4
10/1+10/2	442	434	868	0	0	2.5	12.7	-	15.2 (3.5+11.7)	123.6 (118.9:125.1)	19.2	12.7	31.8
11/1	447	447	-	-	-	3.4	4.0	-	7.4	59.8	9.1	4.0	13.1
11/2+11/3	1016	1016	-	-	-	7.9	8.4	-	16.3 (8.2+8.1)	57.8 (57.8:57.7)	10.6	8.4	19.0
14/1	735	735	-	-	-	0.0	0.5	-	0.5	2.3	0.0	0.5	0.5
14/2	561	561	-	-	-	0.0	0.3	-	0.3	1.9	0.0	0.3	0.3
15/1+15/2	1071	629	1258	0	0	24.0	222.3	-	246.3 (125.6+120.7)	827.9 (837.4:818.1)	31.6	222.3	254.0
15/3	169	169	169	0	0	0.3	0.6	-	0.9	19.0	1.4	0.6	2.0

J2: Unnamed Junction	-	-	391	0	0	6.5	65.3	0.0	71.8	-	-	-	-
4/1	518	391	391	0	0	6.5	65.3	-	71.8	499.3	32.8	65.3	98.1
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -70.5 Total Delay for Signalled Lanes (pcuHr): 505.89 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -16.1 Total Delay for Signalled Lanes (pcuHr): 125.52 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -6.7 Total Delay for Signalled Lanes (pcuHr): 39.06 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 86.3 Total Delay for Signalled Lanes (pcuHr): 0.76 Cycle Time (s): 76 PRC Over All Lanes (%): -90.8 Total Delay Over All Lanes(pcuHr): 1005.42													

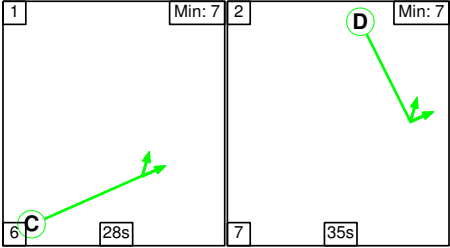
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

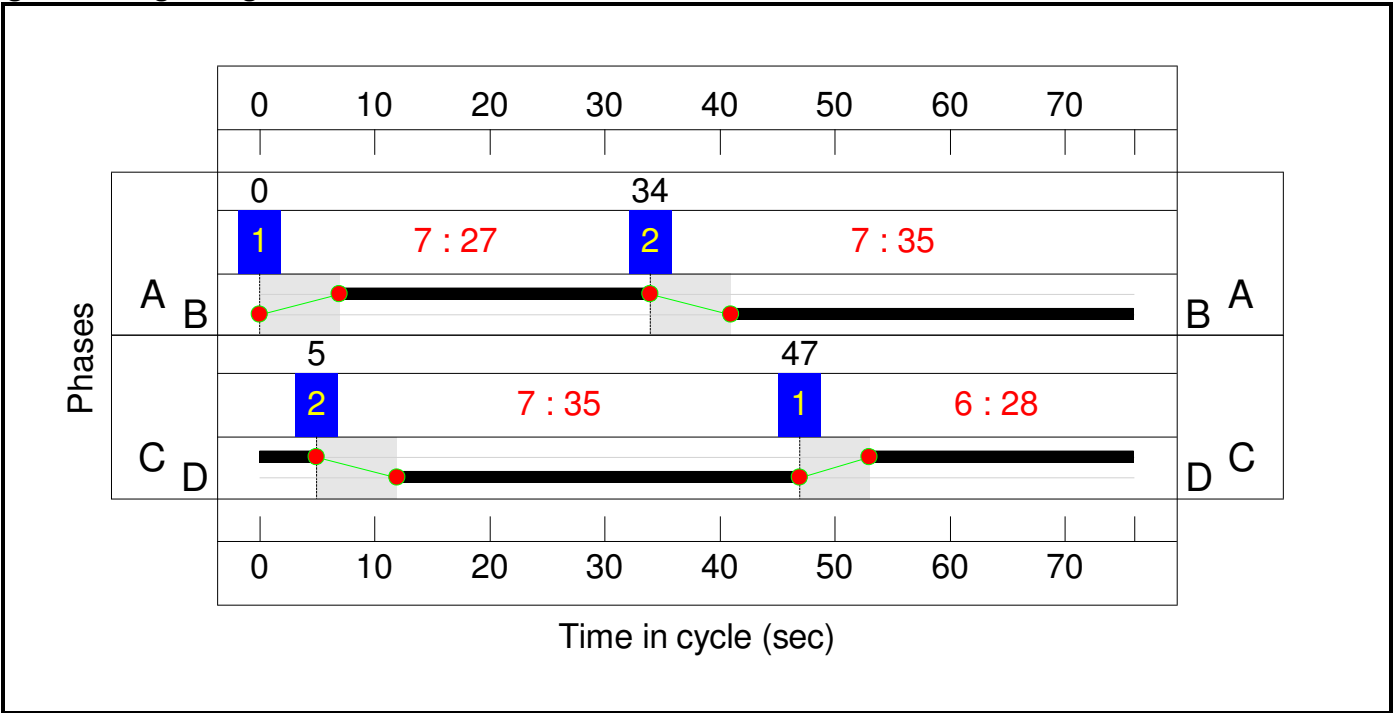
Stage Stream: 1

Stage	1	2
Duration	27	35
Change Point	0	34

Stage Stream: 2

Stage	1	2
Duration	28	35
Change Point	47	5

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	213.7%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	213.7%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	744	1980	756	98.5%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	28	-	1294	2120:1980	742+527	102.0 : 102.0%
3/1	Ahead	U	1:1	N/A	C1:B		1	35	-	117	1900	900	10.9%
3/2	Ahead	U	1:1	N/A	C1:B		1	35	-	232	1900	900	23.5%
3/3	Right	U	1:1	N/A	C1:B		1	35	-	839	1900	900	82.2%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	27	-	1243	1980	729	170.4%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	27	-	1331	2120	781	170.4%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	27	-	1669	2120	781	213.7%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	1187	2000	947	97.3%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	1506	2000	947	98.8%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	627	2000	947	52.6%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1599	2000	1316	84.7%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	970	2000	1316	42.3%

8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1035	2000	1316	42.6%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	443	Inf : Inf	114+359	93.6 : 93.6%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	511	1980	417	122.6%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	1100	2120:2120	446+446	123.2 : 123.2%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1439	1995	1523	45.3%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	890	1995	1523	28.5%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1714	Inf : Inf	403+403	212.9 : 212.9%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	513	Inf	405	126.6%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	130.0%
4/1	Left	O	N/A	N/A	-		-	-	-	518	Inf	398	130.0%

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 15 Reference Case Model	-	-	3300	0	0	218.4	1779.8	0.0	1998.2	-	-	-	-
J1: M1 Junction 15	-	-	2902	0	0	212.0	1718.0	0.0	1930.0	-	-	-	-
1/1	744	744	-	-	-	4.8	11.1	-	15.9	76.8	15.5	11.1	26.6
1/2+1/3	1294	1270	-	-	-	8.3	25.3	-	33.6 (19.8+13.8)	93.5 (94.4:92.3)	18.3	25.3	43.6
3/1	98	98	-	-	-	0.3	0.1	-	0.3	12.3	1.1	0.1	1.1
3/2	212	212	-	-	-	0.3	0.2	-	0.5	8.0	1.2	0.2	1.3
3/3	740	740	-	-	-	2.4	2.2	-	4.6	22.5	8.2	2.2	10.4
4/1	1243	729	-	-	-	26.8	258.0	-	284.7	824.6	37.1	258.0	295.0
4/2	1331	781	-	-	-	28.7	276.2	-	304.8	824.5	39.7	276.2	315.9
4/3	1669	781	-	-	-	43.7	444.9	-	488.6	1054.0	56.2	444.9	501.1
7/1	922	922	-	-	-	6.3	10.1	-	16.4	63.9	13.3	10.1	23.3
7/2	936	936	-	-	-	4.1	12.8	-	16.9	65.0	13.2	12.8	26.0
7/3	498	498	-	-	-	1.1	0.6	-	1.7	12.3	5.4	0.6	5.9
8/1	1114	1114	-	-	-	4.0	2.7	-	6.7	21.7	15.7	2.7	18.4
8/2	557	557	-	-	-	1.7	0.4	-	2.1	13.5	9.2	0.4	9.6
8/3	560	560	-	-	-	2.0	0.4	-	2.4	15.2	10.0	0.4	10.4
10/1+10/2	443	443	886	0	0	1.4	5.4	-	6.8 (1.5+5.3)	55.3 (51.4:56.5)	6.7	5.4	12.1
11/1	511	417	-	-	-	7.4	49.7	-	57.1	402.0	12.8	49.7	62.4
11/2+11/3	1100	893	-	-	-	16.1	106.3	-	122.4 (61.2+61.2)	400.5 (400.5:400.5)	13.8	106.3	120.1
14/1	689	689	-	-	-	0.0	0.4	-	0.4	2.2	0.3	0.4	0.8
14/2	434	434	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
15/1+15/2	1714	805	1610	0	0	46.1	455.3	-	501.4 (250.7+250.7)	1053.2 (1053.2:1053.2)	47.2	455.3	502.5
15/3	513	405	405	0	0	6.4	56.1	-	62.5	438.3	28.2	56.1	84.3
J2: Unnamed Junction	-	-	398	0	0	6.3	61.9	0.0	68.2	-	-	-	-

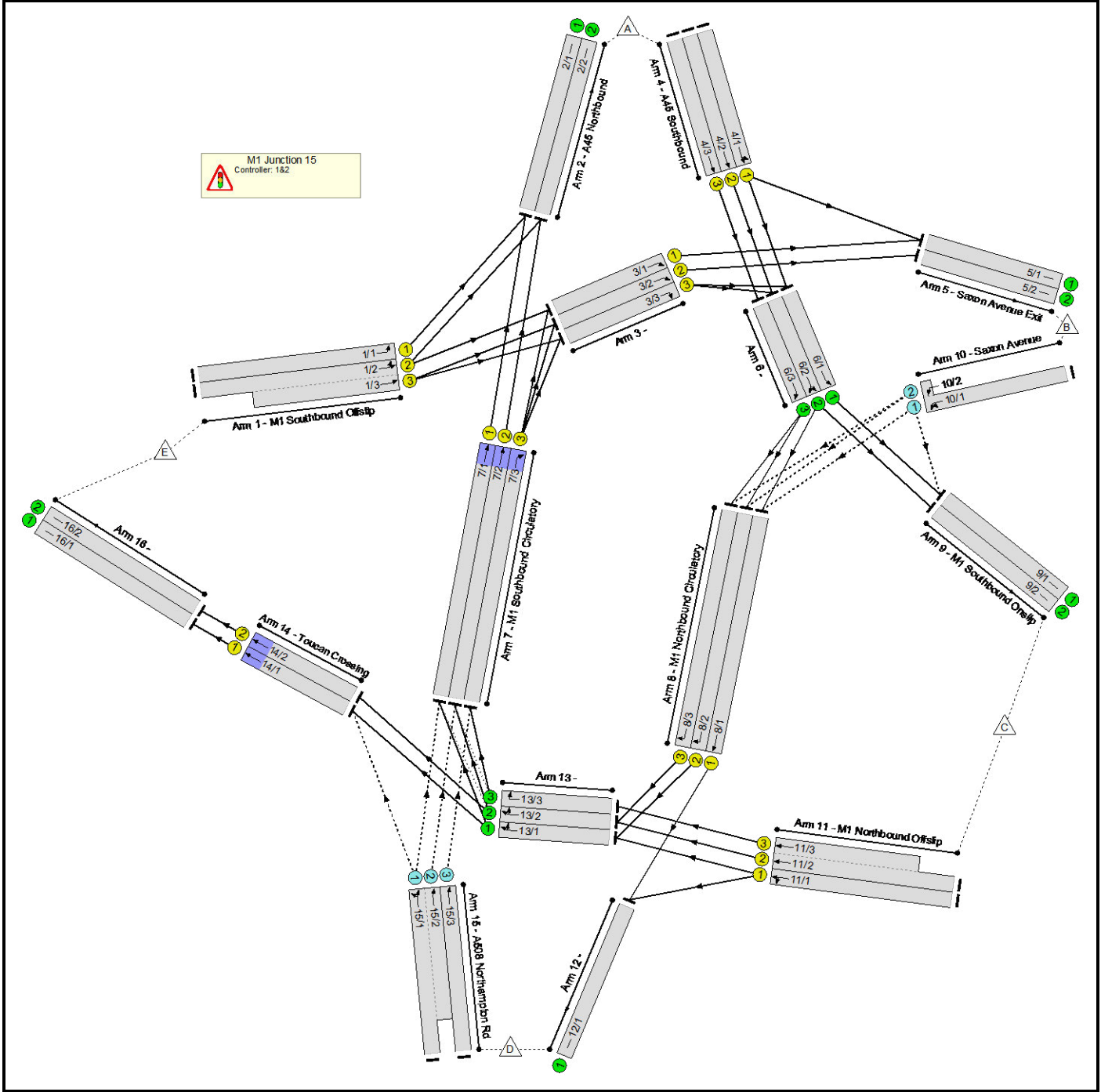
4/1	518	398	398	0	0	6.3	61.9	-	68.2	473.9	32.8	61.9	94.7
	C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%)	-137.4			Total Delay for Signalled Lanes (pcuHr):	1083.64		Cycle Time (s):	76			
	C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%)	-13.3			Total Delay for Signalled Lanes (pcuHr):	84.45		Cycle Time (s):	76			
	C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%)	-36.9			Total Delay for Signalled Lanes (pcuHr):	190.62		Cycle Time (s):	76			
	C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%)	98.9			Total Delay for Signalled Lanes (pcuHr):	0.62		Cycle Time (s):	76			
		PRC Over All Lanes (%)	-137.4			Total Delay Over All Lanes(pcuHr):	1998.21						

Full Input Data And Results

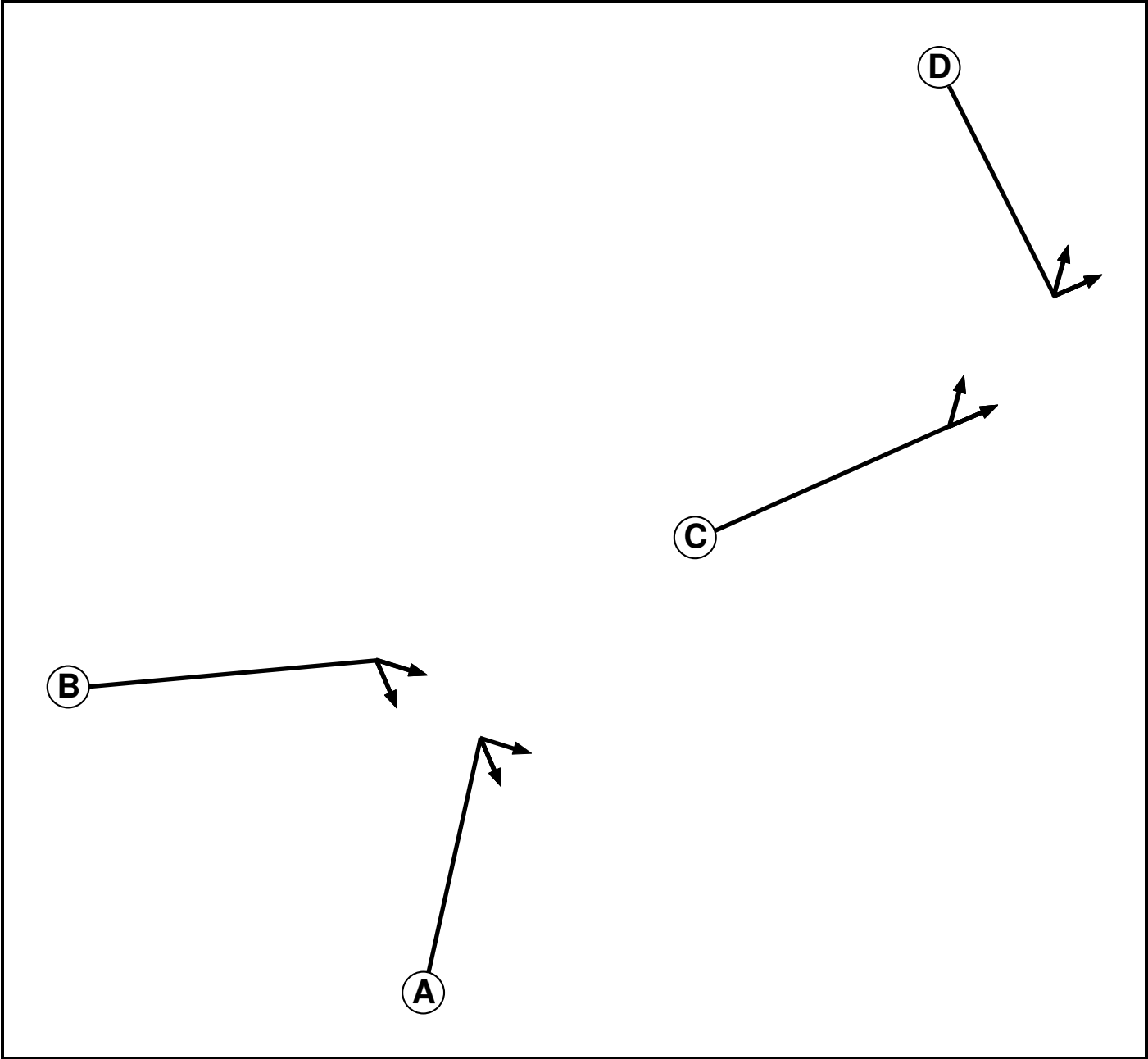
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Reference Case Model
Location:	northampton
File name:	170818 M1 Junction 15 Ref Case Model without WL.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Halifax Place, Nottingham
Notes:	NSTM2 D1 and G1

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Phase Intergreens Matrix

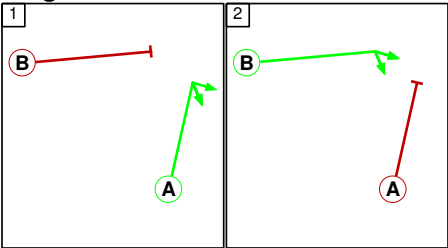
	Starting Phase				
Terminating Phase		A	B	C	D
	A		7	-	-
	B	7		-	-
	C	-	-		7
	D	-	-	6	

Phases in Stage

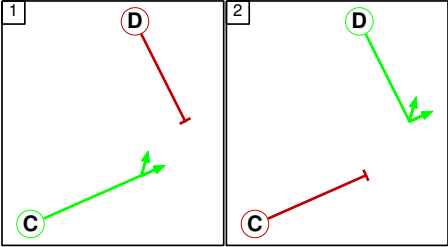
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

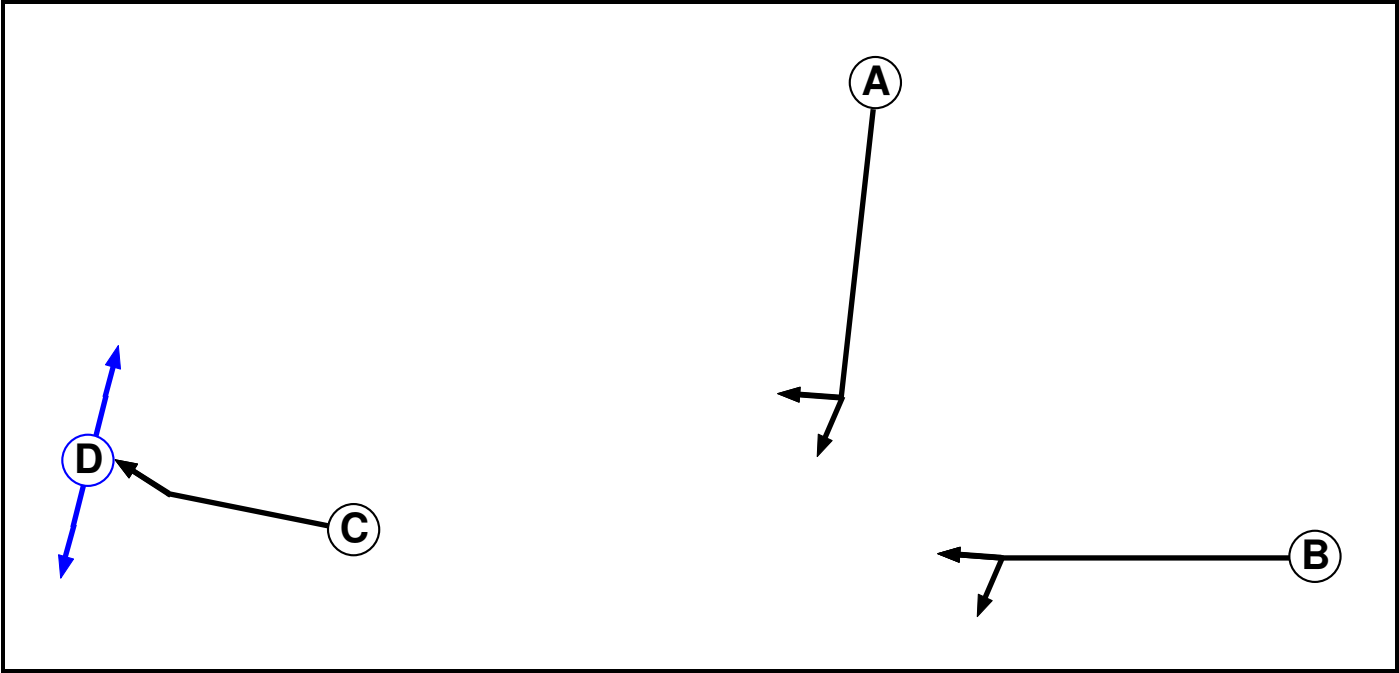
Stage Stream: 1

	To Stage	
From Stage		1 2
	1	7
	2	7

Stage Stream: 2

From Stage	To Stage		
	1	2	
	1		7
	2	6	

C2 - Westside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7

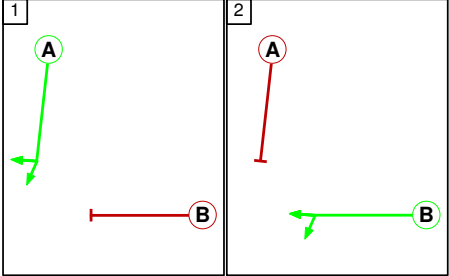
Phase Intergreens Matrix

	Starting Phase				
		A	B	C	D
	A		5	-	-
	B	7		-	-
	C	-	-		5
	D	-	-	7	

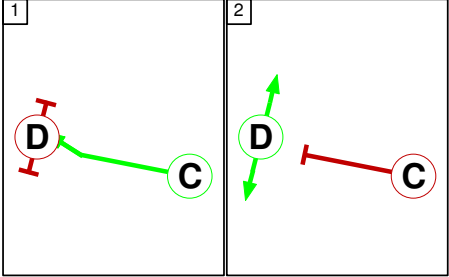
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram
Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Stage Stream: 2

Term.	Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined						

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

Give-Way Lane Input Data

Junction: M1 Junction 15											
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)
10/1 (Saxon Avenue)	8/1 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	9/1 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
10/2 (Saxon Avenue)	8/2 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	8/3 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
	7/1 (Ahead)	800	0	13/1	0.22	All					
				13/2	0.22	All					
				13/3	0.22	All					
	14/1 (Left)	800	0	13/1	0.22	All					
				13/2	0.22	All					
				13/3	0.22	All					
15/2 (A508 Northampton Rd)	7/2 (Ahead)	800	0	13/1	0.22	All	-	-	-	-	-
				13/2	0.22	All					
				13/3	0.22	All					
15/3 (A508 Northampton Rd)	7/3 (Ahead)	800	0	13/1	0.21	All	-	-	-	-	-
				13/2	0.21	All					
				13/3	0.21	All					

Lane Input Data

Junction: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	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 Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 2 Left	Inf
1/2 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
											Arm 3 Ahead	Inf
1/3 (M1 Southbound Offslip)	U	C	2	3	14.0	Geom	-	3.65	0.00	Y	Arm 3 Ahead	Inf
2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
3/1	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/2	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/3	U	B	2	3	12.2	User	1900	-	-	-	-	-
4/1 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	Y	Arm 5 Left	Inf
											Arm 6 Ahead	Inf
4/2 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
4/3 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
5/2 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
6/1	U		2	3	10.4	Inf	-	-	-	-	-	-
6/2	U		2	3	10.4	Inf	-	-	-	-	-	-
6/3	U		2	3	10.4	Inf	-	-	-	-	-	-
7/1 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/2 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/3 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
8/1 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-

8/2 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
8/3 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
9/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
9/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
10/1 (Saxon Avenue)	O		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (Saxon Avenue)	O		2	3	1.0	Inf	-	-	-	-	-	-
11/1 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Left	Inf
											Arm 13 Ahead	Inf
11/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
11/3 (M1 Northbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
12/1	U		2	3	4.3	Inf	-	-	-	-	-	-
13/1	U		2	3	10.4	Inf	-	-	-	-	-	-
13/2	U		2	3	10.4	Inf	-	-	-	-	-	-
13/3	U		2	3	10.4	Inf	-	-	-	-	-	-
14/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
14/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
15/1 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
15/2 (A508 Northampton Rd)	O		2	3	23.0	Inf	-	-	-	-	-	-
15/3 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
16/1	U		2	3	60.0	Inf	-	-	-	-	-	-
16/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 Ref With Dev AM Peak (G1)'	08:00	09:00	01:00	
2: '2031 Ref With Dev PM Peak (G1)'	17:00	18:00	01:00	
3: '2031 Ref No Dev AM Peak (D1)'	08:00	09:00	01:00	
4: '2031 Ref No Dev PM Peak (D1)'	17:00	18:00	01:00	

Scenario 1: '2031 AM Ref No Dev D1' (FG3: '2031 Ref No Dev AM Peak (D1)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination						
		A	B	C	D	E	Tot.
	A	82	40	1000	690	1929	3741
	B	23	0	21	4	18	66
	C	1612	89	0	151	0	1852
	D	453	10	30	0	322	815
	E	1246	110	0	493	0	1849
	Tot.	3416	249	1051	1338	2269	8323

Traffic Lane Flows

Lane	Scenario 1: 2031 AM Ref No Dev D1
Junction: M1 Junction 15	
1/1	616
½ (with short)	1233(In) 654(Out)
1/3 (short)	579
2/1	1720
2/2	1696
3/1	73
3/2	136
3/3	523
4/1	829
4/2	901
4/3	2011
5/1	113
5/2	136
6/1	804
6/2	1409
6/3	2011
7/1	1104
7/2	1066
7/3	129
8/1	1187
8/2	996
8/3	1056
9/1	825
9/2	226
10/1 (with short)	66(In) 25(Out)
10/2 (short)	41
11/1	803
11/2 (with short)	1049(In) 860(Out)
11/3 (short)	189
12/1	1338
13/1	1648
13/2	1916
13/3	189
14/1	1236
14/2	1033
15/1 (with short)	775(In) 388(Out)
15/2 (short)	387
15/3	40
16/1	1236
16/2	1033

Lane Saturation Flows

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	96.3 %	2120	2120
				Arm 3 Ahead	Inf	3.7 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.8 %	1980	1980
				Arm 6 Ahead	Inf	95.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	18.8 % 81.2 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2031 PM Ref No Dev D1' (FG4: '2031 Ref No Dev PM Peak (D1)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	133	91	995	986	1343	3548
	B	310	0	127	14	80	531
	C	1283	55	0	91	0	1429
	D	152	5	17	0	273	447
	E	1417	91	0	232	0	1740
	Tot.	3295	242	1139	1323	1696	7695

Traffic Lane Flows

Lane	Scenario 2: 2031 PM Ref No Dev D1
Junction: M1 Junction 15	
1/1	686
½ (with short)	1054(In) 731(Out)
1/3 (short)	323
2/1	1621
2/2	1674
3/1	52
3/2	99
3/3	249
4/1	994
4/2	1078
4/3	1476
5/1	143
5/2	99
6/1	911
6/2	1319
6/3	1476
7/1	935
7/2	943
7/3	77
8/1	1232
8/2	824
8/3	1042
9/1	1038
9/2	101
10/1 (with short)	531(In) 141(Out)
10/2 (short)	390
11/1	588
11/2 (with short)	841(In) 636(Out)
11/3 (short)	205
12/1	1323
13/1	1321
13/2	1678
13/3	205
14/1	964
14/2	732
15/1 (with short)	425(In) 273(Out)
15/2 (short)	152
15/3	22
16/1	964
16/2	732

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
				Arm 3 Ahead	Inf	0.0 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	9.2 %	1980	1980
				Arm 6 Ahead	Inf	90.8 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	15.5 % 84.5 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2031 AM Ref With Dev G1' (FG1: '2031 Ref With Dev AM Peak (G1)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	126	38	1048	767	1549	3528
	B	30	0	24	4	26	84
	C	1334	18	0	294	0	1646
	D	510	21	103	0	332	966
	E	1627	129	0	541	0	2297
	Tot.	3627	206	1175	1606	1907	8521

Traffic Lane Flows

Lane	Scenario 3: 2031 AM Ref With Dev G1
Junction: M1 Junction 15	
1/1	843
1/2 (with short)	1454(In) 816(Out)
1/3 (short)	638
2/1	1834
2/2	1793
3/1	53
3/2	115
3/3	644
4/1	888
4/2	965
4/3	1675
5/1	91
5/2	115
6/1	901
6/2	1558
6/3	1675
7/1	991
7/2	1009
7/3	142
8/1	1312
8/2	852
8/3	879
9/1	925
9/2	250
10/1 (with short)	84(In) 28(Out)
10/2 (short)	56
11/1	737
11/2 (with short)	909(In) 791(Out)
11/3 (short)	118
12/1	1606
13/1	1295
13/2	1670
13/3	118
14/1	1058
14/2	849
15/1 (with short)	842(In) 421(Out)
15/2 (short)	421
15/3	124
16/1	1058
16/2	849

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	96.1 %	2120	2120
				Arm 3 Ahead	Inf	3.9 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.3 %	1980	1980
				Arm 6 Ahead	Inf	95.7 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	39.9 % 60.1 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2031 PM Ref With Dev G1' (FG2: '2031 Ref With Dev PM Peak (G1)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	141	92	1067	783	1456	3539
	B	34	0	92	12	26	164
	C	1198	162	0	211	0	1571
	D	903	36	146	0	434	1519
	E	1263	48	0	408	0	1719
	Tot.	3539	338	1305	1414	1916	8512

Traffic Lane Flows

Lane	Scenario 4: 2031 PM Ref With Dev G1
Junction: M1 Junction 15	
1/1	607
1/2 (with short)	1112(In) 660(Out)
1/3 (short)	452
2/1	1647
2/2	1892
3/1	113
3/2	133
3/3	554
4/1	930
4/2	1012
4/3	1597
5/1	205
5/2	133
6/1	911
6/2	1493
6/3	1597
7/1	1040
7/2	1236
7/3	344
8/1	1203
8/2	820
8/3	837
9/1	1003
9/2	302
10/1 (with short)	164(In) 104(Out)
10/2 (short)	60
11/1	607
11/2 (with short)	964(In) 652(Out)
11/3 (short)	312
12/1	1414
13/1	1216
13/2	1489
13/3	312
14/1	1113
14/2	803
15/1 (with short)	1337(In) 667(Out)
15/2 (short)	670
15/3	182
16/1	1113
16/2	803

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	99.4 %	2120	2120
				Arm 3 Ahead	Inf	0.6 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	9.9 %	1980	1980
				Arm 6 Ahead	Inf	90.1 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

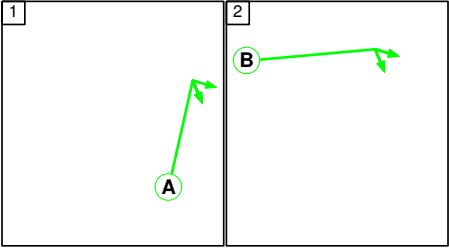
11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	34.8 % 65.2 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2031 AM Ref No Dev D1' (FG3: '2031 Ref No Dev AM Peak (D1)', Plan 1: 'Network Control Plan 1')

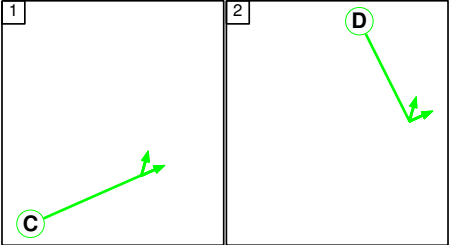
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

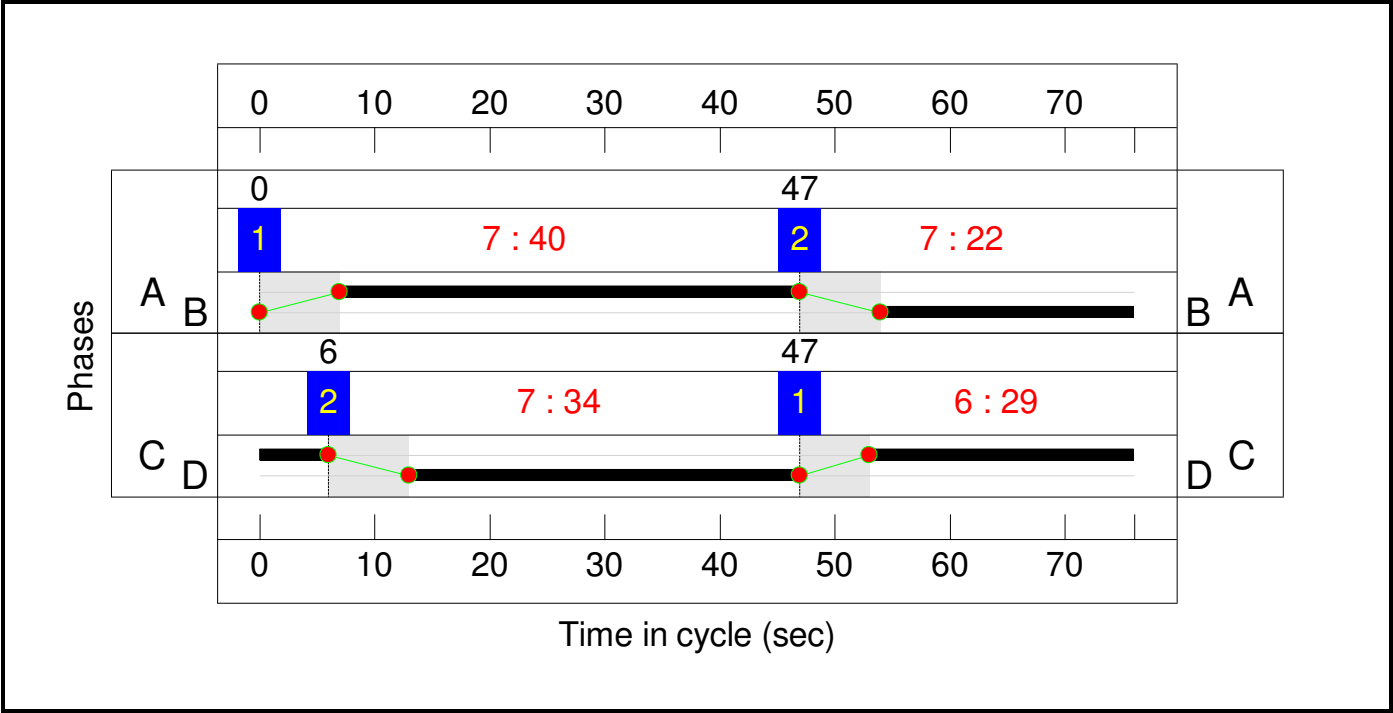
Stage Stream: 1

Stage	1	2
Duration	40	22
Change Point	0	47

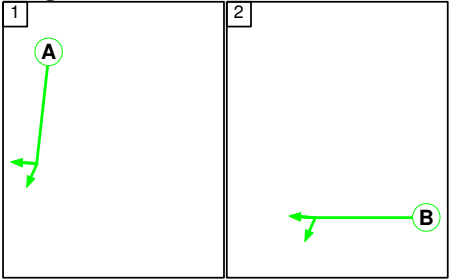
Stage Stream: 2

Stage	1	2
Duration	29	34
Change Point	47	6

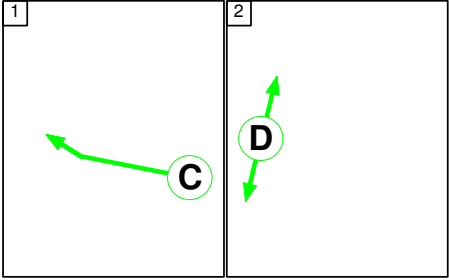
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



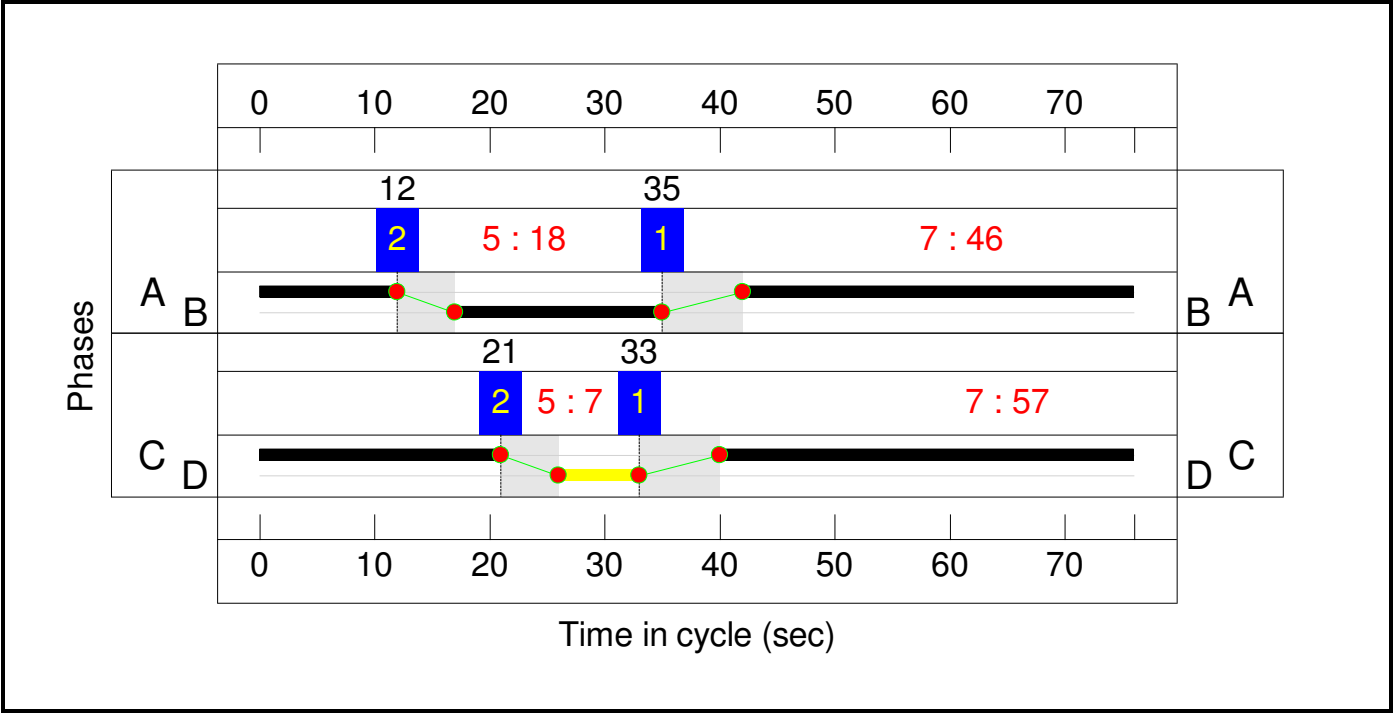
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	35	12

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	33	21

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	175.8%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	175.8%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	29	-	616	1980	782	78.8%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	29	-	1233	2120:1980	749+663	87.3 : 87.3%
3/1	Ahead	U	1:1	N/A	C1:B		1	22	-	73	1900	575	9.8%
3/2	Ahead	U	1:1	N/A	C1:B		1	22	-	136	1900	575	20.7%
3/3	Right	U	1:1	N/A	C1:B		1	22	-	523	1900	575	91.0%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	40	-	829	1980	1068	77.6%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	40	-	901	2120	1144	78.8%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	40	-	2011	2120	1144	175.8%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	34	-	1104	2000	921	76.5%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	34	-	1066	2000	921	84.9%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	34	-	129	2000	921	10.3%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1187	2000	1237	96.0%

8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	996	2000	1237	45.8%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	1056	2000	1237	50.0%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	66	Inf : Inf	162+266	15.4 : 15.4%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	803	1980	495	162.2%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	1049	2120:2120	530+116	162.3 : 162.3%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1236	1995	1523	53.8%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1033	1995	1523	39.1%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	775	Inf : Inf	361+361	107.3 : 107.1%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	40	Inf	365	10.9%

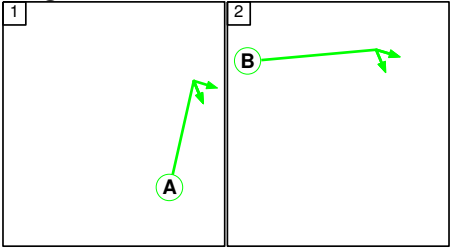
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	1618	0	0	117.8	853.1	0.0	970.9	-	-	-	-
M1 Junction 15	-	-	1618	0	0	117.8	853.1	0.0	970.9	-	-	-	-
1/1	616	616	-	-	-	3.5	1.8	-	5.3	30.8	11.3	1.8	13.1
1/2+1/3	1233	1233	-	-	-	6.8	3.3	-	10.1 (5.4+4.7)	29.6 (29.8:29.4)	12.0	3.3	15.3
3/1	56	56	-	-	-	0.2	0.1	-	0.3	17.9	0.8	0.1	0.8
3/2	119	119	-	-	-	0.3	0.1	-	0.5	14.1	1.0	0.1	1.1
3/3	523	523	-	-	-	1.3	4.3	-	5.6	38.4	2.1	4.3	6.5
4/1	829	829	-	-	-	3.2	1.7	-	4.9	21.3	13.8	1.7	15.5
4/2	901	901	-	-	-	3.5	1.8	-	5.3	21.3	15.0	1.8	16.8
4/3	2011	1144	-	-	-	43.2	434.8	-	478.0	855.7	64.6	434.8	499.4
7/1	704	704	-	-	-	2.8	1.6	-	4.4	22.3	5.6	1.6	7.2
7/2	782	782	-	-	-	1.7	2.7	-	4.4	20.2	6.5	2.7	9.2
7/3	95	95	-	-	-	0.1	0.1	-	0.2	7.4	0.6	0.1	0.6
8/1	1187	1187	-	-	-	4.6	8.8	-	13.4	40.7	19.0	8.8	27.8
8/2	566	566	-	-	-	1.5	0.4	-	1.9	11.9	11.4	0.4	11.8
8/3	618	618	-	-	-	1.6	0.5	-	2.1	12.2	12.3	0.5	12.8
10/1+10/2	66	66	132	0	0	0.2	0.1	-	0.3 (0.1+0.2)	16.5 (16.4:16.6)	0.5	0.1	0.6
11/1	803	495	-	-	-	17.0	155.3	-	172.3	772.3	23.5	155.3	178.7
11/2+11/3	1049	647	-	-	-	20.4	202.6	-	223.0 (184.2+38.8)	765.3 (771.2:738.2)	30.5	202.6	233.0
14/1	820	820	-	-	-	0.1	0.6	-	0.7	3.2	0.6	0.6	1.1
14/2	595	595	-	-	-	0.0	0.3	-	0.3	2.0	0.0	0.3	0.3
15/1+15/2	775	723	1446	0	0	5.8	32.1	-	37.9 (19.2+18.7)	175.8 (178.2:173.5)	21.9	32.1	54.0
15/3	40	40	40	0	0	0.1	0.1	-	0.1	10.7	0.3	0.1	0.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -95.4 Total Delay for Signalled Lanes (pcuHr): 494.57 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 3.1 Total Delay for Signalled Lanes (pcuHr): 24.35 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -80.3 Total Delay for Signalled Lanes (pcuHr): 412.65 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 67.2 Total Delay for Signalled Lanes (pcuHr): 1.05 Cycle Time (s): 76 PRC Over All Lanes (%): -95.4 Total Delay Over All Lanes(pcuHr): 970.90													

Scenario 2: '2031 PM Ref No Dev D1' (FG4: '2031 Ref No Dev PM Peak (D1)', Plan 1: 'Network Control Plan 1')

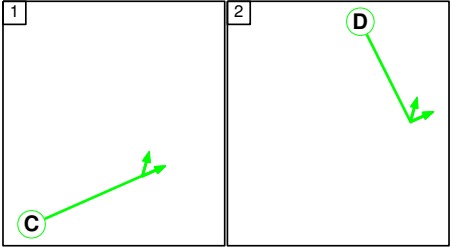
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

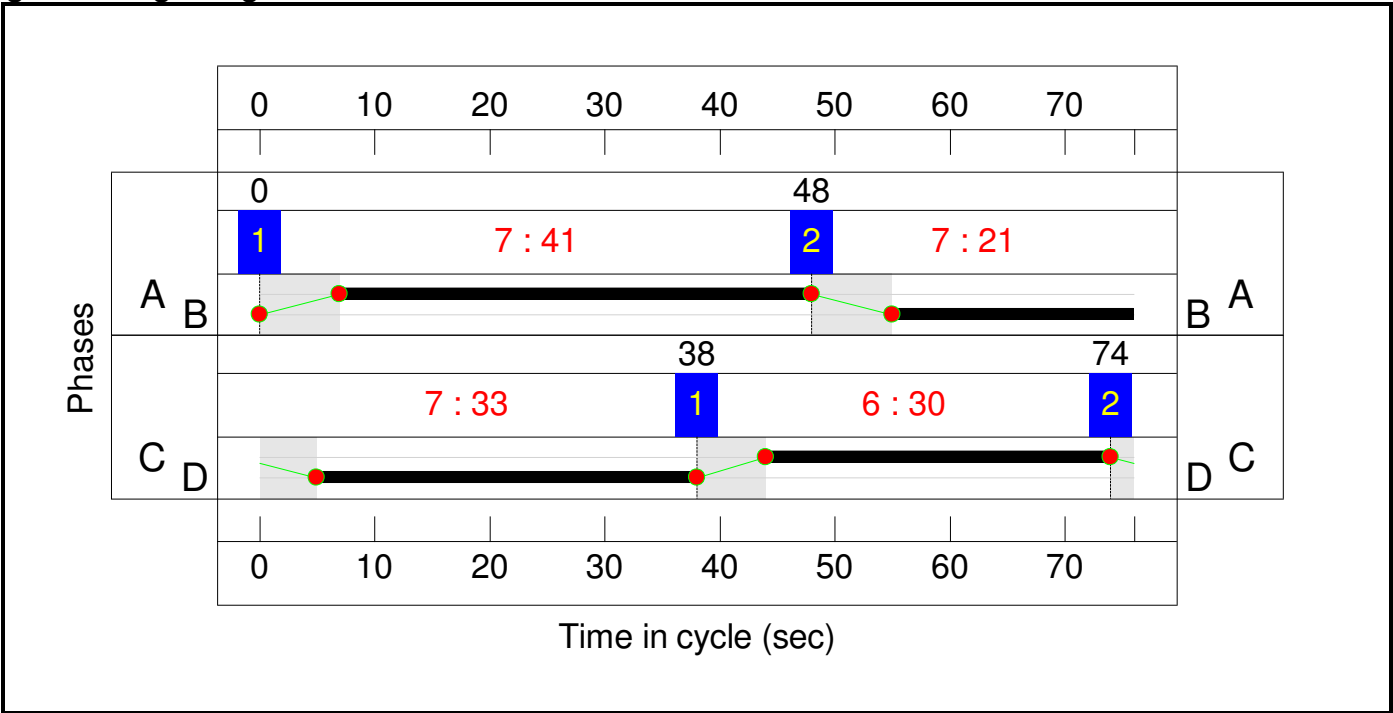
Stage Stream: 1

Stage	1	2
Duration	41	21
Change Point	0	48

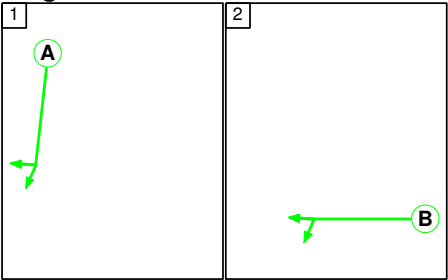
Stage Stream: 2

Stage	1	2
Duration	30	33
Change Point	38	74

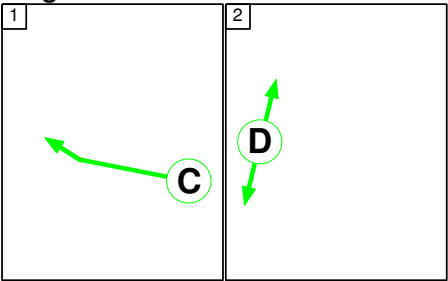
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



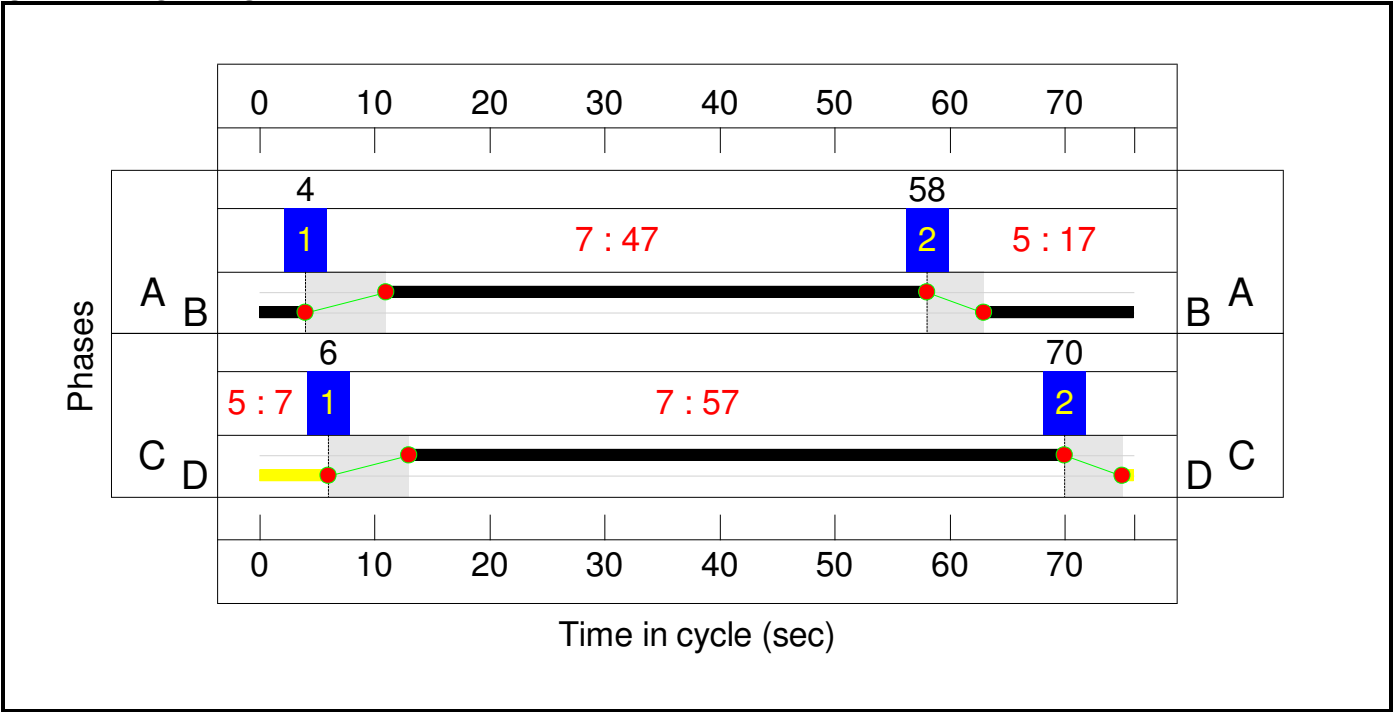
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	47	17
Change Point	4	58

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	6	70

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	126.7%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	126.7%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	30	-	686	1980	808	84.9%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	30	-	1054	2120:1980	796+352	91.9 : 91.9%
3/1	Ahead	U	1:1	N/A	C1:B		1	21	-	52	1900	550	9.5%
3/2	Ahead	U	1:1	N/A	C1:B		1	21	-	99	1900	550	18.0%
3/3	Right	U	1:1	N/A	C1:B		1	21	-	249	1900	550	45.3%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	41	-	994	1980	1094	90.8%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	1078	2120	1172	92.0%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	1476	2120	1172	126.0%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	33	-	935	2000	895	83.3%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	33	-	943	2000	895	90.9%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	33	-	77	2000	895	8.6%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1232	2000	1263	97.3%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	824	2000	1263	51.8%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	1042	2000	1263	66.0%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	531	Inf : Inf	115+317	122.8 : 122.8%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	17	-	588	1980	469	125.4%

11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	841	2120:2120	502+162	126.7 : 126.7%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	964	1995	1523	54.0%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	732	1995	1523	38.2%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	425	Inf : Inf	287+287	95.1 : 52.9%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	22	Inf	300	7.3%

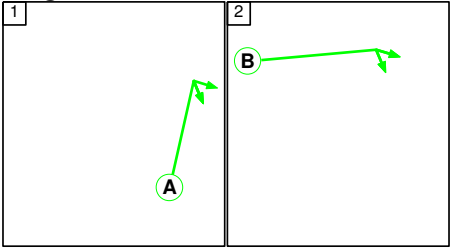
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Reference Case	-	-	1737	0	0	73.7	399.2	0.0	472.9	-	-	-	-
M1 Junction 15	-	-	1737	0	0	73.7	399.2	0.0	472.9	-	-	-	-
1/1	686	686	-	-	-	3.9	2.7	-	6.6	34.6	13.0	2.7	15.7
1/2+1/3	1054	1054	-	-	-	5.6	5.1	-	10.7 (7.7+3.0)	36.4 (37.7:33.3)	13.8	5.1	18.9
3/1	52	52	-	-	-	0.6	0.1	-	0.7	46.3	1.1	0.1	1.1
3/2	99	99	-	-	-	0.2	0.1	-	0.3	11.5	1.6	0.1	1.7
3/3	249	249	-	-	-	0.6	0.4	-	1.0	14.4	4.4	0.4	4.8
4/1	994	994	-	-	-	4.2	4.5	-	8.8	31.7	18.8	4.5	23.3
4/2	1078	1078	-	-	-	4.6	5.2	-	9.8	32.8	20.7	5.2	25.8
4/3	1476	1172	-	-	-	17.3	154.6	-	171.9	419.3	37.6	154.6	192.2
7/1	745	745	-	-	-	2.0	2.4	-	4.4	21.5	14.4	2.4	16.8
7/2	813	813	-	-	-	1.9	4.5	-	6.4	28.1	13.2	4.5	17.7
7/3	77	77	-	-	-	0.1	0.0	-	0.1	6.4	0.7	0.0	0.8
8/1	1229	1229	-	-	-	1.7	11.0	-	12.7	37.1	10.0	11.0	21.0
8/2	655	655	-	-	-	0.7	0.5	-	1.3	7.0	2.3	0.5	2.9
8/3	834	834	-	-	-	1.4	1.0	-	2.4	10.4	8.5	1.0	9.5
10/1+10/2	531	432	865	0	0	7.1	51.9	-	59.0 (15.4+43.6)	399.9 (393.2:402.3)	31.1	51.9	83.0
11/1	588	469	-	-	-	9.8	61.9	-	71.7	439.3	16.3	61.9	78.2
11/2+11/3	841	707	-	-	-	11.2	90.8	-	102.0 (78.5+23.5)	436.8 (444.4:413.4)	16.8	90.8	107.6
14/1	822	822	-	-	-	0.0	0.6	-	0.6	2.6	0.3	0.6	0.8
14/2	582	582	-	-	-	0.0	0.3	-	0.3	1.9	0.0	0.3	0.3
15/1+15/2	425	425	850	0	0	0.7	1.4	-	2.1 (1.5+0.6)	18.2 (20.1:14.7)	5.5	1.4	6.9
15/3	22	22	22	0	0	0.0	0.0	-	0.1	8.9	0.1	0.0	0.1
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -40.0 Total Delay for Signalled Lanes (pcuHr): 192.49 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -2.1 Total Delay for Signalled Lanes (pcuHr): 28.17 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -40.7 Total Delay for Signalled Lanes (pcuHr): 190.14 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 66.6 Total Delay for Signalled Lanes (pcuHr): 0.90 Cycle Time (s): 76 PRC Over All Lanes (%): -40.7 Total Delay Over All Lanes(pcuHr): 472.88													

Scenario 3: '2031 AM Ref With Dev G1' (FG1: '2031 Ref With Dev AM Peak (G1)', Plan 1: 'Network Control Plan 1')

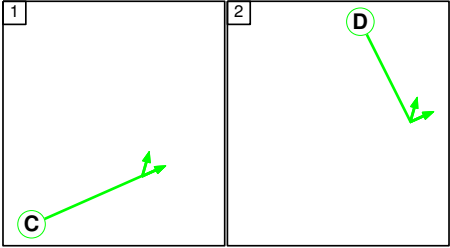
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

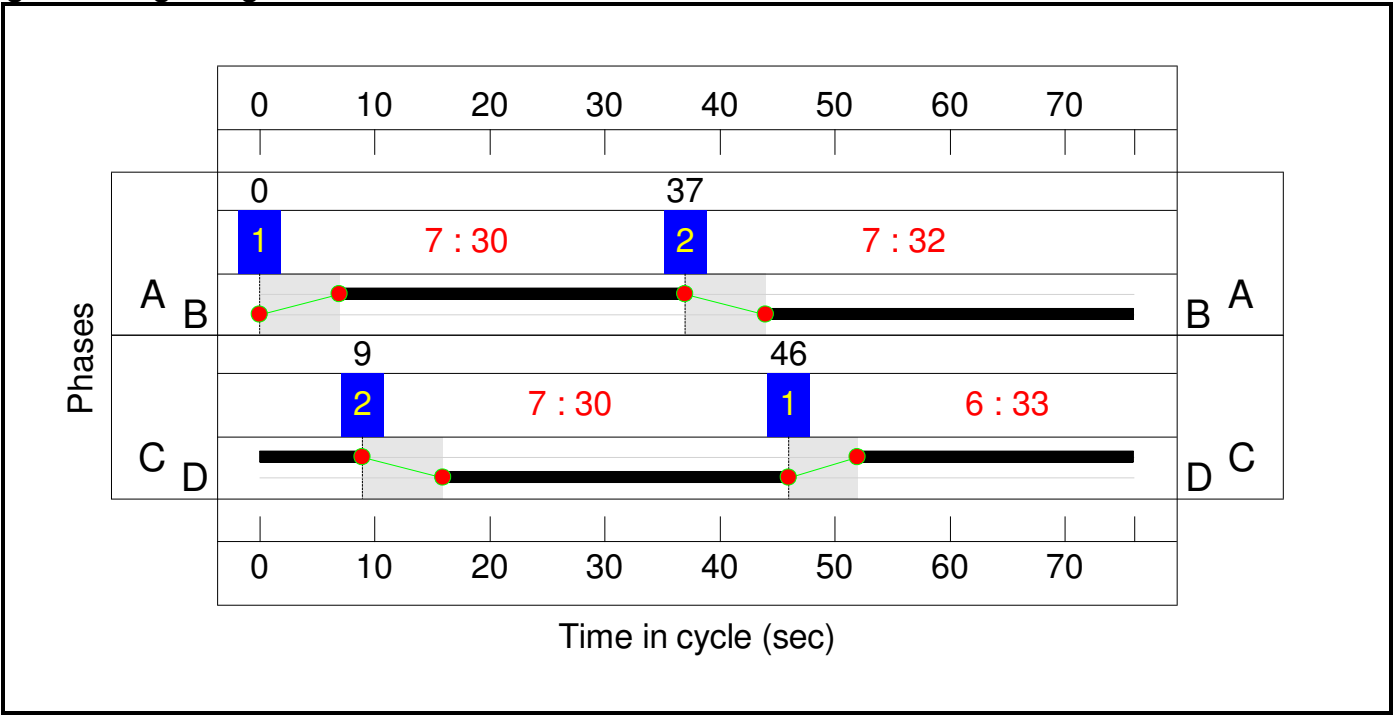
Stage Stream: 1

Stage	1	2
Duration	30	32
Change Point	0	37

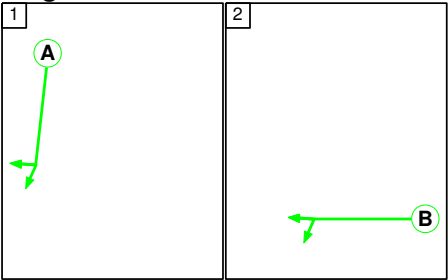
Stage Stream: 2

Stage	1	2
Duration	33	30
Change Point	46	9

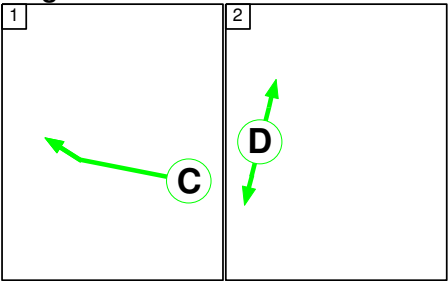
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



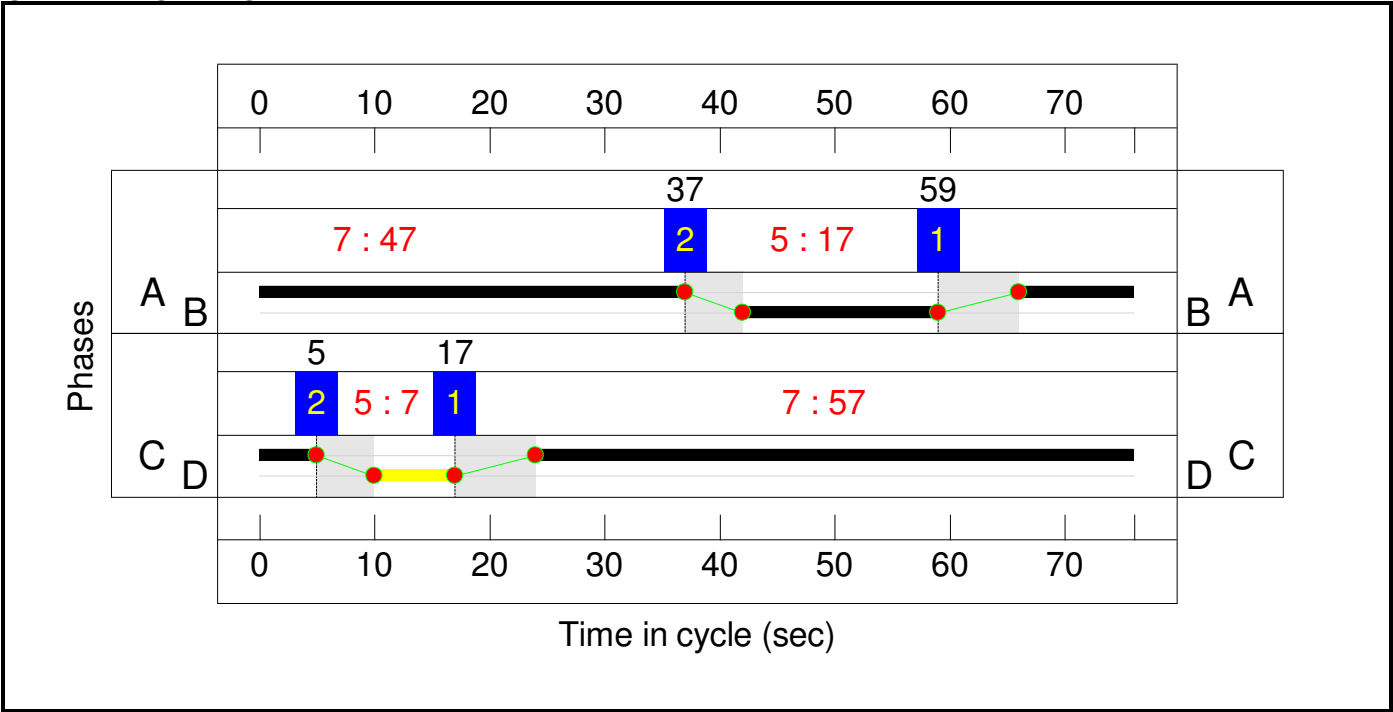
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	47	17
Change Point	59	37

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	17	5

Signal Timings Diagram



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)	Cap (pcu)
Network: M1 Junction 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	33	-	843	1980	8
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	33	-	1454	2120:1980	815
3/1	Ahead	U	1:1	N/A	C1:B		1	32	-	53	1900	8
3/2	Ahead	U	1:1	N/A	C1:B		1	32	-	115	1900	8
3/3	Right	U	1:1	N/A	C1:B		1	32	-	644	1900	8
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	30	-	888	1980	8
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	30	-	965	2120	8
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	30	-	1675	2120	8
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	30	-	991	2000	8
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	30	-	1009	2000	8
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	30	-	142	2000	8
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1312	2000	12
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	852	2000	12
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	879	2000	12
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	84	Inf : Inf	174
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	17	-	737	1980	4

11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	909	2120:2120	502
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1058	1995	15
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	849	1995	15
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	842	Inf : Inf	431
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	124	Inf	4
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	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand Over Queue (pcu)
Network: M1 Junction 15 Reference Case	-	-	1976	0	0	126.2	874.7	0.0	1000.9	-	-	
M1 Junction 15	-	-	1976	0	0	126.2	874.7	0.0	1000.9	-	-	
1/1	843	843	-	-	-	4.7	7.3	-	12.1	51.5	17.1	7
1/2+1/3	1454	1452	-	-	-	7.6	19.5	-	27.1 (15.3+11.8)	67.1 (67.6:66.4)	20.1	19
3/1	50	50	-	-	-	0.2	0.0	-	0.2	16.6	0.6	0
3/2	112	112	-	-	-	0.3	0.1	-	0.3	10.6	0.7	0
3/3	643	643	-	-	-	1.6	1.7	-	3.3	18.7	4.3	1
4/1	888	808	-	-	-	8.4	45.1	-	53.5	216.9	20.4	49
4/2	965	865	-	-	-	9.6	54.6	-	64.1	239.3	22.5	54
4/3	1675	865	-	-	-	39.6	406.2	-	445.8	958.1	52.8	40
7/1	652	652	-	-	-	5.8	2.0	-	7.8	43.0	13.2	2
7/2	807	807	-	-	-	6.3	12.2	-	18.4	82.3	16.9	12
7/3	137	137	-	-	-	0.6	0.1	-	0.7	17.5	1.7	0
8/1	1232	1232	-	-	-	4.1	11.4	-	15.5	45.3	22.3	1
8/2	449	449	-	-	-	1.5	0.3	-	1.8	14.6	4.9	0
8/3	472	472	-	-	-	1.6	0.3	-	1.9	14.6	5.3	0
10/1+10/2	84	84	168	0	0	0.2	0.1	-	0.3 (0.1+0.2)	10.8 (10.7:10.9)	0.5	0
11/1	737	469	-	-	-	16.1	135.4	-	151.5	740.2	24.0	13
11/2+11/3	909	585	-	-	-	15.5	167.4	-	182.9 (160.2+22.7)	724.3 (728.9:693.5)	27.0	16
14/1	716	716	-	-	-	0.5	0.4	-	1.0	4.8	4.6	0
14/2	442	442	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0
15/1+15/2	842	842	1684	0	0	1.8	10.3	-	12.2 (6.1+6.1)	52.1 (52.1:52.1)	6.4	10
15/3	124	124	124	0	0	0.1	0.2	-	0.2	7.2	0.6	0

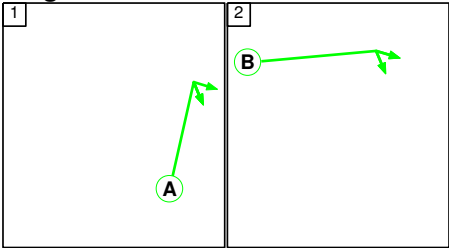
C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%):	-115.2	Total Delay for Signalled Lanes (pcuHr):	567.37	Cycle Time (s):	120.00
C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%):	-11.2	Total Delay for Signalled Lanes (pcuHr):	66.05	Cycle Time (s):	120.00
C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%):	-75.0	Total Delay for Signalled Lanes (pcuHr):	353.63	Cycle Time (s):	120.00
C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%):	91.4	Total Delay for Signalled Lanes (pcuHr):	1.16	Cycle Time (s):	120.00
	PRC Over All Lanes (%):	-115.2	Total Delay Over All Lanes(pcuHr):	1000.89		

Scenario 4: '2031 PM Ref With Dev G1' (FG2: '2031 Ref With Dev PM Peak (G1)', Plan 1: 'Network Control Plan 1')

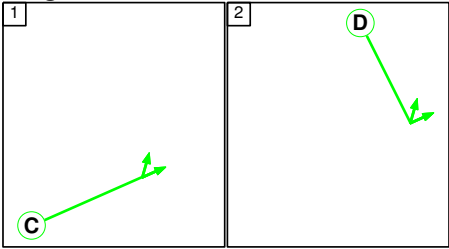
C1 - Eastside Controller

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

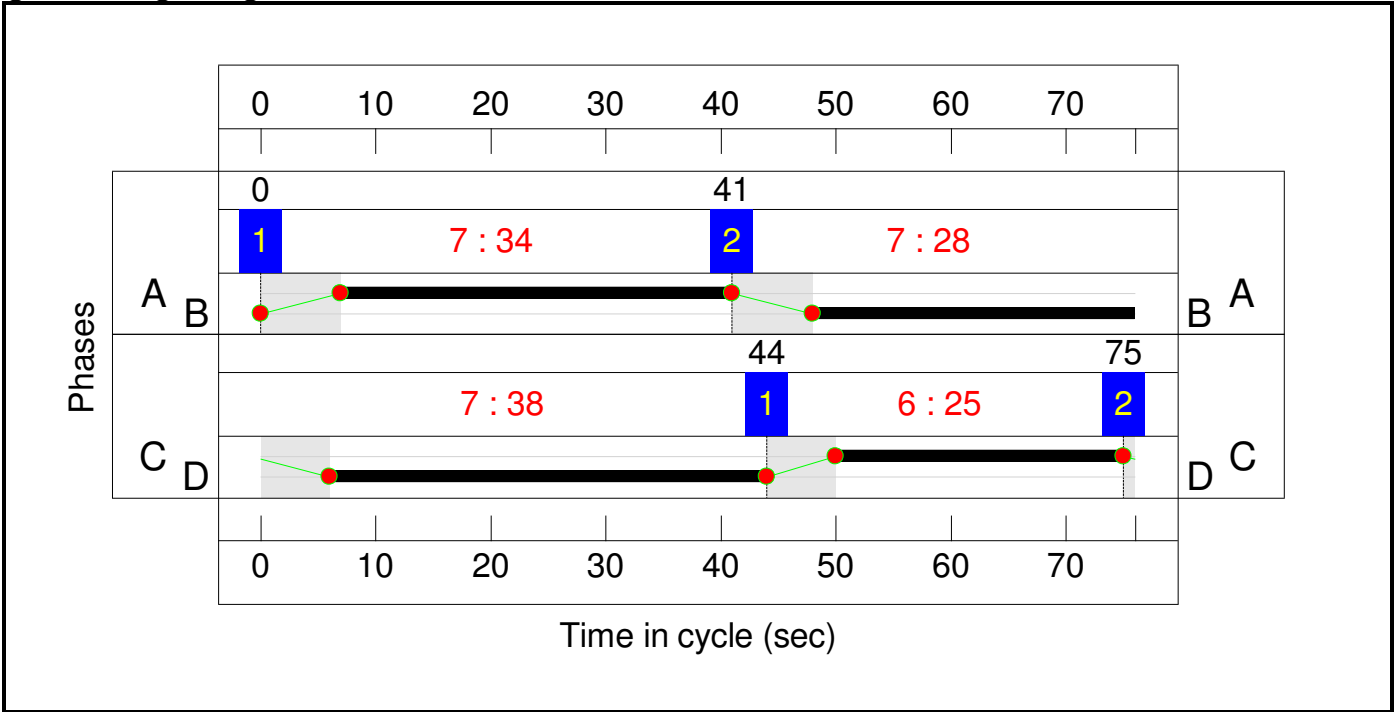
Stage Stream: 1

Stage	1	2
Duration	34	28
Change Point	0	41

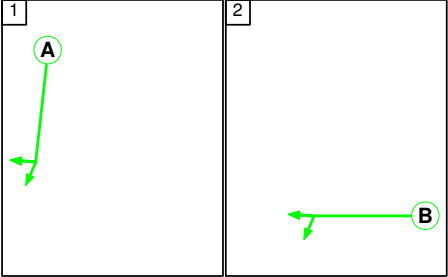
Stage Stream: 2

Stage	1	2
Duration	25	38
Change Point	44	75

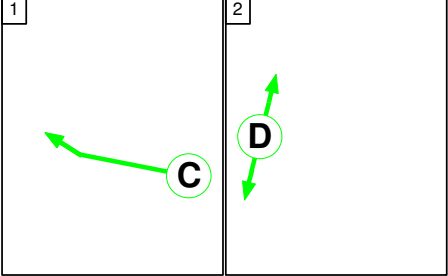
Signal Timings Diagram



C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



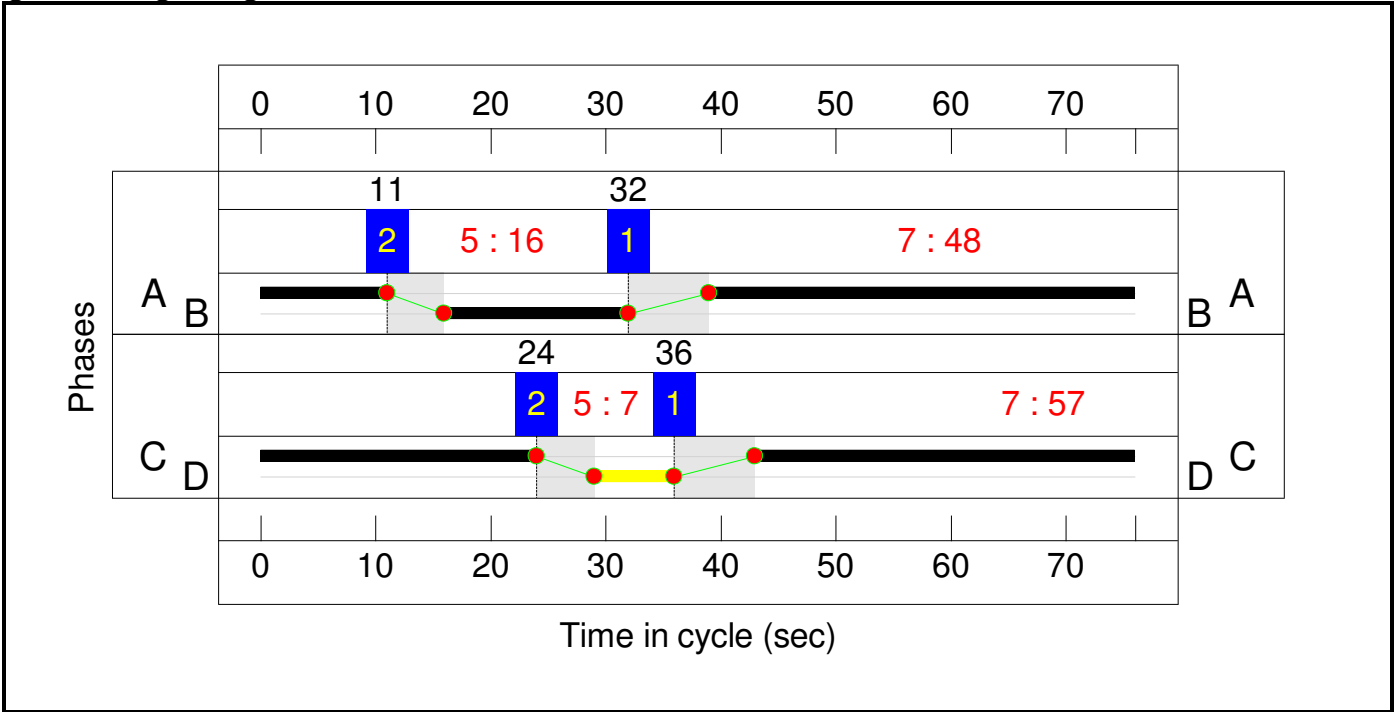
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	48	16
Change Point	32	11

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	36	24

Signal Timings Diagram



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 15 Reference Case Model	-	-	N/A	-	-		-	-	-	-	-	-	163.6%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	163.6%
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	25	-	607	1980	677	89.6%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	25	-	1112	2120:1980	695+476	94.9 : 94.9%
3/1	Ahead	U	1:1	N/A	C1:B		1	28	-	113	1900	725	15.6%
3/2	Ahead	U	1:1	N/A	C1:B		1	28	-	133	1900	725	18.3%
3/3	Right	U	1:1	N/A	C1:B		1	28	-	554	1900	725	76.4%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	34	-	930	1980	912	102.0%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	34	-	1012	2120	976	103.7%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	34	-	1597	2120	976	163.6%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	38	-	1040	2000	1026	69.7%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	38	-	1236	2000	1026	85.1%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	38	-	344	2000	1026	33.5%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	48	-	1203	2000	1289	91.2%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	820	2000	1289	39.7%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	837	2000	1289	40.7%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	164	Inf : Inf	325+187	32.0 : 32.0%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	16	-	607	1980	443	137.1%

11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	16	-	964	2120:2120	474+227	137.5 : 137.5%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1113	1995	1523	45.5%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	803	1995	1523	32.2%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	1337	Inf : Inf	412+412	161.9 : 162.6%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	182	Inf	414	43.9%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay	Storage uniform Delay	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue
Network: M1 Junction 15 Reference Case	-	-	2158	0	0	120.5	858.2	0.0	978.7	-	-	-	-
M1 Junction 15	-	-	2158	0	0	120.5	858.2	0.0	978.7	-	-	-	-
1/1	607	607	-	-	-	4.0	3.9	-	7.9	46.8	12.1	3.9	16.0
1/2+1/3	1112	1112	-	-	-	7.1	7.5	-	14.5 (8.8+5.7)	47.0 (48.1:45.5)	13.2	7.5	20.7
3/1	113	113	-	-	-	0.4	0.1	-	0.5	16.8	2.3	0.1	2.4
3/2	133	133	-	-	-	0.4	0.1	-	0.5	12.8	1.9	0.1	2.0
3/3	554	554	-	-	-	1.6	1.6	-	3.2	21.0	3.5	1.6	5.1
4/1	930	912	-	-	-	5.9	20.4	-	26.4	102.1	20.0	20.4	40.5
4/2	1012	976	-	-	-	7.0	27.2	-	34.2	121.6	22.1	27.2	49.3
4/3	1597	976	-	-	-	30.8	311.6	-	342.4	771.9	46.8	311.6	358.4
7/1	715	715	-	-	-	2.4	1.1	-	3.6	17.9	6.3	1.1	7.4
7/2	874	874	-	-	-	2.2	2.8	-	5.0	20.5	8.2	2.8	11.0
7/3	344	344	-	-	-	0.6	0.3	-	0.9	9.3	2.8	0.3	3.1
8/1	1175	1175	-	-	-	3.2	4.8	-	8.0	24.5	17.3	4.8	22.0
8/2	511	511	-	-	-	1.1	0.3	-	1.4	10.0	10.0	0.3	10.4
8/3	525	525	-	-	-	1.1	0.3	-	1.5	10.1	10.2	0.3	10.5
10/1+10/2	164	164	328	0	0	0.4	0.2	-	0.6 (0.4+0.2)	14.2 (14.4:13.9)	1.1	0.2	1.4
11/1	607	443	-	-	-	10.7	83.9	-	94.6	560.9	16.3	83.9	100.1
11/2+11/3	964	786	-	-	-	13.9	133.2	-	147.1 (101.7+45.5)	549.5 (561.4:524.4)	20.9	133.2	154.2
14/1	693	693	-	-	-	0.0	0.4	-	0.4	2.2	0.3	0.4	0.7
14/2	491	491	-	-	-	0.0	0.2	-	0.2	1.8	0.0	0.2	0.3
15/1+15/2	1337	824	1648	0	0	27.2	257.8	-	285.0 (141.7+143.3)	767.5 (764.8:770.2)	38.0	257.8	295.8
15/3	182	182	182	0	0	0.3	0.4	-	0.7	13.2	1.3	0.4	1.7
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -81.7 Total Delay for Signalled Lanes (pcuHr): 407.23 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -5.5 Total Delay for Signalled Lanes (pcuHr): 31.83 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -52.8 Total Delay for Signalled Lanes (pcuHr): 252.60 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 97.7 Total Delay for Signalled Lanes (pcuHr): 0.67 Cycle Time (s): 76 PRC Over All Lanes (%): -81.7 Total Delay Over All Lanes(pcuHr): 978.67													

APPENDIX C

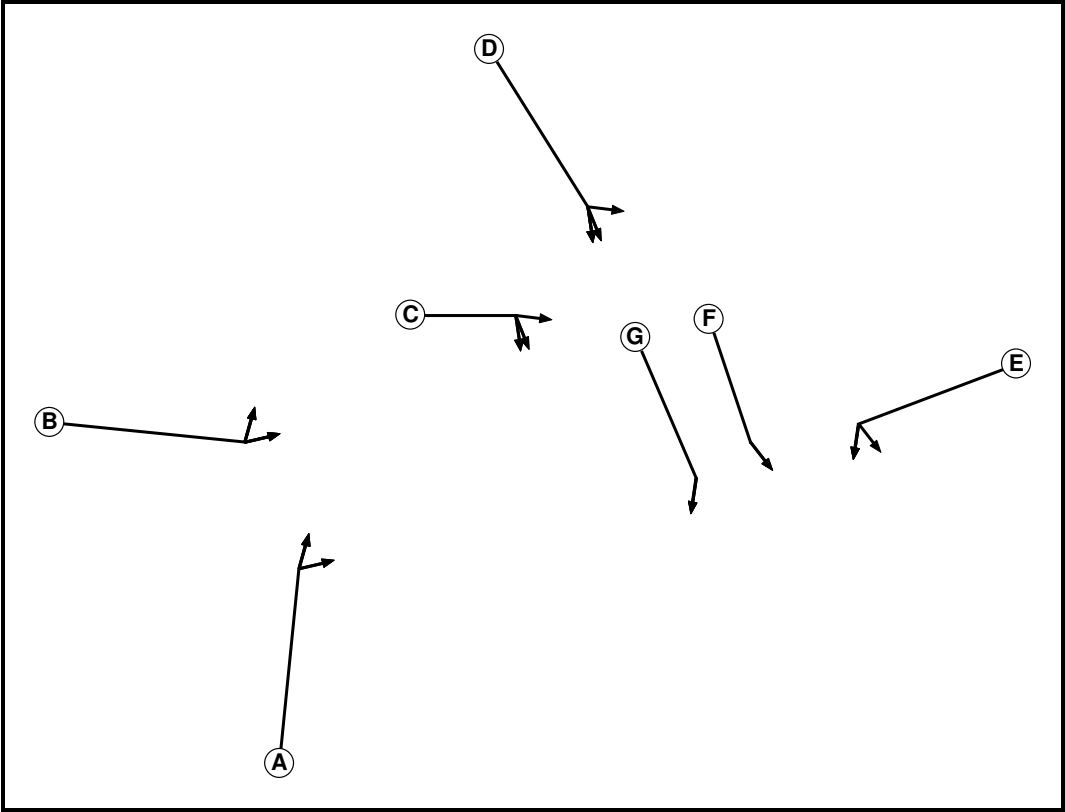
OPTION A LINSIG MODELLING RESULTS

Full Input Data And Results

User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Mitigation Model
Location:	Northampton
File name:	170109 M1 Junction 15 Mitigation – Initial Option.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western Street, Nottingham
Notes:	Initial Option

C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7

Phase Intergreens Matrix

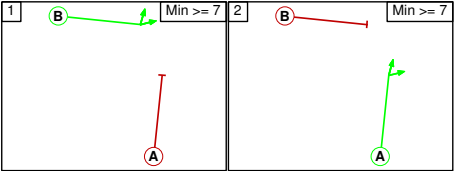
Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		6	-	-	-	-	-
	B	6		-	-	-	-	-
	C	-	-		6	-	-	-
	D	-	-	6		-	-	-
	E	-	-	-	-		8	8
	F	-	-	-	-	6		-
	G	-	-	-	-	6	-	

Phases in Stage

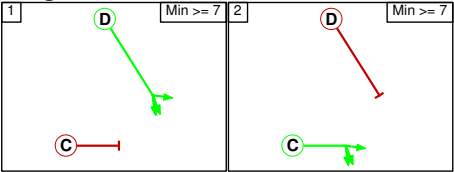
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D
2	2	C
3	1	E
3	2	F G

Stage Diagram

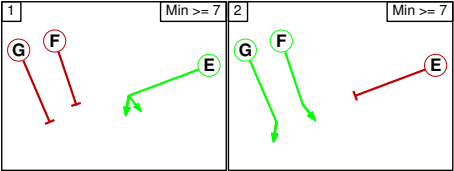
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		6
	2	6	

Stage Stream: 2

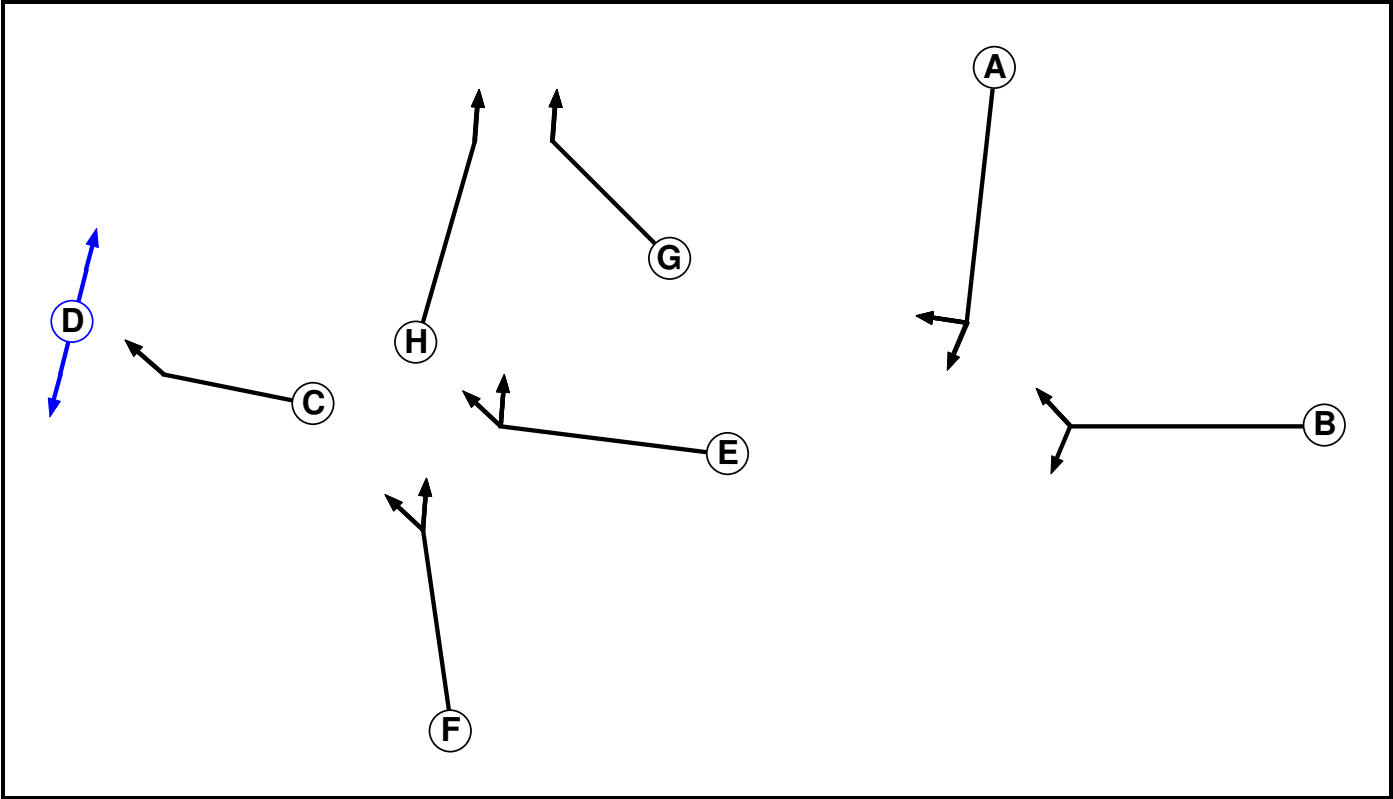
From Stage	To Stage		
		1	2
	1		6
	2	6	

Stage Stream: 3

From Stage	To Stage		
		1	2
	1		8
	2	6	

C2 - Westside Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

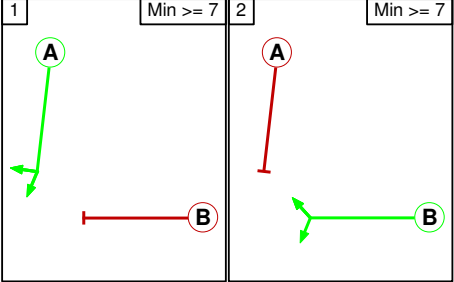
		Starting Phase							
Terminating Phase		A	B	C	D	E	F	G	H
	A		5	-	-	-	-	-	-
	B	7		-	-	-	-	-	-
	C	-	-		5	-	-	-	-
	D	-	-	7		-	-	-	-
	E	-	-	-	-		5	-	-
	F	-	-	-	-	7		-	-
	G	-	-	-	-	-	-		5
	H	-	-	-	-	-	-	7	

Phases in Stage

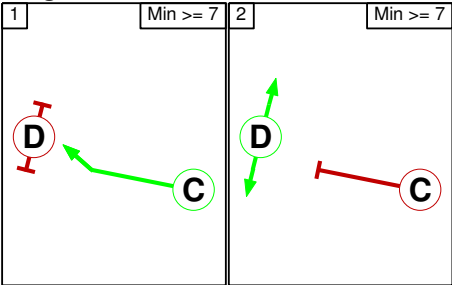
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	H
4	2	G

Stage Diagram

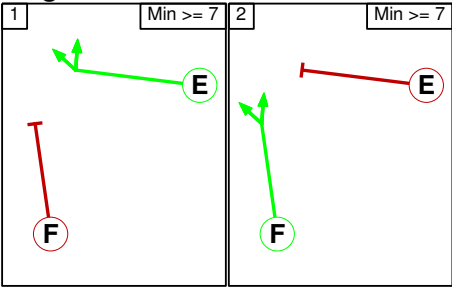
Stage Stream: 1



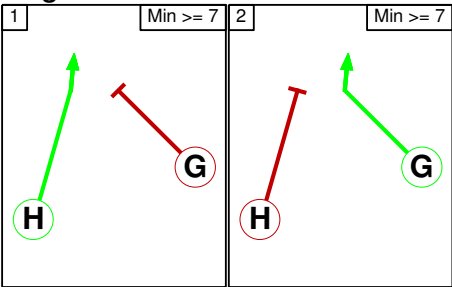
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

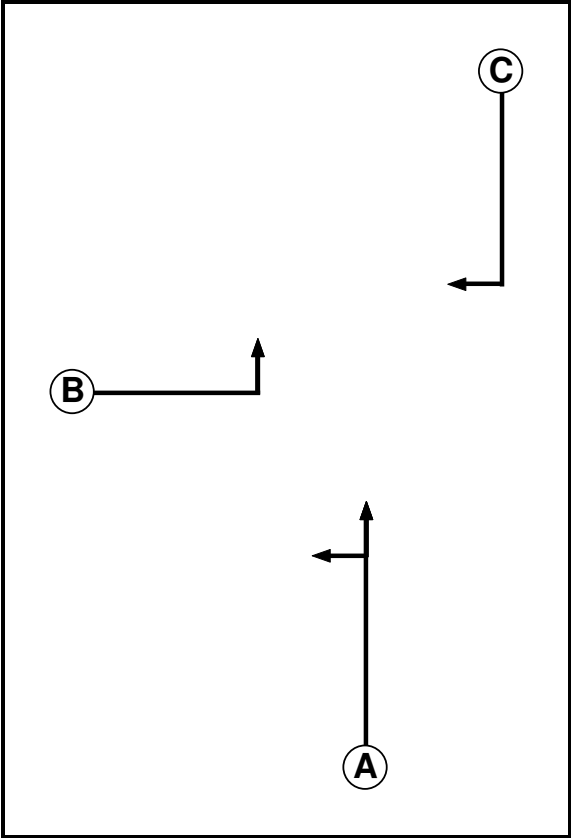
Stage Stream: 3

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 4

	To Stage		
From Stage		1	2
	1		7
	2	5	

C3 - Watering Lane
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7

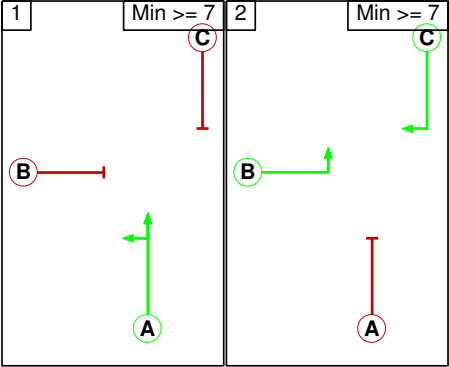
Phase Intergreens Matrix

Terminating Phase	Starting Phase			
		A	B	C
	A		6	6
	B	6		-
	C	6	-	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B C

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		6
	2	6	

Lane Input Data

Junction: J1: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (M1 Southbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	Y	Arm J1:2 Left	Inf
J1:1/2 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/3 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/4 (M1 Southbound Offslip)	U	B	2	3	18.0	User	4000	-	-	-	-	-
J1:2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/3 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:3/1	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/2	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/3	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/4	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:4/1 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	Y	Arm J1:5 Left Arm J1:18 Ahead	Inf Inf
J1:4/2 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:4/3 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/4 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/5 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:6/1 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:6/2 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:6/3 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-

J1:7/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:7/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:8/1 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:6 Left Arm J1:7 Left	Inf 30.00
J1:8/2 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:6 Left	Inf
J1:9/1 (M1 Northbound Offslip)	U	B	2	3	12.0	Geom	-	3.65	0.00	Y	Arm J1:10 Left	Inf
J1:9/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/4 (M1 Northbound Offslip)	U	B	2	3	40.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:10/1	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:10/2	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:11/1	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:11/2	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:12/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:12/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:13/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/3 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/4 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/5 (A508 Northampton Rd)	U	F	2	3	20.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:15/1	U	A	2	3	26.1	User	2000	-	-	-	-	-
J1:15/2	U	A	2	3	26.1	User	2000	-	-	-	-	-
J1:15/3	U	A	2	3	26.1	User	2000	-	-	-	-	-

J1:15/4	U	A	2	3	9.0	User	2000	-	-	-	-	-
J1:16/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/3	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:17/1	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/2	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/3	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:18/1	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:18/2	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:19/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:19/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:19/3	U	G	2	3	13.9	User	2000	-	-	-	-	-

Junction: J2: Watering Lane												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/1	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J2:4 Left	25.00
J2:2/2	U	B	2	3	10.0	Geom	-	4.00	0.00	Y	Arm J2:4 Left	25.00
J2:3/1	U	A	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J2:1 Left	15.00
J2:3/2	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:4 Ahead	Inf
J2:3/3	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:4 Ahead	Inf
J2:3/4	U	A	2	3	60.0	User	1900	-	-	-	-	-
J2:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/4	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J2:1 Right	20.00

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2014 Morning Peak Hour'	08:00	09:00	01:00	
2: '2014 Evening Peak Hour'	17:00	18:00	01:00	
3: '2021 Back Morning Peak '	08:00	09:00	01:00	
4: '2021 Back Evening Peak '	17:00	18:00	01:00	
9: '2021 Total AM Peak'	08:00	09:00	01:00	F3+F5+(2*F7)
10: '2021 Total PM Peak'	17:00	18:00	01:00	F4+F6+(2*F8)
11: '2031 Back Morning Peak '	08:00	09:00	01:00	
12: '2031 Back Evening Peak '	17:00	18:00	01:00	
13: '2031 Total AM Peak'	08:00	09:00	01:00	F11+F5+(2*F7)
14: '2031 Total PM Peak'	17:00	18:00	01:00	F12+F6+(2*F8)

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
Origin	A	0	146	1030	1074	1184	15	3449
	B	214	0	80	42	46	0	382
	C	911	61	0	344	0	110	1426
	D	679	37	190	0	374	55	1335
	E	1244	144	0	672	0	110	2170
	F	443	0	0	0	0	0	443
	Tot.	3491	388	1300	2132	1604	290	9205

Traffic Lane Flows

Lane	Scenario 1: 2021 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	469
J1:1/2 (with short)	898(In) 429(Out)
J1:1/3 (with short)	1272(In) 456(Out)
J1:1/4 (short)	816
J1:2/1	1188
J1:2/2	1164
J1:2/3	971
J1:3/1	242
J1:3/2	190
J1:3/3	349
J1:3/4	323
J1:4/1 (short)	599
J1:4/2 (with short)	1176(In) 577(Out)
J1:4/3	699
J1:4/4 (with short)	1559(In) 711(Out)
J1:4/5 (short)	848
J1:5/1	388
J1:6/1	1071
J1:6/2	1099
J1:6/3	1062
J1:7/1	635
J1:7/2	665
J1:8/1	168
J1:8/2	214
J1:9/1 (short)	344
J1:9/2 (with short)	702(In) 358(Out)
J1:9/3 (with short)	724(In) 347(Out)
J1:9/4 (short)	377
J1:10/1	1415
J1:10/2	717
J1:11/1	703
J1:11/2	741
J1:12/1	869
J1:12/2	735
J1:13/1 (short)	166
J1:13/2 (with short)	374(In) 208(Out)

J1:13/3	319
J1:13/4 (with short)	642(In) 216(Out)
J1:13/5 (short)	426
J1:14/1	869
J1:14/2	735
J1:15/1	719
J1:15/2	735
J1:15/3 (with short)	803(In) 515(Out)
J1:15/4 (short)	288
J1:16/1	358
J1:16/2	347
J1:16/3	377
J1:17/1	361
J1:17/2	388
J1:17/3	426
J1:18/1	555
J1:18/2	665
J1:19/1	1048
J1:19/2	1034
J1:19/3	848
Junction: J2: Watering Lane	
J2:1/1	290
J2:2/1 (with short)	443(In) 221(Out)
J2:2/2 (short)	222
J2:3/1 (short)	275
J2:3/2 (with short)	1188(In) 913(Out)
J2:3/3	1164
J2:3/4	971
J2:4/1	1134
J2:4/2	1386
J2:4/3	971
J2:5/1	1176
J2:5/2	699
J2:5/3	1559
J2:5/4	15

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	24.4 %	1980	1980
				Arm J1:18 Ahead	Inf	75.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	52.4 %	1919	1919
				Arm J1:7 Left	30.00	47.6 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:6 Left	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:2/1	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:2/2	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:3/1	3.65	0.00	Y	Arm J2:1 Left	15.00	100.0 %	1800	1800
J2:3/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:5/2	Infinite Saturation Flow						Inf	Inf
J2:5/3	Infinite Saturation Flow						Inf	Inf
J2:5/4	3.65	0.00	Y	Arm J2:1 Right	20.00	100.0 %	1842	1842

Scenario 2: '2021 PM Total' (FG10: '2021 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	216	1001	1020	1373	64	3674
	B	237	0	52	40	51	0	380
	C	1040	98	0	188	0	81	1407
	D	898	59	429	0	627	40	2053
	E	1189	143	0	360	0	81	1773
	F	518	0	0	0	0	0	518
	Tot.	3882	516	1482	1608	2051	266	9805

Traffic Lane Flows

Lane	Scenario 2: 2021 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	451
J1:1/2 (with short)	802(In) 351(Out)
J1:1/3 (with short)	971(In) 468(Out)
J1:1/4 (short)	503
J1:2/1	1316
J1:2/2	1259
J1:2/3	991
J1:3/1	300
J1:3/2	429
J1:3/3	249
J1:3/4	111
J1:4/1 (short)	618
J1:4/2 (with short)	1217(In) 599(Out)
J1:4/3	756
J1:4/4 (with short)	1637(In) 873(Out)
J1:4/5 (short)	764
J1:5/1	516
J1:6/1	1037
J1:6/2	1043
J1:6/3	1001
J1:7/1	721
J1:7/2	761
J1:8/1	143
J1:8/2	237
J1:9/1 (short)	188
J1:9/2 (with short)	585(In) 397(Out)
J1:9/3 (with short)	822(In) 397(Out)
J1:9/4 (short)	425
J1:10/1	1225
J1:10/2	383
J1:11/1	819
J1:11/2	842
J1:12/1	1103
J1:12/2	948
J1:13/1 (short)	284
J1:13/2 (with short)	627(In) 343(Out)

J1:13/3	443
J1:13/4 (with short)	983(In) 422(Out)
J1:13/5 (short)	561
J1:14/1	1103
J1:14/2	948
J1:15/1	865
J1:15/2	908
J1:15/3 (with short)	1109(In) 523(Out)
J1:15/4 (short)	586
J1:16/1	397
J1:16/2	397
J1:16/3	425
J1:17/1	468
J1:17/2	511
J1:17/3	684
J1:18/1	669
J1:18/2	761
J1:19/1	1005
J1:19/2	984
J1:19/3	764
Junction: J2: Watering Lane	
J2:1/1	266
J2:2/1 (with short)	518(In) 259(Out)
J2:2/2 (short)	259
J2:3/1 (short)	202
J2:3/2 (with short)	1316(In) 1114(Out)
J2:3/3	1259
J2:3/4	991
J2:4/1	1373
J2:4/2	1518
J2:4/3	991
J2:5/1	1217
J2:5/2	756
J2:5/3	1637
J2:5/4	64

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	35.0 %	1980	1980
				Arm J1:18 Ahead	Inf	65.0 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	63.6 %	1930	1930
				Arm J1:7 Left	30.00	36.4 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:6 Left	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:2/1	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:2/2	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:3/1	3.65	0.00	Y	Arm J2:1 Left	15.00	100.0 %	1800	1800
J2:3/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:5/2	Infinite Saturation Flow						Inf	Inf
J2:5/3	Infinite Saturation Flow						Inf	Inf
J2:5/4	3.65	0.00	Y	Arm J2:1 Right	20.00	100.0 %	1842	1842

Scenario 3: '2031 AM Total' (FG13: '2031 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	169	1190	1197	1368	17	3941
	B	246	0	93	47	52	0	438
	C	1070	72	0	350	0	110	1602
	D	773	42	204	0	418	55	1492
	E	1455	166	0	729	0	110	2460
	F	443	0	0	0	0	0	443
	Tot.	3987	449	1487	2323	1838	292	10376

Traffic Lane Flows

Lane	Scenario 3: 2031 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	519
J1:1/2 (with short)	998(In) 479(Out)
J1:1/3 (with short)	1462(In) 567(Out)
J1:1/4 (short)	895
J1:2/1	1349
J1:2/2	1298
J1:2/3	1172
J1:3/1	280
J1:3/2	204
J1:3/3	393
J1:3/4	336
J1:4/1 (short)	690
J1:4/2 (with short)	1359(In) 669(Out)
J1:4/3	792
J1:4/4 (with short)	1773(In) 820(Out)
J1:4/5 (short)	953
J1:5/1	449
J1:6/1	1218
J1:6/2	1222
J1:6/3	1199
J1:7/1	737
J1:7/2	750
J1:8/1	192
J1:8/2	246
J1:9/1 (short)	350
J1:9/2 (with short)	779(In) 429(Out)
J1:9/3 (with short)	823(In) 407(Out)
J1:9/4 (short)	416
J1:10/1	1568
J1:10/2	755
J1:11/1	832
J1:11/2	834
J1:12/1	1006
J1:12/2	832
J1:13/1 (short)	174
J1:13/2 (with short)	418(In) 244(Out)

J1:13/3	338
J1:13/4 (with short)	736(In) 352(Out)
J1:13/5 (short)	384
J1:14/1	1006
J1:14/2	832
J1:15/1	830
J1:15/2	819
J1:15/3 (with short)	923(In) 605(Out)
J1:15/4 (short)	318
J1:16/1	429
J1:16/2	407
J1:16/3	416
J1:17/1	401
J1:17/2	412
J1:17/3	507
J1:18/1	644
J1:18/2	750
J1:19/1	1185
J1:19/2	1156
J1:19/3	953
Junction: J2: Watering Lane	
J2:1/1	292
J2:2/1 (with short)	443(In) 221(Out)
J2:2/2 (short)	222
J2:3/1 (short)	275
J2:3/2 (with short)	1349(In) 1074(Out)
J2:3/3	1298
J2:3/4	1172
J2:4/1	1295
J2:4/2	1520
J2:4/3	1172
J2:5/1	1359
J2:5/2	792
J2:5/3	1773
J2:5/4	17

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	24.5 %	1980	1980
				Arm J1:18 Ahead	Inf	75.5 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	51.6 %	1919	1919
				Arm J1:7 Left	30.00	48.4 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:6 Left	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:2/1	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:2/2	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:3/1	3.65	0.00	Y	Arm J2:1 Left	15.00	100.0 %	1800	1800
J2:3/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:5/2	Infinite Saturation Flow						Inf	Inf
J2:5/3	Infinite Saturation Flow						Inf	Inf
J2:5/4	3.65	0.00	Y	Arm J2:1 Right	20.00	100.0 %	1842	1842

Scenario 4: '2031 PM Total' (FG14: '2031 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	252	1164	1158	1595	74	4243
	B	276	0	61	46	60	0	443
	C	1222	114	0	194	0	81	1611
	D	1000	69	444	0	674	40	2227
	E	1396	166	0	395	0	81	2038
	F	518	0	0	0	0	0	518
	Tot.	4412	601	1669	1793	2329	276	11080

Traffic Lane Flows

Lane	Scenario 4: 2031 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	442
J1:1/2 (with short)	894(In) 452(Out)
J1:1/3 (with short)	1144(In) 583(Out)
J1:1/4 (short)	561
J1:2/1	1469
J1:2/2	1441
J1:2/3	1186
J1:3/1	349
J1:3/2	444
J1:3/3	220
J1:3/4	175
J1:4/1 (short)	716
J1:4/2 (with short)	1416(In) 700(Out)
J1:4/3	916
J1:4/4 (with short)	1837(In) 919(Out)
J1:4/5 (short)	918
J1:5/1	601
J1:6/1	1168
J1:6/2	1168
J1:6/3	1194
J1:7/1	802
J1:7/2	867
J1:8/1	167
J1:8/2	276
J1:9/1 (short)	194
J1:9/2 (with short)	633(In) 439(Out)
J1:9/3 (with short)	978(In) 450(Out)
J1:9/4 (short)	528
J1:10/1	1362
J1:10/2	431
J1:11/1	1002
J1:11/2	929
J1:12/1	1287
J1:12/2	1042
J1:13/1 (short)	285
J1:13/2 (with short)	674(In) 389(Out)

J1:13/3	578
J1:13/4 (with short)	975(In) 363(Out)
J1:13/5 (short)	612
J1:14/1	1287
J1:14/2	1042
J1:15/1	1027
J1:15/2	989
J1:15/3 (with short)	1230(In) 603(Out)
J1:15/4 (short)	627
J1:16/1	439
J1:16/2	450
J1:16/3	528
J1:17/1	588
J1:17/2	539
J1:17/3	702
J1:18/1	741
J1:18/2	867
J1:19/1	1136
J1:19/2	1094
J1:19/3	918
Junction: J2: Watering Lane	
J2:1/1	276
J2:2/1 (with short)	518(In) 259(Out)
J2:2/2 (short)	259
J2:3/1 (short)	202
J2:3/2 (with short)	1469(In) 1267(Out)
J2:3/3	1441
J2:3/4	1186
J2:4/1	1526
J2:4/2	1700
J2:4/3	1186
J2:5/1	1416
J2:5/2	916
J2:5/3	1837
J2:5/4	74

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	35.2 %	1980	1980
				Arm J1:18 Ahead	Inf	64.8 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	63.5 %	1930	1930
				Arm J1:7 Left	30.00	36.5 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:6 Left	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000

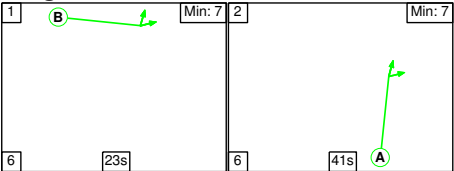
Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:2/1	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:2/2	4.00	0.00	Y	Arm J2:4 Left	25.00	100.0 %	1901	1901
J2:3/1	3.65	0.00	Y	Arm J2:1 Left	15.00	100.0 %	1800	1800
J2:3/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:5/2	Infinite Saturation Flow						Inf	Inf
J2:5/3	Infinite Saturation Flow						Inf	Inf
J2:5/4	3.65	0.00	Y	Arm J2:1 Right	20.00	100.0 %	1842	1842

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

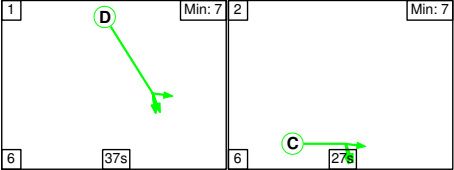
C1 - Eastside Controller

Stage Sequence Diagram

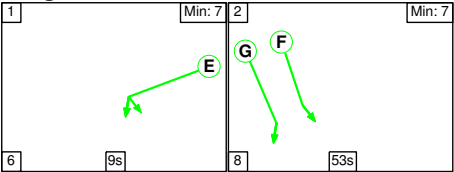
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	23	41
Change Point	45	74

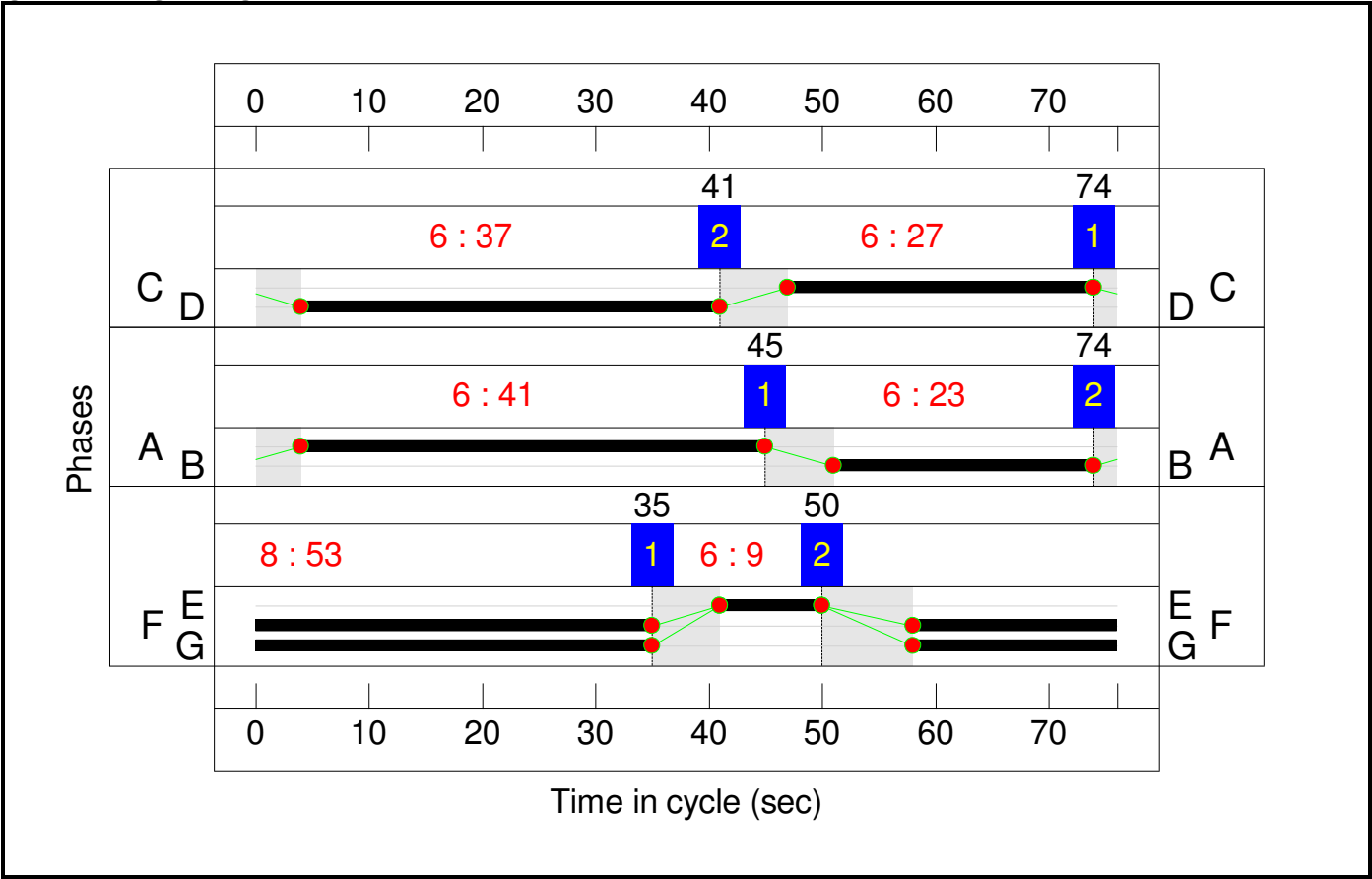
Stage Stream: 2

Stage	1	2
Duration	37	27
Change Point	74	41

Stage Stream: 3

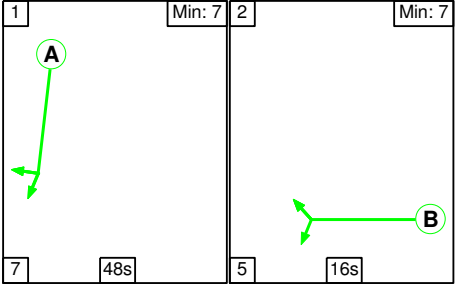
Stage	1	2
Duration	9	53
Change Point	35	50

Signal Timings Diagram

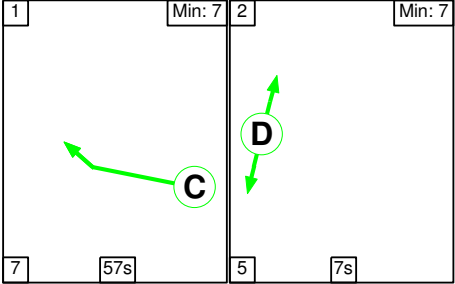


C2 - Westside Controller
Stage Sequence Diagram

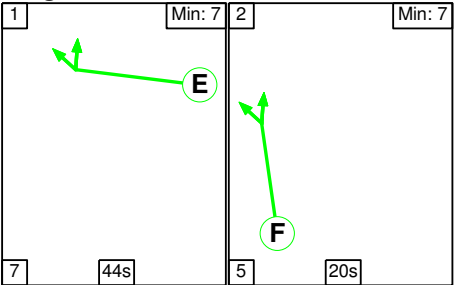
Stage Stream: 1



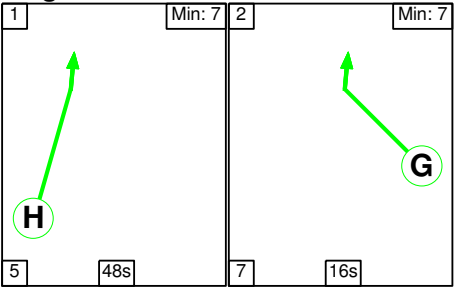
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	48	16
Change Point	21	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	12	0

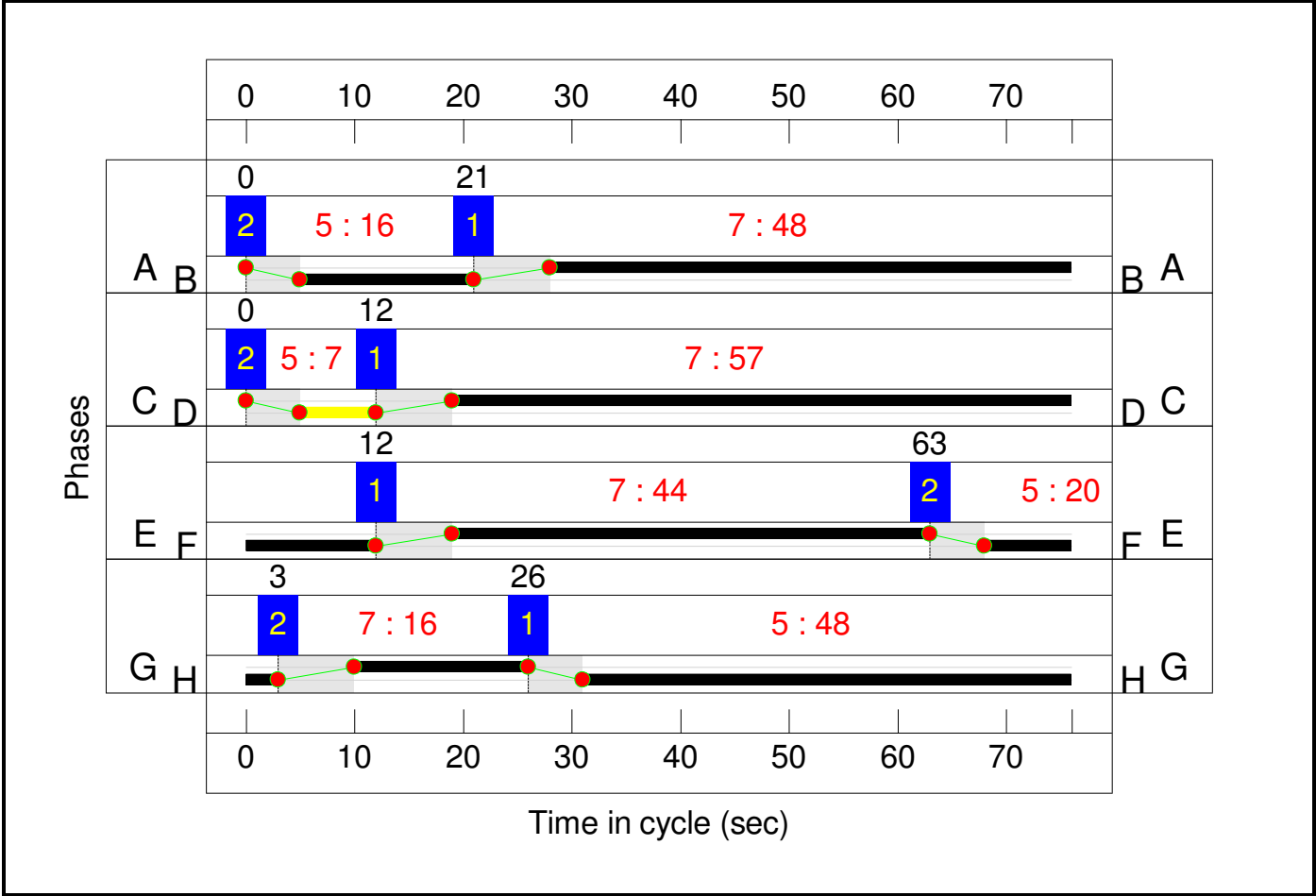
Stage Stream: 3

Stage	1	2
Duration	44	20
Change Point	12	63

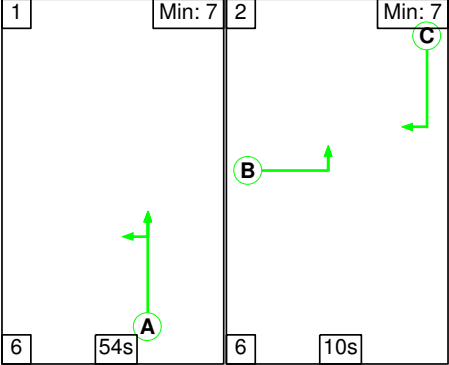
Stage Stream: 4

Stage	1	2
Duration	48	16
Change Point	26	3

Signal Timings Diagram



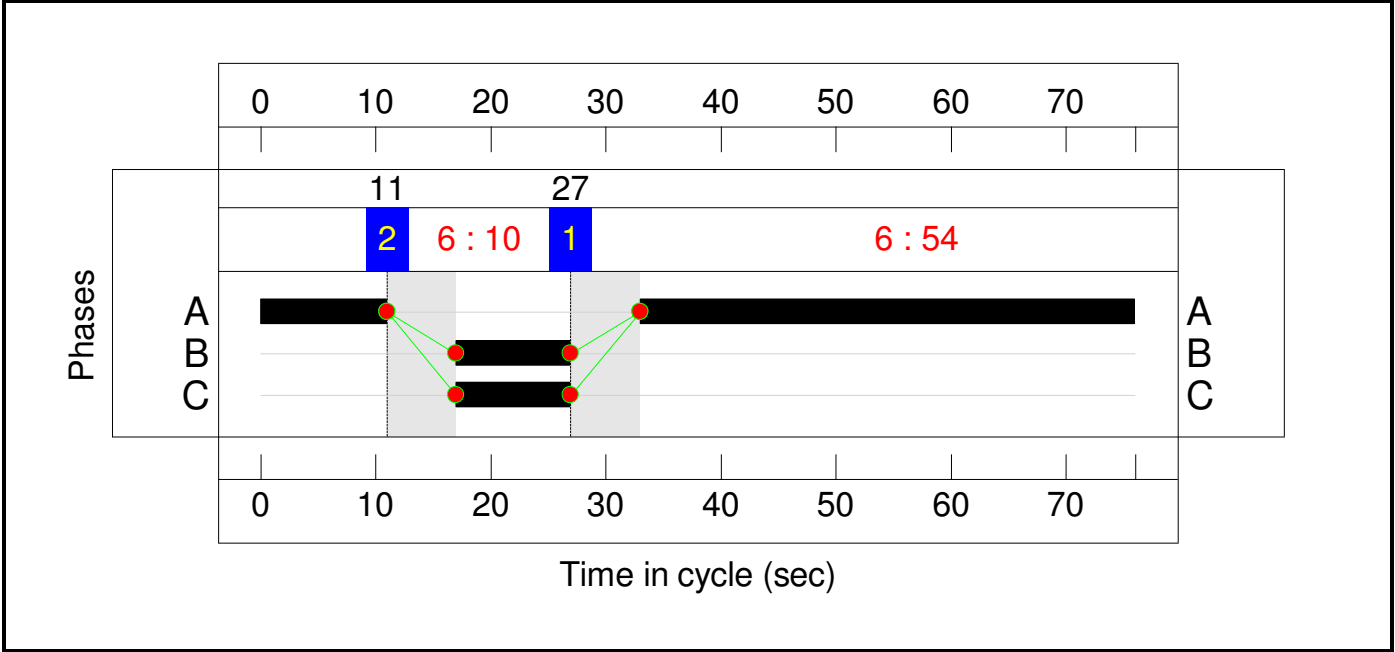
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	27	11

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	85.2%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	85.2%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	23	-	898	2120:1980	613+625	70.0 : 75.0%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	23	-	1272	2120:4000	669+1263	68.1 : 64.6%
3/1	Ahead	U	1:2	N/A	C1:C		1	27	-	242	1900	700	34.6%
3/2	Right	U	1:2	N/A	C1:C		1	27	-	190	1900	700	27.1%
3/3	Right	U	1:2	N/A	C1:C		1	27	-	349	1900	700	49.9%
3/4	Right	U	1:2	N/A	C1:C		1	27	-	323	1900	700	46.1%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	37	-	1176	2120:1980	1004+990	57.5 : 60.5%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	37	-	699	2120	1060	65.9%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	37	-	1559	2120:2120	967+1060	73.5 : 80.0%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	48	-	1071	2000	1289	83.1%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	48	-	1099	2000	1289	85.2%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	1062	2000	1289	82.4%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	9	-	168	1919	253	66.5%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	9	-	214	2105	277	77.3%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	16	-	702	2120:1980	474+443	75.5 : 77.7%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	16	-	724	2120:2120	474+474	73.2 : 79.5%
11/1	Ahead	U	2:3	N/A	C2:E		1	44	-	703	1900	1125	62.5%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	44	-	741	1900	1125	65.9%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	869	1995	1523	57.1%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	735	1995	1523	48.3%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	374	1980:1980	517+413	40.2 : 40.2%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	319	2120	586	54.5%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	642	2120:2120	297+586	72.7 : 72.7%
15/1	Ahead	U	1:1	N/A	C1:A		1	41	-	719	2000	1105	65.1%
15/2	Ahead	U	1:1	N/A	C1:A		1	41	-	735	2000	1105	66.5%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	41	-	803	2000:2000	865+484	59.5 : 59.5%
16/1	Right	U	2:4	N/A	C2:G		1	16	-	358	2000	447	80.0%
16/2	Right	U	2:4	N/A	C2:G		1	16	-	347	2000	447	77.6%
16/3	Right	U	2:4	N/A	C2:G		1	16	-	377	2000	447	84.3%
17/1	Ahead	U	2:4	N/A	C2:H		1	48	-	361	2000	1289	28.0%
17/2	Ahead	U	2:4	N/A	C2:H		1	48	-	388	2000	1289	30.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	48	-	426	2000	1289	33.0%
18/1	Ahead	U	1:3	N/A	C1:F		1	53	-	555	2000	1421	39.1%
18/2	Ahead	U	1:3	N/A	C1:F		1	53	-	665	2000	1421	46.8%
19/1	Ahead	U	1:3	N/A	C1:G		1	53	-	1048	2000	1421	73.7%
19/2	Ahead	U	1:3	N/A	C1:G		1	53	-	1034	2000	1421	72.8%
19/3	Ahead	U	1:3	N/A	C1:G		1	53	-	848	2000	1421	59.7%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
2/1+2/2	Left	U	N/A	N/A	C3:B		1	10	-	443	1901:1901	275+275	80.3 : 80.7%
3/2+3/1	Left Ahead	U	N/A	N/A	C3:A		1	54	-	1188	2120:1800	1256+378	72.7 : 72.7%
3/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1164	2120	1534	75.9%
3/4	Ahead	U	N/A	N/A	C3:A		1	54	-	971	1900	1375	70.6%
5/4	Right	U	N/A	N/A	C3:C		1	10	-	15	1842	267	5.6%

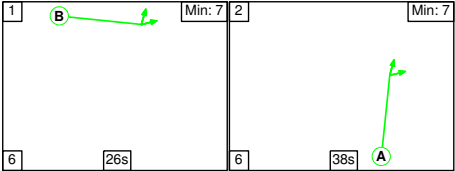
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	81.5	45.1	0.0	126.7	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	74.4	39.0	0.0	113.5	-	-	-	-
1/2+1/1	898	898	-	-	-	5.7	1.3	-	7.0 (3.3+3.7)	28.1 (27.6:28.6)	8.9	1.3	10.2
1/3+1/4	1272	1272	-	-	-	7.9	1.0	-	8.9 (3.2+5.7)	25.2 (25.4:25.1)	8.4	1.0	9.3
3/1	242	242	-	-	-	0.7	0.3	-	0.9	13.9	2.3	0.3	2.5
3/2	190	190	-	-	-	1.3	0.2	-	1.5	28.3	4.0	0.2	4.2
3/3	349	349	-	-	-	0.3	0.5	-	0.8	8.1	0.5	0.5	1.0
3/4	323	323	-	-	-	0.3	0.4	-	0.7	7.8	0.4	0.4	0.9
4/2+4/1	1176	1176	-	-	-	4.4	0.7	-	5.1 (2.4+2.6)	15.5 (15.3:15.8)	9.0	0.7	9.7
4/3	699	699	-	-	-	2.8	1.0	-	3.7	19.1	10.9	1.0	11.8
4/4+4/5	1559	1559	-	-	-	6.6	1.7	-	8.2 (3.6+4.6)	19.0 (18.1:19.7)	14.8	1.7	16.5
6/1	1071	1071	-	-	-	4.6	2.4	-	7.0	23.4	18.2	2.4	20.6
6/2	1099	1099	-	-	-	4.4	2.8	-	7.2	23.5	18.8	2.8	21.6
6/3	1062	1062	-	-	-	1.8	2.3	-	4.1	13.7	19.5	2.3	21.8
8/1	168	168	-	-	-	1.5	1.0	-	2.4	52.2	3.4	1.0	4.3
8/2	214	214	-	-	-	1.9	1.6	-	3.5	59.1	4.3	1.6	6.0
9/2+9/1	702	702	-	-	-	5.4	1.6	-	7.0 (3.6+3.4)	35.9 (35.8:36.0)	7.0	1.6	8.6
9/3+9/4	724	724	-	-	-	5.6	1.6	-	7.1 (3.4+3.7)	35.5 (35.3:35.8)	7.4	1.6	9.0
11/1	703	703	-	-	-	1.2	0.8	-	2.0	10.2	3.5	0.8	4.3
11/2	741	741	-	-	-	1.8	1.0	-	2.8	13.4	4.7	1.0	5.7
12/1	869	869	-	-	-	0.1	0.7	-	0.8	3.2	0.6	0.7	1.3
12/2	735	735	-	-	-	0.1	0.5	-	0.6	2.9	0.8	0.5	1.3
13/2+13/1	374	374	-	-	-	2.3	0.3	-	2.6 (1.5+1.2)	25.3 (25.5:25.0)	3.5	0.3	3.9
13/3	319	319	-	-	-	2.1	0.6	-	2.7	30.2	5.7	0.6	6.3

13/4+13/5	642	642	-	-	-	4.3	1.3	-	5.6 (1.8+3.8)	31.4 (29.6:32.3)	8.0	1.3	9.4
15/1	719	719	-	-	-	0.1	0.9	-	1.0	4.9	0.4	0.9	1.3
15/2	735	735	-	-	-	0.1	1.0	-	1.1	5.3	1.3	1.0	2.3
15/3+15/4	803	803	-	-	-	0.8	0.7	-	1.5 (0.8+0.7)	6.8 (5.8:8.5)	0.9	0.7	1.7
16/1	358	358	-	-	-	0.0	1.9	-	2.0	19.7	0.4	1.9	2.3
16/2	347	347	-	-	-	0.0	1.7	-	1.7	17.7	0.4	1.7	2.0
16/3	377	377	-	-	-	0.0	2.5	-	2.5	24.2	0.4	2.5	2.9
17/1	361	361	-	-	-	1.1	0.2	-	1.2	12.4	3.4	0.2	3.6
17/2	388	388	-	-	-	0.5	0.2	-	0.7	6.5	3.2	0.2	3.4
17/3	426	426	-	-	-	1.8	0.2	-	2.1	17.6	5.1	0.2	5.4
18/1	555	555	-	-	-	0.5	0.3	-	0.8	5.2	3.5	0.3	3.9
18/2	665	665	-	-	-	0.6	0.4	-	1.1	5.7	3.6	0.4	4.1
19/1	1048	1048	-	-	-	0.7	1.4	-	2.1	7.1	2.6	1.4	4.0
19/2	1034	1034	-	-	-	0.7	1.3	-	2.0	7.0	2.6	1.3	3.9
19/3	848	848	-	-	-	0.9	0.7	-	1.6	7.0	2.9	0.7	3.6
J2: Watering Lane	-	-	0	0	0	7.1	6.1	0.0	13.2	-	-	-	-
2/1+2/2	443	443	-	-	-	3.9	2.0	-	5.9 (2.9+2.9)	47.7 (47.6:47.7)	4.5	2.0	6.5
3/2+3/1	1188	1188	-	-	-	0.9	1.3	-	2.2 (1.8+0.4)	6.7 (7.0:5.8)	6.1	1.3	7.5
3/3	1164	1164	-	-	-	1.3	1.6	-	2.9	8.9	13.1	1.6	14.7
3/4	971	971	-	-	-	0.9	1.2	-	2.1	7.7	7.5	1.2	8.7
5/4	15	15	-	-	-	0.1	0.0	-	0.1	35.4	0.3	0.0	0.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 20.0 Total Delay for Signalled Lanes (pcuHr): 19.47 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 12.5 Total Delay for Signalled Lanes (pcuHr): 20.92 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 13.52 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): 5.6 Total Delay for Signalled Lanes (pcuHr): 32.35 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 57.7 Total Delay for Signalled Lanes (pcuHr): 1.35 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 23.8 Total Delay for Signalled Lanes (pcuHr): 15.63 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 6.8 Total Delay for Signalled Lanes (pcuHr): 10.23 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 11.5 Total Delay for Signalled Lanes (pcuHr): 13.21 Cycle Time (s): 76 PRC Over All Lanes (%): 5.6 Total Delay Over All Lanes(pcuHr): 126.68													

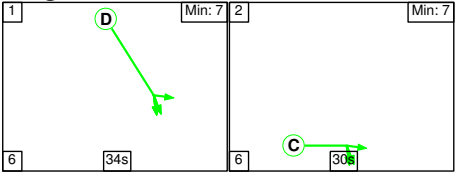
C1 - Eastside Controller

Stage Sequence Diagram

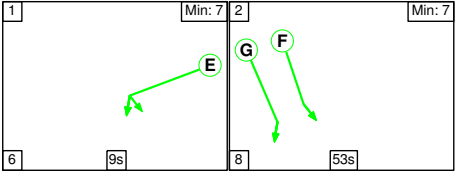
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	38
Change Point	13	45

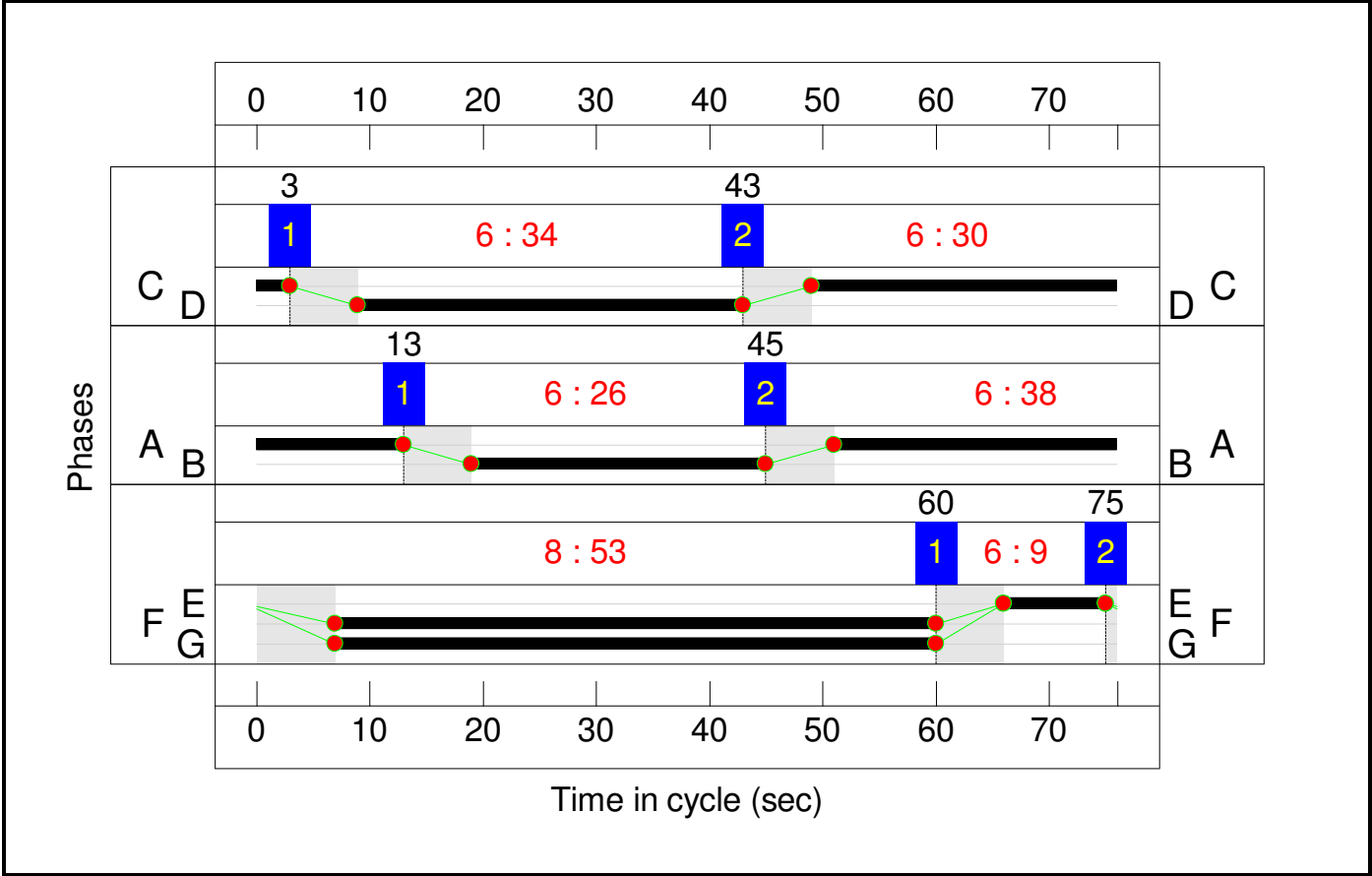
Stage Stream: 2

Stage	1	2
Duration	34	30
Change Point	3	43

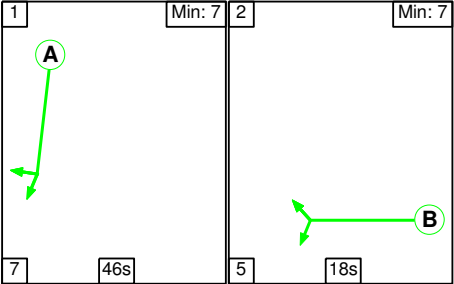
Stage Stream: 3

Stage	1	2
Duration	9	53
Change Point	60	75

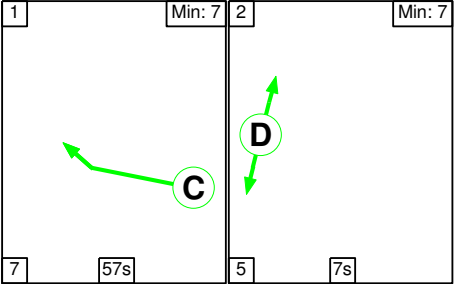
Signal Timings Diagram



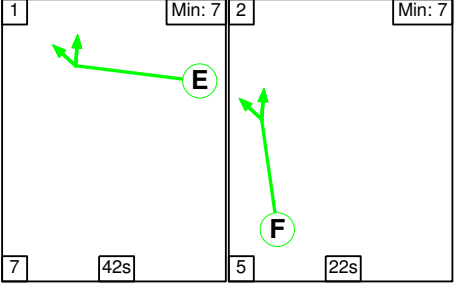
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



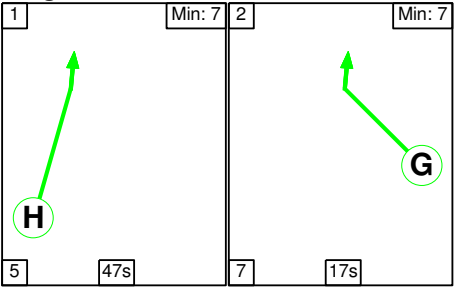
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	23	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	14	2

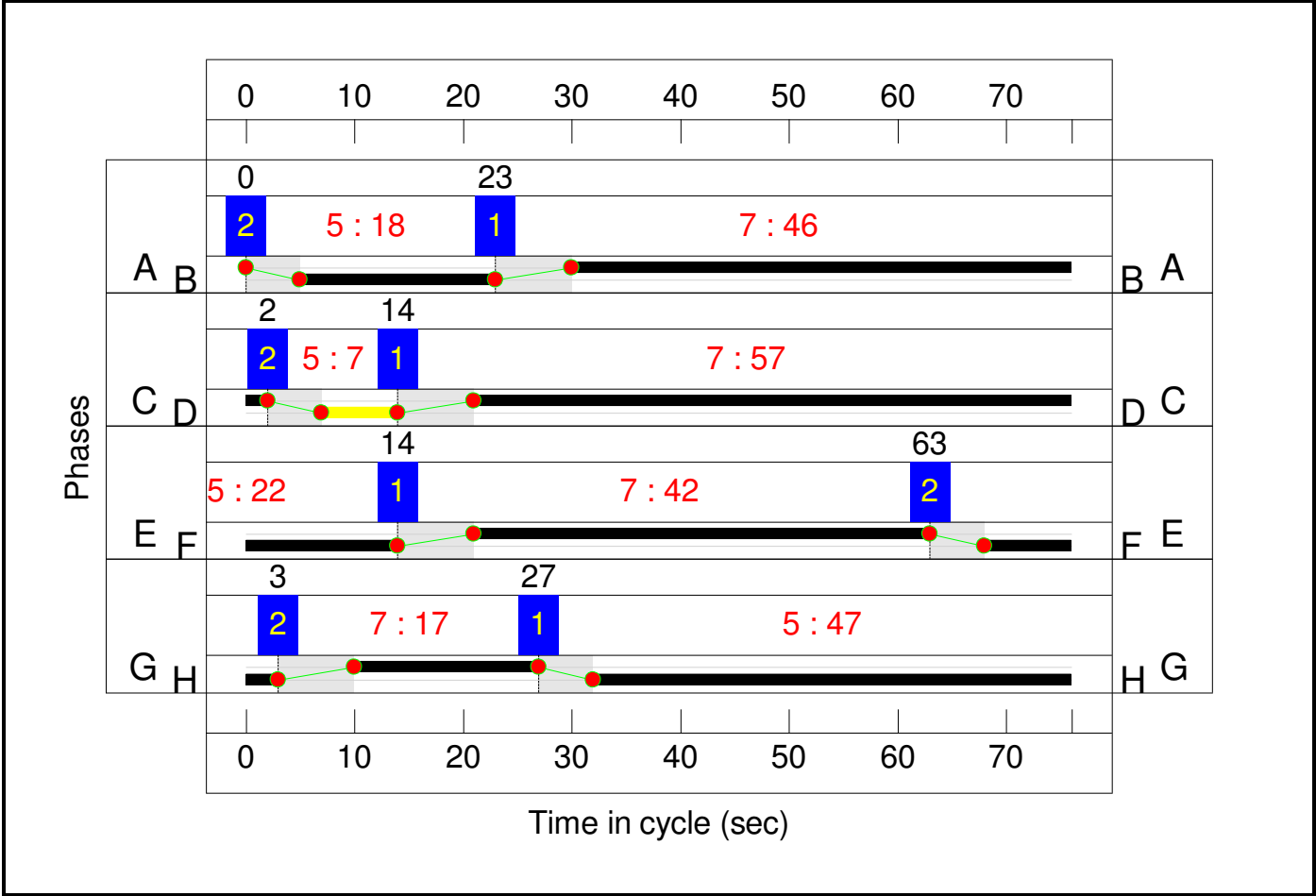
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	14	63

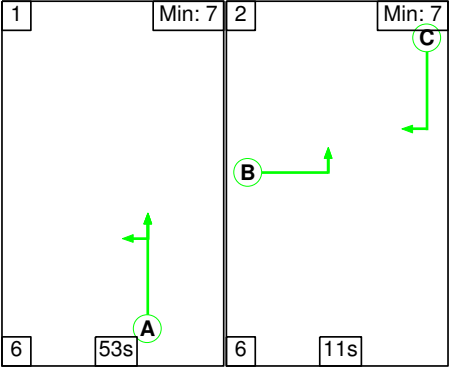
Stage Stream: 4

Stage	1	2
Duration	47	17
Change Point	27	3

Signal Timings Diagram



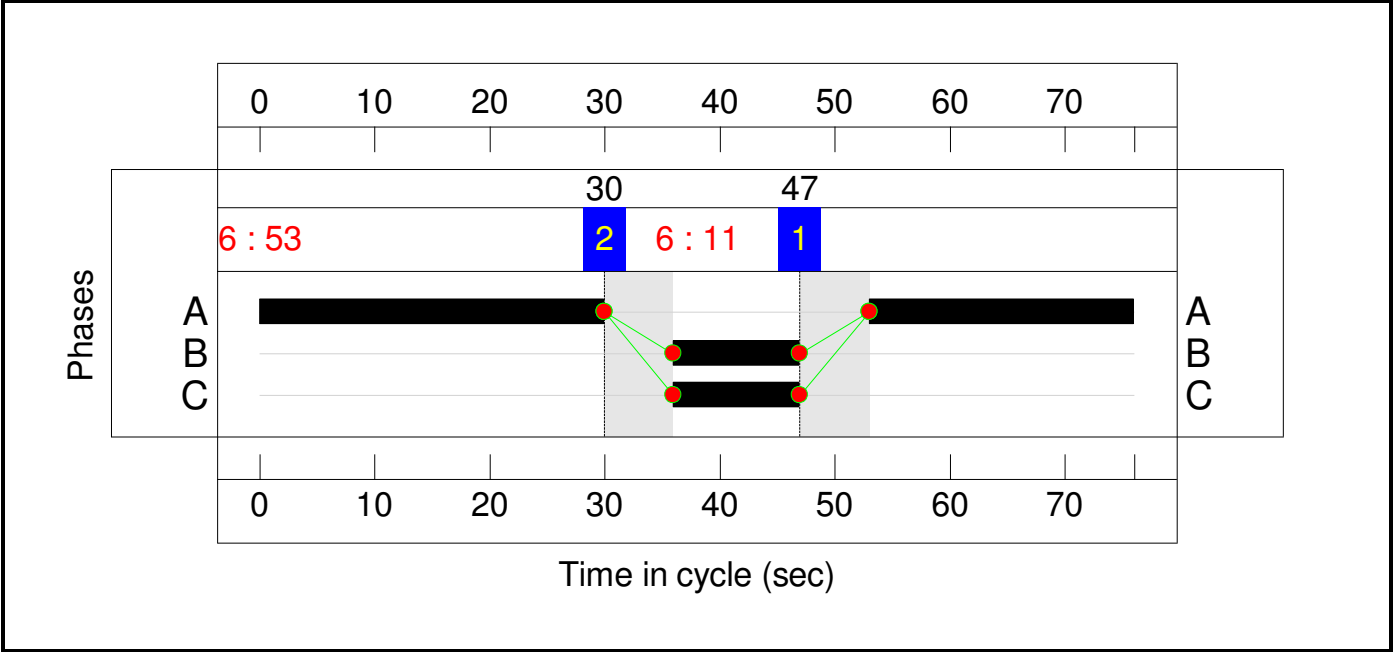
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	53	11
Change Point	47	30

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	26	-	802	2120:1980	547+703	64.1 : 64.1%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	26	-	971	2120:4000	753+809	62.1 : 62.1%
3/1	Ahead	U	1:2	N/A	C1:C		1	30	-	300	1900	775	38.7%
3/2	Right	U	1:2	N/A	C1:C		1	30	-	429	1900	775	55.4%
3/3	Right	U	1:2	N/A	C1:C		1	30	-	249	1900	775	32.1%
3/4	Right	U	1:2	N/A	C1:C		1	30	-	111	1900	775	14.3%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	34	-	1217	2120:1980	976+912	61.4 : 67.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	34	-	756	2120	976	77.4%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	34	-	1637	2120:2120	976+976	89.4 : 78.3%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1037	2000	1237	83.8%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	46	-	1043	2000	1237	84.3%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	1001	2000	1237	80.9%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	9	-	143	1930	254	56.3%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	9	-	237	2105	277	85.6%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	585	2120:1980	530+251	74.9 : 74.9%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	822	2120:2120	530+530	74.9 : 80.2%
11/1	Ahead	U	2:3	N/A	C2:E		1	42	-	819	1900	1075	76.2%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	42	-	842	1900	1075	78.3%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1103	1995	1523	72.4%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	948	1995	1523	62.3%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	627	1980:1980	545+451	62.9 : 62.9%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	443	2120	642	69.0%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	983	2120:2120	554+642	76.2 : 87.4%
15/1	Ahead	U	1:1	N/A	C1:A		1	38	-	865	2000	1026	84.3%
15/2	Ahead	U	1:1	N/A	C1:A		1	38	-	908	2000	1026	88.5%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	38	-	1109	2000:2000	666+746	78.5 : 78.5%
16/1	Right	U	2:4	N/A	C2:G		1	17	-	397	2000	474	83.8%
16/2	Right	U	2:4	N/A	C2:G		1	17	-	397	2000	474	83.8%
16/3	Right	U	2:4	N/A	C2:G		1	17	-	425	2000	474	89.7%
17/1	Ahead	U	2:4	N/A	C2:H		1	47	-	468	2000	1263	37.1%
17/2	Ahead	U	2:4	N/A	C2:H		1	47	-	511	2000	1263	40.5%
17/3	Ahead	U	2:4	N/A	C2:H		1	47	-	684	2000	1263	54.2%
18/1	Ahead	U	1:3	N/A	C1:F		1	53	-	669	2000	1421	47.1%
18/2	Ahead	U	1:3	N/A	C1:F		1	53	-	761	2000	1421	53.6%
19/1	Ahead	U	1:3	N/A	C1:G		1	53	-	1005	2000	1421	70.7%
19/2	Ahead	U	1:3	N/A	C1:G		1	53	-	984	2000	1421	69.2%
19/3	Ahead	U	1:3	N/A	C1:G		1	53	-	764	2000	1421	53.8%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	86.3%
2/1+2/2	Left	U	N/A	N/A	C3:B		1	11	-	518	1901:1901	300+300	86.3 : 86.3%
3/2+3/1	Left Ahead	U	N/A	N/A	C3:A		1	53	-	1316	2120:1800	1324+240	84.1 : 84.1%
3/3	Ahead	U	N/A	N/A	C3:A		1	53	-	1259	2120	1506	83.6%
3/4	Ahead	U	N/A	N/A	C3:A		1	53	-	991	1900	1350	73.4%
5/4	Right	U	N/A	N/A	C3:C		1	11	-	64	1842	291	22.0%

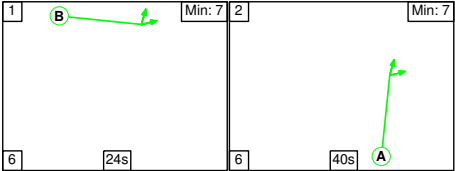
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	108.8	62.8	0.0	171.6	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	98.3	53.3	0.0	151.6	-	-	-	-
1/2+1/1	802	802	-	-	-	4.4	0.9	-	5.3 (2.2+3.1)	23.8 (22.9:24.5)	7.9	0.9	8.8
1/3+1/4	971	971	-	-	-	5.2	0.8	-	6.0 (3.0+2.9)	22.2 (23.3:21.1)	8.1	0.8	8.9
3/1	300	300	-	-	-	1.0	0.3	-	1.4	16.4	3.4	0.3	3.7
3/2	429	429	-	-	-	1.5	0.6	-	2.1	17.4	3.0	0.6	3.6
3/3	249	249	-	-	-	1.6	0.2	-	1.8	26.3	5.3	0.2	5.5
3/4	111	111	-	-	-	0.6	0.1	-	0.7	22.9	2.3	0.1	2.4
4/2+4/1	1217	1217	-	-	-	5.3	0.9	-	6.2 (3.0+3.2)	18.4 (18.1:18.8)	10.1	0.9	11.0
4/3	756	756	-	-	-	3.6	1.7	-	5.3	25.2	13.2	1.7	14.9
4/4+4/5	1637	1637	-	-	-	8.2	2.6	-	10.8 (5.9+4.9)	23.7 (24.4:22.9)	16.7	2.6	19.3
6/1	1037	1037	-	-	-	2.6	2.5	-	5.1	17.8	18.7	2.5	21.3
6/2	1043	1043	-	-	-	2.2	2.6	-	4.8	16.6	19.7	2.6	22.3
6/3	1001	1001	-	-	-	4.8	2.1	-	6.9	24.8	21.1	2.1	23.2
8/1	143	143	-	-	-	1.2	0.6	-	1.9	47.0	2.8	0.6	3.5
8/2	237	237	-	-	-	2.1	2.6	-	4.7	72.1	4.9	2.6	7.5
9/2+9/1	585	585	-	-	-	4.1	1.5	-	5.6 (3.9+1.7)	34.5 (35.4:32.7)	7.7	1.5	9.2
9/3+9/4	822	822	-	-	-	6.1	1.7	-	7.8 (3.7+4.0)	34.0 (33.8:34.2)	8.4	1.7	10.1
11/1	819	819	-	-	-	1.7	1.6	-	3.3	14.6	4.0	1.6	5.6
11/2	842	842	-	-	-	1.9	1.8	-	3.7	15.7	4.4	1.8	6.2
12/1	1103	1103	-	-	-	0.2	1.3	-	1.5	4.8	1.1	1.3	2.4
12/2	948	948	-	-	-	0.6	0.8	-	1.4	5.3	6.5	0.8	7.3
13/2+13/1	627	627	-	-	-	3.8	0.8	-	4.7 (2.6+2.1)	26.9 (27.2:26.4)	6.1	0.8	6.9
13/3	443	443	-	-	-	2.9	1.1	-	4.0	32.3	8.2	1.1	9.3

[illegible]

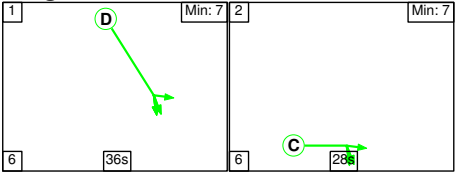
C1 - Eastside Controller

Stage Sequence Diagram

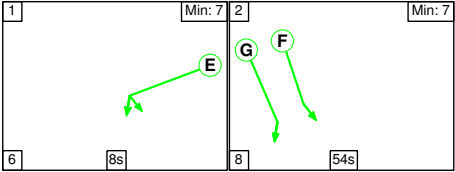
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	40
Change Point	41	71

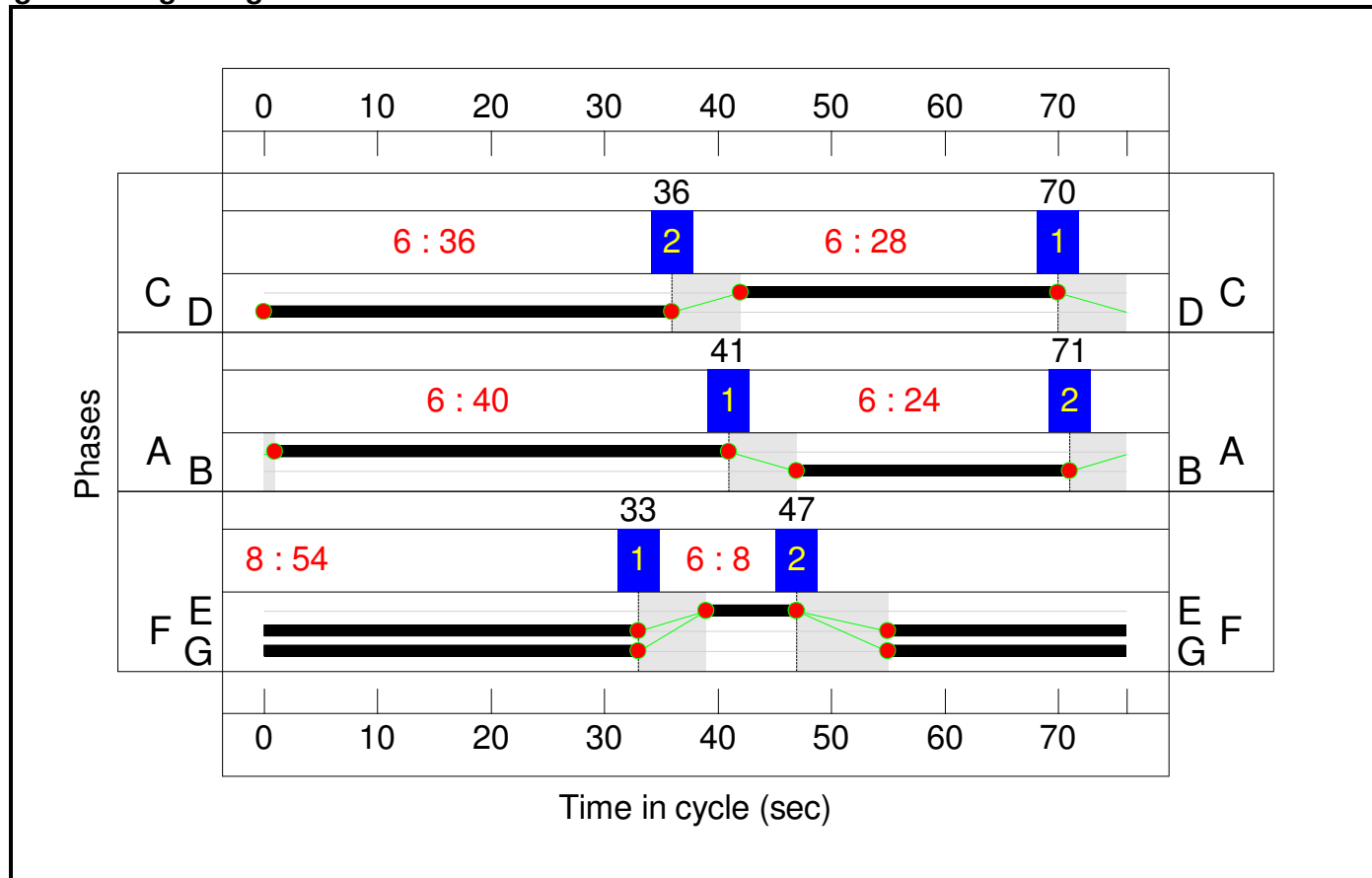
Stage Stream: 2

Stage	1	2
Duration	36	28
Change Point	70	36

Stage Stream: 3

Stage	1	2
Duration	8	54
Change Point	33	47

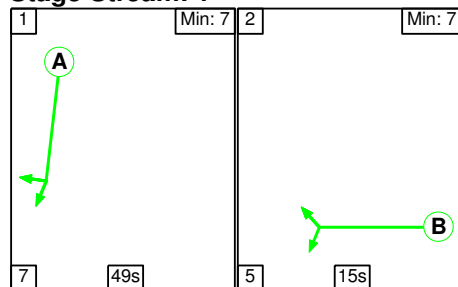
Signal Timings Diagram



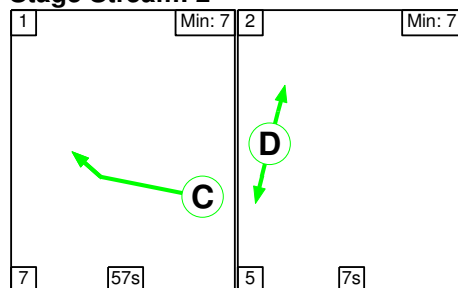
C2 - Westside Controller

Stage Sequence Diagram

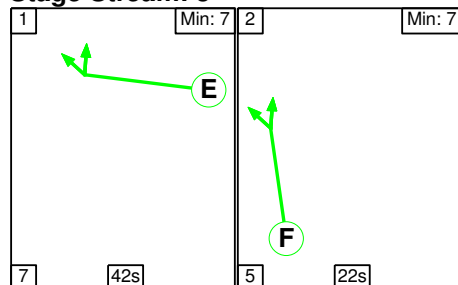
Stage Stream: 1



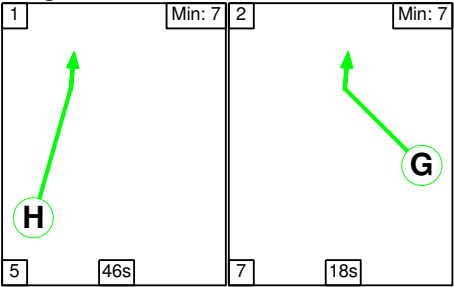
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	15
Change Point	20	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	17	5

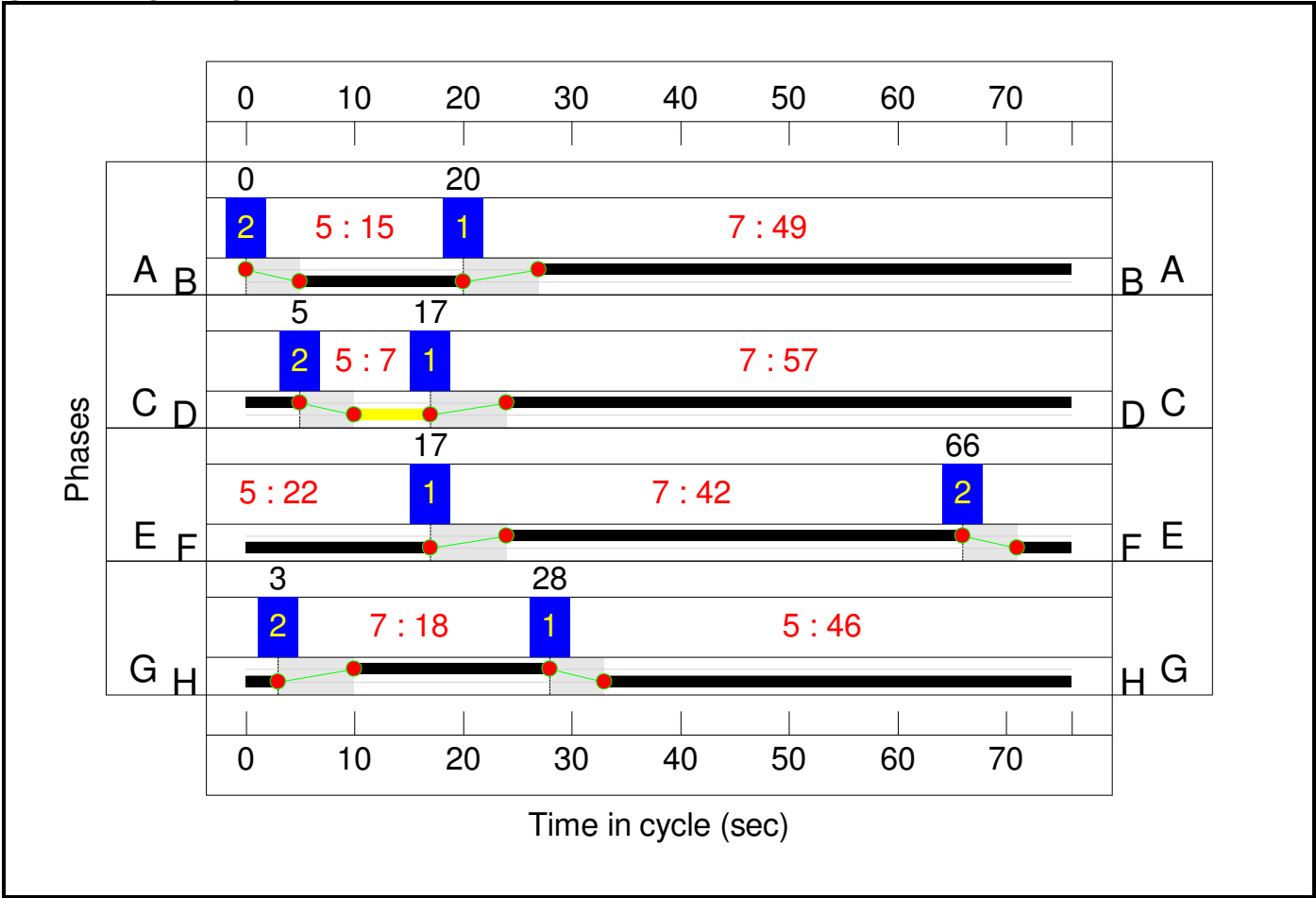
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	17	66

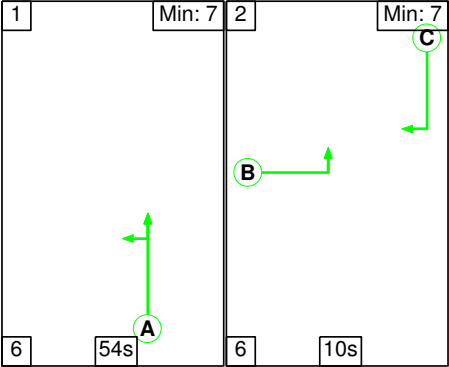
Stage Stream: 4

Stage	1	2
Duration	46	18
Change Point	28	3

Signal Timings Diagram



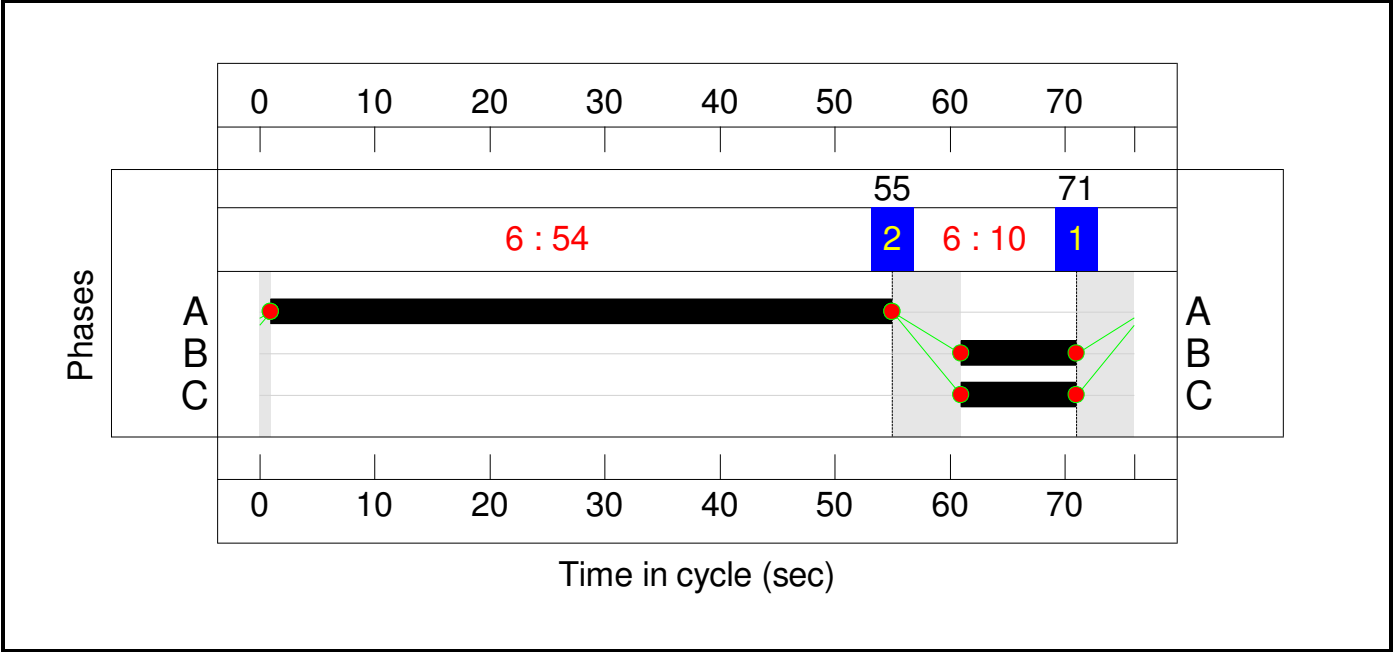
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	71	55

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	98.7%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	98.7%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	24	-	998	2120:1980	601+651	79.7 : 79.7%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	24	-	1462	2120:4000	697+1211	81.3 : 73.9%
3/1	Ahead	U	1:2	N/A	C1:C		1	28	-	280	1900	725	38.6%
3/2	Right	U	1:2	N/A	C1:C		1	28	-	204	1900	725	28.1%
3/3	Right	U	1:2	N/A	C1:C		1	28	-	393	1900	725	54.2%
3/4	Right	U	1:2	N/A	C1:C		1	28	-	336	1900	725	46.3%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	36	-	1359	2120:1980	1007+964	66.4 : 71.6%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	36	-	792	2120	1032	76.7%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	36	-	1773	2120:2120	980+1032	83.6 : 92.3%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1218	2000	1316	92.6%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	49	-	1222	2000	1316	92.9%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1199	2000	1316	91.1%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	8	-	192	1919	227	84.5%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	8	-	246	2105	249	98.7%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	779	2120:1980	446+417	96.1 : 84.0%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	823	2120:2120	446+446	91.2 : 93.2%
11/1	Ahead	U	2:3	N/A	C2:E		1	42	-	832	1900	1075	77.4%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	42	-	834	1900	1075	77.6%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1006	1995	1523	66.1%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	832	1995	1523	54.6%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	418	1980:1980	550+392	44.4 : 44.4%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	338	2120	642	52.7%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	736	2120:2120	642+642	54.9 : 59.9%
15/1	Ahead	U	1:1	N/A	C1:A		1	40	-	830	2000	1079	76.9%
15/2	Ahead	U	1:1	N/A	C1:A		1	40	-	819	2000	1079	75.9%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	40	-	923	2000:2000	858+451	70.6 : 70.6%
16/1	Right	U	2:4	N/A	C2:G		1	18	-	429	2000	500	85.8%
16/2	Right	U	2:4	N/A	C2:G		1	18	-	407	2000	500	81.4%
16/3	Right	U	2:4	N/A	C2:G		1	18	-	416	2000	500	83.2%
17/1	Ahead	U	2:4	N/A	C2:H		1	46	-	401	2000	1237	32.4%
17/2	Ahead	U	2:4	N/A	C2:H		1	46	-	412	2000	1237	33.3%
17/3	Ahead	U	2:4	N/A	C2:H		1	46	-	507	2000	1237	41.0%
18/1	Ahead	U	1:3	N/A	C1:F		1	54	-	644	2000	1447	44.5%
18/2	Ahead	U	1:3	N/A	C1:F		1	54	-	750	2000	1447	51.8%
19/1	Ahead	U	1:3	N/A	C1:G		1	54	-	1185	2000	1447	81.9%
19/2	Ahead	U	1:3	N/A	C1:G		1	54	-	1156	2000	1447	79.9%
19/3	Ahead	U	1:3	N/A	C1:G		1	54	-	953	2000	1447	65.8%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	85.2%
2/1+2/2	Left	U	N/A	N/A	C3:B		1	10	-	443	1901:1901	275+275	80.3 : 80.7%
3/2+3/1	Left Ahead	U	N/A	N/A	C3:A		1	54	-	1349	2120:1800	1288+330	83.4 : 83.4%
3/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1298	2120	1534	84.6%
3/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1172	1900	1375	85.2%
5/4	Right	U	N/A	N/A	C3:C		1	10	-	17	1842	267	6.4%

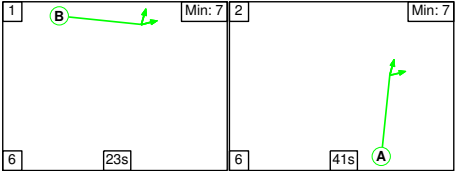
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	106.8	81.5	0.0	188.2	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	98.0	71.5	0.0	169.5	-	-	-	-
1/2+1/1	998	998	-	-	-	6.3	1.9	-	8.2 (3.9+4.3)	29.6 (29.1:30.2)	9.9	1.9	11.9
1/3+1/4	1462	1462	-	-	-	9.2	1.6	-	10.8 (4.3+6.5)	26.6 (27.4:26.1)	10.9	1.6	12.5
3/1	280	280	-	-	-	0.8	0.3	-	1.1	14.5	2.7	0.3	3.0
3/2	204	204	-	-	-	2.0	0.2	-	2.2	38.3	4.3	0.2	4.5
3/3	393	393	-	-	-	0.4	0.6	-	1.0	8.9	0.7	0.6	1.2
3/4	336	336	-	-	-	0.3	0.4	-	0.8	8.1	0.6	0.4	1.0
4/2+4/1	1359	1359	-	-	-	5.7	1.1	-	6.8 (3.3+3.5)	17.9 (17.5:18.3)	11.3	1.1	12.4
4/3	792	792	-	-	-	3.5	1.6	-	5.1	23.4	13.6	1.6	15.3
4/4+4/5	1773	1773	-	-	-	8.5	3.6	-	12.1 (5.4+6.7)	24.6 (23.6:25.5)	18.5	3.6	22.1
6/1	1218	1218	-	-	-	5.0	5.6	-	10.5	31.2	19.6	5.6	25.2
6/2	1222	1222	-	-	-	4.6	5.8	-	10.4	30.6	20.1	5.8	25.9
6/3	1199	1199	-	-	-	2.8	4.7	-	7.5	22.5	21.3	4.7	26.1
8/1	192	192	-	-	-	1.8	2.4	-	4.1	77.8	3.9	2.4	6.3
8/2	246	246	-	-	-	2.3	7.1	-	9.4	136.8	5.1	7.1	12.2
9/2+9/1	779	779	-	-	-	6.3	4.2	-	10.5 (5.9+4.7)	48.7 (49.1:48.2)	8.9	4.2	13.1
9/3+9/4	823	823	-	-	-	6.7	5.1	-	11.9 (5.9+6.0)	51.9 (51.8:52.0)	8.6	5.1	13.7
11/1	832	832	-	-	-	1.3	1.7	-	3.0	13.1	3.4	1.7	5.1
11/2	834	834	-	-	-	2.2	1.7	-	3.9	16.7	5.0	1.7	6.7
12/1	1006	1006	-	-	-	0.1	1.0	-	1.1	3.8	0.7	1.0	1.6
12/2	832	832	-	-	-	0.1	0.6	-	0.8	3.2	0.9	0.6	1.6
13/2+13/1	418	418	-	-	-	2.4	0.4	-	2.8 (1.7+1.1)	24.2 (24.5:23.7)	4.1	0.4	4.5
13/3	338	338	-	-	-	2.1	0.6	-	2.6	27.9	5.9	0.6	6.5

13/4+13/5	736	736	-	-	-	4.6	0.7	-	5.2 (2.5+2.8)	25.7 (25.4:25.9)	6.8	0.7	7.5
15/1	830	830	-	-	-	2.7	1.6	-	4.4	19.0	8.5	1.6	10.1
15/2	819	819	-	-	-	2.9	1.6	-	4.4	19.5	8.7	1.6	10.3
15/3+15/4	923	923	-	-	-	3.1	1.2	-	4.3 (2.2+2.1)	16.7 (13.3:23.2)	4.7	1.2	5.9
16/1	429	429	-	-	-	0.1	2.8	-	2.9	24.0	0.5	2.8	3.3
16/2	407	407	-	-	-	0.0	2.1	-	2.1	18.9	0.5	2.1	2.6
16/3	416	416	-	-	-	0.1	2.3	-	2.4	20.7	0.5	2.3	2.8
17/1	401	401	-	-	-	1.9	0.2	-	2.2	19.4	5.6	0.2	5.8
17/2	412	412	-	-	-	2.0	0.2	-	2.3	20.0	5.8	0.2	6.1
17/3	507	507	-	-	-	2.4	0.3	-	2.8	19.8	7.2	0.3	7.5
18/1	644	644	-	-	-	0.5	0.4	-	0.9	5.2	3.8	0.4	4.2
18/2	750	750	-	-	-	0.6	0.5	-	1.1	5.4	3.2	0.5	3.7
19/1	1185	1185	-	-	-	0.7	2.2	-	2.9	8.9	2.9	2.2	5.1
19/2	1156	1156	-	-	-	0.7	2.0	-	2.6	8.2	2.8	2.0	4.8
19/3	953	953	-	-	-	1.4	1.0	-	2.3	8.7	4.0	1.0	5.0
J2: Watering Lane	-	-	0	0	0	8.8	10.0	0.0	18.8	-	-	-	-
2/1+2/2	443	443	-	-	-	3.9	2.0	-	5.9 (2.9+2.9)	47.7 (47.6:47.7)	4.5	2.0	6.5
3/2+3/1	1349	1349	-	-	-	1.1	2.5	-	3.6 (2.9+0.6)	9.5 (9.8:8.5)	9.1	2.5	11.6
3/3	1298	1298	-	-	-	1.6	2.7	-	4.3	11.8	11.5	2.7	14.1
3/4	1172	1172	-	-	-	2.1	2.8	-	4.9	15.1	17.7	2.8	20.5
5/4	17	17	-	-	-	0.1	0.0	-	0.2	35.4	0.3	0.0	0.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 10.7 Total Delay for Signalled Lanes (pcuHr): 32.11 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -2.6 Total Delay for Signalled Lanes (pcuHr): 29.06 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): -9.7 Total Delay for Signalled Lanes (pcuHr): 23.43 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -6.8 Total Delay for Signalled Lanes (pcuHr): 50.86 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 36.2 Total Delay for Signalled Lanes (pcuHr): 1.82 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 16.0 Total Delay for Signalled Lanes (pcuHr): 17.57 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 4.9 Total Delay for Signalled Lanes (pcuHr): 14.62 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 5.6 Total Delay for Signalled Lanes (pcuHr): 18.76 Cycle Time (s): 76 PRC Over All Lanes (%): -9.7 Total Delay Over All Lanes(pcuHr): 188.25													

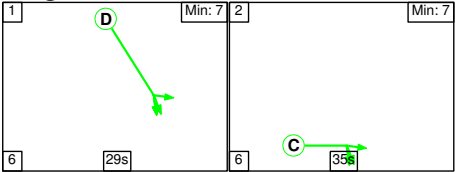
C1 - Eastside Controller

Stage Sequence Diagram

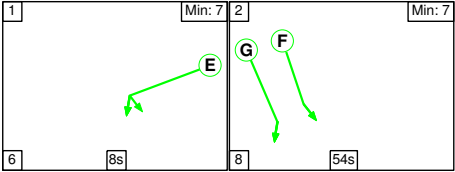
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	23	41
Change Point	60	13

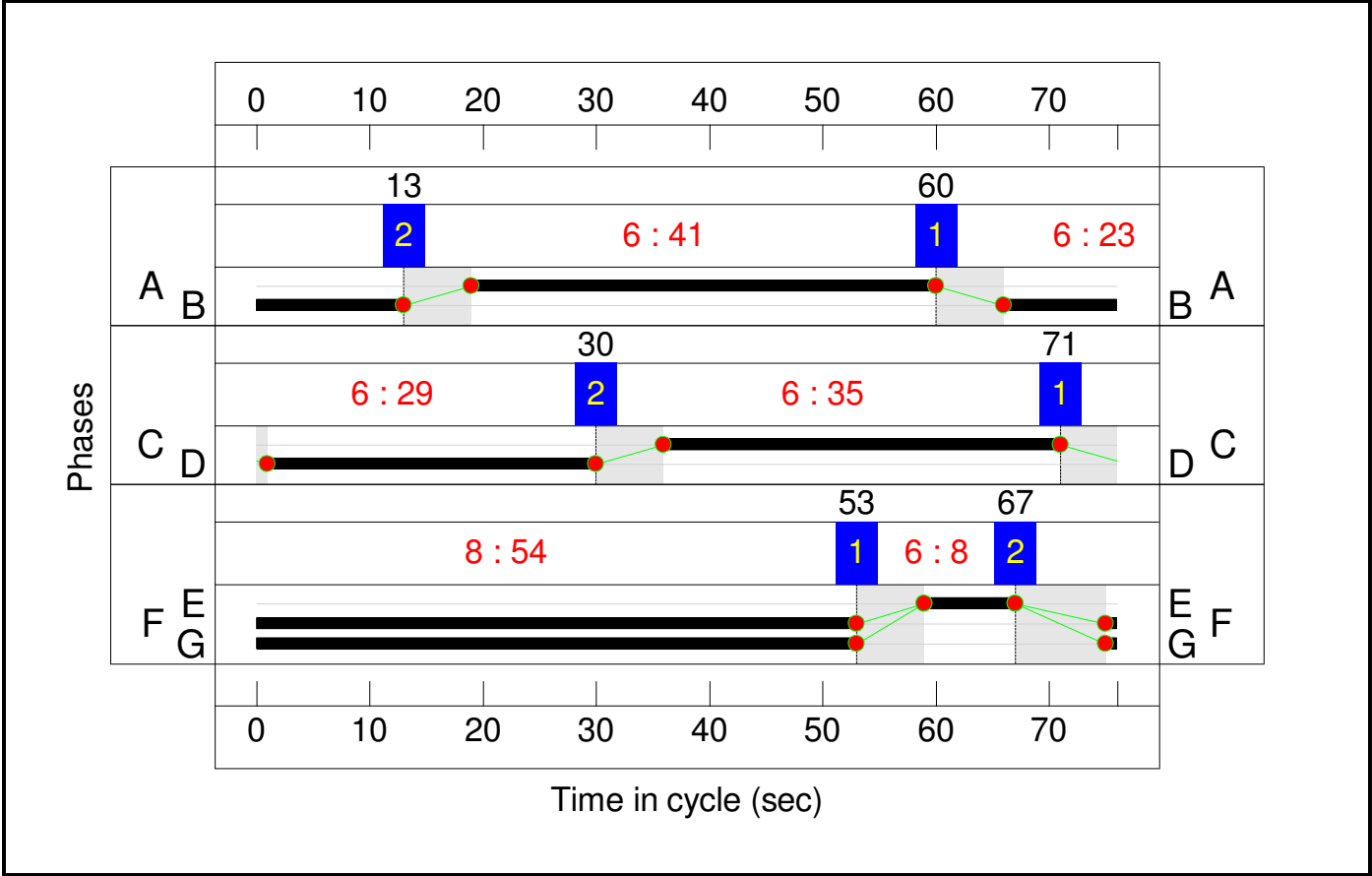
Stage Stream: 2

Stage	1	2
Duration	29	35
Change Point	71	30

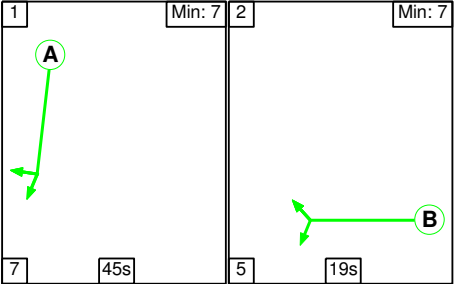
Stage Stream: 3

Stage	1	2
Duration	8	54
Change Point	53	67

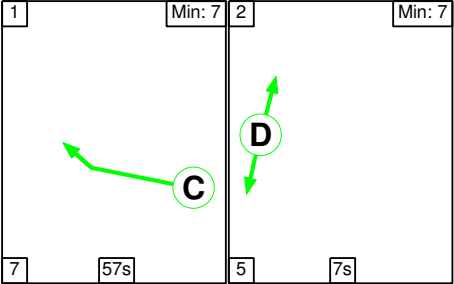
Signal Timings Diagram



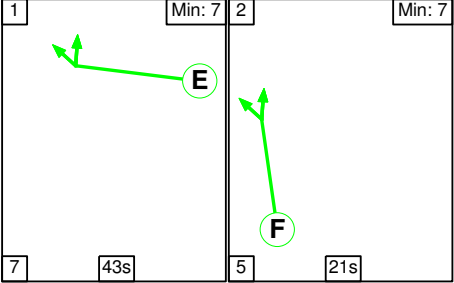
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



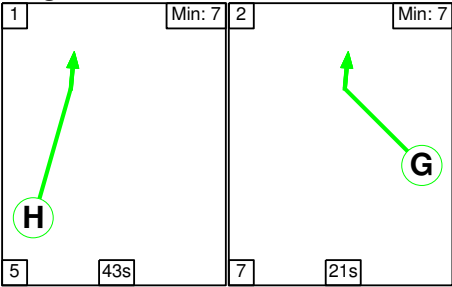
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	45	19
Change Point	24	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	18	6

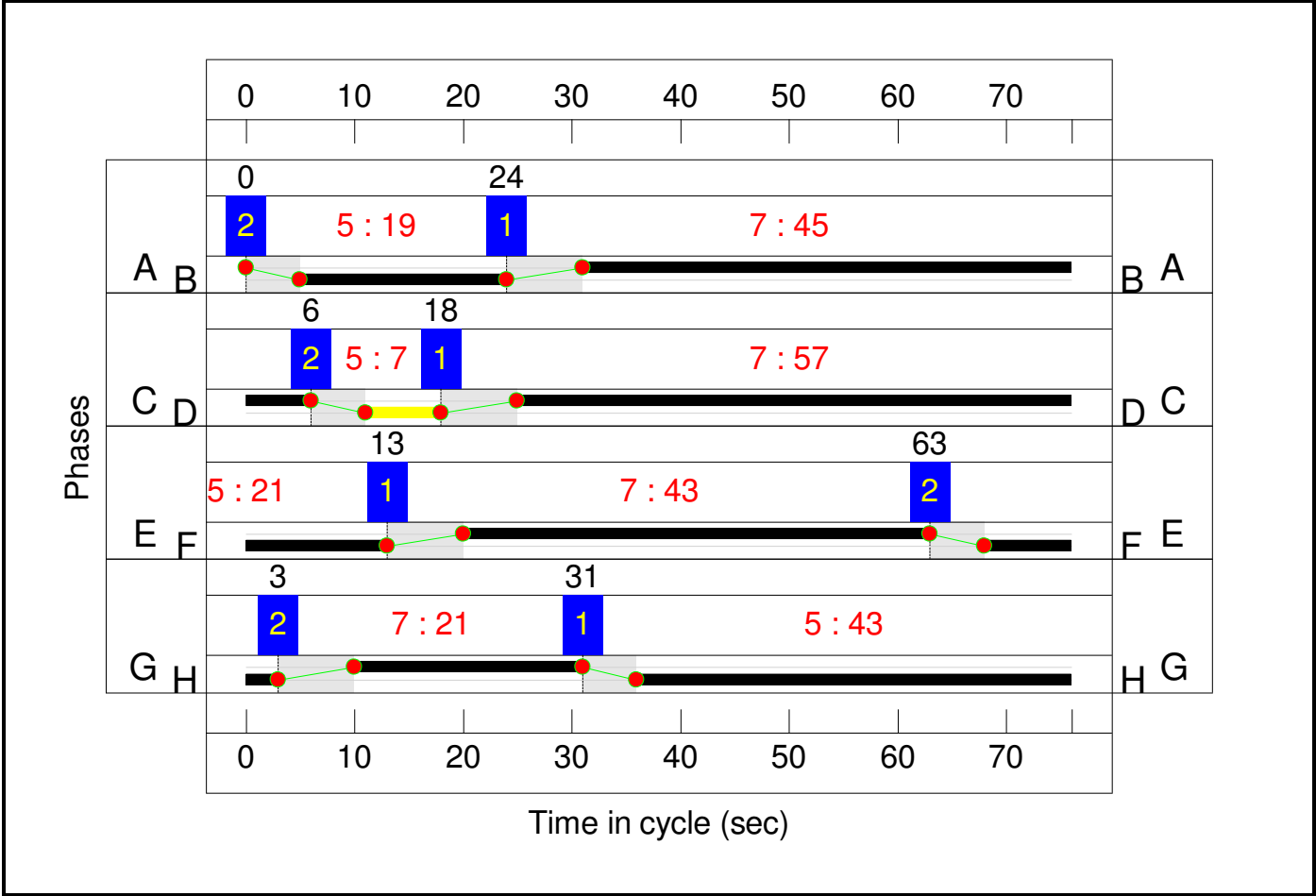
Stage Stream: 3

Stage	1	2
Duration	43	21
Change Point	13	63

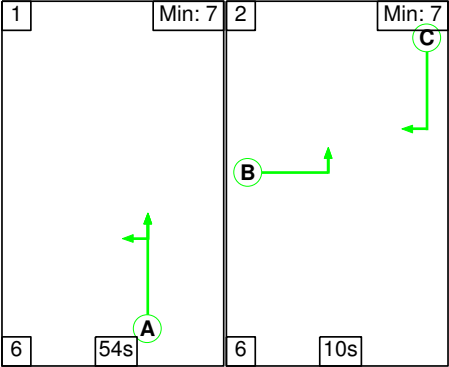
Stage Stream: 4

Stage	1	2
Duration	43	21
Change Point	31	3

Signal Timings Diagram



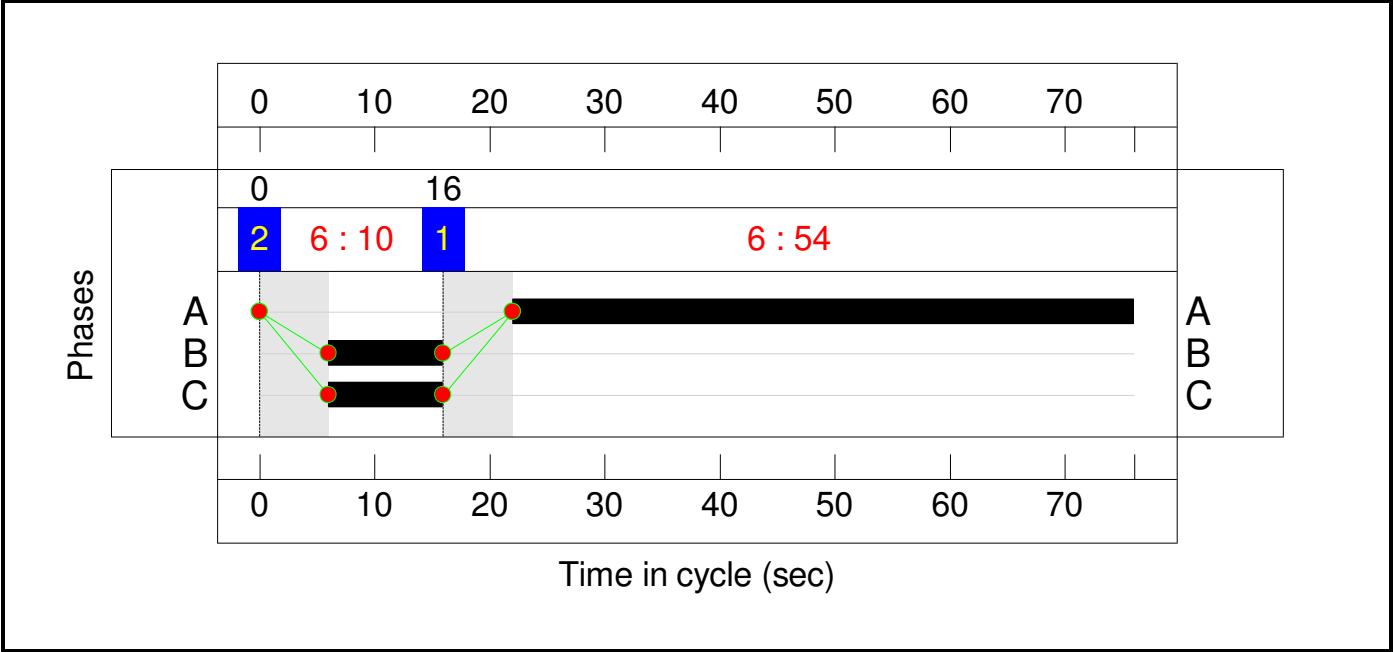
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	16	0

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	110.7%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	110.7%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	23	-	894	2120:1980	669+625	67.5 : 70.7%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	23	-	1144	2120:4000	669+644	87.1 : 87.1%
3/1	Ahead	U	1:2	N/A	C1:C		1	35	-	349	1900	900	38.8%
3/2	Right	U	1:2	N/A	C1:C		1	35	-	444	1900	900	49.3%
3/3	Right	U	1:2	N/A	C1:C		1	35	-	220	1900	900	24.4%
3/4	Right	U	1:2	N/A	C1:C		1	35	-	175	1900	900	19.4%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	29	-	1416	2120:1980	837+782	83.6 : 91.6%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	29	-	916	2120	837	109.5%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	29	-	1837	2120:2120	837+837	109.8 : 109.7%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1168	2000	1211	89.9%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	45	-	1168	2000	1211	89.7%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	1194	2000	1211	89.7%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	8	-	167	1930	229	73.1%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	8	-	276	2105	249	110.7%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	19	-	633	2120:1980	558+247	78.7 : 78.7%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	978	2120:2120	558+558	80.7 : 94.6%
11/1	Ahead	U	2:3	N/A	C2:E		1	43	-	1002	1900	1100	83.5%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	43	-	929	1900	1100	76.8%

12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1287	1995	1523	79.0%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1042	1995	1523	64.6%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	674	1980:1980	534+391	72.9 : 72.9%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	578	2120	614	94.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	975	2120:2120	364+614	99.7 : 99.7%
15/1	Ahead	U	1:1	N/A	C1:A		1	41	-	1027	2000	1105	92.8%
15/2	Ahead	U	1:1	N/A	C1:A		1	41	-	989	2000	1105	87.9%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	41	-	1230	2000:2000	745+775	79.7 : 80.9%
16/1	Right	U	2:4	N/A	C2:G		1	21	-	439	2000	579	75.8%
16/2	Right	U	2:4	N/A	C2:G		1	21	-	450	2000	579	77.7%
16/3	Right	U	2:4	N/A	C2:G		1	21	-	528	2000	579	91.2%
17/1	Ahead	U	2:4	N/A	C2:H		1	43	-	588	2000	1158	50.7%
17/2	Ahead	U	2:4	N/A	C2:H		1	43	-	539	2000	1158	45.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	43	-	702	2000	1158	59.9%
18/1	Ahead	U	1:3	N/A	C1:F		1	54	-	741	2000	1447	51.2%
18/2	Ahead	U	1:3	N/A	C1:F		1	54	-	867	2000	1447	59.9%
19/1	Ahead	U	1:3	N/A	C1:G		1	54	-	1136	2000	1447	73.0%
19/2	Ahead	U	1:3	N/A	C1:G		1	54	-	1094	2000	1447	69.9%
19/3	Ahead	U	1:3	N/A	C1:G		1	54	-	918	2000	1447	57.8%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	94.1%
2/1+2/2	Left	U	N/A	N/A	C3:B		1	10	-	518	1901:1901	275+275	94.1 : 94.1%
3/2+3/1	Left Ahead	U	N/A	N/A	C3:A		1	54	-	1469	2120:1800	1366+218	92.7 : 92.7%
3/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1441	2120	1534	92.8%
3/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1186	1900	1375	85.6%
5/4	Right	U	N/A	N/A	C3:C		1	10	-	74	1842	267	27.8%

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 15 Mitigation Model	-	-	0	0	0	133.4	251.3	0.0	384.7	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	121.2	230.8	0.0	352.0	-	-	-	-
1/2+1/1	894	894	-	-	-	5.7	1.1	-	6.8 (3.4+3.4)	27.2 (27.1:27.4)	8.3	1.1	9.4
1/3+1/4	1144	1144	-	-	-	7.2	3.2	-	10.4 (5.6+4.8)	32.9 (34.8:30.9)	11.5	3.2	14.7
3/1	349	349	-	-	-	1.9	0.3	-	2.3	23.2	6.0	0.3	6.4
3/2	444	444	-	-	-	0.5	0.5	-	0.9	7.6	2.9	0.5	3.4
3/3	220	220	-	-	-	2.1	0.2	-	2.2	36.8	4.2	0.2	4.4
3/4	175	175	-	-	-	1.6	0.1	-	1.7	35.9	3.3	0.1	3.5
4/2+4/1	1416	1416	-	-	-	8.4	3.4	-	11.8 (5.7+6.0)	29.9 (29.4:30.4)	14.3	3.4	17.7
4/3	916	837	-	-	-	8.8	44.7	-	53.5	210.3	21.0	44.7	65.7
4/4+4/5	1837	1674	-	-	-	17.8	86.9	-	104.8 (52.7+52.1)	205.3 (206.3:204.4)	21.1	86.9	108.1
6/1	1089	1089	-	-	-	4.1	4.2	-	8.3	27.5	22.4	4.2	26.6
6/2	1086	1086	-	-	-	4.0	4.1	-	8.1	26.7	21.4	4.1	25.5
6/3	1086	1086	-	-	-	4.4	4.1	-	8.5	28.1	19.0	4.1	23.1
8/1	167	167	-	-	-	1.5	1.3	-	2.8	60.4	3.4	1.3	4.7
8/2	276	249	-	-	-	3.3	17.3	-	20.7	269.5	6.5	17.3	23.8
9/2+9/1	633	633	-	-	-	4.4	1.8	-	6.2 (4.4+1.8)	35.3 (36.3:33.2)	8.5	1.8	10.3
9/3+9/4	978	978	-	-	-	7.3	3.4	-	10.7 (4.8+5.9)	39.3 (38.6:39.9)	10.9	3.4	14.2
11/1	918	918	-	-	-	2.6	2.5	-	5.0	19.6	5.7	2.5	8.1
11/2	845	845	-	-	-	2.5	1.6	-	4.1	17.6	6.8	1.6	8.4
12/1	1203	1203	-	-	-	0.4	1.9	-	2.3	6.9	6.4	1.9	8.2
12/2	984	984	-	-	-	0.4	0.9	-	1.3	4.7	3.9	0.9	4.8
13/2+13/1	674	674	-	-	-	4.4	1.3	-	5.7 (3.3+2.3)	30.4 (31.0:29.5)	7.2	1.3	8.6
13/3	578	578	-	-	-	4.2	6.0	-	10.3	64.1	11.9	6.0	17.9

13/4+13/5	975	975	-	-	-	6.9	15.0	-	21.9 (7.9+14.0)	80.8 (78.4:82.2)	12.8	15.0	27.7
15/1	1026	1026	-	-	-	1.5	5.7	-	7.2	25.2	13.2	5.7	18.8
15/2	972	972	-	-	-	1.5	3.5	-	5.0	18.5	13.4	3.5	16.9
15/3+15/4	1221	1221	-	-	-	1.8	2.0	-	3.8 (2.1+1.7)	11.1 (12.8:9.6)	12.3	2.0	14.3
16/1	439	439	-	-	-	0.1	1.5	-	1.6	13.0	0.5	1.5	2.0
16/2	450	450	-	-	-	0.1	1.7	-	1.8	14.0	0.5	1.7	2.2
16/3	528	528	-	-	-	0.1	4.4	-	4.5	30.7	0.6	4.4	5.0
17/1	587	587	-	-	-	3.6	0.5	-	4.1	25.4	8.5	0.5	9.0
17/2	522	522	-	-	-	2.0	0.4	-	2.4	16.4	7.1	0.4	7.5
17/3	693	693	-	-	-	4.3	0.7	-	5.0	26.2	10.7	0.7	11.5
18/1	741	741	-	-	-	0.8	0.5	-	1.3	6.3	4.0	0.5	4.5
18/2	867	867	-	-	-	0.5	0.7	-	1.3	5.4	2.4	0.7	3.2
19/1	1057	1057	-	-	-	0.2	1.3	-	1.6	5.3	1.0	1.3	2.3
19/2	1012	1012	-	-	-	0.2	1.2	-	1.4	4.9	1.0	1.2	2.2
19/3	837	837	-	-	-	0.2	0.7	-	0.9	3.8	1.0	0.7	1.7
J2: Watering Lane	-	-	0	0	0	12.2	20.6	0.0	32.7	-	-	-	-
2/1+2/2	518	518	-	-	-	4.6	5.9	-	10.5 (5.3+5.3)	73.1 (73.1:73.1)	5.4	5.9	11.3
3/2+3/1	1468	1468	-	-	-	2.1	5.8	-	7.9 (7.0+0.9)	19.3 (19.8:16.6)	11.3	5.8	17.1
3/3	1424	1424	-	-	-	2.2	5.8	-	8.0	20.2	15.9	5.8	21.8
3/4	1177	1177	-	-	-	2.6	2.9	-	5.5	16.9	23.5	2.9	26.4
5/4	74	74	-	-	-	0.6	0.2	-	0.8	38.3	1.4	0.2	1.6
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -3.1 Total Delay for Signalled Lanes (pcuHr): 33.16 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -22.0 Total Delay for Signalled Lanes (pcuHr): 177.23 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): -23.0 Total Delay for Signalled Lanes (pcuHr): 29.86 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -5.2 Total Delay for Signalled Lanes (pcuHr): 41.77 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 13.9 Total Delay for Signalled Lanes (pcuHr): 3.59 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): -10.8 Total Delay for Signalled Lanes (pcuHr): 46.97 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): -1.3 Total Delay for Signalled Lanes (pcuHr): 19.42 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): -4.6 Total Delay for Signalled Lanes (pcuHr): 32.73 Cycle Time (s): 76 PRC Over All Lanes (%): -23.0 Total Delay Over All Lanes(pcuHr): 384.73													

APPENDIX D

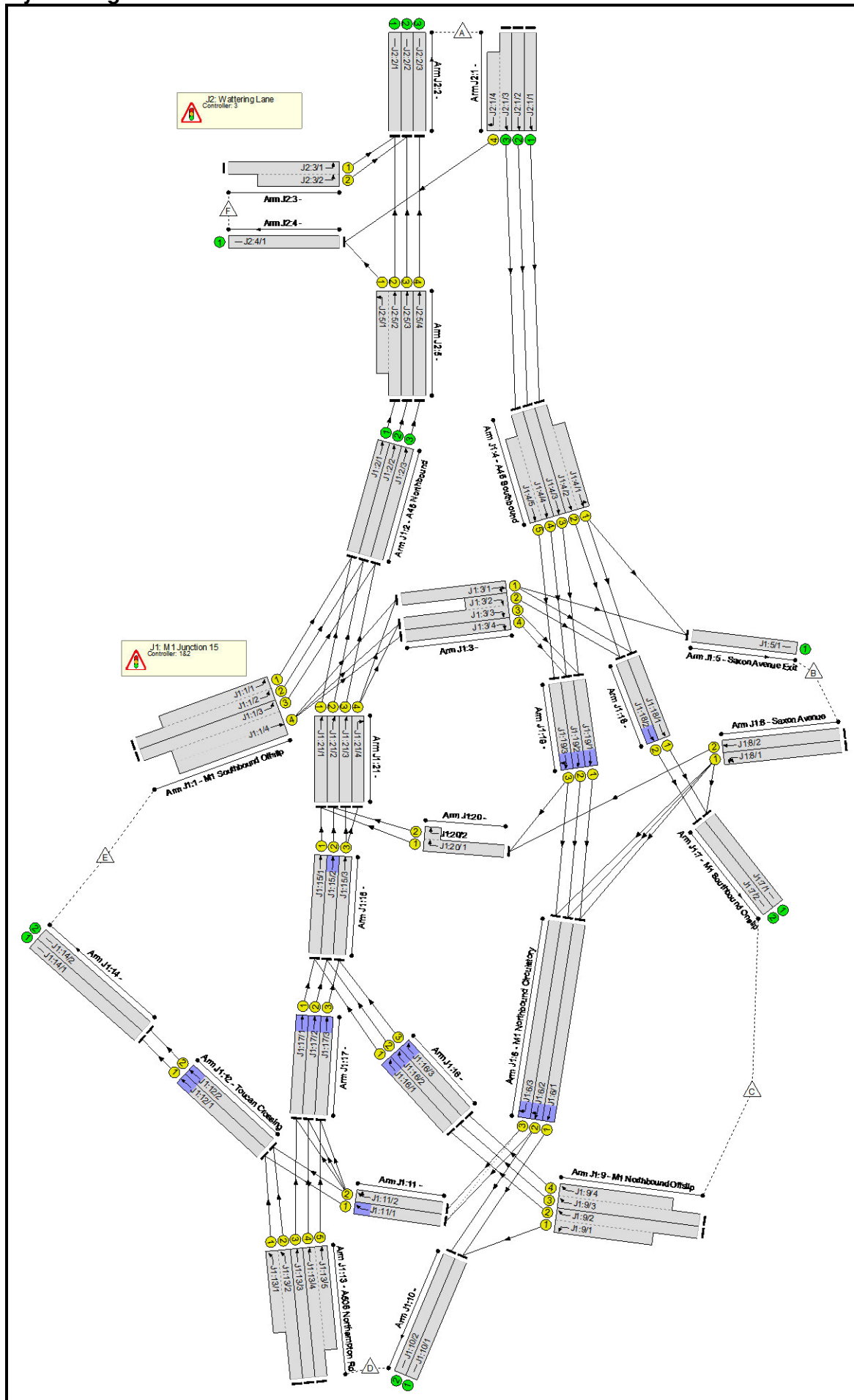
OPTION B LINSIG MODELLING RESULTS

Full Input Data And Results

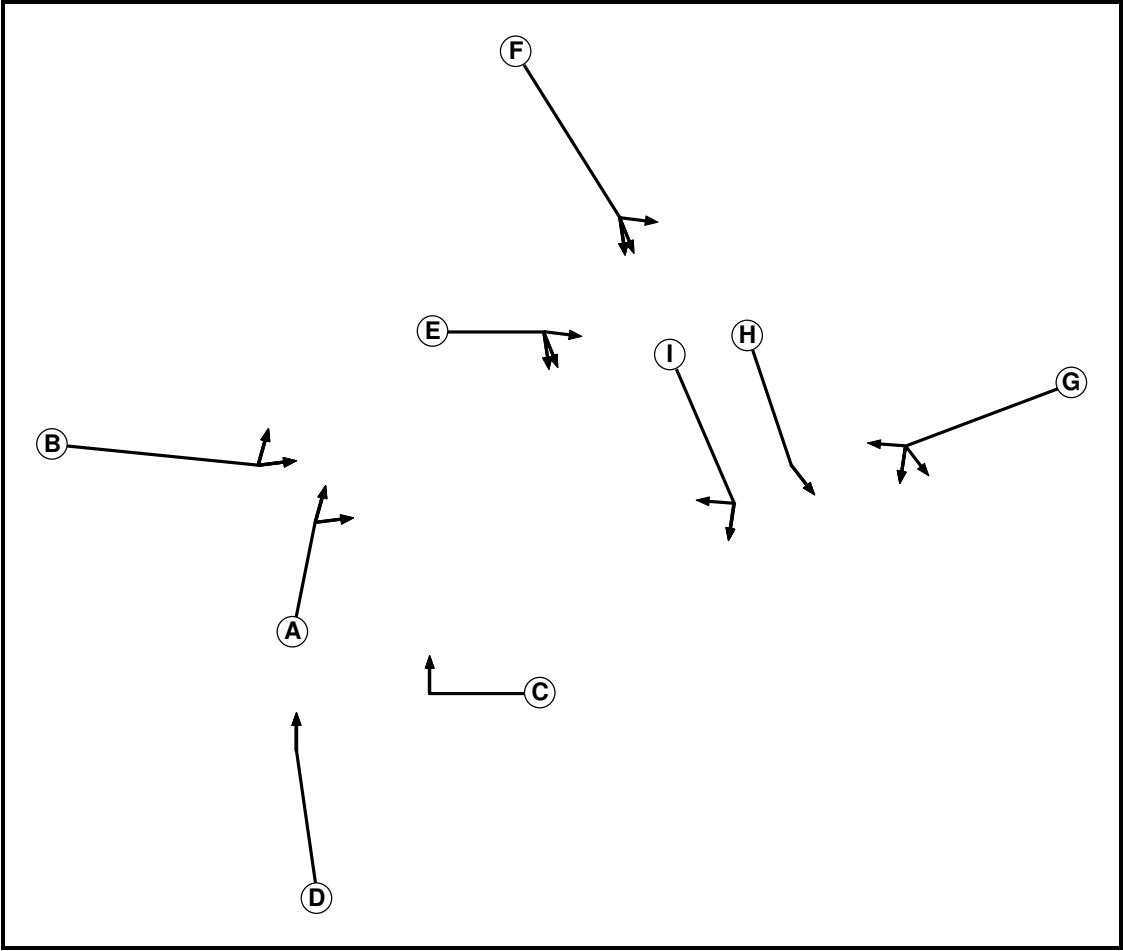
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Mitigation Model
Location:	Northampton
File name:	170109 M1 Junction 15 Mitigation - Saxon Avenue RT.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western Street, Nottingham
Notes:	With Saxon Avenue Right-turn

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7
I	Traffic	4		7	7

Phase Intergreens Matrix

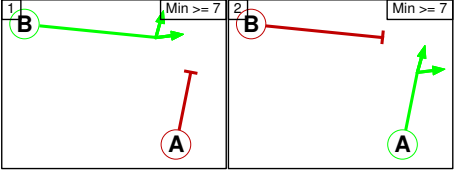
Terminating Phase	Starting Phase									
		A	B	C	D	E	F	G	H	I
	A		6	-	-	-	-	-	-	-
	B	6		-	-	-	-	-	-	-
	C	-	-		6	-	-	-	-	-
	D	-	-	6		-	-	-	-	-
	E	-	-	-	-		6	-	-	-
	F	-	-	-	-	6		-	-	-
	G	-	-	-	-	-	-		8	8
	H	-	-	-	-	-	-	6		-
	I	-	-	-	-	-	-	6	-	

Phases in Stage

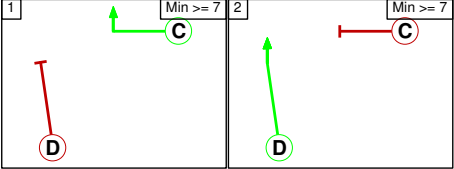
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	C
2	2	D
3	1	F
3	2	E
4	1	G
4	2	H I

Stage Diagram

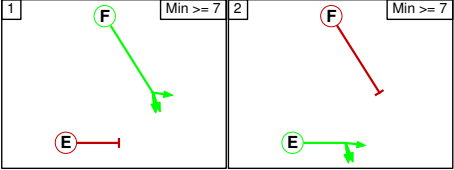
Stage Stream: 1



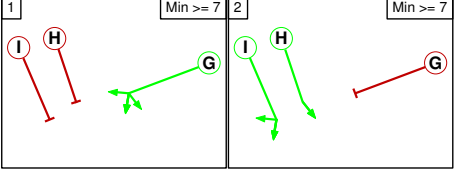
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		6
	2	6	

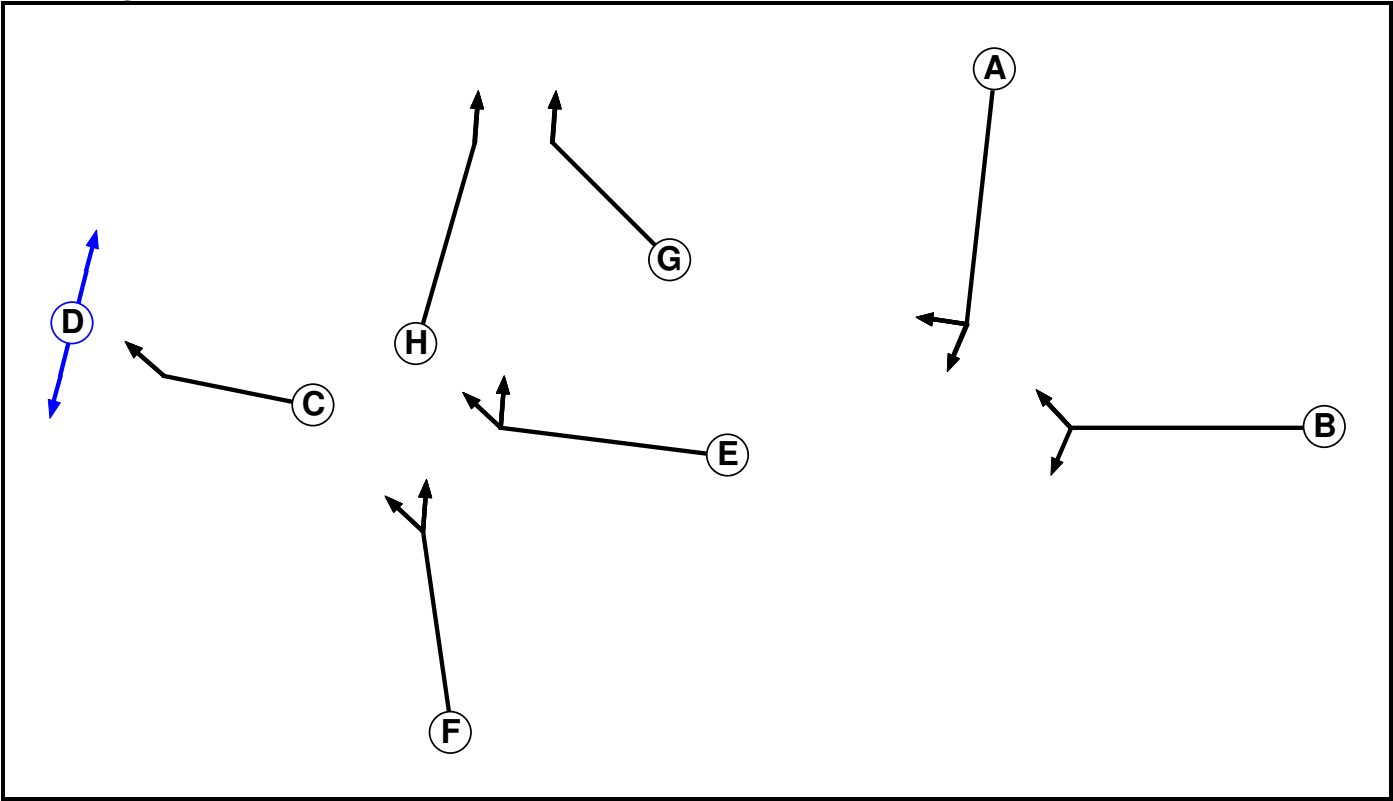
Stage Stream: 3

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 4

	To Stage		
From Stage		1	2
	1		8
	2	6	

C2 - Westside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

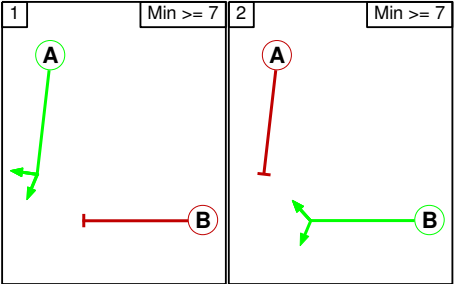
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		5	-	-	-	-	-	-
	B	7		-	-	-	-	-	-
	C	-	-		5	-	-	-	-
	D	-	-	7		-	-	-	-
	E	-	-	-	-		5	-	-
	F	-	-	-	-	7		-	-
	G	-	-	-	-	-	-		5
	H	-	-	-	-	-	-	7	

Phases in Stage

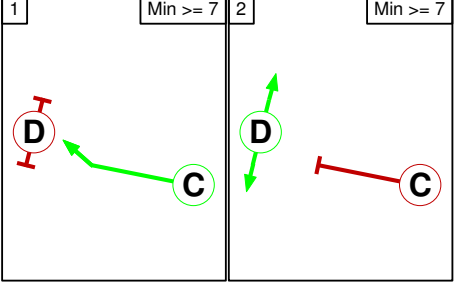
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	H
4	2	G

Stage Diagram

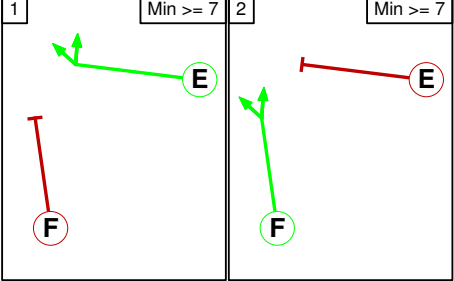
Stage Stream: 1



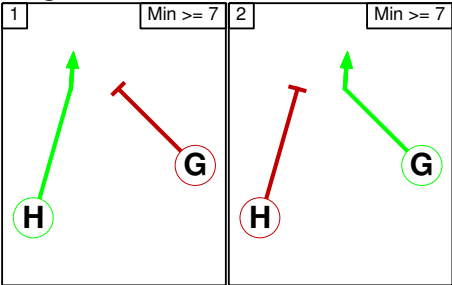
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

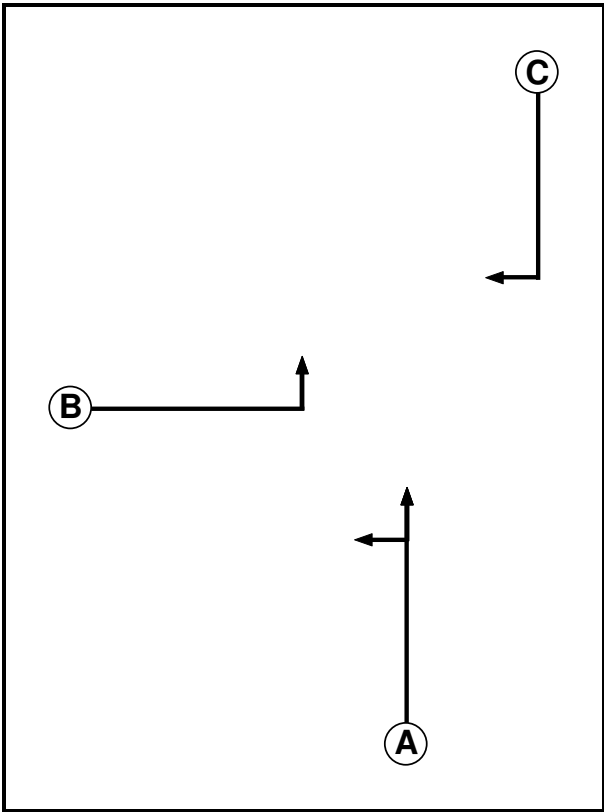
Stage Stream: 3

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 4

	To Stage		
From Stage		1	2
	1		7
	2	5	

C3 - Watering Lane
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7

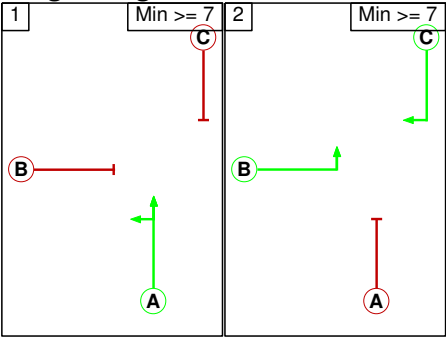
Phase Intergreens Matrix

Terminating Phase	Starting Phase			
		A	B	C
	A		6	6
	B	6		-
	C	6	-	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B C

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		6
	2	6	

Lane Input Data

Junction: J1: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (M1 Southbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	Y	Arm J1:2 Left	Inf
J1:1/2 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/3 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/4 (M1 Southbound Offslip)	U	B	2	3	18.0	User	4000	-	-	-	-	-
J1:2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/3 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:3/1	U	E	2	3	12.2	User	1900	-	-	-	-	-
J1:3/2	U	E	2	3	5.2	User	1900	-	-	-	-	-
J1:3/3	U	E	2	3	12.2	User	1900	-	-	-	-	-
J1:3/4	U	E	2	3	12.2	User	1900	-	-	-	-	-
J1:4/1 (A45 Southbound)	U	F	2	3	33.0	Geom	-	3.65	0.00	Y	Arm J1:5 Left Arm J1:18 Ahead	Inf Inf
J1:4/2 (A45 Southbound)	U	F	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:4/3 (A45 Southbound)	U	F	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/4 (A45 Southbound)	U	F	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/5 (A45 Southbound)	U	F	2	3	33.0	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:6/1 (M1 Northbound Circulatory)	U	A	2	3	34.8	User	2000	-	-	-	-	-
J1:6/2 (M1 Northbound Circulatory)	U	A	2	3	34.8	User	2000	-	-	-	-	-
J1:6/3 (M1 Northbound Circulatory)	U	A	2	3	34.8	User	2000	-	-	-	-	-

J1:7/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:7/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:8/1 (Saxon Avenue)	U	G	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:6 Left Arm J1:7 Left	Inf 30.00
J1:8/2 (Saxon Avenue)	U	G	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:20 Ahead	Inf
J1:9/1 (M1 Northbound Offslip)	U	B	2	3	12.0	Geom	-	3.65	0.00	Y	Arm J1:10 Left	Inf
J1:9/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/4 (M1 Northbound Offslip)	U	B	2	3	40.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:10/1	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:10/2	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:11/1	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:11/2	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:12/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:12/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:13/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/3 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/4 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/5 (A508 Northampton Rd)	U	F	2	3	20.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:15/1	U	D	2	3	22.6	User	2000	-	-	-	-	-
J1:15/2	U	D	2	3	22.6	User	2000	-	-	-	-	-

J1:15/3	U	D	2	3	22.6	User	2000	-	-	-	-	-
J1:16/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/3	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:17/1	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/2	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/3	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:18/1	U	H	2	3	12.2	User	2000	-	-	-	-	-
J1:18/2	U	H	2	3	12.2	User	2000	-	-	-	-	-
J1:19/1	U	I	2	3	12.2	User	2000	-	-	-	-	-
J1:19/2	U	I	2	3	12.2	User	2000	-	-	-	-	-
J1:19/3	U	I	2	3	12.2	User	2000	-	-	-	-	-
J1:20/1	U	C	2	3	12.2	User	1800	-	-	-	-	-
J1:20/2	U	C	2	3	2.0	User	1800	-	-	-	-	-
J1:21/1	U	A	2	3	7.8	User	2000	-	-	-	-	-
J1:21/2	U	A	2	3	7.8	User	2000	-	-	-	-	-
J1:21/3	U	A	2	3	7.8	User	2000	-	-	-	-	-
J1:21/4	U	A	2	3	7.8	User	1900	-	-	-	-	-

Junction: J2: Watting Lane												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:1/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:1/3	U		2	3	60.0	User	3000	-	-	-	-	-
J2:1/4	U	C	2	3	31.3	Geom	-	3.65	0.00	Y	Arm J2:4 Right	20.00
J2:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J2:2 Left	25.00
J2:3/2	U	B	2	3	10.0	Geom	-	4.00	0.00	Y	Arm J2:2 Left	25.00
J2:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/1	U	A	2	3	10.0	Geom	-	3.50	0.00	Y	Arm J2:4 Left	15.00
J2:5/2	U	A	2	3	65.2	Geom	-	3.65	0.00	Y	Arm J2:2 Ahead	Inf
J2:5/3	U	A	2	3	65.2	Geom	-	3.65	0.00	N	Arm J2:2 Ahead	Inf
J2:5/4	U	A	2	3	65.2	Geom	-	3.65	0.00	Y	Arm J2:2 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2014 Morning Peak Hour'	08:00	09:00	01:00	
2: '2014 Evening Peak Hour'	17:00	18:00	01:00	
3: '2021 Back Morning Peak '	08:00	09:00	01:00	
4: '2021 Back Evening Peak '	17:00	18:00	01:00	
9: '2021 Total AM Peak'	08:00	09:00	01:00	F3+F5+(2*F7)
10: '2021 Total PM Peak'	17:00	18:00	01:00	F4+F6+(2*F8)
11: '2031 Back Morning Peak '	08:00	09:00	01:00	
12: '2031 Back Evening Peak '	17:00	18:00	01:00	
13: '2031 Total AM Peak'	08:00	09:00	01:00	F11+F5+(2*F7)
14: '2031 Total PM Peak'	17:00	18:00	01:00	F12+F6+(2*F8)

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	146	1030	1074	1184	15	3449
	B	214	0	80	42	46	0	382
	C	911	61	0	344	0	110	1426
	D	679	37	190	0	374	55	1335
	E	1244	144	0	672	0	110	2170
	F	443	0	0	0	0	0	443
	Tot.	3491	388	1300	2132	1604	290	9205

Traffic Lane Flows

Lane	Scenario 1: 2021 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	466
J1:1/2 (with short)	784(In) 318(Out)
J1:1/3 (with short)	1386(In) 570(Out)
J1:1/4 (short)	816
J1:2/1	1204
J1:2/2	1125
J1:2/3	994
J1:3/1	338
J1:3/2 (short)	94
J1:3/3 (with short)	411(In) 317(Out)
J1:3/4	355
J1:4/1 (short)	611
J1:4/2 (with short)	1176(In) 565(Out)
J1:4/3	679
J1:4/4 (with short)	1579(In) 557(Out)
J1:4/5 (short)	1022
J1:5/1	388
J1:6/1	1009
J1:6/2	964
J1:6/3	1045
J1:7/1	641
J1:7/2	659
J1:8/1	168
J1:8/2	214
J1:9/1 (short)	344
J1:9/2 (with short)	705(In) 361(Out)
J1:9/3 (with short)	721(In) 356(Out)
J1:9/4 (short)	365
J1:10/1	1353
J1:10/2	779
J1:11/1	611
J1:11/2	619
J1:12/1	799
J1:12/2	805
J1:13/1 (short)	188

J1:13/2 (with short)	374(In) 186(Out)
J1:13/3	301
J1:13/4 (with short)	660(In) 313(Out)
J1:13/5 (short)	347
J1:14/1	799
J1:14/2	805
J1:15/1	662
J1:15/2	669
J1:15/3	712
J1:16/1	361
J1:16/2	356
J1:16/3	365
J1:17/1	301
J1:17/2	313
J1:17/3	347
J1:18/1	561
J1:18/2	659
J1:19/1	996
J1:19/2	912
J1:19/3	1022
J1:20/1 (with short)	214(In) 76(Out)
J1:20/2 (short)	138
J1:21/1	738
J1:21/2	807
J1:21/3	424
J1:21/4	288
Junction: J2: Wattering Lane	
J2:1/1	1176
J2:1/2	679
J2:1/3 (with short)	1594(In) 1579(Out)
J2:1/4 (short)	15
J2:2/1	1150
J2:2/2	1347
J2:2/3	994
J2:3/1 (with short)	443(In) 221(Out)
J2:3/2 (short)	222
J2:4/1	290
J2:5/1 (short)	275
J2:5/2 (with short)	1204(In) 929(Out)
J2:5/3	1125
J2:5/4	994

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	23.9 %	1980	1980
				Arm J1:18 Ahead	Inf	76.1 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	52.4 %	1919	1919
				Arm J1:7 Left	30.00	47.6 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:20 Ahead	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:20/1	This lane uses a directly entered Saturation Flow						1800	1800
J1:20/2	This lane uses a directly entered Saturation Flow						1800	1800
J1:21/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/4	This lane uses a directly entered Saturation Flow						1900	1900

Junction: J2: Wattring Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:1/3	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/4	3.65	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1842	1842
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:3/2	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1	3.50	0.00	Y	Arm J2:4 Left	15.00	100.0 %	1786	1786
J2:5/2	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:5/3	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:5/4	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980

Scenario 2: '2021 PM Total' (FG10: '2021 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	216	1001	1020	1373	64	3674
	B	237	0	52	40	51	0	380
	C	1040	98	0	188	0	81	1407
	D	898	59	429	0	627	40	2053
	E	1189	143	0	360	0	81	1773
	F	518	0	0	0	0	0	518
	Tot.	3882	516	1482	1608	2051	266	9805

Traffic Lane Flows

Lane	Scenario 2: 2021 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	404
J1:1/2 (with short)	836(In) 432(Out)
J1:1/3 (with short)	937(In) 434(Out)
J1:1/4 (short)	503
J1:2/1	1352
J1:2/2	1410
J1:2/3	804
J1:3/1	465
J1:3/2 (short)	264
J1:3/3 (with short)	445(In) 181(Out)
J1:3/4	179
J1:4/1 (short)	638
J1:4/2 (with short)	1217(In) 579(Out)
J1:4/3	761
J1:4/4 (with short)	1632(In) 786(Out)
J1:4/5 (short)	846
J1:5/1	516
J1:6/1	962
J1:6/2	988
J1:6/3	894
J1:7/1	639
J1:7/2	843
J1:8/1	143
J1:8/2	237
J1:9/1 (short)	188
J1:9/2 (with short)	589(In) 401(Out)
J1:9/3 (with short)	818(In) 402(Out)
J1:9/4 (short)	416
J1:10/1	1150
J1:10/2	458
J1:11/1	733
J1:11/2	691
J1:12/1	1043
J1:12/2	1008
J1:13/1 (short)	310

J1:13/2 (with short)	627(In) 317(Out)
J1:13/3	439
J1:13/4 (with short)	987(In) 447(Out)
J1:13/5 (short)	540
J1:14/1	1043
J1:14/2	1008
J1:15/1	840
J1:15/2	849
J1:15/3	956
J1:16/1	401
J1:16/2	402
J1:16/3	416
J1:17/1	439
J1:17/2	447
J1:17/3	540
J1:18/1	587
J1:18/2	843
J1:19/1	942
J1:19/2	965
J1:19/3	846
J1:20/1 (with short)	237(In) 108(Out)
J1:20/2 (short)	129
J1:21/1	948
J1:21/2	978
J1:21/3	370
J1:21/4	586
Junction: J2: Wattering Lane	
J2:1/1	1217
J2:1/2	761
J2:1/3 (with short)	1696(In) 1632(Out)
J2:1/4 (short)	64
J2:2/1	1409
J2:2/2	1669
J2:2/3	804
J2:3/1 (with short)	518(In) 259(Out)
J2:3/2 (short)	259
J2:4/1	266
J2:5/1 (short)	202
J2:5/2 (with short)	1352(In) 1150(Out)
J2:5/3	1410
J2:5/4	804

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	33.9 %	1980	1980
				Arm J1:18 Ahead	Inf	66.1 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	63.6 %	1930	1930
				Arm J1:7 Left	30.00	36.4 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:20 Ahead	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:20/1	This lane uses a directly entered Saturation Flow						1800	1800
J1:20/2	This lane uses a directly entered Saturation Flow						1800	1800
J1:21/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/4	This lane uses a directly entered Saturation Flow						1900	1900

Junction: J2: Watting Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:1/3	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/4	3.65	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1842	1842
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:3/2	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1	3.50	0.00	Y	Arm J2:4 Left	15.00	100.0 %	1786	1786
J2:5/2	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:5/3	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:5/4	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980

Scenario 3: '2031 AM Total' (FG13: '2031 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	169	1190	1197	1368	17	3941
	B	246	0	93	47	52	0	438
	C	1070	72	0	350	0	110	1602
	D	773	42	204	0	418	55	1492
	E	1455	166	0	729	0	110	2460
	F	443	0	0	0	0	0	443
	Tot.	3987	449	1487	2323	1838	292	10376

Traffic Lane Flows

Lane	Scenario 3: 2031 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	498
J1:1/2 (with short)	1031(In) 533(Out)
J1:1/3 (with short)	1429(In) 534(Out)
J1:1/4 (short)	895
J1:2/1	1393
J1:2/2	1385
J1:2/3	1041
J1:3/1	388
J1:3/2 (short)	96
J1:3/3 (with short)	441(In) 345(Out)
J1:3/4	384
J1:4/1 (short)	692
J1:4/2 (with short)	1359(In) 667(Out)
J1:4/3	822
J1:4/4 (with short)	1743(In) 761(Out)
J1:4/5 (short)	982
J1:5/1	449
J1:6/1	1182
J1:6/2	1177
J1:6/3	1034
J1:7/1	724
J1:7/2	763
J1:8/1	192
J1:8/2	246
J1:9/1 (short)	350
J1:9/2 (with short)	775(In) 425(Out)
J1:9/3 (with short)	827(In) 395(Out)
J1:9/4 (short)	432
J1:10/1	1532
J1:10/2	791
J1:11/1	699
J1:11/2	721
J1:12/1	909
J1:12/2	929
J1:13/1 (short)	210

J1:13/2 (with short)	418(In) 208(Out)
J1:13/3	330
J1:13/4 (with short)	744(In) 351(Out)
J1:13/5 (short)	393
J1:14/1	909
J1:14/2	929
J1:15/1	755
J1:15/2	746
J1:15/3	825
J1:16/1	425
J1:16/2	395
J1:16/3	432
J1:17/1	330
J1:17/2	351
J1:17/3	393
J1:18/1	631
J1:18/2	763
J1:19/1	1167
J1:19/2	1145
J1:19/3	982
J1:20/1 (with short)	246(In) 140(Out)
J1:20/2 (short)	106
J1:21/1	895
J1:21/2	852
J1:21/3	507
J1:21/4	318
Junction: J2: Wattering Lane	
J2:1/1	1359
J2:1/2	822
J2:1/3 (with short)	1760(In) 1743(Out)
J2:1/4 (short)	17
J2:2/1	1339
J2:2/2	1607
J2:2/3	1041
J2:3/1 (with short)	443(In) 221(Out)
J2:3/2 (short)	222
J2:4/1	292
J2:5/1 (short)	275
J2:5/2 (with short)	1393(In) 1118(Out)
J2:5/3	1385
J2:5/4	1041

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	24.4 %	1980	1980
				Arm J1:18 Ahead	Inf	75.6 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	51.6 %	1919	1919
				Arm J1:7 Left	30.00	48.4 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:20 Ahead	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:20/1	This lane uses a directly entered Saturation Flow						1800	1800
J1:20/2	This lane uses a directly entered Saturation Flow						1800	1800
J1:21/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/4	This lane uses a directly entered Saturation Flow						1900	1900

Junction: J2: Wattering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:1/3	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/4	3.65	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1842	1842
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:3/2	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1	3.50	0.00	Y	Arm J2:4 Left	15.00	100.0 %	1786	1786
J2:5/2	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:5/3	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:5/4	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980

Scenario 4: '2031 PM Total' (FG14: '2031 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	252	1164	1158	1595	74	4243
	B	276	0	61	46	60	0	443
	C	1222	114	0	194	0	81	1611
	D	1000	69	444	0	674	40	2227
	E	1396	166	0	395	0	81	2038
	F	518	0	0	0	0	0	518
	Tot.	4412	601	1669	1793	2329	276	11080

Traffic Lane Flows

Lane	Scenario 4: 2031 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	441
J1:1/2 (with short)	945(In) 504(Out)
J1:1/3 (with short)	1093(In) 532(Out)
J1:1/4 (short)	561
J1:2/1	1481
J1:2/2	1538
J1:2/3	1077
J1:3/1	488
J1:3/2 (short)	305
J1:3/3 (with short)	490(In) 185(Out)
J1:3/4	210
J1:4/1 (short)	746
J1:4/2 (with short)	1416(In) 670(Out)
J1:4/3	912
J1:4/4 (with short)	1841(In) 917(Out)
J1:4/5 (short)	924
J1:5/1	601
J1:6/1	1129
J1:6/2	1141
J1:6/3	984
J1:7/1	694
J1:7/2	975
J1:8/1	167
J1:8/2	276
J1:9/1 (short)	194
J1:9/2 (with short)	623(In) 429(Out)
J1:9/3 (with short)	988(In) 447(Out)
J1:9/4 (short)	541
J1:10/1	1323
J1:10/2	470
J1:11/1	827
J1:11/2	828
J1:12/1	1164
J1:12/2	1165
J1:13/1 (short)	337

J1:13/2 (with short)	674(In) 337(Out)
J1:13/3	609
J1:13/4 (with short)	944(In) 313(Out)
J1:13/5 (short)	631
J1:14/1	1164
J1:14/2	1165
J1:15/1	1038
J1:15/2	760
J1:15/3	1172
J1:16/1	429
J1:16/2	447
J1:16/3	541
J1:17/1	609
J1:17/2	313
J1:17/3	631
J1:18/1	633
J1:18/2	975
J1:19/1	1097
J1:19/2	1127
J1:19/3	924
J1:20/1 (with short)	276(In) 2(Out)
J1:20/2 (short)	274
J1:21/1	1040
J1:21/2	1034
J1:21/3	545
J1:21/4	627
Junction: J2: Wattering Lane	
J2:1/1	1416
J2:1/2	912
J2:1/3 (with short)	1915(In) 1841(Out)
J2:1/4 (short)	74
J2:2/1	1538
J2:2/2	1797
J2:2/3	1077
J2:3/1 (with short)	518(In) 259(Out)
J2:3/2 (short)	259
J2:4/1	276
J2:5/1 (short)	202
J2:5/2 (with short)	1481(In) 1279(Out)
J2:5/3	1538
J2:5/4	1077

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	33.8 %	1980	1980
				Arm J1:18 Ahead	Inf	66.2 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	63.5 %	1930	1930
				Arm J1:7 Left	30.00	36.5 %		
J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:20 Ahead	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980

J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:20/1	This lane uses a directly entered Saturation Flow						1800	1800
J1:20/2	This lane uses a directly entered Saturation Flow						1800	1800
J1:21/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:21/4	This lane uses a directly entered Saturation Flow						1900	1900

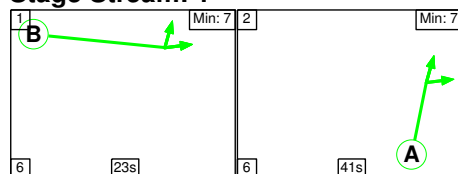
Junction: J2: Wattring Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	Infinite Saturation Flow						Inf	Inf
J2:1/3	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/4	3.65	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1842	1842
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:3/2	4.00	0.00	Y	Arm J2:2 Left	25.00	100.0 %	1901	1901
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1	3.50	0.00	Y	Arm J2:4 Left	15.00	100.0 %	1786	1786
J2:5/2	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:5/3	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:5/4	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

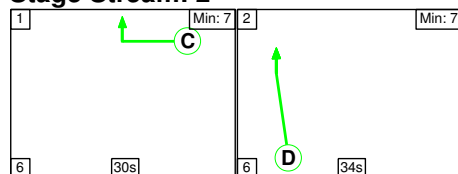
C1 - Eastside Controller

Stage Sequence Diagram

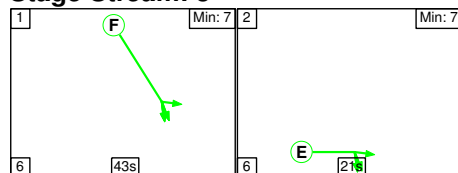
Stage Stream: 1



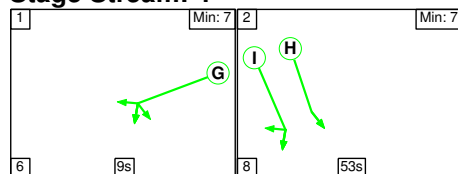
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	23	41
Change Point	59	12

Stage Stream: 2

Stage	1	2
Duration	30	34
Change Point	61	21

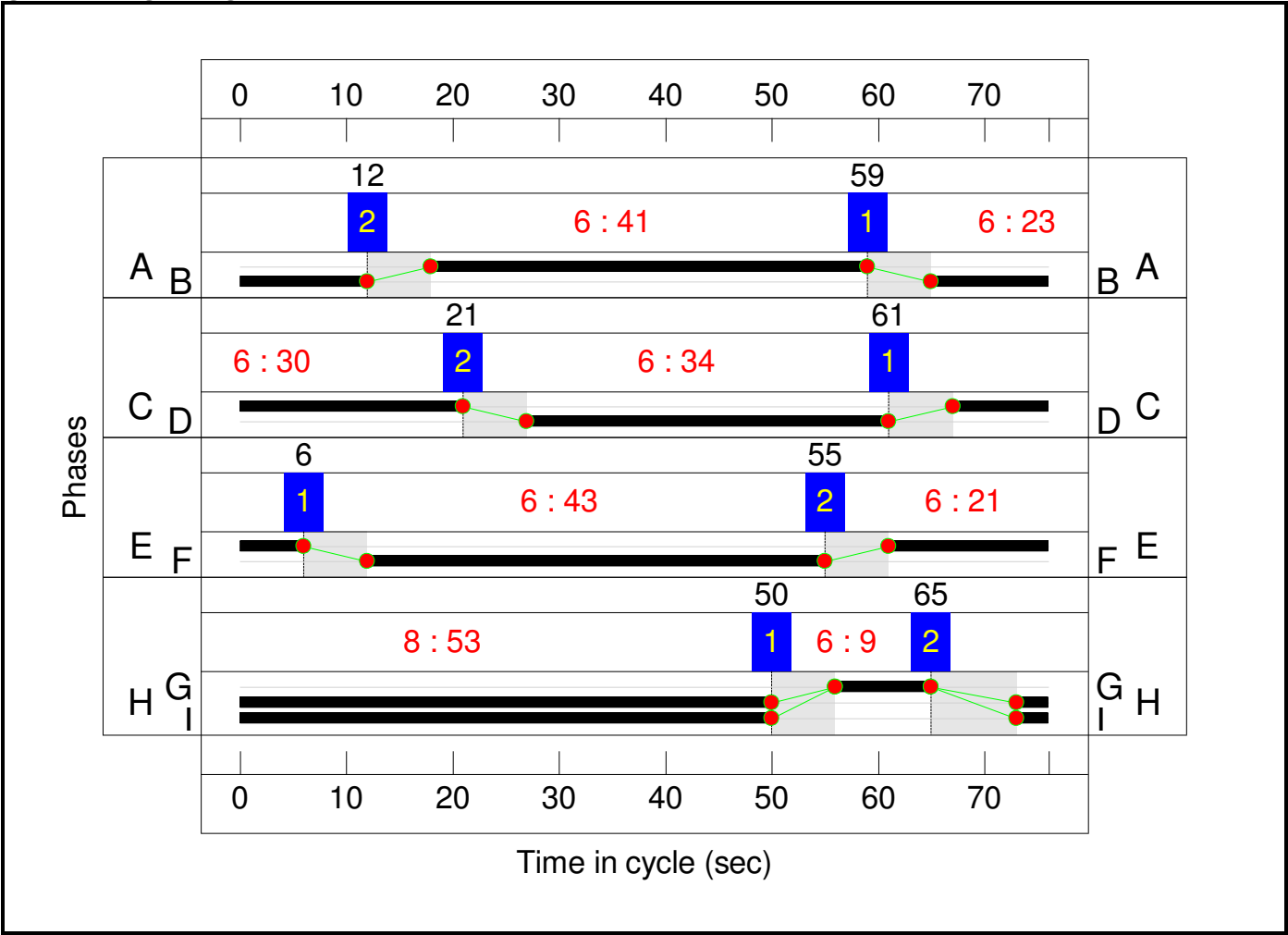
Stage Stream: 3

Stage	1	2
Duration	43	21
Change Point	6	55

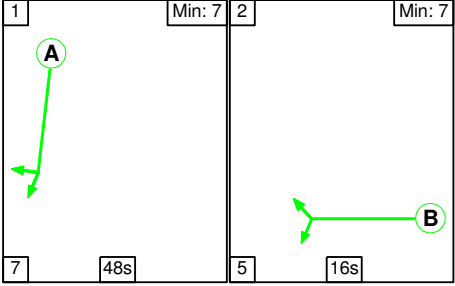
Stage Stream: 4

Stage	1	2
Duration	9	53
Change Point	50	65

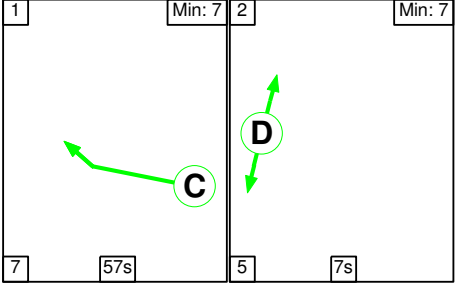
Signal Timings Diagram



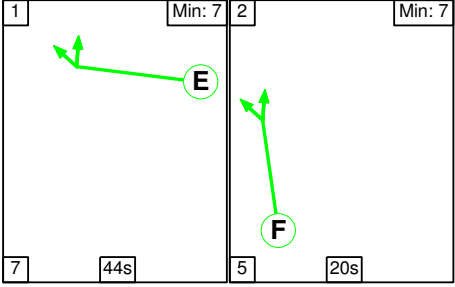
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



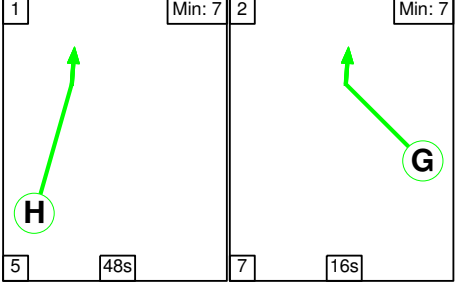
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	48	16
Change Point	21	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	12	0

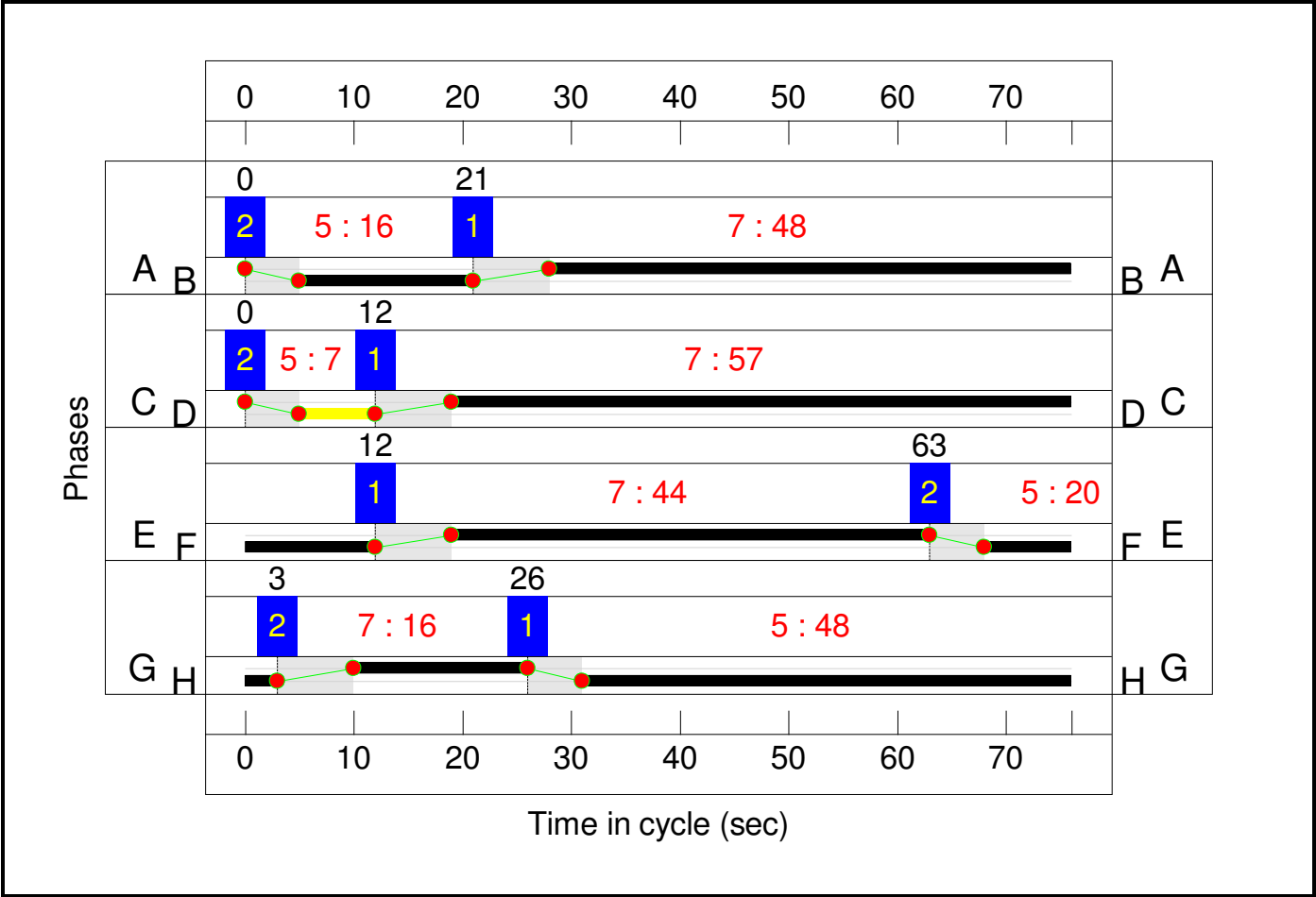
Stage Stream: 3

Stage	1	2
Duration	44	20
Change Point	12	63

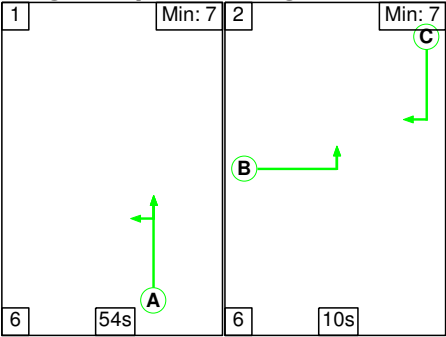
Stage Stream: 4

Stage	1	2
Duration	48	16
Change Point	26	3

Signal Timings Diagram



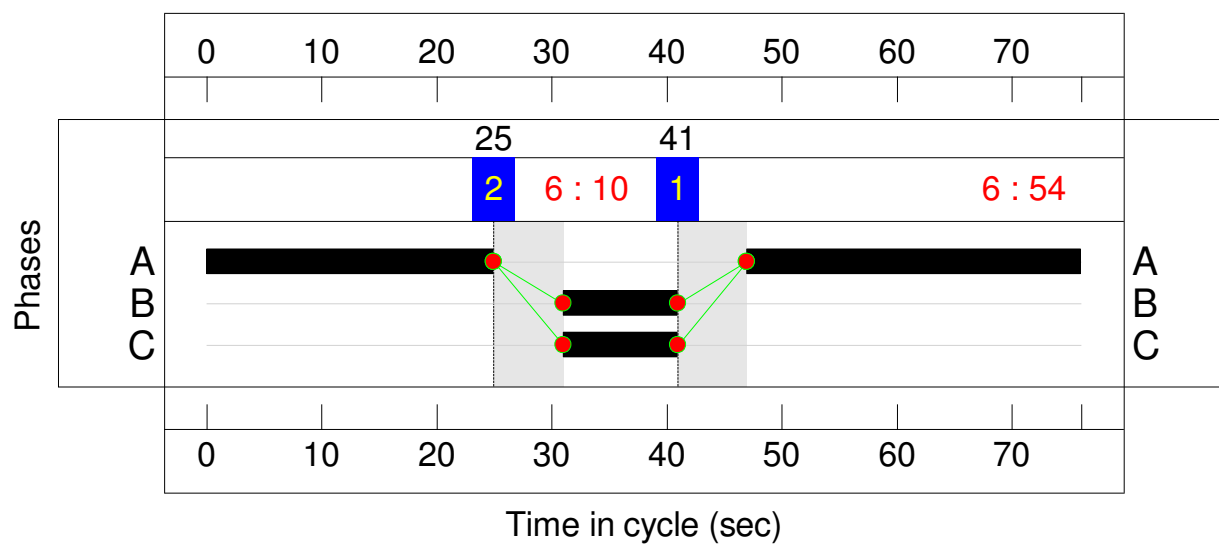
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	41	25

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	85.1%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	85.1%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	23	-	784	2120:1980	427+625	74.5 : 74.5%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	23	-	1386	2120:4000	669+989	85.1 : 82.5%
3/1	Ahead Right	U	1:3	N/A	C1:E		1	21	-	338	1900	550	61.5%
3/3+3/2	Right Right2	U	1:3	N/A	C1:E		1	21	-	411	1900:1900	494+146	64.2 : 64.2%
3/4	Right	U	1:3	N/A	C1:E		1	21	-	355	1900	550	64.5%
4/2+4/1	A45 Southbound Left Ahead	U	1:3	N/A	C1:F		1	43	-	1176	2120:1980	982+1062	57.5 : 57.5%
4/3	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	43	-	679	2120	1227	55.3%
4/4+4/5	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	43	-	1579	2120:2120	734+1227	75.8 : 83.3%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	48	-	1009	2000	1289	78.2%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	48	-	964	2000	1289	74.8%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	1045	2000	1289	81.0%
8/1	Saxon Avenue Left Left2	U	1:4	N/A	C1:G		1	9	-	168	1919	253	66.5%
8/2	Saxon Avenue Ahead	U	1:4	N/A	C1:G		1	9	-	214	2105	277	77.3%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	16	-	705	2120:1980	474+443	76.1 : 77.7%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	16	-	721	2120:2120	474+474	75.1 : 77.0%
11/1	Ahead	U	2:3	N/A	C2:E		1	44	-	611	1900	1125	54.3%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	44	-	619	1900	1125	55.0%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	799	1995	1523	52.5%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	805	1995	1523	52.9%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	374	1980:1980	508+513	36.6 : 36.6%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	301	2120	586	51.4%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	660	2120:2120	586+586	53.4 : 59.2%
15/1	Ahead	U	1:2	N/A	C1:D		1	34	-	662	2000	921	71.9%
15/2	Ahead	U	1:2	N/A	C1:D		1	34	-	669	2000	921	72.6%
15/3	Ahead	U	1:2	N/A	C1:D		1	34	-	712	2000	921	77.3%
16/1	Right	U	2:4	N/A	C2:G		1	16	-	361	2000	447	80.7%
16/2	Right	U	2:4	N/A	C2:G		1	16	-	356	2000	447	79.6%
16/3	Right	U	2:4	N/A	C2:G		1	16	-	365	2000	447	81.6%
17/1	Ahead	U	2:4	N/A	C2:H		1	48	-	301	2000	1289	23.3%
17/2	Ahead	U	2:4	N/A	C2:H		1	48	-	313	2000	1289	24.3%
17/3	Ahead	U	2:4	N/A	C2:H		1	48	-	347	2000	1289	26.9%
18/1	Ahead	U	1:4	N/A	C1:H		1	53	-	561	2000	1421	39.5%
18/2	Ahead	U	1:4	N/A	C1:H		1	53	-	659	2000	1421	46.4%
19/1	Ahead	U	1:4	N/A	C1:I		1	53	-	996	2000	1421	70.1%
19/2	Ahead	U	1:4	N/A	C1:I		1	53	-	912	2000	1421	64.2%
19/3	Ahead Right	U	1:4	N/A	C1:I		1	53	-	1022	2000	1421	71.9%
20/1+20/2	Right	U	1:2	N/A	C1:C		1	30	-	214	1800:1800	279+507	27.2 : 27.2%
21/1	Ahead	U	1:1	N/A	C1:A		1	41	-	738	2000	1105	66.8%
21/2	Ahead	U	1:1	N/A	C1:A		1	41	-	807	2000	1105	73.0%
21/3	Ahead	U	1:1	N/A	C1:A		1	41	-	424	2000	1105	38.4%
21/4	Right	U	1:1	N/A	C1:A		1	41	-	288	1900	1050	27.4%
J2: Watting Lane	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
1/3+1/4	Ahead Right	U	N/A	N/A	- C3:C		-	-	-	1594	3000:1842	2954+28	53.4 : 53.4%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	10	-	443	1901:1901	275+275	80.3 : 80.7%

5/2+5/1	Ahead Left	U	N/A	N/A	C3:A		1	54	-	1204	1980:1786	1199+355	77.5 : 77.5%
5/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1125	2120	1534	73.3%
5/4	Ahead	U	N/A	N/A	C3:A		1	54	-	994	1980	1433	69.4%

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 15 Mitigation Model	-	-	0	0	0	85.5	49.4	0.0	134.9	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	79.2	42.6	0.0	121.8	-	-	-	-
1/2+1/1	784	784	-	-	-	4.9	1.4	-	6.3 (2.4+3.9)	29.0 (27.6:29.9)	8.8	1.4	10.2
1/3+1/4	1386	1386	-	-	-	8.9	2.5	-	11.4 (4.9+6.5)	29.6 (30.8:28.8)	11.2	2.5	13.7
3/1	338	338	-	-	-	1.3	0.8	-	2.1	21.9	4.6	0.8	5.4
3/3+3/2	411	411	-	-	-	1.1	0.9	-	2.0 (1.4+0.6)	17.4 (15.9:22.6)	2.0	0.9	2.9
3/4	355	355	-	-	-	0.8	0.9	-	1.7	17.3	1.2	0.9	2.1
4/2+4/1	1176	1176	-	-	-	3.1	0.7	-	3.8 (1.8+2.0)	11.5 (11.3:11.8)	7.8	0.7	8.5
4/3	679	679	-	-	-	1.9	0.6	-	2.5	13.2	8.9	0.6	9.5
4/4+4/5	1579	1579	-	-	-	5.1	2.0	-	7.1 (2.1+5.0)	16.3 (13.8:17.7)	17.3	2.0	19.4
6/1	1009	1009	-	-	-	4.3	1.8	-	6.0	21.5	21.0	1.8	22.8
6/2	964	964	-	-	-	4.0	1.5	-	5.4	20.3	19.1	1.5	20.6
6/3	1045	1045	-	-	-	1.7	2.1	-	3.8	13.2	21.6	2.1	23.7
8/1	168	168	-	-	-	1.5	1.0	-	2.4	52.2	3.4	1.0	4.3
8/2	214	214	-	-	-	1.9	1.6	-	3.5	59.1	4.3	1.6	6.0
9/2+9/1	705	705	-	-	-	5.4	1.6	-	7.1 (3.6+3.4)	36.0 (36.0:36.1)	7.1	1.6	8.8
9/3+9/4	721	721	-	-	-	5.5	1.6	-	7.1 (3.5+3.6)	35.4 (35.3:35.5)	7.2	1.6	8.8
11/1	611	611	-	-	-	1.3	0.6	-	1.9	11.2	3.5	0.6	4.1
11/2	619	619	-	-	-	1.2	0.6	-	1.8	10.5	3.1	0.6	3.7
12/1	799	799	-	-	-	0.1	0.6	-	0.7	3.0	0.7	0.6	1.3
12/2	805	805	-	-	-	0.1	0.6	-	0.7	3.0	0.7	0.6	1.3
13/2+13/1	374	374	-	-	-	2.3	0.3	-	2.6 (1.3+1.3)	24.8 (24.8:24.8)	3.1	0.3	3.4
13/3	301	301	-	-	-	1.9	0.5	-	2.5	29.5	5.4	0.5	5.9

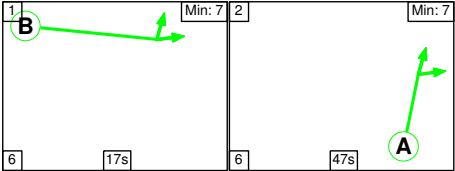
13/4+13/5	660	660	-	-	-	4.3	0.6	-	5.0 (2.3+2.6)	27.1 (26.9:27.3)	6.3	0.6	6.9
15/1	662	662	-	-	-	2.8	1.3	-	4.1	22.2	14.0	1.3	15.2
15/2	669	669	-	-	-	2.8	1.3	-	4.1	22.2	14.1	1.3	15.4
15/3	712	712	-	-	-	2.9	1.7	-	4.6	23.4	15.0	1.7	16.7
16/1	361	361	-	-	-	0.0	2.0	-	2.0	20.3	0.4	2.0	2.4
16/2	356	356	-	-	-	0.0	1.9	-	1.9	19.3	0.4	1.9	2.2
16/3	365	365	-	-	-	0.0	2.1	-	2.1	21.1	0.4	2.1	2.5
17/1	301	301	-	-	-	0.8	0.2	-	1.0	11.8	2.5	0.2	2.6
17/2	313	313	-	-	-	0.9	0.2	-	1.1	12.5	2.7	0.2	2.9
17/3	347	347	-	-	-	1.2	0.2	-	1.4	14.4	3.4	0.2	3.6
18/1	561	561	-	-	-	0.5	0.3	-	0.8	5.0	3.3	0.3	3.6
18/2	659	659	-	-	-	0.6	0.4	-	1.1	5.9	3.6	0.4	4.0
19/1	996	996	-	-	-	0.7	1.2	-	1.9	6.8	4.7	1.2	5.9
19/2	912	912	-	-	-	0.6	0.9	-	1.5	6.0	4.2	0.9	5.1
19/3	1022	1022	-	-	-	0.9	1.3	-	2.2	7.8	2.8	1.3	4.1
20/1+20/2	214	214	-	-	-	0.2	0.2	-	0.4 (0.1+0.3)	7.1 (6.7:7.3)	3.4	0.2	3.6
21/1	738	738	-	-	-	0.5	1.0	-	1.5	7.1	1.6	1.0	2.6
21/2	807	807	-	-	-	0.9	1.3	-	2.2	9.8	2.9	1.3	4.3
21/3	424	424	-	-	-	0.0	0.3	-	0.3	2.6	0.0	0.3	0.3
21/4	288	288	-	-	-	0.0	0.2	-	0.2	2.4	0.0	0.2	0.2
J2: Wattering Lane	-	-	0	0	0	6.3	6.8	0.0	13.1	-	-	-	-
1/3+1/4	1594	1594	-	-	-	0.1	0.6	-	0.7 (0.6+0.1)	1.6 (1.3:29.5)	0.3	0.6	0.8
3/1+3/2	443	443	-	-	-	3.9	2.0	-	5.9 (2.9+2.9)	47.7 (47.6:47.7)	4.5	2.0	6.5
5/2+5/1	1204	1204	-	-	-	0.7	1.7	-	2.4 (1.9+0.5)	7.3 (7.5:6.6)	18.6	1.7	20.3
5/3	1125	1125	-	-	-	0.6	1.4	-	2.0	6.3	7.7	1.4	9.1
5/4	994	994	-	-	-	1.0	1.1	-	2.1	7.7	4.5	1.1	5.6

C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%):	5.7	Total Delay for Signalled Lanes (pcuHr):	21.89	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%):	16.4	Total Delay for Signalled Lanes (pcuHr):	13.26	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 3 PRC for Signalled Lanes (%):	8.1	Total Delay for Signalled Lanes (pcuHr):	19.15	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 4 PRC for Signalled Lanes (%):	16.5	Total Delay for Signalled Lanes (pcuHr):	13.44	Cycle Time (s):	76
C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%):	11.1	Total Delay for Signalled Lanes (pcuHr):	29.45	Cycle Time (s):	76
C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%):	70.2	Total Delay for Signalled Lanes (pcuHr):	1.34	Cycle Time (s):	76
C2 - Westside Controller	Stream: 3 PRC for Signalled Lanes (%):	51.9	Total Delay for Signalled Lanes (pcuHr):	13.71	Cycle Time (s):	76
C2 - Westside Controller	Stream: 4 PRC for Signalled Lanes (%):	10.3	Total Delay for Signalled Lanes (pcuHr):	9.54	Cycle Time (s):	76
C3 - Watering Lane	PRC for Signalled Lanes (%):	11.5	Total Delay for Signalled Lanes (pcuHr):	12.42	Cycle Time (s):	76
	PRC Over All Lanes (%):	5.7	Total Delay Over All Lanes(pcuHr):	134.89		

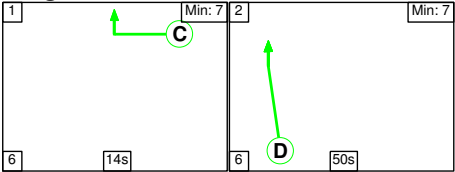
C1 - Eastside Controller

Stage Sequence Diagram

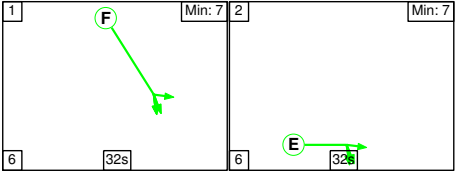
Stage Stream: 1



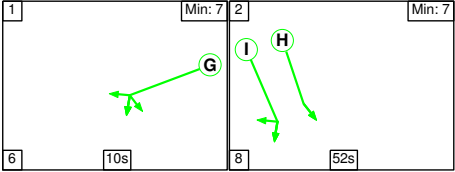
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	17	47
Change Point	56	3

Stage Stream: 2

Stage	1	2
Duration	14	50
Change Point	62	6

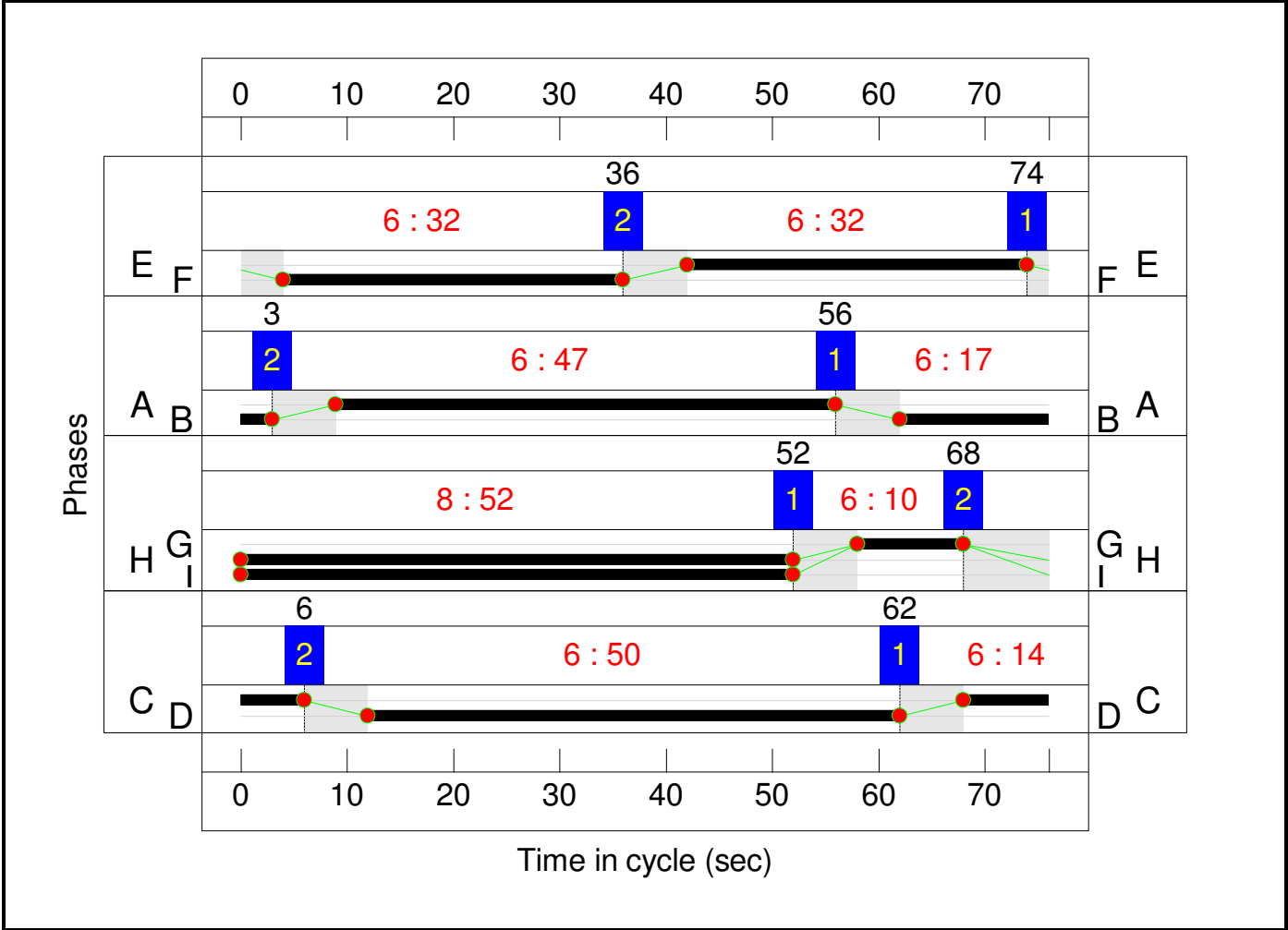
Stage Stream: 3

Stage	1	2
Duration	32	32
Change Point	74	36

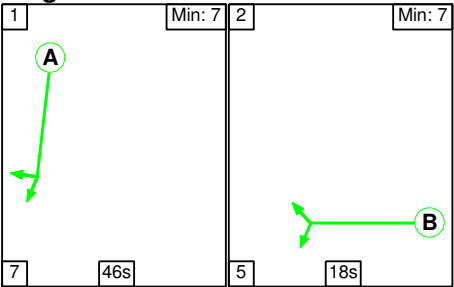
Stage Stream: 4

Stage	1	2
Duration	10	52
Change Point	52	68

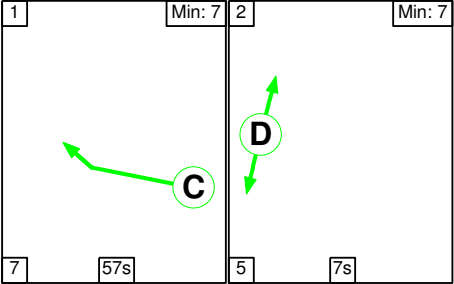
Signal Timings Diagram



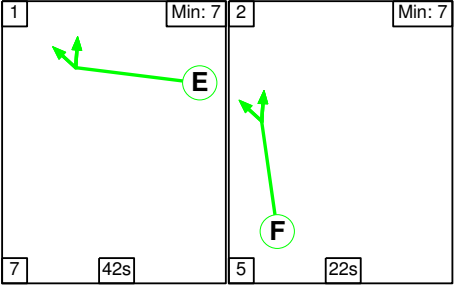
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



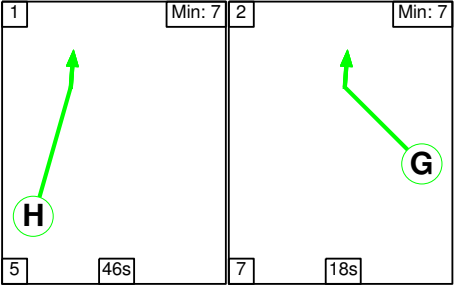
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	23	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	15	3

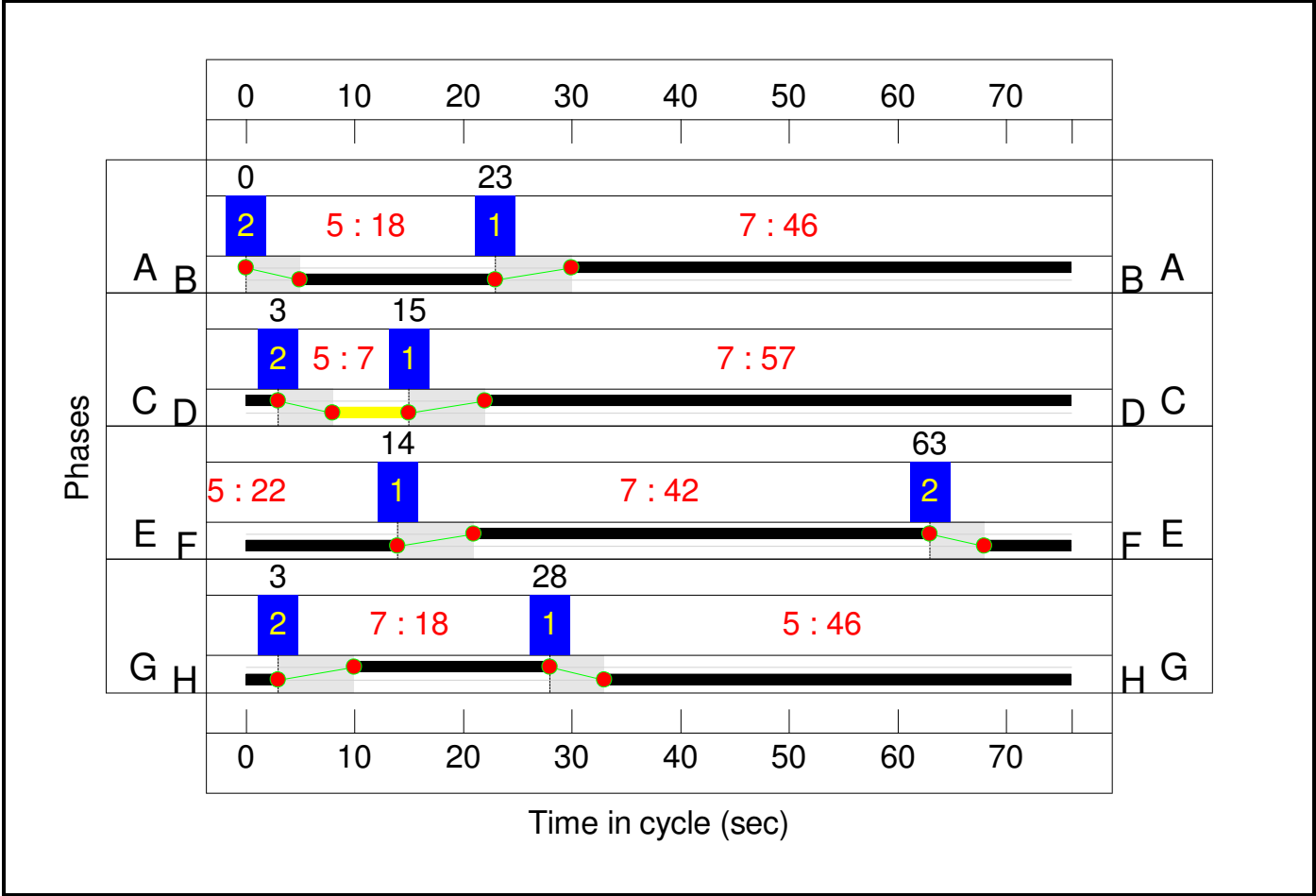
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	14	63

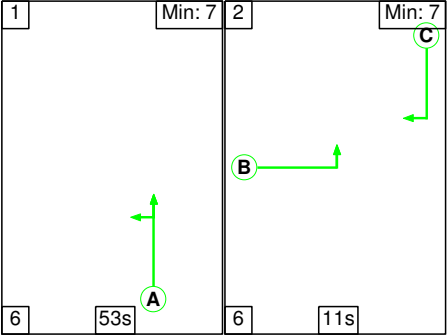
Stage Stream: 4

Stage	1	2
Duration	46	18
Change Point	28	3

Signal Timings Diagram



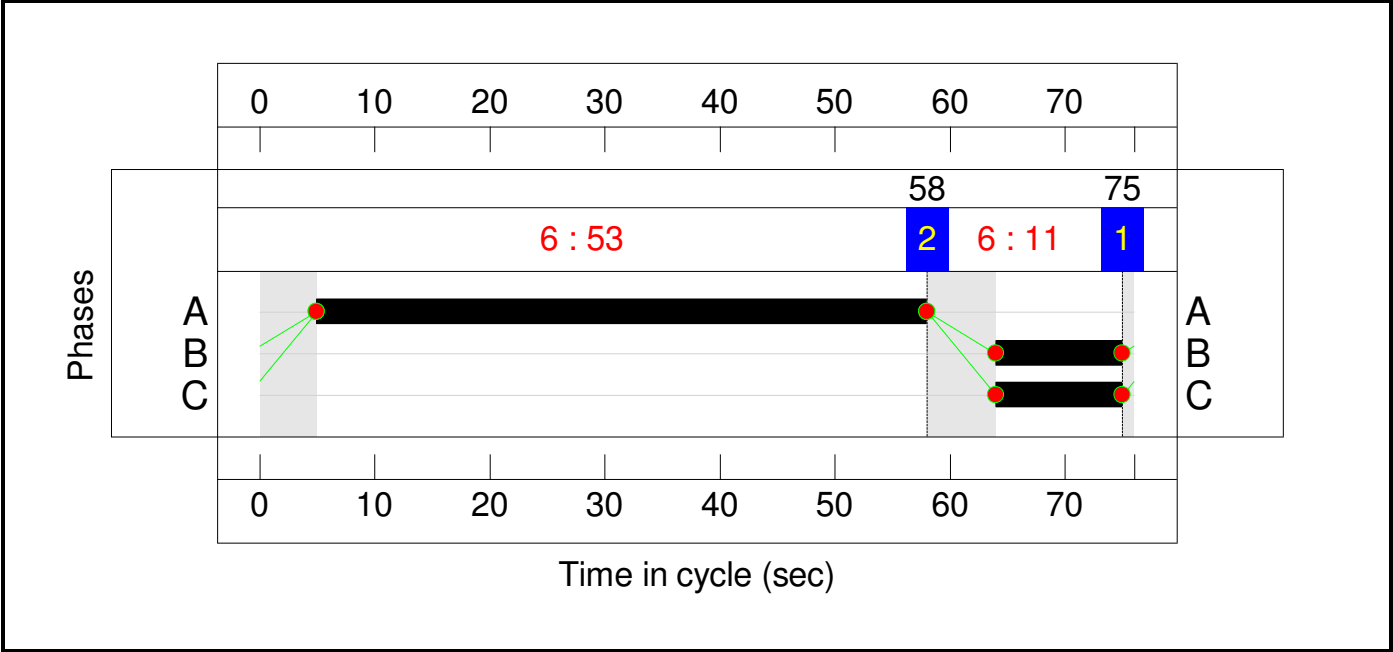
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	53	11
Change Point	75	58

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	93.6%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	91.9%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	17	-	836	2120:1980	502+469	86.0 : 86.2%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	17	-	937	2120:4000	502+582	86.4 : 86.4%
3/1	Ahead Right	U	1:3	N/A	C1:E		1	32	-	465	1900	825	56.4%
3/3+3/2	Right Right2	U	1:3	N/A	C1:E		1	32	-	445	1900:1900	412+600	44.0 : 44.0%
3/4	Right	U	1:3	N/A	C1:E		1	32	-	179	1900	825	21.7%
4/2+4/1	A45 Southbound Left Ahead	U	1:3	N/A	C1:F		1	32	-	1217	2120:1980	921+860	62.9 : 74.2%
4/3	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	32	-	761	2120	921	82.7%
4/4+4/5	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	32	-	1632	2120:2120	921+921	85.4 : 91.9%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	962	2000	1237	77.8%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	46	-	988	2000	1237	79.9%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	894	2000	1237	72.3%
8/1	Saxon Avenue Left Left2	U	1:4	N/A	C1:G		1	10	-	143	1930	279	51.2%
8/2	Saxon Avenue Ahead	U	1:4	N/A	C1:G		1	10	-	237	2105	305	77.8%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	589	2120:1980	530+248	75.7 : 75.7%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	818	2120:2120	530+530	75.8 : 78.5%
11/1	Ahead	U	2:3	N/A	C2:E		1	42	-	733	1900	1075	68.2%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	42	-	691	1900	1075	64.3%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1043	1995	1523	68.5%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1008	1995	1523	66.2%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	627	1980:1980	540+528	58.8 : 58.8%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	439	2120	642	68.4%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	987	2120:2120	642+642	69.7 : 84.2%
15/1	Ahead	U	1:2	N/A	C1:D		1	50	-	840	2000	1342	62.6%
15/2	Ahead	U	1:2	N/A	C1:D		1	50	-	849	2000	1342	63.3%
15/3	Ahead	U	1:2	N/A	C1:D		1	50	-	956	2000	1342	71.2%
16/1	Right	U	2:4	N/A	C2:G		1	18	-	401	2000	500	80.2%
16/2	Right	U	2:4	N/A	C2:G		1	18	-	402	2000	500	80.4%
16/3	Right	U	2:4	N/A	C2:G		1	18	-	416	2000	500	83.2%
17/1	Ahead	U	2:4	N/A	C2:H		1	46	-	439	2000	1237	35.5%
17/2	Ahead	U	2:4	N/A	C2:H		1	46	-	447	2000	1237	36.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	46	-	540	2000	1237	43.7%
18/1	Ahead	U	1:4	N/A	C1:H		1	52	-	587	2000	1395	42.1%
18/2	Ahead	U	1:4	N/A	C1:H		1	52	-	843	2000	1395	60.4%
19/1	Ahead	U	1:4	N/A	C1:I		1	52	-	942	2000	1395	67.5%
19/2	Ahead	U	1:4	N/A	C1:I		1	52	-	965	2000	1395	69.2%
19/3	Ahead Right	U	1:4	N/A	C1:I		1	52	-	846	2000	1395	60.7%
20/1+20/2	Right	U	1:2	N/A	C1:C		1	14	-	237	1800:1800	198+237	54.5 : 54.5%
21/1	Ahead	U	1:1	N/A	C1:A		1	47	-	948	2000	1263	75.1%
21/2	Ahead	U	1:1	N/A	C1:A		1	47	-	978	2000	1263	77.4%
21/3	Ahead	U	1:1	N/A	C1:A		1	47	-	370	2000	1263	29.3%
21/4	Right	U	1:1	N/A	C1:A		1	47	-	586	1900	1200	48.8%
J2: Watting Lane	-	-	N/A	-	-		-	-	-	-	-	-	93.6%
1/3+1/4	Ahead Right	U	N/A	N/A	- C3:C		-	-	-	1696	3000:1842	2820+111	57.9 : 57.9%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	11	-	518	1901:1901	300+300	86.3 : 86.3%

5/2+5/1	Ahead Left	U	N/A	N/A	C3:A		1	53	-	1352	1980:1786	1259+221	91.4 : 91.4%
5/3	Ahead	U	N/A	N/A	C3:A		1	53	-	1410	2120	1506	93.6%
5/4	Ahead	U	N/A	N/A	C3:A		1	53	-	804	1980	1407	57.1%

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 15 Mitigation Model	-	-	0	0	0	96.0	66.5	0.0	162.4	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	85.9	50.8	0.0	136.7	-	-	-	-
1/2+1/1	836	836	-	-	-	6.5	3.0	-	9.4 (4.9+4.6)	40.6 (40.6:40.6)	8.6	3.0	11.6
1/3+1/4	937	937	-	-	-	6.9	3.1	-	10.0 (4.8+5.2)	38.2 (39.6:37.1)	8.7	3.1	11.7
3/1	465	465	-	-	-	1.2	0.6	-	1.9	14.4	4.8	0.6	5.4
3/3+3/2	445	445	-	-	-	1.0	0.4	-	1.4 (0.5+0.9)	11.3 (9.6:12.4)	2.3	0.4	2.7
3/4	179	179	-	-	-	0.3	0.1	-	0.5	9.2	0.6	0.1	0.8
4/2+4/1	1217	1217	-	-	-	5.9	1.1	-	6.9 (3.2+3.7)	20.6 (19.9:21.1)	11.2	1.1	12.2
4/3	761	761	-	-	-	4.0	2.3	-	6.3	29.9	14.2	2.3	16.5
4/4+4/5	1632	1632	-	-	-	9.0	3.8	-	12.7 (6.0+6.7)	28.1 (27.6:28.6)	16.7	3.8	20.5
6/1	962	962	-	-	-	3.9	1.7	-	5.6	21.0	19.9	1.7	21.6
6/2	988	988	-	-	-	4.0	2.0	-	6.0	21.7	20.4	2.0	22.4
6/3	894	894	-	-	-	2.2	1.3	-	3.4	13.9	17.9	1.3	19.2
8/1	143	143	-	-	-	1.2	0.5	-	1.7	43.1	2.8	0.5	3.3
8/2	237	237	-	-	-	2.1	1.7	-	3.7	56.7	4.8	1.7	6.5
9/2+9/1	589	589	-	-	-	4.2	1.5	-	5.7 (4.0+1.7)	34.8 (35.7:33.0)	7.8	1.5	9.3
9/3+9/4	818	818	-	-	-	6.0	1.7	-	7.7 (3.8+3.9)	33.8 (33.7:33.9)	8.1	1.7	9.8
11/1	733	733	-	-	-	1.6	1.1	-	2.6	12.9	3.7	1.1	4.8
11/2	691	691	-	-	-	1.0	0.9	-	1.9	9.8	2.5	0.9	3.4
12/1	1043	1043	-	-	-	0.2	1.1	-	1.3	4.5	1.6	1.1	2.7
12/2	1008	1008	-	-	-	0.2	1.0	-	1.2	4.3	1.7	1.0	2.7
13/2+13/1	627	627	-	-	-	3.8	0.7	-	4.5 (2.3+2.2)	26.0 (26.1:26.0)	5.5	0.7	6.3
13/3	439	439	-	-	-	2.8	1.1	-	3.9	32.1	8.0	1.1	9.1

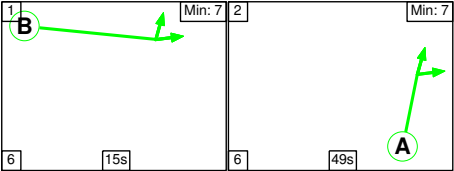
13/4+13/5	987	987	-	-	-	6.6	1.6	-	8.3 (3.7+4.6)	30.2 (29.4:30.8)	10.7	1.6	12.3
15/1	840	840	-	-	-	0.3	0.8	-	1.1	4.9	3.9	0.8	4.7
15/2	849	849	-	-	-	0.3	0.9	-	1.2	4.9	3.9	0.9	4.7
15/3	956	956	-	-	-	0.3	1.2	-	1.5	5.8	3.9	1.2	5.1
16/1	401	401	-	-	-	0.0	1.9	-	2.0	17.9	0.4	1.9	2.4
16/2	402	402	-	-	-	0.0	2.0	-	2.0	18.0	0.4	2.0	2.4
16/3	416	416	-	-	-	0.0	2.3	-	2.4	20.7	0.4	2.3	2.8
17/1	439	439	-	-	-	2.1	0.3	-	2.3	19.1	5.4	0.3	5.7
17/2	447	447	-	-	-	2.1	0.3	-	2.4	19.4	5.5	0.3	5.8
17/3	540	540	-	-	-	2.9	0.4	-	3.3	22.2	7.5	0.4	7.9
18/1	587	587	-	-	-	0.4	0.4	-	0.8	4.8	2.0	0.4	2.4
18/2	843	843	-	-	-	0.8	0.8	-	1.6	6.6	3.3	0.8	4.0
19/1	942	942	-	-	-	0.2	1.0	-	1.3	4.8	2.4	1.0	3.4
19/2	965	965	-	-	-	0.2	1.1	-	1.3	5.0	2.4	1.1	3.5
19/3	846	846	-	-	-	0.2	0.8	-	1.0	4.1	0.9	0.8	1.7
20/1+20/2	237	237	-	-	-	0.2	0.6	-	0.8 (0.3+0.4)	11.5 (11.4:11.6)	3.9	0.6	4.5
21/1	948	948	-	-	-	0.4	1.5	-	1.9	7.1	2.3	1.5	3.8
21/2	978	978	-	-	-	0.5	1.7	-	2.1	7.9	2.7	1.7	4.4
21/3	370	370	-	-	-	0.0	0.2	-	0.2	2.3	0.1	0.2	0.3
21/4	586	586	-	-	-	0.3	0.5	-	0.8	4.7	0.8	0.5	1.2
J2: Wattering Lane	-	-	0	0	0	10.1	15.7	0.0	25.7	-	-	-	-
1/3+1/4	1696	1696	-	-	-	0.5	0.7	-	1.2 (0.7+0.5)	2.5 (1.5:29.4)	1.2	0.7	1.9
3/1+3/2	518	518	-	-	-	4.5	2.9	-	7.4 (3.7+3.7)	51.6 (51.6:51.6)	5.3	2.9	8.3
5/2+5/1	1352	1352	-	-	-	1.9	4.9	-	6.8 (5.9+0.9)	18.2 (18.5:16.0)	17.6	4.9	22.5
5/3	1410	1410	-	-	-	2.6	6.5	-	9.1	23.2	18.9	6.5	25.3
5/4	804	804	-	-	-	0.6	0.7	-	1.2	5.5	9.0	0.7	9.6

C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%):	4.1	Total Delay for Signalled Lanes (pcuHr):	24.38	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%):	26.3	Total Delay for Signalled Lanes (pcuHr):	4.60	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 3 PRC for Signalled Lanes (%):	-2.1	Total Delay for Signalled Lanes (pcuHr):	29.74	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 4 PRC for Signalled Lanes (%):	15.7	Total Delay for Signalled Lanes (pcuHr):	11.35	Cycle Time (s):	76
C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%):	12.7	Total Delay for Signalled Lanes (pcuHr):	28.41	Cycle Time (s):	76
C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%):	31.4	Total Delay for Signalled Lanes (pcuHr):	2.52	Cycle Time (s):	76
C2 - Westside Controller	Stream: 3 PRC for Signalled Lanes (%):	6.9	Total Delay for Signalled Lanes (pcuHr):	21.23	Cycle Time (s):	76
C2 - Westside Controller	Stream: 4 PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	14.46	Cycle Time (s):	76
C3 - Watering Lane	PRC for Signalled Lanes (%):	-4.0	Total Delay for Signalled Lanes (pcuHr):	24.55	Cycle Time (s):	76
	PRC Over All Lanes (%):	-4.0	Total Delay Over All Lanes(pcuHr):	162.42		

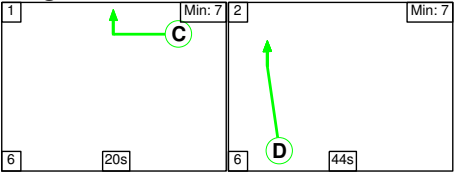
C1 - Eastside Controller

Stage Sequence Diagram

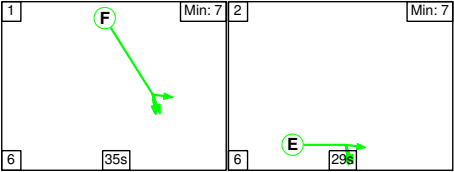
Stage Stream: 1



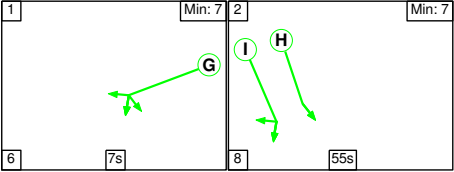
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	49
Change Point	52	73

Stage Stream: 2

Stage	1	2
Duration	20	44
Change Point	53	3

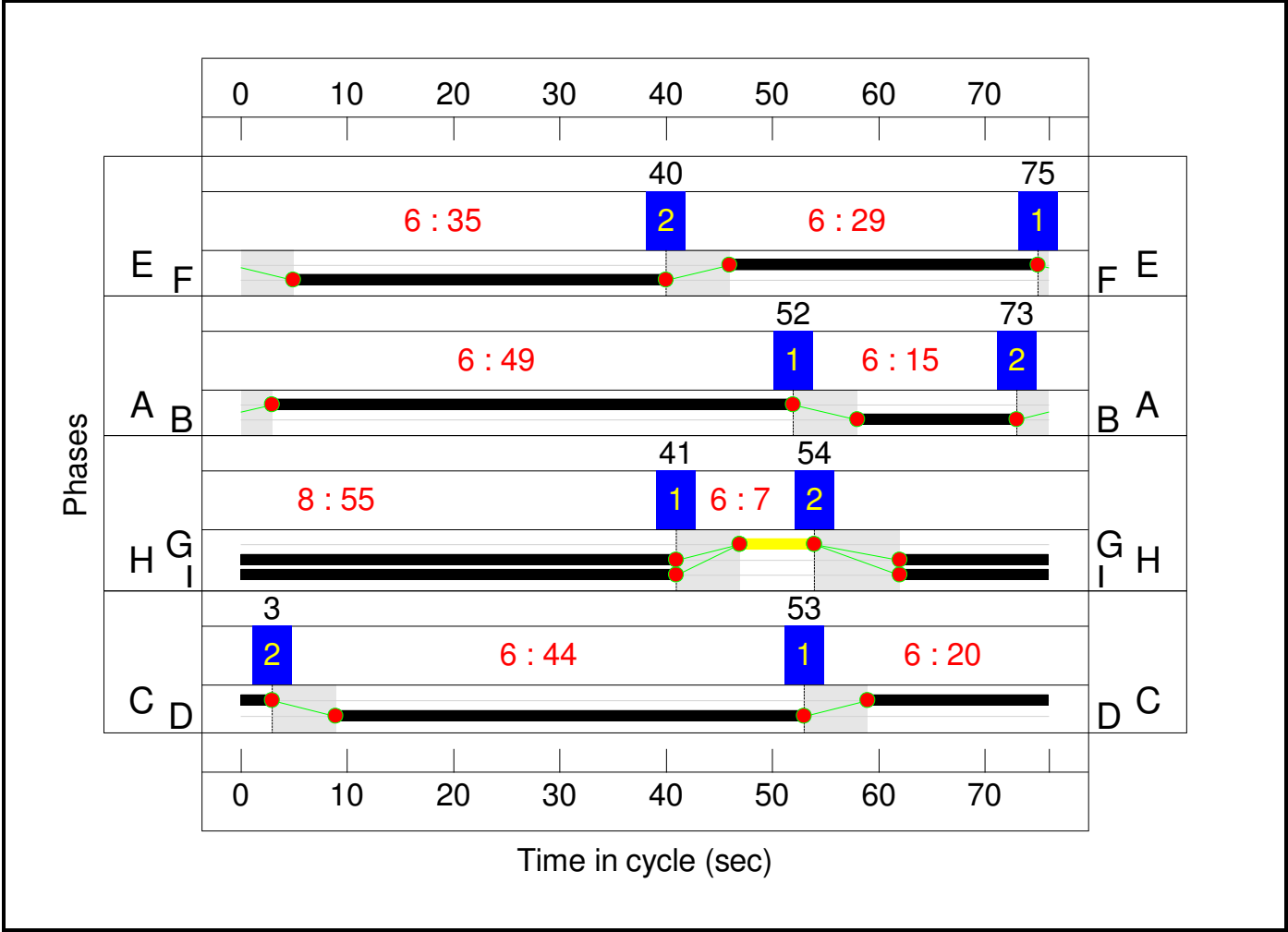
Stage Stream: 3

Stage	1	2
Duration	35	29
Change Point	75	40

Stage Stream: 4

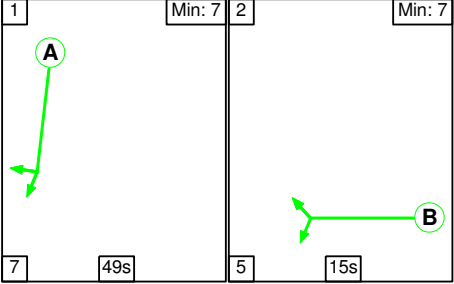
Stage	1	2
Duration	7	55
Change Point	41	54

Signal Timings Diagram

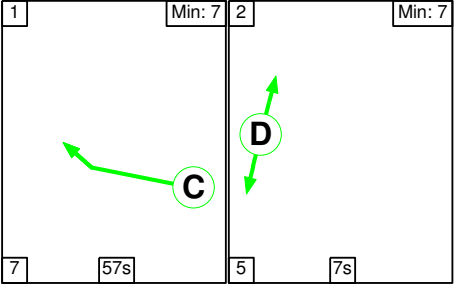


C2 - Westside Controller
Stage Sequence Diagram

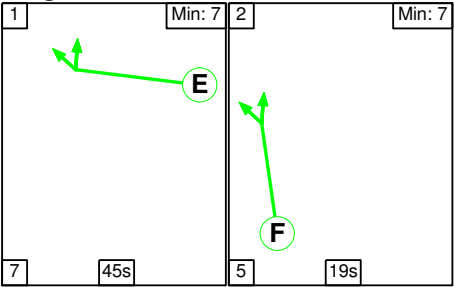
Stage Stream: 1



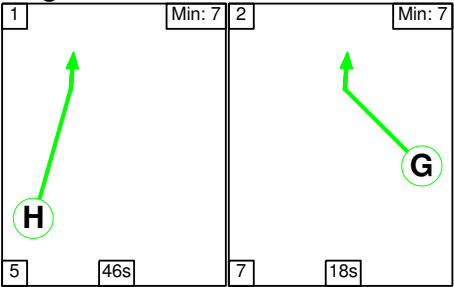
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	15
Change Point	20	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	14	2

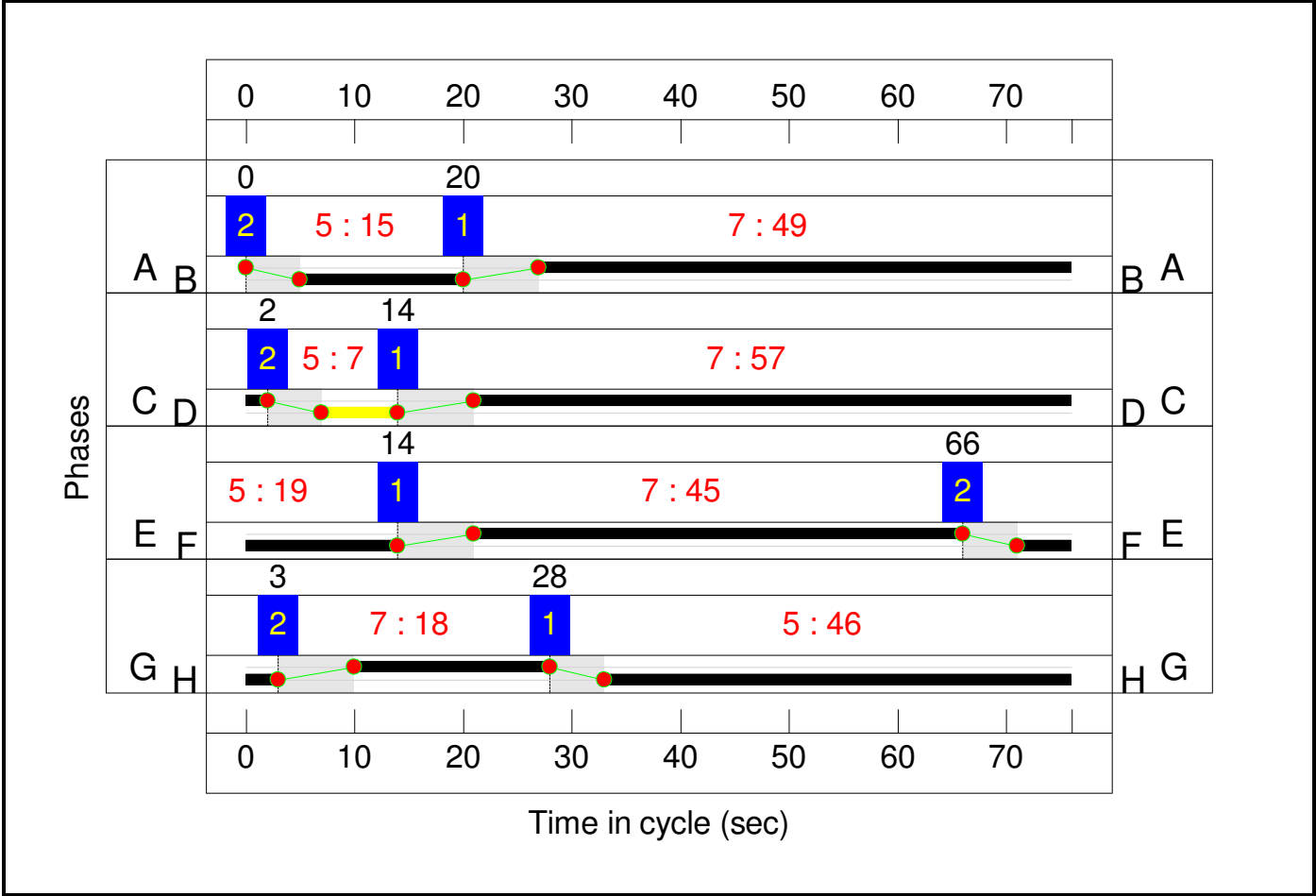
Stage Stream: 3

Stage	1	2
Duration	45	19
Change Point	14	66

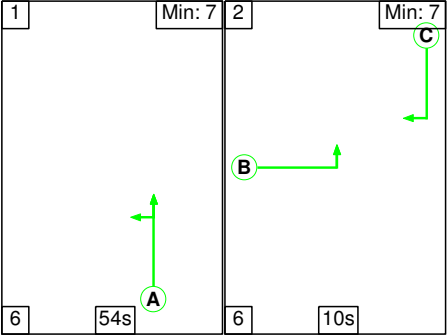
Stage Stream: 4

Stage	1	2
Duration	46	18
Change Point	28	3

Signal Timings Diagram



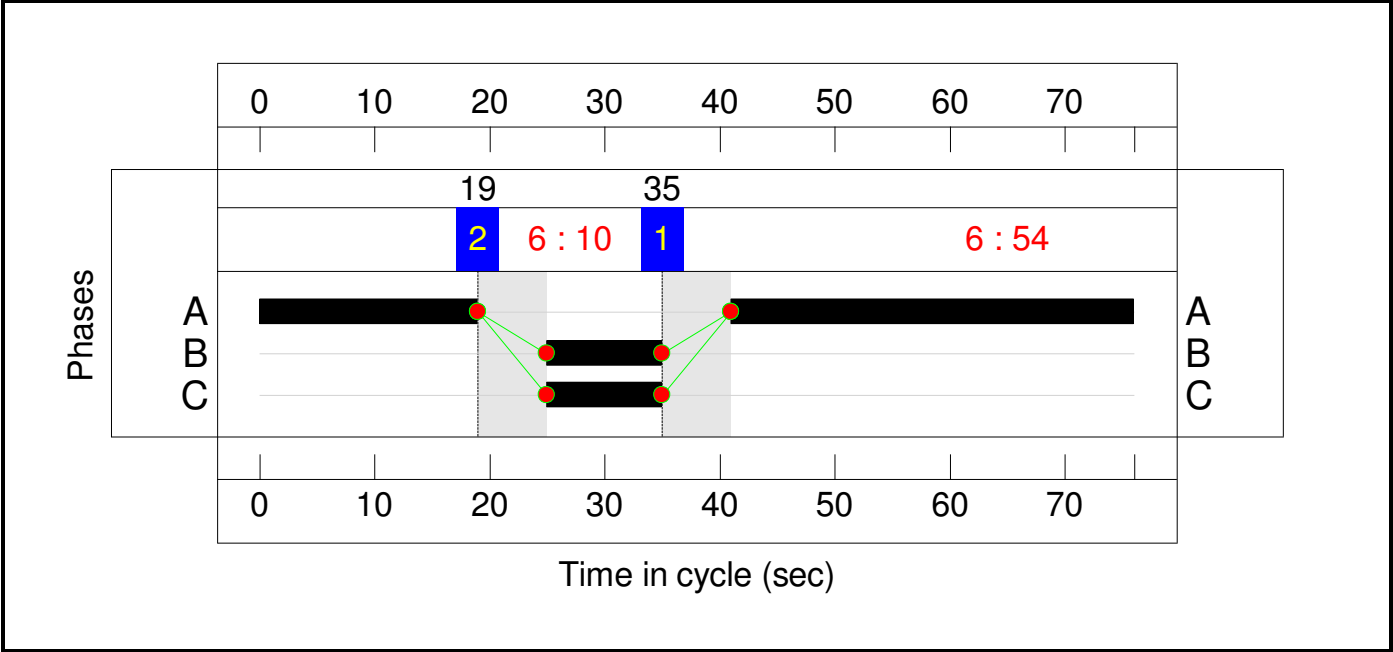
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	35	19

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	119.6%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	119.6%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	15	-	1031	2120:1980	446+417	119.4 : 119.5%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	15	-	1429	2120:4000	446+842	119.6 : 106.3%
3/1	Ahead Right	U	1:3	N/A	C1:E		1	29	-	388	1900	750	50.4%
3/3+3/2	Right Right2	U	1:3	N/A	C1:E		1	29	-	441	1900:1900	654+182	49.6 : 52.8%
3/4	Right	U	1:3	N/A	C1:E		1	29	-	384	1900	750	48.2%
4/2+4/1	A45 Southbound Left Ahead	U	1:3	N/A	C1:F		1	35	-	1359	2120:1980	1004+938	66.4 : 73.8%
4/3	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	35	-	822	2120	1004	81.9%
4/4+4/5	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	35	-	1743	2120:2120	926+1004	82.2 : 97.8%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1182	2000	1316	88.3%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	49	-	1177	2000	1316	87.7%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1034	2000	1316	78.6%
8/1	Saxon Avenue Left Left2	U	1:4	N/A	C1:G		1	7	-	192	1919	202	95.0%
8/2	Saxon Avenue Ahead	U	1:4	N/A	C1:G		1	7	-	246	2105	222	111.0%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	775	2120:1980	446+417	95.2 : 84.0%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	827	2120:2120	446+446	88.5 : 96.8%
11/1	Ahead	U	2:3	N/A	C2:E		1	45	-	699	1900	1150	60.8%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	45	-	721	1900	1150	62.7%

12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	909	1995	1523	59.7%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	929	1995	1523	61.0%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	418	1980:1980	495+500	42.0 : 42.0%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	330	2120	558	59.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	744	2120:2120	558+558	62.9 : 70.4%
15/1	Ahead	U	1:2	N/A	C1:D		1	44	-	755	2000	1184	63.8%
15/2	Ahead	U	1:2	N/A	C1:D		1	44	-	746	2000	1184	63.0%
15/3	Ahead	U	1:2	N/A	C1:D		1	44	-	825	2000	1184	69.7%
16/1	Right	U	2:4	N/A	C2:G		1	18	-	425	2000	500	85.0%
16/2	Right	U	2:4	N/A	C2:G		1	18	-	395	2000	500	79.0%
16/3	Right	U	2:4	N/A	C2:G		1	18	-	432	2000	500	86.4%
17/1	Ahead	U	2:4	N/A	C2:H		1	46	-	330	2000	1237	26.7%
17/2	Ahead	U	2:4	N/A	C2:H		1	46	-	351	2000	1237	28.4%
17/3	Ahead	U	2:4	N/A	C2:H		1	46	-	393	2000	1237	31.8%
18/1	Ahead	U	1:4	N/A	C1:H		1	55	-	631	2000	1474	42.8%
18/2	Ahead	U	1:4	N/A	C1:H		1	55	-	763	2000	1474	51.8%
19/1	Ahead	U	1:4	N/A	C1:I		1	55	-	1167	2000	1474	77.8%
19/2	Ahead	U	1:4	N/A	C1:I		1	55	-	1145	2000	1474	76.2%
19/3	Ahead Right	U	1:4	N/A	C1:I		1	55	-	982	2000	1474	66.6%
20/1+20/2	Right	U	1:2	N/A	C1:C		1	20	-	246	1800:1800	324+245	38.9 : 38.9%
21/1	Ahead	U	1:1	N/A	C1:A		1	49	-	895	2000	1316	67.0%
21/2	Ahead	U	1:1	N/A	C1:A		1	49	-	852	2000	1316	64.0%
21/3	Ahead	U	1:1	N/A	C1:A		1	49	-	507	2000	1316	38.5%
21/4	Right	U	1:1	N/A	C1:A		1	49	-	318	1900	1250	25.4%
J2: Watting Lane	-	-	N/A	-	-		-	-	-	-	-	-	84.9%
1/3+1/4	Ahead Right	U	N/A	N/A	- C3:C		-	-	-	1760	3000:1842	2953+29	59.0 : 59.0%

3/1+3/2	Left	U	N/A	N/A	C3:B		1	10	-	443	1901:1901	275+275	80.3 : 80.7%
5/2+5/1	Ahead Left	U	N/A	N/A	C3:A		1	54	-	1393	1980:1786	1231+303	84.5 : 84.9%
5/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1385	2120	1534	83.9%
5/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1041	1980	1433	66.5%

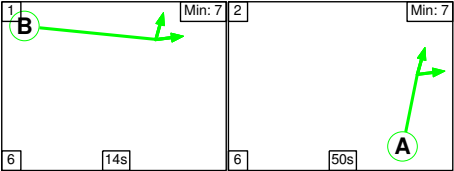
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	112.1	243.4	0.0	355.4	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	104.2	234.4	0.0	338.6	-	-	-	-
1/2+1/1	1031	863	-	-	-	12.5	86.9	-	99.4 (51.4+48.1)	347.1 (346.8:347.5)	13.1	86.9	100.0
1/3+1/4	1429	1288	-	-	-	15.2	75.0	-	90.3 (52.1+38.1)	227.4 (351.4:153.4)	13.1	75.0	88.2
3/1	378	378	-	-	-	1.4	0.5	-	1.9	17.8	4.5	0.5	5.0
3/3+3/2	421	421	-	-	-	1.2	0.5	-	1.7 (1.2+0.5)	14.4 (12.9:19.3)	1.3	0.5	1.8
3/4	361	361	-	-	-	0.9	0.5	-	1.3	13.2	1.4	0.5	1.9
4/2+4/1	1359	1359	-	-	-	6.0	1.2	-	7.1 (3.4+3.7)	18.9 (18.4:19.3)	11.7	1.2	12.9
4/3	822	822	-	-	-	3.9	2.2	-	6.1	26.8	14.8	2.2	17.0
4/4+4/5	1743	1743	-	-	-	8.8	4.5	-	13.3 (5.4+7.9)	27.4 (25.6:28.8)	20.2	4.5	24.6
6/1	1162	1162	-	-	-	5.2	3.6	-	8.8	27.3	22.9	3.6	26.5
6/2	1154	1154	-	-	-	5.5	3.4	-	8.9	27.7	22.7	3.4	26.1
6/3	1034	1034	-	-	-	2.2	1.8	-	4.0	13.8	19.4	1.8	21.2
8/1	192	192	-	-	-	1.8	4.9	-	6.7	125.0	4.0	4.9	8.9
8/2	246	222	-	-	-	3.0	16.0	-	19.0	278.7	5.7	16.0	21.8
9/2+9/1	775	775	-	-	-	6.3	4.0	-	10.3 (5.7+4.6)	47.9 (48.3:47.5)	8.9	4.0	12.9
9/3+9/4	827	827	-	-	-	6.8	5.4	-	12.2 (5.8+6.4)	53.0 (52.7:53.3)	9.0	5.4	14.4
11/1	699	699	-	-	-	1.1	0.8	-	1.8	9.5	3.0	0.8	3.8
11/2	721	721	-	-	-	0.6	0.8	-	1.4	7.0	1.9	0.8	2.8
12/1	909	909	-	-	-	0.2	0.7	-	0.9	3.7	1.1	0.7	1.9
12/2	929	929	-	-	-	0.2	0.8	-	1.0	3.8	1.1	0.8	1.9
13/2+13/1	418	418	-	-	-	2.7	0.4	-	3.0 (1.5+1.5)	26.2 (26.2:26.2)	3.6	0.4	4.0
13/3	330	330	-	-	-	2.2	0.7	-	3.0	32.3	6.1	0.7	6.8

13/4+13/5	744	744	-	-	-	5.2	1.0	-	6.2 (2.9+3.3)	29.9 (29.5:30.1)	7.4	1.0	8.4
15/1	755	755	-	-	-	0.0	0.9	-	0.9	4.2	0.0	0.9	0.9
15/2	746	746	-	-	-	0.0	0.8	-	0.8	4.1	0.0	0.8	0.8
15/3	825	825	-	-	-	0.0	1.1	-	1.1	5.0	0.0	1.1	1.1
16/1	425	425	-	-	-	0.1	2.6	-	2.7	22.9	0.5	2.6	3.1
16/2	395	395	-	-	-	0.0	1.8	-	1.9	17.0	0.4	1.8	2.3
16/3	432	432	-	-	-	0.1	2.9	-	3.0	24.8	0.5	2.9	3.4
17/1	330	330	-	-	-	1.8	0.2	-	2.0	21.6	4.7	0.2	4.9
17/2	351	351	-	-	-	2.0	0.2	-	2.2	22.3	5.2	0.2	5.4
17/3	393	393	-	-	-	2.3	0.2	-	2.6	23.5	6.1	0.2	6.3
18/1	631	631	-	-	-	0.4	0.4	-	0.7	4.2	2.9	0.4	3.2
18/2	763	763	-	-	-	0.5	0.5	-	1.0	4.8	2.8	0.5	3.3
19/1	1147	1147	-	-	-	0.6	1.7	-	2.3	7.3	2.2	1.7	3.9
19/2	1122	1122	-	-	-	0.5	1.6	-	2.1	6.8	2.3	1.6	3.9
19/3	982	982	-	-	-	1.1	1.0	-	2.1	7.5	3.0	1.0	3.9
20/1+20/2	222	222	-	-	-	0.3	0.3	-	0.6 (0.3+0.3)	9.8 (10.0:9.6)	3.2	0.3	3.5
21/1	881	881	-	-	-	0.7	1.0	-	1.7	6.9	3.0	1.0	4.0
21/2	841	841	-	-	-	0.7	0.9	-	1.6	6.8	2.8	0.9	3.6
21/3	507	507	-	-	-	0.2	0.3	-	0.5	3.7	0.6	0.3	0.9
21/4	318	318	-	-	-	0.3	0.2	-	0.5	5.8	1.0	0.2	1.2
J2: Wattering Lane	-	-	0	0	0	7.9	8.9	0.0	16.9	-	-	-	-
1/3+1/4	1760	1760	-	-	-	0.1	0.7	-	0.9 (0.7+0.1)	1.7 (1.5:29.7)	0.3	0.7	1.0
3/1+3/2	443	443	-	-	-	3.9	2.0	-	5.9 (2.9+2.9)	47.7 (47.6:47.7)	4.5	2.0	6.5
5/2+5/1	1298	1298	-	-	-	1.4	2.7	-	4.1 (3.5+0.6)	11.4 (12.1:8.6)	13.5	2.7	16.2
5/3	1288	1288	-	-	-	1.9	2.6	-	4.5	12.5	14.4	2.6	16.9
5/4	953	953	-	-	-	0.6	1.0	-	1.6	6.1	5.5	1.0	6.5
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -32.9 Total Delay for Signalled Lanes (pcuHr): 193.96 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 29.2 Total Delay for Signalled Lanes (pcuHr): 3.47 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): -8.7 Total Delay for Signalled Lanes (pcuHr): 31.40 Cycle Time (s): 76 C1 - Eastside Controller Stream: 4 PRC for Signalled Lanes (%): -23.4 Total Delay for Signalled Lanes (pcuHr): 33.96 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -7.5 Total Delay for Signalled Lanes (pcuHr): 44.17 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 47.5 Total Delay for Signalled Lanes (pcuHr): 1.92 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 27.8 Total Delay for Signalled Lanes (pcuHr): 15.41 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 4.2 Total Delay for Signalled Lanes (pcuHr): 14.26 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 6.0 Total Delay for Signalled Lanes (pcuHr): 16.03 Cycle Time (s): 76 PRC Over All Lanes (%): -32.9 Total Delay Over All Lanes(pcuHr): 355.44													

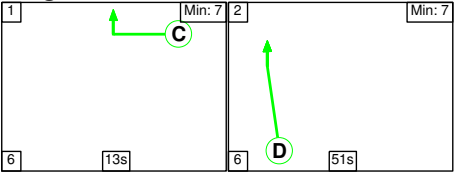
C1 - Eastside Controller

Stage Sequence Diagram

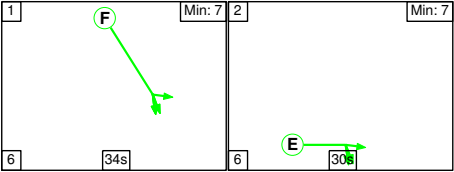
Stage Stream: 1



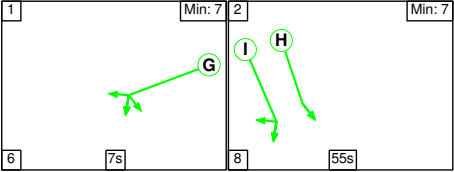
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	50
Change Point	71	15

Stage Stream: 2

Stage	1	2
Duration	13	51
Change Point	12	31

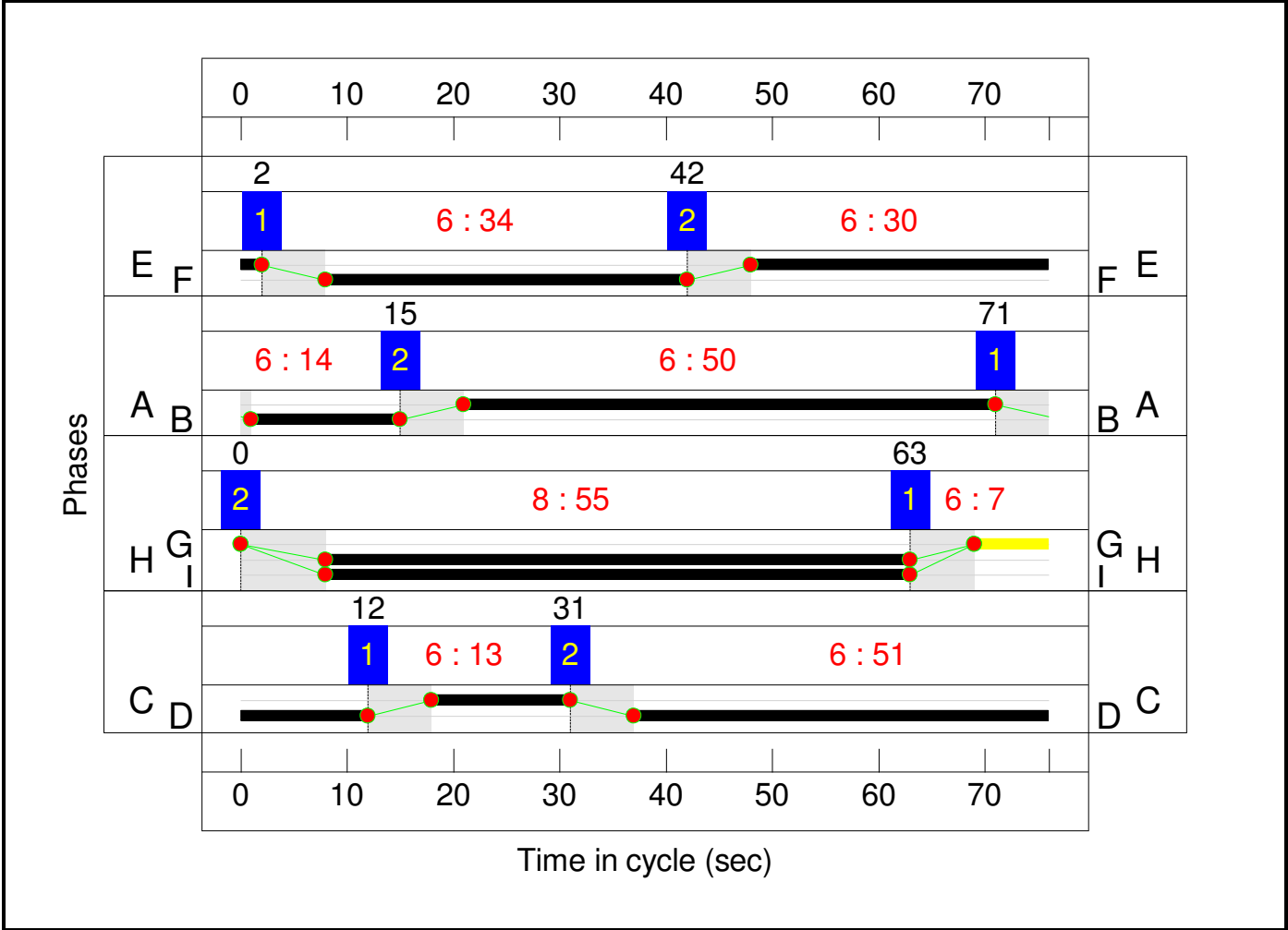
Stage Stream: 3

Stage	1	2
Duration	34	30
Change Point	2	42

Stage Stream: 4

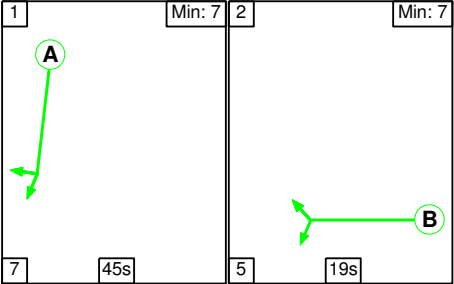
Stage	1	2
Duration	7	55
Change Point	63	0

Signal Timings Diagram

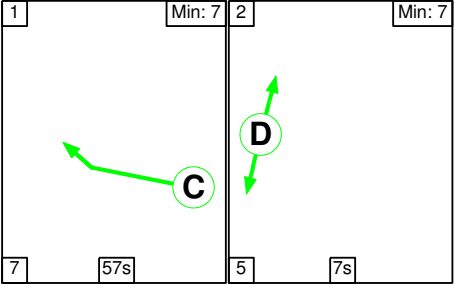


C2 - Westside Controller
Stage Sequence Diagram

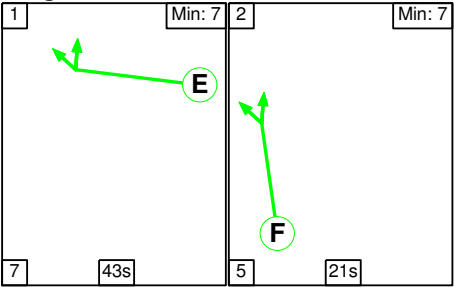
Stage Stream: 1



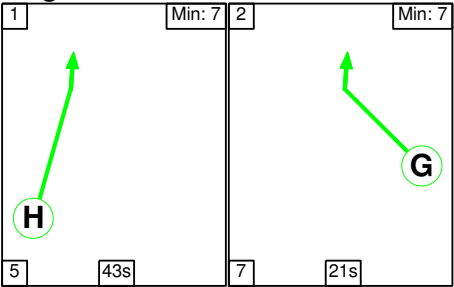
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	45	19
Change Point	24	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	16	4

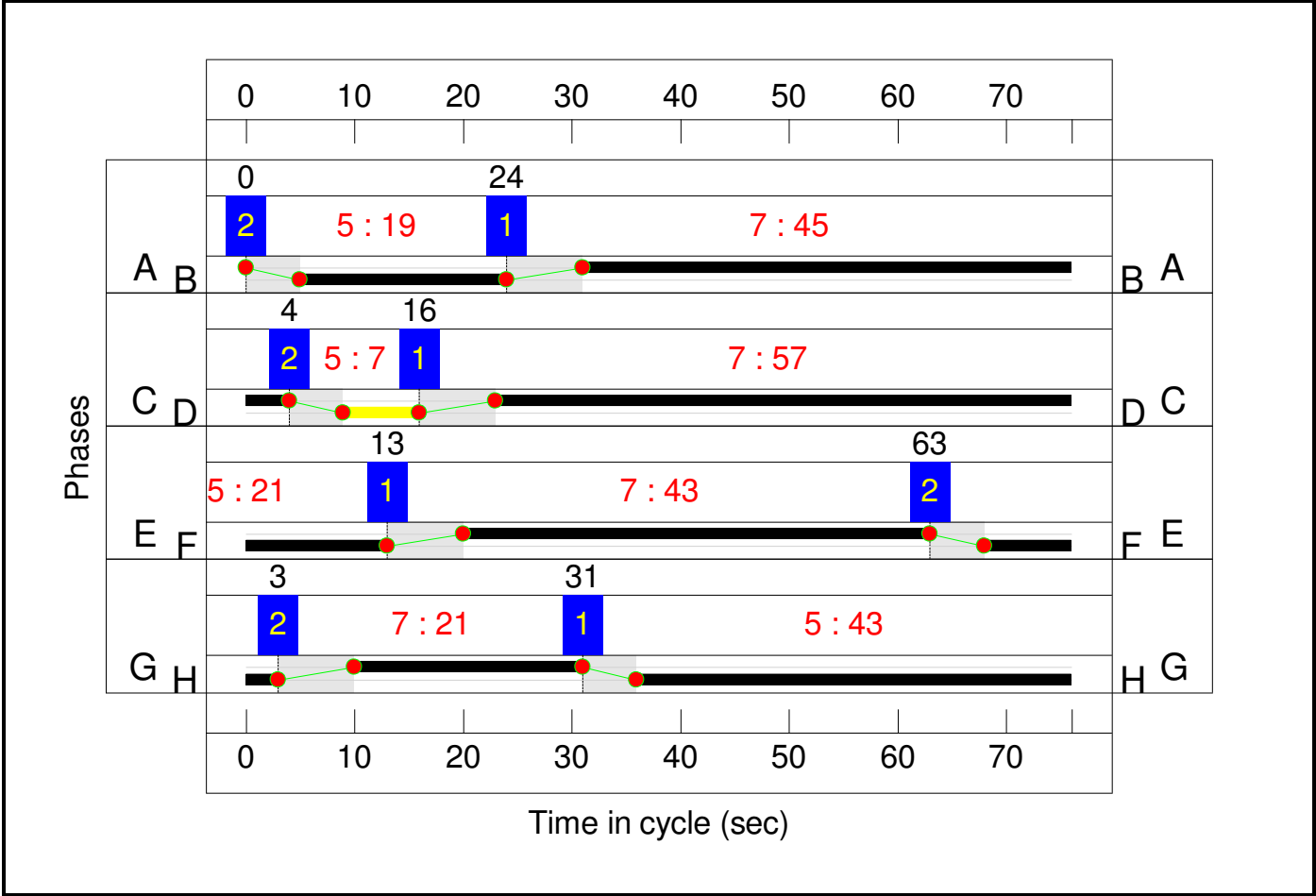
Stage Stream: 3

Stage	1	2
Duration	43	21
Change Point	13	63

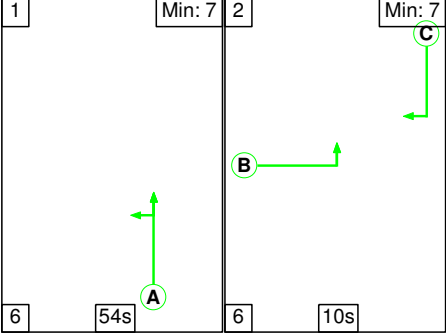
Stage Stream: 4

Stage	1	2
Duration	43	21
Change Point	31	3

Signal Timings Diagram



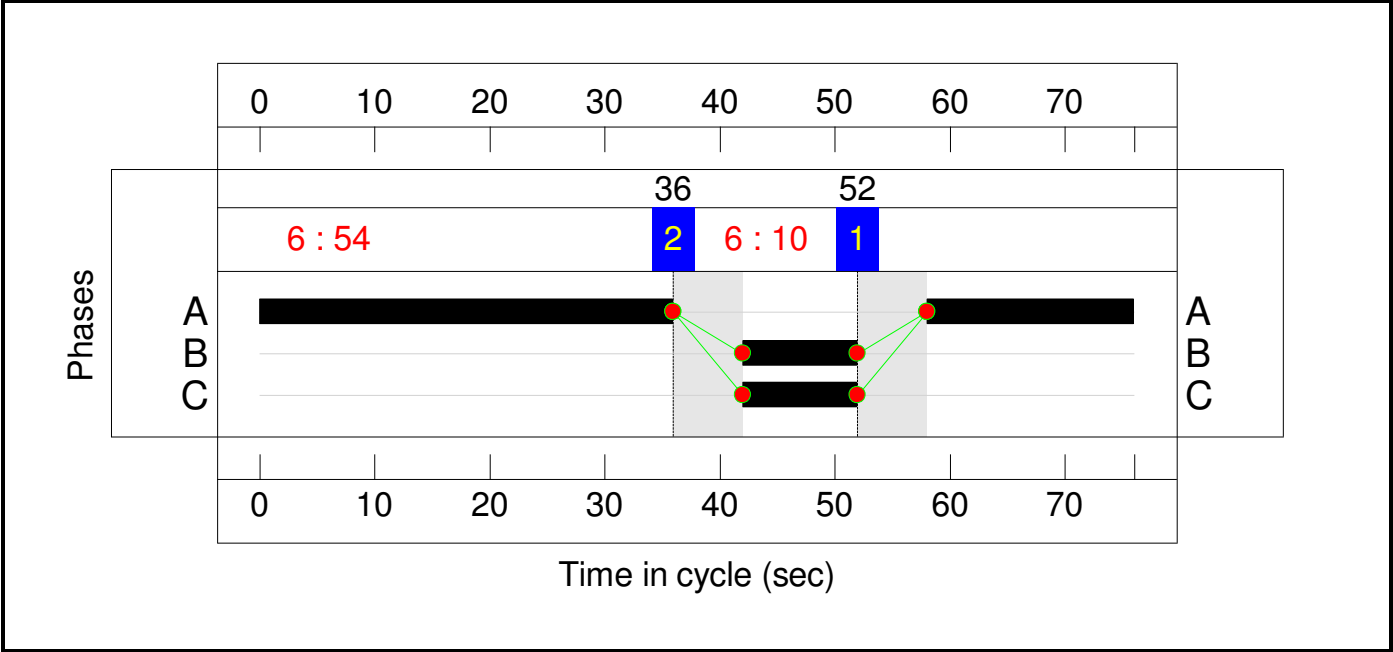
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	52	36

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	127.1%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	127.1%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	14	-	945	2120:1980	418+391	120.5 : 112.8%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	14	-	1093	2120:4000	418+565	127.1 : 99.3%
3/1	Ahead Right	U	1:3	N/A	C1:E		1	30	-	488	1900	775	62.2%
3/3+3/2	Right Right2	U	1:3	N/A	C1:E		1	30	-	490	1900:1900	356+587	52.0 : 50.6%
3/4	Right	U	1:3	N/A	C1:E		1	30	-	210	1900	775	27.1%
4/2+4/1	A45 Southbound Left Ahead	U	1:3	N/A	C1:F		1	34	-	1416	2120:1980	967+912	69.3 : 81.8%
4/3	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	34	-	912	2120	976	93.4%
4/4+4/5	A45 Southbound Ahead	U	1:3	N/A	C1:F		1	34	-	1841	2120:2120	976+976	93.9 : 94.6%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1129	2000	1211	93.3%
6/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	45	-	1141	2000	1211	94.3%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	984	2000	1211	81.3%
8/1	Saxon Avenue Left Left2	U	1:4	N/A	C1:G		1	7	-	167	1930	203	82.2%
8/2	Saxon Avenue Ahead	U	1:4	N/A	C1:G		1	7	-	276	2105	222	124.6%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	19	-	623	2120:1980	558+252	76.9 : 76.9%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	988	2120:2120	558+558	80.1 : 97.0%
11/1	Ahead	U	2:3	N/A	C2:E		1	43	-	827	1900	1100	75.2%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	43	-	828	1900	1100	75.3%

12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1164	1995	1523	76.5%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1165	1995	1523	76.5%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	674	1980:1980	526+526	64.1 : 64.1%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	609	2120	614	99.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	944	2120:2120	304+614	102.8 : 102.8%
15/1	Ahead	U	1:2	N/A	C1:D		1	51	-	1038	2000	1368	75.9%
15/2	Ahead	U	1:2	N/A	C1:D		1	51	-	760	2000	1368	55.5%
15/3	Ahead	U	1:2	N/A	C1:D		1	51	-	1172	2000	1368	84.4%
16/1	Right	U	2:4	N/A	C2:G		1	21	-	429	2000	579	74.1%
16/2	Right	U	2:4	N/A	C2:G		1	21	-	447	2000	579	77.2%
16/3	Right	U	2:4	N/A	C2:G		1	21	-	541	2000	579	93.4%
17/1	Ahead	U	2:4	N/A	C2:H		1	43	-	609	2000	1158	52.6%
17/2	Ahead	U	2:4	N/A	C2:H		1	43	-	313	2000	1158	27.0%
17/3	Ahead	U	2:4	N/A	C2:H		1	43	-	631	2000	1158	53.0%
18/1	Ahead	U	1:4	N/A	C1:H		1	55	-	633	2000	1474	42.7%
18/2	Ahead	U	1:4	N/A	C1:H		1	55	-	975	2000	1474	65.6%
19/1	Ahead	U	1:4	N/A	C1:I		1	55	-	1097	2000	1474	74.4%
19/2	Ahead	U	1:4	N/A	C1:I		1	55	-	1127	2000	1474	76.5%
19/3	Ahead Right	U	1:4	N/A	C1:I		1	55	-	924	2000	1474	62.7%
20/1+20/2	Right	U	1:2	N/A	C1:C		1	13	-	276	1800:1800	2+330	66.7 : 66.7%
21/1	Ahead	U	1:1	N/A	C1:A		1	50	-	1040	2000	1342	77.5%
21/2	Ahead	U	1:1	N/A	C1:A		1	50	-	1034	2000	1342	73.0%
21/3	Ahead	U	1:1	N/A	C1:A		1	50	-	545	2000	1342	40.4%
21/4	Right	U	1:1	N/A	C1:A		1	50	-	627	1900	1275	48.1%
J2: Watting Lane	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
1/3+1/4	Ahead Right	U	N/A	N/A	- C3:C		-	-	-	1915	3000:1842	2816+113	65.4 : 65.4%

3/1+3/2	Left	U	N/A	N/A	C3:B		1	10	-	518	1901:1901	275+275	94.1 : 94.1%
5/2+5/1	Ahead Left	U	N/A	N/A	C3:A		1	54	-	1481	1980:1786	1294+204	95.6 : 94.3%
5/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1538	2120	1534	91.1%
5/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1077	1980	1433	67.0%

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 15 Mitigation Model	-	-	0	0	0	137.8	288.1	0.0	425.9	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	126.7	267.1	0.0	393.8	-	-	-	-
1/2+1/1	945	809	-	-	-	13.4	71.2	-	84.6 (52.2+32.4)	322.2 (372.9:264.2)	12.4	71.2	83.7
1/3+1/4	1093	979	-	-	-	13.4	61.4	-	74.8 (68.0+6.8)	246.4 (460.2:43.6)	13.6	61.4	75.0
3/1	482	482	-	-	-	2.8	0.8	-	3.6	26.7	7.7	0.8	8.5
3/3+3/2	482	482	-	-	-	2.9	0.5	-	3.4 (2.3+1.2)	25.6 (44.1:14.1)	3.9	0.5	4.4
3/4	210	210	-	-	-	2.4	0.2	-	2.6	43.9	4.4	0.2	4.6
4/2+4/1	1416	1416	-	-	-	6.7	1.5	-	8.2 (3.7+4.5)	20.9 (20.0:21.6)	13.5	1.5	15.0
4/3	912	912	-	-	-	4.9	6.0	-	10.9	43.0	18.0	6.0	24.0
4/4+4/5	1841	1841	-	-	-	10.0	7.3	-	17.3 (8.6+8.7)	33.8 (33.8:33.9)	18.5	7.3	25.8
6/1	1129	1129	-	-	-	2.1	6.0	-	8.1	25.8	20.5	6.0	26.5
6/2	1141	1141	-	-	-	1.8	6.9	-	8.6	27.2	19.7	6.9	26.5
6/3	984	984	-	-	-	2.5	2.1	-	4.7	17.0	20.8	2.1	22.9
8/1	167	167	-	-	-	1.5	2.1	-	3.6	78.0	3.4	2.1	5.5
8/2	276	222	-	-	-	4.9	29.5	-	34.5	449.6	7.9	29.5	37.4
9/2+9/1	623	623	-	-	-	4.3	1.6	-	6.0 (4.2+1.7)	34.4 (35.3:32.3)	8.3	1.6	10.0
9/3+9/4	988	988	-	-	-	7.4	3.7	-	11.1 (4.9+6.2)	40.3 (39.5:41.0)	11.3	3.7	14.9
11/1	827	827	-	-	-	1.8	1.5	-	3.3	14.4	4.3	1.5	5.8
11/2	828	828	-	-	-	2.0	1.5	-	3.5	15.3	4.8	1.5	6.4
12/1	1164	1164	-	-	-	0.3	1.6	-	2.0	6.0	5.4	1.6	7.0
12/2	1165	1165	-	-	-	0.4	1.6	-	2.0	6.1	5.9	1.6	7.5
13/2+13/1	674	674	-	-	-	4.3	0.9	-	5.2 (2.6+2.6)	27.9 (27.9:27.9)	6.1	0.9	7.0
13/3	609	609	-	-	-	4.6	11.2	-	15.8	93.3	12.7	11.2	23.9

13/4+13/5	944	927	-	-	-	7.4	23.1	-	30.5 (9.6+20.9)	116.5 (110.8:119.3)	13.7	23.1	36.8
15/1	1038	1038	-	-	-	3.1	1.6	-	4.7	16.2	18.0	1.6	19.6
15/2	760	760	-	-	-	2.5	0.6	-	3.2	15.0	12.2	0.6	12.8
15/3	1155	1155	-	-	-	4.2	2.6	-	6.8	21.3	20.5	2.6	23.1
16/1	429	429	-	-	-	0.0	1.4	-	1.5	12.2	0.5	1.4	1.9
16/2	447	447	-	-	-	0.1	1.7	-	1.7	13.7	0.5	1.7	2.1
16/3	541	541	-	-	-	0.1	5.5	-	5.6	37.3	0.6	5.5	6.2
17/1	609	609	-	-	-	3.9	0.6	-	4.4	26.2	9.0	0.6	9.5
17/2	313	313	-	-	-	1.1	0.2	-	1.3	14.7	2.7	0.2	2.9
17/3	614	614	-	-	-	3.9	0.6	-	4.5	26.4	9.1	0.6	9.6
18/1	629	629	-	-	-	0.2	0.4	-	0.6	3.4	1.7	0.4	2.0
18/2	967	967	-	-	-	0.6	0.9	-	1.5	5.6	3.1	0.9	4.0
19/1	1097	1097	-	-	-	0.2	1.4	-	1.7	5.5	2.1	1.4	3.5
19/2	1127	1127	-	-	-	0.2	1.6	-	1.8	5.9	2.2	1.6	3.8
19/3	924	924	-	-	-	0.2	0.8	-	1.1	4.2	2.3	0.8	3.2
20/1+20/2	222	222	-	-	-	1.2	1.0	-	2.2 (0.0+2.2)	35.6 (35.0:35.6)	4.7	1.0	5.6
21/1	1040	1040	-	-	-	0.7	1.7	-	2.4	8.4	4.2	1.7	5.9
21/2	980	980	-	-	-	1.0	1.3	-	2.3	8.4	8.5	1.3	9.9
21/3	542	542	-	-	-	0.3	0.3	-	0.6	3.9	1.2	0.3	1.6
21/4	613	613	-	-	-	1.4	0.5	-	1.8	10.7	5.4	0.5	5.8
J2: Wattering Lane	-	-	0	0	0	11.1	21.1	0.0	32.1	-	-	-	-
1/3+1/4	1915	1915	-	-	-	0.6	0.9	-	1.5 (0.9+0.6)	2.9 (1.8:30.8)	1.4	0.9	2.3
3/1+3/2	518	518	-	-	-	4.6	5.9	-	10.5 (5.3+5.3)	73.1 (73.1:73.1)	5.4	5.9	11.3
5/2+5/1	1430	1430	-	-	-	1.3	8.4	-	9.8 (8.5+1.2)	24.6 (24.9:22.9)	20.7	8.4	29.1
5/3	1398	1398	-	-	-	3.8	4.8	-	8.6	22.1	22.4	4.8	27.2
5/4	960	960	-	-	-	0.7	1.0	-	1.7	6.4	4.5	1.0	5.5

C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%):	-41.3	Total Delay for Signalled Lanes (pcuHr):	166.51	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%):	6.7	Total Delay for Signalled Lanes (pcuHr):	16.87	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 3 PRC for Signalled Lanes (%):	-5.2	Total Delay for Signalled Lanes (pcuHr):	45.96	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 4 PRC for Signalled Lanes (%):	-38.4	Total Delay for Signalled Lanes (pcuHr):	44.80	Cycle Time (s):	76
C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%):	-7.7	Total Delay for Signalled Lanes (pcuHr):	38.39	Cycle Time (s):	76
C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%):	17.6	Total Delay for Signalled Lanes (pcuHr):	3.93	Cycle Time (s):	76
C2 - Westside Controller	Stream: 3 PRC for Signalled Lanes (%):	-14.2	Total Delay for Signalled Lanes (pcuHr):	58.35	Cycle Time (s):	76
C2 - Westside Controller	Stream: 4 PRC for Signalled Lanes (%):	-3.8	Total Delay for Signalled Lanes (pcuHr):	18.98	Cycle Time (s):	76
C3 - Watering Lane	PRC for Signalled Lanes (%):	-6.3	Total Delay for Signalled Lanes (pcuHr):	30.59	Cycle Time (s):	76
	PRC Over All Lanes (%):	-41.3	Total Delay Over All Lanes(pcuHr):	425.92		

APPENDIX E

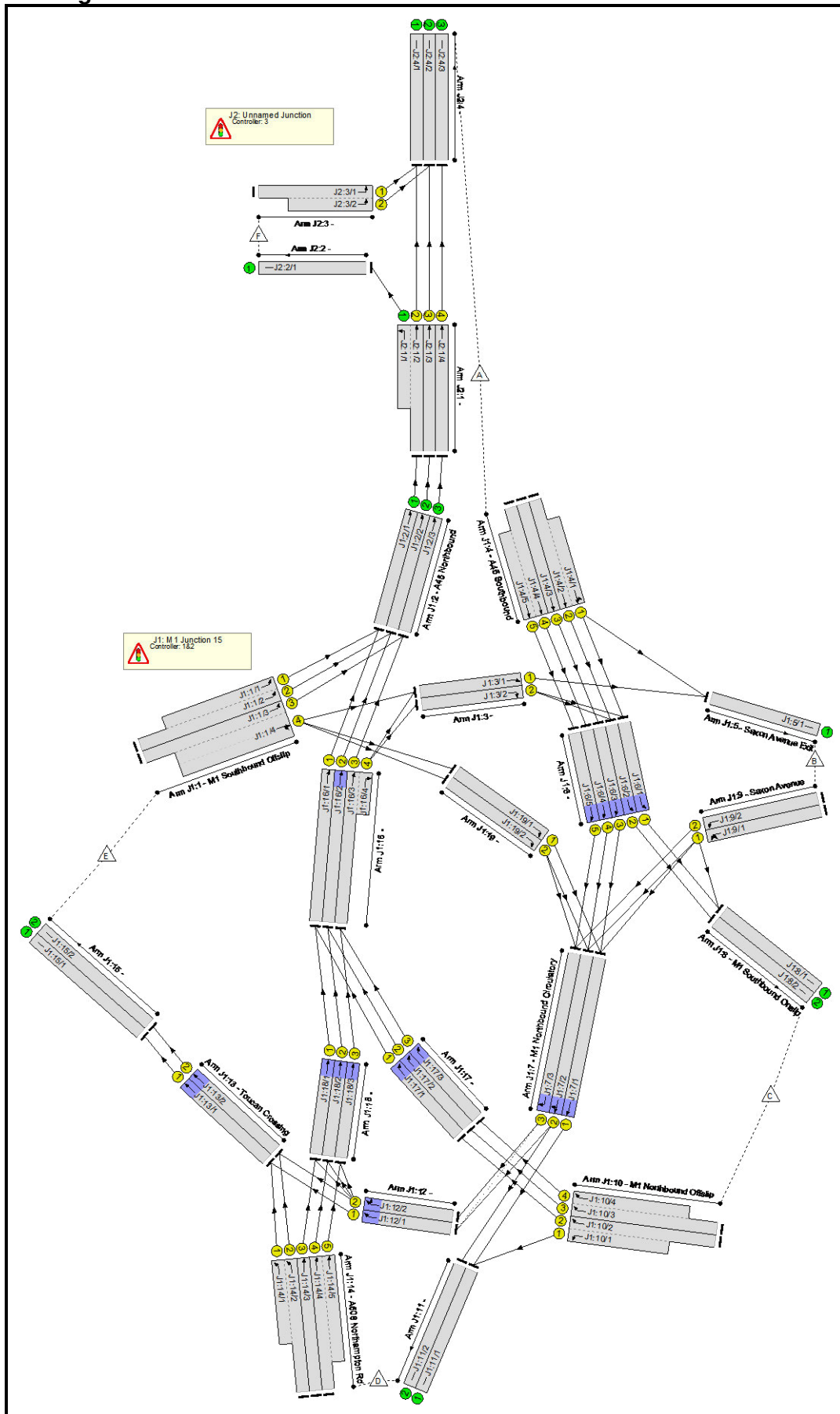
OPTION C DRAWING AND LINSIG MODELLING RESULTS

Full Input Data And Results

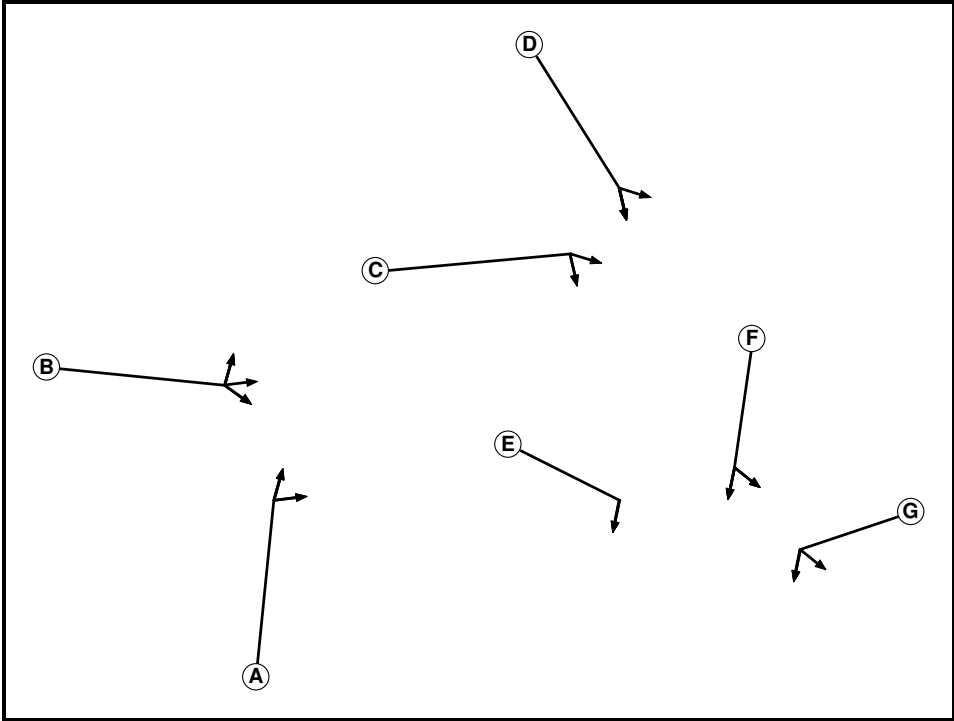
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Mitigation Model
Location:	Northampton
File name:	170309 M1 Junction 15 Mitigation - Double Hamburger.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western House, Nottingham
Notes:	Preferred Option

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7

Phase Intergreens Matrix

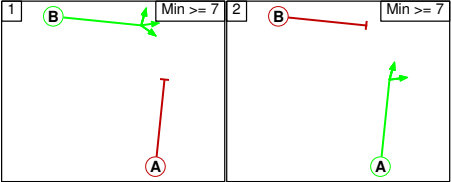
Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		6	-	-	-	-	-
	B	7		-	-	-	-	-
	C	-	-		7	-	-	-
	D	-	-	7		-	-	-
	E	-	-	-	-		6	0
	F	-	-	-	-	6		0
	G	-	-	-	-	6	6	

Phases in Stage

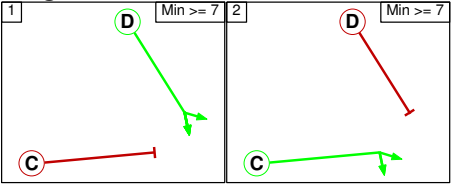
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D
2	2	C
3	1	E
3	2	F
3	3	G

Stage Diagram

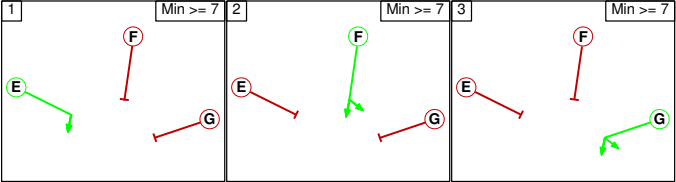
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		7
	2	6	

Stage Stream: 2

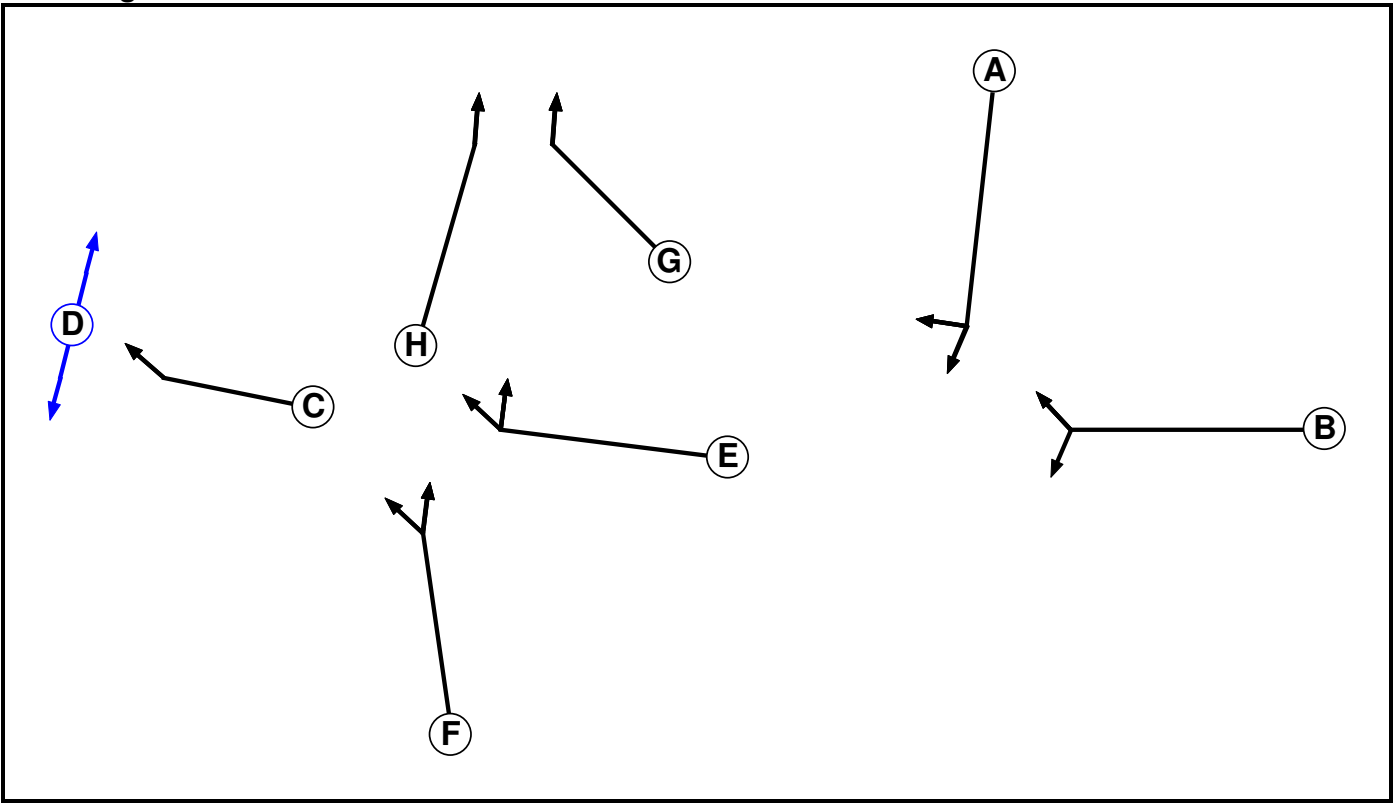
From Stage	To Stage		
		1	2
	1		7
	2	7	

Stage Stream: 3

From Stage	To Stage			
		1	2	3
	1		6	2
	2	6		2
	3	6	6	

C2 - Westside Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

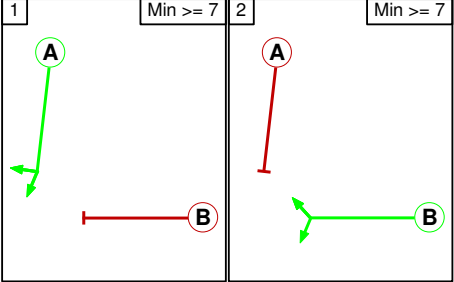
	Starting Phase								
Terminating Phase		A	B	C	D	E	F	G	H
	A		5	-	-	-	-	-	-
	B	7		-	-	-	-	-	-
	C	-	-		5	-	-	-	-
	D	-	-	7		-	-	-	-
	E	-	-	-	-		5	-	-
	F	-	-	-	-	7		-	-
	G	-	-	-	-	-	-		5
	H	-	-	-	-	-	-	7	

Phases in Stage

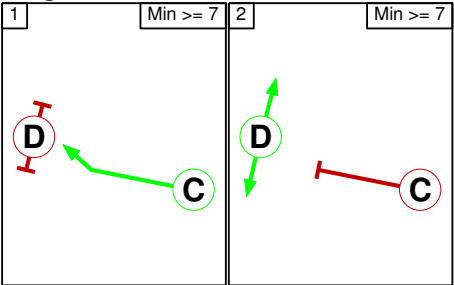
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	H
4	2	G

Stage Diagram

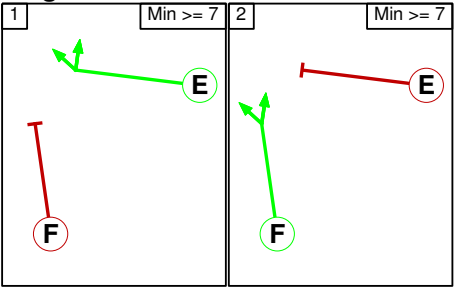
Stage Stream: 1



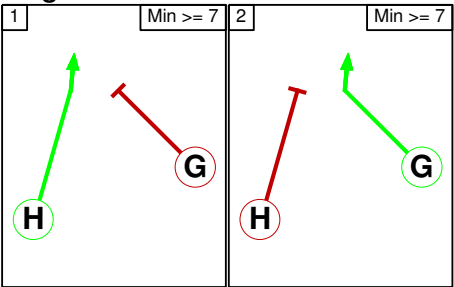
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage	1	1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

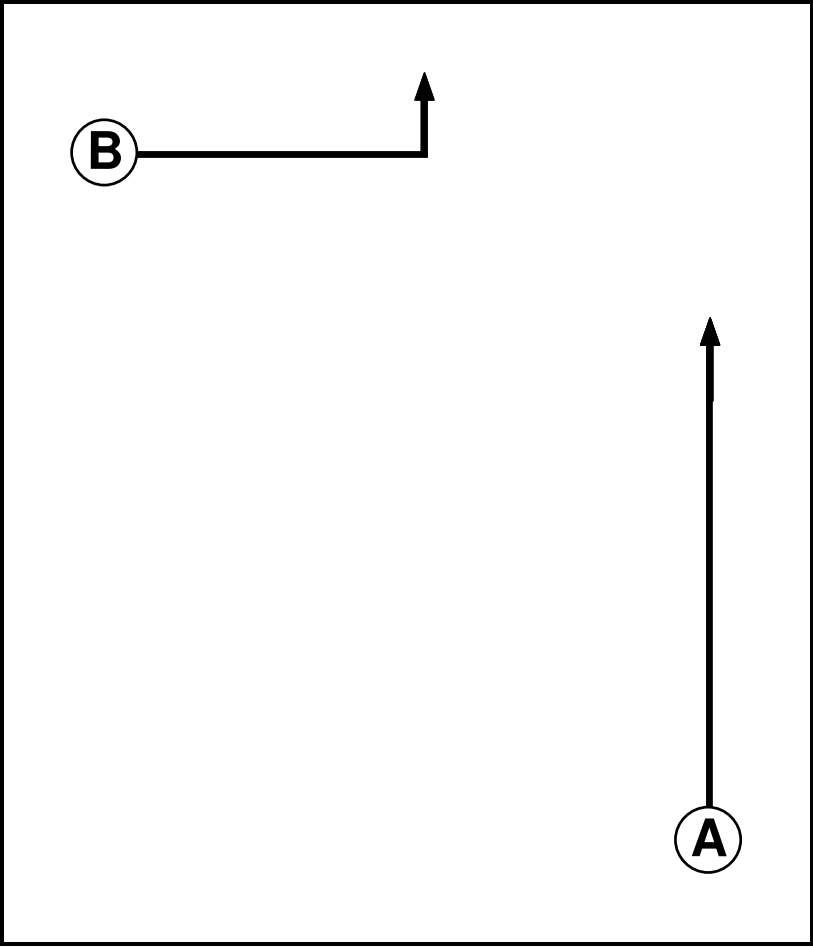
Stage Stream: 3

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 4

	To Stage		
From Stage		1	2
	1		7
	2	5	

C3 - Watering Lane
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

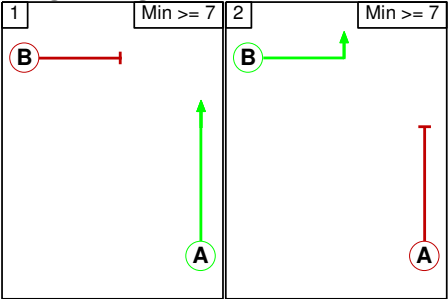
Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		6
	B	6	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

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		6
	2	6	

Lane Input Data

Junction: J1: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (M1 Southbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	Y	Arm J1:2 Left	Inf
J1:1/2 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/3 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/4 (M1 Southbound Offslip)	U	B	2	3	15.0	User	4000	-	-	-	-	-
J1:2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/3 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:3/1	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/2	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:4/1 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	Y	Arm J1:5 Left	Inf
											Arm J1:6 Ahead	Inf
J1:4/2 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:4/3 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:4/4 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:4/5 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	N	Arm J1:6 Ahead	Inf
J1:5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:6/1	U	F	2	3	12.2	User	2000	-	-	-	-	-
J1:6/2	U	F	2	3	12.2	User	2000	-	-	-	-	-
J1:6/3	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:6/4	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:6/5	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:7/1 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:7/2 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-

J1:7/3 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:8/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:8/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:9/1 (Saxon Avenue)	U	G	2	3	60.0	Geom	-	3.80	0.00	Y	Arm J1:7 Left	Inf
											Arm J1:8 Left	30.00
J1:9/2 (Saxon Avenue)	U	G	2	3	60.0	Geom	-	3.80	0.00	N	Arm J1:7 Left	Inf
J1:10/1 (M1 Northbound Offslip)	U	B	2	3	12.0	Geom	-	3.65	0.00	Y	Arm J1:11 Left	Inf
J1:10/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:10/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:10/4 (M1 Northbound Offslip)	U	B	2	3	40.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:11/1	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:11/2	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:12/1	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:12/2	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:13/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:15 Ahead	Inf
J1:13/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:15 Ahead	Inf
J1:14/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J1:13 Ahead	Inf
J1:14/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:13 Ahead	Inf
J1:14/3 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:14/4 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:14/5 (A508 Northampton Rd)	U	F	2	3	20.0	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:15/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:16/1	U	A	2	3	31.3	User	2000	-	-	-	-	-

J1:16/2	U	A	2	3	31.3	User	2000	-	-	-	-	-
J1:16/3	U	A	2	3	31.3	User	2000	-	-	-	-	-
J1:16/4	U	A	2	3	5.0	User	2000	-	-	-	-	-
J1:17/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:17/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:17/3	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:18/1	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:18/2	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:18/3	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:19/1	U	E	2	3	12.2	User	2000	-	-	-	-	-
J1:19/2	U	E	2	3	12.2	User	2000	-	-	-	-	-

Junction: J2: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1	U		2	3	10.0	User	3000	-	-	-	-	-
J2:1/2	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:4 Ahead	Inf
J2:1/3	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:4 Ahead	Inf
J2:1/4	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:4 Ahead	Inf
J2:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:4 Left	30.00
J2:3/2	U	B	2	3	10.0	Geom	-	3.50	0.00	Y	Arm J2:4 Left	30.00
J2:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/3	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2014 Morning Peak Hour'	08:00	09:00	01:00	
2: '2014 Evening Peak Hour'	17:00	18:00	01:00	
3: '2021 Back Morning Peak '	08:00	09:00	01:00	
4: '2021 Back Evening Peak '	17:00	18:00	01:00	
9: '2021 Total AM Peak'	08:00	09:00	01:00	F3+F5+(2*F7)
10: '2021 Total PM Peak'	17:00	18:00	01:00	F4+F6+(2*F8)
11: '2031 Back Morning Peak '	08:00	09:00	01:00	
12: '2031 Back Evening Peak '	17:00	18:00	01:00	
13: '2031 Total AM Peak'	08:00	09:00	01:00	F11+F5+(2*F7)
14: '2031 Total PM Peak'	17:00	18:00	01:00	F12+F6+(2*F8)

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
Origin	A	15	146	1030	1074	1184	0	3449
	B	214	0	80	42	46	0	382
	C	911	61	0	344	0	110	1426
	D	679	37	190	0	374	55	1335
	E	1244	144	0	672	0	110	2170
	F	443	0	0	0	0	0	443
	Tot.	3506	388	1300	2132	1604	275	9205

Traffic Lane Flows

Lane	Scenario 1: 2021 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	484
J1:1/2 (with short)	813(In) 329(Out)
J1:1/3 (with short)	1357(In) 541(Out)
J1:1/4 (short)	816
J1:2/1	1197
J1:2/2	1060
J1:2/3	1081
J1:3/1	242
J1:3/2	190
J1:4/1 (short)	617
J1:4/2 (with short)	1176(In) 559(Out)
J1:4/3	721
J1:4/4 (with short)	1552(In) 739(Out)
J1:4/5 (short)	813
J1:5/1	388
J1:6/1	586
J1:6/2	634
J1:6/3	721
J1:6/4	739
J1:6/5	813
J1:7/1	1098
J1:7/2	1120
J1:7/3	1029
J1:8/1	666
J1:8/2	634
J1:9/1	166
J1:9/2	216
J1:10/1 (short)	344
J1:10/2 (with short)	701(In) 357(Out)
J1:10/3 (with short)	725(In) 351(Out)
J1:10/4 (short)	374
J1:11/1	1442
J1:11/2	690
J1:12/1	691
J1:12/2	768
J1:13/1	858
J1:13/2	746

J1:14/1 (short)	167
J1:14/2 (with short)	374(In) 207(Out)
J1:14/3	286
J1:14/4 (with short)	675(In) 300(Out)
J1:14/5 (short)	375
J1:15/1	858
J1:15/2	746
J1:16/1	713
J1:16/2	731
J1:16/3 (with short)	828(In) 540(Out)
J1:16/4 (short)	288
J1:17/1	357
J1:17/2	351
J1:17/3	374
J1:18/1	356
J1:18/2	380
J1:18/3	454
J1:19/1	344
J1:19/2	328
Junction: J2: Unnamed Junction	
J2:1/1 (short)	275
J2:1/2 (with short)	1197(In) 922(Out)
J2:1/3	1060
J2:1/4	1081
J2:2/1	275
J2:3/1 (with short)	443(In) 221(Out)
J2:3/2 (short)	222
J2:4/1	1143
J2:4/2	1282
J2:4/3	1081

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	23.7 %	1980	1980
				Arm J1:6 Ahead	Inf	76.3 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/5	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Saxon Avenue)	3.80	0.00	Y	Arm J1:7 Left	Inf	51.8 %	1948	1948
				Arm J1:8 Left	30.00	48.2 %		

Junction: J2: 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)
J2:1/1	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/4	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:3/2	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 PM Total' (FG10: '2021 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	64	216	1001	1020	1373	0	3674
	B	237	0	52	40	51	0	380
	C	1040	98	0	188	0	81	1407
	D	898	59	429	0	627	40	2053
	E	1189	143	0	360	0	81	1773
	F	518	0	0	0	0	0	518
	Tot.	3946	516	1482	1608	2051	202	9805

Traffic Lane Flows

Lane	Scenario 2: 2021 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	443
J1:1/2 (with short)	786(In) 343(Out)
J1:1/3 (with short)	987(In) 484(Out)
J1:1/4 (short)	503
J1:2/1	1362
J1:2/2	1242
J1:2/3	1026
J1:3/1	300
J1:3/2	429
J1:4/1 (short)	638
J1:4/2 (with short)	1217(In) 579(Out)
J1:4/3	789
J1:4/4 (with short)	1668(In) 835(Out)
J1:4/5 (short)	833
J1:5/1	516
J1:6/1	659
J1:6/2	771
J1:6/3	789
J1:6/4	835
J1:6/5	833
J1:7/1	1010
J1:7/2	1065
J1:7/3	1070
J1:8/1	711
J1:8/2	771
J1:9/1	143
J1:9/2	237
J1:10/1 (short)	188
J1:10/2 (with short)	586(In) 398(Out)
J1:10/3 (with short)	821(In) 401(Out)
J1:10/4 (short)	420
J1:11/1	1198
J1:11/2	410
J1:12/1	845
J1:12/2	880
J1:13/1	1110
J1:13/2	941

J1:14/1 (short)	265
J1:14/2 (with short)	627(In) 362(Out)
J1:14/3	475
J1:14/4 (with short)	951(In) 370(Out)
J1:14/5 (short)	581
J1:15/1	1110
J1:15/2	941
J1:16/1	919
J1:16/2	899
J1:16/3 (with short)	1128(In) 542(Out)
J1:16/4 (short)	586
J1:17/1	398
J1:17/2	401
J1:17/3	420
J1:18/1	521
J1:18/2	498
J1:18/3	708
J1:19/1	182
J1:19/2	178
Junction: J2: Unnamed Junction	
J2:1/1 (short)	202
J2:1/2 (with short)	1362(In) 1160(Out)
J2:1/3	1242
J2:1/4	1026
J2:2/1	202
J2:3/1 (with short)	518(In) 259(Out)
J2:3/2 (short)	259
J2:4/1	1419
J2:4/2	1501
J2:4/3	1026

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	33.9 %	1980	1980
				Arm J1:6 Ahead	Inf	66.1 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/5	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Saxon Avenue)	3.80	0.00	Y	Arm J1:7 Left	Inf	63.6 %	1959	1959
				Arm J1:8 Left	30.00	36.4 %		

Junction: J2: 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)
J2:1/1	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/4	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:3/2	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2031 AM Total' (FG13: '2031 Total AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	17	169	1190	1197	1368	0	3941
	B	246	0	93	47	52	0	438
	C	1070	72	0	350	0	110	1602
	D	773	42	204	0	418	55	1492
	E	1455	166	0	729	0	110	2460
	F	443	0	0	0	0	0	443
	Tot.	4004	449	1487	2323	1838	275	10376

Traffic Lane Flows

Lane	Scenario 3: 2031 AM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	548
J1:1/2 (with short)	951(In) 403(Out)
J1:1/3 (with short)	1509(In) 614(Out)
J1:1/4 (short)	895
J1:2/1	1402
J1:2/2	1234
J1:2/3	1200
J1:3/1	280
J1:3/2	204
J1:4/1 (short)	720
J1:4/2 (with short)	1359(In) 639(Out)
J1:4/3	845
J1:4/4 (with short)	1737(In) 865(Out)
J1:4/5 (short)	872
J1:5/1	449
J1:6/1	675
J1:6/2	719
J1:6/3	845
J1:6/4	865
J1:6/5	872
J1:7/1	1261
J1:7/2	1277
J1:7/3	1118
J1:8/1	768
J1:8/2	719
J1:9/1	192
J1:9/2	246
J1:10/1 (short)	350
J1:10/2 (with short)	772(In) 422(Out)
J1:10/3 (with short)	830(In) 411(Out)
J1:10/4 (short)	419
J1:11/1	1611
J1:11/2	712
J1:12/1	817
J1:12/2	866
J1:13/1	994
J1:13/2	844

J1:14/1 (short)	177
J1:14/2 (with short)	418(In) 241(Out)
J1:14/3	316
J1:14/4 (with short)	758(In) 347(Out)
J1:14/5 (short)	411
J1:15/1	994
J1:15/2	844
J1:16/1	854
J1:16/2	831
J1:16/3 (with short)	904(In) 586(Out)
J1:16/4 (short)	318
J1:17/1	422
J1:17/2	411
J1:17/3	419
J1:18/1	432
J1:18/2	420
J1:18/3	485
J1:19/1	369
J1:19/2	360
Junction: J2: Unnamed Junction	
J2:1/1 (short)	275
J2:1/2 (with short)	1402(In) 1127(Out)
J2:1/3	1234
J2:1/4	1200
J2:2/1	275
J2:3/1 (with short)	443(In) 221(Out)
J2:3/2 (short)	222
J2:4/1	1348
J2:4/2	1456
J2:4/3	1200

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	23.5 %	1980	1980
				Arm J1:6 Ahead	Inf	76.5 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/5	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Saxon Avenue)	3.80	0.00	Y	Arm J1:7 Left	Inf	51.6 %	1948	1948
				Arm J1:8 Left	30.00	48.4 %		

Junction: J2: 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)
J2:1/1	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/4	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:3/2	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2031 PM Total' (FG14: '2031 Total PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	74	252	1164	1158	1595	0	4243
	B	276	0	61	46	60	0	443
	C	1222	114	0	194	0	81	1611
	D	1000	69	444	0	674	40	2227
	E	1396	166	0	395	0	81	2038
	F	518	0	0	0	0	0	518
	Tot.	4486	601	1669	1793	2329	202	11080

Traffic Lane Flows

Lane	Scenario 4: 2031 PM Total
Junction: J1: M1 Junction 15	
J1:1/1 (short)	507
J1:1/2 (with short)	927(In) 420(Out)
J1:1/3 (with short)	1111(In) 550(Out)
J1:1/4 (short)	561
J1:2/1	1558
J1:2/2	1455
J1:2/3	1157
J1:3/1	349
J1:3/2	444
J1:4/1 (short)	749
J1:4/2 (with short)	1416(In) 667(Out)
J1:4/3	937
J1:4/4 (with short)	1890(In) 946(Out)
J1:4/5 (short)	944
J1:5/1	601
J1:6/1	770
J1:6/2	838
J1:6/3	937
J1:6/4	946
J1:6/5	944
J1:7/1	1183
J1:7/2	1201
J1:7/3	1220
J1:8/1	831
J1:8/2	838
J1:9/1	167
J1:9/2	276
J1:10/1 (short)	194
J1:10/2 (with short)	638(In) 444(Out)
J1:10/3 (with short)	973(In) 441(Out)
J1:10/4 (short)	532
J1:11/1	1377
J1:11/2	416
J1:12/1	1004
J1:12/2	1001
J1:13/1	1284
J1:13/2	1045

J1:14/1 (short)	280
J1:14/2 (with short)	674(In) 394(Out)
J1:14/3	604
J1:14/4 (with short)	949(In) 326(Out)
J1:14/5 (short)	623
J1:15/1	1284
J1:15/2	1045
J1:16/1	1051
J1:16/2	1035
J1:16/3 (with short)	1234(In) 607(Out)
J1:16/4 (short)	627
J1:17/1	444
J1:17/2	441
J1:17/3	532
J1:18/1	607
J1:18/2	594
J1:18/3	702
J1:19/1	201
J1:19/2	194
Junction: J2: Unnamed Junction	
J2:1/1 (short)	202
J2:1/2 (with short)	1558(In) 1356(Out)
J2:1/3	1455
J2:1/4	1157
J2:2/1	202
J2:3/1 (with short)	518(In) 259(Out)
J2:3/2 (short)	259
J2:4/1	1615
J2:4/2	1714
J2:4/3	1157

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	33.6 %	1980	1980
				Arm J1:6 Ahead	Inf	66.4 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/5	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:8/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Saxon Avenue)	3.80	0.00	Y	Arm J1:7 Left	Inf	63.5 %	1959	1959
				Arm J1:8 Left	30.00	36.5 %		

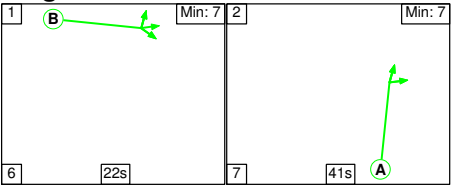
Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	This lane uses a directly entered Saturation Flow						3000	3000
J2:1/2	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/3	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:1/4	3.65	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2120	2120
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:3/2	3.50	0.00	Y	Arm J2:4 Left	30.00	100.0 %	1871	1871
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:4/3	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2021 AM Total' (FG9: '2021 Total AM Peak', Plan 1: 'Network Control Plan 1')

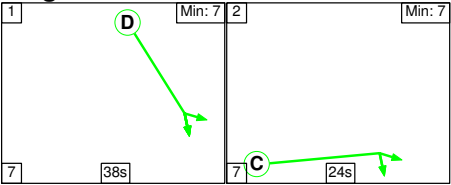
C1 - Eastside Controller

Stage Sequence Diagram

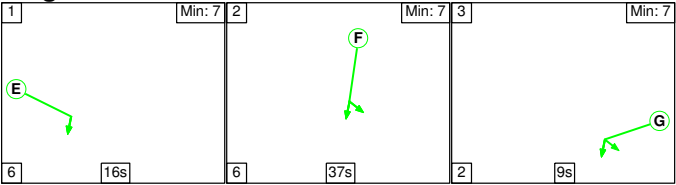
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	22	41
Change Point	7	35

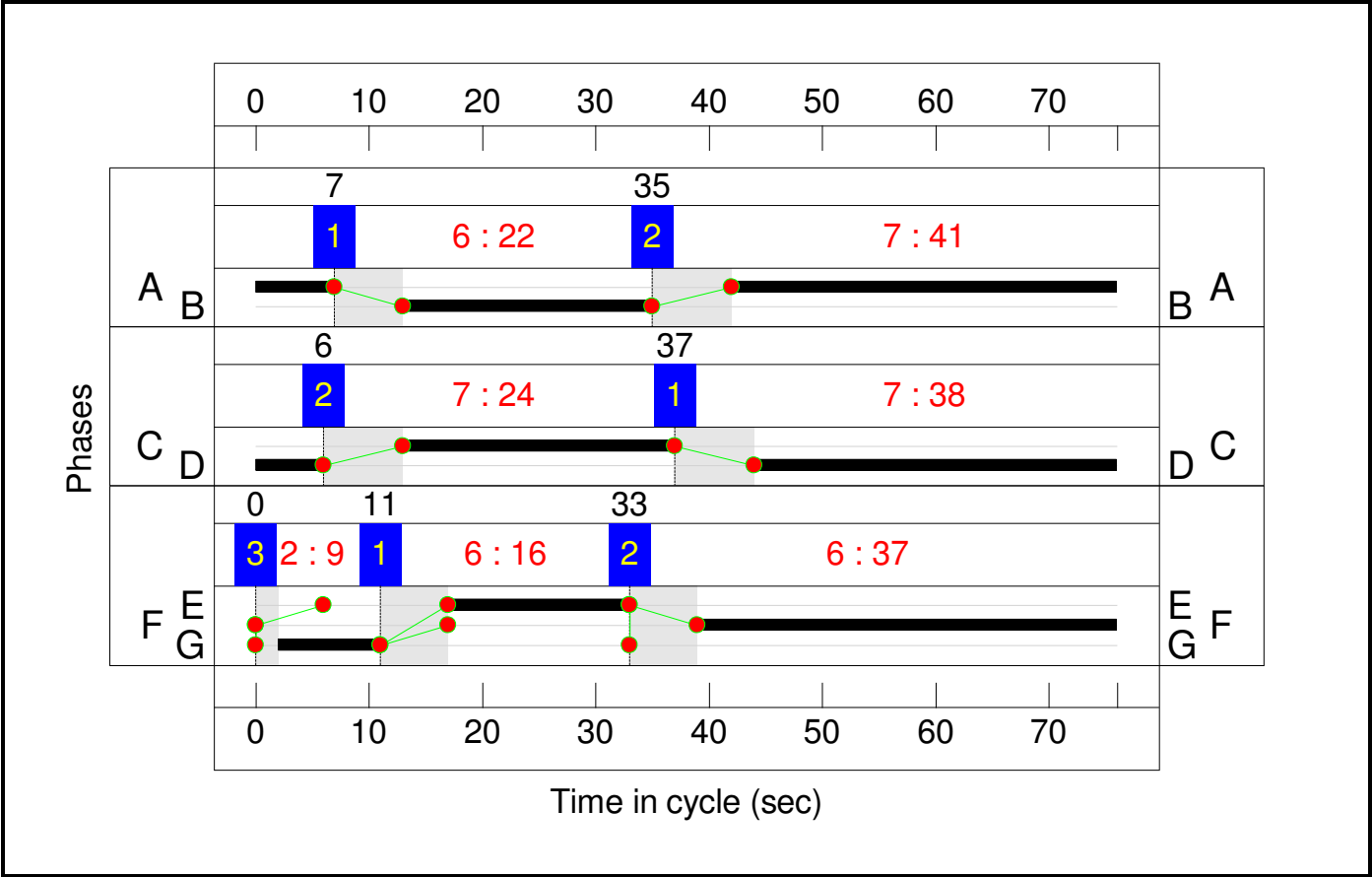
Stage Stream: 2

Stage	1	2
Duration	38	24
Change Point	37	6

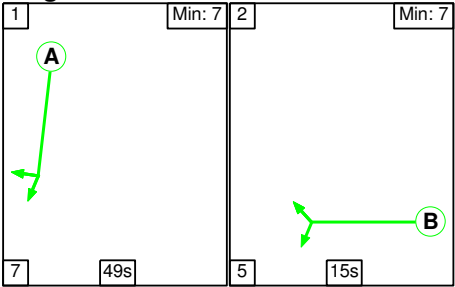
Stage Stream: 3

Stage	1	2	3
Duration	16	37	9
Change Point	11	33	0

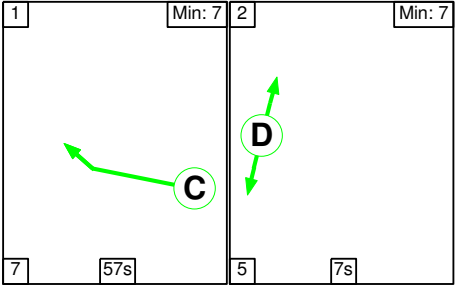
Signal Timings Diagram



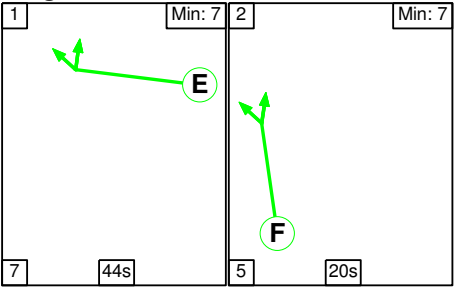
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



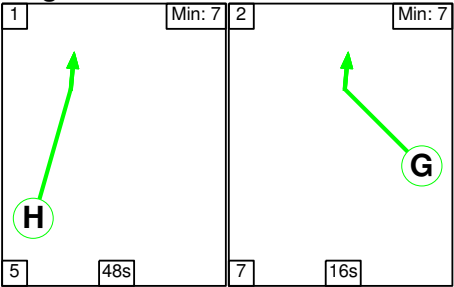
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	15
Change Point	20	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	12	0

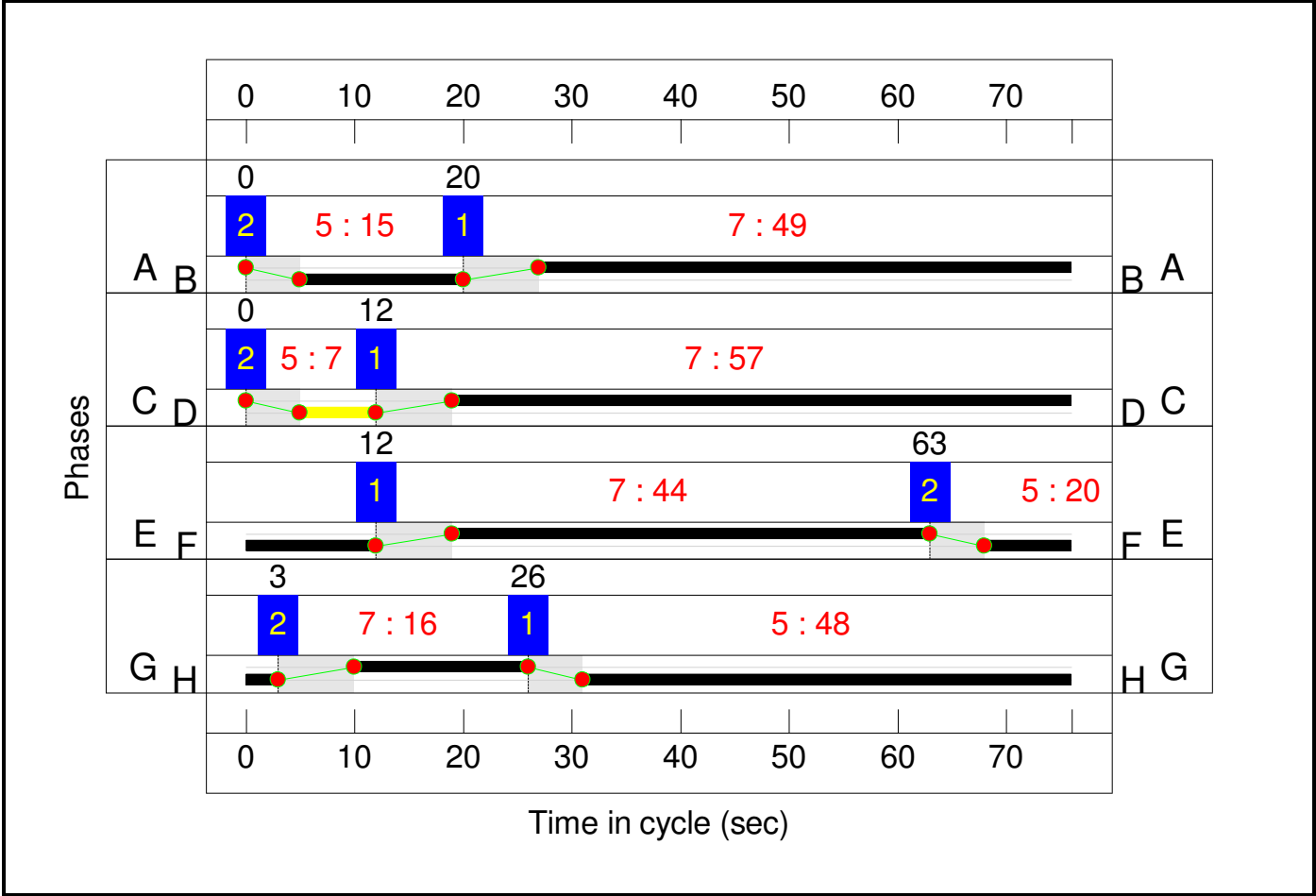
Stage Stream: 3

Stage	1	2
Duration	44	20
Change Point	12	63

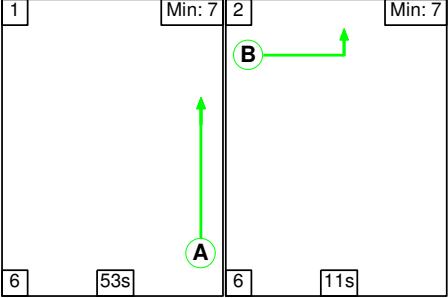
Stage Stream: 4

Stage	1	2
Duration	48	16
Change Point	26	3

Signal Timings Diagram



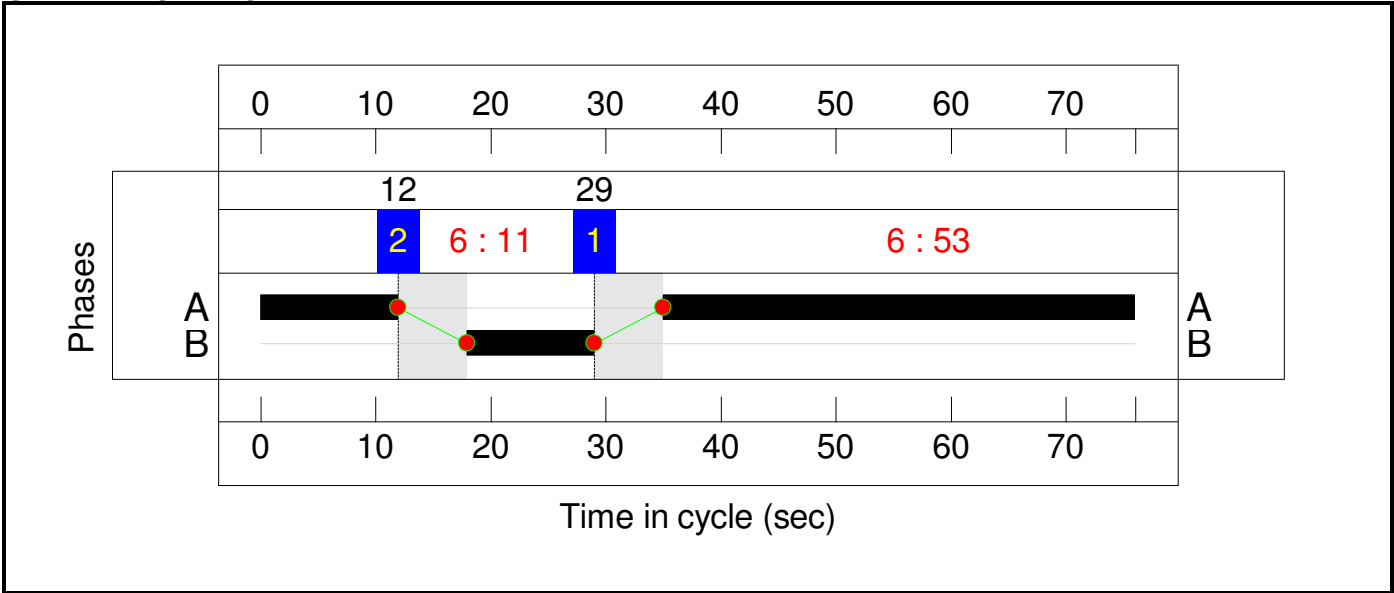
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	53	11
Change Point	29	12

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	85.1%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	85.1%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	22	-	813	2120:1980	407+599	80.8 : 80.8%
1/3+1/4	M1 Southbound Offslip Left Ahead Right	U	1:1	N/A	C1:B		1	22	-	1357	2120:4000	642+968	84.3 : 84.3%
3/1	Ahead	U	1:2	N/A	C1:C		1	24	-	242	1900	625	38.7%
3/2	Right	U	1:2	N/A	C1:C		1	24	-	190	1900	625	30.4%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	38	-	1176	2120:1980	972+1016	57.5 : 60.7%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	38	-	721	2120	1088	66.3%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	38	-	1552	2120:2120	1009+1088	73.2 : 74.7%
6/1	Ahead	U	1:3	N/A	C1:F		1	37	-	586	2000	1000	58.6%
6/2	Ahead	U	1:3	N/A	C1:F		1	37	-	634	2000	1000	63.4%
6/3	Ahead	U	1:3	N/A	C1:F		1	37	-	721	2000	1000	72.1%
6/4	Ahead	U	1:3	N/A	C1:F		1	37	-	739	2000	1000	73.9%
6/5	Ahead	U	1:3	N/A	C1:F		1	37	-	813	2000	1000	81.3%
7/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1098	2000	1316	83.4%
7/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	49	-	1120	2000	1316	85.1%
7/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1029	2000	1316	78.2%
9/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:G		1	9	-	166	1948	256	64.8%
9/2	Saxon Avenue Left	U	1:3	N/A	C1:G		1	9	-	216	2135	281	76.9%
10/2+10/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	15	-	701	2120:1980	446+417	80.0 : 82.5%
10/3+10/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	725	2120:2120	446+446	78.6 : 83.8%

12/1	Ahead	U	2:3	N/A	C2:E		1	44	-	691	1900	1125	61.4%
12/2	Ahead Right	U	2:3	N/A	C2:E		1	44	-	768	1900	1125	68.3%
13/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	858	1995	1523	56.4%
13/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	746	1995	1523	49.0%
14/2+14/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	374	2120:1980	534+430	38.8 : 38.8%
14/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	286	2120	586	48.8%
14/4+14/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	20	-	675	2120:2120	586+586	51.2 : 64.0%
16/1	Ahead	U	1:1	N/A	C1:A		1	41	-	713	2000	1105	64.5%
16/2	Ahead	U	1:1	N/A	C1:A		1	41	-	731	2000	1105	66.1%
16/3+16/4	Ahead Right	U	1:1	N/A	C1:A		1	41	-	828	2000:2000	803+428	67.2 : 67.2%
17/1	Right	U	2:4	N/A	C2:G		1	16	-	357	2000	447	79.8%
17/2	Right	U	2:4	N/A	C2:G		1	16	-	351	2000	447	78.5%
17/3	Right	U	2:4	N/A	C2:G		1	16	-	374	2000	447	83.6%
18/1	Ahead	U	2:4	N/A	C2:H		1	48	-	356	2000	1289	27.6%
18/2	Ahead	U	2:4	N/A	C2:H		1	48	-	380	2000	1289	29.5%
18/3	Ahead	U	2:4	N/A	C2:H		1	48	-	454	2000	1289	35.2%
19/1	Right	U	1:3	N/A	C1:E		1	16	-	344	2000	447	76.9%
19/2	Right	U	1:3	N/A	C1:E		1	16	-	328	2000	447	73.3%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/2+1/1	Left Ahead	U	N/A	N/A	C3:A -		1	53	-	1197	2120:3000	1326+396	69.5 : 69.5%
1/3	Ahead	U	N/A	N/A	C3:A		1	53	-	1060	2120	1506	70.4%
1/4	Ahead	U	N/A	N/A	C3:A		1	53	-	1081	2120	1506	71.8%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	11	-	443	1871:1871	295+295	74.8 : 75.1%

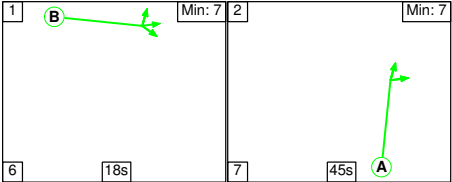
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	96.5	50.5	0.0	147.0	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	90.9	45.5	0.0	136.4	-	-	-	-
1/2+1/1	813	813	-	-	-	5.3	2.1	-	7.3 (2.8+4.5)	32.5 (31.0:33.6)	9.4	2.1	11.5
1/3+1/4	1357	1357	-	-	-	9.0	2.6	-	11.6 (4.8+6.8)	30.8 (31.8:30.2)	10.7	2.6	13.3
3/1	242	242	-	-	-	1.0	0.3	-	1.3	19.8	2.1	0.3	2.5
3/2	190	190	-	-	-	1.8	0.2	-	2.0	37.6	4.0	0.2	4.2
4/2+4/1	1176	1176	-	-	-	4.1	0.7	-	4.9 (2.2+2.6)	14.9 (14.4:15.3)	9.1	0.7	9.8
4/3	721	721	-	-	-	2.7	1.0	-	3.7	18.5	11.2	1.0	12.2
4/4+4/5	1552	1552	-	-	-	6.1	1.4	-	7.6 (3.5+4.0)	17.5 (17.1:17.9)	13.5	1.4	15.0
6/1	586	586	-	-	-	1.3	0.7	-	2.0	12.4	3.7	0.7	4.4
6/2	634	634	-	-	-	1.2	0.9	-	2.1	11.8	3.1	0.9	4.0
6/3	721	721	-	-	-	1.1	1.3	-	2.4	11.8	2.2	1.3	3.5
6/4	739	739	-	-	-	1.1	1.4	-	2.5	12.3	2.3	1.4	3.7
6/5	813	813	-	-	-	1.3	2.1	-	3.4	15.0	2.5	2.1	4.6
7/1	1098	1098	-	-	-	1.9	2.5	-	4.4	14.3	11.5	2.5	14.0
7/2	1120	1120	-	-	-	2.2	2.8	-	5.0	16.0	11.9	2.8	14.7
7/3	1029	1029	-	-	-	3.2	1.8	-	5.0	17.4	9.8	1.8	11.6
9/1	166	166	-	-	-	1.4	0.9	-	2.3	50.9	3.3	0.9	4.2
9/2	216	216	-	-	-	1.9	1.6	-	3.5	58.3	4.4	1.6	6.0
10/2+10/1	701	701	-	-	-	5.6	2.1	-	7.7 (3.9+3.8)	39.4 (39.3:39.5)	7.1	2.1	9.2
10/3+10/4	725	725	-	-	-	5.8	2.1	-	7.9 (3.8+4.1)	39.1 (38.9:39.2)	7.5	2.1	9.6
12/1	691	691	-	-	-	3.0	0.8	-	3.8	19.6	8.4	0.8	9.2
12/2	768	768	-	-	-	2.3	1.1	-	3.3	15.6	6.4	1.1	7.5
13/1	858	858	-	-	-	0.1	0.6	-	0.7	3.1	0.6	0.6	1.3
13/2	746	746	-	-	-	0.1	0.5	-	0.6	3.0	0.8	0.5	1.3

[illegible]

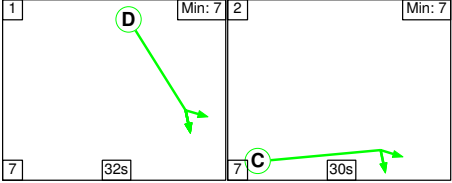
C1 - Eastside Controller

Stage Sequence Diagram

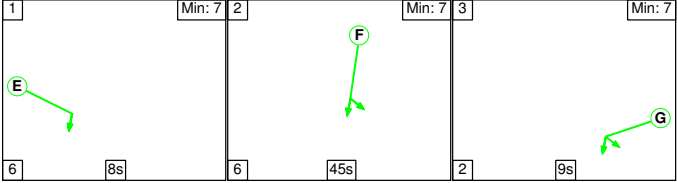
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	18	45
Change Point	25	49

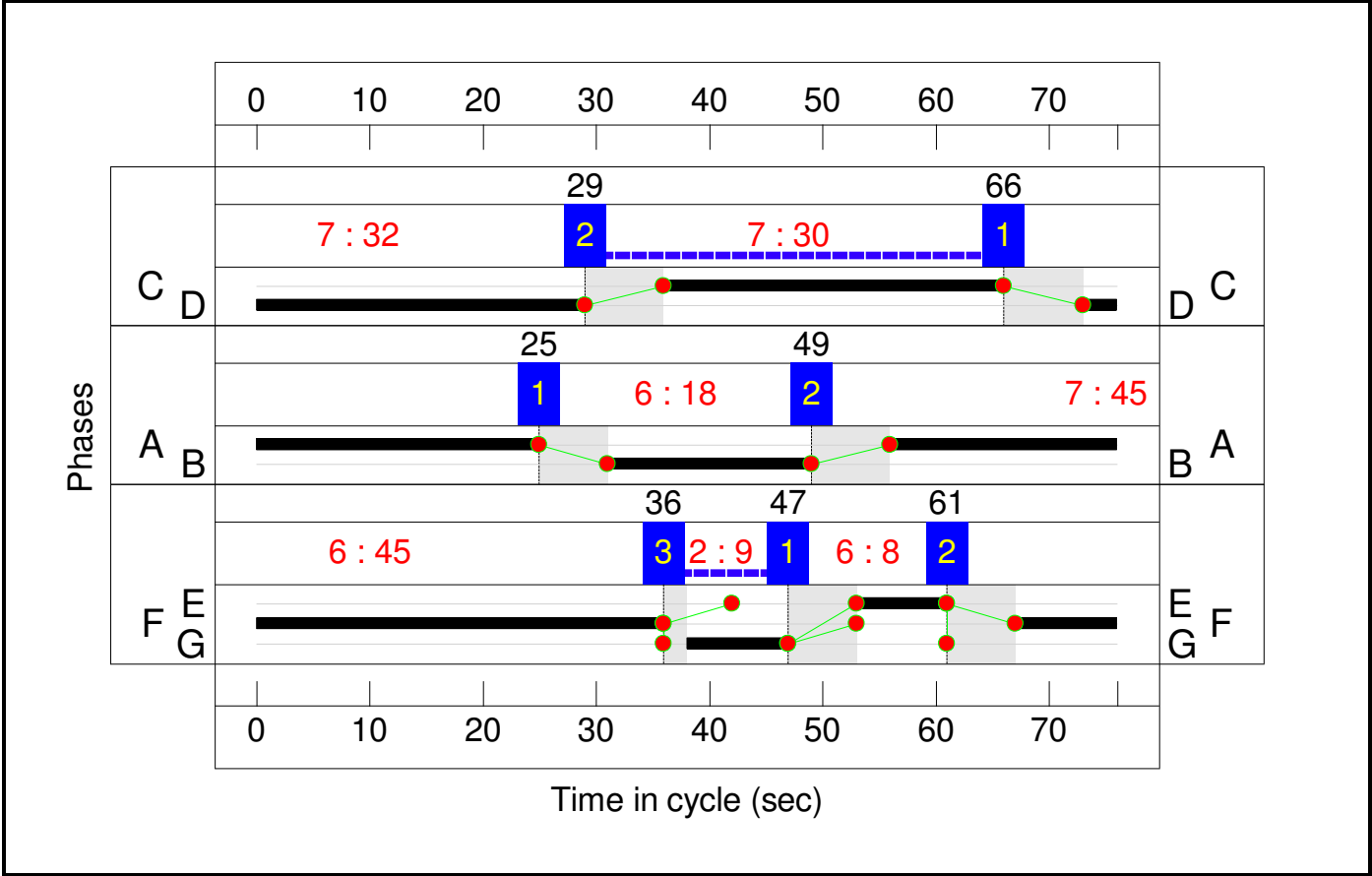
Stage Stream: 2

Stage	1	2
Duration	32	30
Change Point	66	29

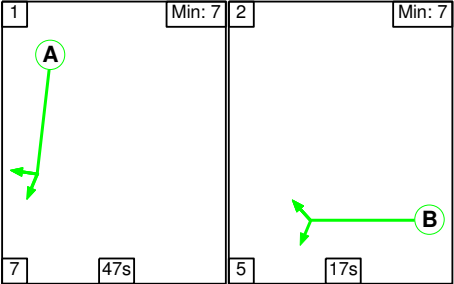
Stage Stream: 3

Stage	1	2	3
Duration	8	45	9
Change Point	47	61	36

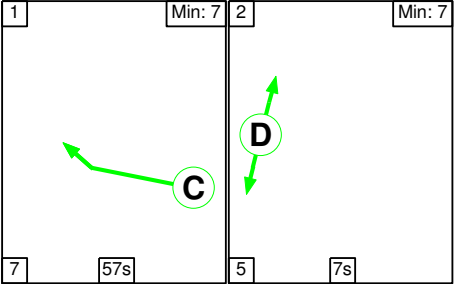
Signal Timings Diagram



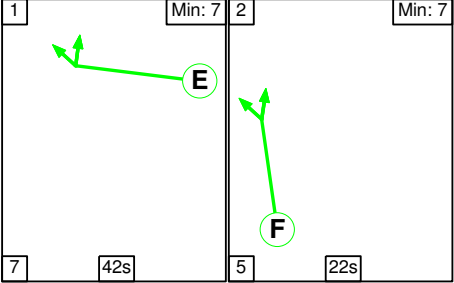
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



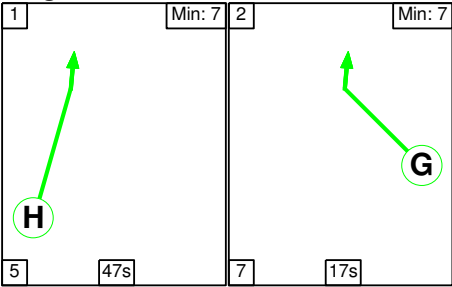
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	47	17
Change Point	22	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	14	2

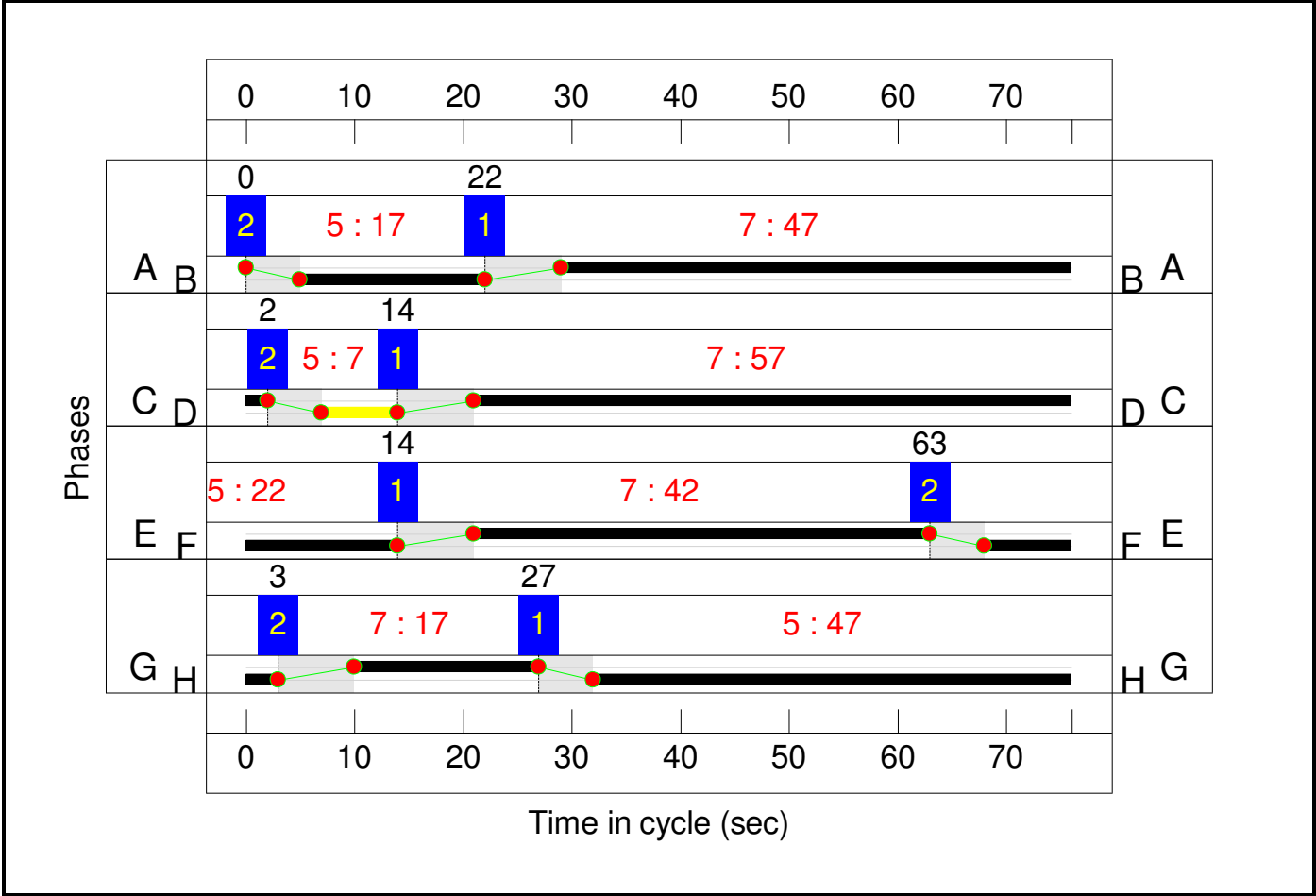
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	14	63

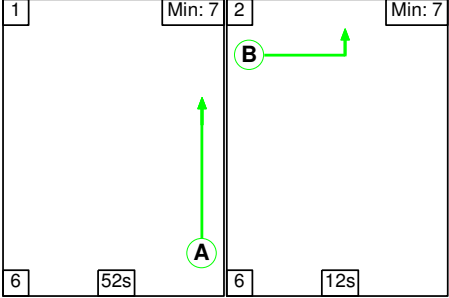
Stage Stream: 4

Stage	1	2
Duration	47	17
Change Point	27	3

Signal Timings Diagram



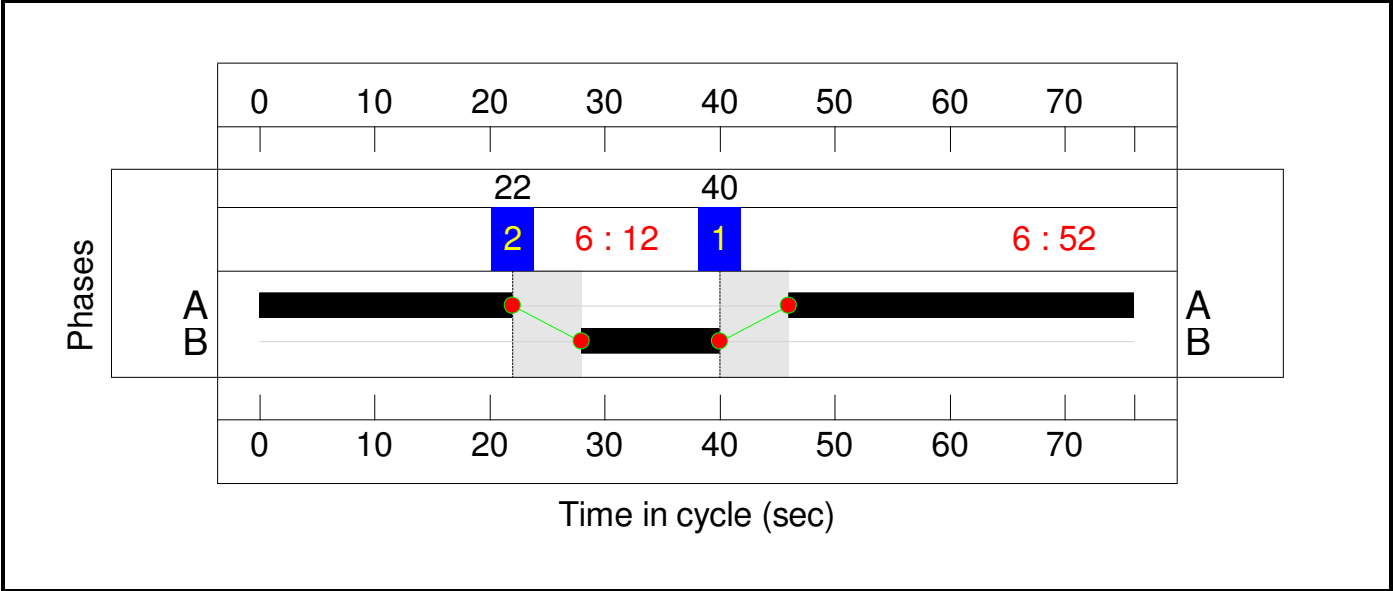
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	52	12
Change Point	40	22

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	18	-	786	2120:1980	440+495	77.9 : 89.5%
1/3+1/4	M1 Southbound Offslip Left Ahead Right	U	1:1	N/A	C1:B		1	18	-	987	2120:4000	530+551	91.3 : 91.3%
3/1	Ahead	U	1:2	N/A	C1:C		1	30	-	300	1900	775	38.7%
3/2	Right	U	1:2	N/A	C1:C		1	30	-	429	1900	775	55.4%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	32	-	1217	2120:1980	921+860	62.9 : 74.2%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	32	-	789	2120	921	85.7%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	32	-	1668	2120:2120	921+921	90.7 : 90.5%
6/1	Ahead	U	1:3	N/A	C1:F		1	45	-	659	2000	1211	54.4%
6/2	Ahead	U	1:3	N/A	C1:F		1	45	-	771	2000	1211	63.7%
6/3	Ahead	U	1:3	N/A	C1:F		1	45	-	789	2000	1211	65.2%
6/4	Ahead	U	1:3	N/A	C1:F		1	45	-	835	2000	1211	69.0%
6/5	Ahead	U	1:3	N/A	C1:F		1	45	-	833	2000	1211	68.8%
7/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1010	2000	1263	80.0%
7/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	47	-	1065	2000	1263	84.3%
7/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	1070	2000	1263	84.7%
9/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:G		1	9	-	143	1959	258	55.5%
9/2	Saxon Avenue Left	U	1:3	N/A	C1:G		1	9	-	237	2135	281	84.4%
10/2+10/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	17	-	586	2120:1980	502+237	79.3 : 79.3%
10/3+10/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	821	2120:2120	502+502	79.9 : 83.6%

12/1	Ahead	U	2:3	N/A	C2:E		1	42	-	845	1900	1075	78.6%
12/2	Ahead Right	U	2:3	N/A	C2:E		1	42	-	880	1900	1075	81.9%
13/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1110	1995	1523	72.9%
13/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	941	1995	1523	61.8%
14/2+14/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	627	2120:1980	568+415	63.8 : 63.8%
14/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	475	2120	642	74.0%
14/4+14/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	951	2120:2120	409+642	90.6 : 90.6%
16/1	Ahead	U	1:1	N/A	C1:A		1	45	-	919	2000	1211	75.9%
16/2	Ahead	U	1:1	N/A	C1:A		1	45	-	899	2000	1211	74.3%
16/3+16/4	Ahead Right	U	1:1	N/A	C1:A		1	45	-	1128	2000:2000	687+743	78.9 : 78.9%
17/1	Right	U	2:4	N/A	C2:G		1	17	-	398	2000	474	84.0%
17/2	Right	U	2:4	N/A	C2:G		1	17	-	401	2000	474	84.7%
17/3	Right	U	2:4	N/A	C2:G		1	17	-	420	2000	474	88.7%
18/1	Ahead	U	2:4	N/A	C2:H		1	47	-	521	2000	1263	41.2%
18/2	Ahead	U	2:4	N/A	C2:H		1	47	-	498	2000	1263	39.4%
18/3	Ahead	U	2:4	N/A	C2:H		1	47	-	708	2000	1263	56.1%
19/1	Right	U	1:3	N/A	C1:E		1	8	-	182	2000	237	76.8%
19/2	Right	U	1:3	N/A	C1:E		1	8	-	178	2000	237	75.2%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	84.8%
1/2+1/1	Left Ahead	U	N/A	N/A	C3:A -		1	52	-	1362	2120:3000	1368+238	84.8 : 84.8%
1/3	Ahead	U	N/A	N/A	C3:A		1	52	-	1242	2120	1478	84.0%
1/4	Ahead	U	N/A	N/A	C3:A		1	52	-	1026	2120	1478	69.4%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	12	-	518	1871:1871	320+320	80.9 : 80.9%

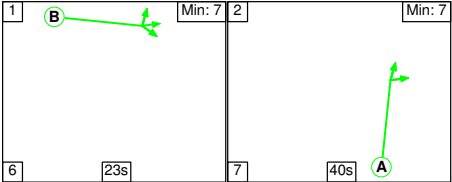
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	114.0	74.8	0.0	188.8	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	104.7	66.3	0.0	171.0	-	-	-	-
1/2+1/1	786	786	-	-	-	5.8	2.5	-	8.4 (3.5+4.8)	38.3 (37.2:39.2)	9.0	2.5	11.5
1/3+1/4	987	987	-	-	-	7.1	4.8	-	11.9 (6.1+5.9)	43.5 (45.1:41.9)	9.8	4.8	14.6
3/1	300	300	-	-	-	0.6	0.3	-	0.9	11.2	4.3	0.3	4.6
3/2	429	429	-	-	-	3.5	0.6	-	4.1	34.3	6.8	0.6	7.4
4/2+4/1	1217	1217	-	-	-	5.9	1.1	-	6.9 (3.2+3.7)	20.6 (19.9:21.1)	11.2	1.1	12.2
4/3	789	789	-	-	-	4.2	2.9	-	7.1	32.5	14.9	2.9	17.8
4/4+4/5	1668	1668	-	-	-	9.3	4.6	-	13.9 (6.9+6.9)	29.9 (29.9:29.9)	16.2	4.6	20.8
6/1	659	659	-	-	-	1.3	0.6	-	1.9	10.3	5.0	0.6	5.6
6/2	771	771	-	-	-	1.1	0.9	-	1.9	9.0	4.1	0.9	4.9
6/3	789	789	-	-	-	0.2	0.9	-	1.1	5.0	0.8	0.9	1.8
6/4	835	835	-	-	-	0.2	1.1	-	1.3	5.6	0.9	1.1	2.0
6/5	833	833	-	-	-	0.2	1.1	-	1.3	5.6	0.9	1.1	2.0
7/1	1010	1010	-	-	-	3.6	2.0	-	5.5	19.7	17.5	2.0	19.4
7/2	1065	1065	-	-	-	3.8	2.6	-	6.5	21.9	18.7	2.6	21.3
7/3	1070	1070	-	-	-	4.5	2.7	-	7.2	24.1	22.6	2.7	25.3
9/1	143	143	-	-	-	1.2	0.6	-	1.8	46.4	2.8	0.6	3.4
9/2	237	237	-	-	-	2.1	2.4	-	4.6	69.1	4.9	2.4	7.3
10/2+10/1	586	586	-	-	-	4.3	1.9	-	6.2 (4.3+1.9)	37.8 (38.7:35.9)	7.8	1.9	9.7
10/3+10/4	821	821	-	-	-	6.3	2.2	-	8.4 (4.1+4.3)	37.1 (36.9:37.2)	8.4	2.2	10.6
12/1	845	845	-	-	-	1.1	1.8	-	2.9	12.4	2.5	1.8	4.3
12/2	880	880	-	-	-	2.6	2.2	-	4.9	19.9	6.1	2.2	8.3
13/1	1110	1110	-	-	-	0.2	1.3	-	1.5	4.9	1.0	1.3	2.4
13/2	941	941	-	-	-	0.6	0.8	-	1.4	5.5	3.7	0.8	4.5

14/2+14/1	627	627	-	-	-	3.8	0.9	-	4.7 (2.7+1.9)	26.9 (27.3:26.4)	6.3	0.9	7.2
14/3	475	475	-	-	-	3.1	1.4	-	4.5	34.4	9.0	1.4	10.4
14/4+14/5	951	951	-	-	-	6.4	4.4	-	10.8 (4.0+6.8)	40.9 (39.1:42.1)	11.8	4.4	16.2
16/1	919	919	-	-	-	4.1	1.6	-	5.7	22.1	12.1	1.6	13.7
16/2	899	899	-	-	-	3.9	1.4	-	5.4	21.5	11.7	1.4	13.1
16/3+16/4	1128	1128	-	-	-	4.3	1.8	-	6.1 (3.3+2.8)	19.6 (22.1:17.4)	11.6	1.8	13.5
17/1	398	398	-	-	-	0.0	2.5	-	2.5	22.7	0.4	2.5	2.9
17/2	401	401	-	-	-	0.0	2.6	-	2.6	23.5	0.4	2.6	3.0
17/3	420	420	-	-	-	0.0	3.5	-	3.5	30.1	0.5	3.5	3.9
18/1	521	521	-	-	-	2.4	0.4	-	2.7	18.8	6.7	0.4	7.1
18/2	498	498	-	-	-	1.6	0.3	-	1.9	14.0	5.9	0.3	6.2
18/3	708	708	-	-	-	3.8	0.6	-	4.4	22.4	11.1	0.6	11.7
19/1	182	182	-	-	-	0.8	1.6	-	2.3	46.1	3.8	1.6	5.4
19/2	178	178	-	-	-	0.7	1.4	-	2.2	44.1	3.8	1.4	5.2
J2: Unnamed Junction	-	-	0	0	0	9.3	8.5	0.0	17.8	-	-	-	-
1/2+1/1	1362	1362	-	-	-	1.9	2.7	-	4.6 (4.2+0.4)	12.2 (12.9:7.9)	15.5	2.7	18.3
1/3	1242	1242	-	-	-	2.4	2.6	-	5.0	14.5	15.5	2.6	18.0
1/4	1026	1026	-	-	-	0.6	1.1	-	1.7	6.1	6.0	1.1	7.1
3/1+3/2	518	518	-	-	-	4.4	2.1	-	6.4 (3.2+3.2)	44.6 (44.6:44.6)	5.3	2.1	7.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 37.44 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -0.8 Total Delay for Signalled Lanes (pcuHr): 32.96 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 6.7 Total Delay for Signalled Lanes (pcuHr): 18.38 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): 6.2 Total Delay for Signalled Lanes (pcuHr): 33.78 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 23.4 Total Delay for Signalled Lanes (pcuHr): 2.93 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): -0.6 Total Delay for Signalled Lanes (pcuHr): 27.81 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 1.5 Total Delay for Signalled Lanes (pcuHr): 17.70 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 6.1 Total Delay for Signalled Lanes (pcuHr): 17.76 Cycle Time (s): 76 PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 188.77													

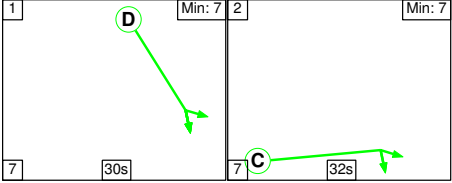
C1 - Eastside Controller

Stage Sequence Diagram

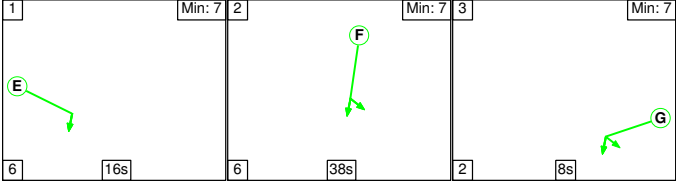
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	23	40
Change Point	15	44

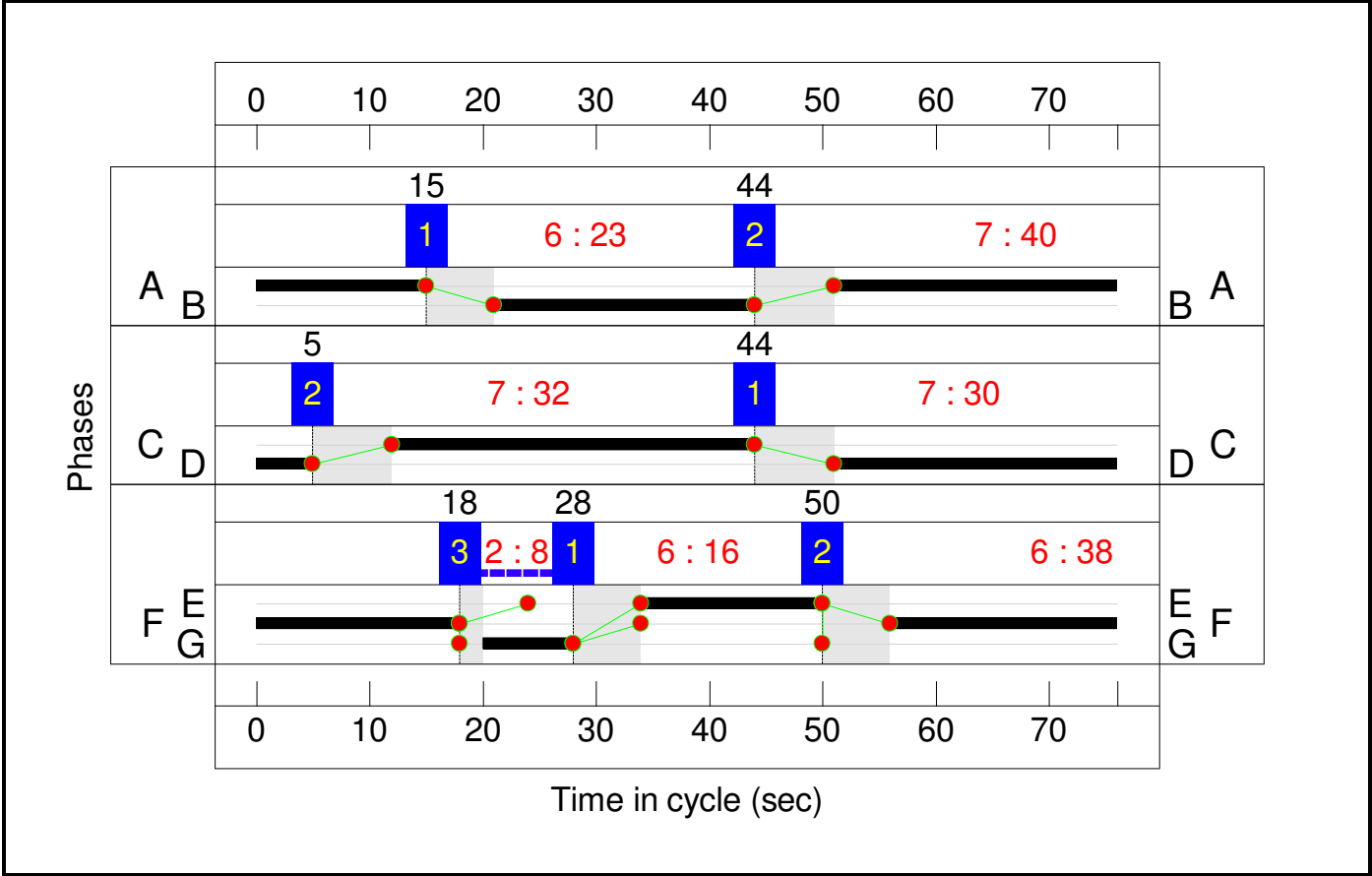
Stage Stream: 2

Stage	1	2
Duration	30	32
Change Point	44	5

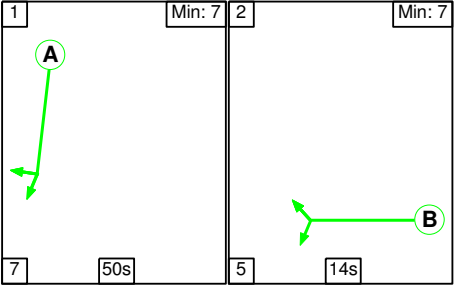
Stage Stream: 3

Stage	1	2	3
Duration	16	38	8
Change Point	28	50	18

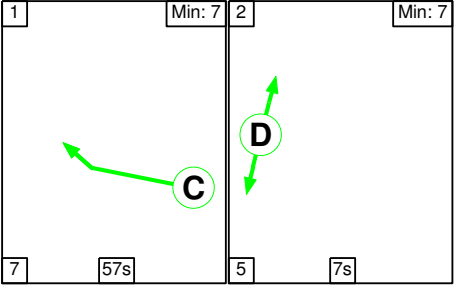
Signal Timings Diagram



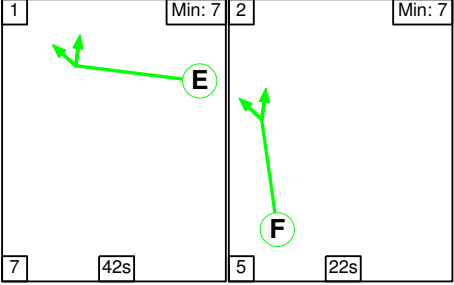
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



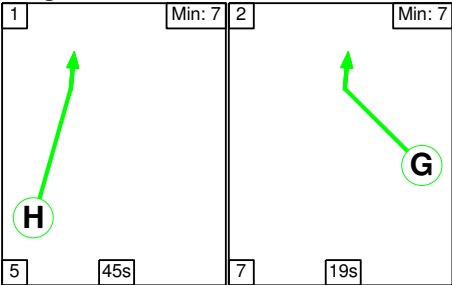
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	50	14
Change Point	19	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	17	5

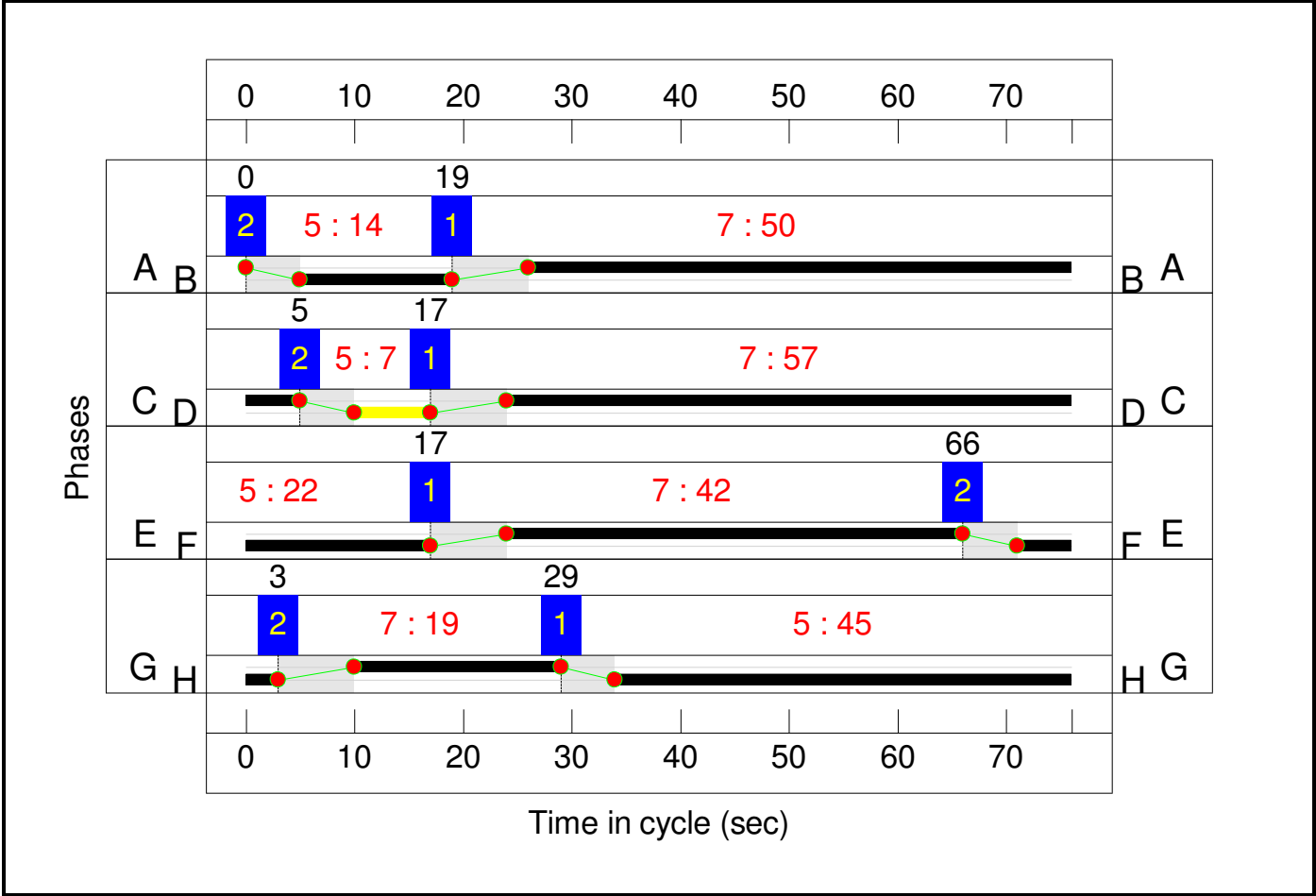
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	17	66

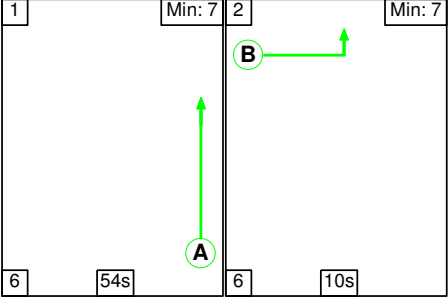
Stage Stream: 4

Stage	1	2
Duration	45	19
Change Point	29	3

Signal Timings Diagram



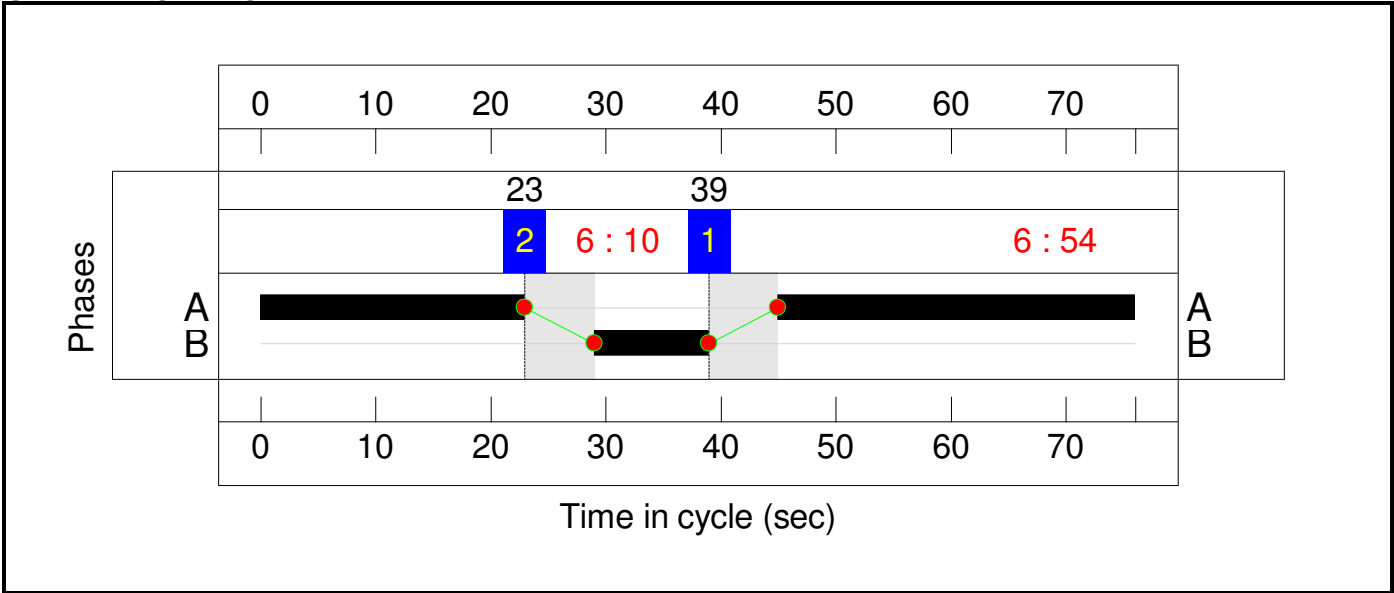
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	39	23

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	100.9%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	100.9%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	23	-	951	2120:1980	460+625	87.6 : 87.6%
1/3+1/4	M1 Southbound Offslip Left Ahead Right	U	1:1	N/A	C1:B		1	23	-	1509	2120:4000	669+976	91.7 : 91.7%
3/1	Ahead	U	1:2	N/A	C1:C		1	32	-	280	1900	825	33.9%
3/2	Right	U	1:2	N/A	C1:C		1	32	-	204	1900	825	24.7%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	30	-	1359	2120:1980	865+808	73.9 : 89.1%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	30	-	845	2120	865	97.7%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	30	-	1737	2120:2120	865+865	100.0 : 100.8%
6/1	Ahead	U	1:3	N/A	C1:F		1	38	-	675	2000	1026	65.8%
6/2	Ahead	U	1:3	N/A	C1:F		1	38	-	719	2000	1026	70.1%
6/3	Ahead	U	1:3	N/A	C1:F		1	38	-	845	2000	1026	82.3%
6/4	Ahead	U	1:3	N/A	C1:F		1	38	-	865	2000	1026	84.3%
6/5	Ahead	U	1:3	N/A	C1:F		1	38	-	872	2000	1026	84.3%
7/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	50	-	1261	2000	1342	94.0%
7/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	50	-	1277	2000	1342	95.1%
7/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	50	-	1118	2000	1342	82.8%
9/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:G		1	8	-	192	1948	231	83.2%
9/2	Saxon Avenue Left	U	1:3	N/A	C1:G		1	8	-	246	2135	253	97.3%
10/2+10/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	14	-	772	2120:1980	418+391	100.9 : 89.6%

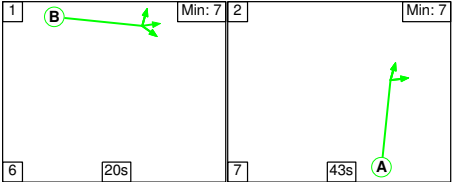
10/3+10/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	14	-	830	2120:2120	418+418	98.2 : 100.1%
12/1	Ahead	U	2:3	N/A	C2:E		1	42	-	817	1900	1075	75.8%
12/2	Ahead Right	U	2:3	N/A	C2:E		1	42	-	866	1900	1075	80.1%
13/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	994	1995	1523	65.1%
13/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	844	1995	1523	55.1%
14/2+14/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	418	2120:1980	567+417	42.5 : 42.5%
14/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	316	2120	642	49.3%
14/4+14/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	22	-	758	2120:2120	642+642	54.1 : 64.1%
16/1	Ahead	U	1:1	N/A	C1:A		1	40	-	854	2000	1079	78.8%
16/2	Ahead	U	1:1	N/A	C1:A		1	40	-	831	2000	1079	77.0%
16/3+16/4	Ahead Right	U	1:1	N/A	C1:A		1	40	-	904	2000:2000	783+425	74.8 : 74.8%
17/1	Right	U	2:4	N/A	C2:G		1	19	-	422	2000	526	79.5%
17/2	Right	U	2:4	N/A	C2:G		1	19	-	411	2000	526	78.1%
17/3	Right	U	2:4	N/A	C2:G		1	19	-	419	2000	526	79.5%
18/1	Ahead	U	2:4	N/A	C2:H		1	45	-	432	2000	1211	35.7%
18/2	Ahead	U	2:4	N/A	C2:H		1	45	-	420	2000	1211	34.7%
18/3	Ahead	U	2:4	N/A	C2:H		1	45	-	485	2000	1211	40.1%
19/1	Right	U	1:3	N/A	C1:E		1	16	-	369	2000	447	82.5%
19/2	Right	U	1:3	N/A	C1:E		1	16	-	360	2000	447	80.5%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	82.0%
1/2+1/1	Left Ahead	U	N/A	N/A	C3:A -		1	54	-	1402	2120:3000	1378+336	81.6 : 81.5%
1/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1234	2120	1534	80.4%
1/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1200	2120	1534	78.2%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	10	-	443	1871:1871	271+271	81.6 : 82.0%

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 15 Mitigation Model	-	-	0	0	0	120.4	131.9	0.0	252.3	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	112.5	123.8	0.0	236.3	-	-	-	-
1/2+1/1	951	951	-	-	-	6.2	3.4	-	9.6 (3.9+5.7)	36.3 (34.8:37.4)	10.8	3.4	14.2
1/3+1/4	1509	1509	-	-	-	10.0	5.1	-	15.1 (6.4+8.7)	36.1 (37.3:35.2)	12.5	5.1	17.6
3/1	280	280	-	-	-	0.9	0.3	-	1.1	14.4	2.5	0.3	2.7
3/2	204	204	-	-	-	0.7	0.2	-	0.9	15.7	4.3	0.2	4.5
4/2+4/1	1359	1359	-	-	-	7.6	2.1	-	9.7 (4.4+5.3)	25.7 (24.7:26.6)	14.0	2.1	16.1
4/3	845	845	-	-	-	5.2	10.4	-	15.6	66.5	17.4	10.4	27.8
4/4+4/5	1737	1729	-	-	-	11.0	22.8	-	33.8 (15.0+18.8)	70.1 (62.5:77.7)	18.4	22.8	41.2
6/1	675	675	-	-	-	1.0	1.0	-	1.9	10.2	5.9	1.0	6.8
6/2	719	719	-	-	-	1.1	1.2	-	2.2	11.1	13.3	1.2	14.5
6/3	845	845	-	-	-	0.2	2.3	-	2.5	10.6	1.0	2.3	3.2
6/4	865	865	-	-	-	0.2	2.6	-	2.8	11.7	1.6	2.6	4.2
6/5	865	865	-	-	-	0.2	2.6	-	2.8	11.7	1.6	2.6	4.2
7/1	1261	1261	-	-	-	4.7	6.7	-	11.4	32.5	21.1	6.7	27.7
7/2	1277	1277	-	-	-	5.0	7.9	-	12.8	36.2	21.4	7.9	29.3
7/3	1111	1111	-	-	-	5.4	2.4	-	7.8	25.2	17.9	2.4	20.2
9/1	192	192	-	-	-	1.7	2.2	-	4.0	74.5	3.9	2.2	6.2
9/2	246	246	-	-	-	2.3	6.3	-	8.6	125.9	5.1	6.3	11.4
10/2+10/1	772	768	-	-	-	6.6	9.2	-	15.8 (9.6+6.3)	73.7 (81.5:64.3)	9.0	9.2	18.2
10/3+10/4	830	829	-	-	-	7.0	13.1	-	20.1 (9.8+10.3)	87.2 (85.9:88.6)	8.8	13.1	21.9
12/1	815	815	-	-	-	1.8	1.5	-	3.3	14.8	5.4	1.5	6.9
12/2	861	861	-	-	-	1.4	2.0	-	3.3	13.9	4.0	2.0	5.9
13/1	992	992	-	-	-	0.1	0.9	-	1.0	3.8	0.7	0.9	1.6

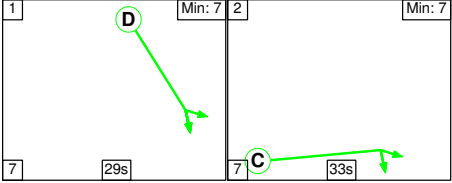
C1 - Eastside Controller

Stage Sequence Diagram

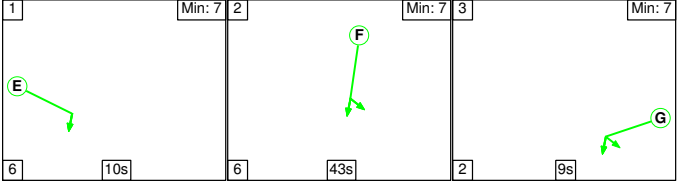
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	20	43
Change Point	65	15

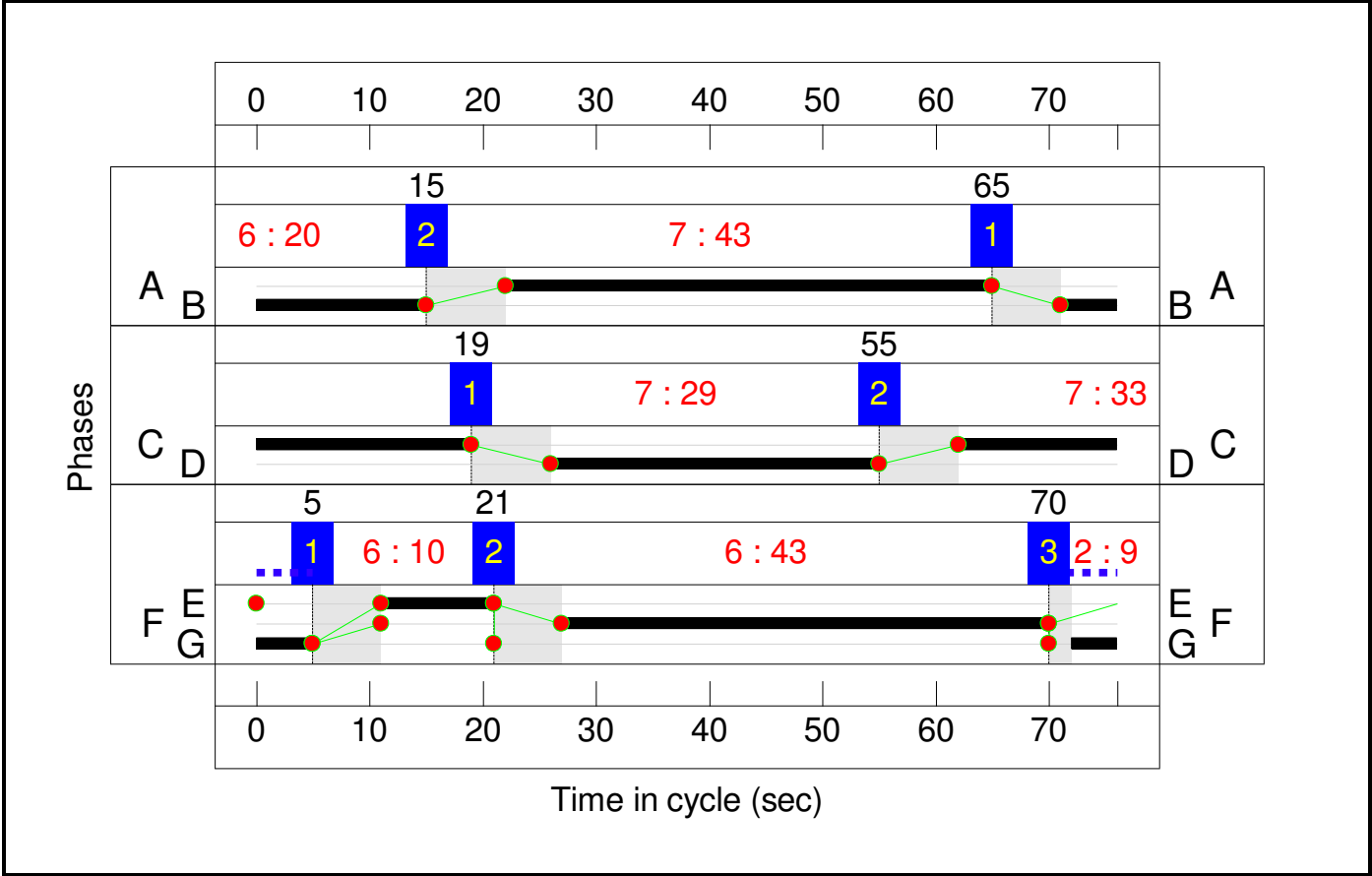
Stage Stream: 2

Stage	1	2
Duration	29	33
Change Point	19	55

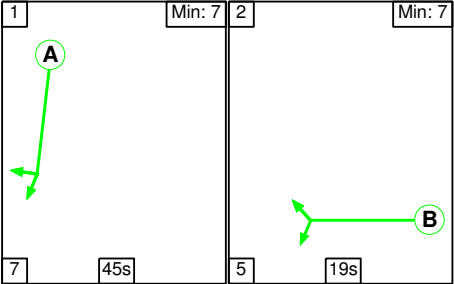
Stage Stream: 3

Stage	1	2	3
Duration	10	43	9
Change Point	5	21	70

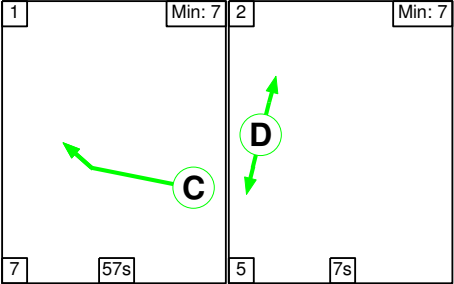
Signal Timings Diagram



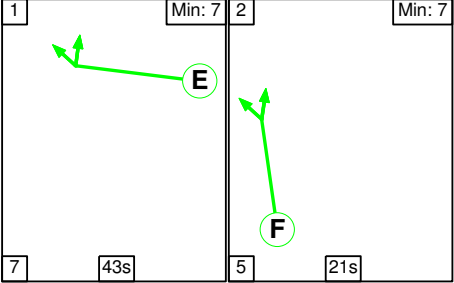
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



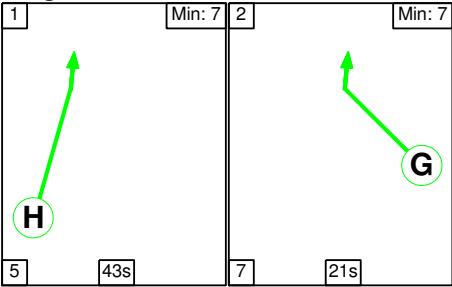
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	45	19
Change Point	24	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	18	6

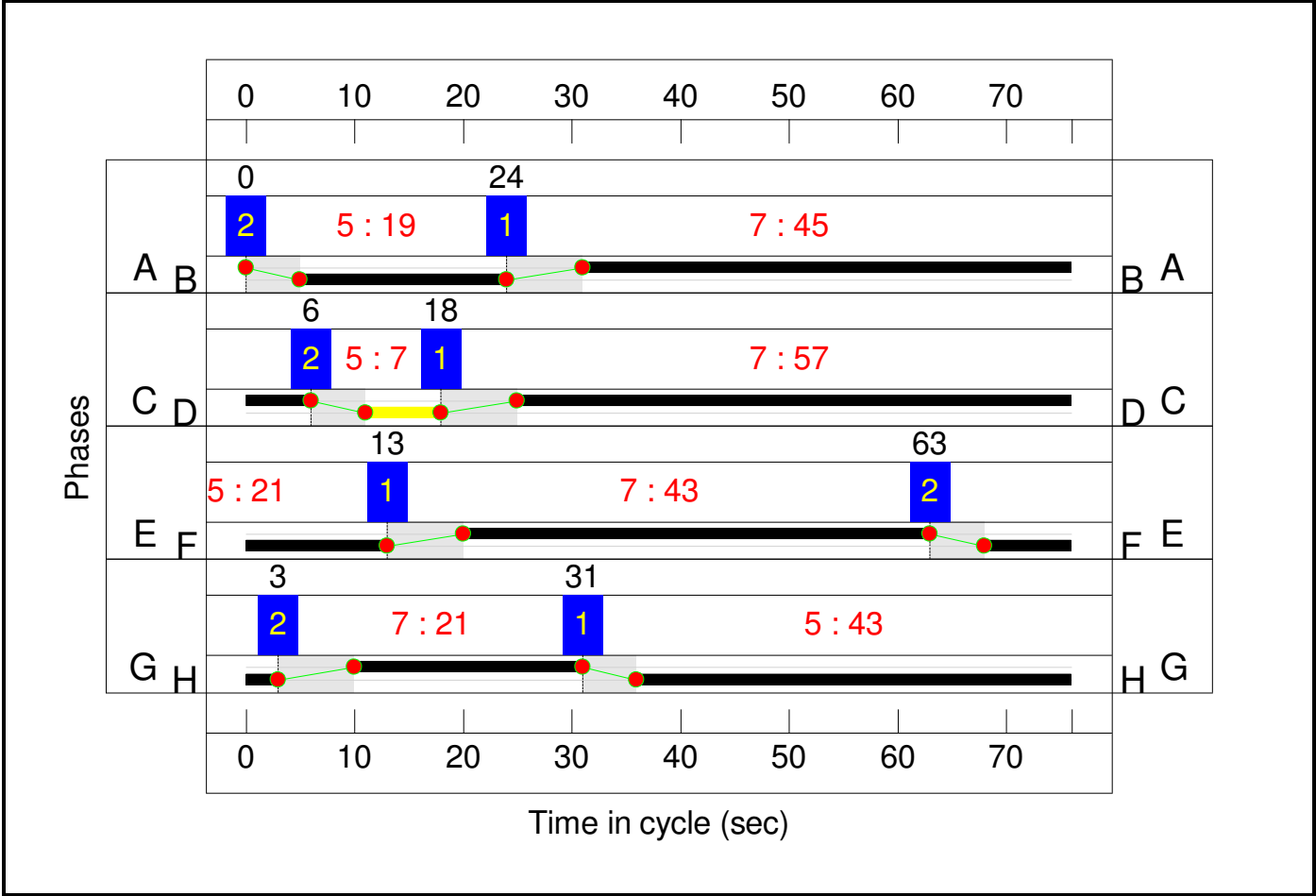
Stage Stream: 3

Stage	1	2
Duration	43	21
Change Point	13	63

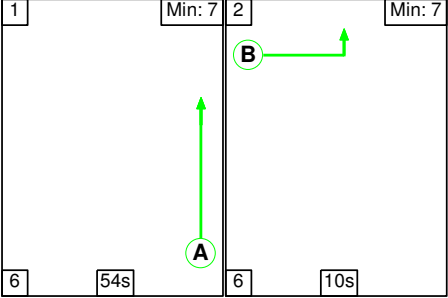
Stage Stream: 4

Stage	1	2
Duration	43	21
Change Point	31	3

Signal Timings Diagram



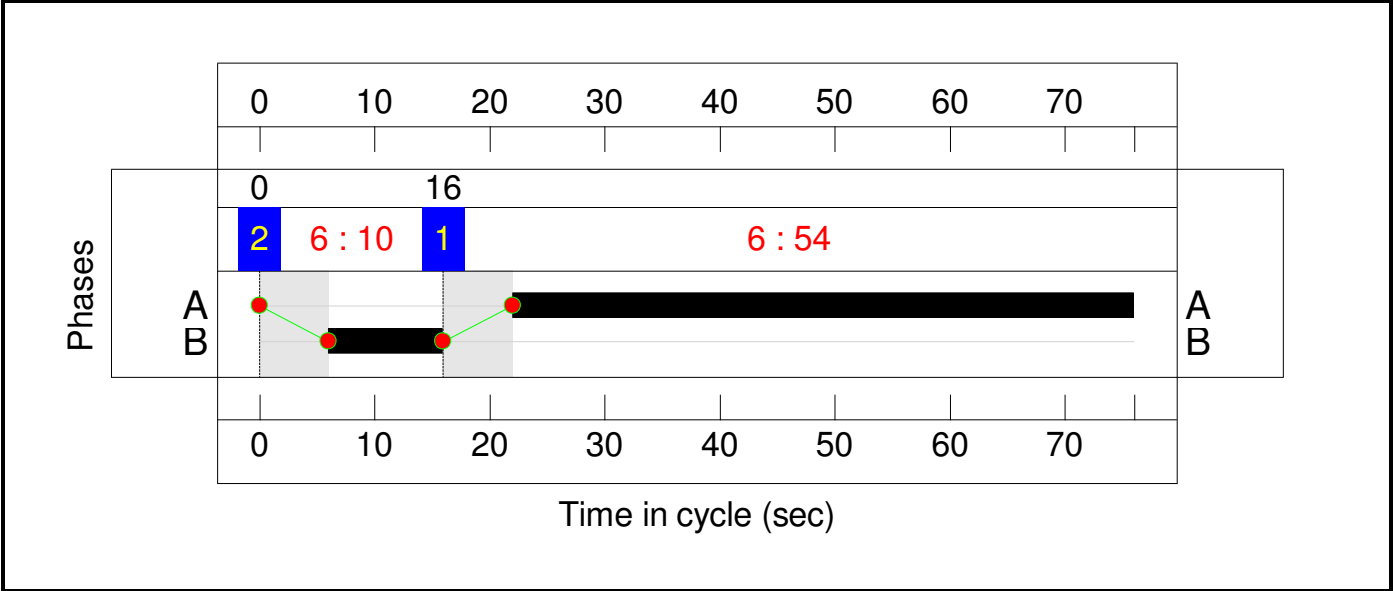
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	54	10
Change Point	16	0

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	113.0%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	113.0%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	20	-	927	2120:1980	549+547	76.4 : 92.7%
1/3+1/4	M1 Southbound Offslip Left Ahead Right	U	1:1	N/A	C1:B		1	20	-	1111	2120:4000	586+598	93.9 : 93.9%
3/1	Ahead	U	1:2	N/A	C1:C		1	33	-	349	1900	850	40.9%
3/2	Right	U	1:2	N/A	C1:C		1	33	-	444	1900	850	51.5%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	29	-	1416	2120:1980	837+782	79.7 : 95.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	29	-	937	2120	837	112.0%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	29	-	1890	2120:2120	837+837	113.0 : 112.8%
6/1	Ahead	U	1:3	N/A	C1:F		1	43	-	770	2000	1158	66.1%
6/2	Ahead	U	1:3	N/A	C1:F		1	43	-	838	2000	1158	72.2%
6/3	Ahead	U	1:3	N/A	C1:F		1	43	-	937	2000	1158	72.3%
6/4	Ahead	U	1:3	N/A	C1:F		1	43	-	946	2000	1158	72.3%
6/5	Ahead	U	1:3	N/A	C1:F		1	43	-	944	2000	1158	72.3%
7/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1183	2000	1211	89.5%
7/2	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	45	-	1201	2000	1211	90.2%
7/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	1220	2000	1211	91.9%
9/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:G		1	9	-	167	1959	258	64.8%
9/2	Saxon Avenue Left	U	1:3	N/A	C1:G		1	9	-	276	2135	281	98.2%
10/2+10/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	19	-	638	2120:1980	558+244	79.6 : 79.6%

10/3+10/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	973	2120:2120	558+558	79.0 : 95.4%
12/1	Ahead	U	2:3	N/A	C2:E		1	43	-	1004	1900	1100	81.4%
12/2	Ahead Right	U	2:3	N/A	C2:E		1	43	-	1001	1900	1100	83.5%
13/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1284	1995	1523	77.2%
13/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1045	1995	1523	63.8%
14/2+14/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	674	2120:1980	553+393	71.3 : 71.3%
14/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	604	2120	614	98.4%
14/4+14/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	949	2120:2120	321+614	101.5 : 101.5%
16/1	Ahead	U	1:1	N/A	C1:A		1	43	-	1051	2000	1158	90.7%
16/2	Ahead	U	1:1	N/A	C1:A		1	43	-	1035	2000	1158	88.7%
16/3+16/4	Ahead Right	U	1:1	N/A	C1:A		1	43	-	1234	2000:2000	682+705	88.7 : 87.9%
17/1	Right	U	2:4	N/A	C2:G		1	21	-	444	2000	579	76.7%
17/2	Right	U	2:4	N/A	C2:G		1	21	-	441	2000	579	76.2%
17/3	Right	U	2:4	N/A	C2:G		1	21	-	532	2000	579	91.9%
18/1	Ahead	U	2:4	N/A	C2:H		1	43	-	607	2000	1158	52.4%
18/2	Ahead	U	2:4	N/A	C2:H		1	43	-	594	2000	1158	50.6%
18/3	Ahead	U	2:4	N/A	C2:H		1	43	-	702	2000	1158	59.8%
19/1	Right	U	1:3	N/A	C1:E		1	10	-	201	2000	289	69.4%
19/2	Right	U	1:3	N/A	C1:E		1	10	-	194	2000	289	67.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
1/2+1/1	Left Ahead	U	N/A	N/A	C3:A -		1	54	-	1558	2120:3000	1433+213	94.6 : 94.6%
1/3	Ahead	U	N/A	N/A	C3:A		1	54	-	1455	2120	1534	94.3%
1/4	Ahead	U	N/A	N/A	C3:A		1	54	-	1157	2120	1534	75.3%
3/1+3/2	Left	U	N/A	N/A	C3:B		1	10	-	518	1871:1871	271+271	95.6 : 95.6%

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 15 Mitigation Model	-	-	0	0	0	127.8	297.5	0.0	425.3	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	116.8	274.5	0.0	391.2	-	-	-	-
1/2+1/1	927	927	-	-	-	6.7	2.7	-	9.3 (4.1+5.2)	36.2 (35.1:37.0)	10.3	2.7	12.9
1/3+1/4	1111	1111	-	-	-	7.7	6.5	-	14.2 (7.3+6.9)	46.1 (48.0:44.2)	11.3	6.5	17.8
3/1	348	348	-	-	-	1.2	0.3	-	1.6	16.3	3.8	0.3	4.2
3/2	437	437	-	-	-	2.6	0.5	-	3.1	25.7	9.2	0.5	9.8
4/2+4/1	1416	1416	-	-	-	8.4	3.4	-	11.8 (5.4+6.4)	30.0 (28.9:31.0)	15.2	3.4	18.6
4/3	937	837	-	-	-	9.0	54.4	-	63.4	243.7	21.9	54.4	76.3
4/4+4/5	1890	1674	-	-	-	18.7	112.4	-	131.0 (66.0+65.0)	249.6 (251.3:247.8)	22.3	112.4	134.6
6/1	766	766	-	-	-	1.7	1.0	-	2.7	12.5	7.3	1.0	8.3
6/2	835	835	-	-	-	1.3	1.3	-	2.6	11.2	12.2	1.3	13.5
6/3	837	837	-	-	-	0.2	1.3	-	1.5	6.5	1.0	1.3	2.3
6/4	837	837	-	-	-	0.2	1.3	-	1.5	6.5	1.0	1.3	2.3
6/5	837	837	-	-	-	0.2	1.3	-	1.5	6.5	1.0	1.3	2.3
7/1	1083	1083	-	-	-	0.9	4.0	-	4.9	16.1	5.2	4.0	9.2
7/2	1092	1092	-	-	-	1.0	4.3	-	5.3	17.4	5.4	4.3	9.7
7/3	1113	1113	-	-	-	1.9	5.2	-	7.0	22.7	5.8	5.2	11.0
9/1	167	167	-	-	-	1.5	0.9	-	2.4	50.8	3.3	0.9	4.2
9/2	276	276	-	-	-	2.5	7.2	-	9.7	126.4	5.8	7.2	12.9
10/2+10/1	638	638	-	-	-	4.5	1.9	-	6.4 (4.5+1.8)	35.9 (36.8:33.6)	8.6	1.9	10.5
10/3+10/4	973	973	-	-	-	7.3	3.3	-	10.5 (4.7+5.9)	38.9 (38.1:39.6)	10.9	3.3	14.2
12/1	895	895	-	-	-	4.1	2.1	-	6.2	25.0	9.2	2.1	11.3
12/2	919	919	-	-	-	2.7	2.5	-	5.2	20.3	6.7	2.5	9.2
13/1	1175	1175	-	-	-	0.7	1.7	-	2.3	7.1	11.2	1.7	12.8

13/2	971	971	-	-	-	0.6	0.9	-	1.5	5.4	7.2	0.9	8.0
14/2+14/1	674	674	-	-	-	4.3	1.2	-	5.5 (3.3+2.2)	29.6 (30.1:28.9)	7.2	1.2	8.5
14/3	604	604	-	-	-	4.5	10.1	-	14.6	87.1	12.6	10.1	22.7
14/4+14/5	949	940	-	-	-	7.1	19.4	-	26.5 (8.7+17.8)	100.4 (96.1:102.6)	13.3	19.4	32.7
16/1	1051	1051	-	-	-	1.9	4.5	-	6.4	21.9	13.3	4.5	17.8
16/2	1027	1027	-	-	-	2.3	3.7	-	6.0	20.9	13.7	3.7	17.5
16/3+16/4	1225	1225	-	-	-	1.0	3.6	-	4.6 (2.1+2.5)	13.5 (12.4:14.6)	11.2	3.6	14.8
17/1	444	444	-	-	-	0.1	1.6	-	1.7	13.4	0.5	1.6	2.1
17/2	441	441	-	-	-	0.1	1.6	-	1.6	13.2	0.5	1.6	2.0
17/3	532	532	-	-	-	0.1	4.7	-	4.8	32.5	0.6	4.7	5.3
18/1	607	607	-	-	-	3.8	0.5	-	4.4	26.1	8.9	0.5	9.4
18/2	586	586	-	-	-	1.3	0.5	-	1.8	11.2	3.7	0.5	4.2
18/3	693	693	-	-	-	4.1	0.7	-	4.8	25.0	10.7	0.7	11.5
19/1	201	201	-	-	-	0.5	1.1	-	1.6	28.6	4.1	1.1	5.2
19/2	194	194	-	-	-	0.5	1.0	-	1.5	27.1	3.9	1.0	4.9
J2: Unnamed Junction	-	-	0	0	0	11.0	23.1	0.0	34.1	-	-	-	-
1/2+1/1	1558	1558	-	-	-	2.2	7.5	-	9.7 (8.7+1.1)	22.5 (23.1:18.7)	17.2	7.5	24.8
1/3	1447	1447	-	-	-	2.3	7.1	-	9.4	23.5	14.8	7.1	22.0
1/4	1155	1155	-	-	-	1.8	1.5	-	3.3	10.4	18.9	1.5	20.4
3/1+3/2	518	518	-	-	-	4.6	6.9	-	11.6 (5.8+5.8)	80.3 (80.3:80.3)	5.4	6.9	12.3
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -4.3 Total Delay for Signalled Lanes (pcuHr): 40.50 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -25.6 Total Delay for Signalled Lanes (pcuHr): 210.94 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): -9.2 Total Delay for Signalled Lanes (pcuHr): 24.88 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -6.0 Total Delay for Signalled Lanes (pcuHr): 34.02 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 16.6 Total Delay for Signalled Lanes (pcuHr): 3.79 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): -12.8 Total Delay for Signalled Lanes (pcuHr): 58.01 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): -2.1 Total Delay for Signalled Lanes (pcuHr): 19.10 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): -6.3 Total Delay for Signalled Lanes (pcuHr): 34.05 Cycle Time (s): 76 PRC Over All Lanes (%): -25.6 Total Delay Over All Lanes(pcuHr): 425.30													

APPENDIX F

THE COMMENTS ON 'PREFERRED ARRANGEMENT' LAYOUT

Mark Higgins

From: Echeverria Cruchaga, Irene <Irene.Echeverria@aecom.com>
Sent: 27 April 2017 12:18
To: Stuart Dunhill; O'Toole, Aoife; Seldon, Martin; Ian Rigby; Punter, Jethro; Draper, Martin; Tim Edwards; Sim-Jones, Rob; Simon.Hilditch@bwbcconsulting.com
Cc: Mark Higgins; Dave Mackrory; Steve Harley; Mily Parveen (mily.parveen@WSPgroup.com); Luke Best; Daniel Bent; 'Steve Johnstone'; Pearce, Steve; Jamie Wheway
Subject: RE: M1J15 Northampton Gateway: TWG mtg 8 Notes and Actions
Attachments: M1 J15 Comments 180417.pdf

Dear all,

We have reviewed TN5 v4 prepared by ADC that presents the evolution of the M1 Junction 15 layout design and details the junction modelling that has informed the design process, as well as the LinSig model files provided.

We can confirm that the flows that were input into LinSig for all the scenarios are acceptable, as these are in line with the agreed baseline flows and agreed figures for trip generation and distribution as per ADC's Technical Notes 2 and 3.

Having reviewed the geometric parameters used in the LinSig model, we have highlighted discrepancies between the layout of the M1 Southbound off-slip and M1 Northbound off-slips presented in the BWB drawing ref. NGW-BWB-GEN-XX-SK-D-SK02 S3 P2 and the model layout. Specifically, it appears that in the model, one lane is missing in both arms.

Moreover, the modelled length of the southbound off-slip (345 m) resembles its current extent, thus not reflecting the proposal to reduce the extension of the off-slip as shown in the above mentioned drawing. While understanding that the proposed layout will be subject to further analysis and integration with the SMART Motorway design, we would welcome comments on this.

We can therefore confirm that the submitted preliminary design is considered appropriate from a capacity point of view. We acknowledge that Junction 15 would operate over capacity in a "do nothing" 2021 future year scenario, with no development and no improvement scheme and that the proposed scheme would bring an improvement to the SRN. However, the appropriateness of the scheme will have to be demonstrated through the VISSIM microsimulation testing, as agreed with the TWG.

Although we believe that the models presented to date are suitable for the purpose of agreeing a scheme in principle, we advise that the above comments are taken into account when carrying out the detailed modelling exercise in VISSIM.

On the other hand, the scheme layout option 3 design has been reviewed by Highways England's Development Control Engineer and Studies Team Leader for the East Midlands Asset Team and they have provided several comments that are included in the attached document.

They have recommended that a meeting / workshop with BWB is held soon to discuss their concerns.

I hope this is useful.

Kind regards,

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Northampton Gateway SRFI Scheme proposal at M1 J15

This document provides comments in relation to option 3 of the proposed junction layout.

Following consultation with colleagues there appears to be a general consensus that the layout of this junction as proposed is too complicated, which could confuse drivers when negotiating the junction. In addition the layout will make it difficult to undertake the routine maintenance of HE assets (signs, gullies, lighting, road sweeping, etc) and could involve expensive temporary traffic management layouts in order to undertake the simplest of maintenance tasks. More detailed specific comments/queries are as follows although I understand that more detail will be submitted for comments as the design develops.

The junction looks incredibly complex, possibly even counter intuitive in places (even on paper) and this will likely translate to driver uncertainty and confidence to negotiate safely. The advance signing will need to be absolutely clear and specific to the junction type and may even be non-prescribed (thereby requiring Secretary of State approval). Crossfall and/or superelevation changes through the junction could prove problematic geometrically and from the perspective of drainage. Resultant adverse camber would be most undesirable.

Highways General

- SB / NB exit – more details required of the interface between Smart Motorway and this junction – is it a lane drop or a slip? There is a potential that the signs on M1 will need amending
- More information is required for the Watering Lane junction. This shows a signal layout with a lane drop on A45 immediately after. Depending upon usage of the signals here, there is a potential for high speed conflict with traffic merging back to two lanes
- Pedestrian / cyclist links are welcomed but are the splitter islands likely to be of sufficient width to accommodate the waiting users? The location of the crossings on M1 slips will need to be carefully sited so that they are not technically within the motorway extents and that the end of motorway signs therefore do not obstruct visibility to the users crossing / waiting
- A45 SB – I have concerns about how we can safely sign the change from 3 to 5 lanes and then the diverge through the complex junction. This will need to be looked at very carefully as such signs are likely to require land take due to their width. Who then owns this land and do we want to maintain this?
- The complex layout will result in signals within traffic islands and therefore maintenance access will need to be considered in the design
- Are we increasing the number of lanes on the bridge over M1? Will this affect structural loading?
- Is there any NMU facility on the south side of the M1 overbridge? If not, we are encouraging more people to have to cross the carriageway at the formal facilities
- Appears complex - is it too complex for drivers to use and therefore we don't fully maximise the junction capacity?
- Can it be maintained? How will we access assets?
- How will Borough/District Council pick litter and sweep the highway?
- The roundabouts must be as close to maintenance free as possible – no grass and vegetation e.g. construct in Breedon Gravel.
- How will the junction be signed so it is clear and concise as to what lanes drivers must negotiate?

Signs

- The junction layout is unusual – preliminary signing proposals should be developed for the M1 main line traffic and all main approach roads, (at least) to ensure at an early stage that suitable and effective signing will be possible. This will also ensure that sufficient space is available in the verges to install the probably very large signs.
- It seems unlikely that such a complicated layout will avoid large offside verge signs, though this would be generally undesirable from maintenance perspective. Some places appear not to have sufficient space to install them with VRS too. Consideration should be given to

whether passively safe signs are passively safe from both directions, when placed in some of the probable locations.

- Large/tall signs are likely to need mobile elevated platforms to inspect, clean and maintain them in the future. Consideration should be given to where such plant could be positioned to access both the front and rear of the sign. Ideally this will be achievable without traffic management being necessary, to improve safety and reduce impact on the network. If TM is unavoidable, consideration should be given to ensuring maintenance can be done with lane closures rather than road closures.
- Signs such as chevrons should be considered for 'plastic' type with strip footings, rather than signs faces with posts, particularly where they are the only asset present in an inaccessible position. Such as a splitter islands or pockets of isolated land of which there seem to be several. This is so that regular inspections may be achieved from the front and from a vehicle or the other side of the road, rather than having to arrange safe access, with TM, to inspect the fixings at the rear of the sign.

VRS

- Verge width seems limited in places - Designers should ensure that sufficient run off width is available to the rear of VRS, to stop vehicles slipping under it down a slope on impact.
- VRS should be non- tensioned systems, particularly in off side locations, to reduce the amount of maintenance visits required over the life of the product
- Sufficient space should be available behind VRS to walk safely for inspections. If the slopes are steep behind then, pedestrian guardrailling should be installed to facilitate safe inspections
- It seems there may be some very steep slopes created. VRS should not be installed on top of retaining walls or similar. Or very close to them. This is because prompt repair in the event of a strike is not feasible plus it is not possible to access or inspect the rear safely.
- Some sections of road appear to have very narrow verges. Sufficient space must be available to install all features to standard, such as footways and street lighting and VRS.

General points

- Suitable parking locations should be provided throughout to enable Inspectors to park vehicles and walk safely to assets, including VRS and signs as well as signals and street lights. These routes need not be hardened footway but must be of a suitable width with level ground and behind VRS wherever possible (if present).
- It should be noted that HE staff will not be authorised to cross roads with such high traffic volumes without an identified safe crossing point (not necessarily public right of way) being in place. If not available then Inspections, basic maintenance and accident damage repairs would be impossible without TM.
- It appears that TM in this location would have serious ramifications on multiple approaches and involve highly complicated temporary traffic signing and road layouts. Provision of parking and safe access, especially in off side locations, will be essential to reduce the need for TM.
- Consideration should be given to developing TM layouts suitable for maintenance activities, such as grass cutting, litter picking, white lining, inspections in all locations, to ensure suitable arrangements are possible without closing the junction each time. Basic review of layout suggests lane management would not be possible in many places and would be highly inefficient in others, with very little of the road accessible per shift.
- It is hard to see how the white lining will be maintained without regular full road/junction closures. See above point. A high performance product with long life must be specified plus the design should attempt to reduce and remove white lining where possible.
- Routine maintenance and replacement of the road surface will entail full junction closures to facilitate resurfacing.
 - The height of the bridge parapet alongside the cycleway will need to be raised (others may have commented on this). This will require structures approval and may entail bridge strengthening.
 - Ditches should not be installed alongside steep slopes alongside footways/laybys, without earth retaining measures. We have found the footway slips into the ditch

eventually, particularly if parked on or driven over, and can be very problematic to remedy without excavating into lane 1.

- Advice should be sought at an early stage about how this road will be referenced for Chart Sections and where nodes will be positioned. To enable as built data to be entered and computerised data from ongoing maintenance activities and surveys to be recorded. Though not impossible it will be complex and entail creation of multiple new Chart sections and careful consideration of where lane designations are and where lanes start and stop.

Signal Team Comments

- **Overall it is worth having a meeting / workshop with BWB soon to discuss the concept development and allow a more forthright discussion about the thinking behind the proposals and how it might work.**
 - This is clearly a complex solution and bounded by a number of constraints – in particular the existing M1 bridge
 - It is worth understanding what constraints they are working to and whether other options such as introducing a second overbridge have been considered
- Southwest quadrant appears workable in principle but previous comments around demonstrating workable coordination strategy remain
- Consider separate signalling for A508 entry to enable holding the left turn when the crossing over the M1 NB onslip is active
- Northeast quadrant is hugely complex and presents a number of operational challenges – this is likely to need simplification to address the following:
 - Complex three-stage node created at Saxon Avenue
 - Numerous short internal links with competing greens
 - Lack of lane progression for right turn into Saxon Avenue
 - Small island in M1 SB offslip node creates a hazard (note 1.5m clearance from through movements required in TD 50/04 para 2.38)
 - Large number of decision points for drivers to negotiate
 - Large number of reverse curves and crossing movements may cause issues with superelevation, crown lines, adverse camber, drainage flows, flat-spots
- Due to complexity junction modelling should ideally be in microsim to ensure that coordination and circulatory queueing issues are appropriately considered
- Signing will require gantries on main approaches due to number of lanes, adequate space for foundations etc needs to be considered
- Flaring arrangement and development of lanes on M1 SB offslip needs further thought
- For all M1 slips tie-in to Smart Motorway needs demonstrating – i.e. that a viable layout exists
- Though accepting this is preliminary, there appears to be limited space for provision of footpath / cycleways and guardrailing; geometric alterations to allow sufficient room may be required
- Layout of A45 NB tie-in needs further consideration at detail stage to ensure various elements can be accommodated safely; in particular this merge is likely to be at high speed due to the geometry and long greens and as such a greater standard of merge over and above the TD 50 requirements is likely to be necessary for safe operation (see TD 27/05 section 4.12 and Traffic Signs Manual Chapter 5 Paragraph 4.53)
- Already raised elsewhere but consideration of maintenance strategy required
- Signals design is likely to need mast arms and Uninterruptible Power Supply backup
- Where lanes split at an exit to feed both a short internal link and the exit consideration is needed of the risks created relating to speed differential and queuing traffic blocking the exit

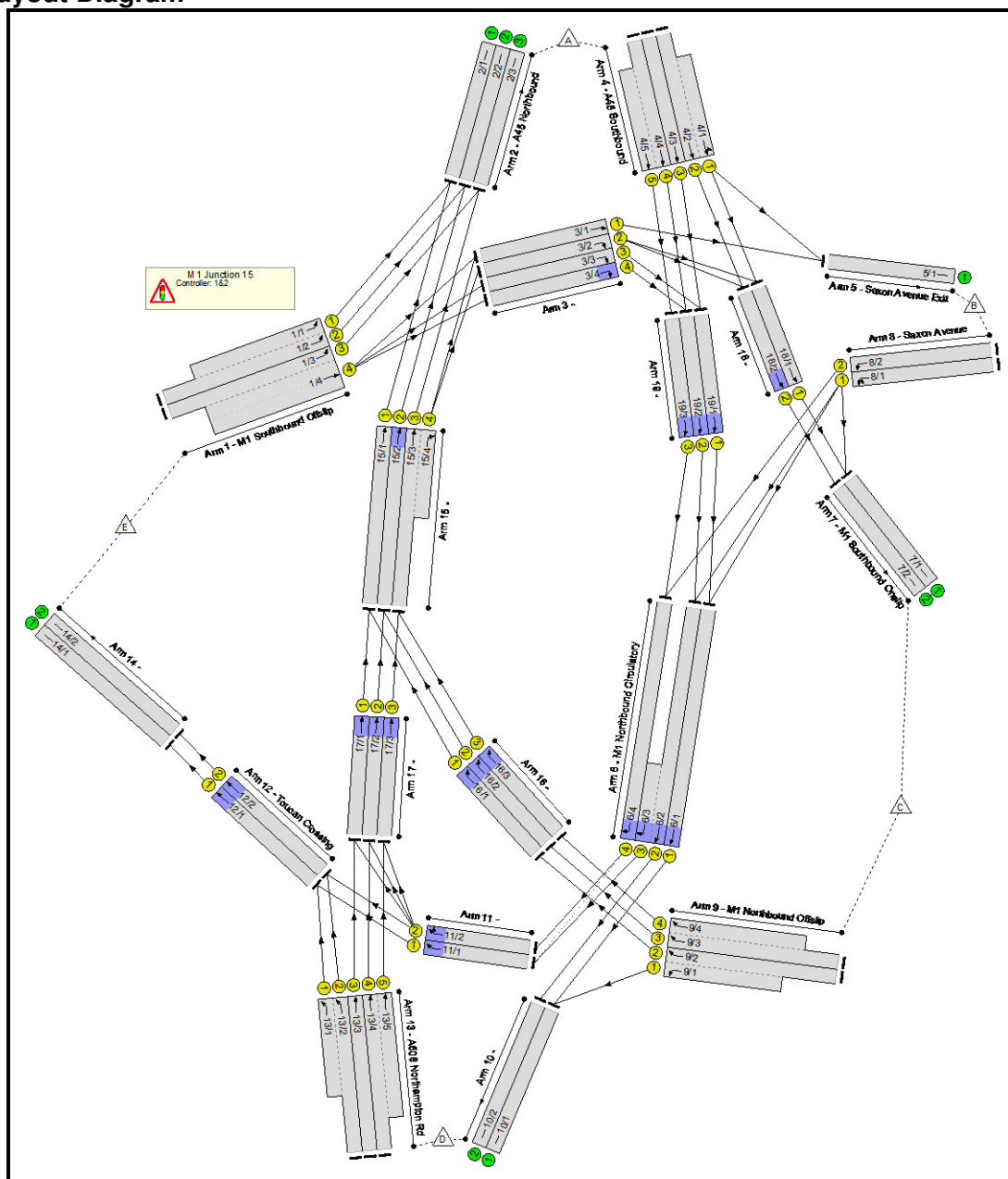
APPENDIX G REVISED 2031 REFERENCE AND 2031 MITIGATION LINSIG MODELLING RESULTS

Full Input Data And Results

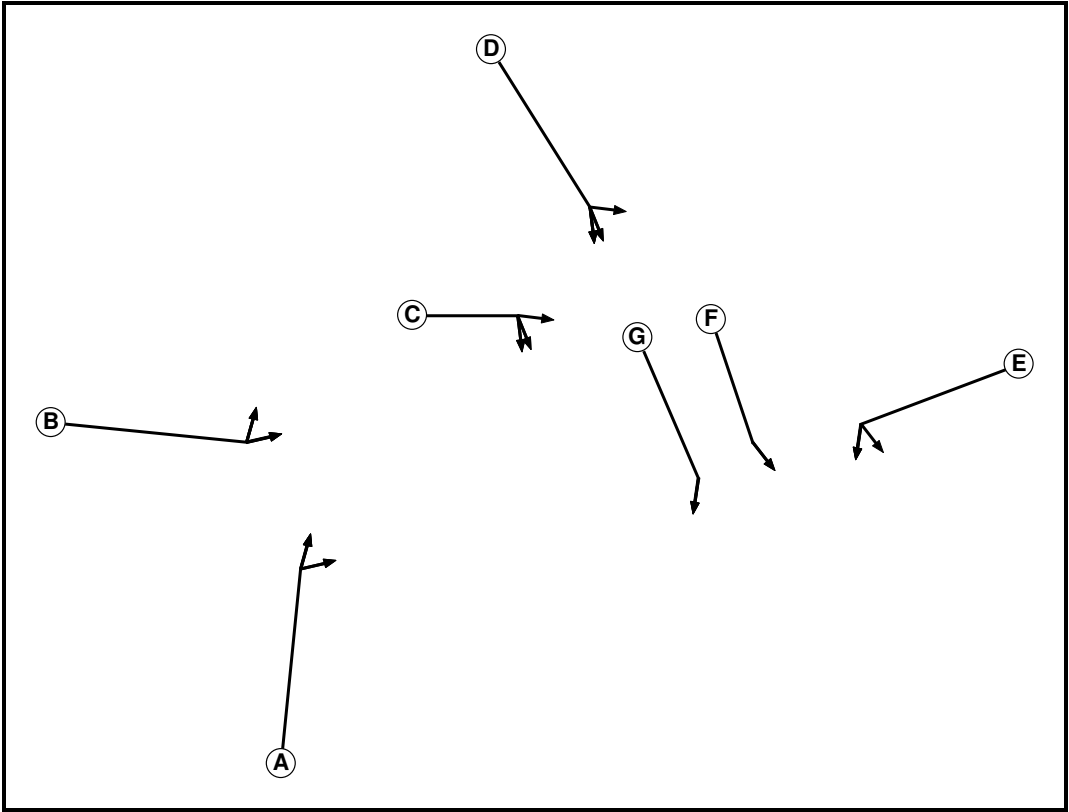
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Mitigation Model
Location:	northampton
File name:	170818 M1 Junction 15 Mitigation - Initial Option without WL.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Halifax Place, Nottingham
Notes:	2031 J1a mitigation flows

Network Layout Diagram



C1 - Eastside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7

Phase Intergreens Matrix

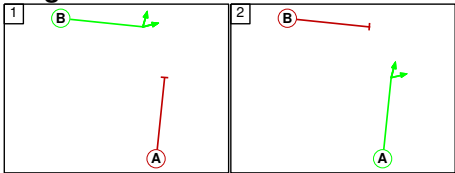
		Starting Phase						
Terminating Phase		A	B	C	D	E	F	G
	A		6	-	-	-	-	-
	B	6		-	-	-	-	-
	C	-	-		6	-	-	-
	D	-	-	6		-	-	-
	E	-	-	-	-		8	8
	F	-	-	-	-	6		-
	G	-	-	-	-	6	-	

Phases in Stage

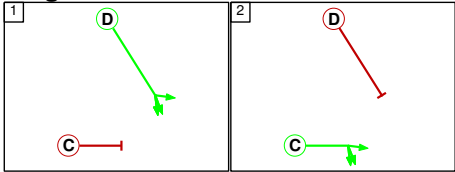
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D
2	2	C
3	1	E
3	2	F G

Stage Diagram

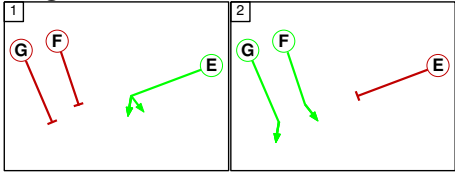
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		6
	2	6	

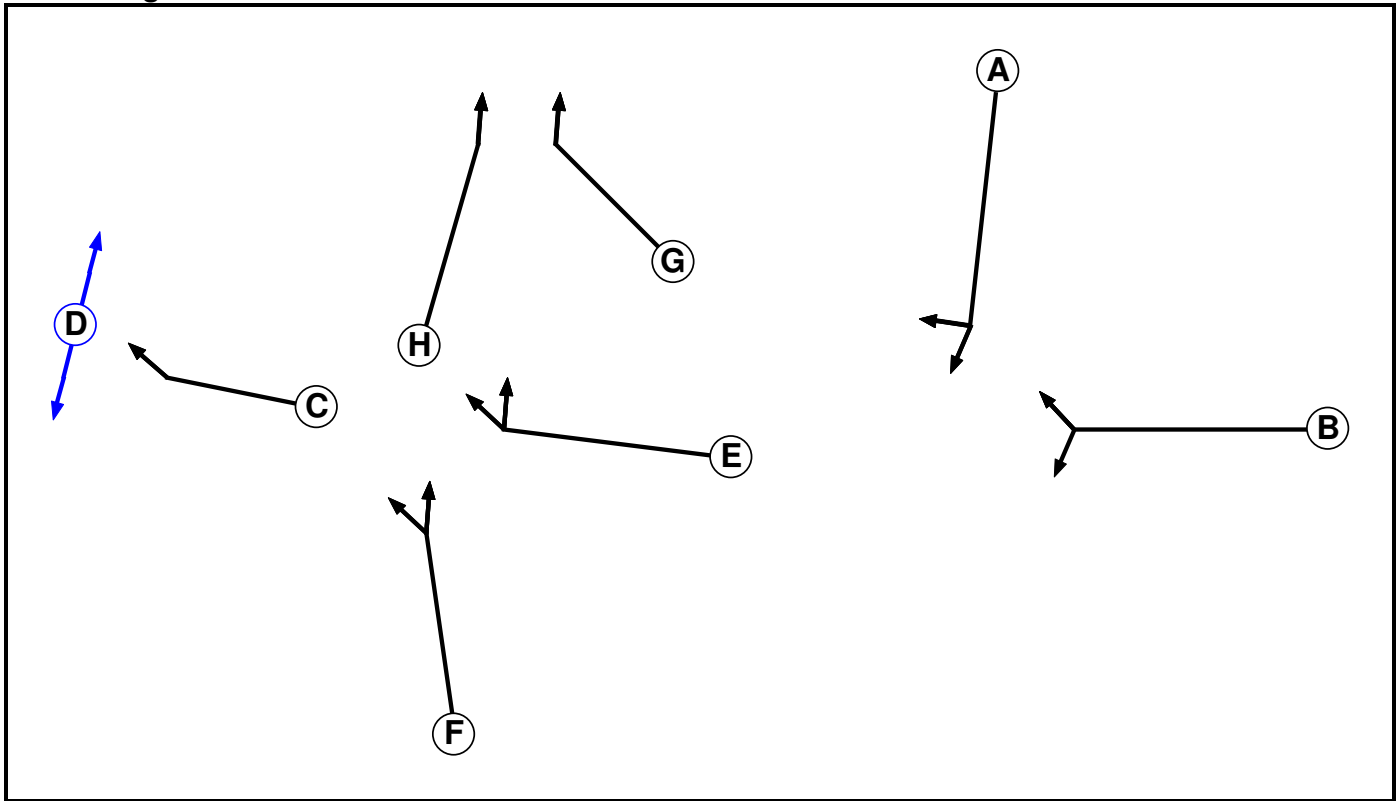
Stage Stream: 2

From Stage	To Stage		
		1	2
	1		6
	2	6	

Stage Stream: 3

From Stage	To Stage		
		1	2
	1		8
	2	6	

C2 - Westside Controller
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

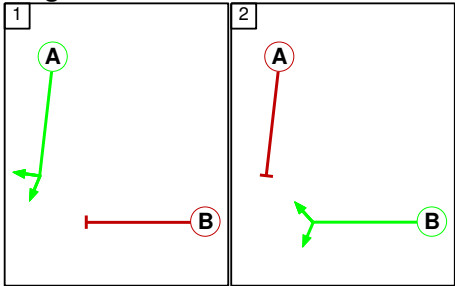
		Starting Phase							
Terminating Phase		A	B	C	D	E	F	G	H
	A		5	-	-	-	-	-	-
	B	7		-	-	-	-	-	-
	C	-	-		5	-	-	-	-
	D	-	-	7		-	-	-	-
	E	-	-	-	-		5	-	-
	F	-	-	-	-	7		-	-
	G	-	-	-	-	-	-		5
	H	-	-	-	-	-	7	-	

Phases in Stage

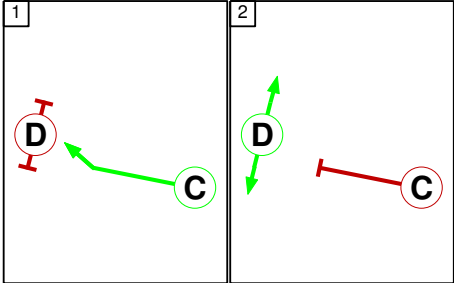
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	H
4	2	G

Stage Diagram

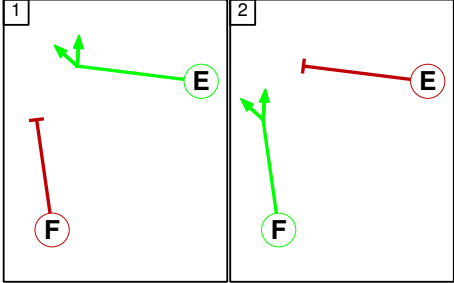
Stage Stream: 1



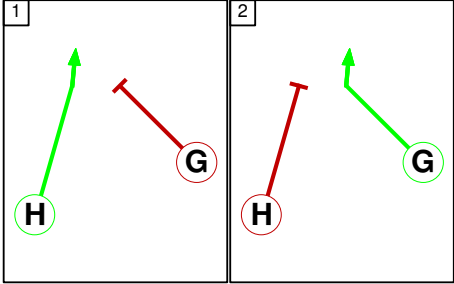
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage		
		1	2
	1		5
	2	7	

Stage Stream: 2

From Stage	To Stage		
		1	2
	1		5
	2	7	

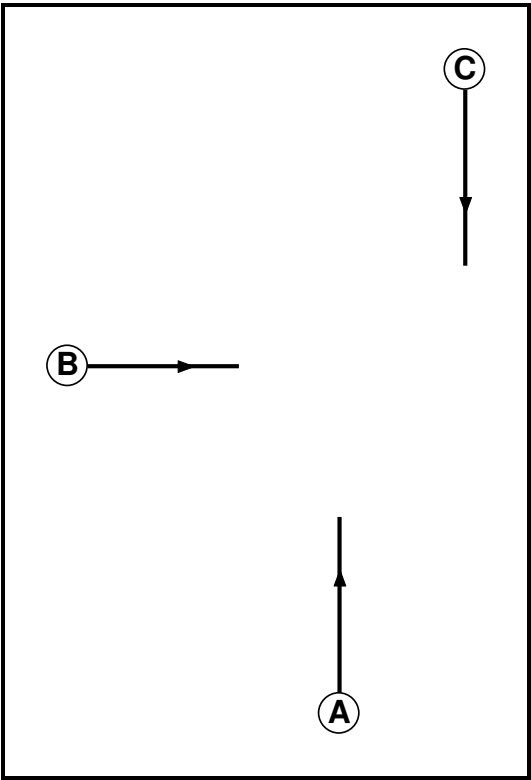
Stage Stream: 3

From Stage	To Stage		
		1	2
	1		5
	2	7	

Stage Stream: 4

From Stage	To Stage		
		1	2
	1		7
	2	5	

C3 - Watering Lane
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7

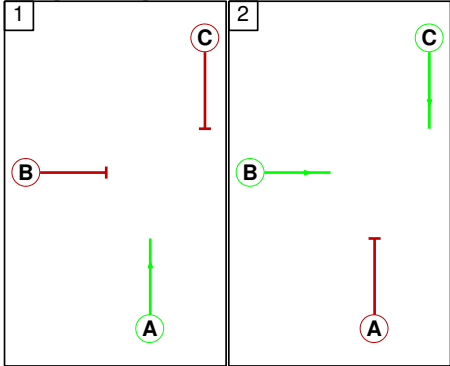
Phase Intergreens Matrix

	Starting Phase			
Terminating Phase		A	B	C
	A		6	6
	B	6		-
	C	6	-	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B C

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

	To Stage		
From Stage		1	2
	1		6
	2	6	

Lane Input Data

Junction: M1 Junction 15												
Lane	Lane Type	Phases	Start Disp.	End Disp.	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 Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	Y	Arm 2 Left	Inf
1/2 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
1/3 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
1/4 (M1 Southbound Offslip)	U	B	2	3	18.0	User	4000	-	-	-	-	-
2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/3 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
3/1	U	C	2	3	12.2	User	1900	-	-	-	-	-
3/2	U	C	2	3	12.2	User	1900	-	-	-	-	-
3/3	U	C	2	3	12.2	User	1900	-	-	-	-	-
3/4	U	C	2	3	12.2	User	1900	-	-	-	-	-
4/1 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	Y	Arm 5 Left	Inf
											Arm 18 Ahead	Inf
4/2 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm 18 Ahead	Inf
4/3 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
4/4 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
4/5 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-

6/1 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
6/2 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
6/3 (M1 Northbound Circulatory)	U	A	2	3	8.0	User	2000	-	-	-	-	-
6/4 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
7/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
7/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
8/1 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	Inf
											Arm 7 Left	30.00
8/2 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Left	Inf
9/1 (M1 Northbound Offslip)	U	B	2	3	12.0	Geom	-	3.65	0.00	Y	Arm 10 Left	Inf
9/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
9/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
9/4 (M1 Northbound Offslip)	U	B	2	3	40.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
10/1	U		2	3	4.3	Inf	-	-	-	-	-	-
10/2	U		2	3	4.3	Inf	-	-	-	-	-	-
11/1	U	E	2	3	17.4	User	1900	-	-	-	-	-
11/2	U	E	2	3	17.4	User	1900	-	-	-	-	-
12/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 14 Ahead	Inf
12/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 14 Ahead	Inf

13/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	Inf
13/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	Inf
13/3 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
13/4 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
13/5 (A508 Northampton Rd)	U	F	2	3	20.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1	U	A	2	3	26.1	User	2000	-	-	-	-	-
15/2	U	A	2	3	26.1	User	2000	-	-	-	-	-
15/3	U	A	2	3	26.1	User	2000	-	-	-	-	-
15/4	U	A	2	3	9.0	User	2000	-	-	-	-	-
16/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
16/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
16/3	U	G	2	3	13.9	User	2000	-	-	-	-	-
17/1	U	H	2	3	13.9	User	2000	-	-	-	-	-
17/2	U	H	2	3	13.9	User	2000	-	-	-	-	-
17/3	U	H	2	3	13.9	User	2000	-	-	-	-	-
18/1	U	F	2	3	13.9	User	2000	-	-	-	-	-
18/2	U	F	2	3	13.9	User	2000	-	-	-	-	-
19/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
19/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
19/3	U	G	2	3	13.9	User	2000	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 With Dev AM Peak (J1a)'	08:00	09:00	01:00	
2: '2031 With Dev PM Peak (J1a)'	17:00	18:00	01:00	

Scenario 1: '2031 AM Total J1a' (FG1: '2031 With Dev AM Peak (J1a)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination						
		A	B	C	D	E	Tot.
	A	65	50	990	1267	1461	3833
	B	43	0	35	34	49	161
	C	1613	56	0	367	0	2036
	D	776	32	173	0	604	1585
	E	1379	125	0	856	0	2360
	Tot.	3876	263	1198	2524	2114	9975

Traffic Lane Flows

Lane	Scenario 1: 2031 AM Total J1a
Junction: M1 Junction 15	
1/1 (short)	440
1/2 (with short)	912(In) 472(Out)
1/3 (with short)	1448(In) 467(Out)
1/4 (short)	981
2/1	1345
2/2	1367
2/3	1164
3/1	213
3/2	173
3/3	351
3/4	505
4/1 (short)	522
4/2 (with short)	1040(In) 518(Out)
4/3	907
4/4 (with short)	1886(In) 927(Out)
4/5 (short)	959
5/1	263
6/1	1258
6/2 (with short)	1495(In) 899(Out)
6/3 (short)	596
6/4	1022
7/1	596
7/2	602
8/1	98
8/2	63
9/1 (short)	367
9/2 (with short)	916(In) 549(Out)
9/3 (with short)	1120(In) 568(Out)
9/4 (short)	552
10/1	1625
10/2	899
11/1	819
11/2	799

12/1	1115
12/2	999
13/1 (short)	296
13/2 (with short)	604(In) 308(Out)
13/3	291
13/4 (with short)	690(In) 327(Out)
13/5 (short)	363
14/1	1115
14/2	999
15/1	905
15/2	895
15/3 (with short)	958(In) 697(Out)
15/4 (short)	261
16/1	549
16/2	568
16/3	552
17/1	356
17/2	327
17/3	406
18/1	561
18/2	602
19/1	1258
19/2	1432
19/3	959

Junction: M1 Junction 15								
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 Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	9.6 %	1980	1980
				Arm 18 Ahead	Inf	90.4 %		
				Arm 18 Ahead	Inf	100.0 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	64.3 %	1931	1931
				Arm 7 Left	30.00	35.7 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105
9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2000	2000
19/3	This lane uses a directly entered Saturation Flow						2000	2000

Scenario 2: '2031 PM Total J1a' (FG2: '2031 With Dev PM Peak (J1a)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	97	89	1098	960	1295	3539
	B	48	0	128	20	100	296
	C	1623	19	0	218	0	1860
	D	1345	13	196	0	636	2190
	E	1128	133	0	380	0	1641
	Tot.	4241	254	1422	1578	2031	9526

Traffic Lane Flows

Lane	Scenario 2: 2031 PM Total J1a
Junction: M1 Junction 15	
1/1 (short)	340
1/2 (with short)	704(In) 364(Out)
1/3 (with short)	937(In) 424(Out)
1/4 (short)	513
2/1	1448
2/2	1450
2/3	1343
3/1	165
3/2	196
3/3	219
3/4	161
4/1 (short)	598
4/2 (with short)	1187(In) 589(Out)
4/3	647
4/4 (with short)	1705(In) 943(Out)
4/5 (short)	762
5/1	254
6/1	867
6/2 (with short)	1123(In) 493(Out)
6/3 (short)	630
6/4	910
7/1	741
7/2	681
8/1	148
8/2	148
9/1 (short)	218
9/2 (with short)	752(In) 534(Out)
9/3 (with short)	1108(In) 543(Out)
9/4 (short)	565
10/1	1085
10/2	493
11/1	750
11/2	790

12/1	1051
12/2	980
13/1 (short)	301
13/2 (with short)	636(In) 335(Out)
13/3	468
13/4 (with short)	1086(In) 515(Out)
13/5 (short)	571
14/1	1051
14/2	980
15/1	1108
15/2	1086
15/3 (with short)	1147(In) 919(Out)
15/4 (short)	228
16/1	534
16/2	543
16/3	565
17/1	574
17/2	543
17/3	582
18/1	613
18/2	681
19/1	866
19/2	1104
19/3	762

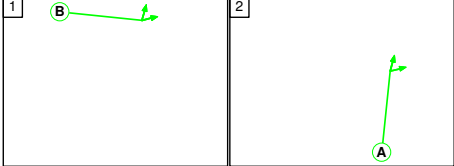
Junction: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	14.9 %	1980	1980
				Arm 18 Ahead	Inf	85.1 %		
				Arm 18 Ahead	Inf	100.0 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf

8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	13.5 %	1884	1884
				Arm 7 Left	30.00	86.5 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105
9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2000	2000
19/3	This lane uses a directly entered Saturation Flow						2000	2000

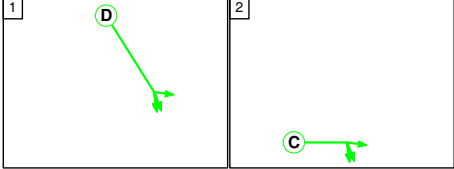
Scenario 1: '2031 AM Total J1a' (FG1: '2031 With Dev AM Peak (J1a)', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller

Stage Sequence Diagram

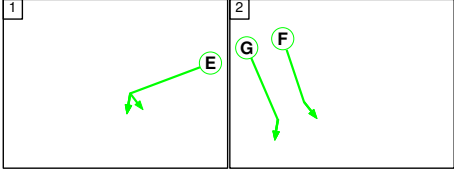
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	20	44
Change Point	41	67

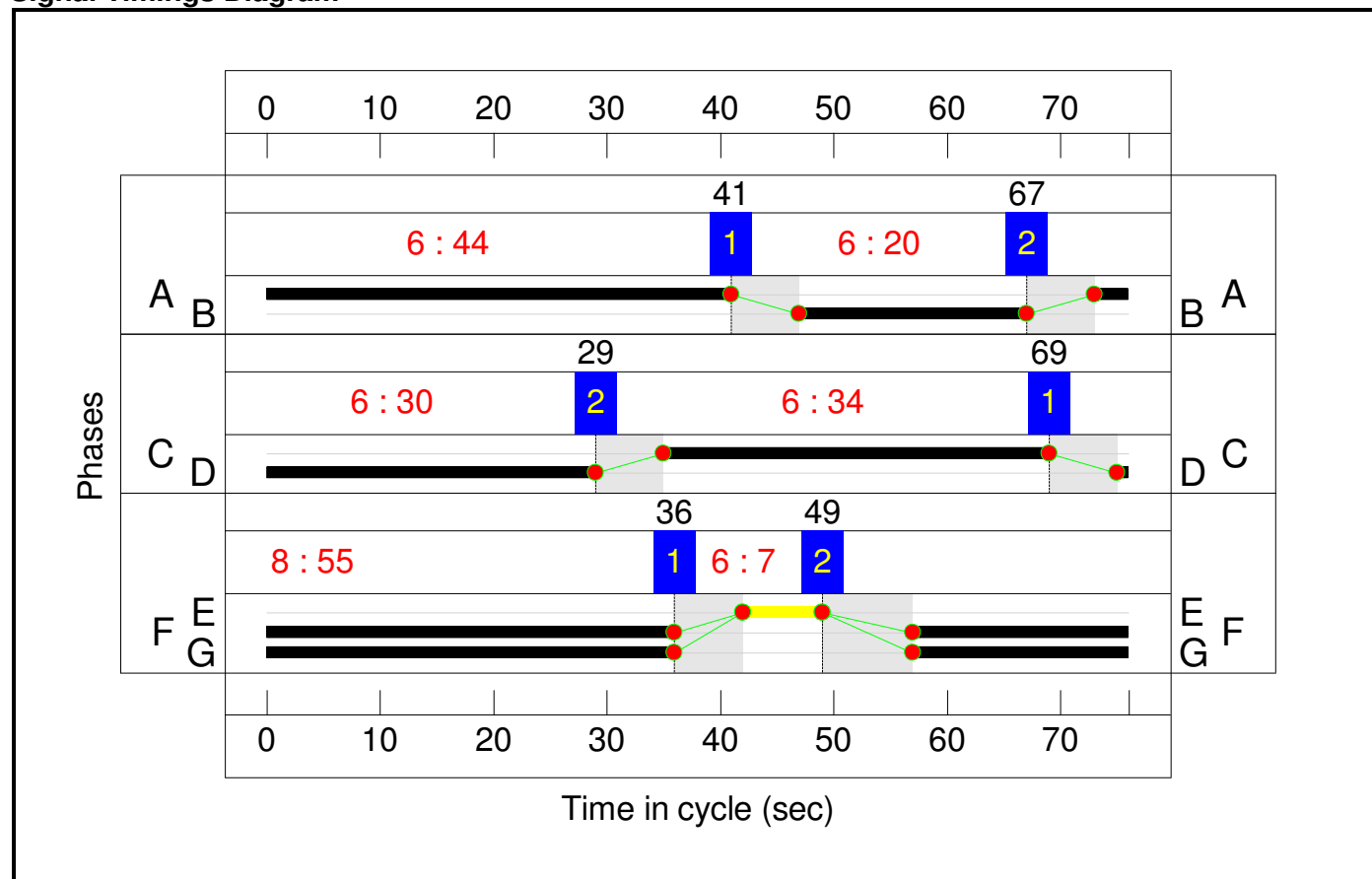
Stage Stream: 2

Stage	1	2
Duration	30	34
Change Point	69	29

Stage Stream: 3

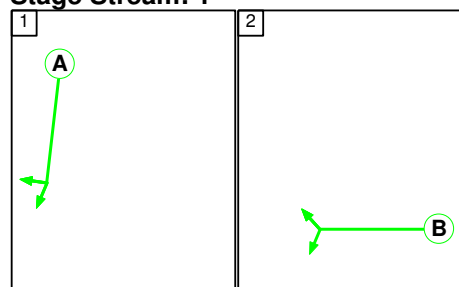
Stage	1	2
Duration	7	55
Change Point	36	49

Signal Timings Diagram

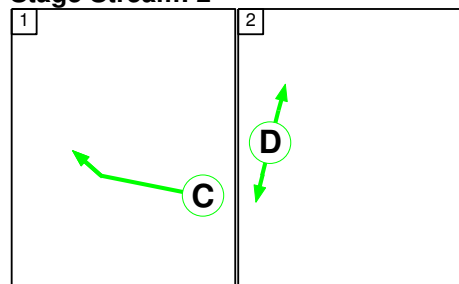


C2 - Westside Controller Stage Sequence Diagram

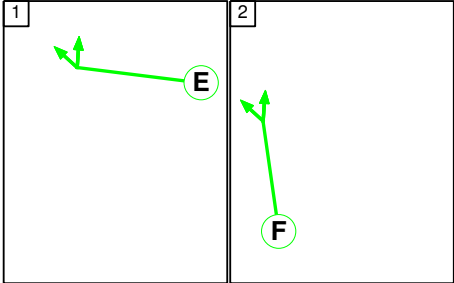
Stage Stream: 1



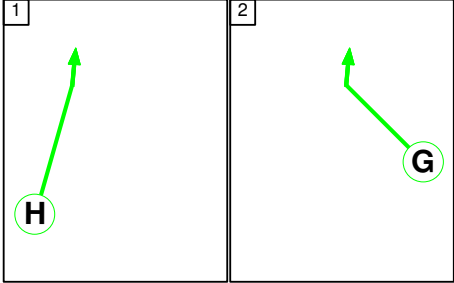
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	46	18
Change Point	23	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	24	12

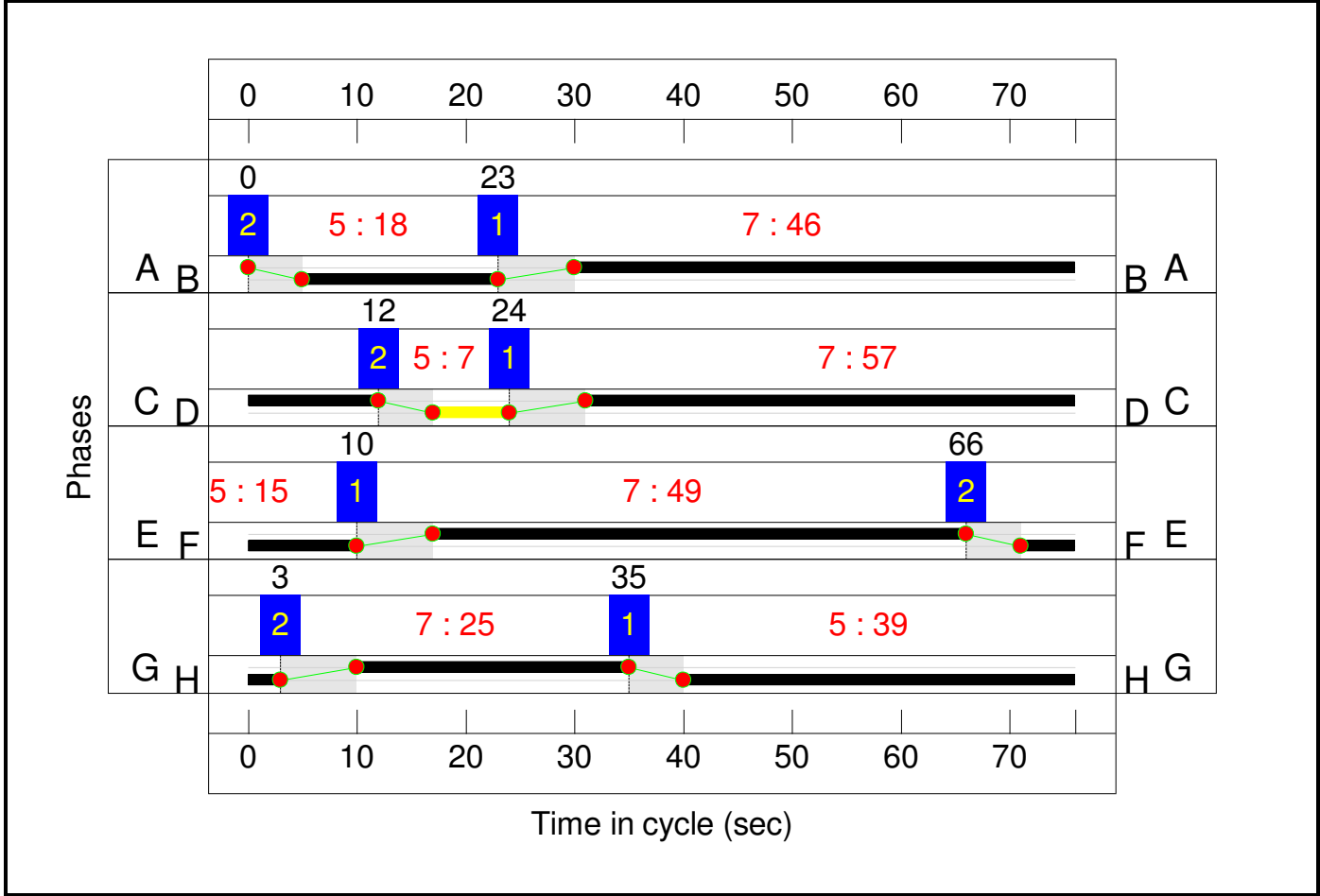
Stage Stream: 3

Stage	1	2
Duration	49	15
Change Point	10	66

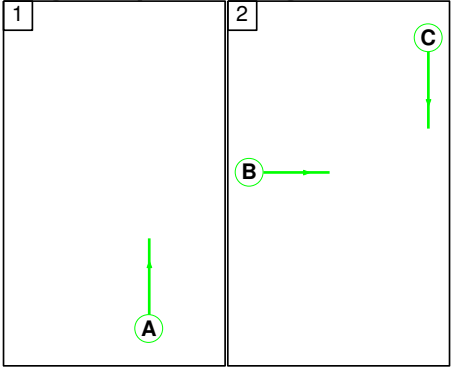
Stage Stream: 4

Stage	1	2
Duration	39	25
Change Point	35	3

Signal Timings Diagram



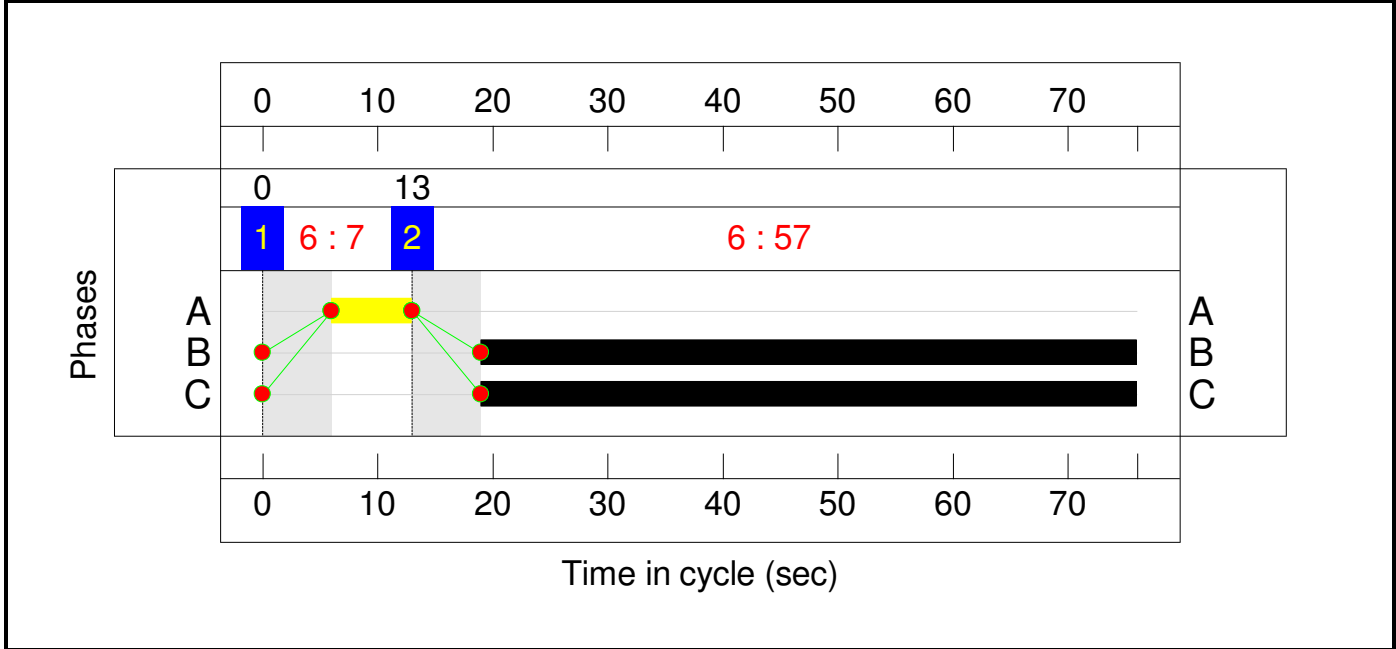
C3 - Watering Lane
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	7	57
Change Point	0	13

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	110.9%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	110.9%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	20	-	912	2120:1980	586+547	80.6 : 80.4%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	20	-	1448	2120:4000	586+1105	79.7 : 88.8%
3/1	Ahead	U	1:2	N/A	C1:C		1	34	-	213	1900	875	24.1%
3/2	Right	U	1:2	N/A	C1:C		1	34	-	173	1900	875	19.8%
3/3	Right	U	1:2	N/A	C1:C		1	34	-	351	1900	875	40.1%
3/4	Right	U	1:2	N/A	C1:C		1	34	-	505	1900	875	57.7%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	30	-	1040	2120:1980	865+808	59.9 : 64.6%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	30	-	907	2120	865	104.9%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	30	-	1886	2120:2120	865+865	107.2 : 110.9%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1258	2000	1237	98.3%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	46	-	1495	2000:2000	901+597	97.1 : 93.4%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	1022	2000	1237	75.0%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	98	1931	203	48.2%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	63	2105	222	28.4%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	916	2120:1980	530+354	103.6 : 103.6%

9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	1120	2120:2120	530+530	107.2 : 104.2%
11/1	Ahead	U	2:3	N/A	C2:E		1	49	-	819	1900	1250	60.7%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	49	-	799	1900	1250	58.1%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1115	1995	1523	69.3%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	999	1995	1523	61.3%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	604	1980:1980	417+417	73.9 : 71.0%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	291	2120	446	65.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	690	2120:2120	446+446	73.3 : 81.3%
15/1	Ahead	U	1:1	N/A	C1:A		1	44	-	905	2000	1184	74.3%
15/2	Ahead	U	1:1	N/A	C1:A		1	44	-	895	2000	1184	72.4%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	44	-	958	2000:2000	982+368	69.0 : 70.4%
16/1	Right	U	2:4	N/A	C2:G		1	25	-	549	2000	684	77.5%
16/2	Right	U	2:4	N/A	C2:G		1	25	-	568	2000	684	77.5%
16/3	Right	U	2:4	N/A	C2:G		1	25	-	552	2000	684	77.5%
17/1	Ahead	U	2:4	N/A	C2:H		1	39	-	356	2000	1053	33.2%
17/2	Ahead	U	2:4	N/A	C2:H		1	39	-	327	2000	1053	31.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	39	-	406	2000	1053	38.6%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	561	2000	1474	38.1%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	602	2000	1474	40.9%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	1258	2000	1474	82.5%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1432	2000	1474	92.9%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	959	2000	1474	58.7%

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 15 Mitigation Model	-	-	0	0	0	115.6	232.6	0.0	348.2	-	-	-	-
M1 Junction 15	-	-	0	0	0	115.6	232.6	0.0	348.2	-	-	-	-
1/2+1/1	912	912	-	-	-	6.5	2.0	-	8.5 (4.4+4.1)	33.6 (33.6:33.6)	9.2	2.0	11.2
1/3+1/4	1448	1448	-	-	-	10.5	2.9	-	13.4 (4.2+9.2)	33.3 (32.8:33.6)	9.8	2.9	12.7
3/1	211	211	-	-	-	0.4	0.2	-	0.5	9.0	1.5	0.2	1.7
3/2	173	173	-	-	-	1.5	0.1	-	1.6	33.0	3.7	0.1	3.8
3/3	351	351	-	-	-	0.2	0.3	-	0.5	5.0	0.3	0.3	0.6
3/4	505	505	-	-	-	0.7	0.7	-	1.4	10.0	1.2	0.7	1.8
4/2+4/1	1040	1040	-	-	-	5.2	0.8	-	6.0 (2.9+3.0)	20.7 (20.5:20.9)	8.8	0.8	9.7
4/3	907	865	-	-	-	7.3	29.0	-	36.2	143.8	20.0	29.0	49.0
4/4+4/5	1886	1729	-	-	-	17.7	83.9	-	101.6 (42.0+59.5)	193.9 (163.3:223.5)	22.2	83.9	106.1
6/1	1216	1216	-	-	-	6.8	12.9	-	19.7	58.3	22.9	12.9	35.8
6/2+6/3	1433	1405	-	-	-	7.0	8.6	-	15.6 (9.6+6.0)	39.3 (39.6:38.8)	22.7	8.6	31.3
6/4	928	928	-	-	-	3.8	1.5	-	5.3	20.4	19.6	1.5	21.1
8/1	98	98	-	-	-	0.9	0.5	-	1.3	49.0	1.9	0.5	2.4
8/2	63	63	-	-	-	0.5	0.2	-	0.7	42.7	1.2	0.2	1.4
9/2+9/1	916	897	-	-	-	7.7	25.0	-	32.7 (20.1+12.7)	128.7 (131.5:124.5)	12.5	25.0	37.5
9/3+9/4	1120	1060	-	-	-	10.5	37.5	-	48.0 (28.4+19.6)	154.2 (180.0:127.7)	12.5	37.5	49.9
11/1	759	759	-	-	-	1.0	0.8	-	1.8	8.5	3.0	0.8	3.7
11/2	726	726	-	-	-	0.7	0.7	-	1.4	6.9	2.1	0.7	2.8
12/1	1055	1055	-	-	-	0.5	1.1	-	1.6	5.4	3.0	1.1	4.1

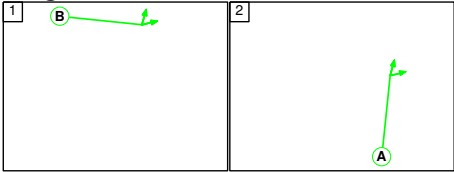
12/2	933	933	-	-	-	0.2	0.8	-	1.0	3.7	1.1	0.8	1.9
13/2+13/1	604	604	-	-	-	4.7	1.3	-	6.0 (3.1+2.9)	35.7 (35.8:35.6)	6.1	1.3	7.4
13/3	291	291	-	-	-	2.2	0.9	-	3.1	38.9	5.6	0.9	6.5
13/4+13/5	690	690	-	-	-	5.4	1.7	-	7.1 (3.3+3.8)	37.0 (36.7:37.3)	7.3	1.7	8.9
15/1	880	880	-	-	-	1.5	1.4	-	2.9	12.0	5.2	1.4	6.6
15/2	857	857	-	-	-	1.5	1.3	-	2.8	11.7	4.7	1.3	6.0
15/3+15/4	936	936	-	-	-	1.8	1.1	-	2.9 (1.7+1.2)	11.1 (9.0:16.6)	3.3	1.1	4.4
16/1	530	530	-	-	-	0.1	1.7	-	1.8	12.0	0.6	1.7	2.3
16/2	530	530	-	-	-	0.1	1.7	-	1.8	12.0	0.6	1.7	2.3
16/3	530	530	-	-	-	0.1	1.7	-	1.8	12.0	0.6	1.7	2.3
17/1	350	350	-	-	-	1.9	0.2	-	2.1	22.1	4.2	0.2	4.5
17/2	327	327	-	-	-	2.2	0.2	-	2.5	27.1	4.7	0.2	4.9
17/3	406	406	-	-	-	2.9	0.3	-	3.2	28.7	6.3	0.3	6.7
18/1	561	561	-	-	-	0.4	0.3	-	0.7	4.2	1.9	0.3	2.2
18/2	602	602	-	-	-	0.4	0.3	-	0.7	4.3	1.8	0.3	2.1
19/1	1216	1216	-	-	-	0.3	2.3	-	2.6	7.7	1.6	2.3	3.9
19/2	1370	1370	-	-	-	0.5	5.9	-	6.5	17.0	1.7	5.9	7.6
19/3	865	865	-	-	-	0.2	0.7	-	0.9	3.9	1.6	0.7	2.3
C1 - Eastside Controller	Stream: 1 PRC for Signalled Lanes (%):		1.4	Total Delay for Signalled Lanes (pcuHr):	30.51	Cycle Time (s):	76						
C1 - Eastside Controller	Stream: 2 PRC for Signalled Lanes (%):		-23.2	Total Delay for Signalled Lanes (pcuHr):	147.80	Cycle Time (s):	76						
C1 - Eastside Controller	Stream: 3 PRC for Signalled Lanes (%):		-3.3	Total Delay for Signalled Lanes (pcuHr):	13.46	Cycle Time (s):	76						
C2 - Westside Controller	Stream: 1 PRC for Signalled Lanes (%):		-19.1	Total Delay for Signalled Lanes (pcuHr):	121.33	Cycle Time (s):	76						
C2 - Westside Controller	Stream: 2 PRC for Signalled Lanes (%):		29.9	Total Delay for Signalled Lanes (pcuHr):	2.54	Cycle Time (s):	76						
C2 - Westside Controller	Stream: 3 PRC for Signalled Lanes (%):		10.7	Total Delay for Signalled Lanes (pcuHr):	19.43	Cycle Time (s):	76						
C2 - Westside Controller	Stream: 4 PRC for Signalled Lanes (%):		16.2	Total Delay for Signalled Lanes (pcuHr):	13.14	Cycle Time (s):	76						
C3 - Watering Lane	PRC for Signalled Lanes (%):		0.0	Total Delay for Signalled Lanes (pcuHr):	0.00	Cycle Time (s):	76						
	PRC Over All Lanes (%):		-23.2	Total Delay Over All Lanes(pcuHr):	348.22								

Scenario 2: '2031 PM Total J1a' (FG2: '2031 With Dev PM Peak (J1a)', Plan 1: 'Network Control Plan 1')

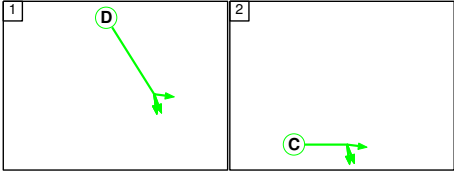
C1 - Eastside Controller

Stage Sequence Diagram

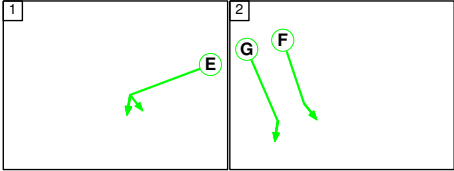
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	16	48
Change Point	60	6

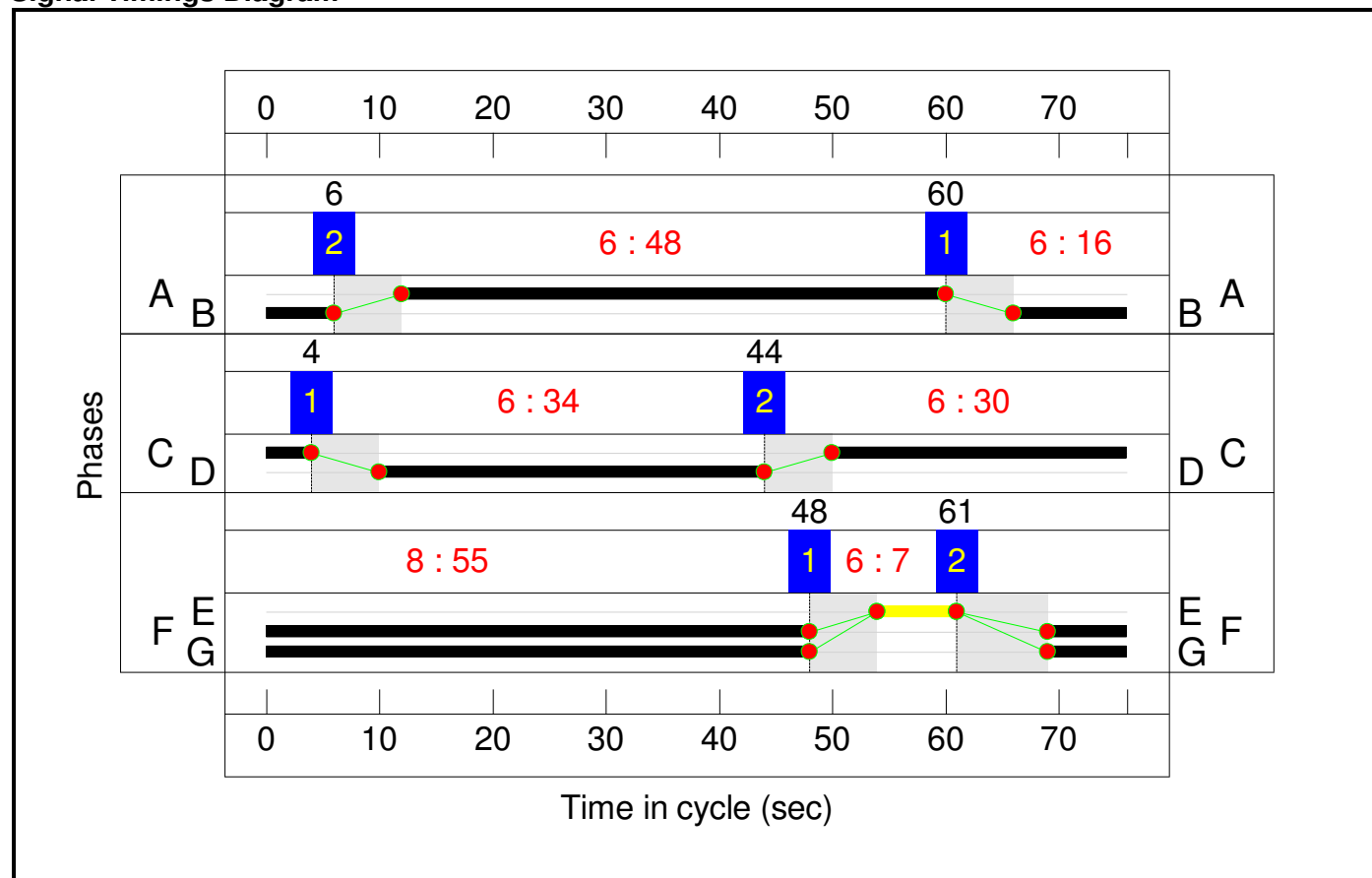
Stage Stream: 2

Stage	1	2
Duration	34	30
Change Point	4	44

Stage Stream: 3

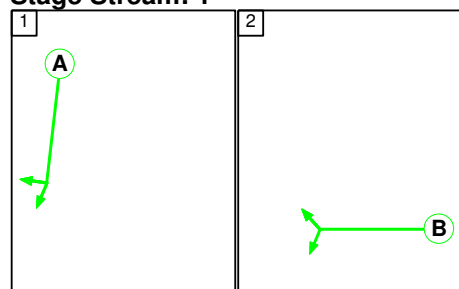
Stage	1	2
Duration	7	55
Change Point	48	61

Signal Timings Diagram

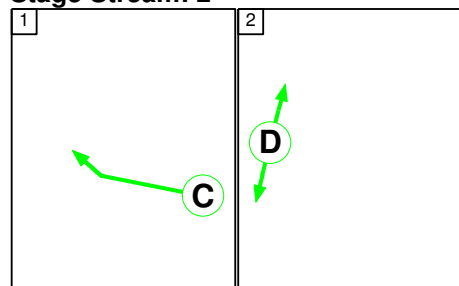


C2 - Westside Controller Stage Sequence Diagram

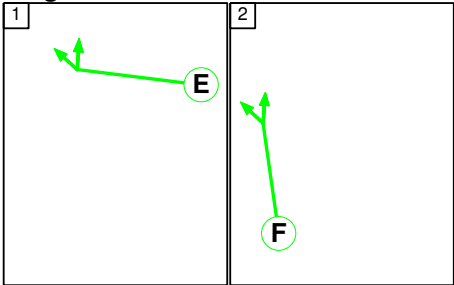
Stage Stream: 1



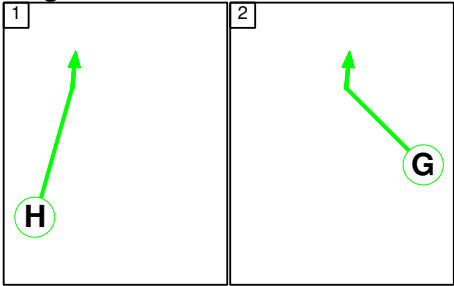
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	44	20
Change Point	25	0

Stage Stream: 2

Stage	1	2
Duration	57	7
Change Point	12	0

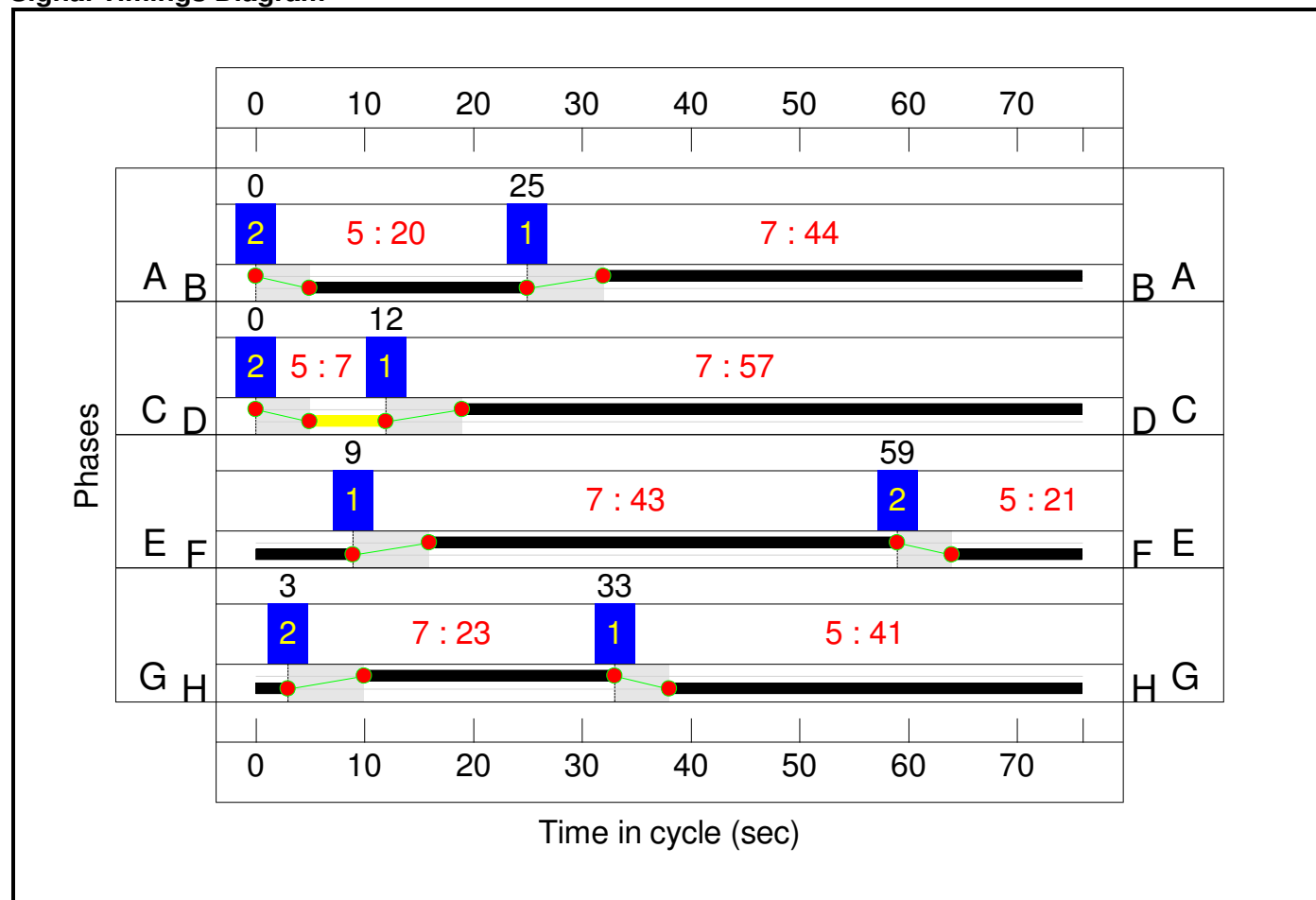
Stage Stream: 3

Stage	1	2
Duration	43	21
Change Point	9	59

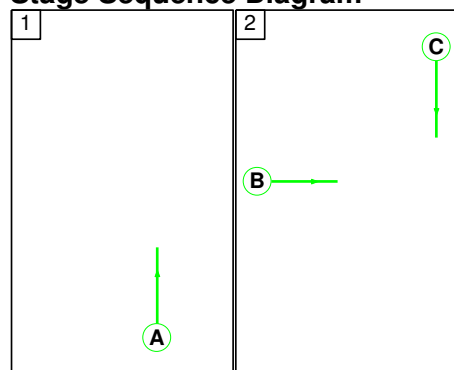
Stage Stream: 4

Stage	1	2
Duration	41	23
Change Point	33	3

Signal Timings Diagram



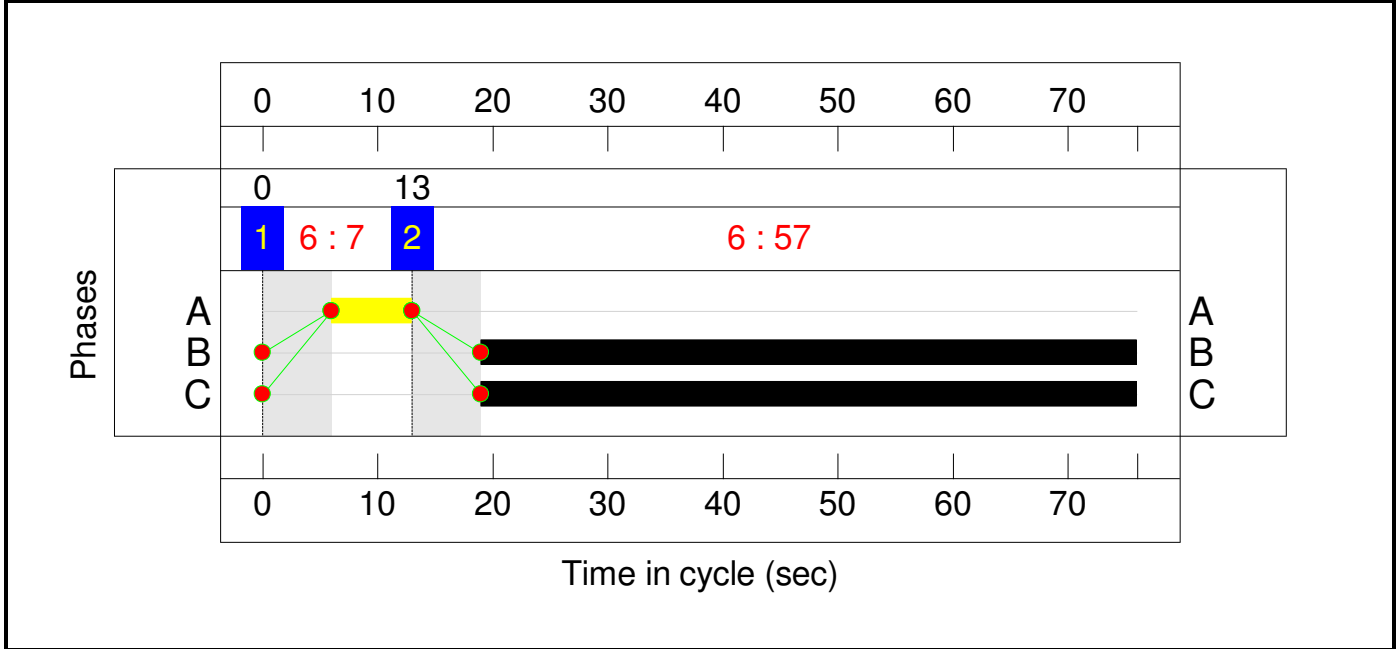
C3 - Watering Lane Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	7	57
Change Point	0	13

Signal Timings Diagram



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 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	96.6%
M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	96.6%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	16	-	704	2120:1980	474+443	76.8 : 76.8%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	16	-	937	2120:4000	474+711	89.4 : 72.2%
3/1	Ahead	U	1:2	N/A	C1:C		1	30	-	165	1900	775	21.3%
3/2	Right	U	1:2	N/A	C1:C		1	30	-	196	1900	775	25.3%
3/3	Right	U	1:2	N/A	C1:C		1	30	-	219	1900	775	28.3%
3/4	Right	U	1:2	N/A	C1:C		1	30	-	161	1900	775	20.8%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	34	-	1187	2120:1980	976+912	60.3 : 65.6%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	34	-	647	2120	976	66.3%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	34	-	1705	2120:2120	976+947	96.6 : 80.4%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	44	-	867	2000	1184	73.2%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	44	-	1123	2000:2000	655+837	75.3 : 75.3%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	44	-	910	2000	1184	76.8%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	148	1884	198	74.6%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	148	2105	222	66.8%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	20	-	752	2120:1980	586+239	91.2 : 91.2%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	20	-	1108	2120:2120	586+586	92.7 : 96.5%

11/1	Ahead	U	2:3	N/A	C2:E		1	43	-	750	1900	1100	68.2%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	43	-	790	1900	1100	71.8%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1051	1995	1523	69.0%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	980	1995	1523	64.4%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	636	1980:1980	529+475	63.4 : 63.4%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	468	2120	614	76.3%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	1086	2120:2120	614+614	83.9 : 93.0%
15/1	Ahead	U	1:1	N/A	C1:A		1	48	-	1108	2000	1289	85.9%
15/2	Ahead	U	1:1	N/A	C1:A		1	48	-	1086	2000	1289	84.2%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	48	-	1147	2000:2000	1122+278	81.9 : 81.9%
16/1	Right	U	2:4	N/A	C2:G		1	23	-	534	2000	632	84.6%
16/2	Right	U	2:4	N/A	C2:G		1	23	-	543	2000	632	86.0%
16/3	Right	U	2:4	N/A	C2:G		1	23	-	565	2000	632	89.5%
17/1	Ahead	U	2:4	N/A	C2:H		1	41	-	574	2000	1105	51.9%
17/2	Ahead	U	2:4	N/A	C2:H		1	41	-	543	2000	1105	49.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	41	-	582	2000	1105	52.7%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	613	2000	1474	41.6%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	681	2000	1474	46.2%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	866	2000	1474	58.8%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1104	2000	1474	74.9%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	762	2000	1474	51.7%

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 15 Mitigation Model	-	-	0	0	0	86.8	60.9	0.0	147.6	-	-	-	-
M1 Junction 15	-	-	0	0	0	86.8	60.9	0.0	147.6	-	-	-	-
1/2+1/1	704	704	-	-	-	5.4	1.6	-	7.0 (3.6+3.4)	36.0 (36.0:36.0)	7.2	1.6	8.8
1/3+1/4	937	937	-	-	-	7.1	1.9	-	9.0 (4.2+4.8)	34.5 (35.8:33.4)	8.6	1.9	10.5
3/1	165	165	-	-	-	0.3	0.1	-	0.4	9.2	0.8	0.1	0.9
3/2	196	196	-	-	-	0.9	0.2	-	1.1	20.0	2.7	0.2	2.8
3/3	219	219	-	-	-	0.2	0.2	-	0.4	7.1	0.4	0.2	0.6
3/4	161	161	-	-	-	0.2	0.1	-	0.3	6.8	0.3	0.1	0.4
4/2+4/1	1187	1187	-	-	-	5.1	0.8	-	6.0 (2.9+3.1)	18.1 (17.9:18.4)	9.6	0.8	10.5
4/3	647	647	-	-	-	2.9	1.0	-	3.8	21.4	10.6	1.0	11.6
4/4+4/5	1705	1705	-	-	-	8.9	3.8	-	12.6 (7.3+5.3)	26.7 (27.9:25.2)	19.1	3.8	22.9
6/1	867	867	-	-	-	3.8	1.4	-	5.1	21.3	18.3	1.4	19.6
6/2+6/3	1123	1123	-	-	-	2.0	1.5	-	3.5 (2.0+1.5)	11.2 (14.5:8.5)	8.1	1.5	9.6
6/4	910	910	-	-	-	1.3	1.6	-	3.0	11.8	16.1	1.6	17.7
8/1	148	148	-	-	-	1.4	1.4	-	2.8	66.9	3.0	1.4	4.4
8/2	148	148	-	-	-	1.3	1.0	-	2.3	56.6	3.0	1.0	4.0
9/2+9/1	752	752	-	-	-	5.3	4.6	-	9.9 (7.2+2.7)	47.3 (48.5:44.3)	10.8	4.6	15.4
9/3+9/4	1108	1108	-	-	-	8.3	7.1	-	15.4 (7.5+7.9)	50.1 (49.9:50.3)	11.6	7.1	18.7
11/1	750	750	-	-	-	1.7	1.1	-	2.8	13.3	4.2	1.1	5.3
11/2	790	790	-	-	-	2.0	1.3	-	3.3	15.0	5.1	1.3	6.3
12/1	1051	1051	-	-	-	0.3	1.1	-	1.4	4.8	5.1	1.1	6.3
12/2	980	980	-	-	-	0.3	0.9	-	1.2	4.3	4.2	0.9	5.1

[illegible]