East Midlands Gateway
Phase 2 (EMG2)

Document MCO 7.10

MCO Note – Transport Technical Note with further assessment of Plot 16 impact

~~APRIL~~ JUNE 2026

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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The East Midlands Gateway Phase 2 and Highway Order 202X

MCO NOTE – TRANSPORT TECHNICAL NOTE WITH FURTHER ASSESSMENT OF PLOT 16 IMPACT (DOCUMENT MCO 7.10)

Version	Date	Status of Version
0	April 2026	Deadline 1 Submission
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PPROJECT NAME	East Midlands Gateway, Phase 2		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0024	BWB REF	220500
AUTHOR	[redacted]	STATUS	S2
CHECKED		REVISION	P02
APPROVED		DATE	~~XX~~27/05/2026

1. INTRODUCTION

Appointment

1.1 BWB Consulting Ltd (BWB) has been appointed by Segro Properties Ltd and Segro (EMG) Ltd (together the Applicant, or Segro) to provide highways and transportation advice in support of a second phase of its East Midlands Gateway Logistics Park (EMG2), located to the north of East Midlands Airport.

Background Information

1.2 A Transport Assessment (TA), document reference EMG2-BWB-GEN-XX-RP-TR-0002 Revision P4 (DCO 6.6A), has been produced to support an application for a Development Consent Order (DCO) for the EMG2 scheme. In addition, a Material Change Order (MCO) was applied for Plot 16 of East Midlands Gateway Phase 1 (EMG1) development.

1.3 National Highways (NH) and Leicestershire County Council (LCC) requested the assessment of the trips generated by the MCO development and its impact on the A6 Kegworth Bypass / A453 / EMG1 access junction (referred to in this document as the EMG1 gyratory) in isolation of the EMG2 scheme. A quantitative assessment of the impacts ~~has~~had been carried out at Paragraph 8.18 of the Transport Assessment (TA – DCO 6.6A), confirming that the MCO application in isolation of the DCO application would not require any off-site highway mitigation. Furthermore, an assessment of the environmental effects of the MCO application has been undertaken in the Transport Chapter of the Environmental Statement.

~~1.3~~1.4 Notwithstanding this, NH ~~has~~ requested a LinSig model of the EMG1 gyratory using outputs from PRTM 2023 to understand the operation of the junction in more detail~~.~~, which was subsequently echoed by LCC. Therefore, this Technical Note has been produced to detail the methodology for assessment and conclusions of the LinSig modelling exercise.

2. ASSESSMENT METHODOLOGY

2.1 It ~~has been~~was agreed with NH that an assessment of the MCO application can be undertaken using LinSig, as this is proportionate to the limited trip generation associated with Plot 16 (30,000sqm~~).~~.) It is considered that LinSig would provide the best comparative tool to assess the junction operation 'without' and 'with' the Plot 16 development.

2.2 The assessment has been based on the 2028 'Without Development' (WoD) Stage 1A flows derived from the 2023 PRTM model, representing a worst case scenario as these flows include traffic from draft Local Plan allocations, EMIP and the Ratcliffe on Soar re-development but not any associated mitigation.

2.3 NH was consulted on the methodology for assessing the impacts of the MCO on the EMG1 gyratory. A summary of the agreed methodology has been presented below.

i. Turning flows to be extracted from the validated VISSIM model at the EMG1 gyratory for the 2028 WoD morning and evening peak and input into LinSig.

ii. Extract signal timings from VISSIM and calculate both average green times and cycle times for input into LinSig.

iii. Compare Mean ~~Max~~Maximum Queues (MMQ) from LinSig and the average ~~max~~maximum queues recorded from VISSIM to see how well the model reflects VISSIM operation of the junction.

iv. Once the LinSig model is calibrated to the validated VISSIM model, the agreed Plot 16 flows (which are set out in TA), will be added to the 2028 'without development' (WoD) scenario to assess the impact of Plot 16 at the EMG1 gyratory.

2.4 The above methodology was agreed with NH on 6th March 2026, the email correspondence of which is included in **Appendix 1**.

3. MODEL VALIDATION

Signal Timings

3.1 The EMG1 gyratory is made up of six streams in total, three for the eastern side of the junction and three for the western side. The breakdown of the streams is as follows:

- Eastern Controller:
  - Stream 1: A453 southbound and opposing circulatory
  - Stream 2: Kegworth bypass and opposing circulatory
  - Stream 3: Kegworth bypass exit and pedestrian crossing
- Western Controller:
  - Stream 1: A453 northbound and opposing circulatory
  - Stream 2: EMG1 access and opposing circulatory
  - Stream 3: EMG1 exit and pedestrian crossing

3.2 The average signal timings have been extracted from VISSIM and are set out in **Table 1**. (IG: Intergreen, CT: Cycle Time)

Table 1: Average Signal Timings

Stream	AM				PM			
	Stg 1	Stg 2	IG	CT	Stg 1	Stg 2	IG	CT
EC: Stream 1	47	29	12	88	36	21	12	69
EC: Stream 2	48	26	14	88	42	22	14	78
WC: Stream 1	37	38	13	88	27	31	13	73
WC: Stream 2	66	7	13	86	46	7	13	66

3.3 Within LinSig, separate controller sets are typically required to represent different cycle times across streams. However, this does not enable the management of circulatory queues through stream offsets. Due to this limitation in LinSig, uniform cycle times of 88 seconds and 78 seconds have been applied to all streams during the morning and evening peak hours respectively.

3.4 Stage 2 timings correspond to the approach arms of the roundabouts and have been coded in LinSig based on the average signal time observed in VISSIM. The remaining time has been assigned to the corresponding circulatory carriageway.

Saturation Flows

3.5 The initial LinSig results showed that additional calibration checks were required on the A453 northbound approach. Therefore, VISSIM saturation flows for the A453 northbound approach were extracted. These are shown in **Table 2** below.

Table 2: A453 Northbound Extracted VISSIM Saturation Flows

Lane	Sat Flow
Lane 1 (Near Side)	1843
Lane 2 (Off Side)	1899

3.6 The saturation flows set out in the table above have been applied to the respective lanes within the LinSig model.

Queue Comparison

3.7 Following VISSIM data input into LinSig, a queue comparison for the 2028 WoD morning and evening peak hours against VISSIM queue results has been undertaken and summarised in **Table 3** below. NB queues are reported in passenger car units (PCU).

Table 3: 2023 PRTM 2028 WoD Queue Comparison

Approach	AM			PM		
	VISSIM (PCU)	LinSig (PCU)	Difference (PCU)	VISSIM (PCU)	LinSig (PCU)	Difference (PCU)
Kegworth Bypass	52	51	-1	20	19	-1
A453 Northbound	123	111	-12	15	15	0
EMG1 Access	0	4	4	1	4	3
A453 Southbound	10	8	-2	5	5	0

3.8 The table above shows that the LinSig model closely calibrates against the 2023 PRTM VISSIM queues in the 2028 WoD scenarios. Therefore, it is considered that the model validates well and the model is considered to be suitable for the assessment of MCO traffic.

4. PLOT 16 TRIP GENERATION

4.1 The following section sets out the agreed traffic generation forecasts for the Plot 16 MCO as set out in Table 15 of the TA. **Table 4** sets out agreed peak hour trip generation for the proposed MCO application (30,000sqm GFA of B8 development on Plot 16).

Table 4: Plot 16 Agreed trip Generation

	AM Peak (08:00 – 09:00)			PM Peak (16:00- 17:00)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Total	42	11	53	20	47	67
HGVs	6	7	13	8	5	13

4.2 The trips have then been distributed in line with the agreed distribution pattern within the TA and inputted into the validated LinSig model. **Figures 1** and **2** present the Plot 16 trip assignment at the EMG1 gyratory for the morning and evening peaks respectively.

Figure 1: Plot 16 AM Trip Assignment

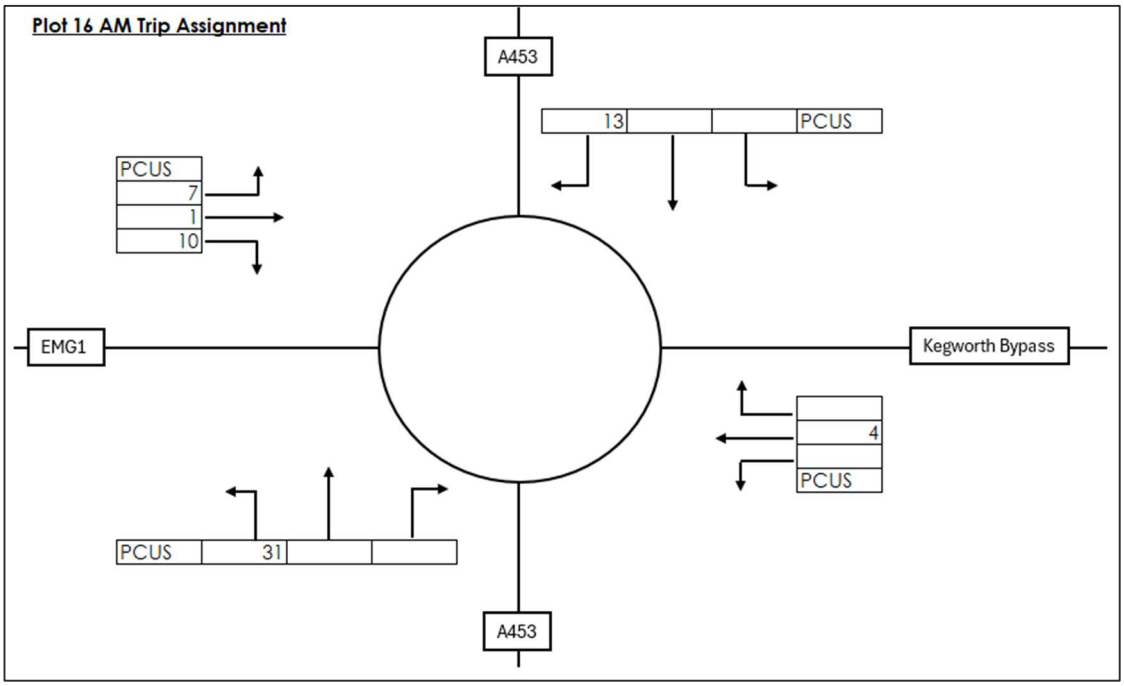
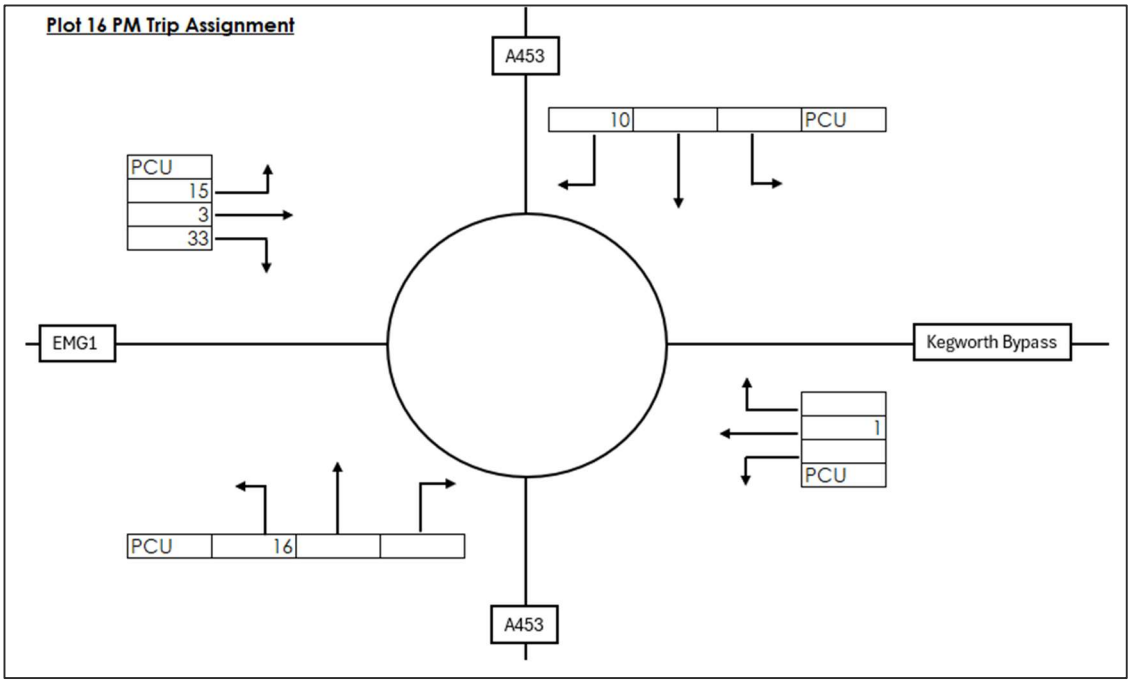


Figure 2: Plot 16 PM Trip Assignment



5. HIGHWAY IMPACT

Introduction

5.1 The following section presents the results of the LinSig modelling assessments for the MCO assessment.

5.2 The primary measurements of capacity at signal-controlled junctions in LinSig are Degree of Saturation (DoS) and Practical Reserve Capacity (PRC). DoS gives a ratio of the vehicle arrival rate to the relative saturation flow rate, where a value over 100% indicates that demand is greater than capacity, whilst a value of 90% or less is considered to provide an acceptable design criterion.

5.3 PRC provides a measure of the capacity of the junction as a whole, with a positive value indicating spare capacity available.

MCO Assessment at EMG1 Gyratory

5.4 A summary of '2028 WoD' and '2028 WoD + Plot 16 development' LinSig results is presented in **Table 5.** A copy of the full outputs is provided in **Appendix 2**.

Table 5: 2028 LinSig Result Summary

Arms	Weekday AM Peak			Weekday PM Peak		
	Q (pcu)	Delay (secs)	DoS (%)	Q (pcu)	Delay (secs)	DoS (%)
2028 forecast year 'without development'						
Arm 1 – A453 SB Approach	7.9	26.0	52.3	4.6	24.9	38.0
Arm 2 – Kegworth Bypass	51.0	239.1	110.3	18.9	73.7	96.2
Arm 3 – A453 NB Approach	93.2	231.4	111.3	15.1	27.6	87.3
Arm 4 – EMG1 Access	3.6	57.0	64.4	4.4	52.8	75.2
	PRC over all lanes = -29.9%			PRC over all lanes = -6.9%		
2028 forecast year 'with Plot 16 development'						
Arm 1 – A453 SB Approach	8.1	26.2	53.1	4.9	25.3	45.1
Arm 2 – Kegworth Bypass	53.2	249.7	111.1	19.1	74.7	96.4
Arm 3 – A453 NB Approach	97.0	236.9	111.7	15.8	28.5	89.2
Arm 4 – EMG1 Access	2.8	49.5	53.7	5.1	55.7	78.4
	PRC over all lanes = -29.9%			PRC over all lanes = -7.1%		
Difference						
Arm 1 – A453 SB Approach	0.2	0.2	0.8	0.3	0.4	7.1
Arm 2 – Kegworth Bypass	2.2	10.6	0.8	0.2	1	0.2
Arm 3 – A453 NB Approach	3.8	5.5	0.4	0.7	0.9	1.9
Arm 4 – EMG1 Access	-0.8	-7.5	-10.7	0.7	2.9	3.2
	PRC over all lanes = 0%			PRC over all lanes = -0.2%		

5.5 The results show that the junction is expected to operate over capacity in the 2028 WoD scenarios. It should however be noted that the flows utilised within the model also includes for a number of committed developments and no associated mitigation, for the purposes of this assessment.

5.6 Nevertheless, the inclusion of Plot 16 has a negligible impact on the operation of the junction. Overall, the PRC would remain at -29.9 in the morning peak hour and reduce slightly in the evening peak hour~~.~~, by 0.2, from -6.9 to -7.1, which equates to a 3% reduction in capacity. The maximum increase in forecast queues would be 3 PCUs on the A453 NB arm in the morning peak hour. Such an increase is not material enough to justify any mitigation in its own right.

~~5.6~~5.7 As a result, a review of the MCO in isolation confirms that the traffic generated by Plot 16 on its own does not trigger the need for any mitigation. As a result, no further assessment work is required.

EMG1 Gyratory DCO Mitigation

~~5.7~~5.8 As a part of the EMG2 DCO, a small mitigation package is proposed at the EMG1 gyratory. The mitigation comprises of the introduction of an additional right turn lane from the A453 southbound to EMG1 site access. Although this mitigation provides a benefit to the junction in the EMG2 DCO VISSIM, without prejudice to the above findings,

a sensitivity test has been undertaken for this ~~technical note~~Technical Note to determine if the mitigation would benefit the MCO.

~~5.8~~5.9 A summary of '2028 WoD + Plot 16 development' and '2028 WoD + Plot 16 development + DCO Mitigation' LinSig results is presented in **Table 6.** A copy of the full outputs is provided in **Appendix 3**.

Table 6: 2028 LinSig Result Summary

Arms	Weekday AM Peak			Weekday PM Peak		
	Q (pcu)	Delay (secs)	DoS (%)	Q (pcu)	Delay (secs)	DoS (%)
2028 forecast year 'with Plot 16 development'						
Arm 1 – A453 SB Approach	8.1	26.2	53.1	4.9	25.3	45.1
Arm 2 – Kegworth Bypass	53.2	249.7	111.1	19.1	74.7	96.4
Arm 3 – A453 NB Approach	97.0	236.9	111.7	15.8	28.5	89.2
Arm 4 – EMG1 Access	2.8	49.5	53.7	5.1	55.7	78.4
	PRC over all lanes = -29.9%			PRC over all lanes = -7.1%		
2028 forecast year 'with Plot 16 development + DCO Mitigation'						
Arm 1 – A453 SB Approach	8.1	26.2	53.1	4.9	25.3	45.1
Arm 2 – Kegworth Bypass	53.2	249.7	111.1	19.1	74.7	96.4
Arm 3 – A453 NB Approach	97.5	274.6	114.2	15.8	28.5	89.2
Arm 4 – EMG1 Access	2.8	49.5	53.7	5.1	55.7	78.4
	PRC over all lanes = -27.2%			PRC over all lanes = -7.1%		
Difference						
Arm 1 – A453 SB Approach	0	0	0	0	0	0
Arm 2 – Kegworth Bypass	0	0	0	0	0	0
Arm 3 – A453 NB Approach	0.5	37.7	2.5	0	0	0
Arm 4 – EMG1 Access	0	0	0	0	0	0
	PRC over all lanes = 2.7%			PRC over all lanes = 0%		

~~5.9~~5.10 The results show that the junction is still expected to operate over capacity in both scenarios. In the morning peak hour with the mitigation in place, the ~~junction overall~~ PRC ~~wise~~ increases by 2.7% from -29.9% to -27.2% ~~PRC.~~%. However, this slight increase in PRC is due to the slight increase in capacity within the circulatory. which can be seen in **Appendix 3**, but there are still increases in queue, delay and DoS on the A453 northbound approach.

~~5.10~~ In the evening peak period, the mitigation scheme ~~doesn't~~would not provide any benefit as the amount of right turning traffic to EMG1 is significantly lower than the morning peak. Therefore, the DCO mitigation scheme does not provide any material improvements for the MCO site~~.~~ even if they were required, which, as set out above, is not the case anyway. indeed, it is considered that if the DCO mitigation scheme at the EMG1 gyratory was introduced for the MCO only, the impact of constructing the highway works on the network would not outweigh the benefits which would be provided post implementation of them, This therefore provides another fundamental

reason as to why the EMG1 gyratory mitigation works should only be implemented as a result of the DCO and not MCO.

6. SUMMARY AND CONCLUSION

6.1 BWB Consulting Ltd (BWB) has been appointed by Segro Properties Ltd and Segro (EMG) Ltd (together the Applicant, or Segro) to provide highways and transportation advice in support of a second phase of its East Midlands Gateway Logistics Park (EMG2), located to the north of East Midlands Airport. The purpose of this Technical Note ~~was~~is to assess the impacts of the MCO application in isolation of the DCO application, with a focus on the A6 Kegworth Bypass / A453 / EMG1 access roundabout (EMG1 gyratory).

6.2 The methodology was agreed with National Highways (NH) on 6th March 2026 that the use of LinSig would provide a suitable tool to test the EMG1 gyratory operation 'without' and 'with' the Plot 16 development, based on the level of traffic it is predicted to generate.

6.3 The LinSig model has therefore been validated against multiple VISSIM extracts and parameters to ensure that the model is suitable.

6.4 The LinSig model shows that using the 2023 PRTM Dataset, Plot 16 would have no material impact on the EMG1 gyratory and therefore, does not require any mitigation if Plot 16 was to come forward as a standalone development. For the avoidance of doubt, the works at the EMG1 gyratory proposed as part of the MCO, i.e. MCO Works No. 8A, are proposed to facilitate crossing of the EMG1 Wilders Way exit road from the drop-off lay-by.

~~6.5~~ As a part of the EMG2 DCO, a small mitigation package is proposed at the EMG1 gyratory. A sensitivity test has been undertaken for this ~~technical note~~Technical Note to determine if the mitigation would benefit the MCO.

6.5 ~~The~~ This confirmed that the DCO mitigation scheme does not provide any material improvements for the MCO site and therefore ~~not required.~~should only be implemented as a result of the DCO and not MCO.

APPENDICES

Appendix 1: National Highways Methodology Correspondence Email

[redacted]

From: [redacted]@jacobs.com>
Sent: 06 March 2026 10:00
To: [redacted]
Cc: [redacted]
Subject: RE: EMG MCO Modelling Methodology

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

Morning [redacted]

Thank you for outlining the scope. I can confirm National Highways are content with the proposed scope of works and we look forward to receiving the supporting note.

With thanks
[redacted]

[redacted] | Jacobs | Associate Director, Cities & Places
[redacted]@jacobs.com [redacted]
Multistory (Colmore Square), 7th Floor, 38 Colmore Circus, Birmingham, B4 6BN | UK

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[redacted]

[redacted]

From: [redacted]@bwbconsulting.com>
Sent: 05 March 2026 14:35
To: [redacted]@jacobs.com>
Cc: [redacted]@leics.gov.uk>; [redacted]@jacobs.com>; [redacted]@jacobs.com>; [redacted]@bwbconsulting.com>; [redacted]@leics.gov.uk>; [redacted]@bwbconsulting.com>; [redacted]@bwbconsulting.com>
Subject: [EXTERNAL] EMG MCO Modelling Methodology

Hi [redacted]

Further to our meeting earlier, to assess the impact of the MCO, we propose using LinSig to evaluate the operational impact on the EMG gyratory. Given the very limited trip generation associated with Plot 16 (30,000sqm), it is considered that LinSig would provide the best comparative tool to assess the junction operation 'with' and 'without' development.

The assessment would be based on the 2028 WoD Stage 1 flows derived from the 2023 PRTM model, representing a worst case scenario as these flows include committed developments that may not all come forward by 2028.

Further to the above, to ensure that the LinSig model reflects the operation of EMG junction, we propose the following methodology:

- Extract turning flows for 2028 WoD AM/PM from VISSIM and input into LinSig;
- Extract Average Signal timings at EMG in VISSIM and replicate both average stage times and cycle times in LinSig;
- Compare LinSig MMQ against the Average of Maximum queues recorded in VISSIM to see how well VISSIM outputs are reflected in VISSIM;
- Add Plot 16 flows on top of 2028 WoD flows and assess the impact.
- Summarise the above in a short Technical Note including narrative on any perceived road safety impacts, and how this level of assessment is considered to be proportionate and agreed with NH and LCC as a suitable way to deal with the matter.

I would be grateful if you could confirm whether you are happy with the methodology outlined above.

Kind Regards,

[redacted]

[redacted]
Associate Director | BWB Consulting Limited

11-15 Borough High Street, London Bridge, London SE1 9SE
[redacted] **W** www.bwbconsulting.com

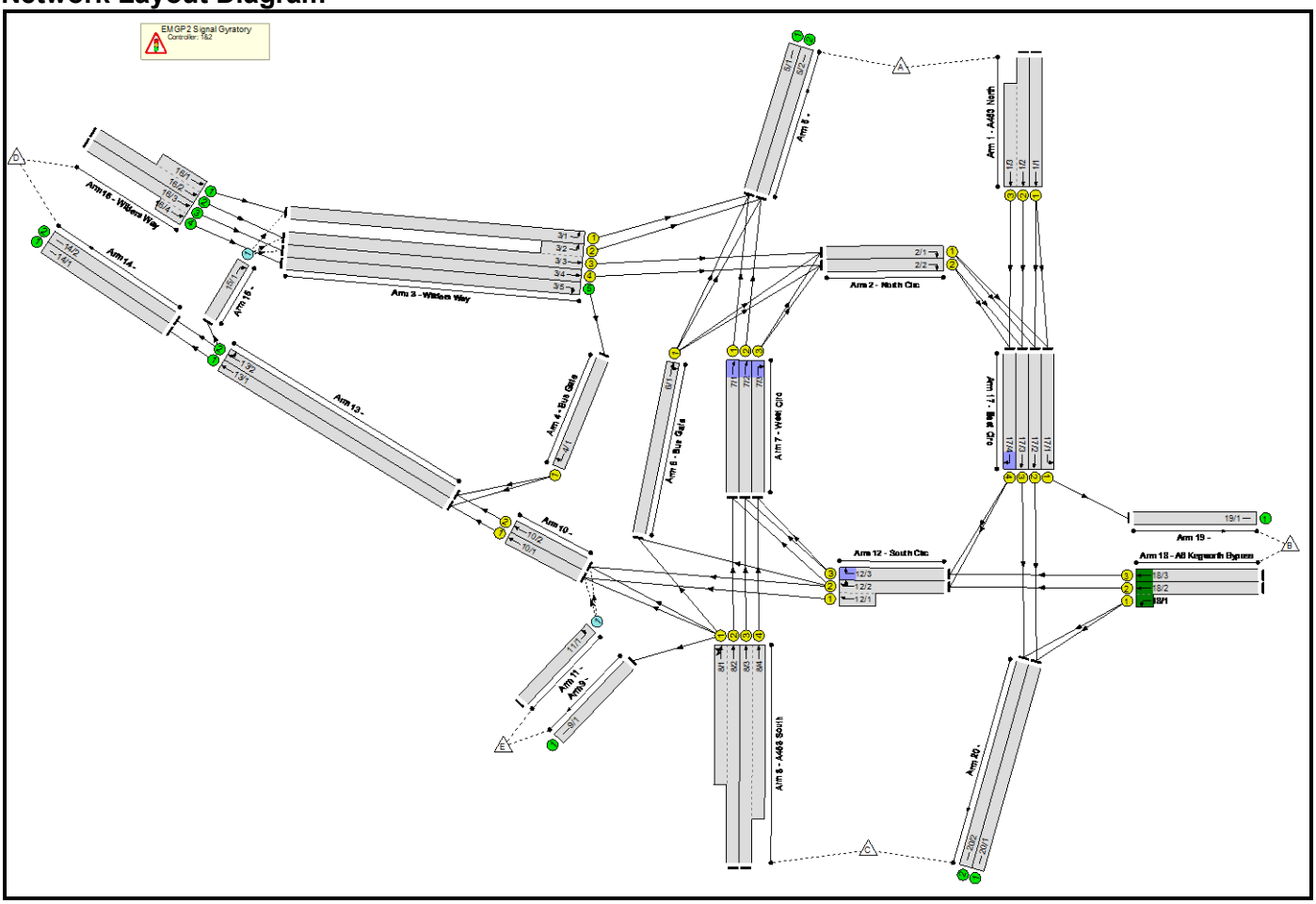
Appendix 2: EMG1 Gyratory MCO Assessment LinSig Results

Detailed Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	260318_EMGP1_Signal Gyratory_MCO_Assessment.lsg3x
Author:	
Company:	
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



Scenarios

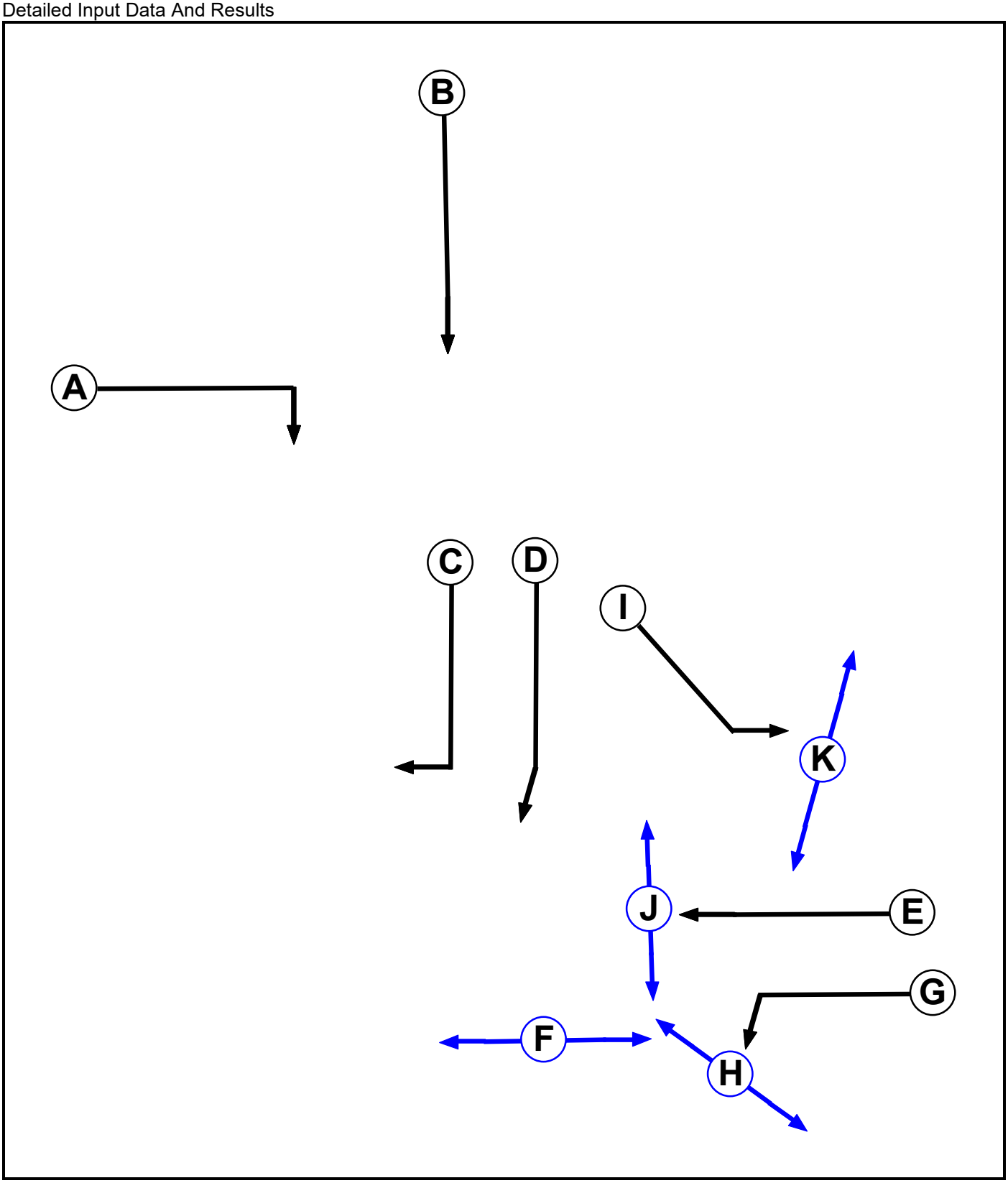
Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2028 WoD AM (2023 PRTM)	2028 WoD AM (2023 PRTM)	Network Control Plan 1	08:00 - 09:00	88	-29.9	253.31
2	2028 WoD PM (2023 PRTM)	2028 WoD PM (2023 PRTM)	Network Control Plan 1	17:00 - 18:00	78	-6.9	55.72
3	2028 WoD + Plot 16 AM (2023 PRTM)	2028 WoD + Plot 16 AM (2023 PRTM)	Network Control Plan 1	08:00 - 09:00	88	-29.9	259.68
4	2028 WoD + Plot 16 PM (2023 PRTM)	2028 WoD + Plot 16 PM (2023 PRTM)	Network Control Plan 1	17:00 - 18:00	78	-7.1	57.96

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1 - Eastern Controller	Gen		Stage Stream 1	2	2	EMGP2 Signal Gyratory	
			Stage Stream 2	2	2	EMGP2 Signal Gyratory	
			Stage Stream 3	7	2	EMGP2 Signal Gyratory	
C2 - Western Controller	Gen		Stage Stream 1	5	2	EMGP2 Signal Gyratory	
			Stage Stream 2	3	2	EMGP2 Signal Gyratory	
			Stage Stream 3	5	3	EMGP2 Signal Gyratory	

Controller :C1 - Eastern Controller

Phase Diagram


B
A
C
D
I
K
J
E
G
F
H

Phase Input Data

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

Phase Intergreens Matrix

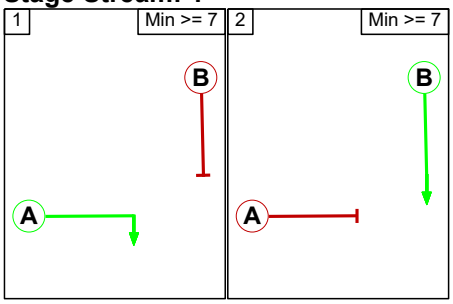
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K
A		5	-	-	-	-	-	-	-	-	-
B	7		-	-	-	-	-	-	-	-	-
C	-	-		-	5	5	-	-	-	-	-
D	-	-	-		5	7	6	-	-	-	-
E	-	-	7	7		-	-	-	-	5	-
F	-	-	0	0	-		-	-	-	-	-
G	-	-	-	5	-	-		5	-	-	-
H	-	-	-	-	-	-	6		-	-	-
I	-	-	-	-	-	-	-	-		-	5
J	-	-	-	-	0	-	-	-	-		-
K	-	-	-	-	-	-	-	-	0	-	

Phases in Stage

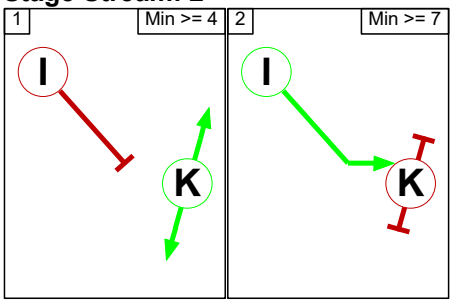
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	K
2	2	I
3	1	C D H J
3	2	E F G

Stage Diagram

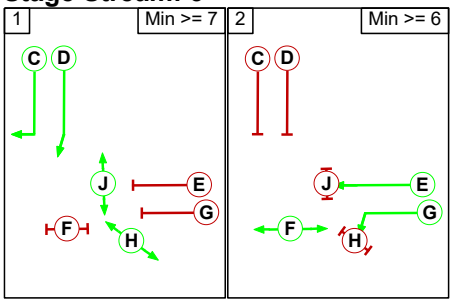
Stage Stream: 1



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		5
	2	7	

Stage Stream: 2

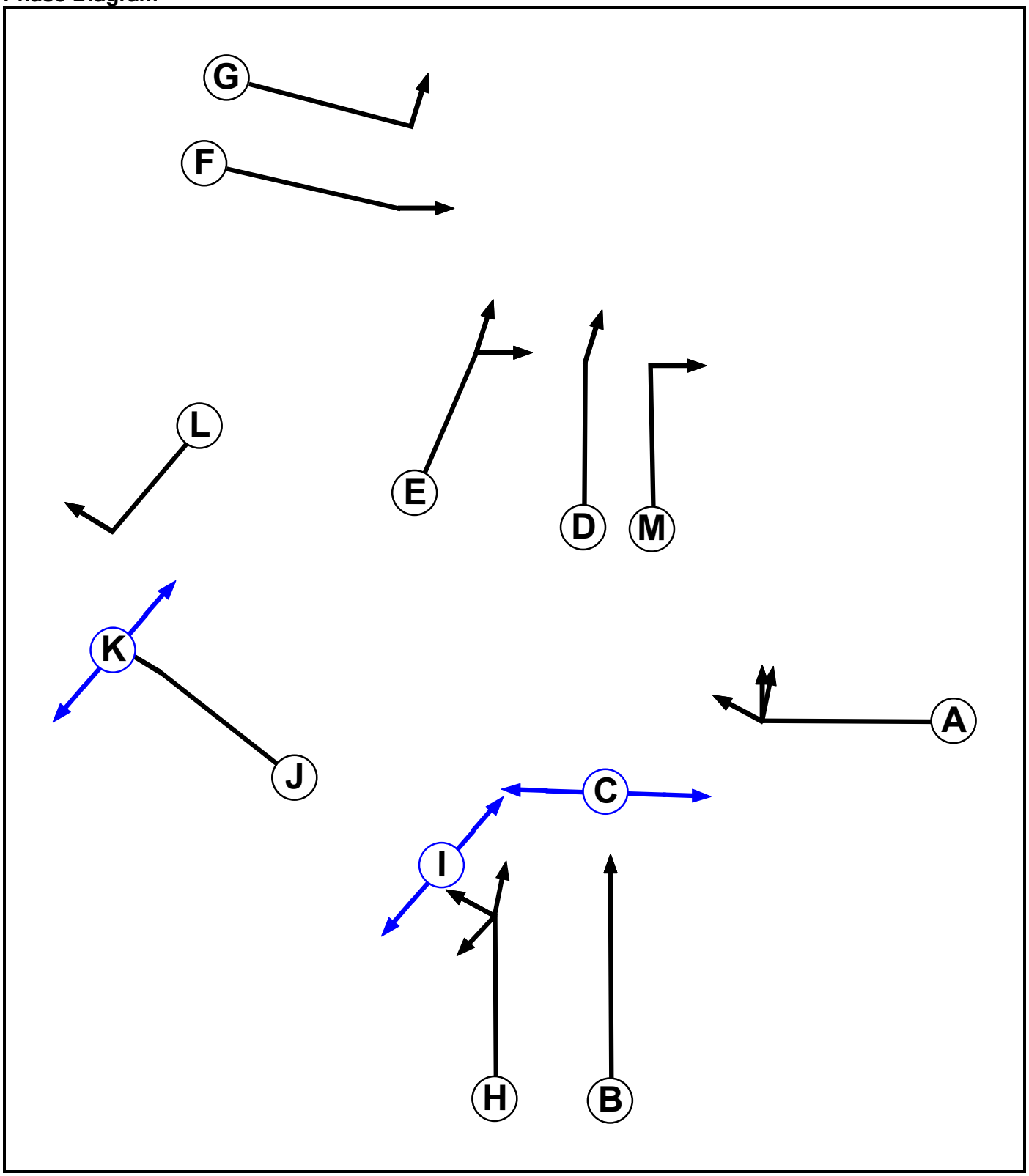
From Stage \ To Stage		1	2
	1		2
	2	5	

Stage Stream: 3

From Stage \ To Stage		1	2
	1		7
	2	7	

Controller :C2 - Western Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		4	4
D	Traffic	3		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7
H	Traffic	1		7	7
I	Pedestrian	1		4	4
J	Traffic	2		7	7
K	Pedestrian	2		5	5
L	Traffic	2		7	7
M	Traffic	3		7	7

Phase Intergreens Matrix

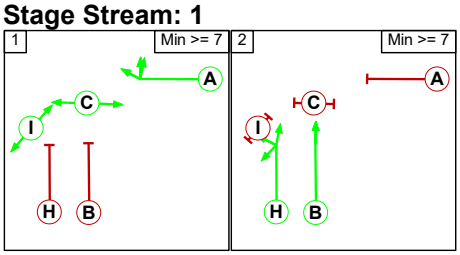
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M
A		6	-	-	-	-	-	6	-	-	-	-	-
B	7		5	-	-	-	-	-	-	-	-	-	-
C	-	0		-	-	-	-	0	-	-	-	-	-
D	-	-	-		5	7	7	-	-	-	-	-	-
E	-	-	-	6		7	7	-	-	-	-	-	6
F	-	-	-	6	5		-	-	-	-	-	-	6
G	-	-	-	6	5	-		-	-	-	-	-	-
H	5	-	5	-	-	-	-		5	-	-	-	-
I	-	-	-	-	-	-	-	6		-	-	-	-
J	-	-	-	-	-	-	-	-	-		5	6	-
K	-	-	-	-	-	-	-	-	-	0		-	-
L	-	-	-	-	-	-	-	-	-	5	-		-
M	-	-	-	-	5	5	-	-	-	-	-	-	

Phases in Stage

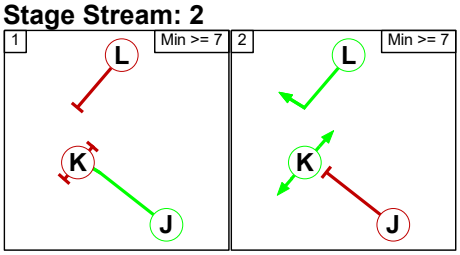
Stream	Stage No.	Phases in Stage
1	1	A C I
1	2	B H
2	1	J
2	2	K L
3	1	D M
3	2	F G
3	3	E

Stage Diagram

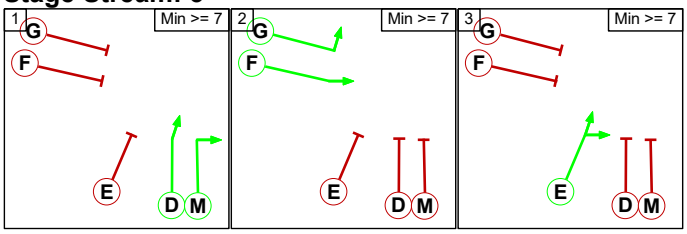
Stage Stream: 1



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

	To Stage		
		1	2
From Stage	1		6
	2	7	

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		6
	2	5	

Stage Stream: 3

	To Stage			
		1	2	3
From Stage	1		7	5
	2	6		5
	3	6	7	

Lane Input Data

Junction: EMGP2 Signal Gyratory

Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A453 North)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 17 Ahead	Inf
1/2 (A453 North)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
1/3 (A453 North)	U	B	2	3	21.7	Geom	-	3.65	0.00	Y	Arm 17 Ahead	Inf
2/1 (North Circ)	U	A	2	3	8.7	Geom	-	4.00	0.00	Y	Arm 17 Right	25.00
2/2 (North Circ)	U	A	2	3	8.7	Geom	-	4.00	0.00	Y	Arm 17 Right	20.00
3/1 (Wilders Way)	U	G	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 5 Left	25.00
3/2 (Wilders Way)	U	G	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 5 Left	25.00
3/3 (Wilders Way)	U	F	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 2 Ahead	Inf
3/4 (Wilders Way)	U	F	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 2 Ahead	Inf
3/5 (Wilders Way)	U		2	3	16.5	Geom	-	3.50	0.00	Y	Arm 4 Right	15.00
4/1 (Bus Gate)	U	L	2	3	7.0	Geom	-	5.00	0.00	Y	Arm 13 Right	12.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bus Gate)	U	E	2	3	8.7	Geom	-	5.00	0.00	Y	Arm 2 Right	30.00
											Arm 5 Ahead	Inf
7/1 (West Circ)	U	D	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
7/2 (West Circ)	U	D	2	3	9.6	Geom	-	3.50	0.00	N	Arm 5 Ahead	Inf
7/3 (West Circ)	U	M	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 2 Right	30.00
8/1 (A453 South)	U	H	2	3	16.5	User	1900	-	-	-	-	-
8/2 (A453 South)	U	B	2	3	60.0	User	1843	-	-	-	-	-
8/3 (A453 South)	U	B	2	3	60.0	User	1899	-	-	-	-	-

8/4 (A453 South)	U	B	2	3	39.1	Geom	-	3.65	0.00	Y	Arm 7 Ahead	Inf
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U	J	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
10/2	U	J	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
11/1	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 10 Left	15.00
12/1 (South Circ)	U	A	2	3	4.3	Geom	-	3.50	0.00	Y	Arm 10 Ahead	Inf
12/2 (South Circ)	U	A	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 6 Right	25.00
											Arm 7 Right	25.00
											Arm 10 Ahead	Inf
12/3 (South Circ)	U	A	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 7 Right	25.00
13/1	U		2	3	13.0	Geom	-	3.50	0.00	Y	Arm 14 Ahead	Inf
13/2	U		2	3	13.0	Geom	-	3.50	0.00	Y	Arm 14 Ahead	Inf
											Arm 15 Right	Inf
14/1	U		2	3	60.0	Geom	-	3.50	0.00	Y		
14/2	U		2	3	60.0	Geom	-	3.50	0.00	Y		
15/1	O		2	3	3.0	Geom	-	4.50	0.00	Y	Arm 3 Right	15.00
16/1 (Wilders Way)	U		2	3	6.1	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/2 (Wilders Way)	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/3 (Wilders Way)	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/4 (Wilders Way)	U		2	3	3.5	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
17/1 (East Circ)	U	I	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 19 Left	30.00
17/2 (East Circ)	U	D	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 20 Ahead	Inf
17/3 (East Circ)	U	D	2	3	11.3	Geom	-	3.50	0.00	N	Arm 20 Ahead	Inf
17/4 (East Circ)	U	C	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 12 Right	12.00

18/1 (A6 Kegworth Bypass)	U	G	2	3	2.0	Geom	-	3.50	0.00	Y	Arm 20 Left	20.00
18/2 (A6 Kegworth Bypass)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 12 Ahead	Inf
18/3 (A6 Kegworth Bypass)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm 12 Ahead	Inf
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: EMGP2 Signal Gyratory

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)
11/1	10/1 (Left)	1000	0	8/1	0.33	To 10/1 (Left) To 10/2 (Left)	-	-	-	-	-
				12/1	0.33	All					
				12/2	0.33	To 10/2 (Ahead)					
	10/2 (Left)	1000	0	8/1	0.33	To 10/1 (Left) To 10/2 (Left)					
				12/1	0.33	All					
				12/2	0.33	To 10/2 (Ahead)					
15/1	3/1 (Right)	1439	0	16/1	1.09	All	-	-	-	-	-
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
	3/3 (Right)	1439	0	16/1	1.09	All					
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
	3/4 (Right)	1439	0	16/1	1.09	All					
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					

Lane Connector Input Data

Junction: EMGP2 Signal Gyratory				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	17/1	Internal	35	35
1/1	17/2	Internal	7	35
1/2	17/3	Internal	7	35
1/3	17/4	Internal	7	35
2/1	17/1	Internal	35	35
2/1	17/2	Internal	7	35
2/2	17/3	Internal	7	35
2/2	17/4	Internal	7	35
3/1	5/1	Internal	5	35
3/2	5/2	Internal	5	35
3/3	2/1	Internal	5	35
3/4	2/2	Internal	5	35
3/5	4/1	Internal	4	35
4/1	13/1	Internal	8	35
4/1	13/2	Internal	8	35
6/1	2/1	Internal	5	35
6/1	2/2	Internal	5	35
6/1	5/1	Internal	5	35
6/1	5/2	Internal	5	35
7/1	5/1	Internal	5	35
7/2	5/2	Internal	5	35
7/3	2/1	Internal	5	35
7/3	2/2	Internal	-	35
8/1	6/1	Internal	5	35
8/1	9/1	Internal	5	35
8/1	10/1	Internal	7	35
8/1	10/2	Internal	7	35
8/2	7/1	Internal	2	35
8/3	7/2	Internal	2	35
8/4	7/3	Internal	2	35
10/1	13/1	Internal	8	35
10/2	13/2	Internal	8	35
11/1	10/1	Internal	7	35
11/1	10/2	Internal	7	35
12/1	10/1	Internal	7	35
12/2	6/1	Internal	5	35
12/2	7/1	Internal	2	35

12/2	10/2	Internal	7	35
12/3	7/2	Internal	2	35
12/3	7/3	Internal	2	35
13/1	14/1	Internal	5	35
13/2	14/2	Internal	5	35
13/2	15/1	Internal	2	35
15/1	3/1	Internal	10	35
15/1	3/3	Internal	10	35
15/1	3/4	Internal	10	35
16/1	3/1	Internal	10	35
16/2	3/3	Internal	10	35
16/3	3/4	Internal	10	35
16/4	3/5	Internal	10	35
17/1	19/1	Internal	5	35
17/2	20/1	Internal	5	35
17/3	20/2	Internal	5	35
17/4	12/2	Internal	3	35
17/4	12/3	Internal	3	35
18/1	20/1	Internal	5	35
18/1	20/2	Internal	5	35
18/2	12/2	Internal	3	35
18/3	12/3	Internal	3	35

Scenario 1: '2028 WoD AM (2023 PRTM)' (FG1: '2028 WoD AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-4
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4

Scenario 2: '2028 WoD PM (2023 PRTM)' (FG2: '2028 WoD PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-2
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2

Scenario 3: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-4
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4

Scenario 4: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-2
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2028 WoD AM (2023 PRTM)'	08:00	09:00	01:00	
2: '2028 WoD PM (2023 PRTM)'	17:00	18:00	01:00	
3: '2028 WoD + Plot 16 AM (2023 PRTM)'	08:00	09:00	01:00	
4: '2028 WoD + Plot 16 PM (2023 PRTM)'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2028 WoD AM (2023 PRTM)'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	361	0	1050
	B	461	0	213	427	0	1101
	C	1867	122	0	307	0	2296
	D	113	6	140	0	0	259
	E	0	0	0	0	0	0
	Tot.	2441	188	982	1095	0	4706

FG2: '2028 WoD PM (2023 PRTM)'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	242	0	568
	B	444	0	173	404	0	1021
	C	1315	261	0	158	0	1734
	D	227	25	213	0	0	465
	E	0	0	0	0	0	0
	Tot.	1986	379	619	804	0	3788

FG3: '2028 WoD + Plot 16 AM (2023 PRTM)'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	374	0	1063
	B	461	0	213	431	0	1105
	C	1867	122	0	338	0	2327
	D	120	7	150	0	0	277
	E	0	0	0	0	0	0
	Tot.	2448	189	992	1143	0	4772

FG4: '2028 WoD + Plot 16 PM (2023 PRTM)'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	252	0	578
	B	444	0	173	405	0	1022
	C	1315	261	0	174	0	1750
	D	242	28	246	0	0	516
	E	0	0	0	0	0	0
	Tot.	2001	382	652	831	0	3866

Scenario 1: '2028 WoD AM (2023 PRTM)' (FG1: '2028 WoD AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	361	0	1050
	B	461	0	213	427	0	1101
	C	1867	122	0	307	0	2296
	D	113	6	140	0	0	259
	E	0	0	0	0	0	0
	Tot.	2441	188	982	1095	0	4706

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Scenario 2: '2028 WoD PM (2023 PRTM)' (FG2: '2028 WoD PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	242	0	568
	B	444	0	173	404	0	1021
	C	1315	261	0	158	0	1734
	D	227	25	213	0	0	465
	E	0	0	0	0	0	0
	Tot.	1986	379	619	804	0	3788

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Scenario 3: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	374	0	1063
	B	461	0	213	431	0	1105
	C	1867	122	0	338	0	2327
	D	120	7	150	0	0	277
	E	0	0	0	0	0	0
	Tot.	2448	189	992	1143	0	4772

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Scenario 4: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	252	0	578
	B	444	0	173	405	0	1022
	C	1315	261	0	174	0	1750
	D	242	28	246	0	0	516
	E	0	0	0	0	0	0
	Tot.	2001	382	652	831	0	3866

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Traffic Lane Flows

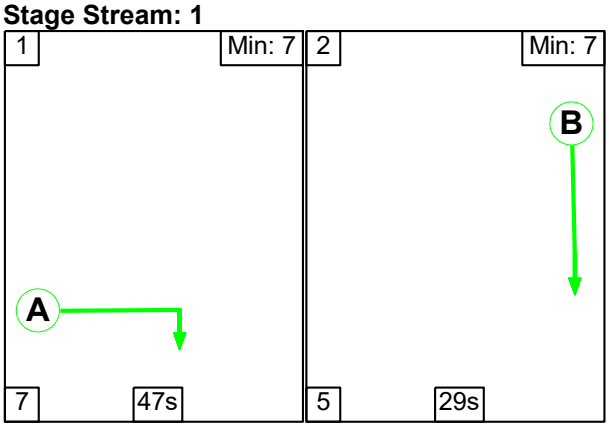
Lane	Scenario 1: 2028 WoD AM (2023 PRTM)	Scenario 2: 2028 WoD PM (2023 PRTM)	Scenario 3: 2028 WoD + Plot 16 AM (2023 PRTM)	Scenario 4: 2028 WoD + Plot 16 PM (2023 PRTM)
Junction: EMGP2 Signal Gyratory				
1/1	311	144	305	177
1/2 (with short)	739(In) 378(Out)	424(In) 182(Out)	758(In) 384(Out)	401(In) 149(Out)
1/3 (short)	361	242	374	252
2/1	237	395	218	419
2/2	31	104	61	116
3/1	54	84	27	109
3/2 (short)	59	143	93	133
3/3 (with short)	174(In) 115(Out)	277(In) 134(Out)	189(In) 96(Out)	291(In) 158(Out)
3/4	31	104	61	116
3/5	0	0	0	0
4/1	0	0	0	0
5/1	937	719	910	729
5/2	1504	1267	1538	1272
6/1	0	0	0	0
7/1	883	635	883	620
7/2	1445	1124	1445	1139
7/3	122	261	122	261
8/1 (short)	307	158	338	174
8/2 (with short)	1190(In) 883(Out)	793(In) 635(Out)	1221(In) 883(Out)	794(In) 620(Out)
8/3 (with short)	1106(In) 984(Out)	941(In) 680(Out)	1106(In) 984(Out)	956(In) 695(Out)
8/4 (short)	122	261	122	261
9/1	0	0	0	0
10/1	578	412	612	428
10/2	517	392	531	403
11/1	0	0	0	0
12/1 (short)	427	308	423	329
12/2 (with short)	788(In) 361(Out)	646(In) 338(Out)	805(In) 382(Out)	657(In) 328(Out)
12/3	461	444	461	444
13/1	578	412	612	428
13/2	517	392	531	403
14/1	578	412	612	428

14/2	517	392	531	403
15/1	0	0	0	0
16/1 (short)	54	84	27	109
16/2 (with short)	228(In) 174(Out)	361(In) 277(Out)	216(In) 189(Out)	400(In) 291(Out)
16/3 (with short)	31(In) 31(Out)	104(In) 104(Out)	61(In) 61(Out)	116(In) 116(Out)
16/4 (short)	0	0	0	0
17/1	188	379	189	382
17/2	360	160	334	214
17/3	409	286	445	265
17/4	361	242	374	252
18/1 (short)	213	173	213	173
18/2 (with short)	640(In) 427(Out)	577(In) 404(Out)	644(In) 431(Out)	578(In) 405(Out)
18/3	461	444	461	444
19/1	188	379	189	382
20/1	467	247	441	301
20/2	515	372	551	351

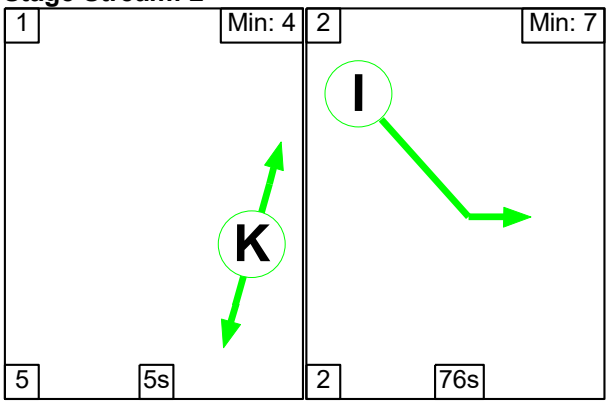
Scenario 1: '2028 WoD AM (2023 PRTM)' (FG1: '2028 WoD AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastern Controller

Stage Sequence Diagram

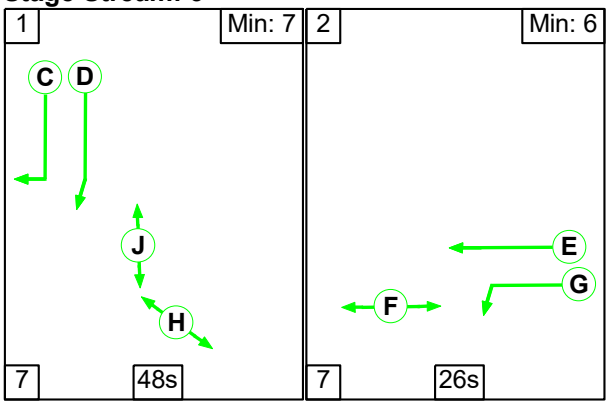
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	47	29
Change Point	38	4

Stage Stream: 2

Stage	1	2
Duration	5	76
Change Point	62	72

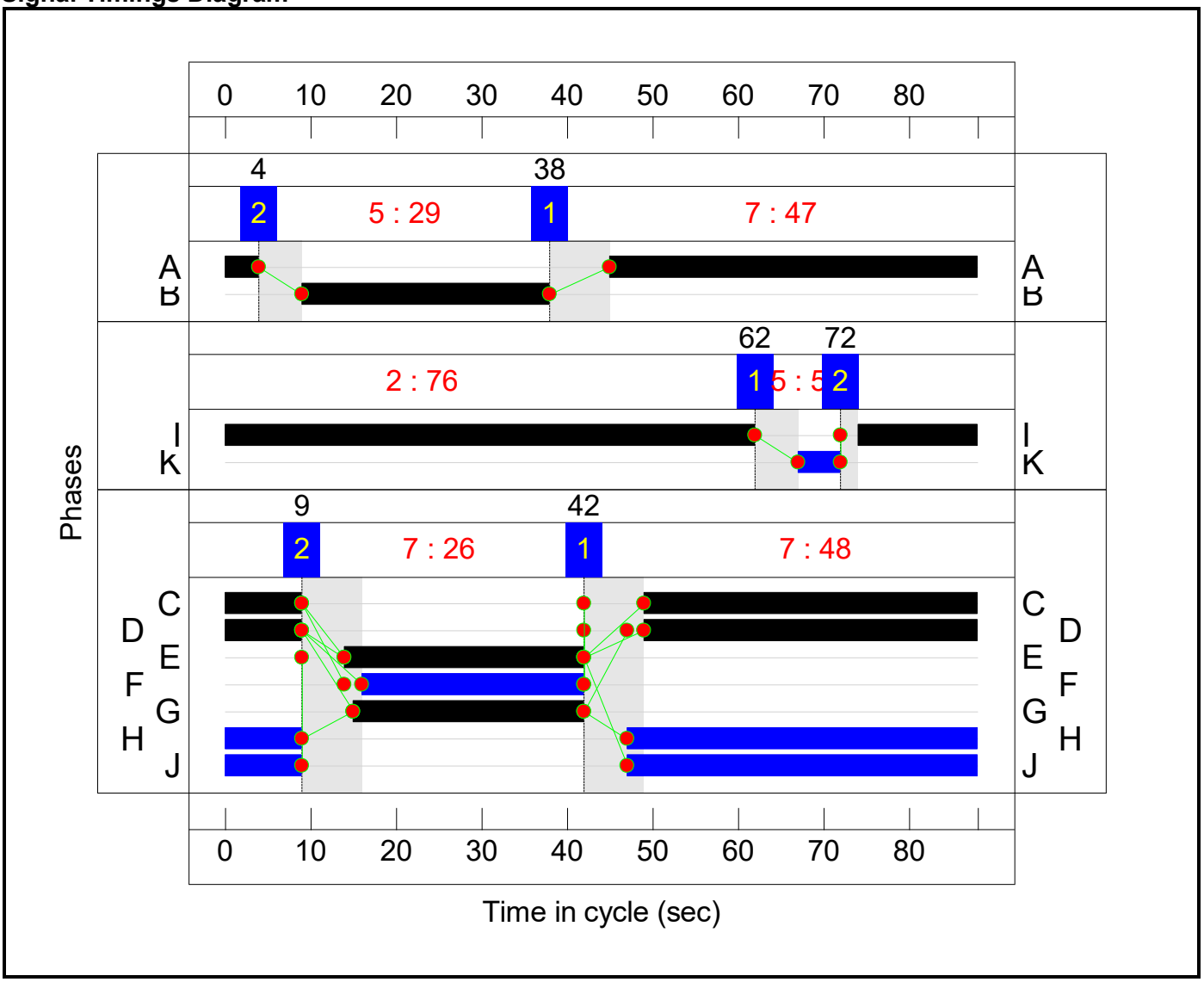
Stage Stream: 3

Stage	1	2
Duration	48	26
Change Point	42	9

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	47	45	4
B	A453 North Ahead A453 S/B	Traffic	1	29	9	38
C	East Circ Right East Circulatory RT	Traffic	3	48	49	9
D	East Circ Ahead East Circulatory	Traffic	3	48	49	9
E	A6 Kegworth Bypass Ahead A6	Traffic	3	28	14	42
F	Pedestrians across Ped X Phase D	Pedestrian	3	26	16	42
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	27	15	42
H	Pedestrians across	Pedestrian	3	50	47	9
I	East Circ Left Bypass E/B Exit	Traffic	2	76	74	62
J	Pedestrians across	Pedestrian	3	50	47	9
K	Pedestrians across	Pedestrian	2	5	67	72

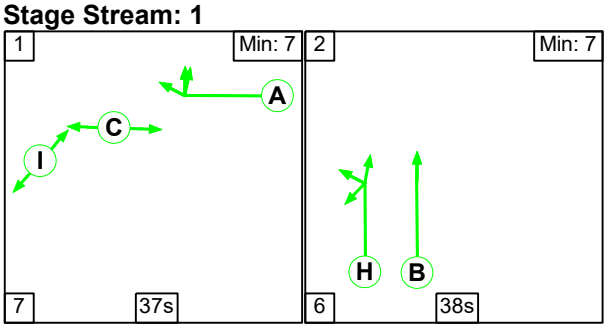
Signal Timings Diagram



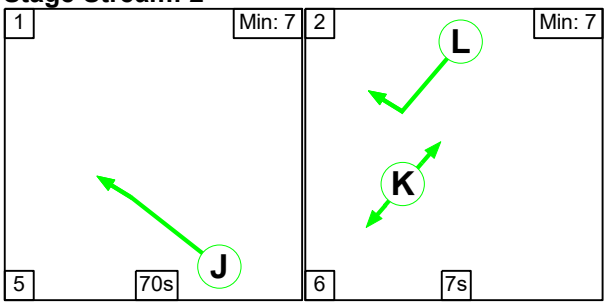
Controller :C2 - Western Controller

Stage Sequence Diagram

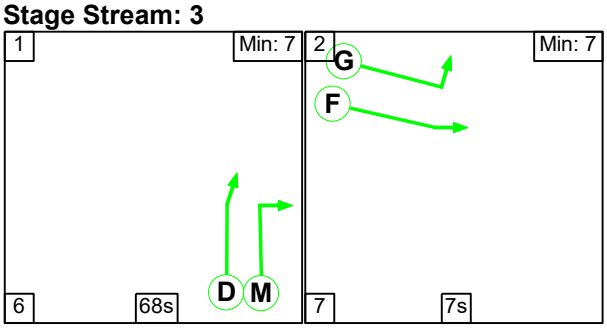
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	37	38
Change Point	82	38

Stage Stream: 2

Stage	1	2
Duration	70	7
Change Point	8	83

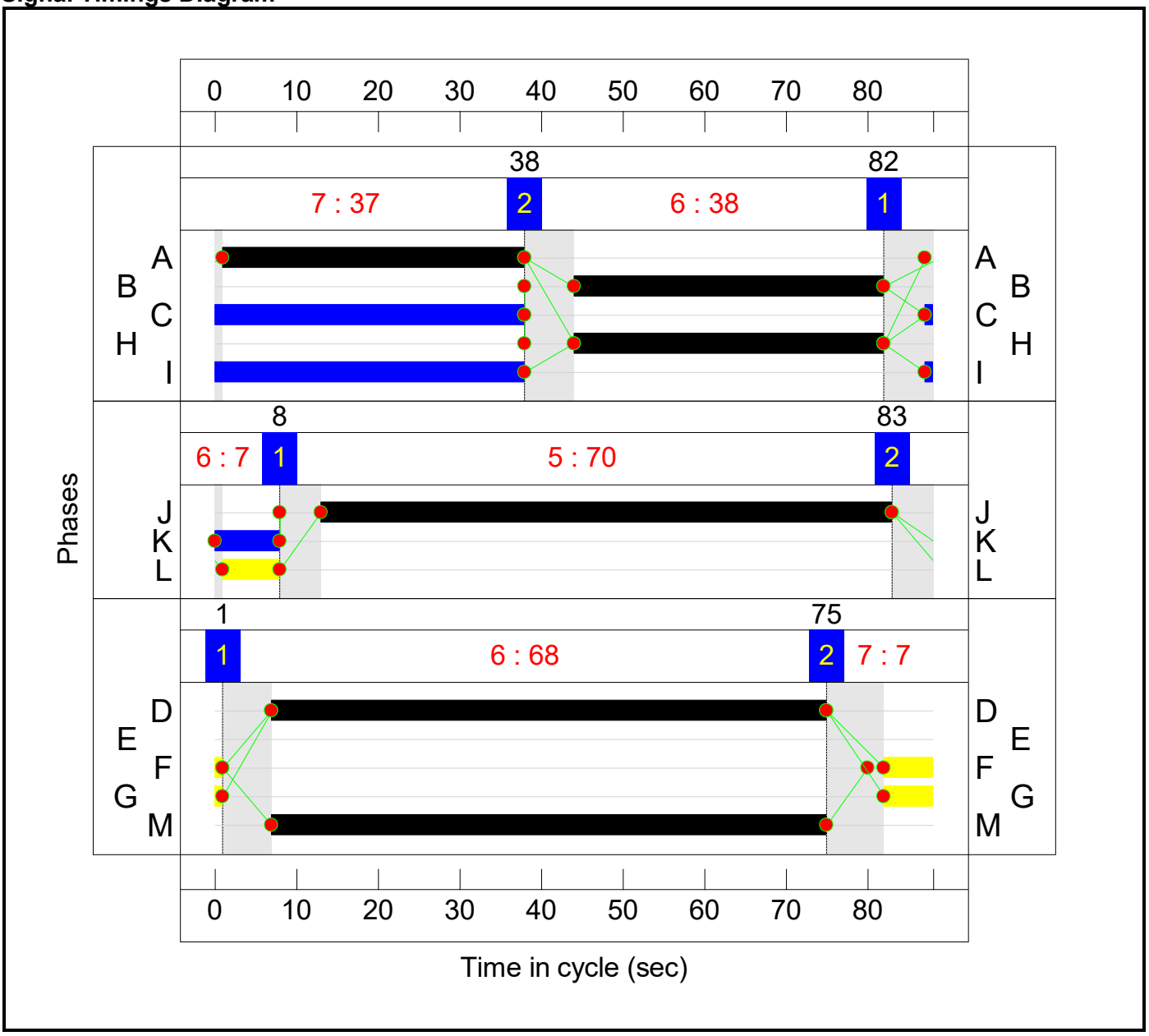
Stage Stream: 3

Stage	1	2
Duration	68	7
Change Point	1	75

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	37	1	38
B	A453 South Ahead	Traffic	1	38	44	82
C	Pedestrians across	Pedestrian	1	39	87	38
D	West Circ Ahead	Traffic	3	68	7	75
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	82	1
G	Wilders Way Left	Traffic	3	7	82	1
H	A453 South Ahead U-Turn Left	Traffic	1	38	44	82
I	Pedestrians across	Pedestrian	1	39	87	38
J	Ahead	Traffic	2	70	13	83
K	Pedestrians across	Pedestrian	2	8	0	8
L	Bus Gate Right	Traffic	2	7	1	8
M	West Circ Right	Traffic	3	68	7	75

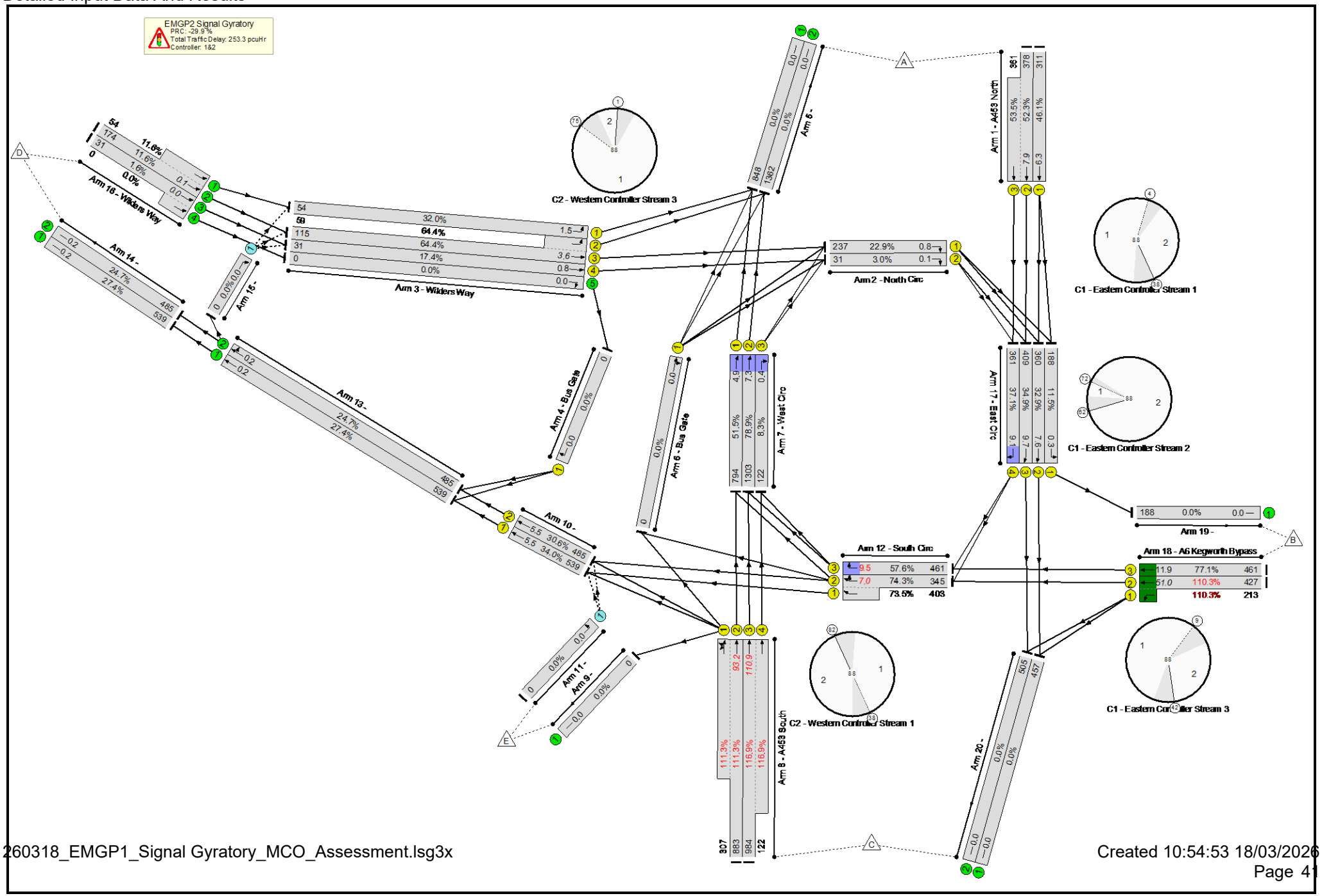
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	9	38
1/2	A453 North Ahead	U	B	9	38
1/3	A453 North Ahead	U	B	9	38
2/1	North Circ Right	U	A	45	4
2/2	North Circ Right	U	A	45	4
3/1	Wilders Way Left	U	G	82	1
3/2	Wilders Way Left	U	G	82	1
3/3	Wilders Way Ahead	U	F	82	1
3/4	Wilders Way Ahead	U	F	82	1
4/1	Bus Gate Right	U	L	1	8
7/1	West Circ Ahead	U	D	7	75
7/2	West Circ Ahead	U	D	7	75
7/3	West Circ Right	U	M	7	75
8/1	A453 South Ahead U-Turn Left	U	H	44	82
8/2	A453 South Ahead	U	B	44	82
8/3	A453 South Ahead	U	B	44	82
8/4	A453 South Ahead	U	B	44	82
10/1	Ahead	U	J	13	83
10/2	Ahead	U	J	13	83
12/1	South Circ Ahead	U	A	1	38
12/2	South Circ Right Right2 Ahead	U	A	1	38
12/3	South Circ Right	U	A	1	38
17/1	East Circ Left	U	I	74	62
17/2	East Circ Ahead	U	D	49	9
17/3	East Circ Ahead	U	D	49	9
17/4	East Circ Right	U	C	49	9
18/1	A6 Kegworth Bypass Left	U	G	15	42-4
18/2	A6 Kegworth Bypass Ahead	U	E	14	42-4
18/3	A6 Kegworth Bypass Ahead	U	E	14	42-4

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -29.9 %
Total Traffic Delay: 253.3 pcuHr
Controller: 1&2
Arm 16 - Wilders Way
Arm 14 -
Arm 15 -
Arm 3 - Wilders Way
Arm 13 -
Arm 4 - Bus Gate
Arm 6 - Bus Gate
Arm 6 -
Arm 10 -
Arm 11 -
Arm 9 -
Arm 8 - A453 South
Arm 7 - West Circ
Arm 12 - South Circ
Arm 2 - North Circ
Arm 1 - A453 North
Arm 17 - East Circ
Arm 19 -
Arm 18 - A6 Kegworth Bypass
Arm 20 -
C2 - Western Controller Stream 3
C1 - Eastern Controller Stream 1
C1 - Eastern Controller Stream 2
C2 - Western Controller Stream 1
C1 - Eastern Controller Stream 3

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.9%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.9%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	311	1980	675	46.1%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	739	2120:1980	723+675	52.3 : 53.5%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	237	1901	1037	22.9%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	31	1874	1022	3.0%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	54	1854	169	32.0%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	174	1965:1854	179+92	64.4 : 64.4%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	31	1965	179	17.4%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	1965	0.0%
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	192	0.0%
5/1		U	N/A	N/A	-		-	-	-	-	937	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1504	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	883	1965	1541	51.5%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	1445	2105	1651	78.9%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	68	-	-	122	1871	1467	8.3%

8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	38	-	-	1190	1843:1900	794+276	111.3 : 111.3%
8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	38	-	-	1106	1899:1980	842+104	116.9 : 116.9%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	70	-	-	578	1965	1585	34.0%
10/2	Ahead	U	2:2	N/A	C2:J		1	70	-	-	517	1965	1585	30.6%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	741	0.0%
12/2+12/1	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	37	-	-	788	1965:1965	464+549	74.3 : 73.5%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	37	-	-	461	1854	801	57.6%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	578	1965	1965	27.4%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	517	1965	1965	24.7%
14/1		U	N/A	N/A	-		-	-	-	-	578	1965	1965	27.4%
14/2		U	N/A	N/A	-		-	-	-	-	517	1965	1965	24.7%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	1248	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	228	1965:1965	1500+465	11.6 : 11.6%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	31	1965:1965	1965+0	1.6 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	76	-	-	188	1871	1637	11.5%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	360	1965	1094	32.9%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	409	2105	1172	34.9%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	48	-	-	361	1747	973	37.1%
18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	28:27	-	Y:Y	640	1965:1828	387+193	110.3 : 110.3%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	28	-	Y	461	2105	598	77.1%

19/1		U	N/A	N/A	-		-	-	-	-	188	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	-	467	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	515	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**59.9**	**193.4**	**0.0**	**253.3**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**59.9**	**193.4**	**0.0**	**253.3**	**-**	**-**	**-**	**-**	
1/1	311	311	-	-	-	2.0	0.4	-	2.4	27.6	5.9	0.4	6.3	
1/2+1/3	739	739	-	-	-	4.8	0.6	-	5.3 (2.7+2.6)	26.0 (26.0:26.1)	7.3	0.6	7.9	
2/1	237	237	-	-	-	0.3	0.1	-	0.4	6.1	0.6	0.1	0.8	
2/2	31	31	-	-	-	0.0	0.0	-	0.0	3.8	0.0	0.0	0.1	
3/1	54	54	-	-	-	0.6	0.2	-	0.8	53.2	1.2	0.2	1.5	
3/3+3/2	174	174	-	-	-	1.9	0.9	-	2.7 (1.8+0.9)	56.6 (57.0:56.0)	2.7	0.9	3.6	
3/4	31	31	-	-	-	0.3	0.1	-	0.4	49.2	0.7	0.1	0.8	
3/5	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	848	848	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1362	1362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	794	794	-	-	-	0.9	0.5	-	1.5	6.6	4.4	0.5	4.9	
7/2	1303	1303	-	-	-	1.1	1.9	-	3.0	8.2	5.5	1.9	7.3	
7/3	122	122	-	-	-	0.1	0.0	-	0.1	2.9	0.3	0.0	0.4	
8/2+8/1	1190	1070	-	-	-	10.9	64.8	-	75.8 (56.8+19.0)	229.3 (231.4:223.0)	28.4	64.8	93.2	
8/3+8/4	1106	964	-	-	-	11.6	83.3	-	94.9 (85.2+9.7)	309.0 (311.8:285.8)	27.5	83.3	110.9	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	539	539	-	-	-	0.3	0.3	-	0.6	3.9	5.2	0.3	5.5	
10/2	485	485	-	-	-	0.3	0.2	-	0.6	4.1	5.3	0.2	5.5	

11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2+12/1	748	748	-	-	-	3.9	1.4	-	5.3 (2.6+2.7)	25.5 (27.0:24.2)	5.6	1.4	7.0	
12/3	461	461	-	-	-	0.3	0.7	-	1.0	7.6	8.8	0.7	9.5	
13/1	539	539	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
13/2	485	485	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
14/1	539	539	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
14/2	485	485	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	228	228	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.0 (1.0:1.0)	0.0	0.1	0.1	
16/3+16/4	31	31	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	0.9 (0.9:0.0)	0.0	0.0	0.0	
17/1	188	188	-	-	-	0.0	0.1	-	0.1	1.6	0.3	0.1	0.3	
17/2	360	360	-	-	-	2.5	0.2	-	2.8	27.8	7.3	0.2	7.6	
17/3	409	409	-	-	-	3.3	0.3	-	3.6	31.5	9.4	0.3	9.7	
17/4	361	361	-	-	-	3.2	0.3	-	3.5	34.6	8.8	0.3	9.1	
18/2+18/1	640	580	-	-	-	8.0	34.6	-	42.5 (28.4+14.2)	239.1 (239.1:239.2)	16.5	34.6	51.0	
18/3	461	461	-	-	-	3.7	1.6	-	5.3	41.7	10.2	1.6	11.9	
19/1	188	188	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

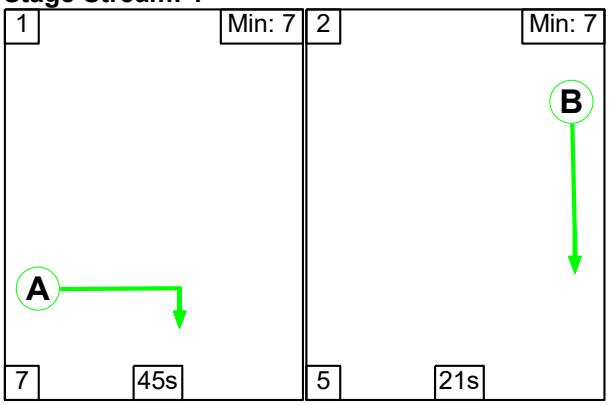
C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	68.3	Total Delay for Signalled Lanes (pcuHr):	8.17
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	683.7	Total Delay for Signalled Lanes (pcuHr):	0.08
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-22.6	Total Delay for Signalled Lanes (pcuHr):	57.67
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	-29.9	Total Delay for Signalled Lanes (pcuHr):	176.98
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	164.7	Total Delay for Signalled Lanes (pcuHr):	1.14
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	8.48
	PRC Over All Lanes (%):	-29.9	Total Delay Over All Lanes(pcuHr):	253.31

Cycle Time (s):	88
Cycle Time (s):	88
Cycle Time (s):	88
Cycle Time (s):	88
Cycle Time (s):	88
Cycle Time (s):	88

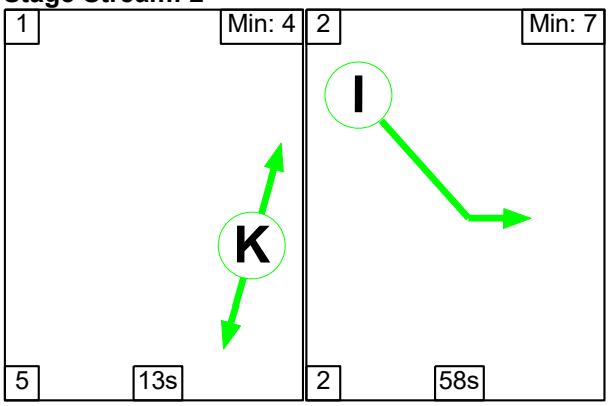
Scenario 2: '2028 WoD PM (2023 PRTM)' (FG2: '2028 WoD PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastern Controller

Stage Sequence Diagram

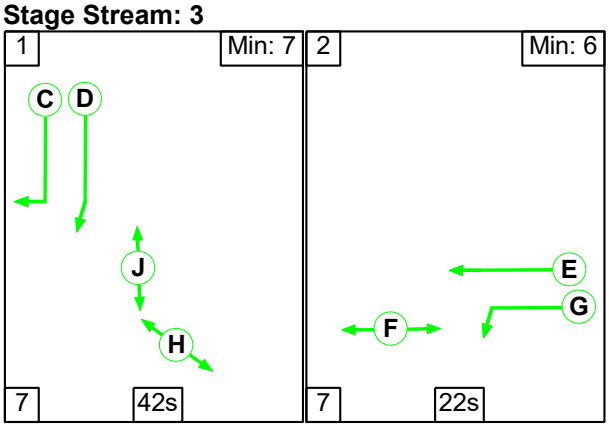
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	45	21
Change Point	0	52

Stage Stream: 2

Stage	1	2
Duration	13	58
Change Point	28	46

Detailed Input Data And Results

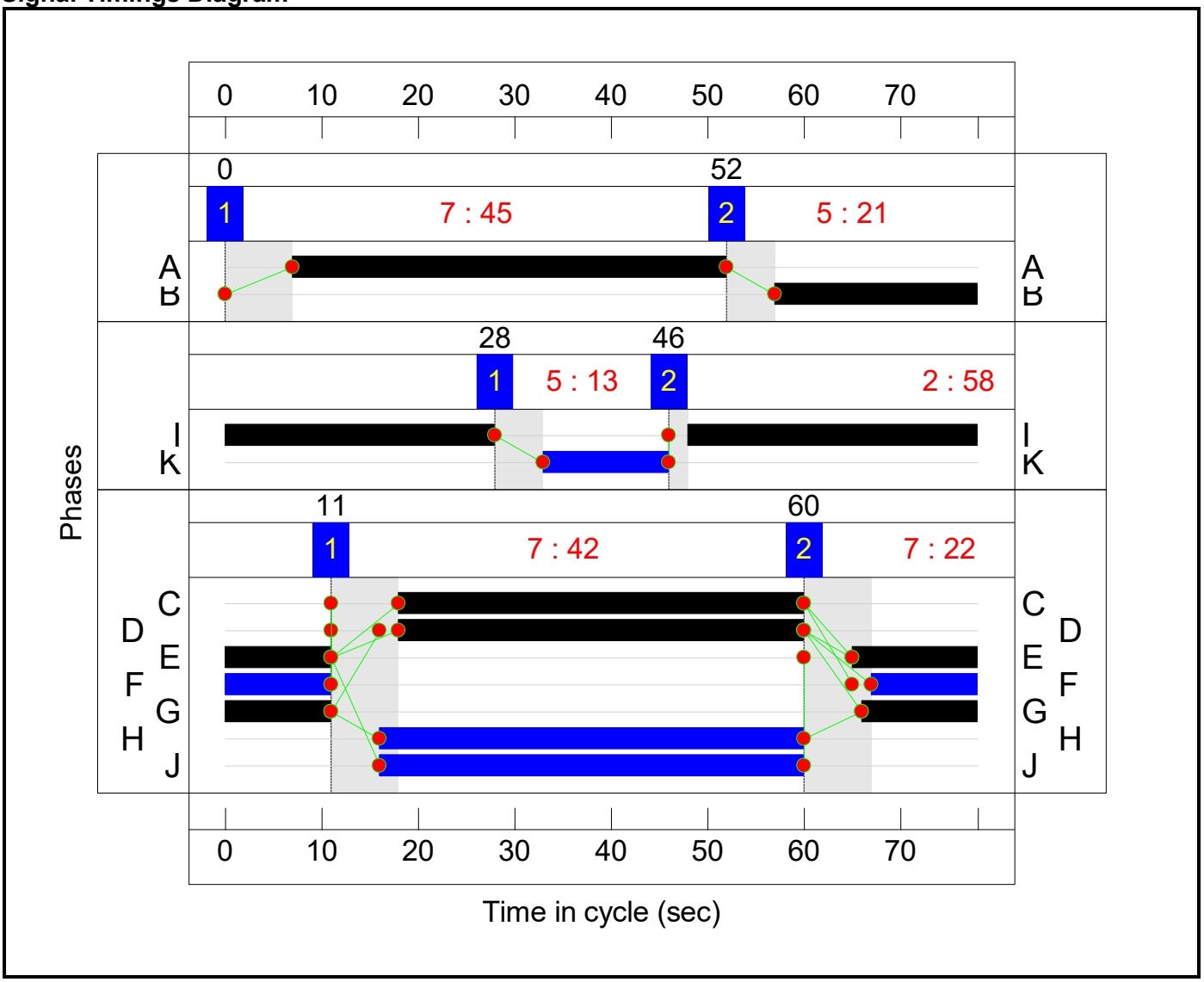
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	11	60

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	45	7	52
B	A453 North Ahead A453 S/B	Traffic	1	21	57	0
C	East Circ Right East Circulatory RT	Traffic	3	42	18	60
D	East Circ Ahead East Circulatory	Traffic	3	42	18	60
E	A6 Kegworth Bypass Ahead A6	Traffic	3	24	65	11
F	Pedestrians across Ped X Phase D	Pedestrian	3	22	67	11
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	23	66	11
H	Pedestrians across	Pedestrian	3	44	16	60
I	East Circ Left Bypass E/B Exit	Traffic	2	58	48	28
J	Pedestrians across	Pedestrian	3	44	16	60
K	Pedestrians across	Pedestrian	2	13	33	46

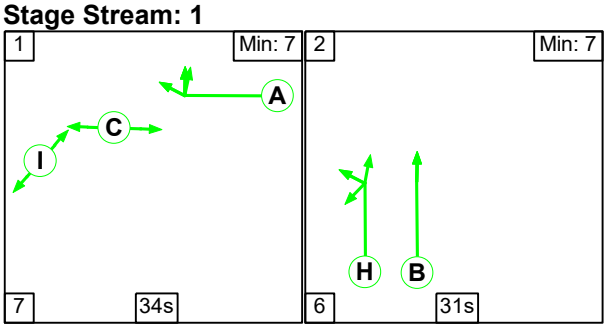
Signal Timings Diagram



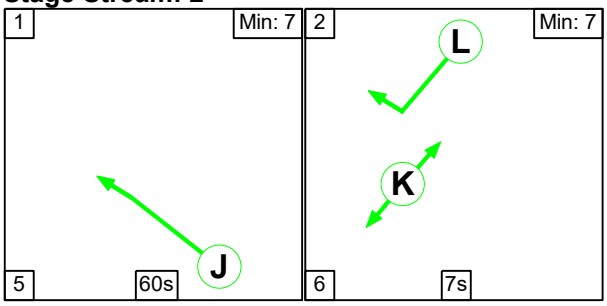
Controller :C2 - Western Controller

Stage Sequence Diagram

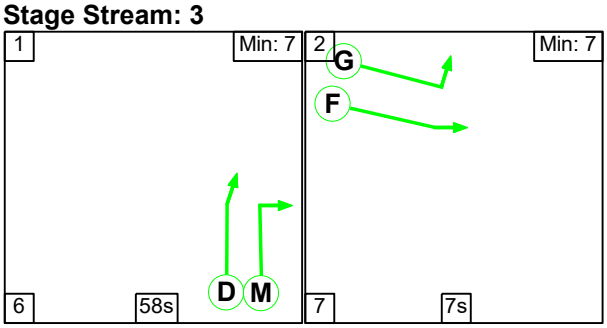
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	34	31
Change Point	44	7

Stage Stream: 2

Stage	1	2
Duration	60	7
Change Point	46	33

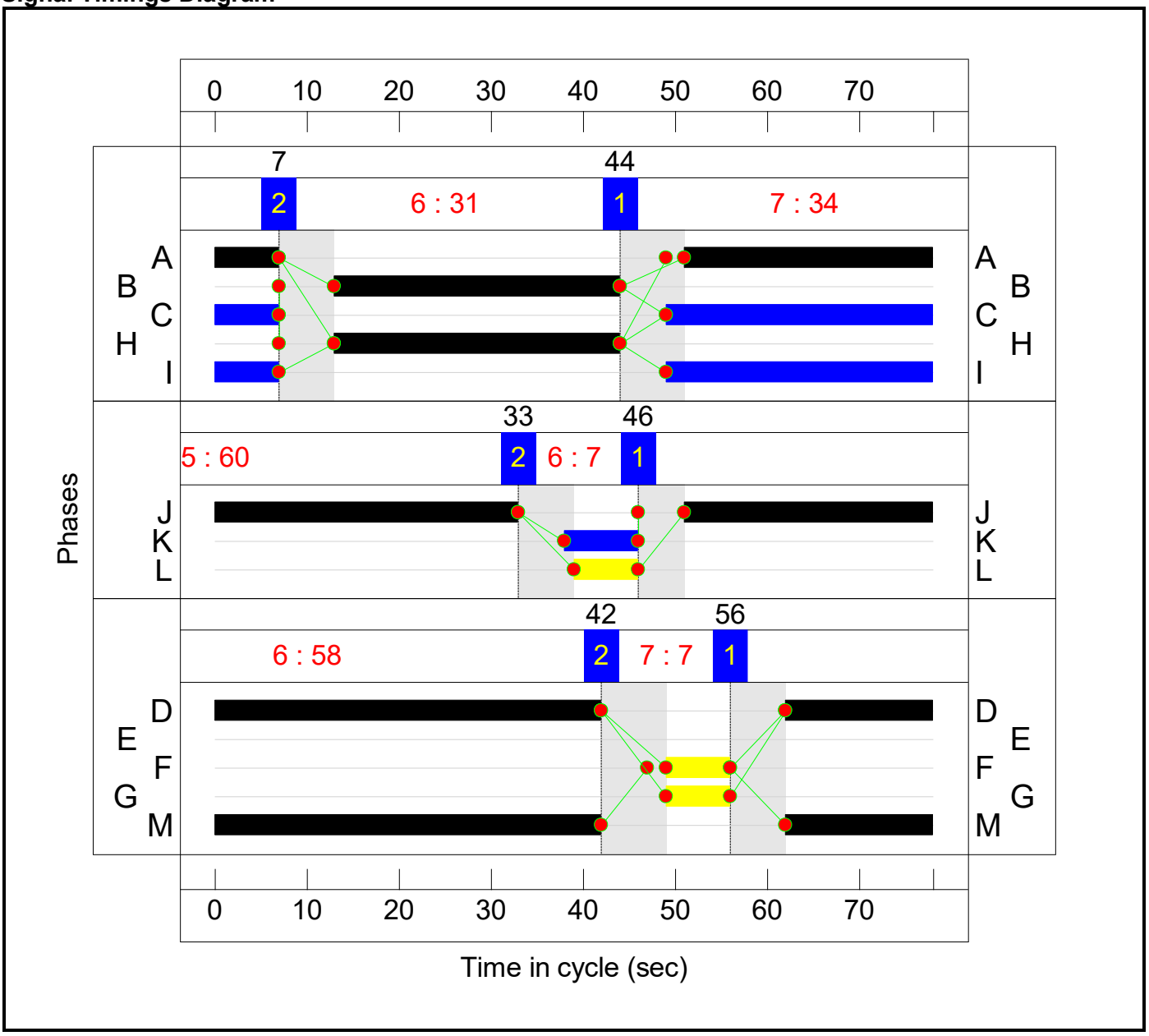
Stage Stream: 3

Stage	1	2
Duration	58	7
Change Point	56	42

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	34	51	7
B	A453 South Ahead	Traffic	1	31	13	44
C	Pedestrians across	Pedestrian	1	36	49	7
D	West Circ Ahead	Traffic	3	58	62	42
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	49	56
G	Wilders Way Left	Traffic	3	7	49	56
H	A453 South Ahead U-Turn Left	Traffic	1	31	13	44
I	Pedestrians across	Pedestrian	1	36	49	7
J	Ahead	Traffic	2	60	51	33
K	Pedestrians across	Pedestrian	2	8	38	46
L	Bus Gate Right	Traffic	2	7	39	46
M	West Circ Right	Traffic	3	58	62	42

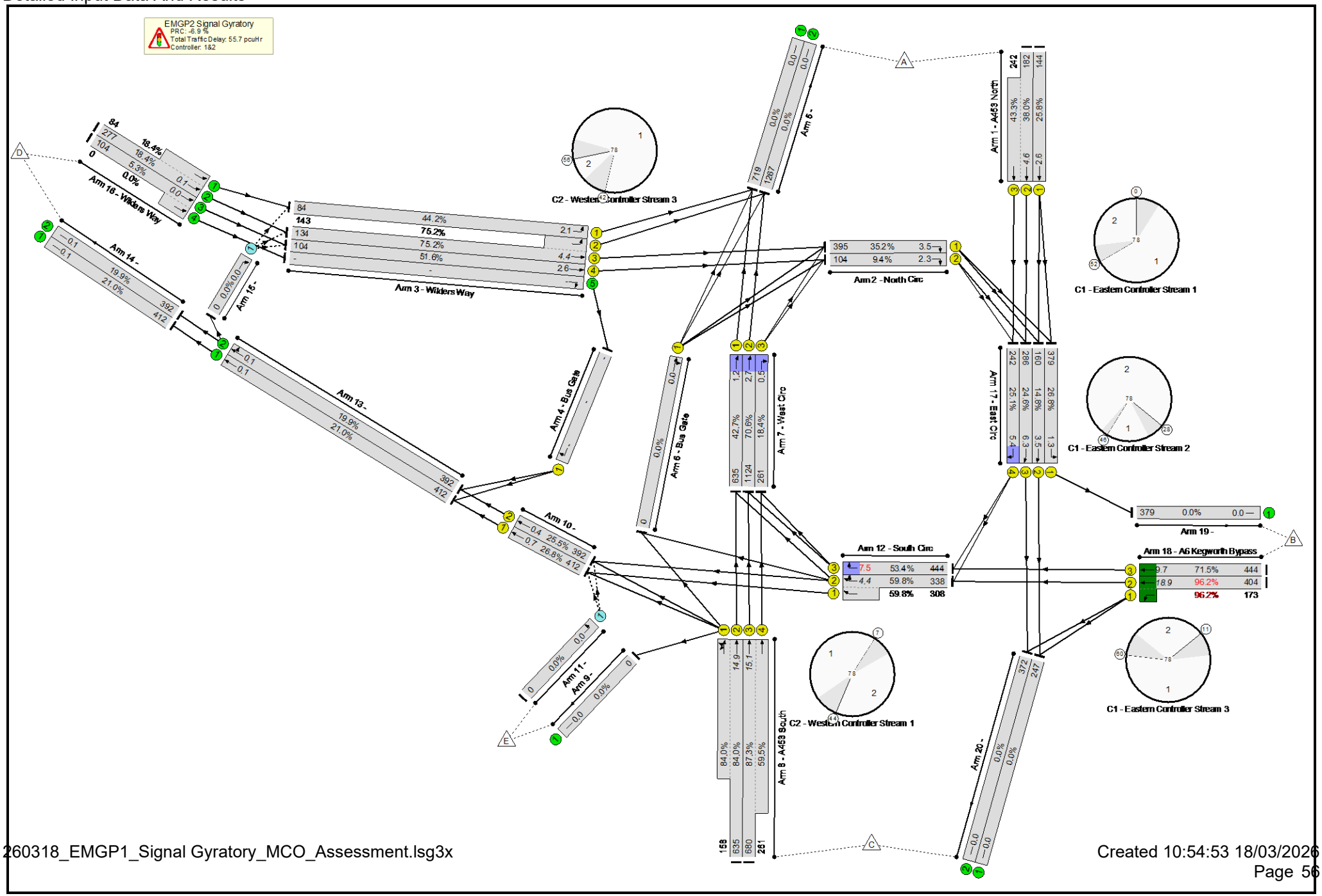
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	57	0
1/2	A453 North Ahead	U	B	57	0
1/3	A453 North Ahead	U	B	57	0
2/1	North Circ Right	U	A	7	52
2/2	North Circ Right	U	A	7	52
3/1	Wilders Way Left	U	G	49	56
3/2	Wilders Way Left	U	G	49	56
3/3	Wilders Way Ahead	U	F	49	56
3/4	Wilders Way Ahead	U	F	49	56
4/1	Bus Gate Right	U	L	39	46
7/1	West Circ Ahead	U	D	62	42
7/2	West Circ Ahead	U	D	62	42
7/3	West Circ Right	U	M	62	42
8/1	A453 South Ahead U-Turn Left	U	H	13	44
8/2	A453 South Ahead	U	B	13	44
8/3	A453 South Ahead	U	B	13	44
8/4	A453 South Ahead	U	B	13	44
10/1	Ahead	U	J	51	33
10/2	Ahead	U	J	51	33
12/1	South Circ Ahead	U	A	51	7
12/2	South Circ Right Right2 Ahead	U	A	51	7
12/3	South Circ Right	U	A	51	7
17/1	East Circ Left	U	I	48	28
17/2	East Circ Ahead	U	D	18	60
17/3	East Circ Ahead	U	D	18	60
17/4	East Circ Right	U	C	18	60
18/1	A6 Kegworth Bypass Left	U	G	66	11-2
18/2	A6 Kegworth Bypass Ahead	U	E	65	11-2
18/3	A6 Kegworth Bypass Ahead	U	E	65	11-2

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -6.9 %
Total Traffic Delay: 55.7 pcuHr
Controller: 1&2
Arm 1 - A453 North
Arm 2 - North Circ
Arm 3 - Wilders Way
Arm 4 - Bus Gate
Arm 6 -
Arm 6 - Bus Gate
Arm 7 - West Circ
Arm 8 - A453 South
Arm 9 -
Arm 10 -
Arm 11 -
Arm 12 - South Circ
Arm 13 -
Arm 14 -
Arm 15 -
Arm 16 - Wilders Way
Arm 17 - East Circ
Arm 18 - A6 Kegworth Bypass
Arm 19 -
Arm 20 -
C1 - Eastern Controller Stream 1
C1 - Eastern Controller Stream 2
C1 - Eastern Controller Stream 3
C2 - Western Controller Stream 1
C2 - Western Controller Stream 3

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.2%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.2%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	144	1980	558	25.8%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	424	2120:1980	479+558	38.0 : 43.3%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	395	1901	1121	35.2%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	104	1874	1105	9.4%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	84	1854	190	44.2%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	277	1965:1854	178+190	75.2 : 75.2%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	104	1965	202	51.6%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	-	-
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	-	-
5/1		U	N/A	N/A	-		-	-	-	-	719	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1267	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	635	1965	1486	42.7%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	1124	2105	1592	70.6%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	58	-	-	261	1871	1415	18.4%
8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	31	-	-	793	1843:1900	756+188	84.0 : 84.0%

8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	31	-	-	941	1899:1980	779+438	87.3 : 59.5%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	60	-	-	412	1965	1537	26.8%
10/2	Ahead	U	2:2	N/A	C2:J		1	60	-	-	392	1965	1537	25.5%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	755	0.0%
12/2+12/1	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	34	-	-	646	1965:1965	565+515	59.8 : 59.8%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	34	-	-	444	1854	832	53.4%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	412	1965	1965	21.0%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	392	1965	1965	19.9%
14/1		U	N/A	N/A	-		-	-	-	-	412	1965	1965	21.0%
14/2		U	N/A	N/A	-		-	-	-	-	392	1965	1965	19.9%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	932	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	361	1965:1965	1508+457	18.4 : 18.4%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	104	1965:1965	1965+0	5.3 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	58	-	-	379	1871	1415	26.8%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	160	1965	1083	14.8%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	286	2105	1160	24.6%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	42	-	-	242	1747	963	25.1%
18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	24:23	-	Y:Y	577	1965:1828	420+180	96.2 : 96.2%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	24	-	Y	444	2105	621	71.5%
19/1		U	N/A	N/A	-		-	-	-	-	379	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	-	247	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	372	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**34.9**	**20.9**	**0.0**	**55.7**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**34.9**	**20.9**	**0.0**	**55.7**	**-**	**-**	**-**	**-**	
1/1	144	144	-	-	-	0.9	0.2	-	1.0	26.0	2.4	0.2	2.6	
1/2+1/3	424	424	-	-	-	2.7	0.3	-	3.0 (1.3+1.7)	25.5 (24.9:25.8)	4.2	0.3	4.6	
2/1	395	395	-	-	-	1.2	0.3	-	1.5	13.8	3.2	0.3	3.5	
2/2	104	104	-	-	-	0.9	0.1	-	0.9	32.4	2.3	0.1	2.3	
3/1	84	84	-	-	-	0.8	0.4	-	1.2	49.8	1.7	0.4	2.1	
3/3+3/2	277	277	-	-	-	2.6	1.5	-	4.1 (2.0+2.1)	53.0 (52.8:53.1)	3.0	1.5	4.4	
3/4	104	104	-	-	-	1.0	0.5	-	1.5	51.4	2.1	0.5	2.6	
3/5	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	
5/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1267	1267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	635	635	-	-	-	0.2	0.4	-	0.6	3.2	0.8	0.4	1.2	
7/2	1124	1124	-	-	-	0.3	1.2	-	1.5	4.7	1.5	1.2	2.7	
7/3	261	261	-	-	-	0.1	0.1	-	0.2	2.6	0.3	0.1	0.5	
8/2+8/1	793	793	-	-	-	4.3	2.5	-	6.8 (5.7+1.2)	31.0 (32.2:26.3)	12.3	2.5	14.9	
8/3+8/4	941	941	-	-	-	5.1	1.7	-	6.8 (5.2+1.6)	26.0 (27.6:22.1)	13.4	1.7	15.1	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	412	412	-	-	-	0.1	0.2	-	0.2	2.1	0.5	0.2	0.7	
10/2	392	392	-	-	-	0.0	0.2	-	0.2	1.8	0.3	0.2	0.4	

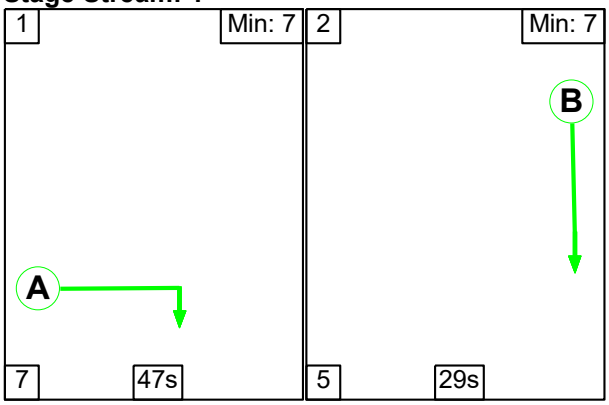
11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2+12/1	646	646	-	-	-	2.7	0.7	-	3.5 (1.7+1.8)	19.3 (17.8:21.0)	3.6	0.7	4.4	
12/3	444	444	-	-	-	0.4	0.6	-	1.0	7.8	6.9	0.6	7.5	
13/1	412	412	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
13/2	392	392	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
14/1	412	412	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
14/2	392	392	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	361	361	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.1 (1.1:1.1)	0.0	0.1	0.1	
16/3+16/4	104	104	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	1.0 (1.0:0.0)	0.0	0.0	0.0	
17/1	379	379	-	-	-	0.1	0.2	-	0.3	2.8	1.1	0.2	1.3	
17/2	160	160	-	-	-	0.5	0.1	-	0.6	13.6	3.4	0.1	3.5	
17/3	286	286	-	-	-	1.8	0.2	-	1.9	24.1	6.2	0.2	6.3	
17/4	242	242	-	-	-	2.0	0.2	-	2.2	32.9	5.2	0.2	5.4	
18/2+18/1	577	577	-	-	-	4.2	7.6	-	11.8 (8.3+3.5)	73.7 (73.7:73.7)	11.3	7.6	18.9	
18/3	444	444	-	-	-	3.0	1.2	-	4.3	34.6	8.5	1.2	9.7	
19/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	107.7	Total Delay for Signalled Lanes (pcuHr):	6.49	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	236.1	Total Delay for Signalled Lanes (pcuHr):	0.30	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-6.9	Total Delay for Signalled Lanes (pcuHr):	20.82	Cycle Time (s): 78
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	3.1	Total Delay for Signalled Lanes (pcuHr):	18.07	Cycle Time (s): 78
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	235.7	Total Delay for Signalled Lanes (pcuHr):	0.44	Cycle Time (s): 78
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	19.7	Total Delay for Signalled Lanes (pcuHr):	8.95	Cycle Time (s): 78
	PRC Over All Lanes (%):	-6.9	Total Delay Over All Lanes(pcuHr):	55.72	

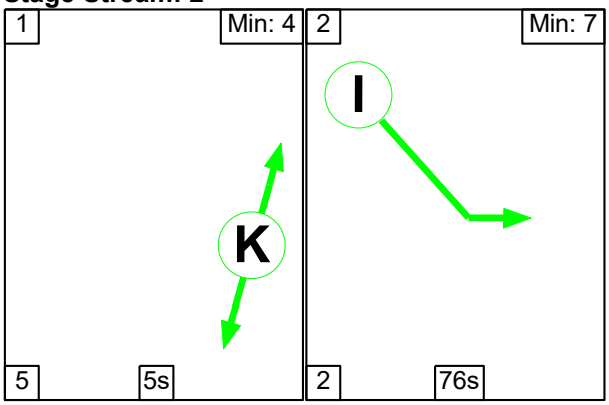
Scenario 3: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastern Controller

Stage Sequence Diagram

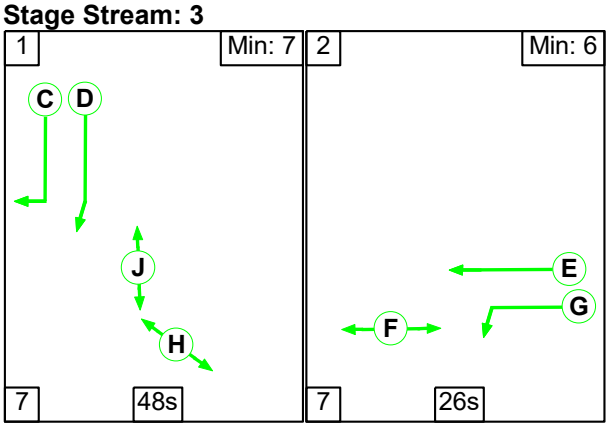
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	47	29
Change Point	38	4

Stage Stream: 2

Stage	1	2
Duration	5	76
Change Point	62	72

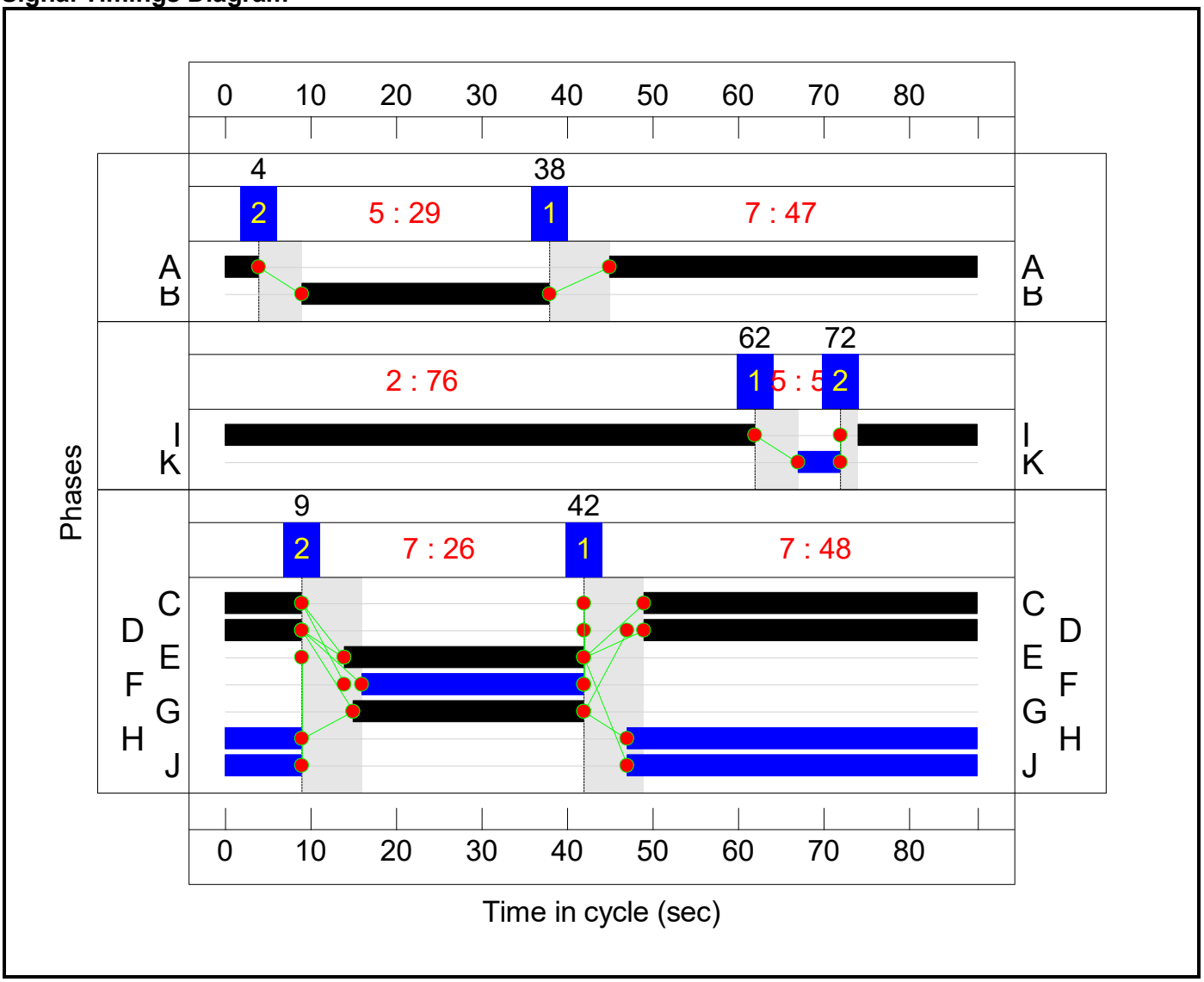
Stage Stream: 3

Stage	1	2
Duration	48	26
Change Point	42	9

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	47	45	4
B	A453 North Ahead A453 S/B	Traffic	1	29	9	38
C	East Circ Right East Circulatory RT	Traffic	3	48	49	9
D	East Circ Ahead East Circulatory	Traffic	3	48	49	9
E	A6 Kegworth Bypass Ahead A6	Traffic	3	28	14	42
F	Pedestrians across Ped X Phase D	Pedestrian	3	26	16	42
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	27	15	42
H	Pedestrians across	Pedestrian	3	50	47	9
I	East Circ Left Bypass E/B Exit	Traffic	2	76	74	62
J	Pedestrians across	Pedestrian	3	50	47	9
K	Pedestrians across	Pedestrian	2	5	67	72

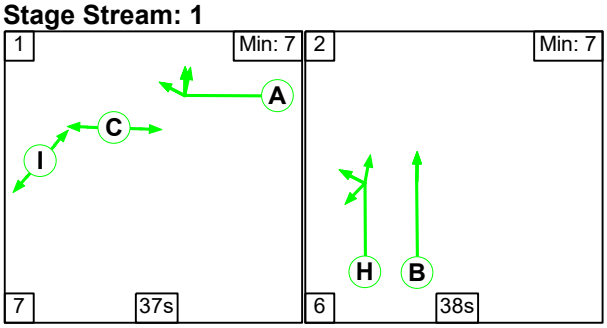
Signal Timings Diagram



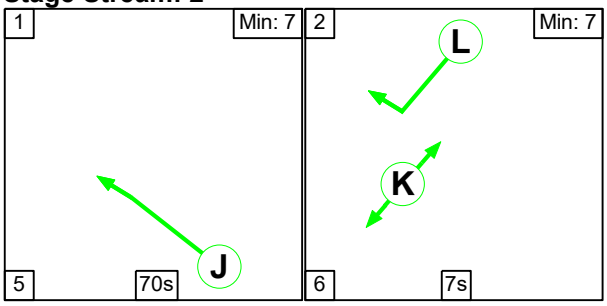
Controller :C2 - Western Controller

Stage Sequence Diagram

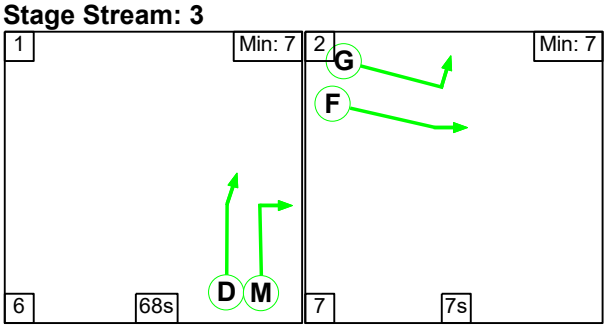
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	37	38
Change Point	82	38

Stage Stream: 2

Stage	1	2
Duration	70	7
Change Point	8	83

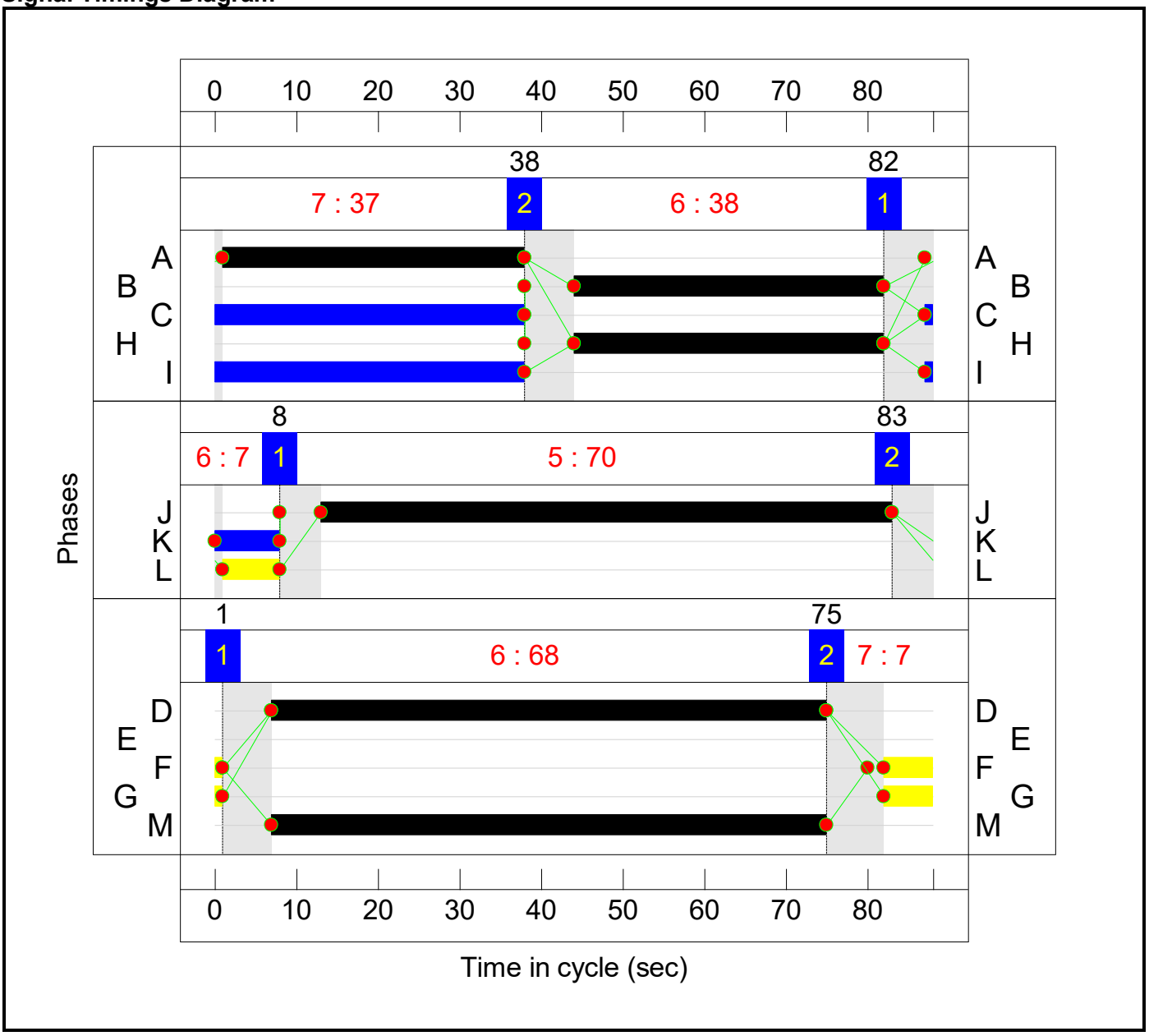
Stage Stream: 3

Stage	1	2
Duration	68	7
Change Point	1	75

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	37	1	38
B	A453 South Ahead	Traffic	1	38	44	82
C	Pedestrians across	Pedestrian	1	39	87	38
D	West Circ Ahead	Traffic	3	68	7	75
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	82	1
G	Wilders Way Left	Traffic	3	7	82	1
H	A453 South Ahead U-Turn Left	Traffic	1	38	44	82
I	Pedestrians across	Pedestrian	1	39	87	38
J	Ahead	Traffic	2	70	13	83
K	Pedestrians across	Pedestrian	2	8	0	8
L	Bus Gate Right	Traffic	2	7	1	8
M	West Circ Right	Traffic	3	68	7	75

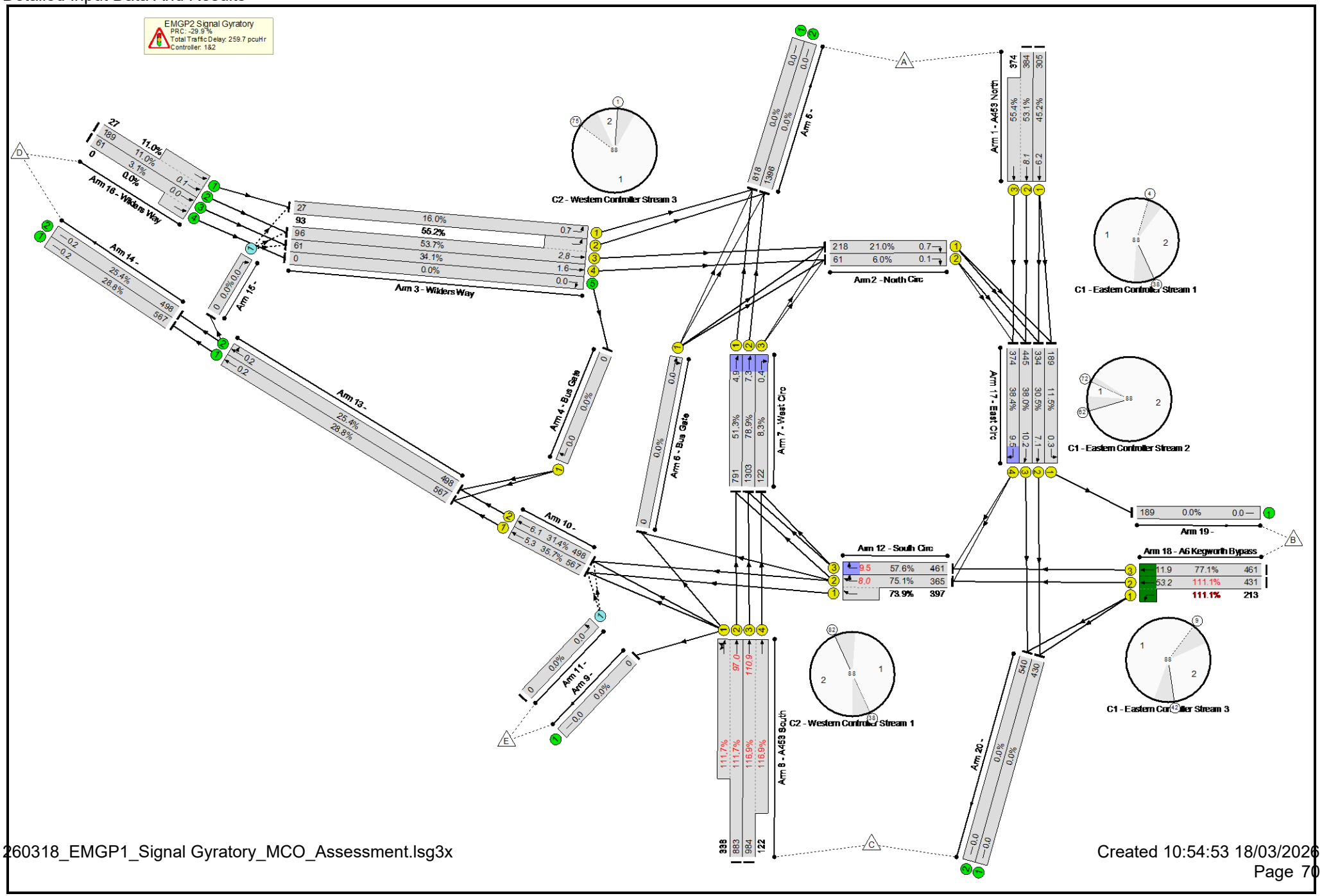
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	9	38
1/2	A453 North Ahead	U	B	9	38
1/3	A453 North Ahead	U	B	9	38
2/1	North Circ Right	U	A	45	4
2/2	North Circ Right	U	A	45	4
3/1	Wilders Way Left	U	G	82	1
3/2	Wilders Way Left	U	G	82	1
3/3	Wilders Way Ahead	U	F	82	1
3/4	Wilders Way Ahead	U	F	82	1
4/1	Bus Gate Right	U	L	1	8
7/1	West Circ Ahead	U	D	7	75
7/2	West Circ Ahead	U	D	7	75
7/3	West Circ Right	U	M	7	75
8/1	A453 South Ahead U-Turn Left	U	H	44	82
8/2	A453 South Ahead	U	B	44	82
8/3	A453 South Ahead	U	B	44	82
8/4	A453 South Ahead	U	B	44	82
10/1	Ahead	U	J	13	83
10/2	Ahead	U	J	13	83
12/1	South Circ Ahead	U	A	1	38
12/2	South Circ Right Right2 Ahead	U	A	1	38
12/3	South Circ Right	U	A	1	38
17/1	East Circ Left	U	I	74	62
17/2	East Circ Ahead	U	D	49	9
17/3	East Circ Ahead	U	D	49	9
17/4	East Circ Right	U	C	49	9
18/1	A6 Kegworth Bypass Left	U	G	15	42-4
18/2	A6 Kegworth Bypass Ahead	U	E	14	42-4
18/3	A6 Kegworth Bypass Ahead	U	E	14	42-4

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -29.9 %
Total Traffic Delay: 259.7 pcuHr
Controller: 1&2
Arm 16 - Wilders Way
Arm 14 -
Arm 15 -
Arm 3 - Wilders Way
Arm 13 -
Arm 4 - Bus Gate
Arm 6 - Bus Gate
Arm 10 -
Arm 11 -
Arm 9 -
Arm 6 -
Arm 1 - A453 North
C2 - Western Controller Stream 3
Arm 2 - North Circ
C1 - Eastern Controller Stream 1
Arm 7 - West Circ
Arm 17 - East Circ
C1 - Eastern Controller Stream 2
Arm 19 -
Arm 18 - A6 Kegworth Bypass
Arm 12 - South Circ
C2 - Western Controller Stream 1
C1 - Eastern Controller Stream 3
Arm 8 - A453 South
Arm 20 -

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.9%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.9%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	305	1980	675	45.2%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	758	2120:1980	723+675	53.1 : 55.4%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	218	1901	1037	21.0%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	61	1874	1022	6.0%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	27	1854	169	16.0%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	189	1965:1854	179+169	53.7 : 55.2%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	61	1965	179	34.1%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	1965	0.0%
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	192	0.0%
5/1		U	N/A	N/A	-		-	-	-	-	910	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1538	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	883	1965	1541	51.3%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	1445	2105	1651	78.9%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	68	-	-	122	1871	1467	8.3%

8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	38	-	-	1221	1843:1900	791+303	111.7 : 111.7%
8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	38	-	-	1106	1899:1980	842+104	116.9 : 116.9%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	70	-	-	612	1965	1585	35.7%
10/2	Ahead	U	2:2	N/A	C2:J		1	70	-	-	531	1965	1585	31.4%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	722	0.0%
12/2+12/1	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	37	-	-	805	1965:1965	485+537	75.1 : 73.9%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	37	-	-	461	1854	801	57.6%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	612	1965	1965	28.8%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	531	1965	1965	25.4%
14/1		U	N/A	N/A	-		-	-	-	-	612	1965	1965	28.8%
14/2		U	N/A	N/A	-		-	-	-	-	531	1965	1965	25.4%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	1229	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	216	1965:1965	1719+246	11.0 : 11.0%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	61	1965:1965	1965+0	3.1 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	76	-	-	189	1871	1637	11.5%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	334	1965	1094	30.5%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	445	2105	1172	38.0%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	48	-	-	374	1747	973	38.4%
18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	28:27	-	Y:Y	644	1965:1828	388+192	111.1 : 111.1%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	28	-	Y	461	2105	598	77.1%

19/1		U	N/A	N/A	-		-	-	-	-	189	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	-	441	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	551	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**61.0**	**198.6**	**0.0**	**259.7**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**61.0**	**198.6**	**0.0**	**259.7**	**-**	**-**	**-**	**-**	
1/1	305	305	-	-	-	1.9	0.4	-	2.3	27.5	5.8	0.4	6.2	
1/2+1/3	758	758	-	-	-	4.9	0.6	-	5.5 (2.8+2.7)	26.3 (26.2:26.4)	7.5	0.6	8.1	
2/1	218	218	-	-	-	0.2	0.1	-	0.3	5.7	0.5	0.1	0.7	
2/2	61	61	-	-	-	0.0	0.0	-	0.1	4.3	0.1	0.0	0.1	
3/1	27	27	-	-	-	0.3	0.1	-	0.4	49.7	0.6	0.1	0.7	
3/3+3/2	189	189	-	-	-	2.0	0.6	-	2.6 (1.3+1.3)	49.6 (49.5:49.6)	2.2	0.6	2.8	
3/4	61	61	-	-	-	0.6	0.3	-	0.9	52.8	1.4	0.3	1.6	
3/5	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1396	1396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	791	791	-	-	-	0.9	0.5	-	1.4	6.5	4.3	0.5	4.9	
7/2	1303	1303	-	-	-	1.1	1.9	-	3.0	8.2	5.5	1.9	7.3	
7/3	122	122	-	-	-	0.1	0.0	-	0.1	2.9	0.3	0.0	0.4	
8/2+8/1	1221	1093	-	-	-	11.3	68.3	-	79.6 (58.1+21.5)	234.6 (236.9:228.9)	28.7	68.3	97.0	
8/3+8/4	1106	964	-	-	-	11.6	83.3	-	94.9 (85.2+9.7)	309.0 (311.8:285.8)	27.5	83.3	110.9	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	567	567	-	-	-	0.3	0.3	-	0.6	3.8	5.1	0.3	5.3	
10/2	498	498	-	-	-	0.4	0.2	-	0.6	4.2	5.8	0.2	6.1	

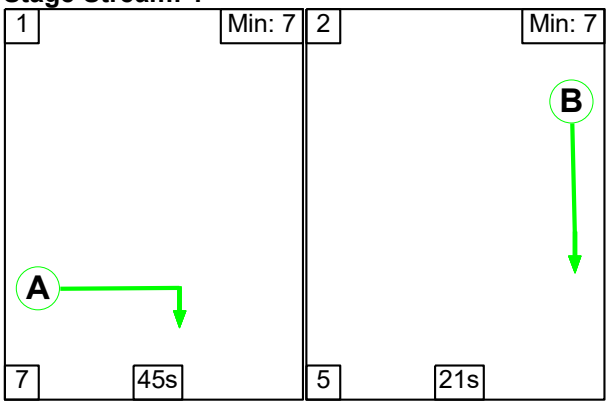
11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2+12/1	762	762	-	-	-	4.0	1.4	-	5.5 (2.9+2.6)	25.8 (28.2:23.7)	6.5	1.4	8.0	
12/3	461	461	-	-	-	0.3	0.7	-	1.0	7.6	8.8	0.7	9.5	
13/1	567	567	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
13/2	498	498	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
14/1	567	567	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
14/2	498	498	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	216	216	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.0 (1.0:1.0)	0.0	0.1	0.1	
16/3+16/4	61	61	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	0.9 (0.9:0.0)	0.0	0.0	0.0	
17/1	189	189	-	-	-	0.0	0.1	-	0.1	1.6	0.3	0.1	0.3	
17/2	334	334	-	-	-	2.3	0.2	-	2.6	27.6	6.8	0.2	7.1	
17/3	445	445	-	-	-	3.5	0.3	-	3.8	30.8	9.9	0.3	10.2	
17/4	374	374	-	-	-	3.3	0.3	-	3.6	34.8	9.1	0.3	9.5	
18/2+18/1	644	580	-	-	-	8.2	36.5	-	44.7 (29.9+14.8)	249.7 (249.7:249.7)	16.7	36.5	53.2	
18/3	461	461	-	-	-	3.7	1.6	-	5.3	41.7	10.2	1.6	11.9	
19/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	62.4	Total Delay for Signalled Lanes (pcuHr):	8.27	Cycle Time (s): 88
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	679.6	Total Delay for Signalled Lanes (pcuHr):	0.08	Cycle Time (s): 88
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-23.4	Total Delay for Signalled Lanes (pcuHr):	59.98	Cycle Time (s): 88
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	-29.9	Total Delay for Signalled Lanes (pcuHr):	180.96	Cycle Time (s): 88
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	151.9	Total Delay for Signalled Lanes (pcuHr):	1.18	Cycle Time (s): 88
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	8.38	Cycle Time (s): 88
	PRC Over All Lanes (%):	-29.9	Total Delay Over All Lanes(pcuHr):	259.68	

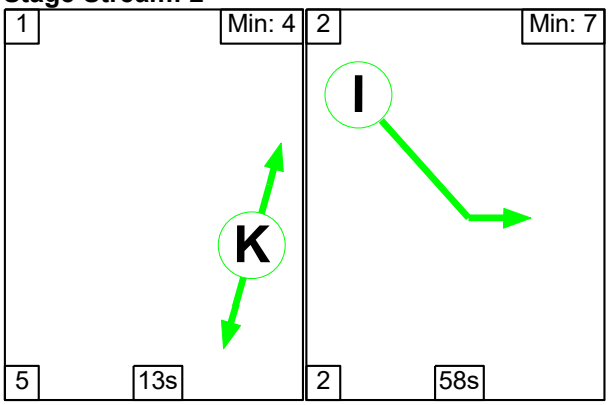
Scenario 4: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastern Controller

Stage Sequence Diagram

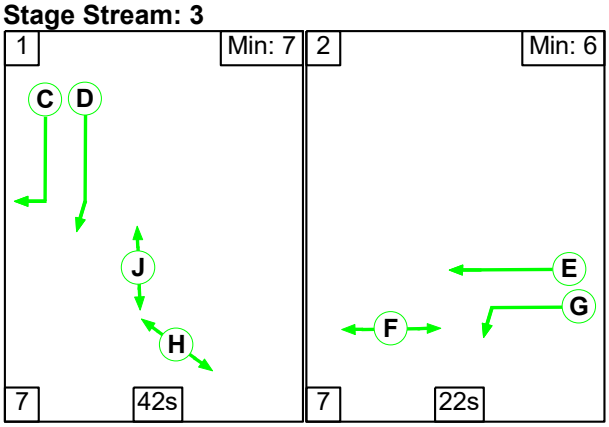
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	45	21
Change Point	0	52

Stage Stream: 2

Stage	1	2
Duration	13	58
Change Point	28	46

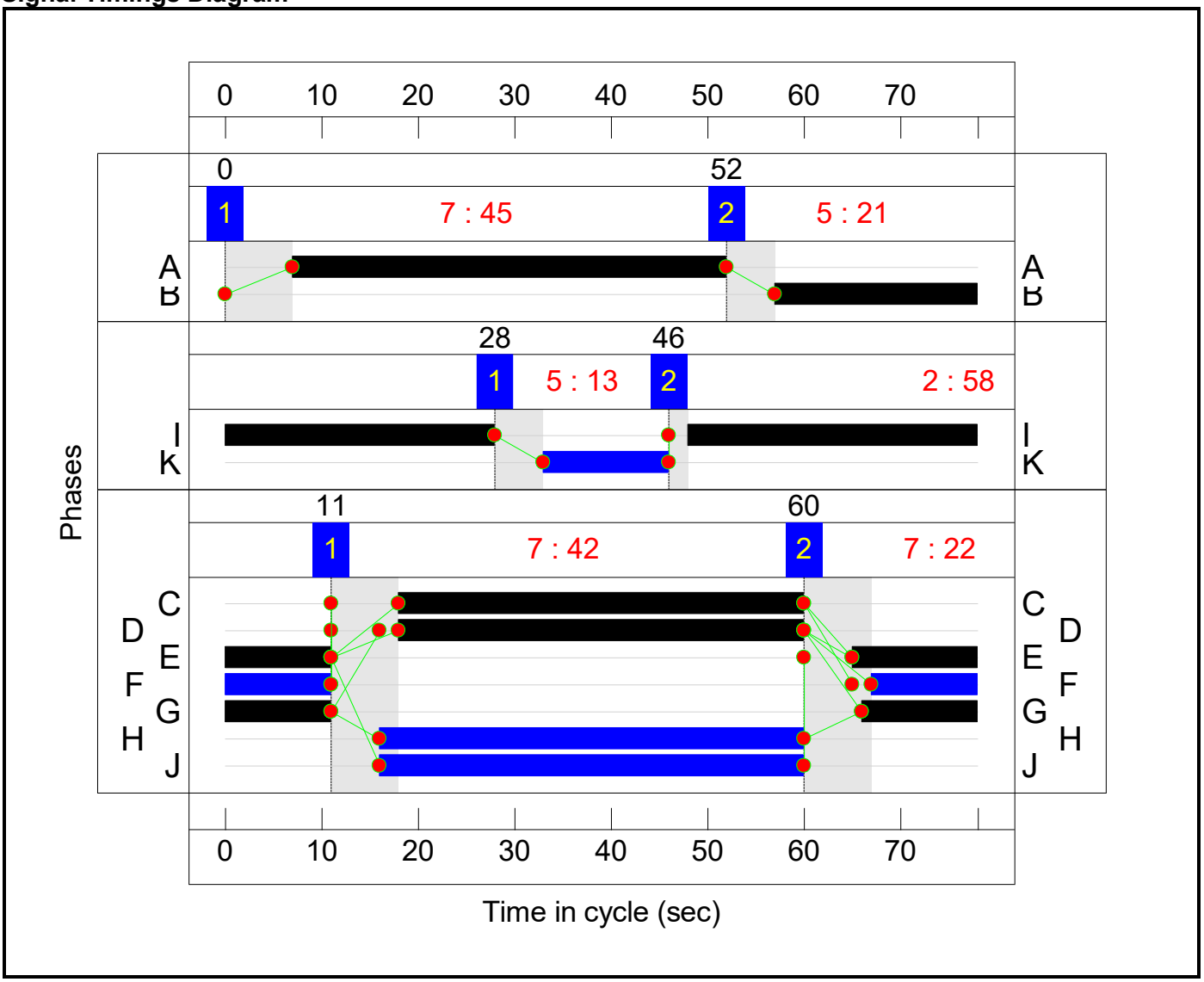
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	11	60

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	45	7	52
B	A453 North Ahead A453 S/B	Traffic	1	21	57	0
C	East Circ Right East Circulatory RT	Traffic	3	42	18	60
D	East Circ Ahead East Circulatory	Traffic	3	42	18	60
E	A6 Kegworth Bypass Ahead A6	Traffic	3	24	65	11
F	Pedestrians across Ped X Phase D	Pedestrian	3	22	67	11
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	23	66	11
H	Pedestrians across	Pedestrian	3	44	16	60
I	East Circ Left Bypass E/B Exit	Traffic	2	58	48	28
J	Pedestrians across	Pedestrian	3	44	16	60
K	Pedestrians across	Pedestrian	2	13	33	46

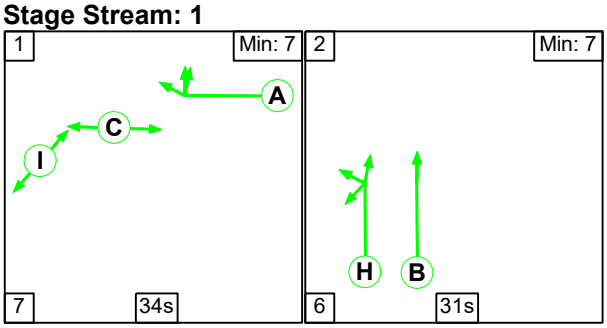
Signal Timings Diagram



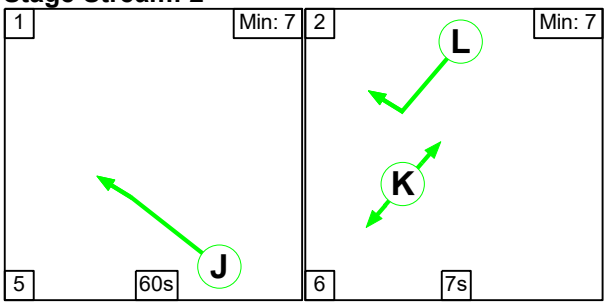
Controller :C2 - Western Controller

Stage Sequence Diagram

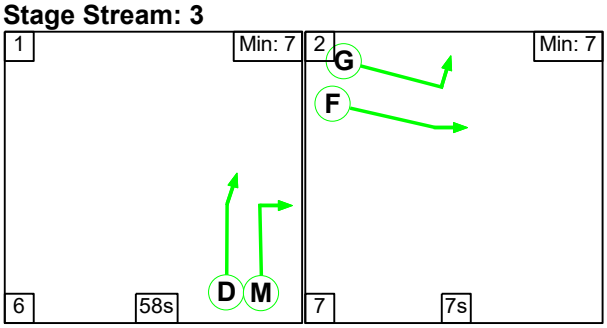
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	34	31
Change Point	44	7

Stage Stream: 2

Stage	1	2
Duration	60	7
Change Point	46	33

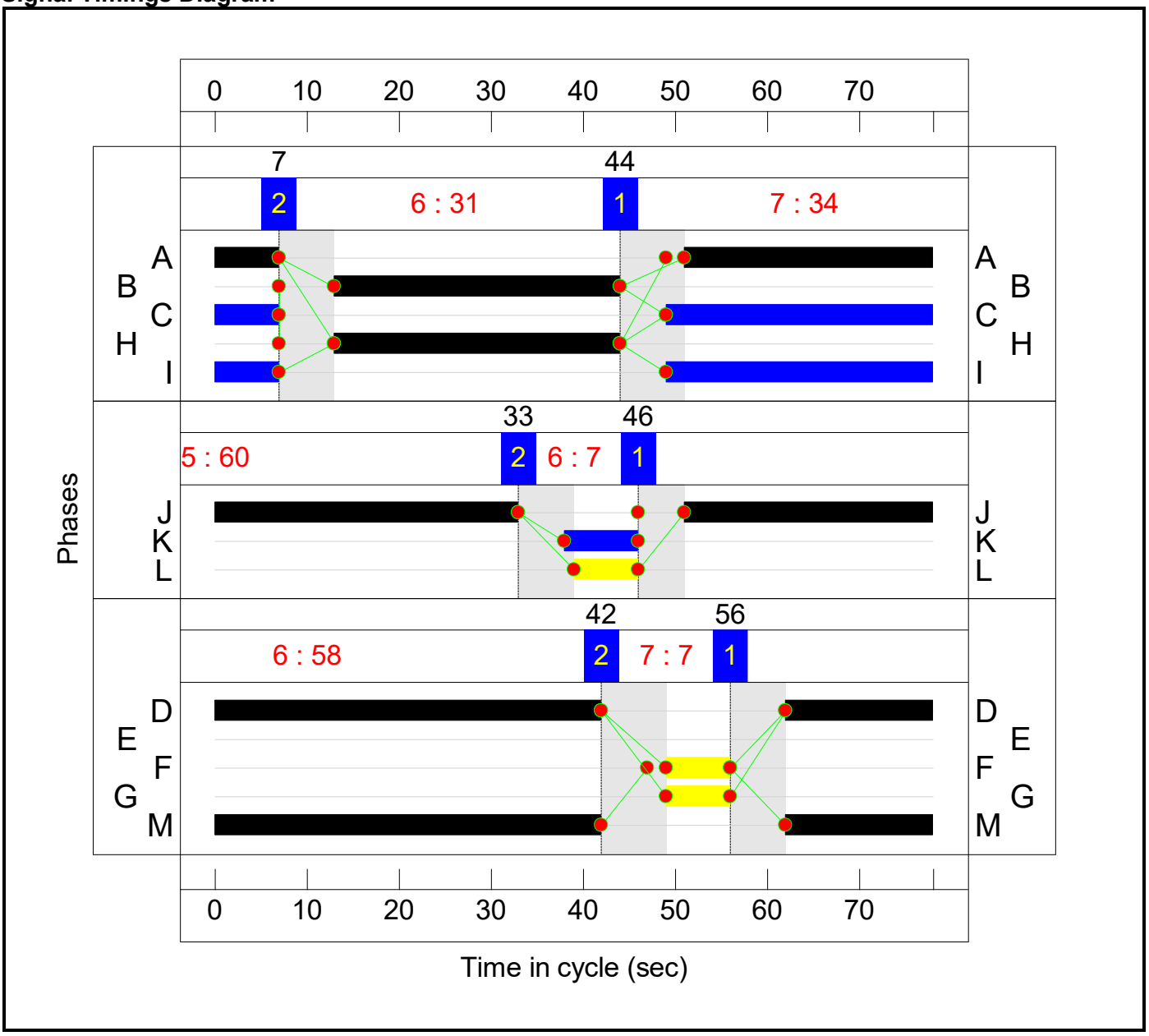
Stage Stream: 3

Stage	1	2
Duration	58	7
Change Point	56	42

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	34	51	7
B	A453 South Ahead	Traffic	1	31	13	44
C	Pedestrians across	Pedestrian	1	36	49	7
D	West Circ Ahead	Traffic	3	58	62	42
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	49	56
G	Wilders Way Left	Traffic	3	7	49	56
H	A453 South Ahead U-Turn Left	Traffic	1	31	13	44
I	Pedestrians across	Pedestrian	1	36	49	7
J	Ahead	Traffic	2	60	51	33
K	Pedestrians across	Pedestrian	2	8	38	46
L	Bus Gate Right	Traffic	2	7	39	46
M	West Circ Right	Traffic	3	58	62	42

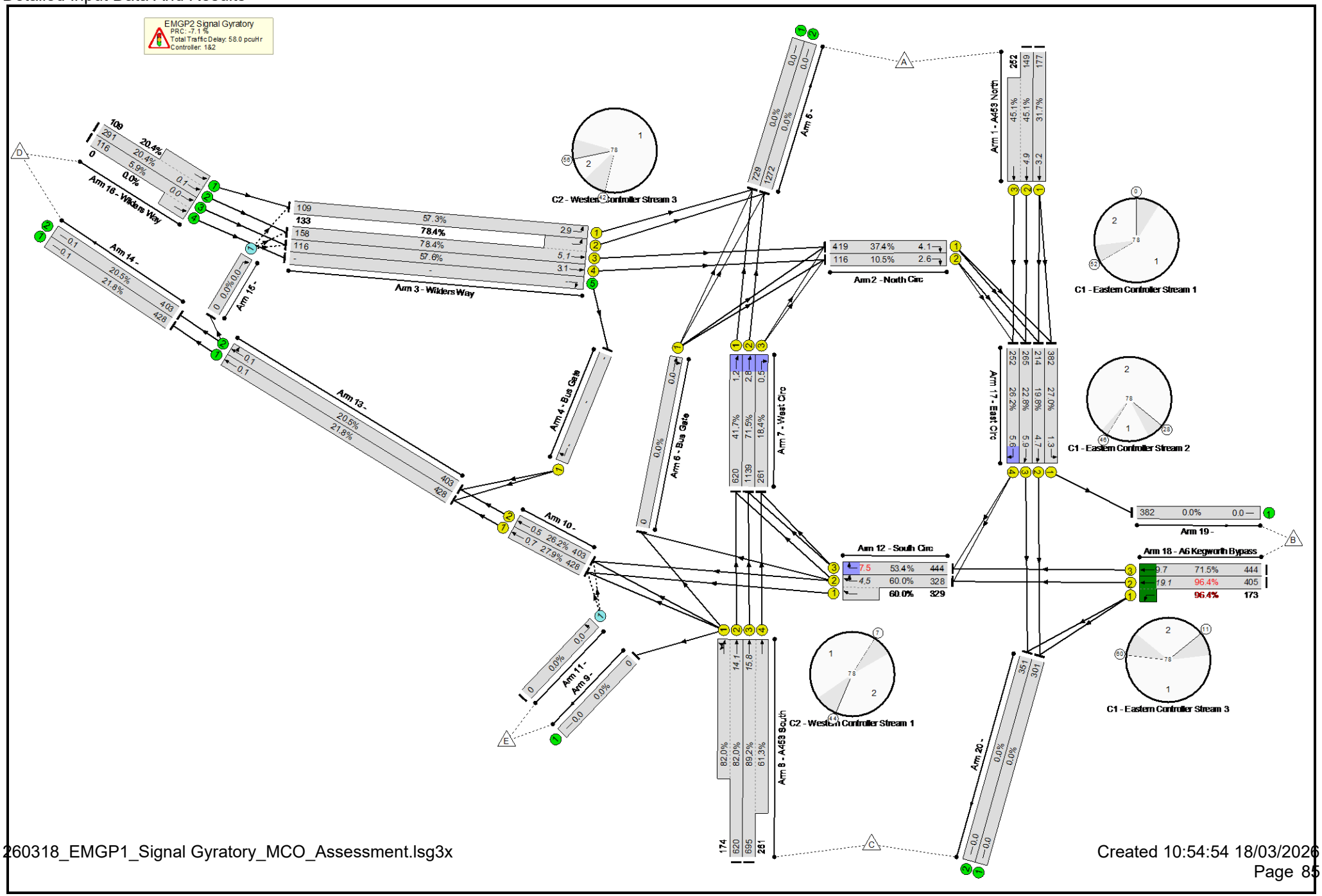
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	57	0
1/2	A453 North Ahead	U	B	57	0
1/3	A453 North Ahead	U	B	57	0
2/1	North Circ Right	U	A	7	52
2/2	North Circ Right	U	A	7	52
3/1	Wilders Way Left	U	G	49	56
3/2	Wilders Way Left	U	G	49	56
3/3	Wilders Way Ahead	U	F	49	56
3/4	Wilders Way Ahead	U	F	49	56
4/1	Bus Gate Right	U	L	39	46
7/1	West Circ Ahead	U	D	62	42
7/2	West Circ Ahead	U	D	62	42
7/3	West Circ Right	U	M	62	42
8/1	A453 South Ahead U-Turn Left	U	H	13	44
8/2	A453 South Ahead	U	B	13	44
8/3	A453 South Ahead	U	B	13	44
8/4	A453 South Ahead	U	B	13	44
10/1	Ahead	U	J	51	33
10/2	Ahead	U	J	51	33
12/1	South Circ Ahead	U	A	51	7
12/2	South Circ Right Right2 Ahead	U	A	51	7
12/3	South Circ Right	U	A	51	7
17/1	East Circ Left	U	I	48	28
17/2	East Circ Ahead	U	D	18	60
17/3	East Circ Ahead	U	D	18	60
17/4	East Circ Right	U	C	18	60
18/1	A6 Kegworth Bypass Left	U	G	66	11-2
18/2	A6 Kegworth Bypass Ahead	U	E	65	11-2
18/3	A6 Kegworth Bypass Ahead	U	E	65	11-2

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -7.1%
Total Traffic Delay: 58.0 pcuHr
Controller: 1&2
Arm 16 - Wilders Way
Arm 14 -
Arm 15 -
Arm 3 - Wilders Way
C2 - Western Controller Stream 3
Arm 6 -
Arm 1 - A453 North
Arm 2 - North Circ
C1 - Eastern Controller Stream 1
Arm 4 - Bus Gate
Arm 6 - Bus Gate
Arm 7 - West Circ
Arm 17 - East Circ
C1 - Eastern Controller Stream 2
Arm 13 -
Arm 10 -
Arm 19 -
Arm 18 - A6 Kegworth Bypass
Arm 12 - South Circ
Arm 11 -
Arm 9 -
Arm 8 - A453 South
C2 - Western Controller Stream 1
Arm 20 -
C1 - Eastern Controller Stream 3

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.4%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.4%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	177	1980	558	31.7%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	401	2120:1980	330+558	45.1 : 45.1%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	419	1901	1121	37.4%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	116	1874	1105	10.5%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	109	1854	190	57.3%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	291	1965:1854	202+170	78.4 : 78.4%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	116	1965	202	57.6%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	-	-
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	-	-
5/1		U	N/A	N/A	-		-	-	-	-	729	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1272	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	620	1965	1486	41.7%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	1139	2105	1592	71.5%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	58	-	-	261	1871	1415	18.4%
8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	31	-	-	794	1843:1900	756+212	82.0 : 82.0%

8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	31	-	-	956	1899:1980	779+426	89.2 : 61.3%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	60	-	-	428	1965	1537	27.9%
10/2	Ahead	U	2:2	N/A	C2:J		1	60	-	-	403	1965	1537	26.2%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	748	0.0%
12/2+12/1	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	34	-	-	657	1965:1965	547+548	60.0 : 60.0%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	34	-	-	444	1854	832	53.4%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	428	1965	1965	21.8%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	403	1965	1965	20.5%
14/1		U	N/A	N/A	-		-	-	-	-	428	1965	1965	21.8%
14/2		U	N/A	N/A	-		-	-	-	-	403	1965	1965	20.5%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	876	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	400	1965:1965	1430+535	20.4 : 20.4%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	116	1965:1965	1965+0	5.9 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	58	-	-	382	1871	1415	27.0%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	214	1965	1083	19.8%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	265	2105	1160	22.8%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	42	-	-	252	1747	963	26.2%
18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	24:23	-	Y:Y	578	1965:1828	420+180	96.4 : 96.4%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	24	-	Y	444	2105	621	71.5%
19/1		U	N/A	N/A	-		-	-	-	-	382	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	-	301	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	351	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**36.1**	**21.9**	**0.0**	**58.0**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**36.1**	**21.9**	**0.0**	**58.0**	**-**	**-**	**-**	**-**	
1/1	177	177	-	-	-	1.1	0.2	-	1.3	26.8	3.0	0.2	3.2	
1/2+1/3	401	401	-	-	-	2.5	0.4	-	2.9 (1.0+1.9)	26.2 (25.3:26.7)	4.5	0.4	4.9	
2/1	419	419	-	-	-	1.5	0.3	-	1.8	15.0	3.8	0.3	4.1	
2/2	116	116	-	-	-	1.0	0.1	-	1.0	32.4	2.5	0.1	2.6	
3/1	109	109	-	-	-	1.0	0.7	-	1.7	55.2	2.2	0.7	2.9	
3/3+3/2	291	291	-	-	-	2.8	1.7	-	4.5 (2.4+2.0)	55.5 (55.7:55.4)	3.3	1.7	5.1	
3/4	116	116	-	-	-	1.1	0.7	-	1.7	54.1	2.4	0.7	3.1	
3/5	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	
5/1	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1272	1272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	620	620	-	-	-	0.2	0.4	-	0.5	3.1	0.8	0.4	1.2	
7/2	1139	1139	-	-	-	0.3	1.2	-	1.5	4.9	1.6	1.2	2.8	
7/3	261	261	-	-	-	0.1	0.1	-	0.2	2.6	0.3	0.1	0.5	
8/2+8/1	794	794	-	-	-	4.2	2.2	-	6.5 (5.3+1.2)	29.3 (30.5:25.0)	11.9	2.2	14.1	
8/3+8/4	956	956	-	-	-	5.3	1.9	-	7.2 (5.5+1.6)	26.9 (28.5:22.7)	13.9	1.9	15.8	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	428	428	-	-	-	0.1	0.2	-	0.2	2.1	0.5	0.2	0.7	
10/2	403	403	-	-	-	0.0	0.2	-	0.2	2.0	0.4	0.2	0.5	

11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2+12/1	657	657	-	-	-	2.8	0.7	-	3.5 (1.8+1.7)	19.4 (20.3:18.6)	3.7	0.7	4.5	
12/3	444	444	-	-	-	0.4	0.6	-	1.0	7.8	6.9	0.6	7.5	
13/1	428	428	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
13/2	403	403	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
14/1	428	428	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
14/2	403	403	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	400	400	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.1 (1.1:1.1)	0.0	0.1	0.1	
16/3+16/4	116	116	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	1.0 (1.0:0.0)	0.0	0.0	0.0	
17/1	382	382	-	-	-	0.1	0.2	-	0.3	2.8	1.2	0.2	1.3	
17/2	214	214	-	-	-	0.8	0.1	-	1.0	16.3	4.6	0.1	4.7	
17/3	265	265	-	-	-	1.5	0.1	-	1.6	21.9	5.7	0.1	5.9	
17/4	252	252	-	-	-	2.1	0.2	-	2.3	33.0	5.5	0.2	5.6	
18/2+18/1	578	578	-	-	-	4.3	7.7	-	12.0 (8.4+3.6)	74.7 (74.7:74.7)	11.3	7.7	19.1	
18/3	444	444	-	-	-	3.0	1.2	-	4.3	34.6	8.5	1.2	9.7	
19/1	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	99.5	Total Delay for Signalled Lanes (pcuHr):	7.03	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	233.4	Total Delay for Signalled Lanes (pcuHr):	0.30	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-7.1	Total Delay for Signalled Lanes (pcuHr):	21.15	Cycle Time (s): 78
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	0.9	Total Delay for Signalled Lanes (pcuHr):	18.13	Cycle Time (s): 78
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	223.1	Total Delay for Signalled Lanes (pcuHr):	0.47	Cycle Time (s): 78
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	14.8	Total Delay for Signalled Lanes (pcuHr):	10.18	Cycle Time (s): 78
	PRC Over All Lanes (%):	-7.1	Total Delay Over All Lanes(pcuHr):	57.96	

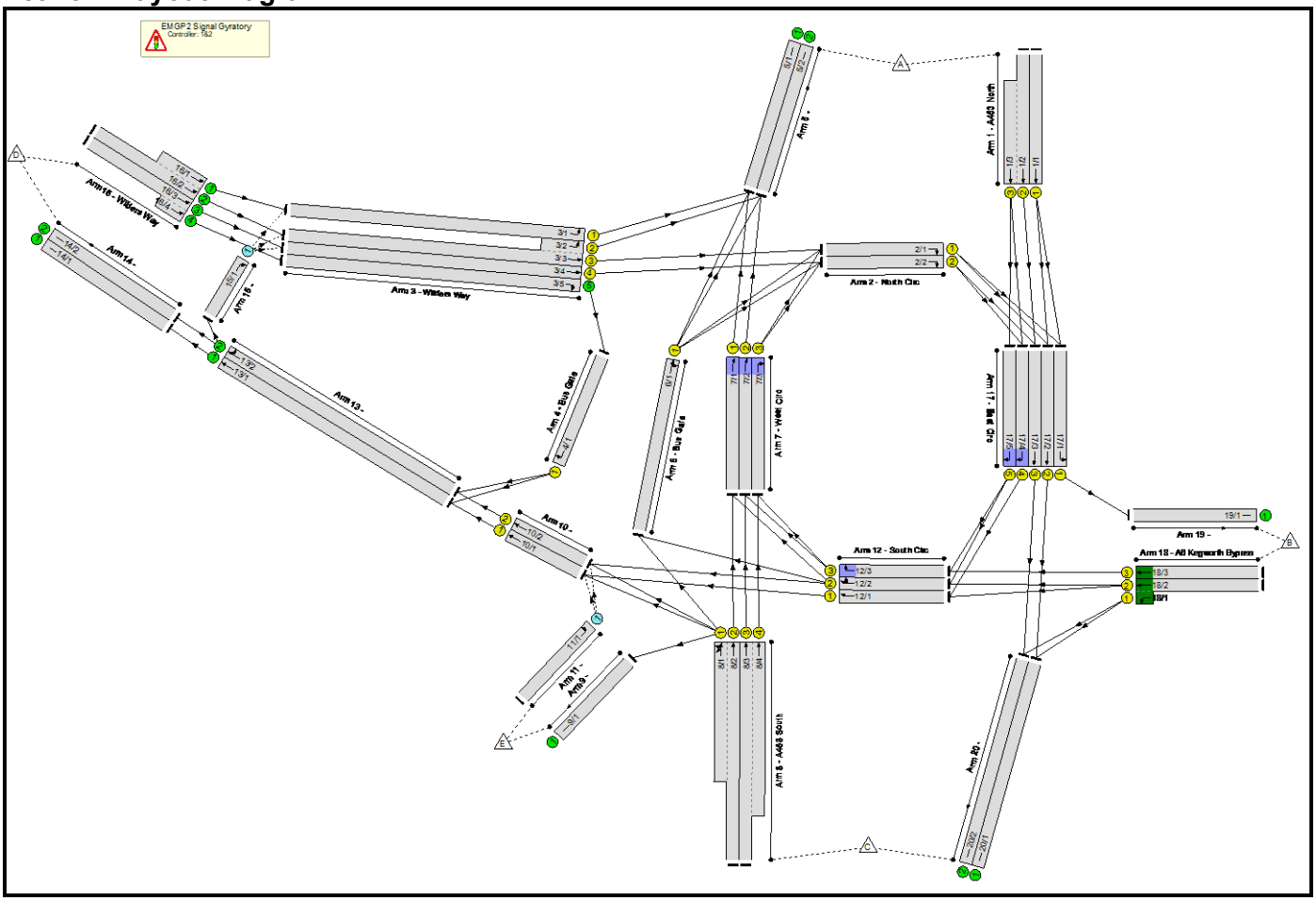
Appendix 3: EMG1 Gyratory MCO Assessment (DCO Mitigation) LinSig Results

Detailed Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	260505_EMGP1_Signal Gyratory_MCO_Assessment.lsg3x
Author:	
Company:	
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



Scenarios

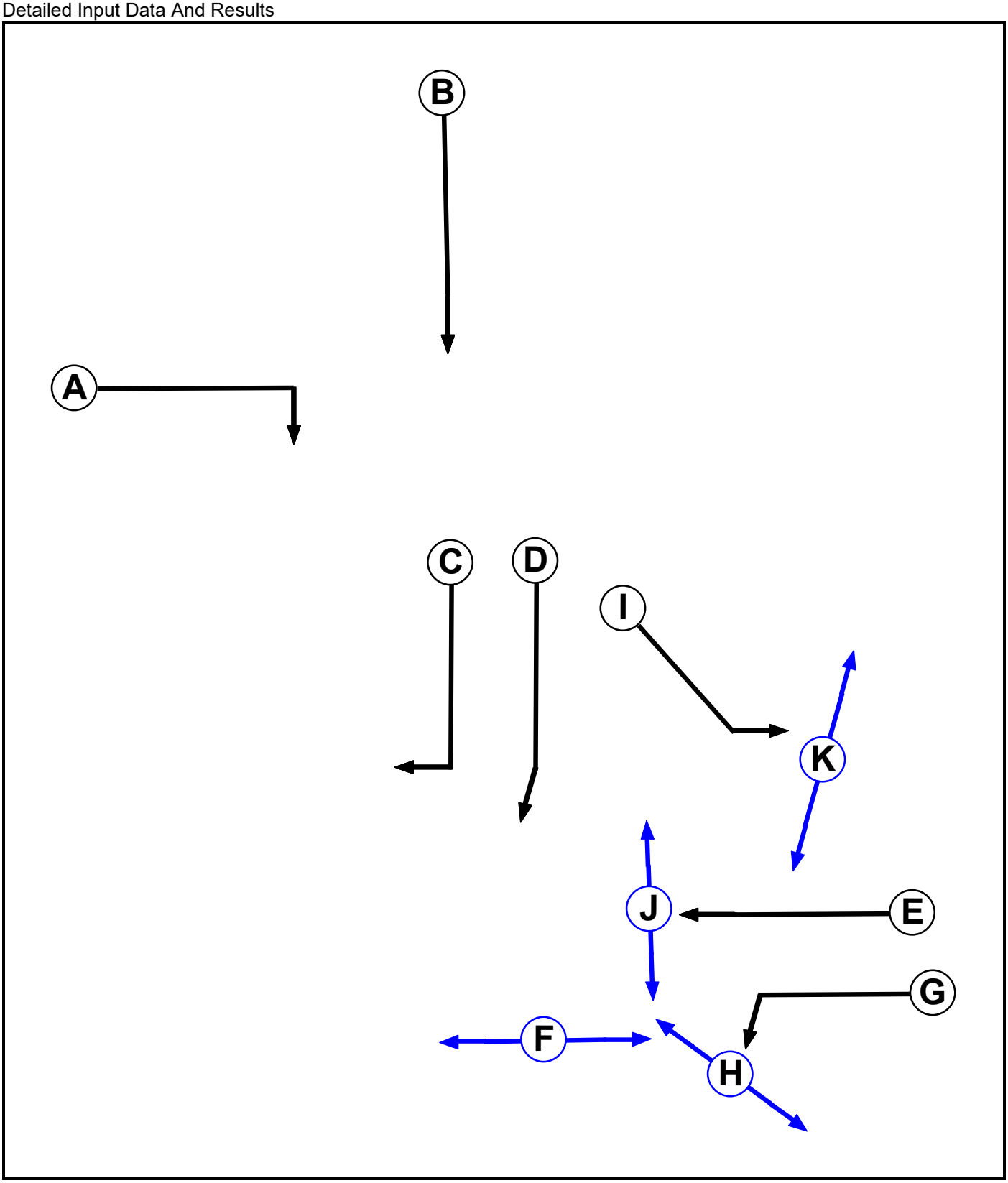
Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2028 WoD + Plot 16 AM (2023 PRTM)	2028 WoD + Plot 16 AM (2023 PRTM)	Network Control Plan 1	08:00 - 09:00	88	-27.2	261.07
2	2028 WoD + Plot 16 PM (2023 PRTM)	2028 WoD + Plot 16 PM (2023 PRTM)	Network Control Plan 1	17:00 - 18:00	78	-7.1	57.78

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1 - Eastern Controller	Gen		Stage Stream 1	2	2	EMGP2 Signal Gyratory	
			Stage Stream 2	2	2	EMGP2 Signal Gyratory	
			Stage Stream 3	7	2	EMGP2 Signal Gyratory	
C2 - Western Controller	Gen		Stage Stream 1	5	2	EMGP2 Signal Gyratory	
			Stage Stream 2	3	2	EMGP2 Signal Gyratory	
			Stage Stream 3	5	3	EMGP2 Signal Gyratory	

Controller :C1 - Eastern Controller

Phase Diagram


B
A
C
D
I
K
J
E
G
F
H

Phase Input Data

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

Phase Intergreens Matrix

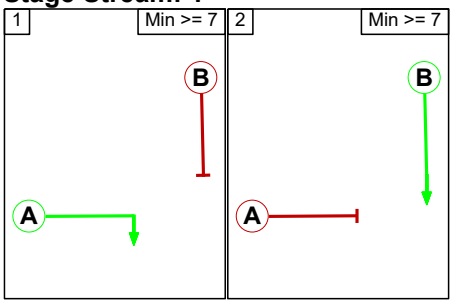
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K
A		5	-	-	-	-	-	-	-	-	-
B	7		-	-	-	-	-	-	-	-	-
C	-	-		-	5	5	-	-	-	-	-
D	-	-	-		5	7	6	-	-	-	-
E	-	-	7	7		-	-	-	-	5	-
F	-	-	0	0	-		-	-	-	-	-
G	-	-	-	5	-	-		5	-	-	-
H	-	-	-	-	-	-	6		-	-	-
I	-	-	-	-	-	-	-	-		-	5
J	-	-	-	-	0	-	-	-	-		-
K	-	-	-	-	-	-	-	-	0	-	

Phases in Stage

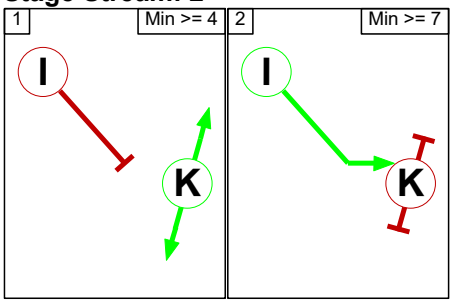
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	K
2	2	I
3	1	C D H J
3	2	E F G

Stage Diagram

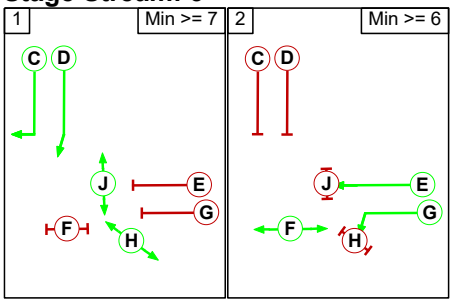
Stage Stream: 1



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

	To Stage		
		1	2
From Stage	1		5
	2	7	

Stage Stream: 2

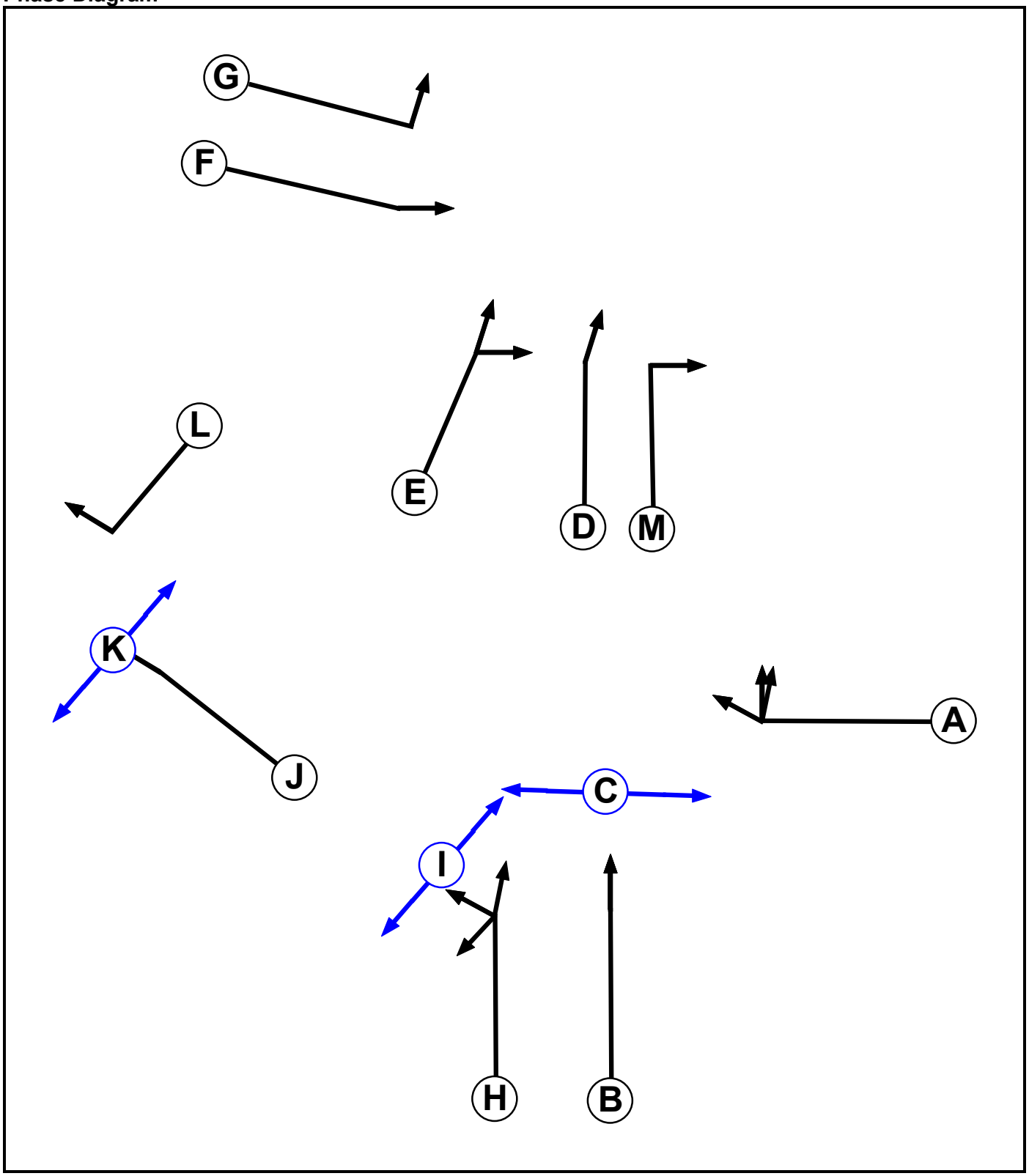
	To Stage		
		1	2
From Stage	1		2
	2	5	

Stage Stream: 3

	To Stage		
		1	2
From Stage	1		7
	2	7	

Controller :C2 - Western Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		4	4
D	Traffic	3		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7
H	Traffic	1		7	7
I	Pedestrian	1		4	4
J	Traffic	2		7	7
K	Pedestrian	2		5	5
L	Traffic	2		7	7
M	Traffic	3		7	7

Phase Intergreens Matrix

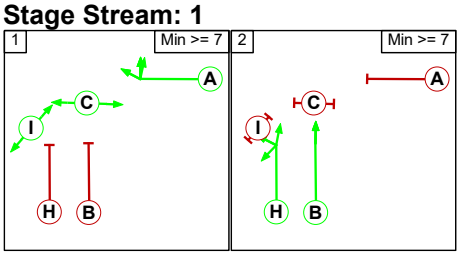
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M
A		6	-	-	-	-	-	6	-	-	-	-	-
B	7		5	-	-	-	-	-	-	-	-	-	-
C	-	0		-	-	-	-	0	-	-	-	-	-
D	-	-	-		5	7	7	-	-	-	-	-	-
E	-	-	-	6		7	7	-	-	-	-	-	6
F	-	-	-	6	5		-	-	-	-	-	-	6
G	-	-	-	6	5	-		-	-	-	-	-	-
H	5	-	5	-	-	-	-		5	-	-	-	-
I	-	-	-	-	-	-	-	6		-	-	-	-
J	-	-	-	-	-	-	-	-	-		5	6	-
K	-	-	-	-	-	-	-	-	-	0		-	-
L	-	-	-	-	-	-	-	-	-	5	-		-
M	-	-	-	-	5	5	-	-	-	-	-	-	

Phases in Stage

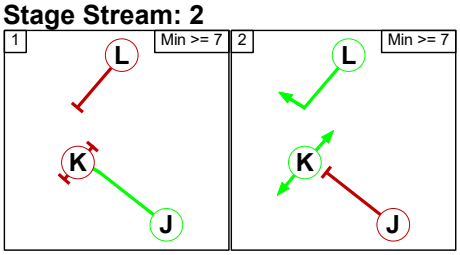
Stream	Stage No.	Phases in Stage
1	1	A C I
1	2	B H
2	1	J
2	2	K L
3	1	D M
3	2	F G
3	3	E

Stage Diagram

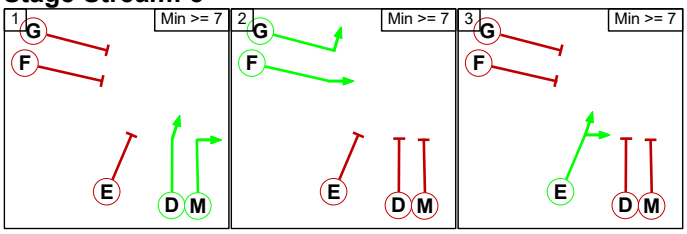
Stage Stream: 1



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

	To Stage		
		1	2
From Stage	1		6
	2	7	

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		6
	2	5	

Stage Stream: 3

	To Stage			
		1	2	3
From Stage	1		7	5
	2	6		5
	3	6	7	

Lane Input Data

Junction: EMGP2 Signal Gyratory

Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A453 North)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 17 Ahead	Inf
1/2 (A453 North)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
1/3 (A453 North)	U	B	2	3	21.7	Geom	-	3.65	0.00	Y	Arm 17 Ahead	Inf
2/1 (North Circ)	U	A	2	3	8.7	Geom	-	4.00	0.00	Y	Arm 17 Right	25.00
2/2 (North Circ)	U	A	2	3	8.7	Geom	-	4.00	0.00	Y	Arm 17 Right	20.00
3/1 (Wilders Way)	U	G	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 5 Left	25.00
3/2 (Wilders Way)	U	G	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 5 Left	25.00
3/3 (Wilders Way)	U	F	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 2 Ahead	Inf
3/4 (Wilders Way)	U	F	2	3	16.5	Geom	-	3.50	0.00	Y	Arm 2 Ahead	Inf
3/5 (Wilders Way)	U		2	3	16.5	Geom	-	3.50	0.00	Y	Arm 4 Right	15.00
4/1 (Bus Gate)	U	L	2	3	7.0	Geom	-	5.00	0.00	Y	Arm 13 Right	12.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bus Gate)	U	E	2	3	8.7	Geom	-	5.00	0.00	Y	Arm 2 Right	30.00
											Arm 5 Ahead	Inf
7/1 (West Circ)	U	D	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
7/2 (West Circ)	U	D	2	3	9.6	Geom	-	3.50	0.00	N	Arm 5 Ahead	Inf
7/3 (West Circ)	U	M	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 2 Right	30.00
8/1 (A453 South)	U	H	2	3	16.5	User	1900	-	-	-	-	-
8/2 (A453 South)	U	B	2	3	60.0	User	1843	-	-	-	-	-
8/3 (A453 South)	U	B	2	3	60.0	User	1899	-	-	-	-	-

8/4 (A453 South)	U	B	2	3	39.1	Geom	-	3.65	0.00	Y	Arm 7 Ahead	Inf
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U	J	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
10/2	U	J	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
11/1	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 10 Left	15.00
12/1 (South Circ)	U	A	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 10 Ahead	Inf
12/2 (South Circ)	U	A	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 6 Right	25.00
											Arm 7 Right	25.00
											Arm 10 Ahead	Inf
12/3 (South Circ)	U	A	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 7 Right	25.00
13/1	U		2	3	13.0	Geom	-	3.50	0.00	Y	Arm 14 Ahead	Inf
13/2	U		2	3	13.0	Geom	-	3.50	0.00	Y	Arm 14 Ahead	Inf
											Arm 15 Right	Inf
14/1	U		2	3	60.0	Geom	-	3.50	0.00	Y		
14/2	U		2	3	60.0	Geom	-	3.50	0.00	Y		
15/1	O		2	3	3.0	Geom	-	4.50	0.00	Y	Arm 3 Right	15.00
16/1 (Wilders Way)	U		2	3	6.1	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/2 (Wilders Way)	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/3 (Wilders Way)	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
16/4 (Wilders Way)	U		2	3	3.5	Geom	-	3.50	0.00	Y	Arm 3 Ahead	Inf
17/1 (East Circ)	U	I	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 19 Left	30.00
17/2 (East Circ)	U	D	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 20 Ahead	Inf
17/3 (East Circ)	U	D	2	3	11.3	Geom	-	3.50	0.00	N	Arm 20 Ahead	Inf
17/4 (East Circ)	U	C	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 12 Right	12.00
17/5 (East Circ)	U	C	2	3	10.4	Geom	-	3.50	0.00	Y	Arm 12 Right	Inf

18/1 (A6 Kegworth Bypass)	U	G	2	3	2.0	Geom	-	3.50	0.00	Y	Arm 20 Left	20.00
18/2 (A6 Kegworth Bypass)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 12 Ahead	Inf
18/3 (A6 Kegworth Bypass)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm 12 Ahead	Inf
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: EMGP2 Signal Gyratory

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)
11/1	10/1 (Left)	1000	0	8/1	0.33	To 10/1 (Left) To 10/2 (Left)	-	-	-	-	-
				12/1	0.33	All					
				12/2	0.33	To 10/2 (Ahead)					
	10/2 (Left)	1000	0	8/1	0.33	To 10/1 (Left) To 10/2 (Left)					
				12/1	0.33	All					
				12/2	0.33	To 10/2 (Ahead)					
15/1	3/1 (Right)	1439	0	16/1	1.09	All	-	-	-	-	-
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
	3/3 (Right)	1439	0	16/1	1.09	All					
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
	3/4 (Right)	1439	0	16/1	1.09	All					
				16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					

Lane Connector Input Data

Junction: EMGP2 Signal Gyratory				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	17/1	Internal	35	35
1/1	17/2	Internal	7	35
1/2	17/3	Internal	7	35
1/3	17/4	Internal	7	35
1/3	17/5	Internal	6	35
2/1	17/1	Internal	35	35
2/1	17/2	Internal	7	35
2/2	17/3	Internal	7	35
2/2	17/4	Internal	7	35
3/1	5/1	Internal	5	35
3/2	5/2	Internal	5	35
3/3	2/1	Internal	5	35
3/4	2/2	Internal	5	35
3/5	4/1	Internal	4	35
4/1	13/1	Internal	8	35
4/1	13/2	Internal	8	35
6/1	2/1	Internal	5	35
6/1	2/2	Internal	5	35
6/1	5/1	Internal	5	35
6/1	5/2	Internal	5	35
7/1	5/1	Internal	5	35
7/2	5/2	Internal	5	35
7/3	2/1	Internal	5	35
7/3	2/2	Internal	-	35
8/1	6/1	Internal	5	35
8/1	9/1	Internal	5	35
8/1	10/1	Internal	7	35
8/1	10/2	Internal	7	35
8/2	7/1	Internal	2	35
8/3	7/2	Internal	2	35
8/4	7/3	Internal	2	35
10/1	13/1	Internal	8	35
10/2	13/2	Internal	8	35
11/1	10/1	Internal	7	35
11/1	10/2	Internal	7	35
12/1	10/1	Internal	7	35
12/2	6/1	Internal	5	35

12/2	7/1	Internal	2	35
12/2	10/2	Internal	7	35
12/3	7/2	Internal	2	35
12/3	7/3	Internal	2	35
13/1	14/1	Internal	5	35
13/2	14/2	Internal	5	35
13/2	15/1	Internal	2	35
15/1	3/1	Internal	10	35
15/1	3/3	Internal	10	35
15/1	3/4	Internal	10	35
16/1	3/1	Internal	10	35
16/2	3/3	Internal	10	35
16/3	3/4	Internal	10	35
16/4	3/5	Internal	10	35
17/1	19/1	Internal	5	35
17/2	20/1	Internal	5	35
17/3	20/2	Internal	5	35
17/4	12/1	Internal	3	35
17/5	12/2	Internal	3	35
17/5	12/3	Internal	3	35
18/1	20/1	Internal	5	35
18/1	20/2	Internal	5	35
18/2	12/1	Internal	3	35
18/2	12/2	Internal	3	35
18/3	12/3	Internal	3	35

Scenario 1: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
17/5 (East Circ)	3.50	0.00	Y	Arm 12 Right	Inf	100.0 %	1965	1965
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-4
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-4

Scenario 2: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: EMGP2 Signal Gyratory								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
1/2 (A453 North)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
1/3 (A453 North)	3.65	0.00	Y	Arm 17 Ahead	Inf	100.0 %	1980	1980
2/1 (North Circ)	4.00	0.00	Y	Arm 17 Right	25.00	100.0 %	1901	1901
2/2 (North Circ)	4.00	0.00	Y	Arm 17 Right	20.00	100.0 %	1874	1874
3/1 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/2 (Wilders Way)	3.50	0.00	Y	Arm 5 Left	25.00	100.0 %	1854	1854
3/3 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/4 (Wilders Way)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
3/5 (Wilders Way)	3.50	0.00	Y	Arm 4 Right	15.00	0.0 %	1965	1965
4/1 (Bus Gate)	5.00	0.00	Y	Arm 13 Right	12.00	0.0 %	2115	2115
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1 (Bus Gate)	5.00	0.00	Y	Arm 2 Right	30.00	0.0 %	2115	2115
				Arm 5 Ahead	Inf	0.0 %		
7/1 (West Circ)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
7/2 (West Circ)	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
7/3 (West Circ)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
8/1 (A453 South Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (A453 South Lane 2)	This lane uses a directly entered Saturation Flow						1843	1843
8/3 (A453 South Lane 3)	This lane uses a directly entered Saturation Flow						1899	1899
8/4 (A453 South)	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
9/1	Infinite Saturation Flow						Inf	Inf
10/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965

10/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
11/1	3.25	0.00	Y	Arm 10 Left	15.00	0.0 %	1940	1940
12/1 (South Circ)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
12/2 (South Circ)	3.50	0.00	Y	Arm 6 Right	25.00	0.0 %	1965	1965
				Arm 7 Right	25.00	0.0 %		
				Arm 10 Ahead	Inf	100.0 %		
12/3 (South Circ)	3.50	0.00	Y	Arm 7 Right	25.00	100.0 %	1854	1854
13/1	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
13/2	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
				Arm 15 Right	Inf	0.0 %		
14/1	3.50	0.00	Y				1965	1965
14/2	3.50	0.00	Y				1965	1965
15/1	4.50	0.00	Y	Arm 3 Right	15.00	0.0 %	2065	2065
16/1 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/2 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/3 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1965	1965
16/4 (Wilders Way)	3.50	0.00	Y	Arm 3 Ahead	Inf	0.0 %	1965	1965
17/1 (East Circ)	3.50	0.00	Y	Arm 19 Left	30.00	100.0 %	1871	1871
17/2 (East Circ)	3.50	0.00	Y	Arm 20 Ahead	Inf	100.0 %	1965	1965
17/3 (East Circ)	3.50	0.00	N	Arm 20 Ahead	Inf	100.0 %	2105	2105
17/4 (East Circ)	3.50	0.00	Y	Arm 12 Right	12.00	100.0 %	1747	1747
17/5 (East Circ)	3.50	0.00	Y	Arm 12 Right	Inf	100.0 %	1965	1965
18/1 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 20 Left	20.00	100.0 %	1828	1828
18/2 (A6 Kegworth Bypass)	3.50	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1965	1965
18/3 (A6 Kegworth Bypass)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
20/2	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Stage Change**	**Type**	**Usage**	**Value (s)**
18/1	A6 Kegworth Bypass Left	2 -> 1	End	Underutilised Green Time	-2
18/2	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2
18/3	A6 Kegworth Bypass Ahead	2 -> 1	End	Underutilised Green Time	-2

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2028 WoD AM (2023 PRTM)'	08:00	09:00	01:00	
2: '2028 WoD PM (2023 PRTM)'	17:00	18:00	01:00	
3: '2028 WoD + Plot 16 AM (2023 PRTM)'	08:00	09:00	01:00	
4: '2028 WoD + Plot 16 PM (2023 PRTM)'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2028 WoD AM (2023 PRTM)'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	361	0	1050
	B	461	0	213	427	0	1101
	C	1867	122	0	307	0	2296
	D	113	6	140	0	0	259
	E	0	0	0	0	0	0
	Tot.	2441	188	982	1095	0	4706

FG2: '2028 WoD PM (2023 PRTM)'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	242	0	568
	B	444	0	173	404	0	1021
	C	1315	261	0	158	0	1734
	D	227	25	213	0	0	465
	E	0	0	0	0	0	0
	Tot.	1986	379	619	804	0	3788

FG3: '2028 WoD + Plot 16 AM (2023 PRTM)'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	374	0	1063
	B	461	0	213	431	0	1105
	C	1867	122	0	338	0	2327
	D	120	7	150	0	0	277
	E	0	0	0	0	0	0
	Tot.	2448	189	992	1143	0	4772

FG4: '2028 WoD + Plot 16 PM (2023 PRTM)'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	252	0	578
	B	444	0	173	405	0	1022
	C	1315	261	0	174	0	1750
	D	242	28	246	0	0	516
	E	0	0	0	0	0	0
	Tot.	2001	382	652	831	0	3866

Scenario 1: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	60	629	374	0	1063
	B	461	0	213	431	0	1105
	C	1867	122	0	338	0	2327
	D	120	7	150	0	0	277
	E	0	0	0	0	0	0
	Tot.	2448	189	992	1143	0	4772

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Scenario 2: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	93	233	252	0	578
	B	444	0	173	405	0	1022
	C	1315	261	0	174	0	1750
	D	242	28	246	0	0	516
	E	0	0	0	0	0	0
	Tot.	2001	382	652	831	0	3866

Traffic Flows, Difference

Difference :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	0	0	0	0
	C	0	0	0	0	0	0
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	0	0	0	0

Traffic Lane Flows

Lane	Scenario 1: 2028 WoD + Plot 16 AM (2023 PRTM)	Scenario 2: 2028 WoD + Plot 16 PM (2023 PRTM)
Junction: EMGP2 Signal Gyratory		
1/1	305	177
1/2 (with short)	758(In) 384(Out)	401(In) 149(Out)
1/3 (short)	374	252
2/1	218	419
2/2	61	116
3/1	27	109
3/2 (short)	93	133
3/3 (with short)	189(In) 96(Out)	291(In) 158(Out)
3/4	61	116
3/5	0	0
4/1	0	0
5/1	933	729
5/2	1515	1272
6/1	0	0
7/1	906	620
7/2	1422	1139
7/3	122	261
8/1 (short)	338	174
8/2 (with short)	1244(In) 906(Out)	794(In) 620(Out)
8/3 (with short)	1083(In) 961(Out)	956(In) 695(Out)
8/4 (short)	122	261
9/1	0	0
10/1	640	446
10/2	503	385
11/1	0	0
12/1	409	334
12/2	396	323
12/3	461	444
13/1	640	446
13/2	503	385
14/1	640	446
14/2	503	385
15/1	0	0

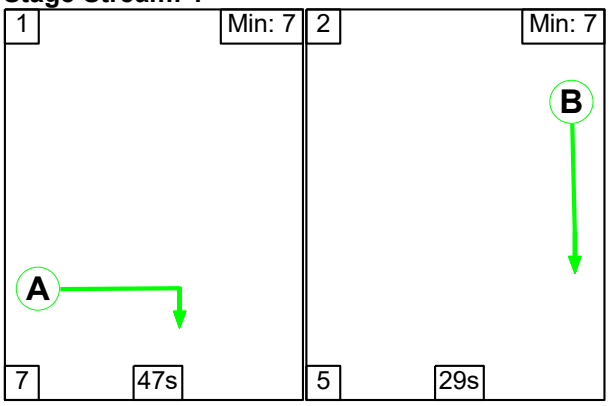
16/1 (short)	27	109
16/2 (with short)	216(In) 189(Out)	400(In) 291(Out)
16/3 (with short)	61(In) 61(Out)	116(In) 116(Out)
16/4 (short)	0	0
17/1	189	382
17/2	334	214
17/3	445	265
17/4	151	110
17/5	223	142
18/1 (short)	213	173
18/2 (with short)	644(In) 431(Out)	578(In) 405(Out)
18/3	461	444
19/1	189	382
20/1	441	301
20/2	551	351

Scenario 1: '2028 WoD + Plot 16 AM (2023 PRTM)' (FG3: '2028 WoD + Plot 16 AM (2023 PRTM)', Plan 1: 'Network Control Plan 1')

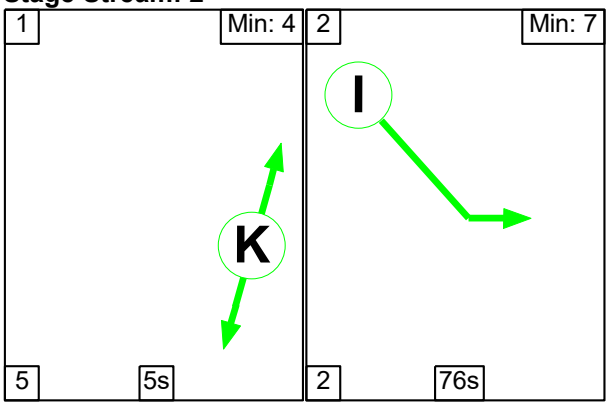
Controller :C1 - Eastern Controller

Stage Sequence Diagram

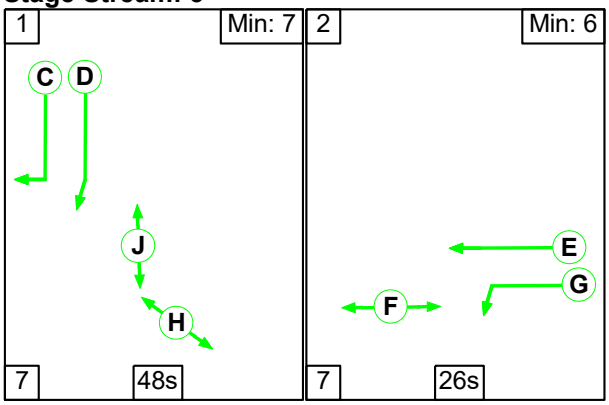
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	47	29
Change Point	38	4

Stage Stream: 2

Stage	1	2
Duration	5	76
Change Point	62	72

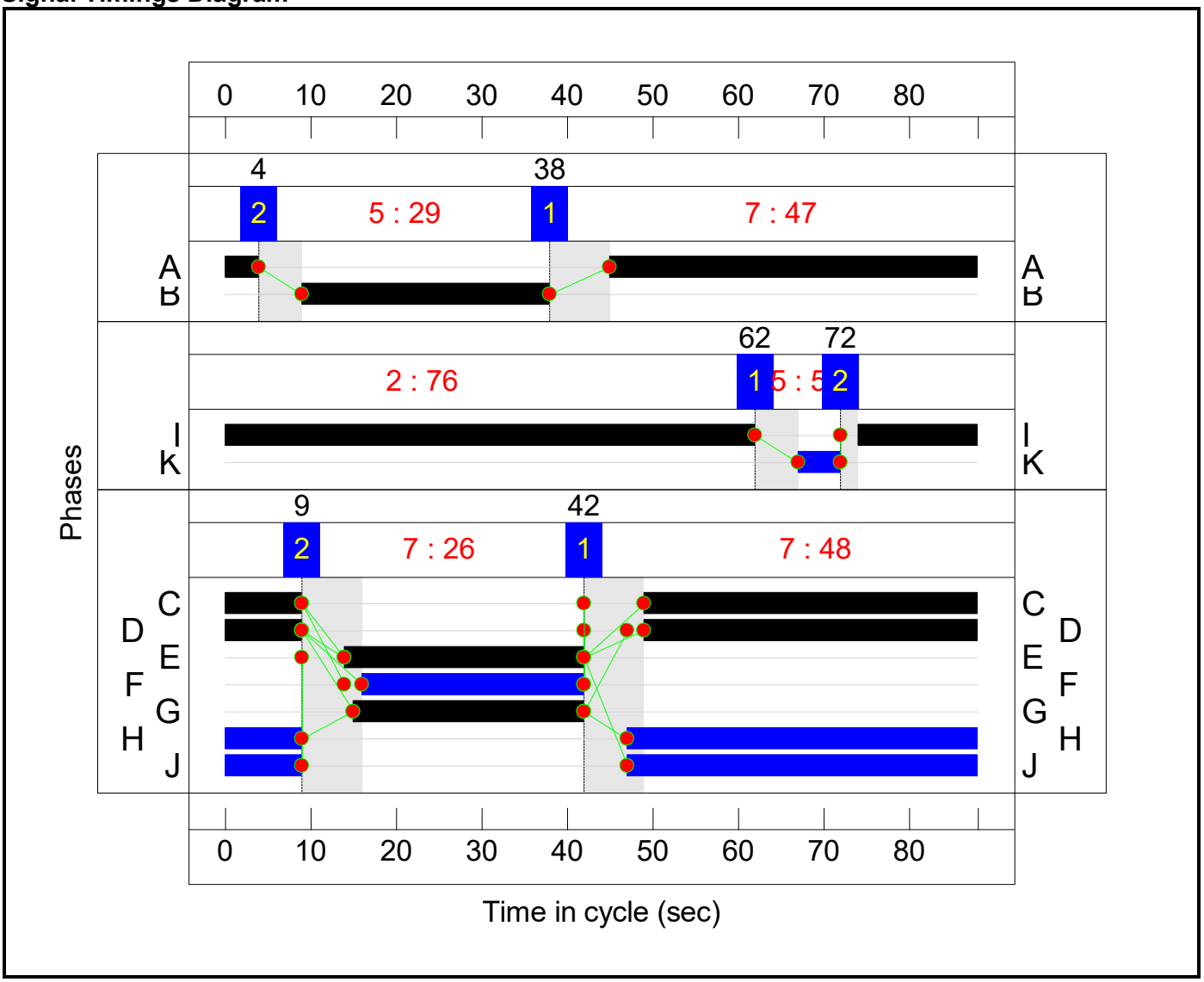
Stage Stream: 3

Stage	1	2
Duration	48	26
Change Point	42	9

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	47	45	4
B	A453 North Ahead A453 S/B	Traffic	1	29	9	38
C	East Circ Right East Circulatory RT	Traffic	3	48	49	9
D	East Circ Ahead East Circulatory	Traffic	3	48	49	9
E	A6 Kegworth Bypass Ahead A6	Traffic	3	28	14	42
F	Pedestrians across Ped X Phase D	Pedestrian	3	26	16	42
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	27	15	42
H	Pedestrians across	Pedestrian	3	50	47	9
I	East Circ Left Bypass E/B Exit	Traffic	2	76	74	62
J	Pedestrians across	Pedestrian	3	50	47	9
K	Pedestrians across	Pedestrian	2	5	67	72

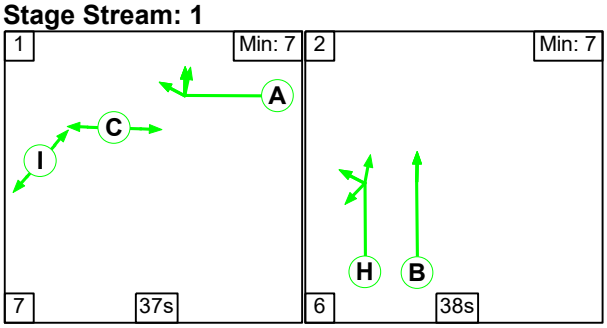
Signal Timings Diagram



Controller :C2 - Western Controller

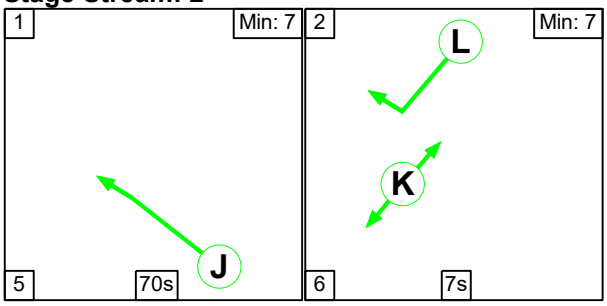
Stage Sequence Diagram

Stage Stream: 1

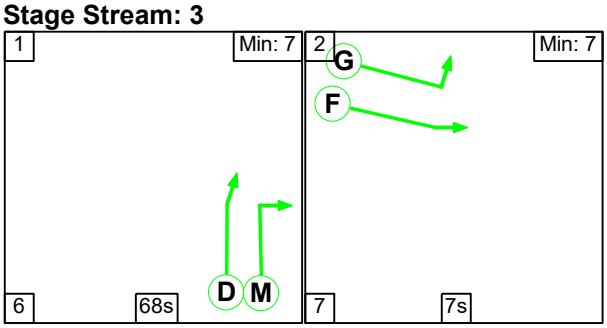


Detailed Input Data And Results

Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	37	38
Change Point	82	38

Stage Stream: 2

Stage	1	2
Duration	70	7
Change Point	8	83

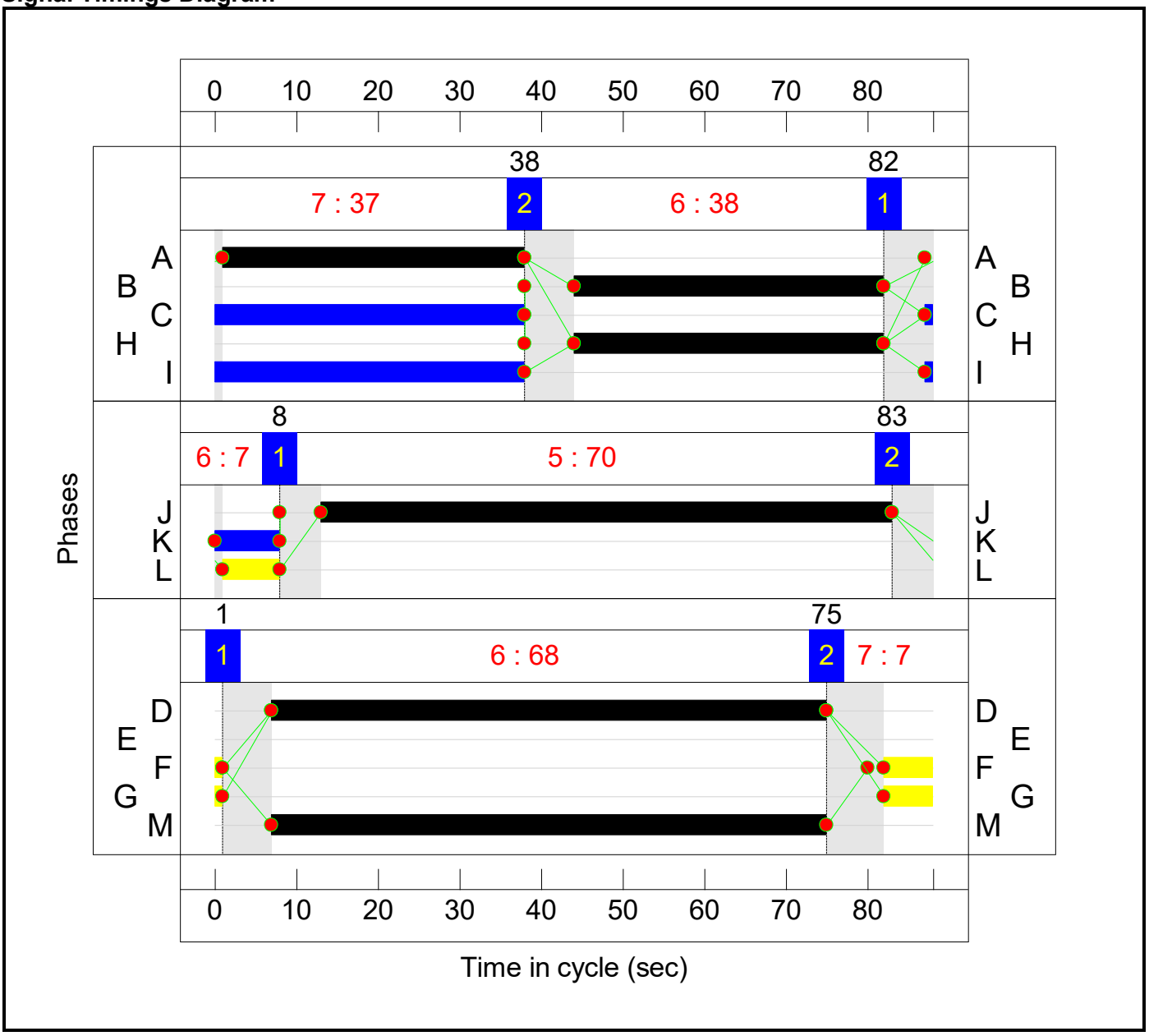
Stage Stream: 3

Stage	1	2
Duration	68	7
Change Point	1	75

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	37	1	38
B	A453 South Ahead	Traffic	1	38	44	82
C	Pedestrians across	Pedestrian	1	39	87	38
D	West Circ Ahead	Traffic	3	68	7	75
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	82	1
G	Wilders Way Left	Traffic	3	7	82	1
H	A453 South Ahead U-Turn Left	Traffic	1	38	44	82
I	Pedestrians across	Pedestrian	1	39	87	38
J	Ahead	Traffic	2	70	13	83
K	Pedestrians across	Pedestrian	2	8	0	8
L	Bus Gate Right	Traffic	2	7	1	8
M	West Circ Right	Traffic	3	68	7	75

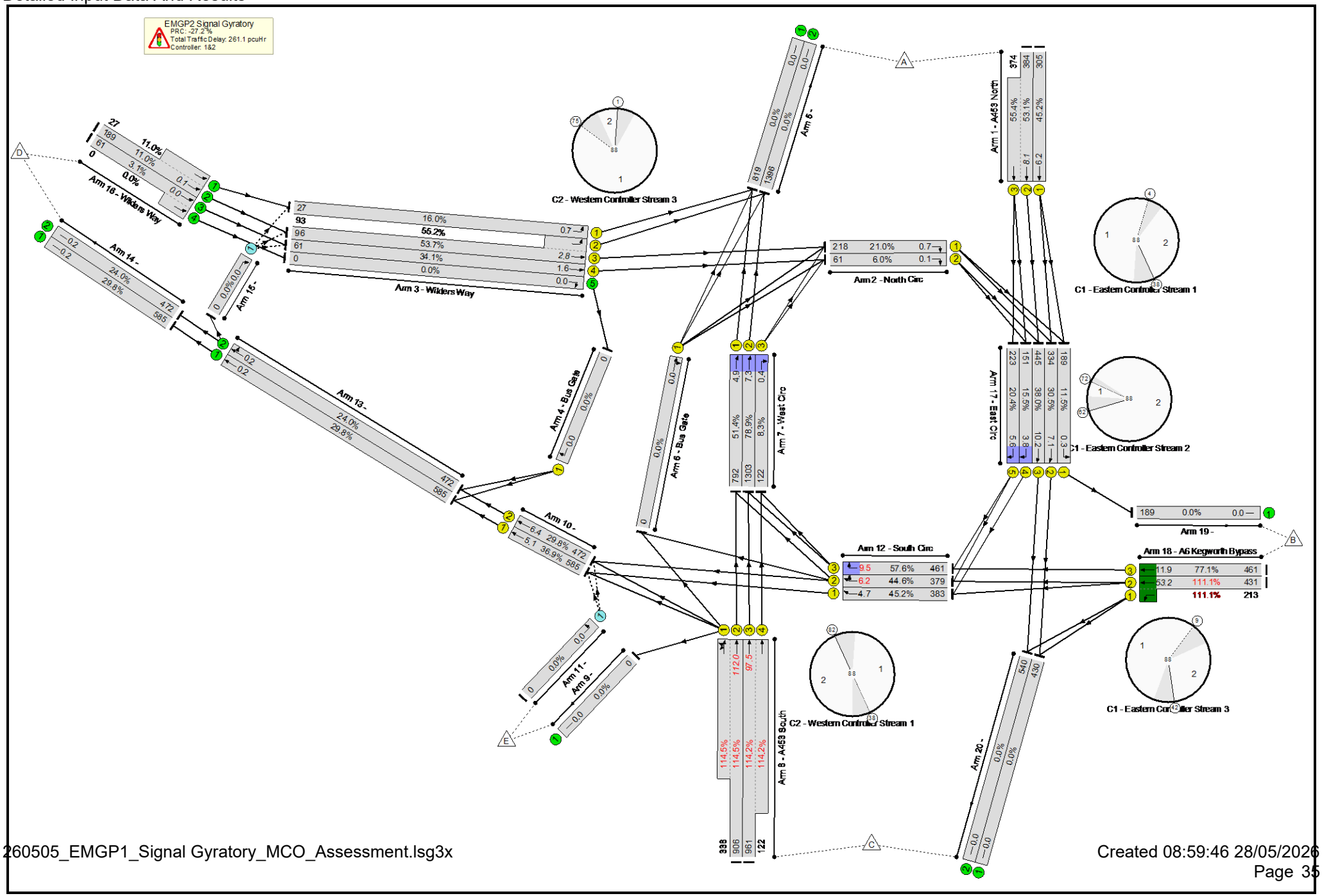
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	9	38
1/2	A453 North Ahead	U	B	9	38
1/3	A453 North Ahead	U	B	9	38
2/1	North Circ Right	U	A	45	4
2/2	North Circ Right	U	A	45	4
3/1	Wilders Way Left	U	G	82	1
3/2	Wilders Way Left	U	G	82	1
3/3	Wilders Way Ahead	U	F	82	1
3/4	Wilders Way Ahead	U	F	82	1
4/1	Bus Gate Right	U	L	1	8
7/1	West Circ Ahead	U	D	7	75
7/2	West Circ Ahead	U	D	7	75
7/3	West Circ Right	U	M	7	75
8/1	A453 South Ahead U-Turn Left	U	H	44	82
8/2	A453 South Ahead	U	B	44	82
8/3	A453 South Ahead	U	B	44	82
8/4	A453 South Ahead	U	B	44	82
10/1	Ahead	U	J	13	83
10/2	Ahead	U	J	13	83
12/1	South Circ Ahead	U	A	1	38
12/2	South Circ Right Right2 Ahead	U	A	1	38
12/3	South Circ Right	U	A	1	38
17/1	East Circ Left	U	I	74	62
17/2	East Circ Ahead	U	D	49	9
17/3	East Circ Ahead	U	D	49	9
17/4	East Circ Right	U	C	49	9
17/5	East Circ Right	U	C	49	9
18/1	A6 Kegworth Bypass Left	U	G	15	42-4
18/2	A6 Kegworth Bypass Ahead	U	E	14	42-4
18/3	A6 Kegworth Bypass Ahead	U	E	14	42-4

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -27.2%
Total Traffic Delay: 261.1 pcuHr
Controller: 1&2
Arm 16 - Wilders Way
Arm 14 -
Arm 15 -
Arm 3 - Wilders Way
Arm 13 -
Arm 10 -
Arm 4 - Bus Gate
Arm 6 - Bus Gate
Arm 6 -
Arm 2 - North Circ
Arm 7 - West Circ
Arm 12 - South Circ
Arm 11 -
Arm 9 -
Arm 8 - A453 South
Arm 1 - A453 North
Arm 17 - East Circ
Arm 19 -
Arm 18 - A6 Kegworth Bypass
Arm 20 -
C2 - Western Controller Stream 3
C1 - Eastern Controller Stream 1
C1 - Eastern Controller Stream 2
C2 - Western Controller Stream 1
C1 - Eastern Controller Stream 3

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**114.5%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**114.5%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	305	1980	675	45.2%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	29	-	-	758	2120:1980	723+675	53.1 : 55.4%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	218	1901	1037	21.0%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	47	-	-	61	1874	1022	6.0%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	27	1854	169	16.0%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	189	1965:1854	179+169	53.7 : 55.2%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	61	1965	179	34.1%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	1965	0.0%
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	192	0.0%
5/1		U	N/A	N/A	-		-	-	-	-	933	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1515	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	906	1965	1541	51.4%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	68	-	-	1422	2105	1651	78.9%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	68	-	-	122	1871	1467	8.3%

8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	38	-	-	1244	1843:1900	792+295	114.5 : 114.5%
8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	38	-	-	1083	1899:1980	842+107	114.2 : 114.2%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	70	-	-	640	1965	1585	36.9%
10/2	Ahead	U	2:2	N/A	C2:J		1	70	-	-	503	1965	1585	29.8%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	729	0.0%
12/1	South Circ Ahead	U	2:1	N/A	C2:A		1	37	-	-	409	1965	849	45.2%
12/2	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	37	-	-	396	1965	849	44.6%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	37	-	-	461	1854	801	57.6%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	640	1965	1965	29.8%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	503	1965	1965	24.0%
14/1		U	N/A	N/A	-		-	-	-	-	640	1965	1965	29.8%
14/2		U	N/A	N/A	-		-	-	-	-	503	1965	1965	24.0%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	1229	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	216	1965:1965	1719+246	11.0 : 11.0%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	61	1965:1965	1965+0	3.1 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	76	-	-	189	1871	1637	11.5%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	334	1965	1094	30.5%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	48	-	-	445	2105	1172	38.0%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	48	-	-	151	1747	973	15.5%
17/5	East Circ Right	U	1:3	N/A	C1:C		1	48	-	-	223	1965	1094	20.4%

18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	28:27	-	Y:Y	644	1965:1828	388+192	111.1 : 111.1%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	28	-	Y	461	2105	598	77.1%
19/1		U	N/A	N/A	-		-	-	-	-	189	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	-	441	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	551	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**61.3**	**199.8**	**0.0**	**261.1**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**61.3**	**199.8**	**0.0**	**261.1**	**-**	**-**	**-**	**-**	
1/1	305	305	-	-	-	1.9	0.4	-	2.3	27.5	5.8	0.4	6.2	
1/2+1/3	758	758	-	-	-	4.9	0.6	-	5.5 (2.8+2.7)	26.3 (26.2:26.4)	7.5	0.6	8.1	
2/1	218	218	-	-	-	0.2	0.1	-	0.3	5.7	0.5	0.1	0.7	
2/2	61	61	-	-	-	0.0	0.0	-	0.1	4.3	0.1	0.0	0.1	
3/1	27	27	-	-	-	0.3	0.1	-	0.4	49.7	0.6	0.1	0.7	
3/3+3/2	189	189	-	-	-	2.0	0.6	-	2.6 (1.3+1.3)	49.6 (49.5:49.6)	2.2	0.6	2.8	
3/4	61	61	-	-	-	0.6	0.3	-	0.9	52.8	1.4	0.3	1.6	
3/5	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	819	819	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1396	1396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	792	792	-	-	-	0.9	0.5	-	1.4	6.5	4.3	0.5	4.9	
7/2	1303	1303	-	-	-	1.1	1.9	-	3.0	8.2	5.5	1.9	7.3	
7/3	122	122	-	-	-	0.1	0.0	-	0.1	2.9	0.3	0.0	0.4	
8/2+8/1	1244	1087	-	-	-	12.4	82.4	-	94.8 (69.6+25.2)	274.3 (276.4:268.6)	29.6	82.4	112.0	
8/3+8/4	1083	964	-	-	-	10.7	71.1	-	81.8 (73.3+8.5)	271.9 (274.6:250.9)	26.4	71.1	97.5	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	585	585	-	-	-	0.3	0.3	-	0.6	3.9	4.8	0.3	5.1	
10/2	472	472	-	-	-	0.3	0.2	-	0.6	4.2	6.2	0.2	6.4	

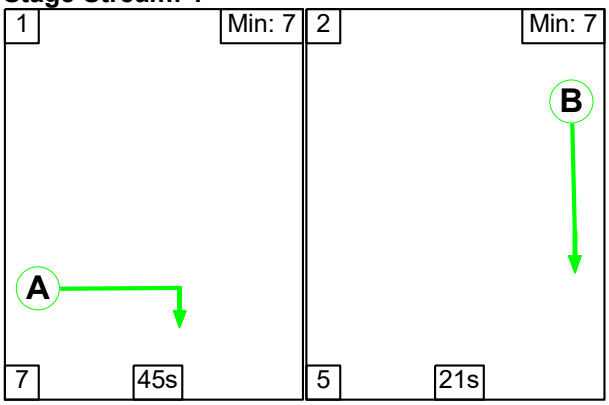
11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	383	383	-	-	-	1.9	0.4	-	2.3	21.8	4.3	0.4	4.7	
12/2	379	379	-	-	-	2.6	0.4	-	3.0	28.2	5.8	0.4	6.2	
12/3	461	461	-	-	-	0.3	0.7	-	1.0	7.6	8.8	0.7	9.5	
13/1	585	585	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
13/2	472	472	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
14/1	585	585	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2	
14/2	472	472	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	216	216	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.0 (1.0:1.0)	0.0	0.1	0.1	
16/3+16/4	61	61	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	0.9 (0.9:0.0)	0.0	0.0	0.0	
17/1	189	189	-	-	-	0.0	0.1	-	0.1	1.6	0.3	0.1	0.3	
17/2	334	334	-	-	-	2.3	0.2	-	2.6	27.6	6.8	0.2	7.1	
17/3	445	445	-	-	-	3.5	0.3	-	3.8	30.8	9.9	0.3	10.2	
17/4	151	151	-	-	-	1.1	0.1	-	1.2	28.3	3.7	0.1	3.8	
17/5	223	223	-	-	-	1.8	0.1	-	1.9	30.7	5.5	0.1	5.6	
18/2+18/1	644	580	-	-	-	8.2	36.5	-	44.7 (29.9+14.8)	249.7 (249.7:249.7)	16.7	36.5	53.2	
18/3	461	461	-	-	-	3.7	1.6	-	5.3	41.7	10.2	1.6	11.9	
19/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	62.4	Total Delay for Signalled Lanes (pcuHr):	8.27	Cycle Time (s): 88
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	679.6	Total Delay for Signalled Lanes (pcuHr):	0.08	Cycle Time (s): 88
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-23.4	Total Delay for Signalled Lanes (pcuHr):	59.46	Cycle Time (s): 88
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	-27.2	Total Delay for Signalled Lanes (pcuHr):	182.86	Cycle Time (s): 88
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	143.9	Total Delay for Signalled Lanes (pcuHr):	1.19	Cycle Time (s): 88
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	14.0	Total Delay for Signalled Lanes (pcuHr):	8.38	Cycle Time (s): 88
	PRC Over All Lanes (%):	-27.2	Total Delay Over All Lanes(pcuHr):	261.07	

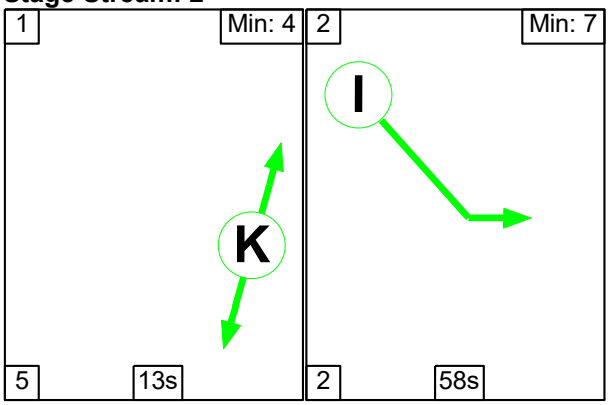
Scenario 2: '2028 WoD + Plot 16 PM (2023 PRTM)' (FG4: '2028 WoD + Plot 16 PM (2023 PRTM)', Plan 1: 'Network Control Plan 1')
Controller :C1 - Eastern Controller

Stage Sequence Diagram

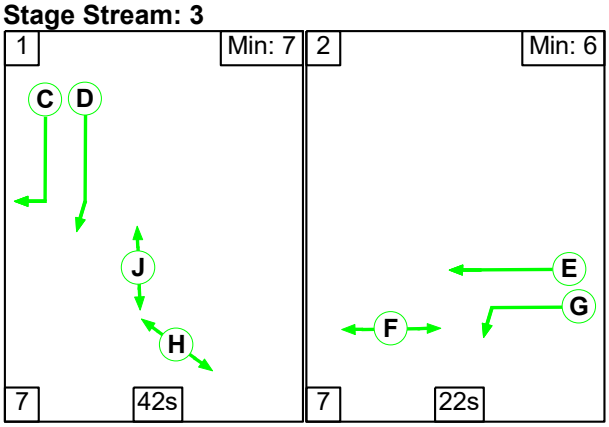
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	45	21
Change Point	0	52

Stage Stream: 2

Stage	1	2
Duration	13	58
Change Point	28	46

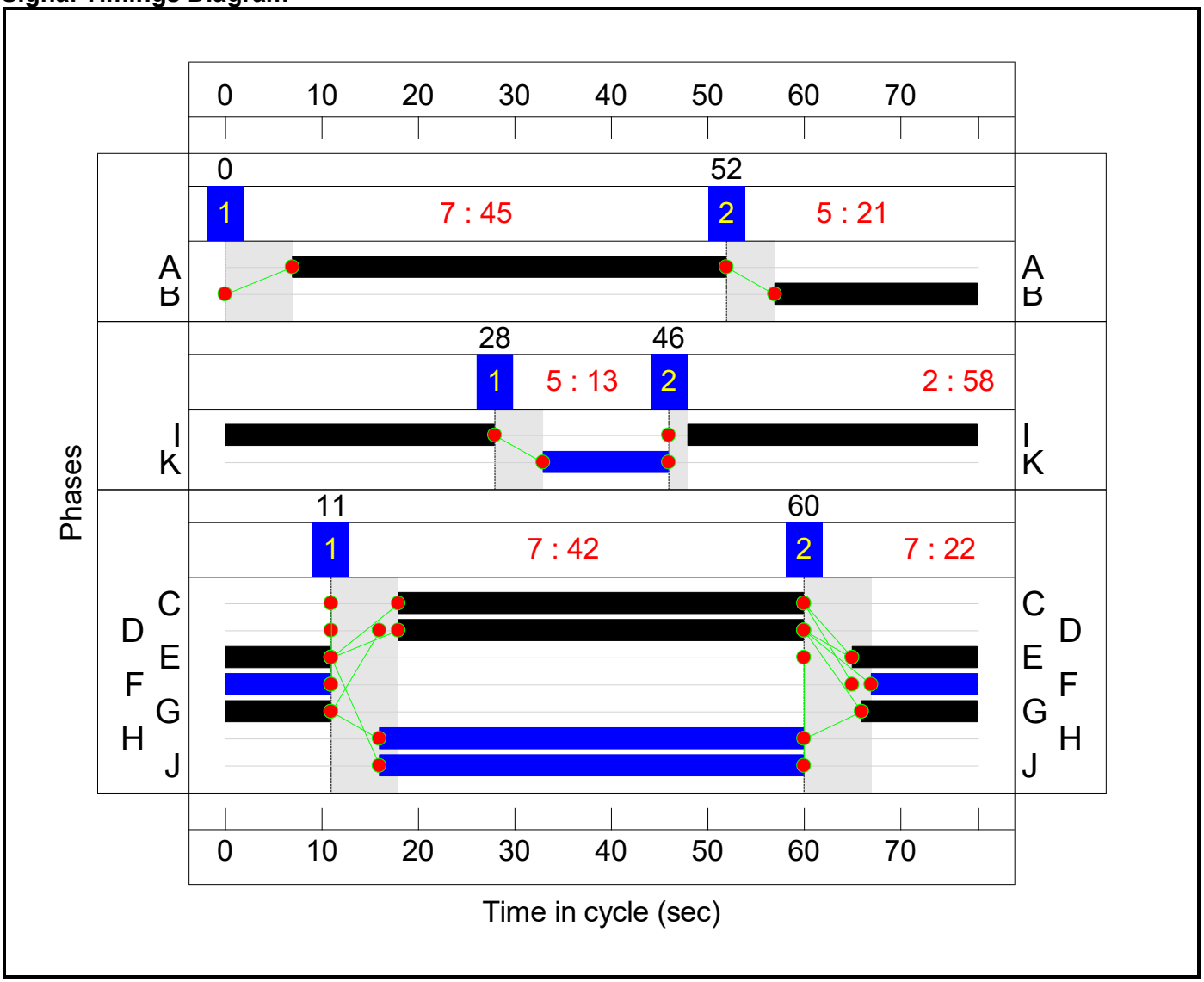
Stage Stream: 3

Stage	1	2
Duration	42	22
Change Point	11	60

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	North Circ Right North Circulatory	Traffic	1	45	7	52
B	A453 North Ahead A453 S/B	Traffic	1	21	57	0
C	East Circ Right East Circulatory RT	Traffic	3	42	18	60
D	East Circ Ahead East Circulatory	Traffic	3	42	18	60
E	A6 Kegworth Bypass Ahead A6	Traffic	3	24	65	11
F	Pedestrians across Ped X Phase D	Pedestrian	3	22	67	11
G	A6 Kegworth Bypass Left Side Road LT	Traffic	3	23	66	11
H	Pedestrians across	Pedestrian	3	44	16	60
I	East Circ Left Bypass E/B Exit	Traffic	2	58	48	28
J	Pedestrians across	Pedestrian	3	44	16	60
K	Pedestrians across	Pedestrian	2	13	33	46

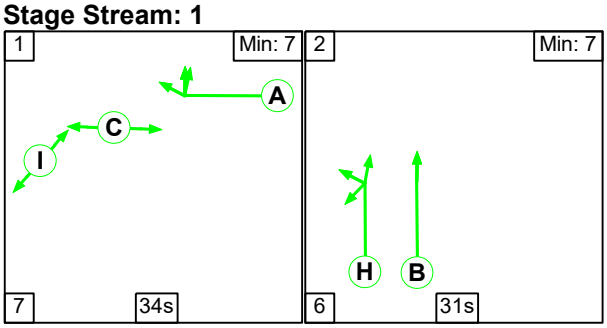
Signal Timings Diagram



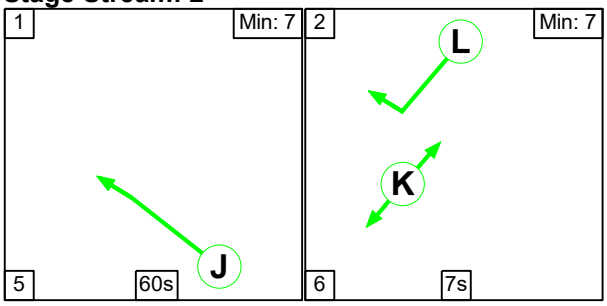
Controller :C2 - Western Controller

Stage Sequence Diagram

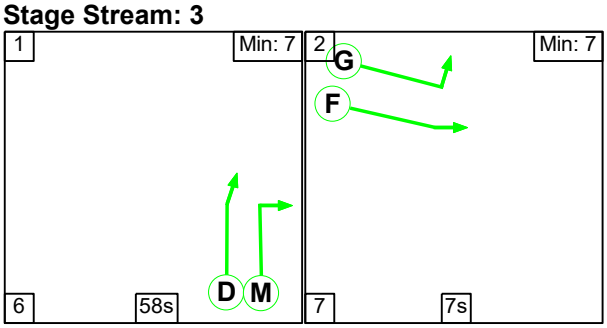
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	34	31
Change Point	44	7

Stage Stream: 2

Stage	1	2
Duration	60	7
Change Point	46	33

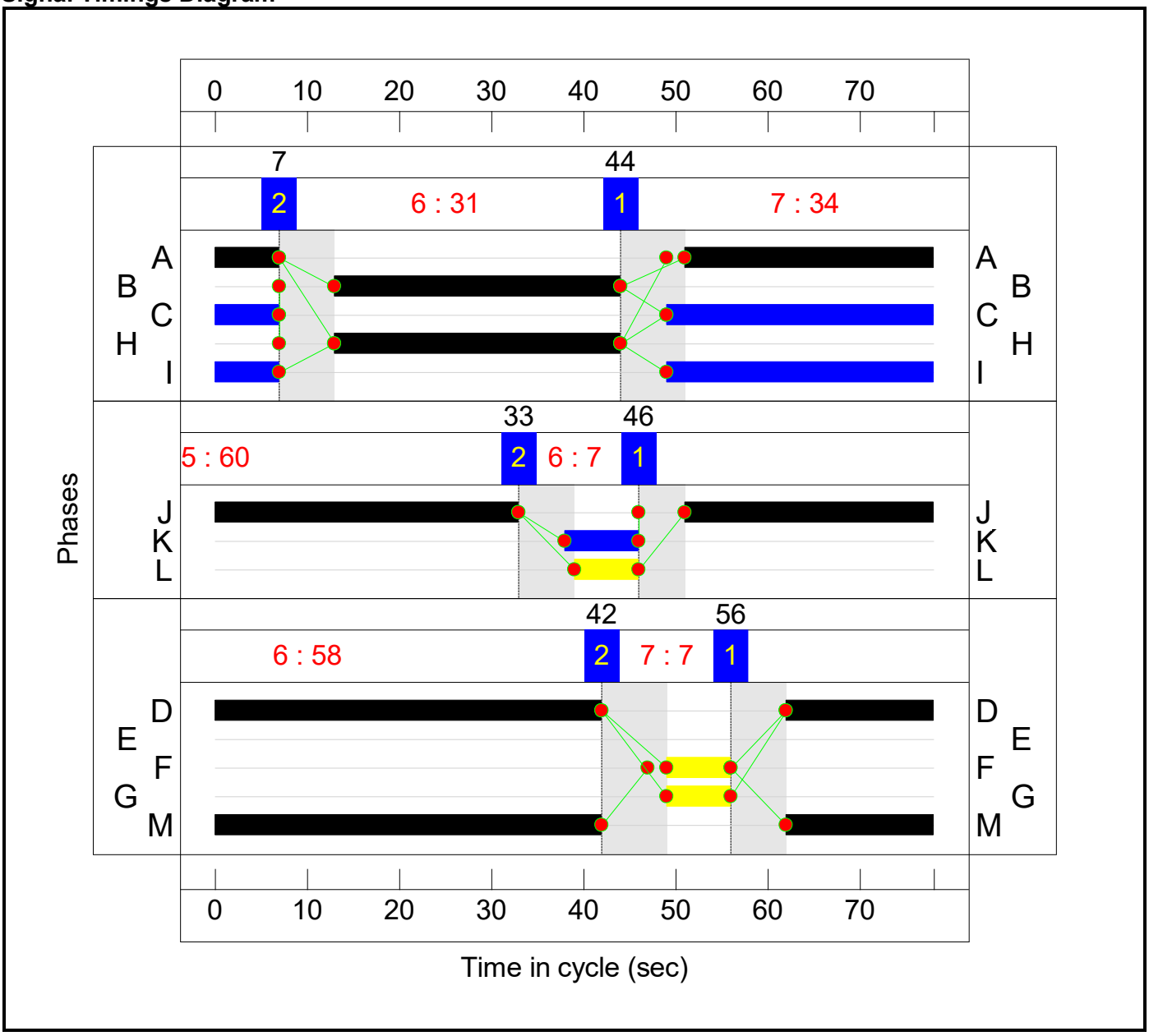
Stage Stream: 3

Stage	1	2
Duration	58	7
Change Point	56	42

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	South Circ Right Right2 Ahead	Traffic	1	34	51	7
B	A453 South Ahead	Traffic	1	31	13	44
C	Pedestrians across	Pedestrian	1	36	49	7
D	West Circ Ahead	Traffic	3	58	62	42
E	Bus Gate Right Ahead	Traffic	3			
F	Wilders Way Ahead	Traffic	3	7	49	56
G	Wilders Way Left	Traffic	3	7	49	56
H	A453 South Ahead U-Turn Left	Traffic	1	31	13	44
I	Pedestrians across	Pedestrian	1	36	49	7
J	Ahead	Traffic	2	60	51	33
K	Pedestrians across	Pedestrian	2	8	38	46
L	Bus Gate Right	Traffic	2	7	39	46
M	West Circ Right	Traffic	3	58	62	42

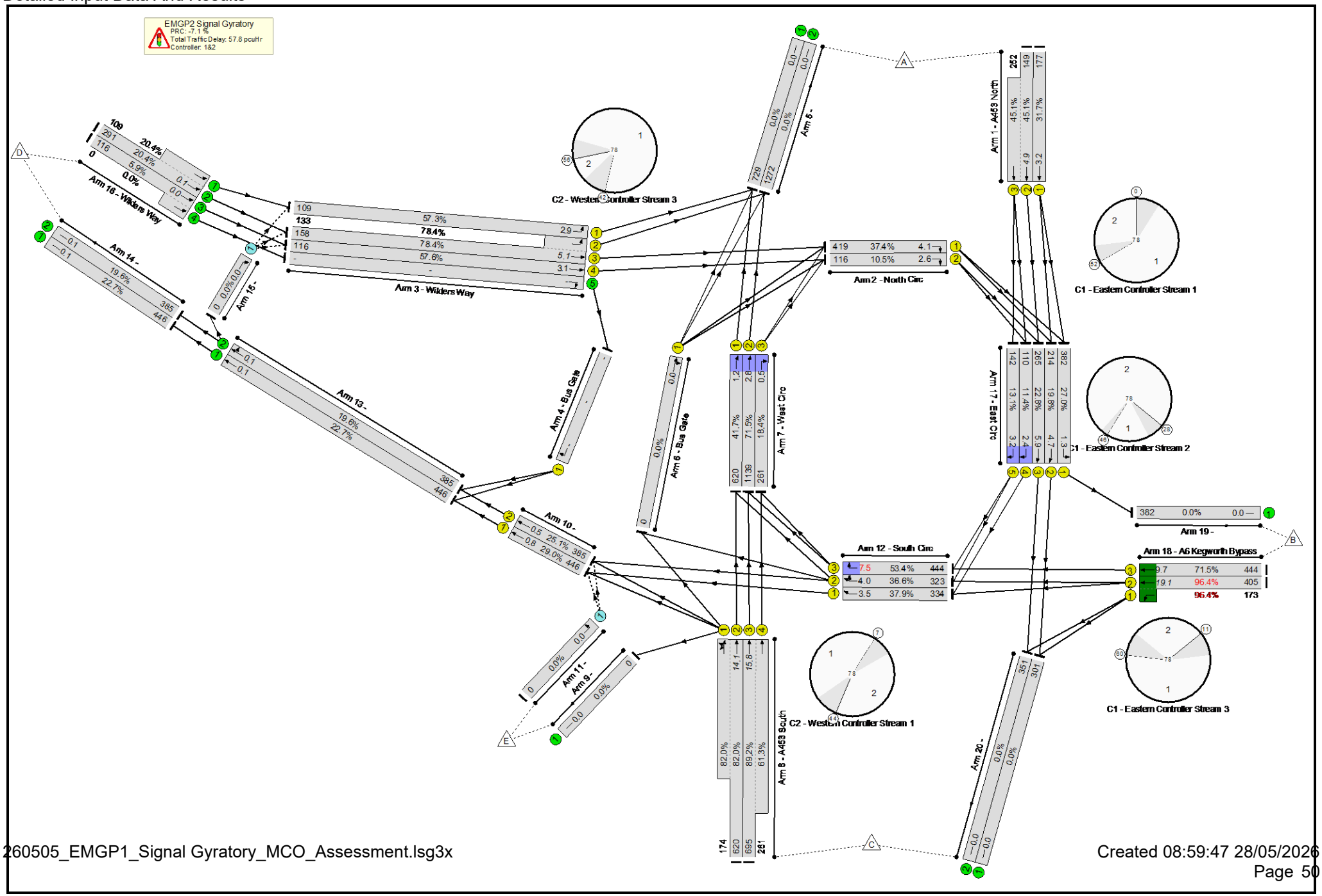
Signal Timings Diagram



Lane Green Times

Junction: EMGP2 Signal Gyratory					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A453 North Ahead	U	B	57	0
1/2	A453 North Ahead	U	B	57	0
1/3	A453 North Ahead	U	B	57	0
2/1	North Circ Right	U	A	7	52
2/2	North Circ Right	U	A	7	52
3/1	Wilders Way Left	U	G	49	56
3/2	Wilders Way Left	U	G	49	56
3/3	Wilders Way Ahead	U	F	49	56
3/4	Wilders Way Ahead	U	F	49	56
4/1	Bus Gate Right	U	L	39	46
7/1	West Circ Ahead	U	D	62	42
7/2	West Circ Ahead	U	D	62	42
7/3	West Circ Right	U	M	62	42
8/1	A453 South Ahead U-Turn Left	U	H	13	44
8/2	A453 South Ahead	U	B	13	44
8/3	A453 South Ahead	U	B	13	44
8/4	A453 South Ahead	U	B	13	44
10/1	Ahead	U	J	51	33
10/2	Ahead	U	J	51	33
12/1	South Circ Ahead	U	A	51	7
12/2	South Circ Right Right2 Ahead	U	A	51	7
12/3	South Circ Right	U	A	51	7
17/1	East Circ Left	U	I	48	28
17/2	East Circ Ahead	U	D	18	60
17/3	East Circ Ahead	U	D	18	60
17/4	East Circ Right	U	C	18	60
17/5	East Circ Right	U	C	18	60
18/1	A6 Kegworth Bypass Left	U	G	66	11-2
18/2	A6 Kegworth Bypass Ahead	U	E	65	11-2
18/3	A6 Kegworth Bypass Ahead	U	E	65	11-2

Network Layout Diagram


EMGP2 Signal Gyratory
PRC: -7.1%
Total Traffic Delay: 57.8 pcuHr
Controller: 1&2
Arm 16 - Wilders Way
Arm 14 -
Arm 15 -
Arm 3 - Wilders Way
Arm 13 -
Arm 4 - Bus Gate
Arm 6 - Bus Gate
Arm 10 -
Arm 11 -
Arm 9 -
Arm 8 - A453 South
C2 - Western Controller Stream 3
Arm 6 -
Arm 1 - A453 North
Arm 2 - North Circ
C1 - Eastern Controller Stream 1
Arm 7 - West Circ
Arm 17 - East Circ
C1 - Eastern Controller Stream 2
Arm 19 -
Arm 18 - A6 Kegworth Bypass
Arm 12 - South Circ
C2 - Western Controller Stream 1
C1 - Eastern Controller Stream 3
Arm 20 -

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.4%**
EMGP2 Signal Gyratory	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**96.4%**
1/1	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	177	1980	558	31.7%
1/2+1/3	A453 North Ahead	U	1:1	N/A	C1:B		1	21	-	-	401	2120:1980	330+558	45.1 : 45.1%
2/1	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	419	1901	1121	37.4%
2/2	North Circ Right	U	1:1	N/A	C1:A		1	45	-	-	116	1874	1105	10.5%
3/1	Wilders Way Left	U	2:3	N/A	C2:G		1	7	-	-	109	1854	190	57.3%
3/3+3/2	Wilders Way Ahead Left	U	2:3	N/A	C2:F C2:G		1	7	-	-	291	1965:1854	202+170	78.4 : 78.4%
3/4	Wilders Way Ahead	U	2:3	N/A	C2:F		1	7	-	-	116	1965	202	57.6%
3/5	Wilders Way Right	U	N/A	N/A	-		-	-	-	-	0	1965	-	-
4/1	Bus Gate Right	U	2:2	N/A	C2:L		1	7	-	-	0	2115	-	-
5/1		U	N/A	N/A	-		-	-	-	-	729	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	-	1272	Inf	Inf	0.0%
6/1	Bus Gate Right Ahead	U	2:3	N/A	C2:E		0	0	-	-	0	2115	0	0.0%
7/1	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	620	1965	1486	41.7%
7/2	West Circ Ahead	U	2:3	N/A	C2:D		1	58	-	-	1139	2105	1592	71.5%
7/3	West Circ Right	U	2:3	N/A	C2:M		1	58	-	-	261	1871	1415	18.4%
8/2+8/1	A453 South Ahead Ahead2 U-Turn Left	U	2:1	N/A	C2:B C2:H		1	31	-	-	794	1843:1900	756+212	82.0 : 82.0%

8/3+8/4	A453 South Ahead	U	2:1	N/A	C2:B		1	31	-	-	956	1899:1980	779+426	89.2 : 61.3%
9/1		U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
10/1	Ahead	U	2:2	N/A	C2:J		1	60	-	-	446	1965	1537	29.0%
10/2	Ahead	U	2:2	N/A	C2:J		1	60	-	-	385	1965	1537	25.1%
11/1	Left	O	N/A	N/A	-		-	-	-	-	0	1940	747	0.0%
12/1	South Circ Ahead	U	2:1	N/A	C2:A		1	34	-	-	334	1965	882	37.9%
12/2	South Circ Right Right2 Ahead	U	2:1	N/A	C2:A		1	34	-	-	323	1965	882	36.6%
12/3	South Circ Right	U	2:1	N/A	C2:A		1	34	-	-	444	1854	832	53.4%
13/1	Ahead	U	N/A	N/A	-		-	-	-	-	446	1965	1965	22.7%
13/2	Ahead Right	U	N/A	N/A	-		-	-	-	-	385	1965	1965	19.6%
14/1		U	N/A	N/A	-		-	-	-	-	446	1965	1965	22.7%
14/2		U	N/A	N/A	-		-	-	-	-	385	1965	1965	19.6%
15/1	Right	O	N/A	N/A	-		-	-	-	-	0	2065	876	0.0%
16/2+16/1	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	400	1965:1965	1430+535	20.4 : 20.4%
16/3+16/4	Wilders Way Ahead	U	N/A	N/A	-		-	-	-	-	116	1965:1965	1965+0	5.9 : 0.0%
17/1	East Circ Left	U	1:2	N/A	C1:I		1	58	-	-	382	1871	1415	27.0%
17/2	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	214	1965	1083	19.8%
17/3	East Circ Ahead	U	1:3	N/A	C1:D		1	42	-	-	265	2105	1160	22.8%
17/4	East Circ Right	U	1:3	N/A	C1:C		1	42	-	-	110	1747	963	11.4%
17/5	East Circ Right	U	1:3	N/A	C1:C		1	42	-	-	142	1965	1083	13.1%
18/2+18/1	A6 Kegworth Bypass Ahead Left	U	1:3	N/A	C1:E C1:G		1	24:23	-	Y:Y	578	1965:1828	420+180	96.4 : 96.4%
18/3	A6 Kegworth Bypass Ahead	U	1:3	N/A	C1:E		1	24	-	Y	444	2105	621	71.5%
19/1		U	N/A	N/A	-		-	-	-	-	382	Inf	Inf	0.0%

20/1		U	N/A	N/A	-		-	-	-	-	301	Inf	Inf	0.0%
20/2		U	N/A	N/A	-		-	-	-	-	351	Inf	Inf	0.0%

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	**-**	**-**	**0**	**0**	**0**	**36.1**	**21.7**	**0.0**	**57.8**	**-**	**-**	**-**	**-**	
EMGP2 Signal Gyratory	**-**	**-**	**0**	**0**	**0**	**36.1**	**21.7**	**0.0**	**57.8**	**-**	**-**	**-**	**-**	
1/1	177	177	-	-	-	1.1	0.2	-	1.3	26.8	3.0	0.2	3.2	
1/2+1/3	401	401	-	-	-	2.5	0.4	-	2.9 (1.0+1.9)	26.2 (25.3:26.7)	4.5	0.4	4.9	
2/1	419	419	-	-	-	1.5	0.3	-	1.8	15.0	3.8	0.3	4.1	
2/2	116	116	-	-	-	1.0	0.1	-	1.0	32.4	2.5	0.1	2.6	
3/1	109	109	-	-	-	1.0	0.7	-	1.7	55.2	2.2	0.7	2.9	
3/3+3/2	291	291	-	-	-	2.8	1.7	-	4.5 (2.4+2.0)	55.5 (55.7:55.4)	3.3	1.7	5.1	
3/4	116	116	-	-	-	1.1	0.7	-	1.7	54.1	2.4	0.7	3.1	
3/5	-	-	-	-	-	-	-	-	-	-	-	-	-	
4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	
5/1	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1272	1272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	620	620	-	-	-	0.2	0.4	-	0.5	3.1	0.8	0.4	1.2	
7/2	1139	1139	-	-	-	0.3	1.2	-	1.5	4.9	1.6	1.2	2.8	
7/3	261	261	-	-	-	0.1	0.1	-	0.2	2.6	0.3	0.1	0.5	
8/2+8/1	794	794	-	-	-	4.2	2.2	-	6.5 (5.3+1.2)	29.3 (30.5:25.0)	11.9	2.2	14.1	
8/3+8/4	956	956	-	-	-	5.3	1.9	-	7.2 (5.5+1.6)	26.9 (28.5:22.7)	13.9	1.9	15.8	
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/1	446	446	-	-	-	0.1	0.2	-	0.3	2.2	0.6	0.2	0.8	
10/2	385	385	-	-	-	0.0	0.2	-	0.2	1.9	0.3	0.2	0.5	

11/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	334	334	-	-	-	1.4	0.3	-	1.7	18.2	3.2	0.3	3.5	
12/2	323	323	-	-	-	1.6	0.3	-	1.9	20.8	3.7	0.3	4.0	
12/3	444	444	-	-	-	0.4	0.6	-	1.0	7.8	6.9	0.6	7.5	
13/1	446	446	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
13/2	385	385	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
14/1	446	446	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1	
14/2	385	385	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
15/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/2+16/1	400	400	-	-	-	0.0	0.1	-	0.1 (0.1+0.0)	1.1 (1.1:1.1)	0.0	0.1	0.1	
16/3+16/4	116	116	-	-	-	0.0	0.0	-	0.0 (0.0+0.0)	1.0 (1.0:0.0)	0.0	0.0	0.0	
17/1	382	382	-	-	-	0.1	0.2	-	0.3	2.8	1.2	0.2	1.3	
17/2	214	214	-	-	-	0.8	0.1	-	1.0	16.3	4.6	0.1	4.7	
17/3	265	265	-	-	-	1.5	0.1	-	1.6	21.9	5.7	0.1	5.9	
17/4	110	110	-	-	-	0.8	0.1	-	0.9	29.4	2.4	0.1	2.4	
17/5	142	142	-	-	-	1.1	0.1	-	1.2	31.0	3.1	0.1	3.2	
18/2+18/1	578	578	-	-	-	4.3	7.7	-	12.0 (8.4+3.6)	74.7 (74.7:74.7)	11.3	7.7	19.1	
18/3	444	444	-	-	-	3.0	1.2	-	4.3	34.6	8.5	1.2	9.7	
19/1	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
20/2	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 - Eastern Controller	Stream: 1 PRC for Signalled Lanes (%):	99.5	Total Delay for Signalled Lanes (pcuHr):	7.03	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 2 PRC for Signalled Lanes (%):	233.4	Total Delay for Signalled Lanes (pcuHr):	0.30	Cycle Time (s): 78
C1 - Eastern Controller	Stream: 3 PRC for Signalled Lanes (%):	-7.1	Total Delay for Signalled Lanes (pcuHr):	20.96	Cycle Time (s): 78
C2 - Western Controller	Stream: 1 PRC for Signalled Lanes (%):	0.9	Total Delay for Signalled Lanes (pcuHr):	18.13	Cycle Time (s): 78
C2 - Western Controller	Stream: 2 PRC for Signalled Lanes (%):	210.1	Total Delay for Signalled Lanes (pcuHr):	0.47	Cycle Time (s): 78
C2 - Western Controller	Stream: 3 PRC for Signalled Lanes (%):	14.8	Total Delay for Signalled Lanes (pcuHr):	10.18	Cycle Time (s): 78
	PRC Over All Lanes (%):	-7.1	Total Delay Over All Lanes(pcuHr):	57.78	