

Title: Response to OCC's Response dated 23rd April 2023

Technical Note 17 v3

Date: August 2023

1.1 Introduction

- 1.1.1 Jubb has been commissioned by Hallam Land Management Ltd (HLM) to provide highways and transportation advice in relation to a proposal for a residential-led mixed use development on land north-east of the railway line in North West Bicester 'Hawkwell Village'.
- 1.1.2 A planning application (Ref: 21/04275/OUT) was submitted in December 2021 for a residential led mixed use development for up to 3,100 dwellings.
- 1.1.3 Oxfordshire County Council submitted further transport and highways comments to Cherwell District Council (CDC) on 23rd April 2023.
- 1.1.4 A technical note (TN16) setting out strategic issues (Bicester Transport Model, main access junction designs, interim and final solution schemes for the Howes Lane / Bucknell Road / A4095 junction) that require direction from Oxfordshire County Council (OCC) was submitted to OCC and CDC on 21st June 2023 and an initial meeting with both parties took place on 19th July 2023. OCC provided a written response to CDC on 3rd August 2023.
- 1.1.5 This technical note (TN) sets out a response to the outstanding detailed matters raised in Oxfordshire County Council's transport and highways comments and provides the detail relating to the previously raised strategic issues. Where relevant the OCC response (3rd August 2023) has been taken into account.

1.2 TN09 v1 – Response to OCC's Initial Highway Comments

Additional Active Travel Access Points

- 1.2.1 The development proposes to deliver walking and cycling provision at the two proposed signalised access junctions where provision for active travel users to cross all arms of the junction will be undertaken by red light phasing of the signal sequence.
- 1.2.2 In addition to this the development proposes to deliver six additional active travel access points:
 - 1. Drawing 027 Rev P2 (**Appendix A**) shows an indicative active travel route providing access to Bainton Road. Due to the expected low level use of this active travel corridor the path is proposed as a 3m shared use path. A small length of the route (at the northern end) may be used to provide infrequent vehicular access to the wooded area to the west of the path for maintenance purposes.
 - 2. Drawing 030 Rev P1 (**Appendix B**) shows a connection (2m + 3m) from the proposed Firethorn development (planning permission recently secured at appeal) providing access to the services and facilities contained within the proposed development and onward travel within Bicester.
 - 3. Drawing 010 Rev P2 (**Appendix C**) shows the connection to Cranberry Lane and the wider Exemplar development including Gagle Brook Primary School. It is proposed that this access will provide a 2m footway either side of a carriageway. It is proposed that the road space is used by cyclists and buses only i.e. this access will take the form of a bus gate and no general vehicular traffic is proposed to use the carriageway.
 - 4. Drawing 028 Rev P2 (**Appendix D**) shows a connection between the proposed internal circular leisure active travel route and the realigned A4095 / Lords Lane. The proposal introduces a controlled crossing facility enabling active travel users to access the existing active travel provision that routes east/west on the southern side of Lords Lane.

5. Drawing 011 Rev P2 (**Appendix E**) shows the Bucknell Road connection which is provided with a 'Toucan' crossing facility to enable pedestrians and cyclists to cross the proposed Strategic Link Road (SLR). South of the SLR, Bucknell Road will be downgraded to an active travel corridor connecting with other routes at the Bucknell Road / Lords Lane junction; north of the SLR, Bucknell Road will provide access to development parcels – a carriageway plus an off-road foot/cycleway (2m + 3m) will be provided to the southernmost access at which point Bucknell Road will be downgraded to an active travel route, i.e. no vehicular traffic.
6. Drawing 026 Rev P3 (**Appendix F**) shows the active travel route along the southern and western boundaries of the existing Hawkwell Farm; a "Tiger" crossing on Bucknell Road links with the constructed pedestrian/cyclist tunnel under the railway line and Bucknell Road South. It should be noted that the existing culvert will need to be extended and a small area of 3rd party land will be required (there is agreement between the applicant and the landowner to enable the dedication of this land as public highway). Additionally, the road that links Bucknell Road with the main Hawkwell Village road network has been moved northward to enable the provision of land for a future extension to the proposed primary school if proven to be required.
7. An additional link from Bucknell Road to the pedestrian/ cyclist tunnel under the railway line is proposed to provide a direct route for active travel from the north.

Walking and Cycling Strategy Plan

- 1.2.3 Drawing HLM066/30 (**Appendix G**) has incorporated the above additional links to show the proposed walking and cycling strategy.

Off Site Active Travel Improvements

- 1.2.4 The development proposes a financial contribution to improve the existing active travel network beyond the site boundary:
- Upgrade of the route alongside the railway from Lord's Lane to Banbury Road as a surfaced cycleway and footpath;
 - Minor improvements to the existing cycleway on the south side of Lord's Lane to remove vegetation that impacts on the sense of personal security of users; and
 - Improvements to the routes through Bure Park to encourage use as leisure walking and cycling routes.
- 1.2.5 Following a site visit two options for the upgrading of the existing route (Footpaths Bicester 129/12/10 and Bicester 129/12/20) alongside the railway line have been investigated:
- Option 1 - 2m footpath + 3m cyclepath; and
 - Option 2 - 3m shared foot/cyclepath.
- 1.2.6 The 3m shared foot/cyclepath has been explored in conjunction with the segregated 2m footpath + 3m cycleway in the event of concerns being raised in relation to loss of vegetation and impact on ecology.
- 1.2.7 Drawings 21 Rev P2, 22 Rev P2 and 22 Rev P3 (**Appendix H**) set out the proposal for the two options. These drawings were used to undertake a costing exercise which assumed that delivery would be undertaken before the delivery of the SLR and/or a mitigation scheme (interim or final) at the Bucknell Road / Howes Lane junction. The estimated cost for the two options is:
- Option 1 - £712,914.67
 - Option 2 - £559,388.63

- 1.2.8 The upgrade of the route alongside the railway line and the other identified improvements will not only provide a benefit to the pedestrians and cyclists from the proposed Hawkwell Village development but also to the wider NW Bicester allocation and therefore, it is proposed that the cost of the improvements should be proportionally shared by the developments, and this matter will be picked up in the S106 Agreement.
- 1.2.9 As recognised by OCC in correspondence¹ with IMA (transport consultants for the Firethorn development), OCC's Cycling Design standards only relate to new roads.
- 1.2.10 It is noted that OCC, in their response dated 3rd August 2023, have committed to providing the active travel contributions secured and to be secured from other sites.

Travel Plan

- 1.2.11 An updated Travel Plan will be submitted.

Main Access Junctions Designs

- 1.2.12 The main access designs have been updated to provide straight over crossings for cyclists (see Drawings 001 Rev P6 attached at **Appendix I**).
- 1.2.13 The introduction of straight over crossings for cyclists requires the introduction of an 'All Red Phase' to the signal phasing and a loss of capacity for vehicle movements.
- 1.2.14 Following the adoption of the OCC Local Transport and Connectivity Plan (LTCP) it is considered that any loss of vehicle capacity to the benefit of active transport users will be considered appropriate to achieve the LTCP vision and targets.
- 1.2.15 In addition, the LTCP target to reduce 1 in 4 car trips by 2030 has not been considered within the Bicester Transport Model (BTM) and therefore, there will be a significant reduction in the vehicle trips that will pass through the two site access junctions.
- 1.2.16 For a 'Predict & Provide' approach to be achieved it should not attempt to achieve a 90% PRC at junctions (especially where no reduction to traffic has been undertaken to achieve the Vision) and should focus on the achievement of the movement of active road users.
- 1.2.17 The results of the LINSIG modelling of the eastern site access (with and without staggered pedestrian/cycle crossings) is summarised in **Table 1.1**. The modelling output report is provided in **Appendix J**.

¹ Email 9th March 2023

Arm	Year 2031 Dev 1a (BTM) (With Staggered Crossings)					
	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	85.80%	82.4	9.8	46.40%	71.2	2.2
A4095 (E)	88.00%	42.1	26.7	76.00%	26.9	20.5
Germander Rd	30.90%	75	1.4	18.30%	71.3	0.8
A4095 (W)	52.70%	27	11.2	55.60%	21.1	12.6
Cycle Time	120 seconds			120 seconds		
PRC	2.30%			18.40%		
Arm	Year 2031 Dev 1b ('Vision') (With Staggered Crossings)					
	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	83.80%	94.1	7.2	21.00%	66.6	0.9
A4095 (E)	83.10%	33.3	23.7	77.10%	27.6	21.2
Germander Rd	31.00%	75.1	1.4	18.30%	71.3	0.8
A4095 (W)	48.70%	22.8	10	56.30%	21.3	13
Cycle Time	120 seconds			120 seconds		
PRC	7.40%			16.70%		
Arm	Year 2031 Dev 1a (BTM) (With One Movement Crossings)					
	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	85.80%	82.4	9.8	46.40%	71.2	2.2
A4095 (E)	90.70%	48.1	28.7	78.10%	29.5	21.5
Germander Rd	30.90%	75	1.4	18.30%	71.3	0.8
A4095 (W)	56.80%	29	11.5	57.20%	22.8	13.1
Cycle Time	120 seconds			120 seconds		
PRC	-0.80%			15.20%		
Arm	Year 2031 Dev 1b ('Vision') (With One Movement Crossings)					
	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	83.80%	94.1	7.2	21.00%	66.6	0.9
A4095 (E)	85.50%	37.2	25.2	79.30%	30.3	22.4
Germander Rd	31.00%	75.1	1.4	18.30%	71.3	0.8
A4095 (W)	50.20%	24.6	10.5	58.00%	23	13.5
Cycle Time	120 seconds			120 seconds		
PRC	5.30%			13.50%		

Table 1.1 – Summary of LINSIG Results for Eastern Site Access

- 1.2.18 The model indicates that the eastern site access junction will generally operate within its design capacity in 2031 with staggered or one movement pedestrian and cycle crossings and with both the BTM and the 'Vision' trip generation. With the target for a 1 in 4 reduction in car trips set out in the LTCP the junction will operate well within capacity.
- 1.2.19 The results of the LINSIG modelling of the western site access (with and without staggered pedestrian/cycle crossings) is summarised in **Table 1.2**. The modelling output report is provided in **Appendix K**.
- 1.2.20 The model indicates that the western site access junction will generally operate within its design capacity in 2031 with staggered pedestrian and cycle crossings. The introduction of one movement pedestrian and cycle crossings pushes the operation above its design capacity and on some arms close to or just over its theoretical capacity.
- 1.2.21 The LTCP vision to achieve a 1 in 4 reduction in car trips is likely to see the operation of the junction return to being within its design capacity. Introducing additional lanes is not compliant with the LTCP or its vision to reduce car trips by 25%.
- 1.2.22 In their response of 3rd August 2023 OCC set out their support of straight over crossings for cyclists and an 'All Red Phase' for motor traffic. Clarification is sought on the sentence "*Further discussions are recommended on the design of the junctions but our preference would be for cycles to cross closer to the stop lines than cyclists*". However, this is considered to be a matter for detailed design and does not affect the overall layout requirements of the junctions.

Year 2031 Dev 1a (BTM) (With Staggered Crossings)						
Arm	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	76.80%	57.5	9.0	81.00%	69.9	7.7
A4095 (E)	84.00%	50.5	19.2	80.30%	59.0	13.5
Germander Rd	51.60%	68.7	3.4	75.60%	79.9	6.2
A4095 (W)	81.50%	62.9	10.8	77.10%	41.9	13.9
Cycle Time	120 seconds			120 seconds		
PRC	7.10%			11.10%		
Year 2031 Dev 1b ('Vision') (With Staggered Crossings)						
Arm	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	75.00%	59.8	8.3	80.70%	76.8	7.5
A4095 (E)	81.60%	46.7	18.8	80.00%	57.8	13.8
Germander Rd	51.00%	68.5	3.4	75.10%	79.3	6.1
A4095 (W)	77.20%	60.4	10.4	78.60%	43.1	14.9
Cycle Time	120 seconds			120 seconds		
PRC	10.30%			11.50%		
Year 2031 Dev 1a (BTM) (With One Movement Crossings)						
Arm	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	98.50%	123.1	17.0	94.50%	97.9	10.3
A4095 (E)	102.00%	139.4	34.6	96.40%	107.6	19.1
Germander Rd	71.00%	90.9	4.2	90.70%	120.1	8.4
A4095 (W)	100.70%	109	16.8	100.30%	117.1	29.0
Cycle Time	120 seconds			120 seconds		
PRC	-13.30%			-11.40%		
Year 2031 Dev 1b ('Vision') (With One Movement Crossings)						
Arm	AM Peak			PM Peak		
	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Site Access	94.60%	103.2	13	95.40%	125.7	11.3
A4095 (E)	101.10%	128.2	33.1	99.20%	128.0	22.1
Germander Rd	70.20%	90	4.1	100.10%	184.9	11.9
A4095 (W)	100.00%	136.8	19.4	99.20%	106.1	27.5
Cycle Time	120 seconds			120 seconds		
PRC	-12.30%			-11.20%		

Table 1.2 – Summary of LINSIG Results for Western Site Access

Primary Street Cross-Section

1.2.23 The majority of OCC's comments are detailed matters that can be easily configured to provide a suitable cross section.

- 1.2.24 Given that the public transport provision for the development will consist of a one-way circular loop the recommendation for a 6.75m carriageway is considered to be unjustified and excessive the Stagecoach document 'Bus Services & New Residential Developments' states for two-way bus movements a width of 6.2m is necessary. Therefore, it is considered that a carriageway of 6.3m is both suitable and in accordance with policies to reduce unnecessary road space and minimise vehicle speeds to the benefit of vulnerable road users' safety.

Access to Development Parcels on Bucknell Road and Bainton Road

- 1.2.25 The position of accesses to individual development parcels on Bucknell Road and Bainton Road cannot currently be provided due to the lack of detail in respect of constraints and layout. This is a typical situation for an outline planning application where the end developer is not yet known, and will in the usual way be picked up at the Reserved Matters Stage.
- 1.2.26 David Lock Associates (DLA), as the applicant's planning consultant, has raised the issue of only providing design detail on the main accesses and indicative positions for the remaining accesses with the planning officer at Cherwell District Council (CDC) and how this could be managed by the planning process. The LPA replied in an email (9th May 2022) stating:

"It is of course possible to make an outline application with all matters reserved, for which the Town and Country Planning (Development Management Procedure) (England) (Order) 2015 confirms that where access is a reserved matter, that the application for outline planning permission must state that the area or areas where access points to the development proposed will be situated. The current situation seems to be a hybrid approach whereby some access points are sought for approval and others are proposed to be reserved for later approval. I cannot find reference to the requirement that where a reserved matter is sought for approval at the outline stage that it requires every part of that matter to be submitted. Whilst a condition of the type suggested could be used, I wonder if it would provide greater clarity for the description of development to be updated to specify those accesses that details are sought for approval now. For example:

OUTLINE - with ~~all~~ matters of appearance, landscaping, layout, scale and access (partial) reserved except for the following specified Access points which are sought for approval at outline stage (COULD YOU ADD A DESCRIPTION TO REFLECT THOSE BEING SOUGHT FOR APPROVAL NOW?)- Mixed Use Development of up to 3,100 dwellings (including extra care); residential and care accommodation(C2); mixed use local centre (comprising commercial, business and service uses, residential uses, C2 uses, local community uses (F2(a) and F2(b)), hot food takeaways, public house, wine bar); employment area (B2, B8, E(g)); learning and non-residential institutions (Class F1) including primary school (plus land to allow extension of existing Gagle Brook primary school); green Infrastructure including formal (including playing fields) and informal open space, allotments, landscape, biodiversity and amenity space; burial ground; play space (including Neaps/Leaps/MUGA); changing facilities; ground mounted photovoltaic arrays; sustainable drainage systems; movement network comprising new highway, cycle and pedestrian routes ~~and access from highway network~~; car parking; infrastructure (including utilities); engineering works (including ground modelling); demolition

Then, there would not be a need for a condition as suggested because access (where not approved by the outline) would be listed as a reserved matter in the standard condition which requires the submission of reserved matters prior to development commencing in any event."

- 1.2.27 When a formal update to the application package is submitted, DLA intend to update the Description of Development and specify the detailed access points sought for approval.
- 1.2.28 It should be noted that this issue of accesses not being provided in detail has previously been accepted by OCC and thus precedent has been set. The previous application (14/01384/OUT) set out a draft condition that stated:

"Prior to the commencement of any phase of the development hereby approved, full details of the means of vehicular accesses between the land and the highway, including, position, layout, construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the means of access shall be constructed and retained in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework."

Connection to Elmsbrook Spine Road

- 1.2.29 An agreement to enable movements of transport between Hawkwell Village and the Exemplar site has been signed by both parties. Drawing 010 Rev P2 (**Appendix C**) shows the provision of a carriageway for bus and cyclist movements with 2m footpaths provided on both sides.

Interim Development Access

- 1.2.30 OCC's guidance on the number of dwellings to be served from a single access is noted. Phasing work is currently being undertaken and this guidance will be followed.

1.3 Use of the Bicester Transport Model to Assess the Impact of the Development on the Highway Network

- 1.3.1 The clarification on the BTM is welcomed and confirmation that the model is fit for use and the outputs can therefore be relied upon is awaited.

1.4 Percentage Impact Assessment

- 1.4.1 OCC's comments request additional traffic counts to be undertaken. OCC requested the use of the updated BTM to assess the impact of the proposed development on the network and the applicant commissioned the work in accordance with a Modelling Scope that OCC made comment on. At this stage in the determination period of the planning application, it is considered unreasonable given the agreement by OCC to use the BTM to assess the impact, to request alternative means of assessment that will add additional delay and cost.

- 1.4.2 Where requested detailed capacity assessments have been undertaken using the industry-standard modelling software package 'Junctions 10'. The models have been constructed using a combination of Ordnance Survey (OS) mapping and aerial photography. Model outputs are presented as 'Ratio Flow to Capacity' (RFC), 'Queue Length' in PCUs (rounded up to the next whole PCU) and 'Delay' in seconds per PCU (rounded up to the next whole second).

- 1.4.3 Following the modelling scope agreed with OCC, modelling has been undertaken for the following scenarios:

- 2031 Base;
- 2031 Base + Committed;
- 2031 + Committed + Dev 1a (BTM trip rates); and
- 2031 + Committed + Dev 1b ('Vision' trip rates).

- 1.4.4 Full output reports are provided at **Appendix L**, which include the input parameters and results.

Ref 7 Queens Avenue (B4100)/ Field Street (B4100) / St Johns Street Mini Roundabout

- 1.4.5 The results of the capacity assessment for the scenarios listed above are summarised in **Table 1.3**.

- 1.4.6 The results indicate that in 2031 without any development the B4100 North arm (Field Street) will operate over capacity in both the AM and PM peak hours; the St John's Street and B4100 South Arm (Queens Avenue) both operate within capacity in both peak hours. When committed traffic is included in the assessment there are marginal changes on all arms during both peak hours.
- 1.4.7 The development traffic, both 1a and 1b scenarios, produce minimal changes on both B4100 arms and the St Johns Street arm continues to operate within capacity.
- 1.4.8 The capacity modelling has shown that the traffic associated with the development does not have a material impact on the operation of the Queens Avenue / St Johns Street mini roundabout.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (PCUs)	Delay (Secs/PCU)	RFC	Queue (PCUs)	Delay (Secs/PCU)	RFC
2031 Base						
B4100 North	173.2	708.53	1.22	128.4	525.99	1.16
St Johns Street	3.8	21.66	0.78	4.1	24.36	0.80
B4100 South	1.7	7.19	0.62	3.9	13.91	0.80
2031 Base + Committed						
B4100 North	143.3	592.08	1.18	143.3	586.18	1.18
St Johns Street	4.1	22.68	0.79	4.3	25.23	0.81
B4100 South	1.9	7.93	0.65	4.1	14.54	0.80
2031 Base + Committed + Dev 1a						
B4100 North	190.4	778.74	1.24	159.8	652.29	1.20
St Johns Street	4.5	24.56	0.81	13.3	68.13	0.95
B4100 South	2.0	8.03	0.65	4.8	16.91	0.83
2031 Base + Committed + Dev 1b						
B4100 North	183.1	751.02	1.23	152.5	622.90	1.19
St Johns Street	4.4	24.20	0.81	12.6	65.02	0.94
B4100 South	1.9	7.99	0.65	4.7	16.47	0.82

Table 1.3 – Summary of Junction 10 Results Queens Avenue / St Johns Mini Roundabout

Ref 8 Banbury Road / Field Street Mini Roundabout

- 1.4.9 The results of the capacity assessment for the scenarios listed above are summarised in **Table 1.4**.
- 1.4.10 The results indicate that in 2031 without any development the Banbury Road arm will operate just over capacity in the AM peak hour and within capacity in the PM peak hour; when committed and development traffic is added the capacity on this arm improves and operates within capacity.
- 1.4.11 The Buckingham Road arm operates within capacity in all scenarios in both peak hours.
- 1.4.12 The B4100 South arm operates within capacity for all scenarios in the AM peak hour. In the PM peak hour this arm is operating over capacity without any committed or development traffic; the addition of committed and development traffic has a negligible impact on the capacity of this arm.
- 1.4.13 The capacity modelling has shown that the traffic associated with the development does not have a material impact on the operation of the has a minimal impact on the operation of the Banbury Road / Field Street mini roundabout.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (PCUs)	Delay (Secs/PCU)	RFC	Queue (PCUs)	Delay (Secs/PCU)	RFC
2031 Base						
Banbury Rd	23.6	212.64	1.02	1.7	26.44	0.63
Buckingham Rd	1.0	6.97	0.49	1.5	7.79	0.60
B4100 South	3.8	18.73	0.79	74.1	262.23	1.07
2031 Base + Committed						
Banbury Rd	10.9	109.51	0.94	1.7	26.18	0.63
Buckingham Rd	0.9	6.72	0.48	1.5	7.86	0.60
B4100 South	5.7	26.29	0.85	78.4	276.30	1.07
2031 Base + Committed + Dev 1a						
Banbury Rd	6.2	58.10	0.87	2.3	32.68	0.70
Buckingham Rd	1.0	7.07	0.50	1.2	7.08	0.55
B4100 South	3.4	17.15	0.77	69.1	245.45	1.06
2031 Base + Committed + Dev 1b						
Banbury Rd	11.2	111.98	0.95	1.6	25.12	0.62
Buckingham Rd	0.9	6.59	0.47	1.3	7.33	0.57
B4100 South	6.0	27.41	0.86	124.0	425.93	1.12

Table 1.4 – Summary of Junction 10 Results Banbury Road / Field Street Mini Roundabout

Ref 15 B4100 Banbury Road / A4095 Lords Lane Roundabout

- 1.4.14 The results of the capacity assessment for the scenarios listed above are summarised in **Table 1.5**.
- 1.4.15 The results indicate that all arms operate within capacity in both the AM and PM peak hours. The traffic associated with the development does not have a material impact on the operation of the B4100 Banbury Road / A4095 Lords Lane roundabout.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (PCUs)	Delay (Secs/PCU)	RFC	Queue (PCUs)	Delay (Secs/PCU)	RFC
2031 Base						
A4095 East	4.0	12.92	0.78	5.0	14.06	0.83
Banbury Rd B4100 South	0.4	5.09	0.30	0.8	7.39	0.45
Lords Lane A4095 West	0.8	5.75	0.41	1.5	8.48	0.59
B4100 North	6.1	18.32	0.86	1.9	8.07	0.65
2031 Base + Committed						
A4095 East	7.4	22.06	0.88	6.1	16.76	0.86
Banbury Rd B4100 South	0.8	7.12	0.45	1.0	8.14	0.49
Lords Lane A4095 West	1.2	7.74	0.50	1.7	9.32	0.62
B4100 North	6.5	19.30	0.86	2.4	9.42	0.70
2031 Base + Committed + Dev 1a						
A4095 East	8.6	26.37	0.89	9.4	25.25	0.91
Banbury Rd B4100 South	0.9	7.39	0.48	1.9	12.80	0.66
Lords Lane A4095 West	2.2	11.59	0.66	2.5	14.82	0.71
B4100 North	10.1	31.55	0.91	3.3	11.74	0.76
2031 Base + Committed + Dev 1b						
A4095 East	7.4	22.67	0.88	8.5	22.95	0.90
Banbury Rd B4100 South	0.9	7.13	0.46	1.6	11.21	0.61
Lords Lane A4095 West	1.6	9.37	0.59	1.9	11.77	0.65
B4100 North	8.2	25.08	0.89	3.1	10.91	0.75

Table 1.5 – Summary of Junction 10 Results B4100 Banbury Road / A4095 Lords Lane Roundabout

Ref 16 B4100/Caversfield Priority Junction

- 1.4.16 Oxfordshire County Council has a three phase project for the introduction of 20mph limits throughout Oxfordshire². Caversfield is identified within Phase 2 for completion between 1st April 2023 – 31st March 2024. Other developments within the NW Bicester allocation will also have an impact on Aunt Ems Lane; the developer is willing to provide a pro-rata contribution to the proposed scheme.

Ref 17 and 18 Howes Lane / Bucknell Road / A4095 Junctions

- 1.4.17 The model coding is as per the layout permitted under the 14/01968/F permission.

² <https://www.oxfordshire.gov.uk/residents/roads-and-transport/traffic/20mph-scheme/20-limit-project-progress>

1.4.18 The change in vehicle movements brought about by the removal of the junction east of the western access has been undertaken by manual reassignment.

1.4.19 In accordance with the LTCP, the capacity of the junction forms the lowest priority and active travel improvements take priority. Both the interim and final solution mitigation schemes provide significant improvements for pedestrians and cyclists.

Ref 19 Howes Lane / Middleton Stoney Road / Vendee Road Roundabout

1.4.20 The results of the capacity assessment for the scenarios listed above are summarised in **Table 1.6**.

1.4.21 The results indicate that all arms operate within capacity in both the AM and PM peak hours. The traffic associated with the development does not have a material impact on the operation of the Howes Lane / Middleton Stoney Road / Vendee Road roundabout.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (PCUs)	Delay (Secs/PCU)	RFC	Queue (PCUs)	Delay (Secs/PCU)	RFC
2031 Base						
1 - A4095 Howes Ln N	3.4	15.89	0.75	0.9	6.74	0.44
2 - B4030 Middleton Stoney Rd	3.3	16.58	0.76	0.9	6.21	0.49
3 - A4095 South	0.8	4.97	0.42	3.1	10.17	0.75
4 - B4030 West	1.2	6.85	0.55	1.5	9.68	0.60
2031 Base + Committed						
1 - A4095 Howes Ln N	4.5	21.16	0.80	1.0	7.36	0.48
2 - B4030 Middleton Stoney Rd	4.5	21.71	0.82	1.2	6.98	0.53
3 - A4095 South	0.9	5.40	0.45	3.7	12.13	0.78
4 - B4030 West	2.2	10.29	0.69	2.0	11.47	0.66
2031 Base + Committed + Dev 1a						
1 - A4095 Howes Ln N	8.2	35.48	0.89	1.2	8.16	0.53
2 - B4030 Middleton Stoney Rd	5.8	27.42	0.86	1.3	7.73	0.57
3 - A4095 South	0.9	5.50	0.46	5.0	15.71	0.83
4 - B4030 West	2.3	10.75	0.70	2.4	13.60	0.70
2031 Base + Committed + Dev 1b						
1 - A4095 Howes Ln N	7.2	31.41	0.87	1.1	7.76	0.50
2 - B4030 Middleton Stoney Rd	5.4	25.49	0.85	1.3	7.49	0.56
3 - A4095 South	0.9	5.31	0.44	4.6	14.55	0.82
4 - B4030 West	2.2	10.08	0.68	2.2	12.80	0.69

Table 1.6 – Summary of Junction 10 Results Howes Lane / Middleton Stoney Road / Vendee Road Roundabout

Ref 21 Middleton Road / Bainton Road Priority Junction

1.4.22 As set out in OCC's response (23rd April 2023), it is agreed that the increase in traffic shown by the BTM will not lead to congestion at this junction.

1.4.23 The coding of Bucknell Road in the BTM is confirmed to be traffic calmed with a 30mph speed limit.

1.4.24 The Bucknell Road link road in the previous application (14/01384/OUT), commonly referred to as the 'Bucknell Hook', was moved south to enable a better masterplan layout to be delivered and to enable the link to come forward without the need for the delivery of expensive infrastructure (bridge) in the early stages of the development. Since the submission of the planning application, discussions with OCC have led to a requirement to safeguard land for a possible extension to the primary school and the link road has been moved to the north. **Figure 1.1** shows the three positions of the link road illustratively.

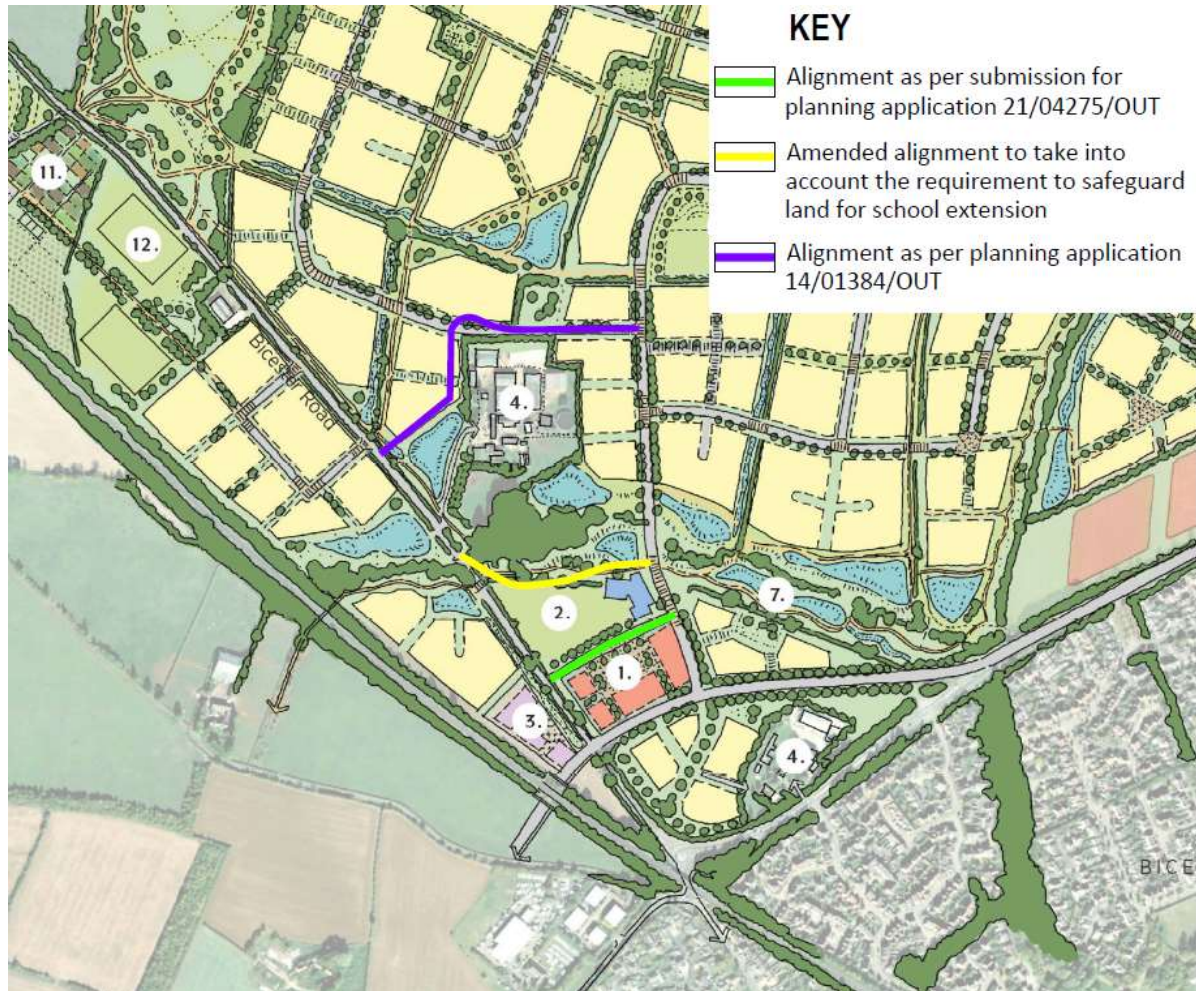


Figure 1.1 – Historical Positions of the Bucknell Road Link Road (Illustrative)

- 1.4.25 A journey time analysis has been undertaken to understand the difference in journey times between the positioning of the 'Bucknell Hook' in the previous application and the current proposal (south of Hawkwell Farm).
- 1.4.26 Two starting points have been used: 1) the SLR / western site access signalised junction and 2) Bucknell Road immediately north of the railway bridge (this starting point considers the removal of the signalised SLR junction to the east of the western site access/ SLR junction). The end point of all journeys is the existing change from 60mph to 30mph to the south of Bucknell village. No time has been added for delay due to junctions.
- 1.4.27 Drawings 049 Rev P1, 050 Rev P1, 051 Rev P1 and 052 Rev P1 in **Appendix M** show the routes and the assumed speed limits³. **Table 1.7** sets out the results.

³ The current proposal assumes a 20mph speed limit on the Bucknell link road as it routes alongside the northern access to the proposed primary school. The previous application proposed traffic calming within Bucknell village but not along Bucknell Road and therefore, the speed limit used for Bucknell Road is 60mph.

Planning Application	Start Point	Section	Length (km)	Time (hh:mm:ss)	Total Journey Time
Current	Western Site Access / SLR	Western Site Access – Bucknell Road Link Road	0.203	00:00:15	00:02:18
		Bucknell Road Link Road	0.295	00:00:33	
		Bucknell Road	1.210	00:01:30	
Previous		Western Site Access – Bucknell Road Hook	0.401	00:00:30	00:01:59
		Bucknell Road Hook	0.644	00:00:48	
		Bucknell Road	1.096	00:00:41	
Current	Immediately North of the Bucknell Road Railway Bridge	Railway Bridge – Western Site Access	0.263	00:00:20	00:02:38
		Western Site Access – Bucknell Road Link Road	0.203	00:00:15	
		Bucknell Road Link Road	0.295	00:00:33	
		Bucknell Road	1.210	00:01:30	
Previous		Railway Bridge – Western Site Access via signalised junction to the east of Western Site Access	0.646	00:00:48	00:02:47
		Western Site Access – Bucknell Road Hook	0.401	00:00:30	
		Bucknell Road Hook	0.644	00:00:48	
		Bucknell Road	1.096	00:00:41	

Table 1.7 – Journey Time Assessment of Bucknell Road Link Road

- 1.4.28 The assessment shows that there is no significant difference in journey times between the current and previous proposals for the Bucknell Road link road. For vehicles routeing to/from the east and west the current proposal will increase the journey time by 19 seconds and for vehicles routeing to/from the south the current proposal reduces the journey time by 9 seconds.
- 1.4.29 A comparison of vehicles predicted by the BTM to route through the Middleton Road / Bainton Road junction has been undertaken and is shown in **Table 1.8**.

Peak Hour	Previous Application	2031 Base	2031 Base + Committed	2031 Base + Committed + Development BTM Trip Rates	2031 Base + Committed + Development Vision Trip Rates
AM	544	664	764	827	780
PM	683	514	562	695	648

Table 1.8 – Vehicles Routeing Through Middleton Road / Bainton Road Junction

- 1.4.30 The results indicate similar / less vehicle movements in the PM peak hour when comparing the proposed Bucknell link road to the 'Bucknell Hook'.
- 1.4.31 In the AM peak hour the BTM predicts an additional 236 – 283 vehicles travelling through the Middleton Road / Bainton Road junction which can be seen to be mainly due to the increase in background and committed traffic with a minimal impact due to development traffic.
- 1.4.32 It is noted that OCC's programme of introducing 20mph speed limits includes a completed scheme within Bucknell village (**Appendix N**). The implementation of the reduced speed limit through the village will deter vehicles from using the route. As Hawkwell Village will alter the Bucknell Road environment it will meet many of the criteria for a reduction in speed to 20mph (i.e. urban form fronting the carriageway, residential frontages, school walking route, an area where greater active travel is being promoted, aid better air quality) and therefore, the 20mph speed limit could be extended further reducing the attractiveness of the route.
- 1.4.33 OCC's support of the principle of introducing traffic calming and a 20mph speed restriction on this link along with additional traffic calming in Bucknell village as a deterrent to rat running through Bucknell is noted.

Baynards Green Roundabout

- 1.4.34 It is noted that OCC consider that the Baynards Green roundabout forms part of M40 J10; as such it is the responsibility of National Highways and does not fall in the remit of OCC.
- 1.4.35 The Traffic Model Scope, which was submitted to and commented on by OCC, set out the junctions to be included within the outputs from the BTM. The included junctions were as agreed for the previous application (14/01384/OUT) and OCC did not request the inclusion of the Baynards Green roundabout.

1.5 Howes Lane / Bucknell Road / A4095 Interim Mitigation Scheme

- 1.5.1 HLM welcome OCC's acceptance that "allowing some additional occupations ahead of the completion of the SLR would assist developers in being able to contribute to the SLR".
- 1.5.2 Policy 1 of the LTCP states "we will develop, assess and prioritise". It is considered that the junction design has assessed and prioritised in accordance with the policy. The interim mitigation scheme has focused on delivering high quality pedestrian routes and crossing facilities, the reduction of points of conflict for cyclists and the delivery of additional vehicle capacity. This is a unique position bought about by the delay in the delivery of the SLR and should be considered in the wider delivery of the CDC policy to deliver housing on the allocated site.

- 1.5.3 It is considered that the design is fully compliant with Policy 2a of the LTCP. The footways have been widened and crossing facilities provided on all three arms. Cyclists remain within the carriageway; with the introduction of signals, all points of conflict between cyclists and vehicles have been removed. As recognised by OCC in correspondence⁴ with IMA (transport consultants for the Firethorn development) OCC's Cycling Design standards only relate to new roads.

Cost

- 1.5.4 An exercise, undertaken in March 2023, provided an estimated cost for the interim scheme of £2.3M.
- 1.5.5 At no point, has Jubb or the applicant stated that the delivery of the interim scheme would jeopardise the delivery of the enhancement to the footpath along the railway. At this stage, it is not considered that the cost of the scheme should be a factor in whether or not the proposed scheme is suitable. The highway authority should only consider whether the interim scheme is suitable in terms of its design. The cost of the scheme will then be put into the overall development costing when it can then be decided if the delivery of the scheme can be accommodated and whether it is at the cost of other items or not; at this point the highway authority / planning authority can decide on the priorities that they want to be delivered.
- 1.5.6 The existing junction is the critical constraint on the highway network that has brought about the need for the delivery of the Strategic Link Road to enable development in NW Bicester to come forward. The forward funding for the Strategic Link Road has been reallocated due to time constraints on spending of the money. The cost of the Strategic Link Road is significant and commercially the delivery will only be forthcoming once a significant number of dwellings have been delivered. Our modelling shows that the Interim Solution can release some 1,250 dwellings before the delivery of the SLR, and as such this quantum of development seems reasonable. Without agreement from the highway authority on an interim scheme or the acceptance that the existing junction remains in place with the delivery of 1,250 dwellings until the delivery of the Strategic Link Road and a final solution scheme, with additional delays on the network, the delivery of any development at Hawkwell Farm is at risk. The Interim scheme also seeks to unlock a proportion of development early on, a key benefit on an Allocation within Cherwell's Local Plan that delivery has been stalled on.

Geometry

- 1.5.7 It is accepted that it has been difficult to find a solution to enable the traffic associated with 1,250 dwellings at Hawkwell Farm to be accommodated at the junction due to the constraint of the bridge abutments.
- 1.5.8 Over the last decade there have been several schemes presented to OCC that have been found to be unsuitable, not only in terms of capacity but for a lack of improvement to active travel movements. The proposed interim scheme not only delivers capacity improvements which, are above the requirement for development to only mitigate its own impact, but widens footways to design standards, introduces controlled pedestrian crossing points and removes points of conflict for cyclist movements within the carriageway.
- 1.5.9 The highway authority has expressed concerns in respect of vehicles turning left from Howes Lane and their proximity to vehicles parked at the stop line immediately south of the railway bridge. Drivers of articulated vehicles have to go through rigorous training to gain their license and are considered as professional drivers; these drivers often have to manoeuvre their vehicles within tight spaces. The number of HGV movements is relatively low (20 two-way movements in the AM peak hour and a single movement in the PM peak hour). The space between opposing vehicle movements is considered suitable and is not unusual when designing mitigation schemes in urban environments.

⁴ Email 9th March 2023

Highway Safety

- 1.5.10 A Stage 1 Road Safety Audit (RSA) was commissioned to be undertaken by an independent consultant. The RSA report (**Appendix O**) raises no areas of concern in terms of road safety associated with the proposal.
- 1.5.11 OCC raise concerns over the wait time for pedestrian movements given that the proposed signals have been modelled using a 180sec cycle. They also state that any reduction in cycle time will reduce the capacity benefits that the signalised scheme provides.
- 1.5.12 The junction currently offers no controlled crossing facilities for pedestrians. The following facilities are currently available at the southern priority junction to enable pedestrian movements:
- Dropped kerb crossing on the A4095(W) arm crossing 3 lanes of traffic;
 - Dropped kerb crossing on Bucknell Road in the vicinity immediately south of the railway bridge with limited visibility to vehicles turning left from the A4095(W) arm and requiring pedestrians to look behind; and
 - No facilities on the Bucknell Road(S) arm.
- 1.5.13 It is considered that the introduction of controlled pedestrian crossings and a pedestrian refuge offers a significant benefit in terms of highway safety. See paragraph 1.5 of the Stage 1 RSA (**Appendix O**) where the auditors record the difficulty for a pedestrian crossing Bucknell Road at the existing uncontrolled crossing point under the railway bridge due to visibility issues relating to approaching vehicles turning left from Howes Lane.
- 1.5.14 The number of pedestrian movements at the junctions is extremely low (5 in the AM peak hour and 2 in the evening peak hour) and therefore, any adjustment to the signal timing would result in a minimal loss of capacity during the peak hours. The RSA audit also records very low pedestrian movements. The reduction in vehicle capacity by reducing the wait time for pedestrians, would still offer a significant capacity improvement over the existing situation, and the benefit of pedestrian movements would be in accordance with the OCC LTCP. Additionally, given OCC's no objection to a 50% increase in the current delay at the southern junction (6 minutes to 9 minutes) in respect of the Firethorn development, a small decrease in capacity to shorten pedestrian wait times is not seen as a 'severe' impact on the operation of the junction.
- 1.5.15 It is recognised that the interim scheme may be in-situ for a number of years and therefore every effort has been made to improve active travel through the junction. The upgrade to design standard footway width and the introduction of controlled pedestrian crossing points and a pedestrian refuge will see significant benefits and considers an interim 'Decide & Provide' approach to the proposal i.e. whilst current pedestrian movements are extremely low, the interim scheme recognises the desire to improve pedestrian movements through the junction.
- 1.5.16 The signalised scheme offers significant capacity improvements compared to the existing junction form and there is scope to alter the signal timings and still provide a capacity improvement with up to 1,250 dwellings at the Hawkwell Village development compared to the existing situation. OCC have offered no objection to the Firethorn scheme which would introduce additional traffic (associated with up to 530 dwellings) through the junction with no improvement to capacity or pedestrian and cyclist movements. The minimal loss of capacity through the 'calling' of minimal pedestrian movements on a scheme that offers significant capacity benefits is not considered to be detrimental to the operation of the junction.
- 1.5.17 Cycle advance stop lines and feeder lanes have been removed from the proposed interim scheme (see Drawing 031 Rev P5 attached at **Appendix P**). Revised vehicle tracking is shown in Drawing 032 Rev P6 attached at **Appendix Q**.

- 1.5.18 There is minimal cyclist movement through the junction (2 movements during both the AM and PM peak hours). It is recognised by OCC that the main desire line for cyclists from the Hawkwell Village development will be towards the town centre along the existing active travel route adjacent to the railway line and therefore, additional cycle movements through the junction arising from the proposed development will be limited.
- 1.5.19 With the current layout (priority junction and roundabout) there are a large number of conflict points between vehicles and cyclists i.e. cyclists are required to judge vehicle speeds and whether they have time to pull out and the visibility of cyclists by drivers when travelling through a junction with the possibility of drivers pulling out into a cyclist's path. The signalisation of the junctions removes these conflict points as cyclists will be travelling in a stream of traffic that is afforded priority by a 'green light'.
- 1.5.20 The proposed scheme affords wider footways and controlled crossings for pedestrians and the removal of conflicts for cyclists, all to the benefit of existing / future users of the Aldershot Farm bridleway. As recognised by OCC in correspondence⁵ with IMA (transport consultants for the Firethorn development) OCC's Cycling Design standards only relate to new roads. It must be referenced that this is a mitigation scheme at an existing junction, and it is not for any development to resolve the existing issues but only to provide nil detriment or a betterment to the future situation if the development did not occur.

Traffic Flows

- 1.5.21 The BTM shows the traffic flows as two separate junctions; LINSIG models the two junctions as a single junction. As there were inconsistencies between the BTM traffic flows at the two junctions the flows used in the LINSIG model only considers the inbound flows on each of the external arms (i.e. Howes Lane, Bucknell Road North, A4095 and Bucknell Road South) and ignores the internal traffic flows (i.e. north and southbound flows under the railway bridge). It can be seen that all the differences are in relation to movements from the internal Bucknell Road North arm i.e. southbound traffic under the railway bridge.

Capacity Improvement

- 1.5.22 OCC state that the 'interim scheme' is unlikely to deliver the predicted capacity improvements due to the constraints. The modelling has been undertaken with the geometry that takes into account the constraints. There is no reason to foresee that the modelled capacity for the proposed junction will not be achieved.
- 1.5.23 For clarity, the junction has been remodelled without the advance cycle stop lines and the results are provided in **Table 1.9**. The modelling output files are provided at **Appendix R**.

⁵ Email 9th March 2023

Arm	Lane	AM			PM		
		DoS (%)	Queue (PCUs)	Delays/PCU	DoS (%)	Queue (PCUs)	Delays/PCU
2026 + Committed + 675 dwellings (BTM Trip Generation)							
Bucknell Road (North)	-	33.0	8.5	44.9	38.6	9.4	52.7
A4095 (East)	Left	95.2	43.6	74.5	88.2	39.5	49.1
	Right	93.1	-	108.5	88.2	-	96.4
Bucknell Road (Internal Southbound)	-	95.1	9.8	18.7	94.8	5.5	10.8
Bucknell Road (South)	Left	97.0	38.9	108.7	89.9	30.4	83.3
A4095 (West)	Left	57.9	17.2	36.6	85.6	34.4	50.5
	Right	57.9	-	86.0	85.6	-	96.7
Bucknell Road (Internal Northbound)	Left	54.6	2.8	2.2	73.5	8.8	2.7
	Right	54.6	-	0.6	73.5	-	0.5
PRC (%)		-7.8			-5.3		
Cycle Time		180s					
2026 + Committed + 1250 dwellings (BTM Trip Generation)							
Bucknell Road (North)	-	41.8	9.5	58.1	35.0	9.4	43.3
A4095 (East)	Left	81.3	31.9	39.9	95.7	47.4	74.9
	Right	96.6	-	92.3	95.7	-	117.3
Bucknell Road (Internal Southbound)	-	93.8	10.7	17.9	93.8	8.0	10.2
Bucknell Road (South)	Left	95.6	37.3	99.9	98.5	35.8	126.7
A4095 (West)	Left	57.1	17.0	35.8	78.9	30.6	39.3
	Right	57.1	-	87.8	78.9	-	91.8
Bucknell Road (Internal Northbound)	Left	52.5	11.5	6.0	75.1	3.5	2.4
	Right	52.5	-	0.9	75.1	-	0.6
PRC (%)		-7.3			-9.5		
Cycle Time		180s					
2026 + Committed + 675 dwellings (Vision Trip Generation)							
Bucknell Road (North)	-	34.3	8.9	45.2	37.7	9.1	52.5
A4095 (East)	Left	92.7	39.5	65.5	87.1	38.2	47.6
	Right	88.6	-	100.4	87.1	-	95.2
Bucknell Road (Internal Southbound)	-	94.2	8.8	17.0	93.0	5.0	10.6
Bucknell Road (South)	Left	92.2	34.8	83.8	90.0	30.4	83.6
A4095 (West)	Left	58.7	17.2	39.3	85.8	34.8	50.8
	Right	58.7	-	86.5	85.8	-	97.0
Bucknell Road (Internal Northbound)	Left	54.5	3.5	2.4	72.8	7.2	2.5
	Right	54.5	-	0.6	72.8	-	0.5
PRC (%)		-4.6			-3.3		

Arm	Lane	AM			PM		
		DoS (%)	Queue (PCUs)	Delay s/PCU	DoS (%)	Queue (PCUs)	Delay s/PCU
Cycle Time		180s					
2026 + Committed + 1250 dwellings (Vision Trip Generation)							
Bucknell Road (North)	-	40.5	9.6	54.7	33.1	8.8	42.9
A4095 (East)	Left	81.8	31.7	42.8	94.3	45.1	69.6
	Right	94.7	-	92.7	94.3	-	112.5
Bucknell Road (Internal Southbound)	-	92.3	10.4	18.2	91.0	7.0	8.8
Bucknell Road (South)	Left	95.3	37.4	97.1	93.8	31.1	99.9
A4095 (West)	Left	55.7	16.2	35.8	81.9	32.4	43.4
	Right	55.7	-	87.8	81.9	-	93.8
Bucknell Road (Internal Northbound)	Left	52.7	12.1	6.7	73.7	2.7	2.0
	Right	52.7	-	1.1	73.7	-	0.6
PRC (%)		-5.9			-4.8		
Cycle Time		180s					

Table 1.9 – Summary of LINSIG Results for Signals Mitigation Scheme

- 1.5.24 The queues on the A4095 eastern arm are significantly improved. With 1,250 dwellings there is a queue of 32 pcus (BTM and 'Vision') in the AM peak hour and 48 pcus (BTM)/45 pcus ('Vision') in the PM peak hour. Comparing the junction's operation in 2026 with development against the BTM '2026 Reference Case' there is a reduction in queues on this arm of 153 pcus (BTM and 'Vision') in the AM peak hour and 146 pcus (BTM)/149 pcus ('Vision') in the PM peak hour. Maximum delay reduces from 623s per pcu to 92s per pcu (BTM)/ 93s per pcu ('Vision') in the AM peak hour and from 638s per pcu to 117s per pcu (BTM) / 113s per pcu ('Vision') in the PM peak hour, a saving of 8-10 minutes on travel times in the peak hours. These results indicate that the interim scheme will operate with a significantly lower level of delay than the 9 minutes deemed acceptable by OCC when considering the impact of traffic associated with the 530 Firethorn dwellings at the junctions.
- 1.5.25 The queues on the A4095 western arm also see a significant reduction generating a queue of 17 pcus (BTM)/ 16 pcus ('Vision') in the AM peak hour and a queue of 31 pcus (BTM)/ 32pcus ('Vision') in the PM peak hour with the traffic generation of 1,250 dwellings and removes any knock-on impact on nearby junctions with the exception of the Avonbury Business Park junction in the PM peak hour. Comparing the junction's operation in 2026 with development against the BTM '2026 Reference Case' there is a reduction in queues on this arm of 36 pcus (BTM)/37 pcus ('Vision') in the AM peak hour and 202 pcus (BTM)/201 pcus ('Vision') in the PM peak hour. Maximum delay reduces from 292s per pcu to 88s per pcu (BTM and 'Vision') in the AM peak hour and from 972s per pcu to 92s per pcu (BTM)/ 94s per pcu ('Vision') in the PM peak hour, a saving of 3½ minutes in the AM peak hour and 14½ minutes in the PM peak hour. These results indicate that the interim scheme will operate with a significantly lower level of delay than the 9 minutes deemed acceptable by OCC when considering the impact of traffic associated with the 530 Firethorn dwellings at the junctions.
- 1.5.26 The introduction of signals introduces a delay to the movements on Bucknell Road (i.e. north and south arms). However, the assessment of 1,250 dwellings, indicates a queue of 9 - 10 pcus (BTM and 'Vision') on the Bucknell Road North arm in the AM and PM peak hours respectively and queues of 37 (BTM and 'Vision') and 37 pcus (BTM)/31pcus ('Vision') on the Bucknell Road South arm in the AM and PM peak hours respectively. The predicted delay is considered within a normal range for a signalised junction in an urban environment and is below the 9 minutes deemed acceptable by OCC when considering the impact of traffic associated with the 530 Firethorn dwellings at the junctions.

1.5.27 **Figure 1.2** and **Figure 1.3** show a visual representation of the predicted traffic queues for the '2026 Reference Case + 1250 dwellings' BTM and 'Vision' scenarios.

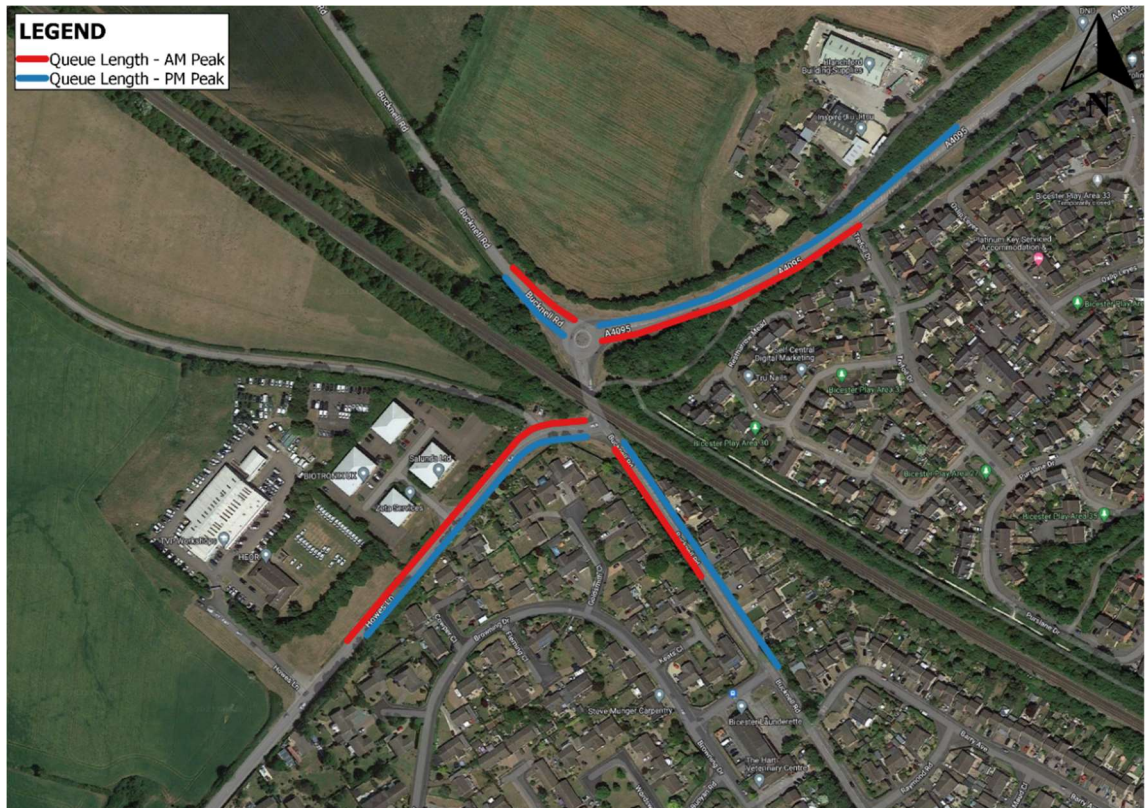


Figure 1.2 – 2026 + 1250 Dwellings (BTM) – Interim Scheme Predicted Vehicle Queue Lengths

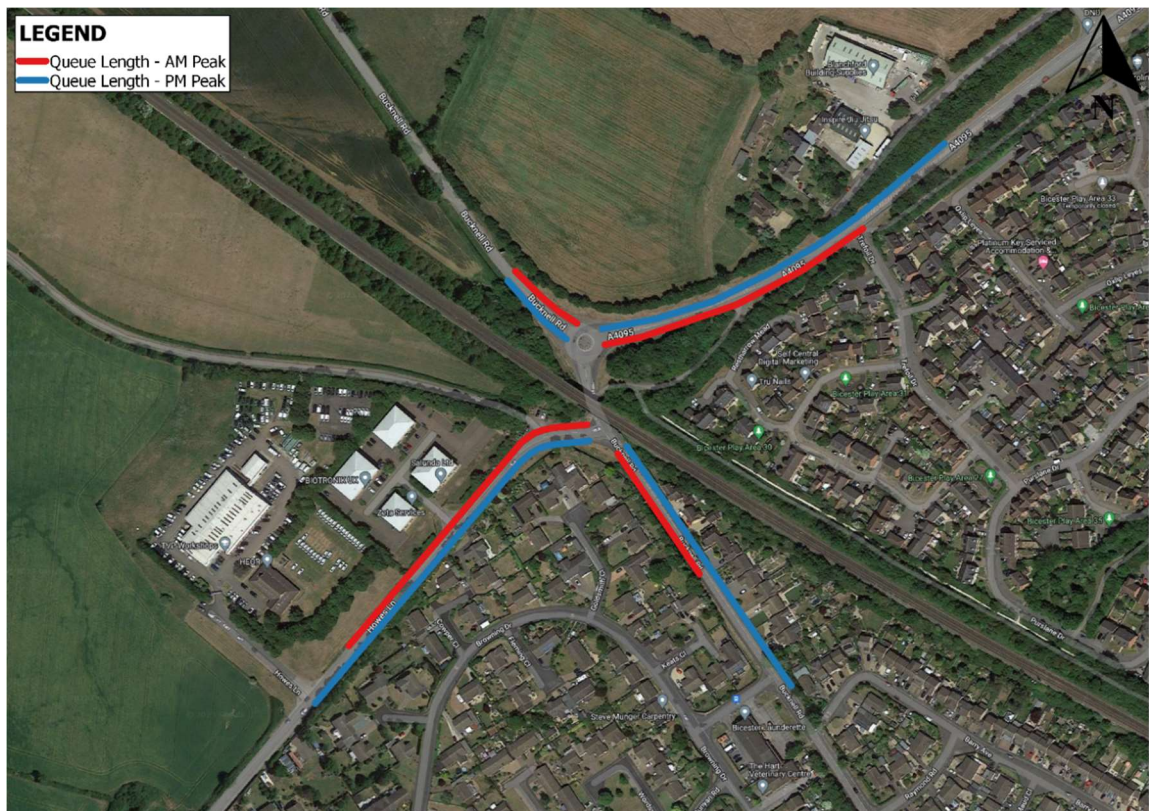


Figure 1.3 – 2026 + 1250 Dwellings ('Vision') – Interim Scheme Predicted Vehicle Queue Lengths

- 1.5.28 With reference to OCC's comments regarding negative reserve capacity and Degree of Saturation of over 90% (OCC's threshold of acceptability for new schemes), it must be referenced that this is a mitigation scheme at an existing junction and it is not for any development to resolve the existing capacity issue but only to provide nil detriment or a betterment to the future situation if the development did not occur. The proposed scheme offers a significant capacity improvement, creating additional capacity above that required for the proposed initial 1,250 dwellings, bringing about an interim improvement for the existing junction's vehicle movements.
- 1.5.29 The proposal also improves pedestrian movements and safety and cyclist safety, and it has been shown by the various other proposals for the junction over the last decade that have been found unsuitable, that this scheme, through the introduction of traffic signals, can deliver both capacity and highway safety improvements for all road users.

Bicester Bike Users Group Scheme

- 1.5.30 A proposal for active travel provision at the Howes Lane / Bucknell Road / A4095 junctions by Bicester Bicycle Users Group was provided by OCC (**Appendix S**).
- 1.5.31 A considered review of this proposal has been undertaken and it is concluded that the proposal cannot be delivered as a) it does not consider the position of the western bridge abutment and b) it provides insufficient carriageway space for two-way vehicle movements under the bridge.
- 1.5.32 The interim scheme, whilst improving pedestrian facilities at the junctions i.e. wider footways and controlled crossing facilities, retains cyclists within the carriageway albeit removing vehicle conflicts through the introduction of signals which provide cyclists unopposed movement through the junction in green light waves. As cycling is not occurring off-road there is no need to provide a 'Tiger' crossing facility on the Howes Lane arm.
- 1.5.33 Whilst, the BBUG scheme cannot be delivered as an interim scheme, many of the principals have been taken forward in the 'final solution' scheme provided within **Section 1.5** of this document albeit within the physical constraints that are afforded by the bridge abutments.

Precedent Set by Providing a No Objection Response to Firethorn Development with No Mitigation at the Howes Lane / Bucknell Road / A4095 Junction

- 1.5.34 OCC have raised no objection to the Firethorn application (530 dwellings) delivering no capacity or pedestrian / cyclist mitigation at the Howes Lane / Bucknell Road / A4095 junction.
- 1.5.35 The Traffic Flow Diagrams in the Firethorn TA development predict that 530 dwellings will generate an additional 132 and 89 vehicles through the Howes Lane / Bucknell Road / A4095 junction in the AM and PM peak hours respectively.
- 1.5.36 In the 12th January 2023 committee report (para. 7.12) OCC accept a 50% increase in delay from 6 to 9 minutes through the southern priority junction⁶ when comparing the 2026 situation with and without the predicted increase in traffic due to the Firethorn development.
- 1.5.37 This sets a clear precedent of enabling development that gives rise to additional delay on the highway network and the acceptance that a **9 minute delay** at this junction is acceptable. It also sets a precedent that **pedestrian and cyclist safety within the current layout is considered to be suitable** with an additional 132 vehicles using the junction.

⁶ Despite the proximity of the two junctions and their interaction due to queueing vehicles, OCC accepted capacity modelling of only the southern priority junction with no modelling of the roundabout junction being provided.

Signage, Street Lights and Signal Heads

- 1.5.38 The exercise to provide future locations for signs, street lights and signal heads was undertaken to provide some comfort to OCC that the preliminary design could be practically delivered. Solutions to the few issues mentioned but not detailed in OCC's response can be resolved during detailed design.

Junction Capacity Assessment with Firethorn

- 1.5.39 For the interim assessment, before the delivery of the SLR, the impact of the additional traffic relating to the 530 dwellings at the Firethorn development is not considered to be material given that OCC have set out their position in accepting the associated traffic at the Howes Lane / Bucknell Road / A4095 junctions with no mitigation and the acceptance of a 9 minute delay for vehicles.
- 1.5.40 However, for OCC to understand the impact, on the 'interim scheme' proposed to mitigate the traffic impact of 1,250 dwellings from the Hawkwell Village development, modelling including the Firethorn traffic⁷ has been undertaken with the results provide in **Table 1.6**. The modelling output report is provided at **Appendix T**.
- 1.5.41 The queues on the A4095 eastern arm are significantly improved. With 1,250 dwellings + Firethorn 530 dwellings there is a queue of 109 pcus (BTM) / 84 ('Vision') in the AM peak hour and 66 pcus (BTM) / 53 pcus ('Vision') in the PM peak hour. Comparing the junction's operation in 2026 with development against the BTM '2026 Reference Case' there is a reduction in queues on this arm of 76 pcus (BTM) / 101pcus ('Vision') in the AM peak hour and 128 pcus (BTM)/141 pcus ('Vision') in the PM peak hour. Maximum delay reduces from 623s per pcu to 279s per pcu (BTM)/ 212s per pcu ('Vision') in the AM peak hour and from 638s per pcu to 172s per pcu (BTM) / 128s per pcu ('Vision') in the PM peak hour, a saving of 5-8½ minutes on travel times in the peak hours. These results indicate that the interim scheme with the traffic associated with the Hawkwell Village and the Firethorn developments will operate with a significantly lower level of delay than the 9 minutes deemed acceptable by OCC when considering the impact of only the traffic associated with the 530 Firethorn dwellings at the junctions.
- 1.5.42 The queues on the A4095 western arm also see a significant reduction generating a queue of 18 pcus (BTM)/ 16 pcus ('Vision') in the AM peak hour and a queue of 33 pcus (BTM)/ 35pcus ('Vision') in the PM peak hour with the traffic generation of 1,250 dwellings + Firethorn 530 dwellings. Comparing the junction's operation in 2026 with development against the BTM '2026 Reference Case' there is a reduction in queues on this arm of 36 pcus (BTM)/38 pcus ('Vision') in the AM peak hour and 200 pcus (BTM)/ 198 pcus ('Vision') in the PM peak hour. Maximum delay reduces from 292s per pcu to 88s per pcu (BTM) / 87s per pcu ('Vision') in the AM peak hour and from 972s per pcu to 93s per pcu (BTM)/ 95s per pcu ('Vision') in the PM peak hour, a saving of 3½ minutes in the AM peak hour and 14½ minutes in the PM peak hour. These results indicate that the interim scheme with the traffic associated with the Hawkwell Village and the Firethorn developments will operate with a significantly lower level of delay than the 9 minutes deemed acceptable by OCC when considering the impact of only the traffic associated with the 530 Firethorn dwellings at the junctions.
- 1.5.43 The introduction of signals introduces a delay to the movements on Bucknell Road (i.e. north and south arms). However, the assessment of 1,250 dwellings + Firethorn 530 dwellings, indicates a queue of 9 - 10 pcus (BTM and 'Vision') on the Bucknell Road North arm in the AM and PM peak hours respectively and queues of 37 (BTM) / 63 ('Vision') and 51 pcus (BTM) / 44pcus ('Vision') on the Bucknell Road South arm in the AM and PM peak hours respectively. The predicted delay is considered within a normal range for a signalised junction in an urban environment and is below the 9 minutes deemed acceptable by OCC when considering the impact of only the traffic associated with the 530 Firethorn dwellings at the junctions.

⁷ Traffic flows have been taken from the Firethorn Transport Assessment and distributed at the junction using the BTM traffic movements.

Arm	Lane	AM			PM		
		DoS (%)	Queue (PCUs)	Delay s/PCU	DoS (%)	Queue (PCUs)	Delay s/PCU
2026 + Committed + 675 dwellings (BTM Trip Generation)							
Bucknell Road (North)	-	29.40%	7.9	38.8	37.90%	9.2	51.8
A4095 (East)	Left	117.30%	134.2	365.5	91.60%	43.8	55.2
	Right	117.30%	-	369.4	91.60%	-	102.1
Bucknell Road (Internal Southbound)	-	97.80%	7.2	13.9	97.60%	9	11.4
Bucknell Road (South)	Left	89.20%	33.0	74.8	107.40%	56.0	243.2
A4095 (West)	Left	64.80%	19.6	44.4	83.0%	33.9	42.6
	Right	64.80%	-	85.7	83.0%	-	93.9
Bucknell Road (Internal Northbound)	Left	55.40%	1.9	2.0	75.5%	9.4	2.6
	Right	55.40%	-	1.0	75.5%	-	0.5
PRC (%)		-30.40%			-19.3%		
Cycle Time		180s					
2026 + Committed + 1250 dwellings (BTM Trip Generation) + Firehorn							
Bucknell Road (North)	-	32.8%	8.4	45.6	33.6%	9.1	41
A4095 (East)	Left	111.4%	108.5	271.5	102.6%	66.4	138.2
	Right	111.4%	-	279.2	102.6%	-	171.8
Bucknell Road (Internal Southbound)	-	98.0%	13.7	9.6	94.0%	7.2	8.8
Bucknell Road (South)	Left	95.0%	37.1	96.0	106.0%	50.6	225.1
A4095 (West)	Left	58.9%	17.7	37.0	81.5%	32.8	40.0
	Right	58.9%	-	88.1	81.5%	-	92.9
Bucknell Road (Internal Northbound)	Left	55.9%	2.9	2.8	78.3%	4.1	2.6
	Right	55.9%	-	1.2	78.2%	-	0.7
PRC (%)		-23.80%			-17.80%		
Cycle Time		180s					
2026 + Committed + 675 dwellings (Vision Trip Generation) + Firehorn							
Bucknell Road (North)	-	34.3%	8.9	45.2	31.2%	8.2	42.4
A4095 (East)	Left	107.1%	88.4	205.5	103.5%	69.5	151.8
	Right	107.1%	-	221.7	103.5%	-	178.9
Bucknell Road (Internal Southbound)	-	98.2%	7.2	12.1	94.8%	6.2	8.2
Bucknell Road (South)	Left	104.3%	53.6	192.1	103.4%	47.3	183.6
A4095 (West)	Left	54.3%	16.0	32.4	84.9%	35.2	45.8
	Right	54.3%	-	87.5	84.9%	-	95.5
Bucknell Road (Internal Northbound)	Left	54.8%	1.9	2.7	77.8%	4.1	2.8
	Right	54.8%	-	1.1	77.8%	-	1.0
PRC (%)		-19.00%			-15.00%		

Arm	Lane	AM			PM		
		DoS (%)	Queue (PCUs)	Delay s/PCU	DoS (%)	Queue (PCUs)	Delay s/PCU
Cycle Time		180s					
2026 + Committed + 1250 dwellings (Vision Trip Generation) + Firethorn							
Bucknell Road (North)	-	34.2%	8.8	45.9	34.1%	8.9	44.5
A4095 (East)	Left	106.3%	84.4	190.8	98.0%	52.9	88.2
	Right	106.3%	-	211.5	98.0%	-	127.6
Bucknell Road (Internal Southbound)	-	97.2%	6.10	9.6	96.2%	7.8	10.1
Bucknell Road (South)	Left	108.2%	63.4	252.5	102.6%	43.8	174.0
A4095 (West)	Left	52.8%	15.3	30.8	83.7%	34.5	43.2
	Right	52.8%	-	87.2	83.7%	-	94.5
Bucknell Road (Internal Northbound)	Left	53.4%	2.3	2.6	78.3%	6.4	2.9
	Right	53.4%	-	1.1	78.3%	-	0.8
PRC (%)		-20.3%			-14.0%		
Cycle Time		180s					

Table 1.6 – Summary of LINSIG Results for Signals Mitigation Scheme + Firethorn

- 1.5.44 The introduction of the traffic associated with the Firethorn development alongside the 1,250 dwellings for Hawkwell Village, reduces the capacity of the proposed interim scheme. However, there is still a significant improvement in queue lengths and delay compared with the existing situation. The proposed mitigation scheme delivers a maximum delay of 280 seconds; when compared against the OCC comments for the Firethorn development that a 9 minute (540s) delay is not severe it can be seen that the proposal provides significant capacity benefits alongside active travel improvements. The interim junction enables significant housing delivery (1,780) prior to the delivery of the SLR and improves the safe movement of all modes of transport.

1.6 Howes Lane / Bucknell Road / A4095 Final Solution Scheme

- 1.6.1 When the SLR has been delivered, the level of traffic travelling through the Howes Lane (A4095) / Bucknell Road / A4095 junctions will decrease providing an opportunity to deliver a 'final solution' scheme which concentrates on active travel movements through the junction.

Review of the Design of the Existing Junctions

- 1.6.2 A review of the existing pedestrian, cycling and articulated vehicle movements through the junctions and the existing infrastructure for pedestrian and cyclists was provided in Section 3.0 of TN10 v10. The analysis indicated that there are currently very few pedestrian, cyclist and articulated vehicle movements; the provision of pedestrian infrastructure is poor and there is no current infrastructure for cycling.

Proposed 'Final Solution' Scheme

- 1.6.3 The interim scheme provided walking and cycling improvements whilst focussing on improving capacity of the junction for vehicle movements.
- 1.6.4 The 'final solution' prioritises active travel movements over vehicle movements ensuring policy compliance with the OCC LTCP.

- 1.6.5 The North West Bicester development is a large mixed-use allocation which has been designed to provide future residents with everyday services and facilities (employment, retail, education) within the site itself via an internal network of permeable active travel routes. External active travel connections will be provided, and future residents will be encouraged to undertake off-site journeys by active travel through a robust Travel Plan and the provision of cycle hire facilities within a mobility hub(s).
- 1.6.6 It is recognised that a large proportion of the external active travel journeys will filter through to the existing path alongside the Marylebone-Birmingham railway line which provides access to the Bicester North railway station and the town centre. These active travel journeys will route via the Howes Lane/Bucknell Road/A4095 junction from three main desire lines: the downgraded Bucknell Road 'Green Route'; Bridleway 129/9/30; and a proposed active travel route alongside the north/south link road between the SLR and the A4095/Bucknell Road junction(s).
- 1.6.7 The design, attached at **Appendix U** and reproduced below in **Figure 1.4**, significantly narrows down the carriageway and reallocates road space to enable significant pedestrian and cycle improvements across the junction.

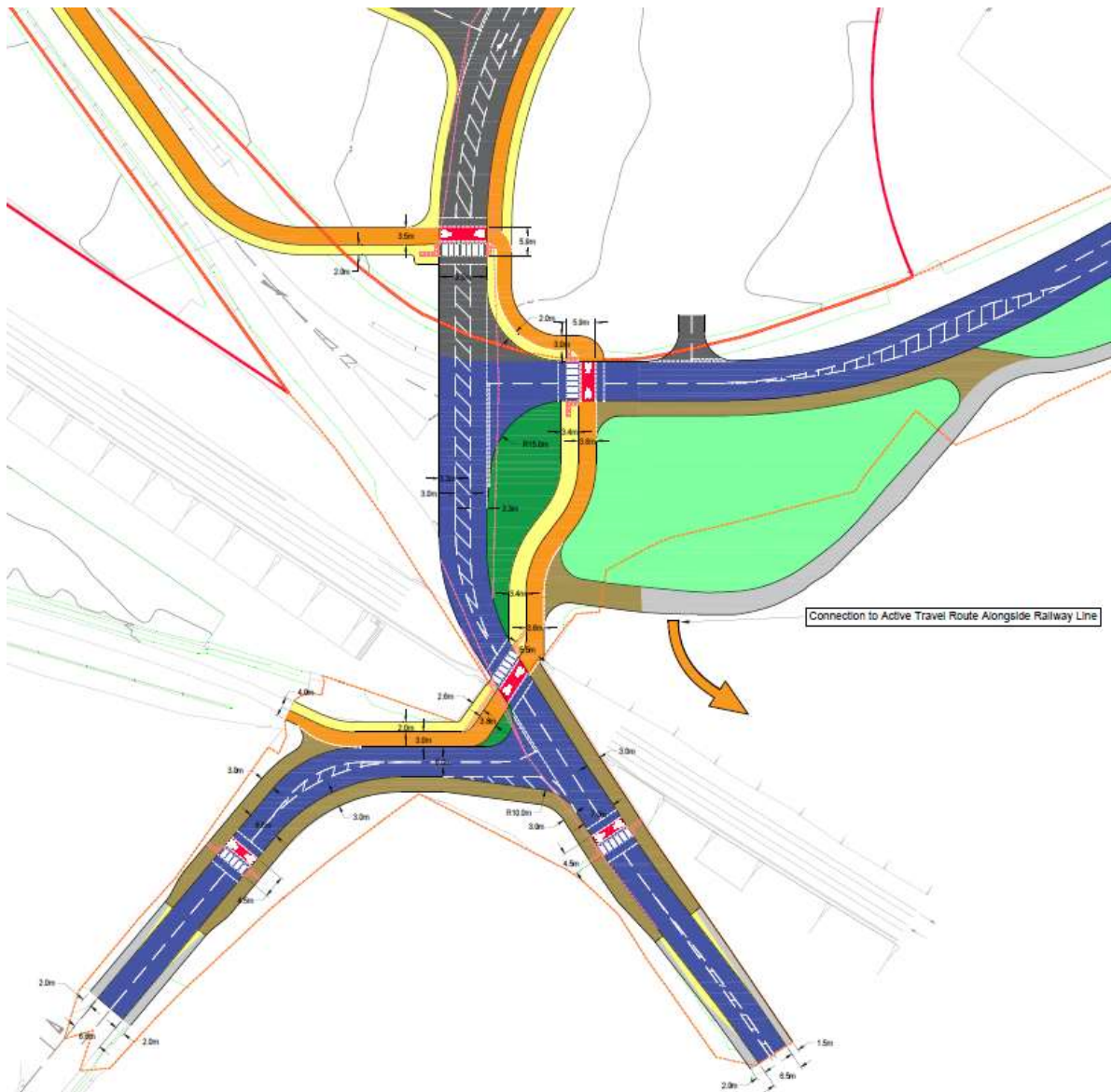


Figure 1.4 – Proposed Junction Layout

- 1.6.8 The design seeks to introduce a 20mph zone within which pedestrians and cyclists are afforded priority through the introduction of five at grade parallel 'Tiger' crossings providing a demand responsive solution. The carriageway between the 'Tiger' crossings will be buff coloured bound surface to raise drivers' awareness that they are entering an area where vehicles are not the dominant form of transport (**Appendix V**).
- 1.6.9 For the main desire routes it is proposed that a minimum 5m wide active travel corridor (2m footway + 3m cycleway) will be provided. A 3m shared surface is proposed for the remaining routes around the junction. All routes will connect via the five at grade 'Tiger' crossings. The shared use cycleways on Howes Lane and Bucknell Road (southern arm) will be provided with dropped kerbs to enable cyclists to transfer to/from the off-road cycling provision from/to the carriageways.
- 1.6.10 The design has taken into consideration the sketch provided by the Bicester Bike Users Group. The majority of the identified infrastructure has been provided with improved standard widths achieved throughout the junction. Due to achieving these standards and the land constraints (due to the railway bridge abutments) it has not been possible to provide a pedestrian/cycleway along the western side of Bucknell Road immediately north of the bridge and the associated 'Tiger' crossing. However, this route is considered to be unnecessary as cyclists travelling from the north to the west are able to undertake the journey by travelling a little further west along the SLR and then south along Bridleway 129/9/30. If the upgrade of the bridleway has not been undertaken at the time of the delivery of the final junction scheme there will still be an alternative route utilising the 'Tiger' crossing facilities which, as they prioritise active travel movements will not add additional delay.
- 1.6.11 The reallocation of the road space retains the ability for north/south HGV movements (i.e. between the SLR and the town centre) if the Local Highway Authority deem these vehicle movements are necessary.
- 1.6.12 The removal of the interim scheme signal heads and reduction in road space requires HGVs turning left from Howes Lane to use both lanes of Bucknell Road (as is the current situation and deemed suitable and safe by OCC⁸). The SLR will replace the majority of the east/west HGV movements and two options can be considered: firstly that the left turn HGV movements from Howes Lane will be minimal and southbound vehicle movements on Bucknell Road will be reduced, vehicles will be travelling at low speeds and as currently occurs southbound vehicles will 'give-way' to enable HGVs to undertake the manoeuvre or secondly a ban on this HGV movement is introduced.
- 1.6.13 Swept path analysis of OCC's 11.6m long refuse vehicle has been undertaken. As shown in the drawing attached at **Appendix W**, albeit needing to use both lanes of Bucknell Road when turning left from Howes Lane, this large refuse vehicle can be safely accommodated within the carriageway i.e. the body of the vehicle does not overhang the foot/cycleways. The frequency of refuse vehicles through the junction is expected to be low.
- 1.6.14 OCC's comments in their latest response (3rd August 2023) in respect of prohibit traffic movement between the SLR and the junction is noted, and further discussion is welcomed.

Summary

- 1.6.15 It has been shown that a 'final solution' scheme for the Howes Lane (A4095) / Bucknell Road / A4095 junctions that provides a prioritised walking and cycling solution in accordance with the policies set out in OCC's LTCP can be delivered.
- 1.6.16 The proposed scheme delivers a 5m corridor (2m footway + 3m cycleway) for the North West Bicester development's active travel desire lines with 3m shared use cycleways on all other approaches. The foot/cycleways are connected via five proposed at grade parallel 'Tiger' crossings which provide a demand responsive solution that gives pedestrian and cyclist movements priority over vehicle movements.

⁸ 28.03.23 Meeting between Jubb and OCC

1.6.17 The scheme will enable the future residents of North West Bicester to conveniently and safely access the existing path that routes alongside the Marylebone-Birmingham railway line which in turn provides direct access to the Bicester North railway station and the town centre.

1.6.18 Vehicle speeds will be restricted to 20mph, and a buff consolidated surface material will be used to draw drivers' attention to the fact that they are driving through an area where the car is not the dominant form of transport.

1.7 Next Steps

1.7.1 Jubb and HLM welcome a response / discussion with OCC to enable the delivery of 3,100 dwellings which form part of a strategic allocation, and is critical for Cherwell District Council's housing delivery.

North West Bicester – Hawkwell Village

20300

Appendix A



- Key**
- Site Boundary
 - Adopted Highway Boundary
 - Shared Pedestrian/Cycle Way
 - Existing Carriageway

Indicative Active Travel Route
 Exact Location to Be Determined by Root Protection Zones
 Unlit, Unbound, Compacted Surfacing

Access Track to the Woodland Area

Pond

Pond

95.6m

6600m

456700m

456800m

456900m

457000m

Timber Bridge Over Watercourse

P2	14.11.22	Preliminary issue	MK	AW
P1	26.10.22	Preliminary issue	MK	AW
<i>Rev</i>	<i>Date</i>	<i>Description</i>	<i>By</i>	<i>Apvd</i>

PROJECT:
 BICESTER, OXFORDSHIRE

TITLE:
 Cycle and Pedestrian Connection to Bainton Road

CLIENT:
 HALLAM LAND MANAGEMENT

SCALE@A1:
 1:750

PROJECT REF:
 20300
DRAWING No: 027
REV: P2

Revision Referencing
 P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

Appendix B



KEY

- Site Boundary
- Shared Pathway
- Cycleway
- Pedestrian Path

Wooden Bridge over the Water Course

P1	02.11.22	Preliminary Issue	MK	AW
<i>Rev</i>	<i>Date</i>	<i>Description</i>	<i>By</i>	<i>Apvd</i>

PROJECT:
BICESTER, OXFORDSHIRE

TITLE:
ACTIVE TRAVEL CONNECTION TO
FIRETHORN DEVELOPMENT

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:750

PROJECT REF:
20300

DRAWING No:
030

REV:
P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction











North West Bicester – Hawkwell Village

20300

Appendix C

KEY

-  Site Boundary
-  Carriageway
-  Cycleway
-  Pedestrian Path
-  Verge
-  Area Reserved for the School
-  Playing Field
-  Car Parking

P3	25.10.22	Amendment	MK	AW
P2	25.11.21	Amendment	JF	MG
P1	18.11.21	Preliminary Issue	JF	MG

Rev Date Description By Apvd

PROJECT:
BICESTER, OXFORDSHIRE

TITLE:
PROPOSED LINK TO NORTHERN DEVELOPMENT

CLIENT:
HALLAM LAND MANAGEMENT

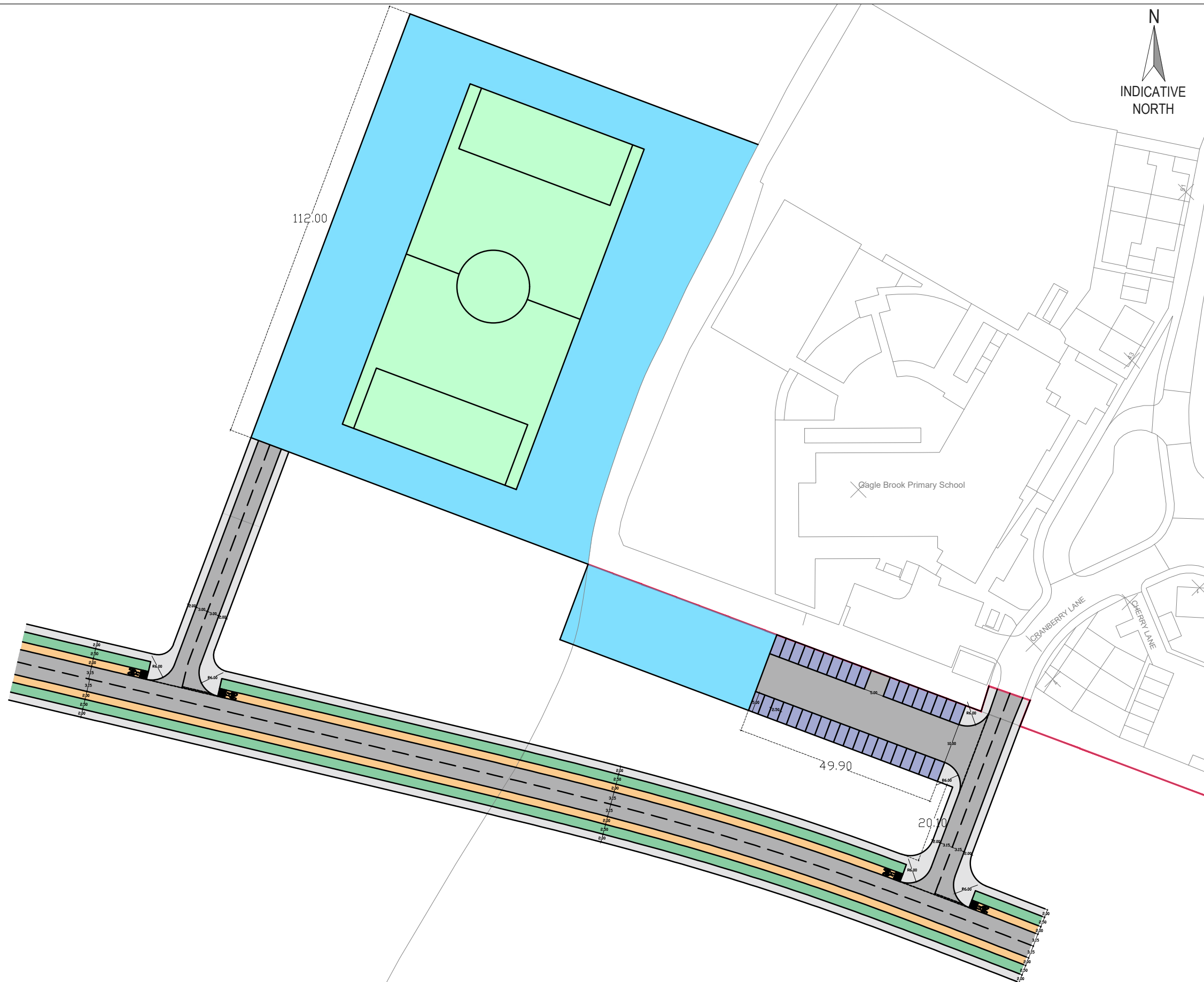
SCALE@A3:
1:1000

PROJECT REF:
20300

DRAWING No:
010

REV:
P3

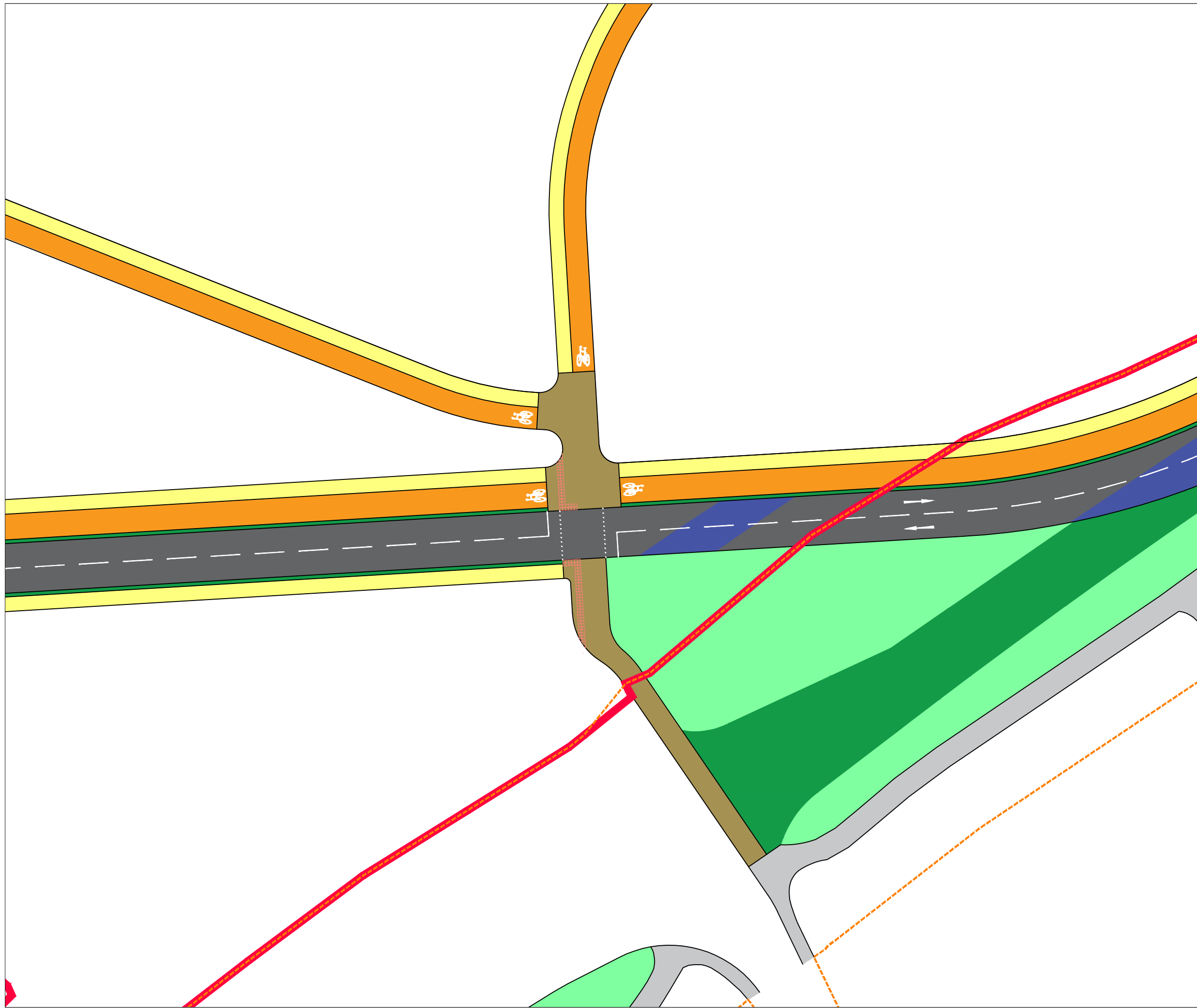
Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

Appendix D



KEY

- Site Boundary
- Highway Boundary
- Proposed Carriageway
- Existing Carriageway
- Proposed Cycleway
- Proposed Footway
- Existing Footway
- Proposed Shared Path (Cycle & Pedestrian)
- Proposed Verge
- Existing Verge

P3	31.05.23	Amendments	MK	AW
P2	10.05.23	Amendments	MK	AW
P1	26.10.22	Preliminary issue	MK	AW

Rev Date Description By Apvd

PROJECT:
BICESTER, OXFORDSHIRE

TITLE:
ACTIVE TRAVEL LINK BETWEEN
PROPOSED CIRCULAR ROUTE AND
LORDS LANE

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:500

PROJECT REF:

20300

DRAWING No:

028

REV:

P3

Revision Referencing

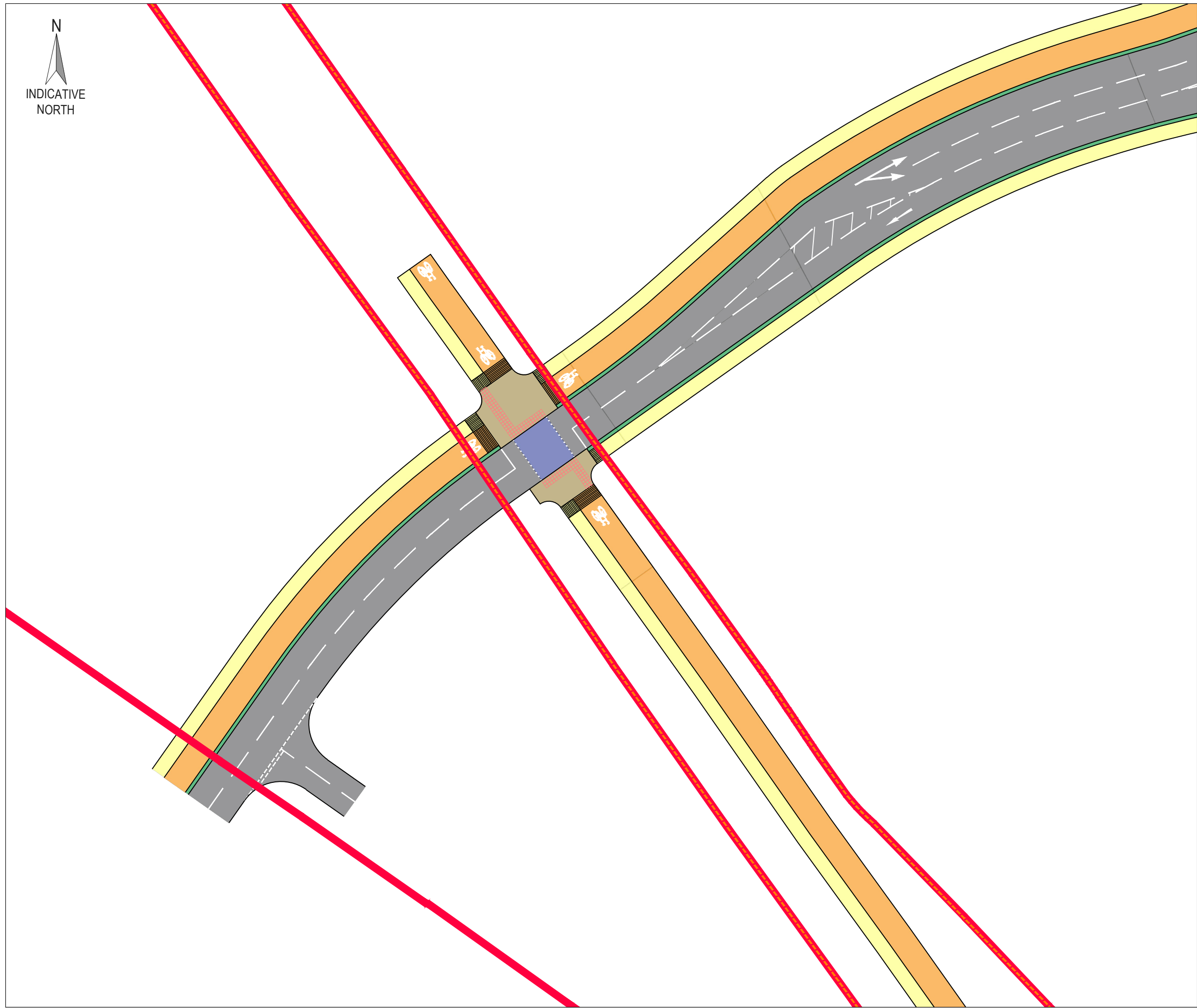
P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

Appendix E



KEY

- Site Boundary
- Highway Boundary
- Proposed Carriageway
- Existing Carriageway
- Proposed Cycleway
- Proposed Footway
- Proposed Shared Path (Cycle & Pedestrian)
- Verge

P2	18.11.21	Preliminary Issue	MK	AW
P1	18.11.21	Preliminary Issue	JF	MG

Rev Date Description By Apvd

PROJECT:
BICESTER, OXFORDSHIRE

TITLE:
PROPOSED SIGNALISED CROSSING

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:500

PROJECT REF:
20300

DRAWING No: 011 **REV:** P2

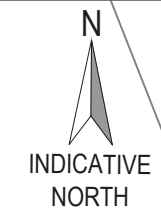
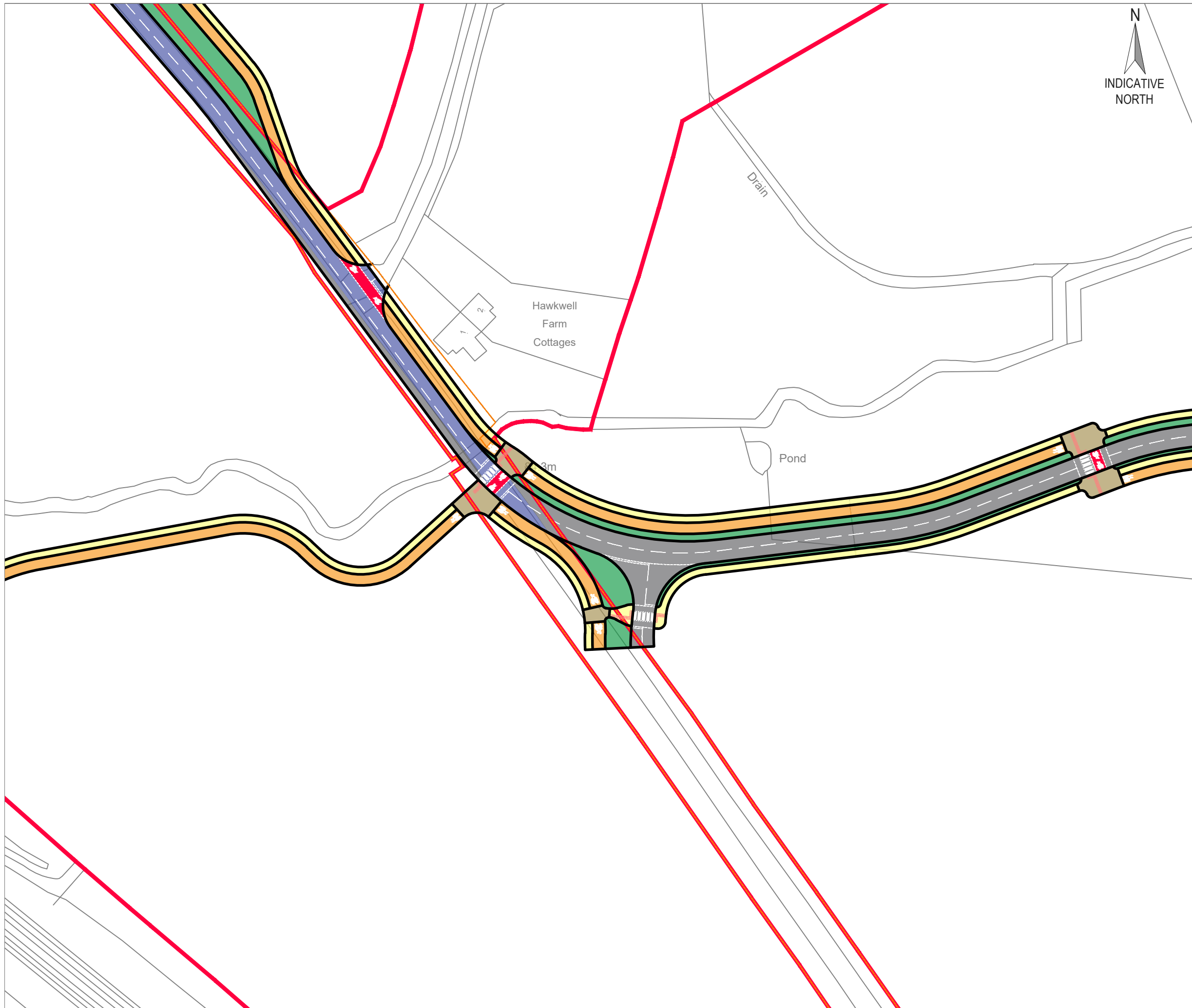
Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

Appendix F



KEY

- Site Boundary
- Highway Boundary
- Proposed Carriageway
- Existing Carriageway
- Proposed Cycleway
- Proposed Footway
- Proposed Shared Path (Cycle & Pedestrian)
- Coloured Surface Treatment
- Verge

Rev	Date	Description	By	Apvd
P3	19.05.23	Amendments	MK	AW
P2	27.10.22	Crossing Amendment	JF	AW
P1	24.10.22	Preliminary Issue	MK	AW

PROJECT:
BICESTER, OXFORDSHIRE

TITLE:
PEDESTRIAN CONNECTION
BUCKNELL ROAD

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:1000

PROJECT REF:
20300

DRAWING No: 026 **REV:** P3

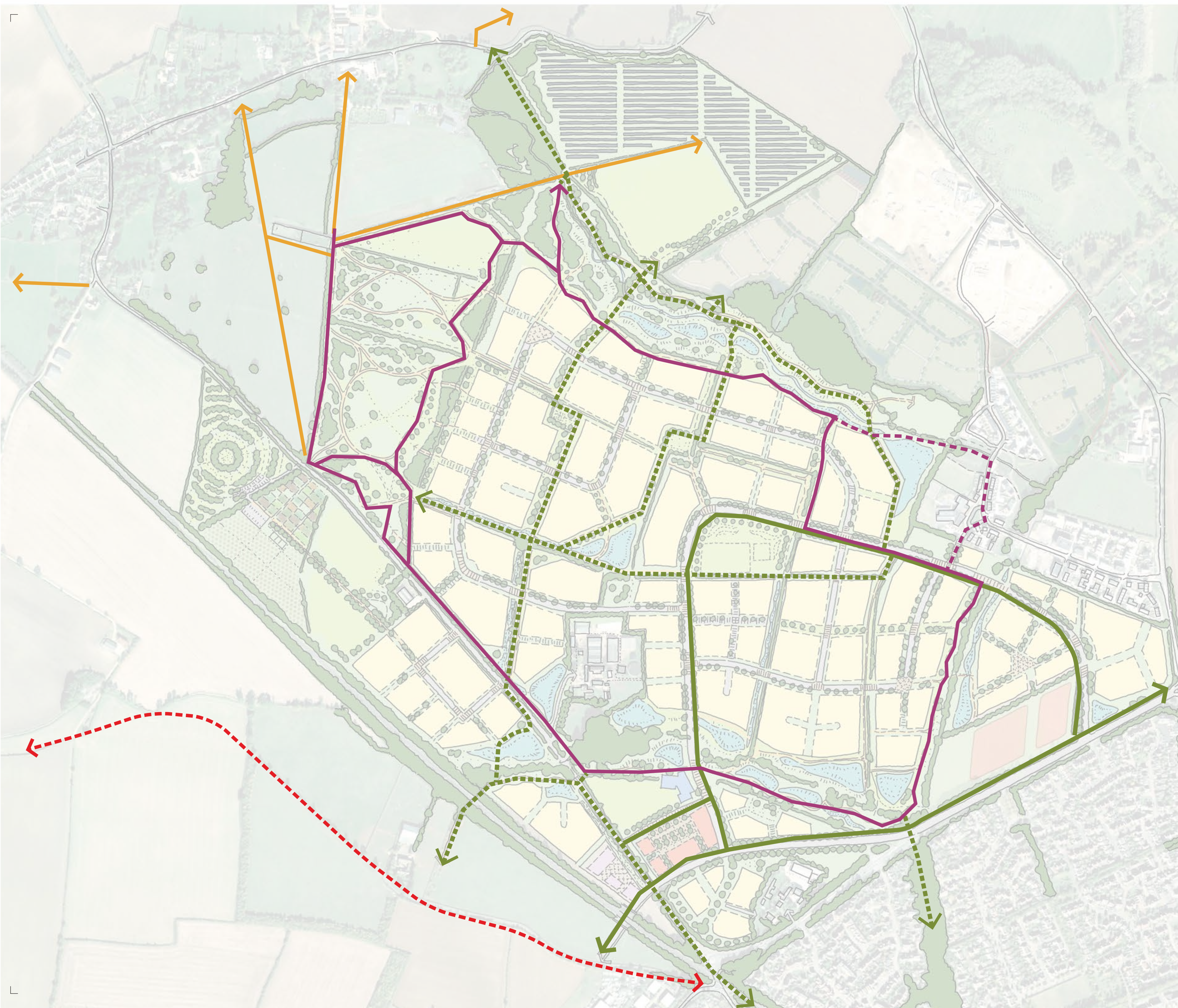
Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

Appendix G



- Potential leisure pedestrians / cycle route in GI
- Proposed commuter / pedestrian route within road corridor
- Proposed commuter / pedestrian route off road
- PROW
- Bridleway

Rev	Description	Date

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Client:



Bicester, NW
Principal Active Travel Routes

Scale@A2: 1:5,000	Drawn: MG MP	Designed: JD	Approved: SH
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0m 200m

Drawing Number: HLM066/30	Revision: -	Date: 24.05.2023
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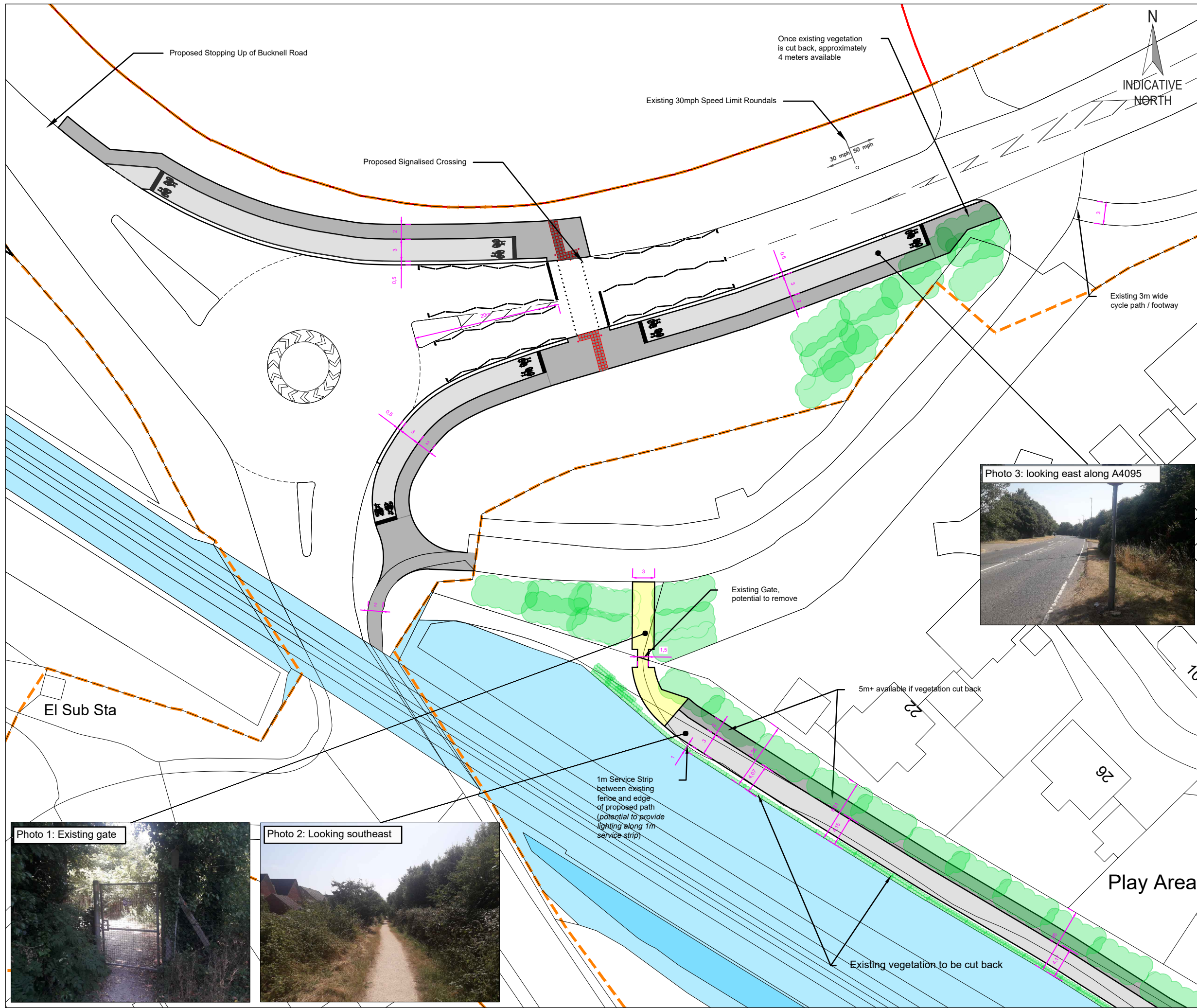
50 North Thirteenth Street, Central Milton Keynes, MK9 3BP
 01908 666276 mail@davidlock.com davidlock.com



North West Bicester – Hawkwell Village

20300

Appendix H



Key

- Site Boundary
- Extent of Adopted Highway
- Total Extent of Proposed Footway: 2670m²
- Total Extent of Proposed Cycle Path: 3590m²
- Total Extent of Proposed 3m Shared-use Path: 320m²
- Assumed Extent of Railway Land

Notes:

Footway:	2670 m ²
Cycle Path:	3590 m ²
Shared-use Path:	320 m ²
Total:	6580 m²

Rev	Date	Description	By	Apvd
P2	25.07.22	Annotation Amendments	JF	AW
P1	13.07.22	Preliminary Issue	JF	AW

PROJECT:
BICESTER

TITLE:
PROPOSED CYCLE INFRASTRUCTURE

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:500

PROJECT REF:
20300

DRAWING No: 021 **REV:** P2

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



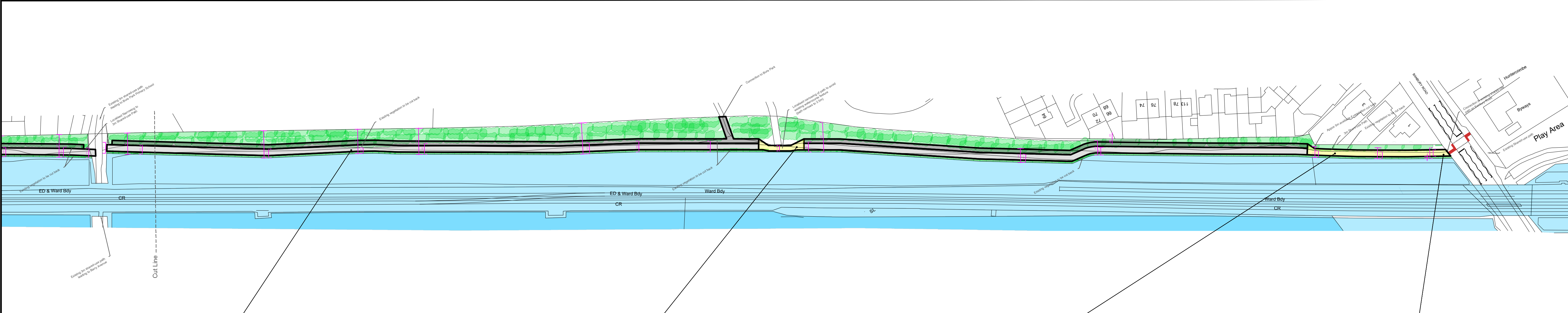
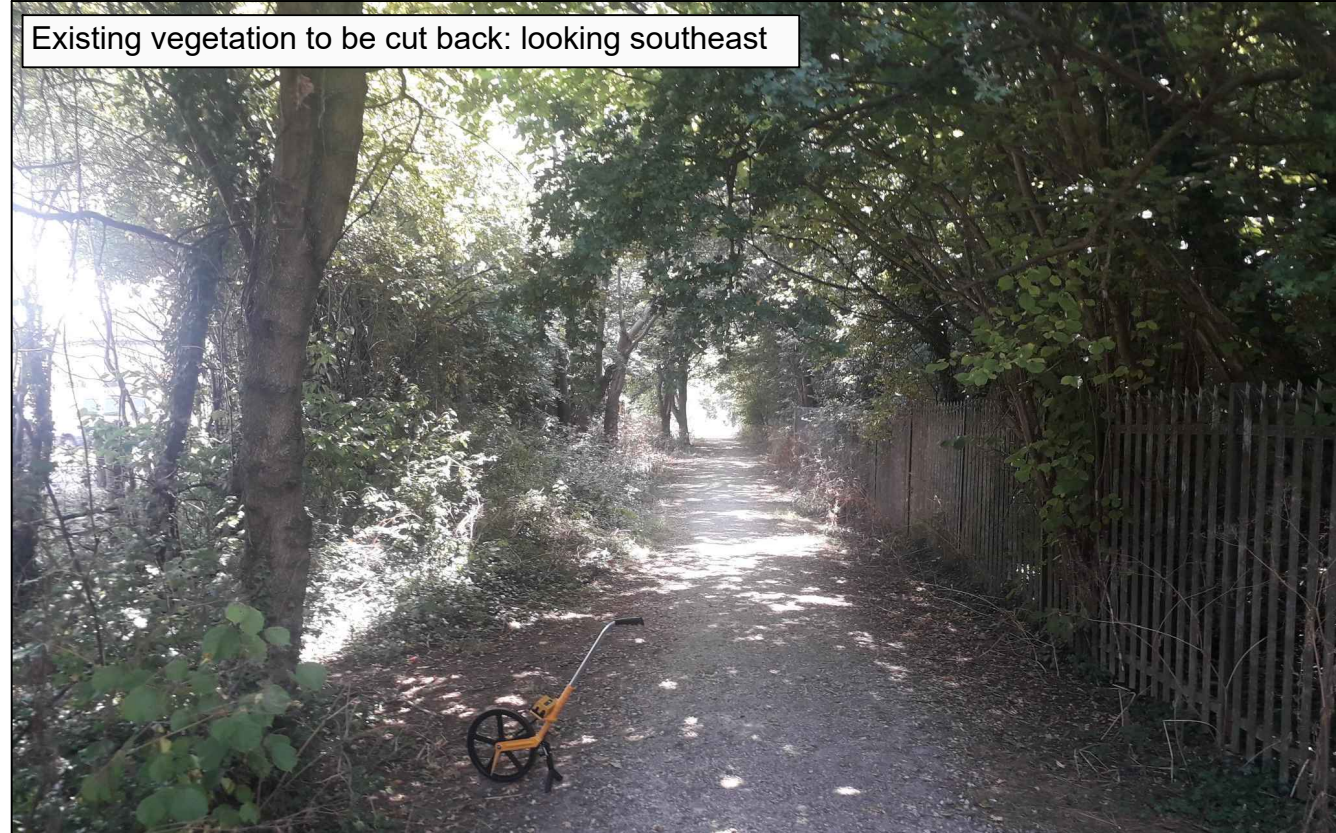


Key

- Site Boundary
- Extent of Adopted Highway
- Total Extent of Proposed Footway: 2670m2
- Total Extent of Proposed Cycle Path: 3590m2
- Total Extent of Proposed 3m Shared-use Path: 320m2
- Assumed Extent of Railway Land

Notes:

- Footway: 2670 m2
- Cycle Path: 3590 m2
- Shared-use Path: 320 m2
- Total: 6580 m2



P2	26.07.22	Wider Proposals	JF	AW
Rev	Date	Description	By Apvd	

PROJECT:
BICESTER

TITLE:
CYCLE INFRASTRUCTURE
WIDER PROPOSALS (OPTION 1)

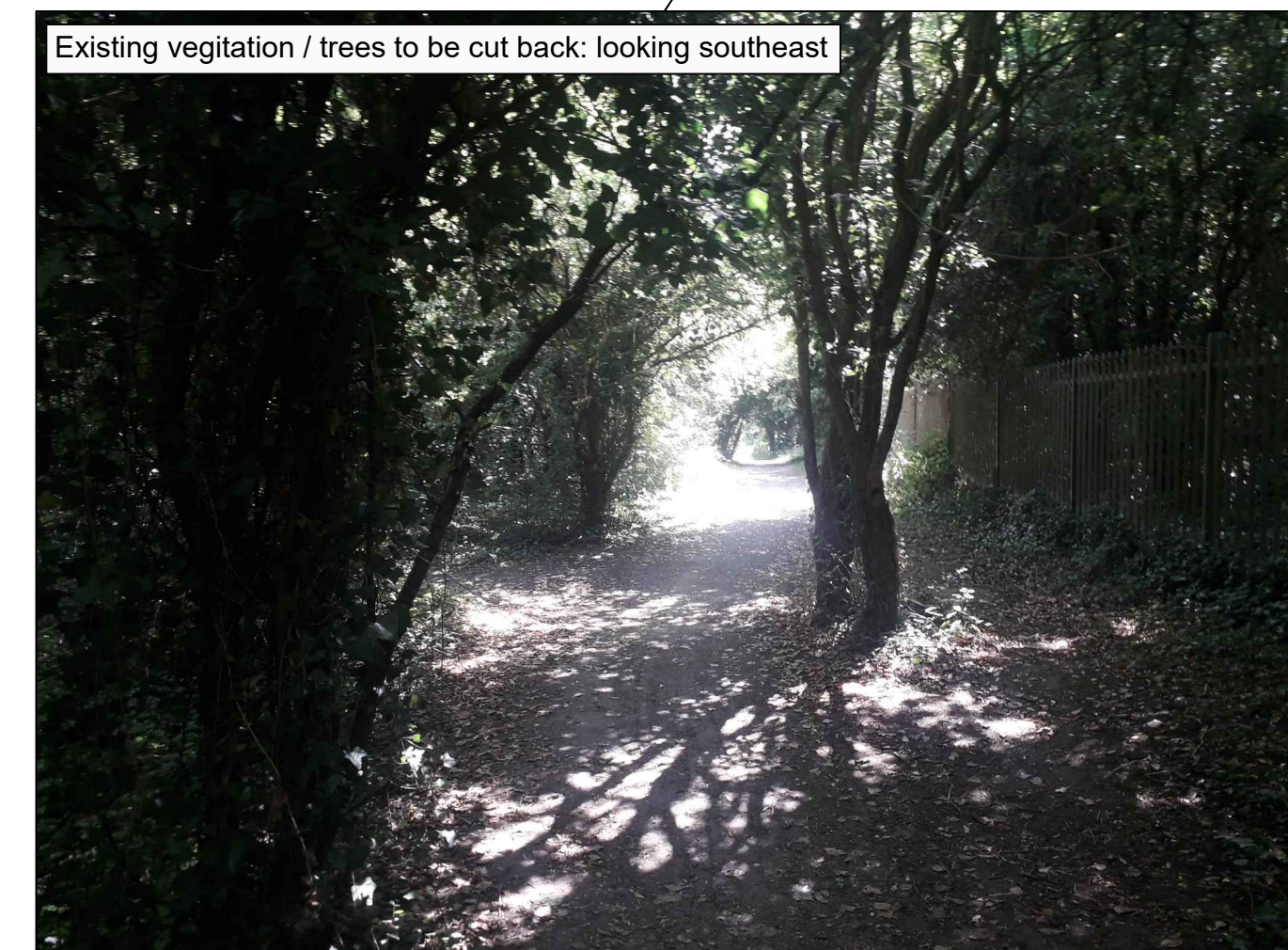
CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A1:
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PROJECT REF:
20300

DRAWING No: 022 **REV:** P2

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction





Key

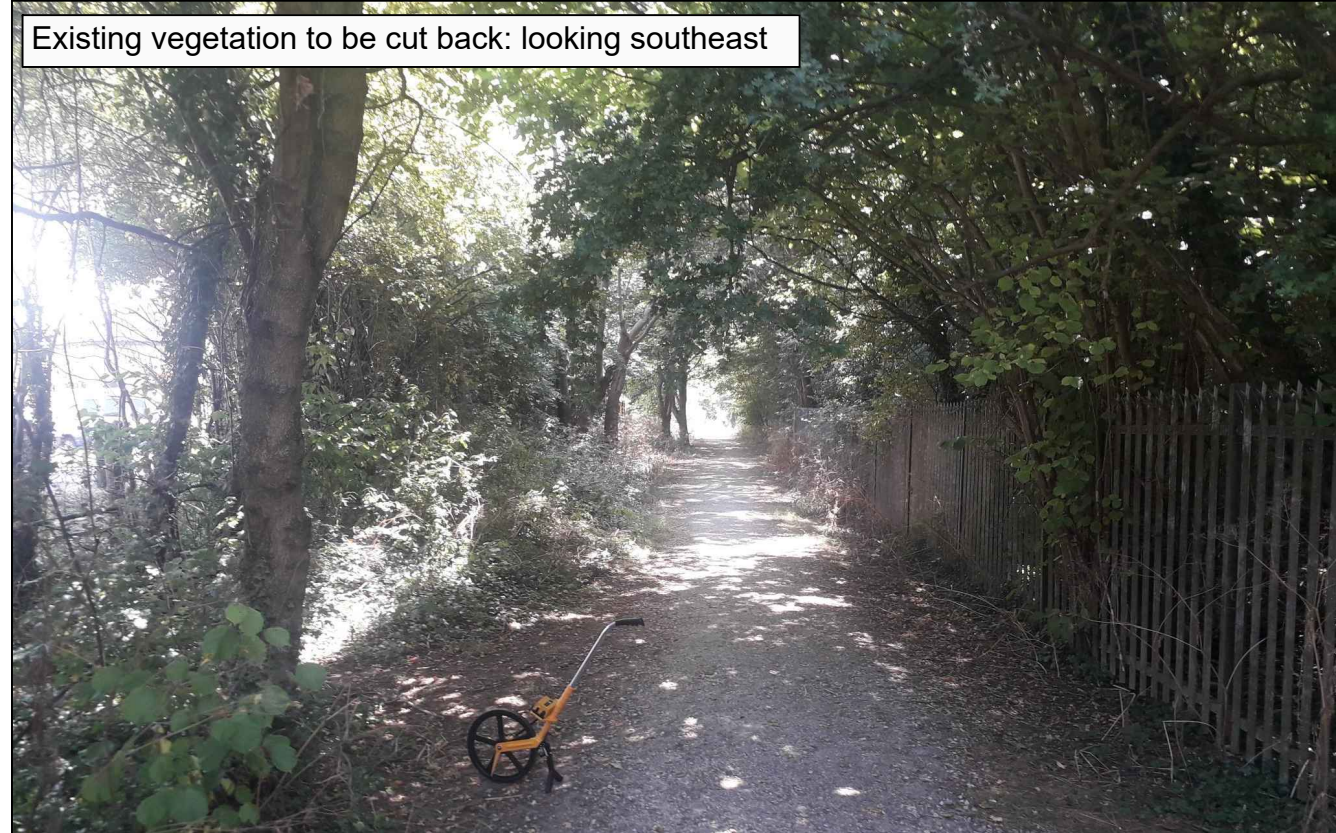
- Site Boundary
- Extent of Adopted Highway
- Total Extent of Proposed Footway: 515m²
- Total Extent of Proposed Cycle Path: 390m²
- Total Extent of Proposed 3m Shared-use Path: 3515m²
- Assumed Extent of Railway Land

Notes:

- Footway: 515 m²
- Cycle Path: 390 m²
- Shared-use Path: 3515 m²
- Total: 4420 m²



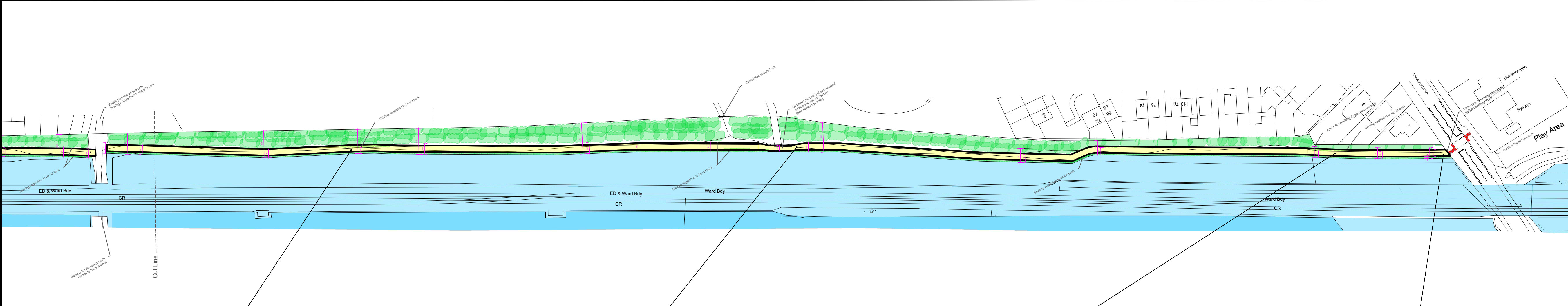
Existing Vegetation to be cut back: looking northwest



Existing vegetation to be cut back: looking southeast



Path connects with existing shared use path: looking northwest



P3	26.07.22	3m Shared-use path	JF	AW
Rev	Date	Description	By Apvd	

PROJECT:
BICESTER

TITLE:
CYCLE INFRASTRUCTURE
WIDER PROPOSALS OPTION 2

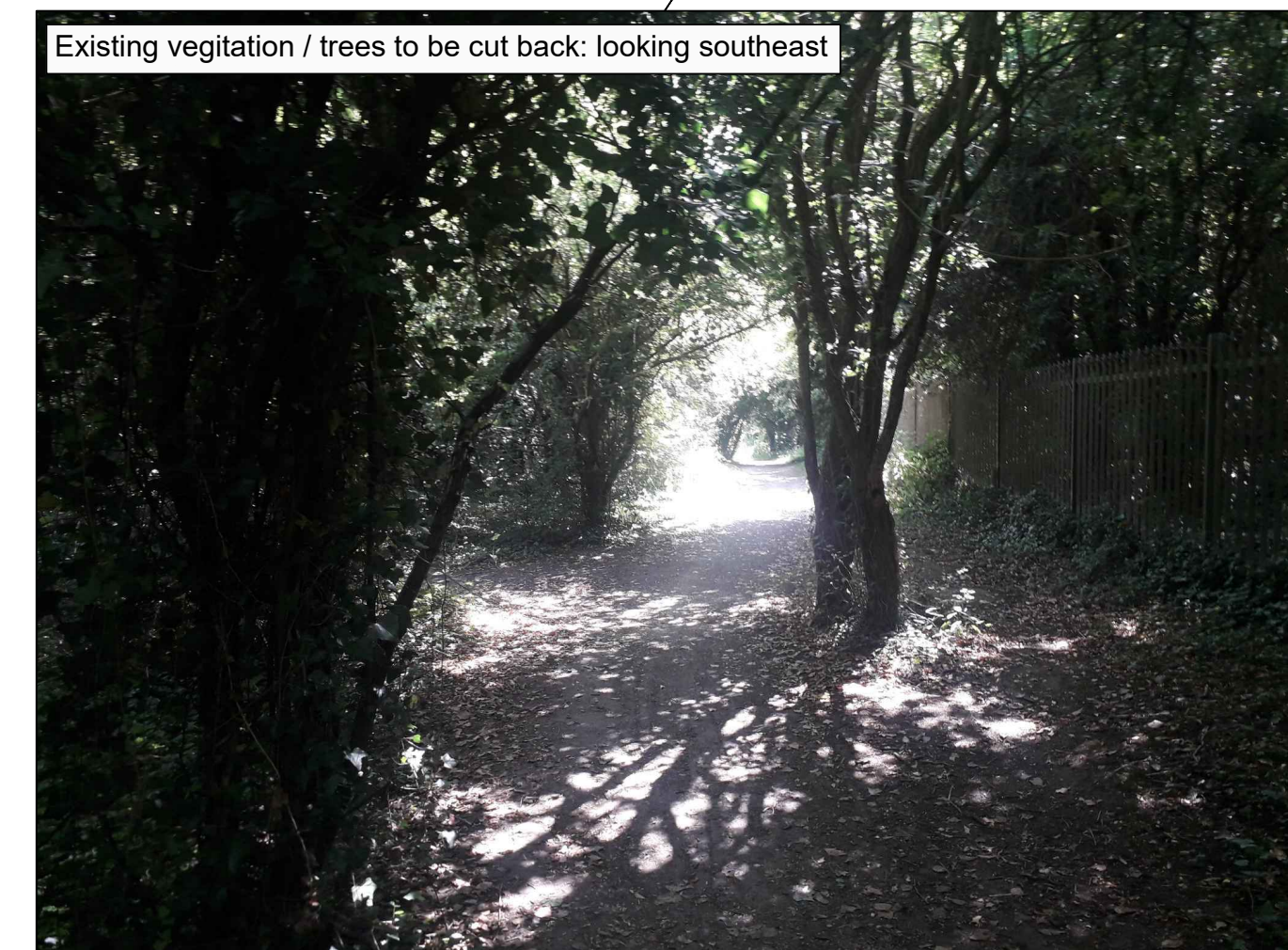
CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A1:
1:1000

PROJECT REF:
20300

DRAWING No: 022 **REV:** P3

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



Existing vegetation / trees to be cut back: looking southeast



Existing watercourse feature: looking northwest



Looking southeast toward Banbury Road



Path connects to Banbury Road

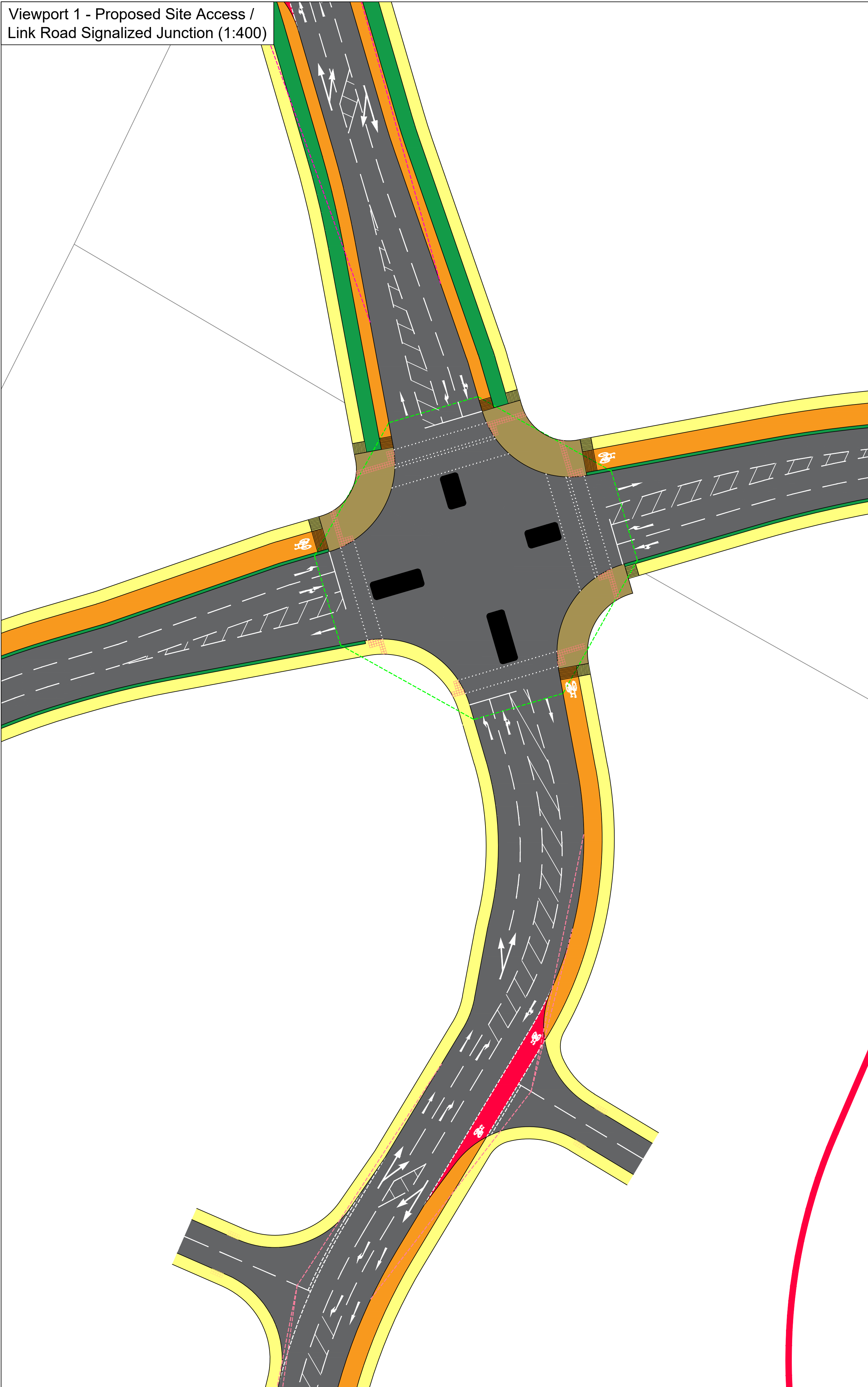


North West Bicester – Hawkwell Village

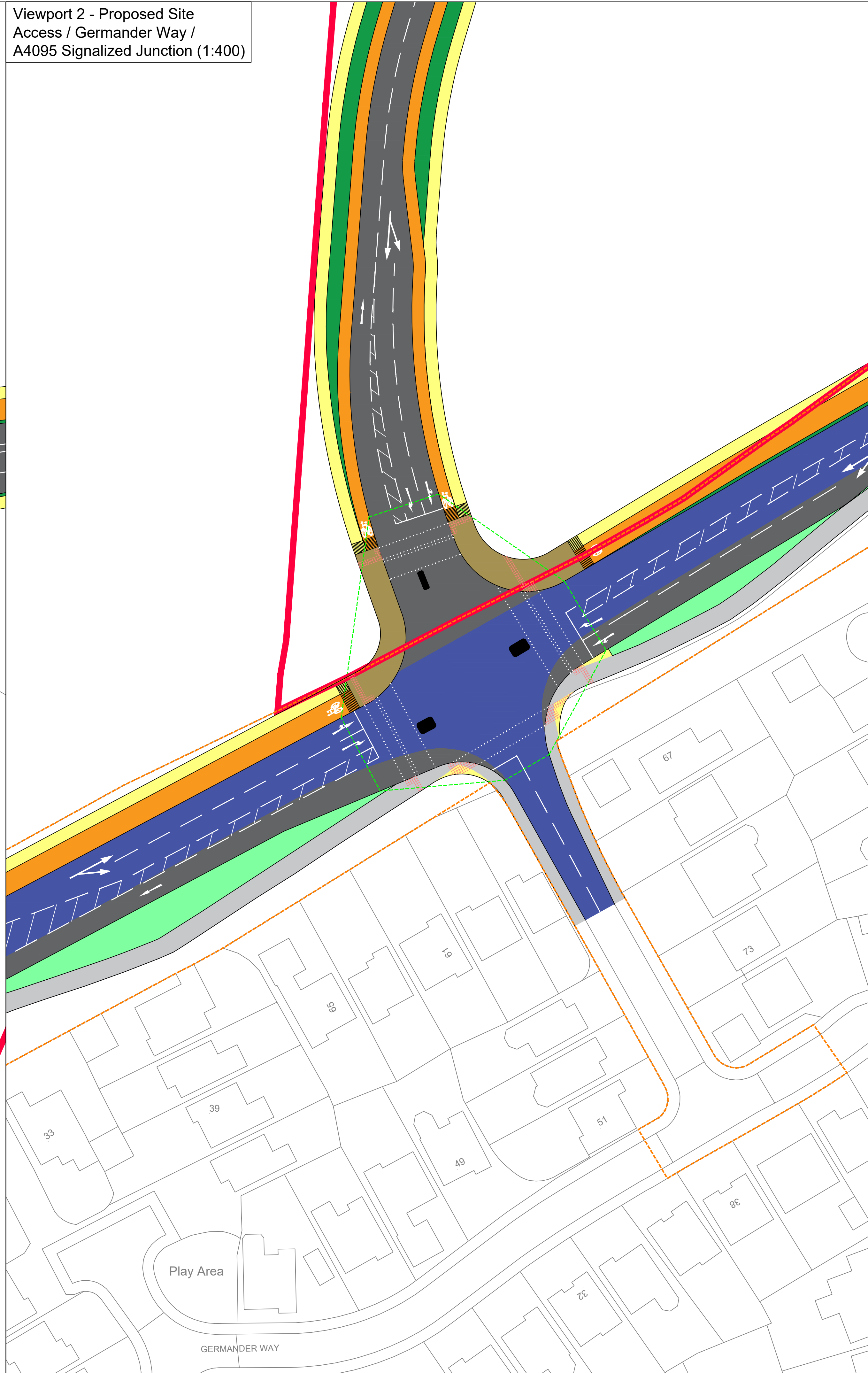
20300

Appendix I

Viewport 1 - Proposed Site Access / Link Road Signalized Junction (1:400)



Viewport 2 - Proposed Site Access / Germander Way / A4095 Signalized Junction (1:400)



KEY

-  Site Boundary
-  Highway Boundary
-  Intervisibility
-  Proposed Carriageway
-  Existing Carriageway
-  Coloured Surfacing
-  Proposed Footpath
-  Proposed Footpath
-  Proposed Verge
-  Existing Verge
-  Proposed Cycle Path
-  Proposed Shared Cycle / Pedestrian Path

Rev	Date	Description	By	Apvd
P6	11.05.23	Junction and Title Amendments	MK	AW
P5	01.03.23	Annotation Amendment	JF	MG
P4	28.07.22	Junction Amendment	JF	MG
P3	18.11.21	Annotation Amendment	JF	MG
P2	12.04.21	Kerbline Amendment	JF	TB
P1	17.02.21	Preliminary issue	JF	TB

Rev Date Description By Apvd

PROJECT:
BICESTER

TITLE:
PROPOSED SIGNALISED
SITE ACCESSES

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A1:
1:400

PROJECT REF:
20300
DRAWING No: 001 **REV:** P6

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

20300

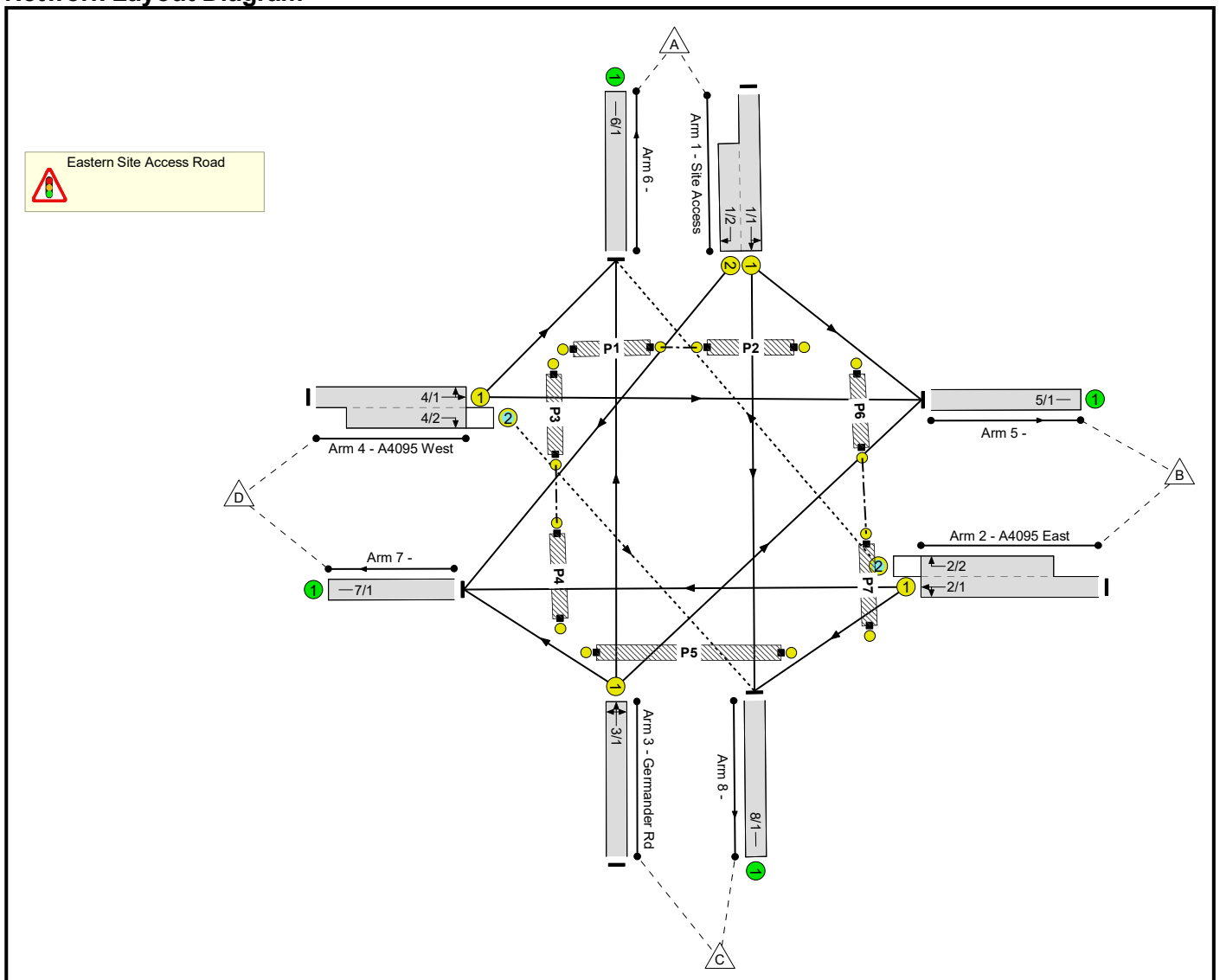
Appendix J

Full Input Data And Results
Full Input Data And Results

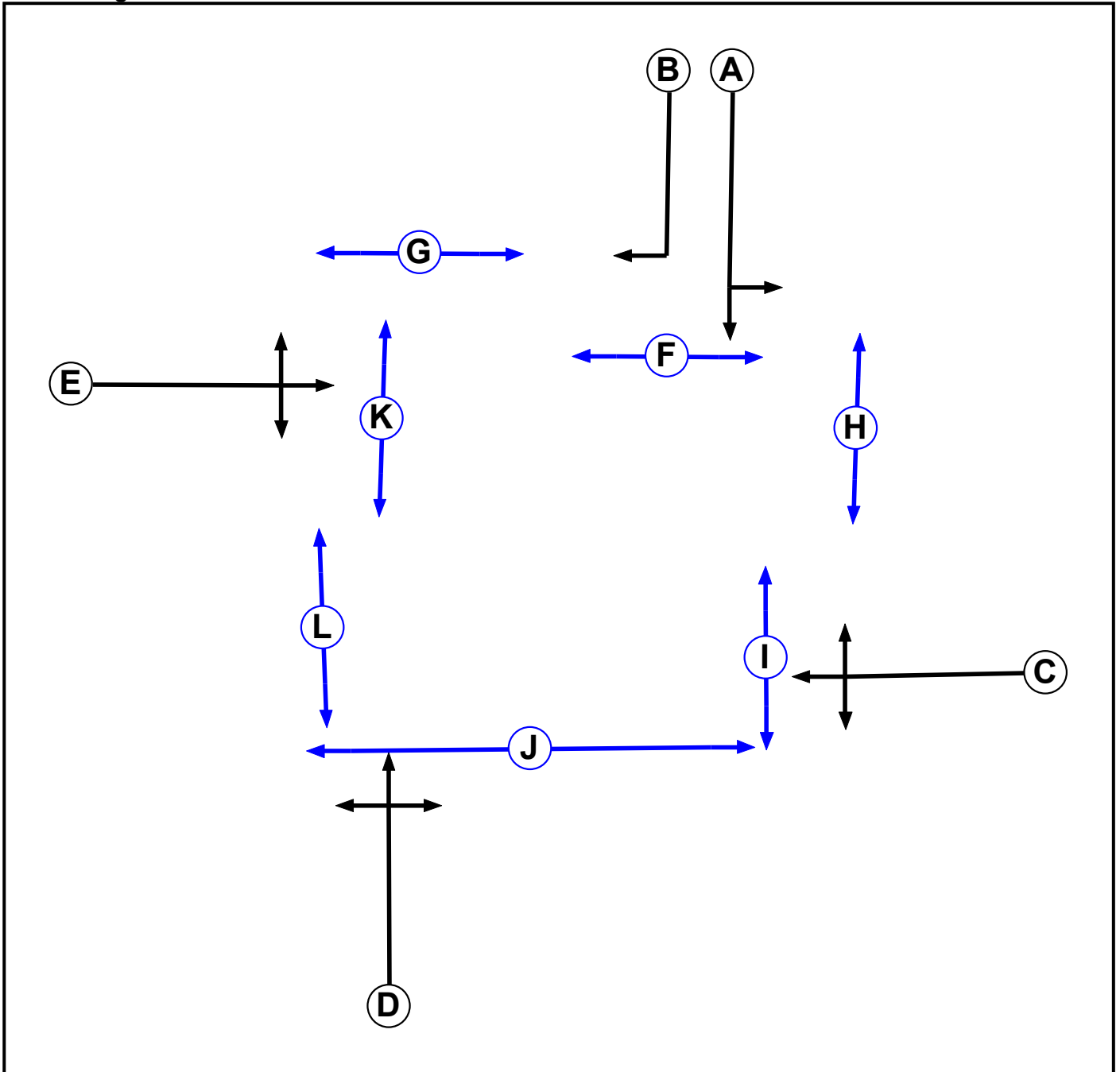
User and Project Details

Project:	20300 - Bicester
Title:	Proposed Site Eastern Access Junction - With Splitter Islands
Location:	Bicester
Additional detail:	
File name:	Site Eastern Access Junction.lsg3x
Author:	Jubb
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		7	7
K	Pedestrian		5	5
L	Pedestrian		5	5

Phase Intergreens Matrix

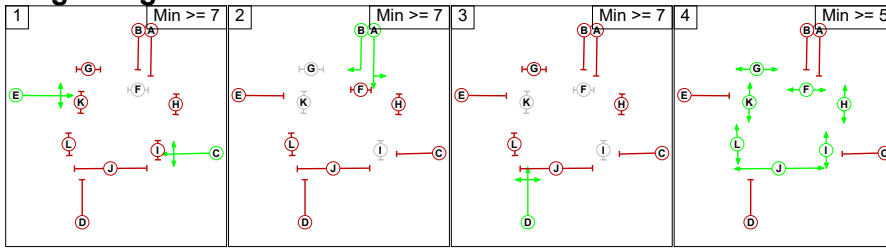
		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A	-	6	6	6	5	-	7	-	8	-	-	-
	B	-	-	6	6	6	5	-	-	-	-	-	8
	C	6	6	-	6	-	-	8	-	5	7	-	8
	D	6	6	6	-	6	-	8	8	-	5	-	7
	E	6	6	-	6	-	7	8	-	7	5	-	-
	F	7	7	-	-	-	-	-	-	-	-	-	-
	G	-	-	5	5	5	-	-	-	-	-	-	-
	H	9	-	-	9	9	-	-	-	-	-	-	-
	I	-	-	8	-	-	-	-	-	-	-	-	-
	J	14	-	14	14	14	-	-	-	-	-	-	-
	K	-	-	-	-	8	-	-	-	-	-	-	-
	L	-	7	7	7	-	-	-	-	-	-	-	-

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		6	6	8
	2	6		6	8
	3	6	6		8
	4	14	14	14	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Eastern Site Access Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (A4095 East)	6/1 (Right)	1439	0	4/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (A4095 West)	8/1 (Right)	1439	0	2/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Eastern Site Access Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Site Access)	U	A	2	3	60.0	Geom	-	3.15	0.00	Y	Arm 5 Left	21.00
											Arm 8 Ahead	Inf
1/2 (Site Access)	U	B	2	3	7.8	Geom	-	3.15	0.00	Y	Arm 7 Right	40.00
2/1 (A4095 East)	U	C	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Left	20.00
2/2 (A4095 East)	O	C	2	3	9.6	Geom	-	3.40	0.00	Y	Arm 6 Right	20.40
											Arm 5 Right	17.60
3/1 (Germander Rd)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Left	8.50
4/1 (A4095 West)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Left	15.60
4/2 (A4095 West)	O	E	2	3	9.9	Geom	-	3.40	0.00	Y	Arm 8 Right	28.40
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Year 2031 Dev 1a AM'	08:00	09:00	01:00	
2: 'Year 2031 Dev 1a PM'	17:00	18:00	01:00	
3: 'Year 2031 Dev 1b AM'	08:00	09:00	01:00	
4: 'Year 2031 Dev 1b PM'	17:00	18:00	01:00	
5: 'Year 2026 Dev 1a AM'	08:00	09:00	01:00	
6: 'Year 2026 Dev 1a PM'	17:00	18:00	01:00	
7: 'Year 2026 Dev 1b AM'	08:00	09:00	01:00	
8: 'Year 2026 Dev 1b PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev 1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	217	2	76	295
	B	267	0	17	652	936
	C	6	31	0	0	37
	D	26	447	50	0	523
	Tot.	299	695	69	728	1791

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: Eastern Site Access Road	
1/1 (with short)	295(In) 219(Out)
1/2 (short)	76
2/1 (with short)	936(In) 669(Out)
2/2 (short)	267
3/1	37
4/1 (with short)	523(In) 473(Out)
4/2 (short)	50
5/1	695
6/1	299
7/1	728
8/1	69

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.1 %	1802	1802
				Arm 8 Ahead	Inf	0.9 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	97.5 %	1951	1951
				Arm 8 Left	20.00	2.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	83.8 %	1797	1797
				Arm 6 Ahead	Inf	16.2 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.5 %	1945	1945
				Arm 6 Left	15.60	5.5 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev 1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	52	4	32	88
	B	186	0	43	661	890
	C	4	18	0	0	22
	D	22	558	50	0	630
	Tot.	212	628	97	693	1630

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	88(In) 56(Out)
1/2 (short)	32
2/1 (with short)	890(In) 704(Out)
2/2 (short)	186
3/1	22
4/1 (with short)	630(In) 580(Out)
4/2 (short)	50
5/1	628
6/1	212
7/1	693
8/1	97

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	92.9 % 7.1 %	1810	1810
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	93.9 % 6.1 %	1946	1946
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	81.8 % 18.2 % 0.0 %	1800	1800
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	96.2 % 3.8 %	1948	1948
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'New Scenario' (FG3: 'Year 2031 Dev 1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	150	1	48	199
	B	272	0	17	662	951
	C	5	32	0	0	37
	D	27	445	50	0	522
	Tot.	304	627	68	710	1709

Traffic Lane Flows

Lane	Scenario 3: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	199(In) 151(Out)
1/2 (short)	48
2/1 (with short)	951(In) 679(Out)
2/2 (short)	272
3/1	37
4/1 (with short)	522(In) 472(Out)
4/2 (short)	50
5/1	627
6/1	304
7/1	710
8/1	68

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.3 %	1802	1802
				Arm 8 Ahead	Inf	0.7 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	97.5 %	1951	1951
				Arm 8 Left	20.00	2.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	86.5 %	1793	1793
				Arm 6 Ahead	Inf	13.5 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.3 %	1944	1944
				Arm 6 Left	15.60	5.7 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'New Scenario' (FG4: 'Year 2031 Dev 1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	6	3	26	35
	B	191	0	43	670	904
	C	4	18	0	0	22
	D	19	569	50	0	638
	Tot.	214	593	96	696	1599

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	35(In) 9(Out)
1/2 (short)	26
2/1 (with short)	904(In) 713(Out)
2/2 (short)	191
3/1	22
4/1 (with short)	638(In) 588(Out)
4/2 (short)	50
5/1	593
6/1	214
7/1	696
8/1	96

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	66.7 % 33.3 %	1842	1842
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	94.0 % 6.0 %	1946	1946
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	81.8 % 18.2 % 0.0 %	1800	1800
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	96.8 % 3.2 %	1949	1949
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 5: 'New Scenario' (FG5: 'Year 2026 Dev 1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	118	1	57	176
	B	24	0	71	622	717
	C	0	33	0	0	33
	D	9	732	50	0	791
	Tot.	33	883	122	679	1717

Traffic Lane Flows

Lane	Scenario 5: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	176(In) 119(Out)
1/2 (short)	57
2/1 (with short)	717(In) 693(Out)
2/2 (short)	24
3/1	33
4/1 (with short)	791(In) 741(Out)
4/2 (short)	50
5/1	883
6/1	33
7/1	679
8/1	122

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.2 %	1802	1802
				Arm 8 Ahead	Inf	0.8 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	89.8 %	1940	1940
				Arm 8 Left	20.00	10.2 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	100.0 %	1774	1774
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	98.8 %	1953	1953
				Arm 6 Left	15.60	1.2 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'New Scenario' (FG6: 'Year 2026 Dev 1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	74	1	37	112
	B	84	0	118	739	941
	C	1	15	0	0	16
	D	99	846	50	0	995
	Tot.	184	935	169	776	2064

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	112(In) 75(Out)
1/2 (short)	37
2/1 (with short)	941(In) 857(Out)
2/2 (short)	84
3/1	16
4/1 (with short)	995(In) 945(Out)
4/2 (short)	50
5/1	935
6/1	184
7/1	776
8/1	169

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	98.7 % 1.3 %	1803	1803
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	86.2 % 13.8 %	1935	1935
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	93.8 % 6.3 % 0.0 %	1783	1783
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	89.5 % 10.5 %	1936	1936
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 7: 'New Scenario' (FG7: 'Year 2026 Dev 1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	91	0	44	135
	B	28	0	71	618	717
	C	0	33	0	0	33
	D	11	733	50	0	794
	Tot.	39	857	121	662	1679

Traffic Lane Flows

Lane	Scenario 7: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	135(In) 91(Out)
1/2 (short)	44
2/1 (with short)	717(In) 689(Out)
2/2 (short)	28
3/1	33
4/1 (with short)	794(In) 744(Out)
4/2 (short)	50
5/1	857
6/1	39
7/1	662
8/1	121

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	100.0 %	1801	1801
				Arm 8 Ahead	Inf	0.0 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	89.7 %	1940	1940
				Arm 8 Left	20.00	10.3 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	100.0 %	1774	1774
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	98.5 %	1952	1952
				Arm 6 Left	15.60	1.5 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'New Scenario' (FG8: 'Year 2026 Dev 1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	52	1	26	79
	B	70	0	120	754	944
	C	1	15	0	0	16
	D	80	859	50	0	989
	Tot.	151	926	171	780	2028

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	79(In) 53(Out)
1/2 (short)	26
2/1 (with short)	944(In) 874(Out)
2/2 (short)	70
3/1	16
4/1 (with short)	989(In) 939(Out)
4/2 (short)	50
5/1	926
6/1	151
7/1	780
8/1	171

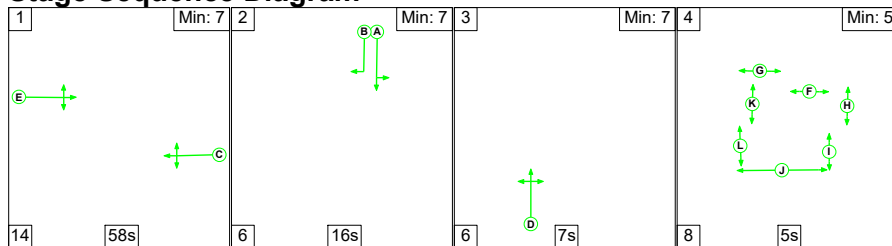
Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	98.1 % 1.9 %	1804	1804
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	86.3 % 13.7 %	1935	1935
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	93.8 % 6.3 % 0.0 %	1783	1783
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	91.5 % 8.5 %	1939	1939
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev 1a AM', Plan 1: 'Network Control Plan 1')

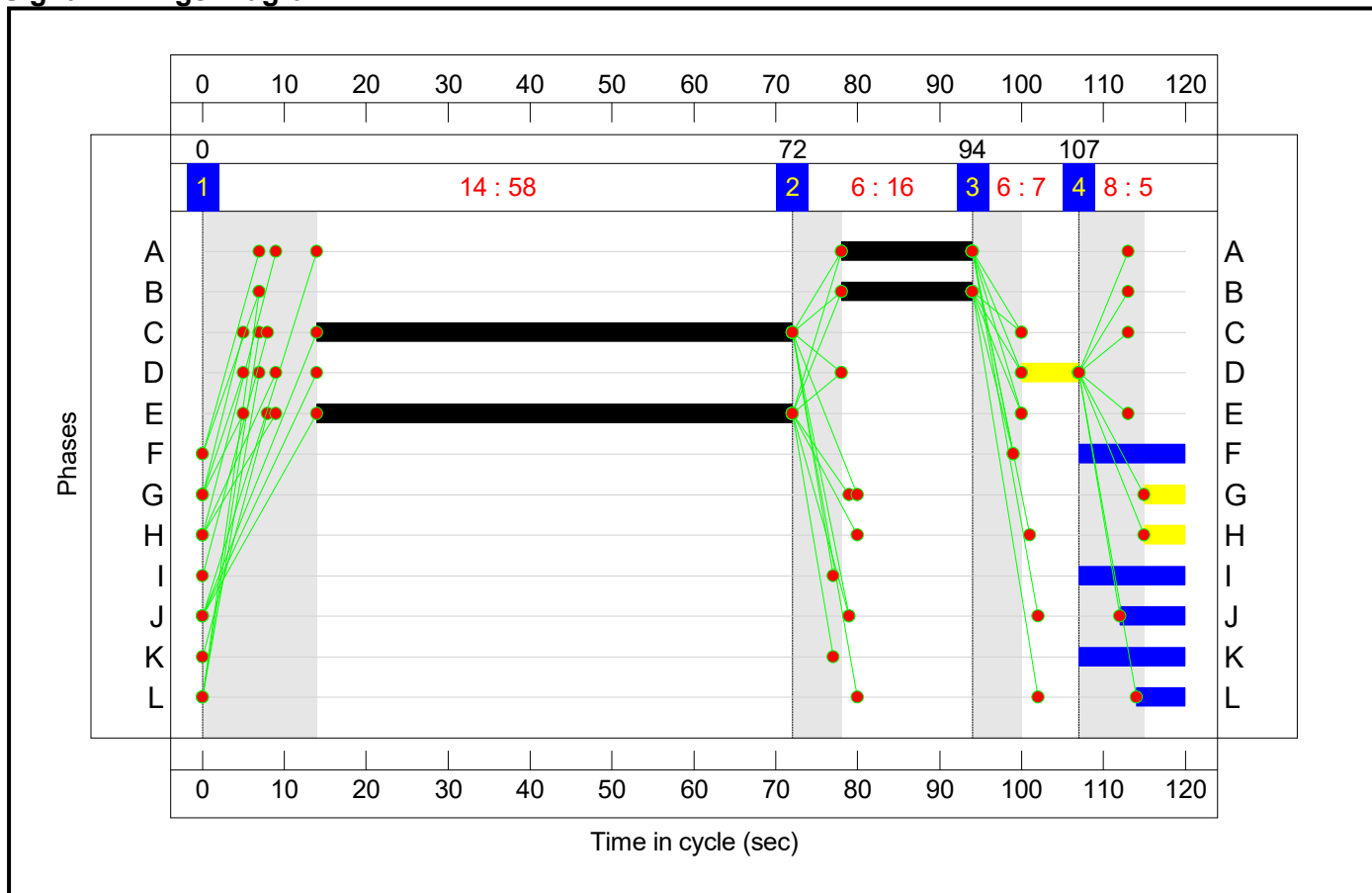
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	58	16	7	5
Change Point	0	72	94	107

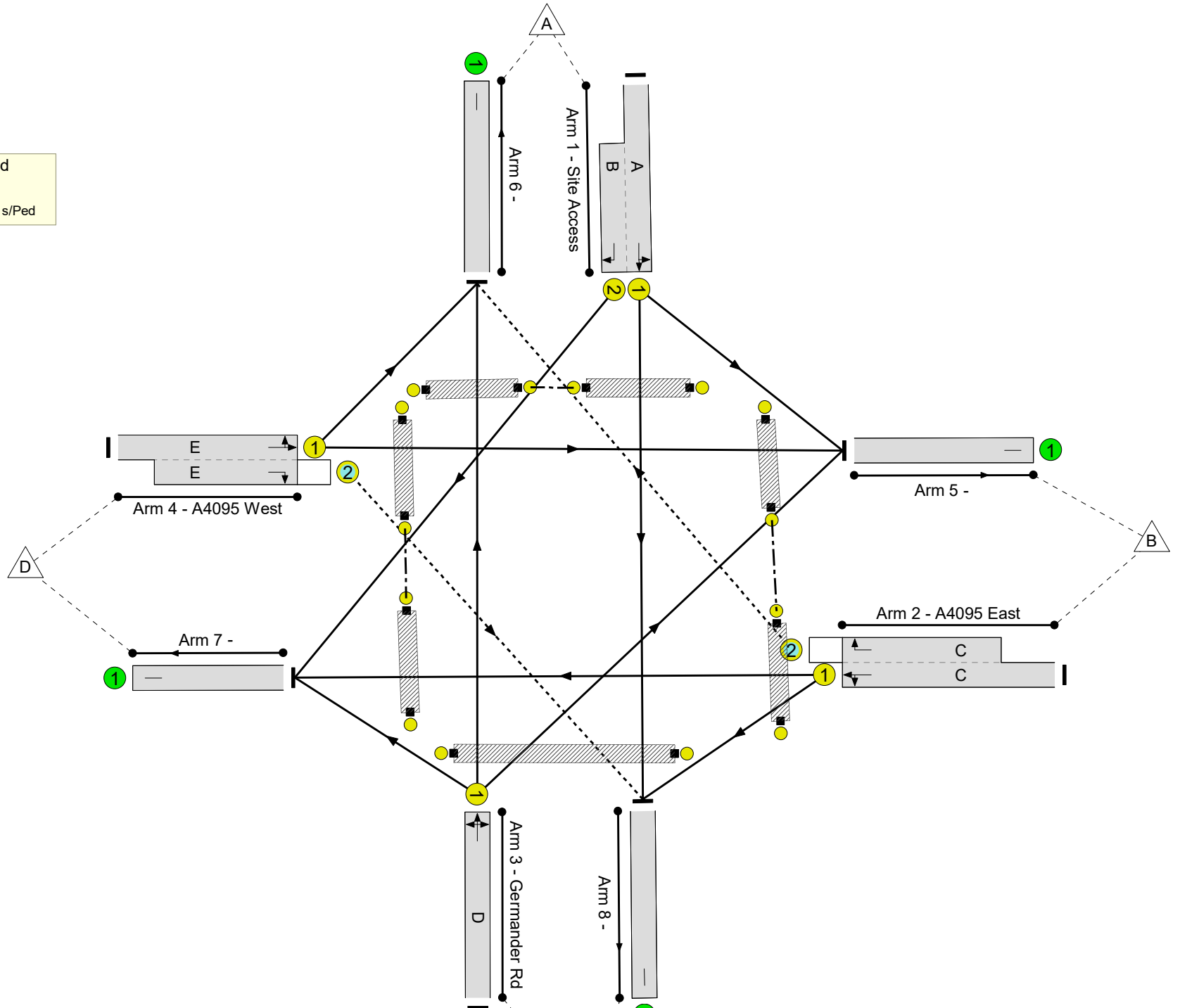
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Eastern Site Access Road
 PRC: 2.3 %
 Total Traffic Delay: 22.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

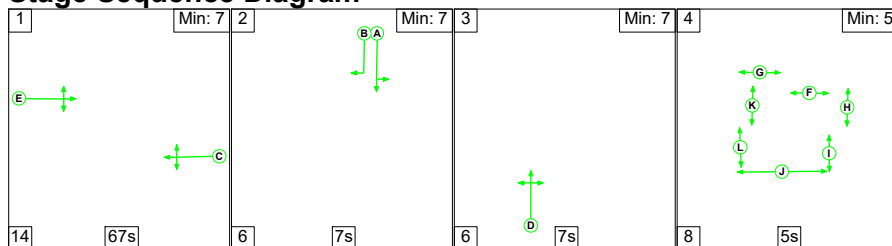
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	16	-	295	1802:1860	255+89	85.8 : 85.8%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	58	-	936	1951:1821	760+304	88.0 : 88.0%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	37	1797	120	30.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	58	-	523	1945:1857	897+95	52.7 : 52.7%
5/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev 1a PM', Plan 1: 'Network Control Plan 1')

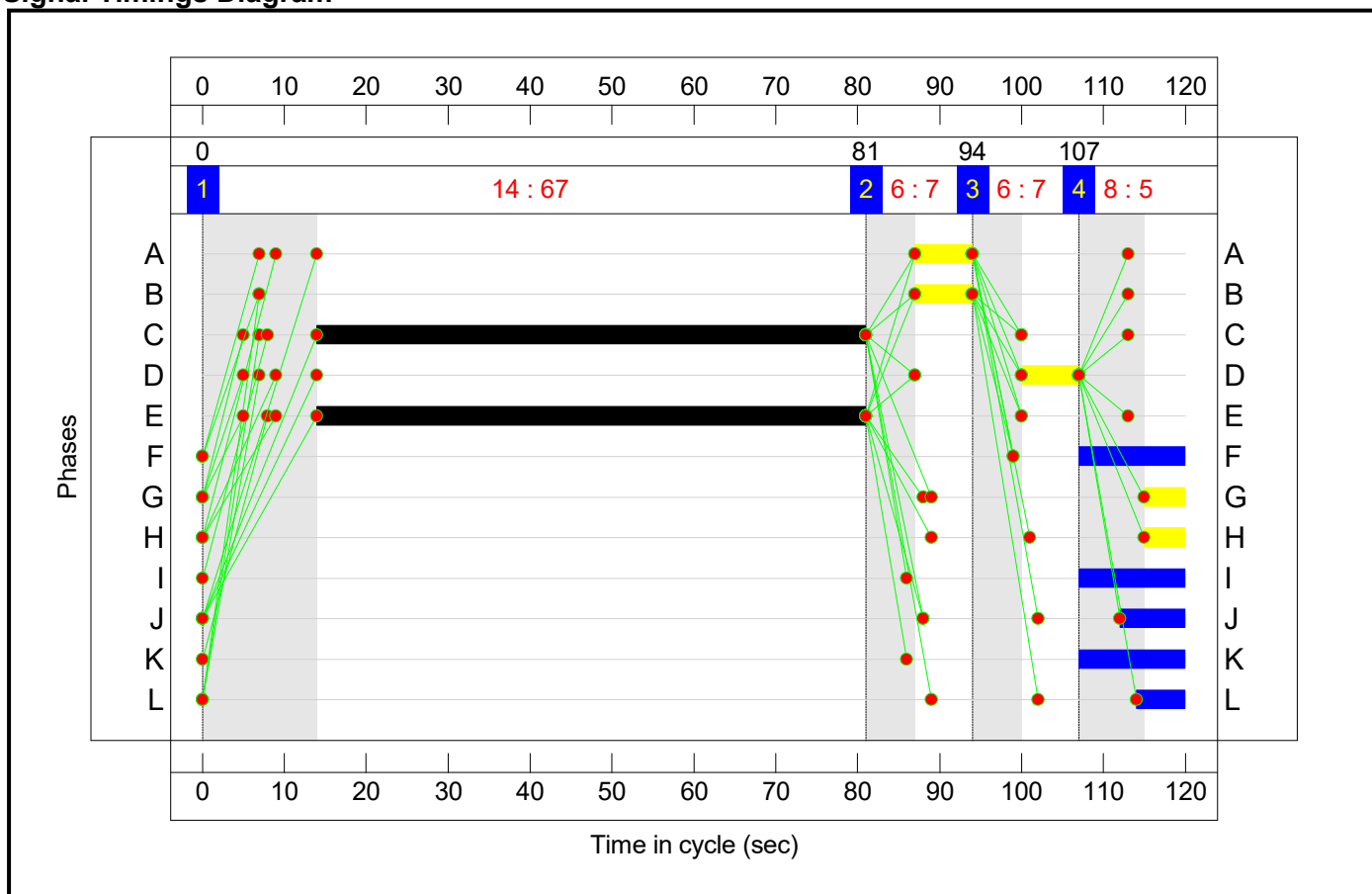
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	67	7	7	5
Change Point	0	81	94	107

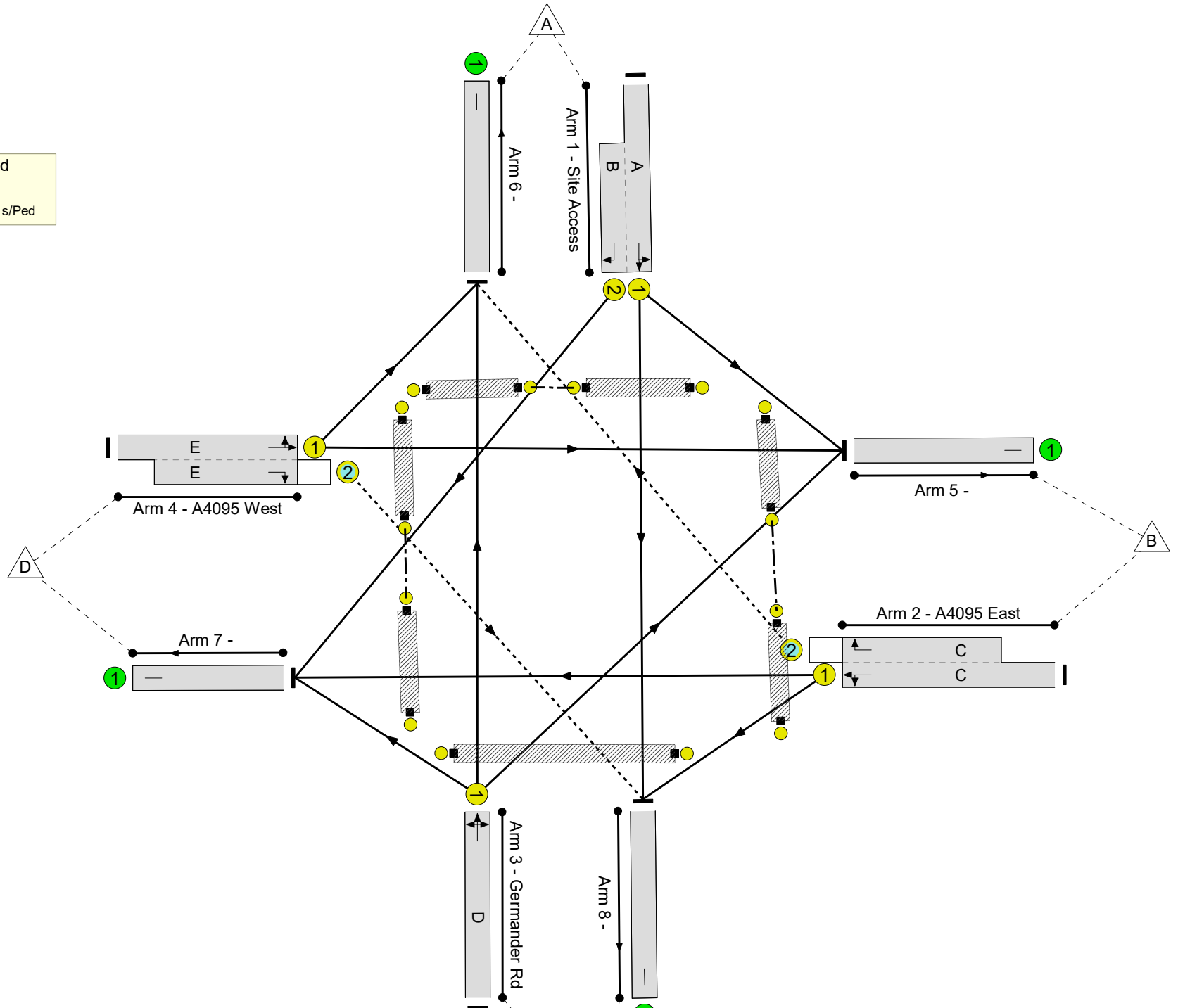
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 18.4 %
Total Traffic Delay: 12.5 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.0%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	76.0%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	88	1810:1860	121+69	46.4 : 46.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	67	-	890	1946:1821	926+245	76.0 : 76.0%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	22	1800	120	18.3%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	67	-	630	1948:1857	1043+90	55.6 : 55.6%
5/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	97	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

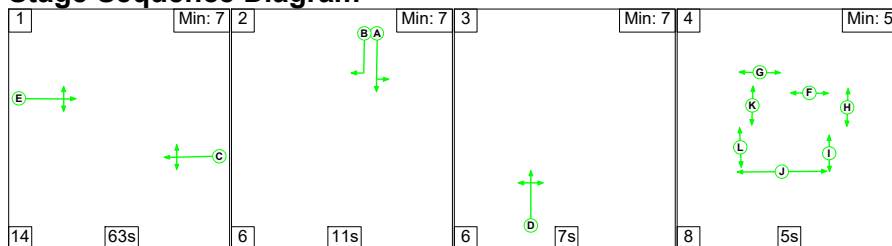
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	236	0	0	8.9	2.7	0.9	12.5	-	-	-	-
Eastern Site Access Road	-	-	236	0	0	8.9	2.7	0.9	12.5	-	-	-	-
1/1+1/2	88	88	-	-	-	1.3	0.4	-	1.7	71.2	1.8	0.4	2.2
2/1+2/2	890	890	186	0	0	4.5	1.6	0.6	6.6	26.9	19.0	1.6	20.5
3/1	22	22	-	-	-	0.3	0.1	-	0.4	71.3	0.7	0.1	0.8
4/1+4/2	630	630	50	0	0	2.8	0.6	0.3	3.7	21.1	12.0	0.6	12.6
5/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	97	97	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 18.4 Total Delay for Signalled Lanes (pcuHr): 12.51 Cycle Time (s): 120 PRC Over All Lanes (%): 18.4 Total Delay Over All Lanes(pcuHr): 12.51													

Full Input Data And Results

Scenario 3: 'New Scenario' (FG3: 'Year 2031 Dev 1b AM', Plan 1: 'Network Control Plan 1')

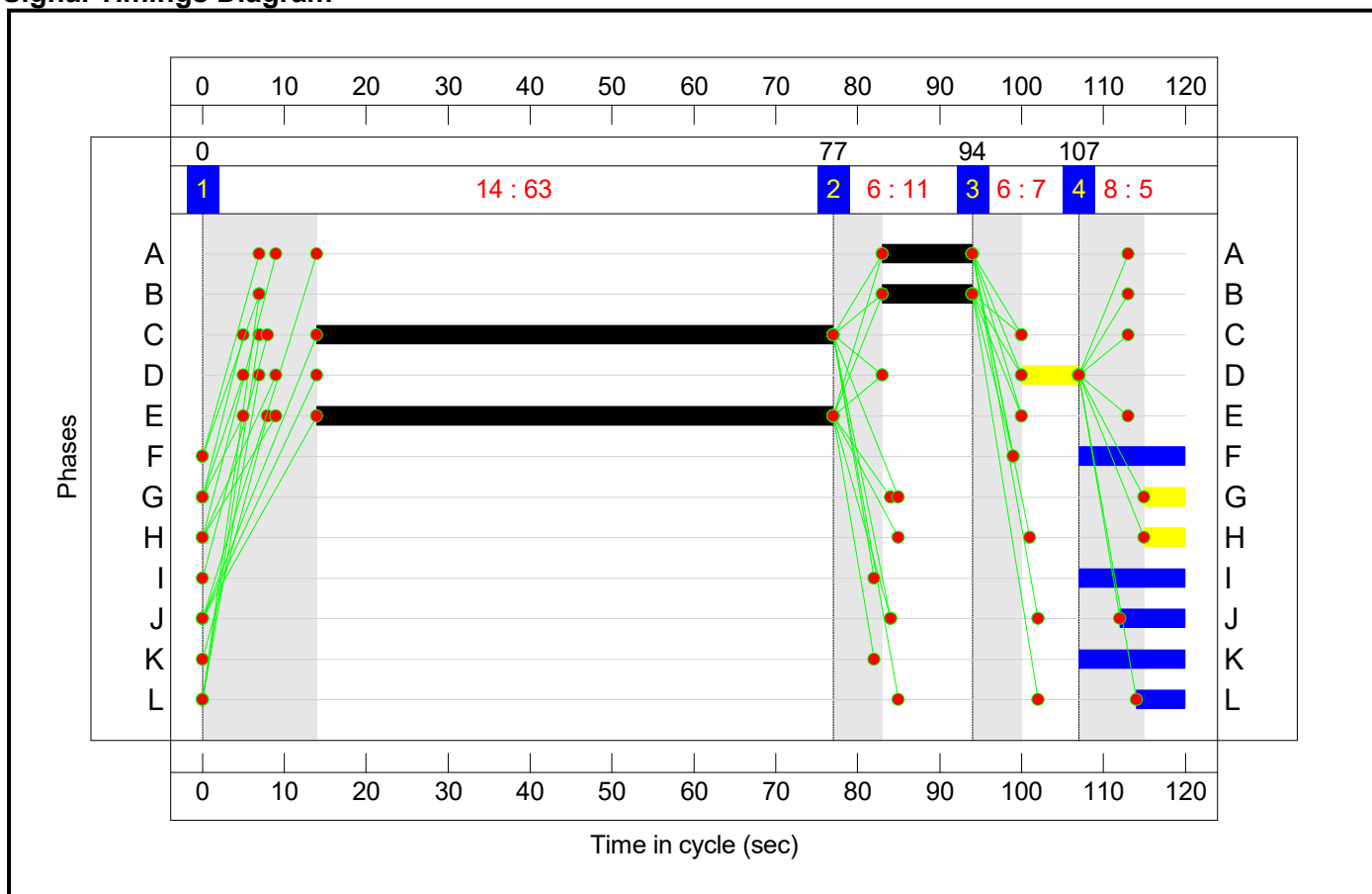
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	63	11	7	5
Change Point	0	77	94	107

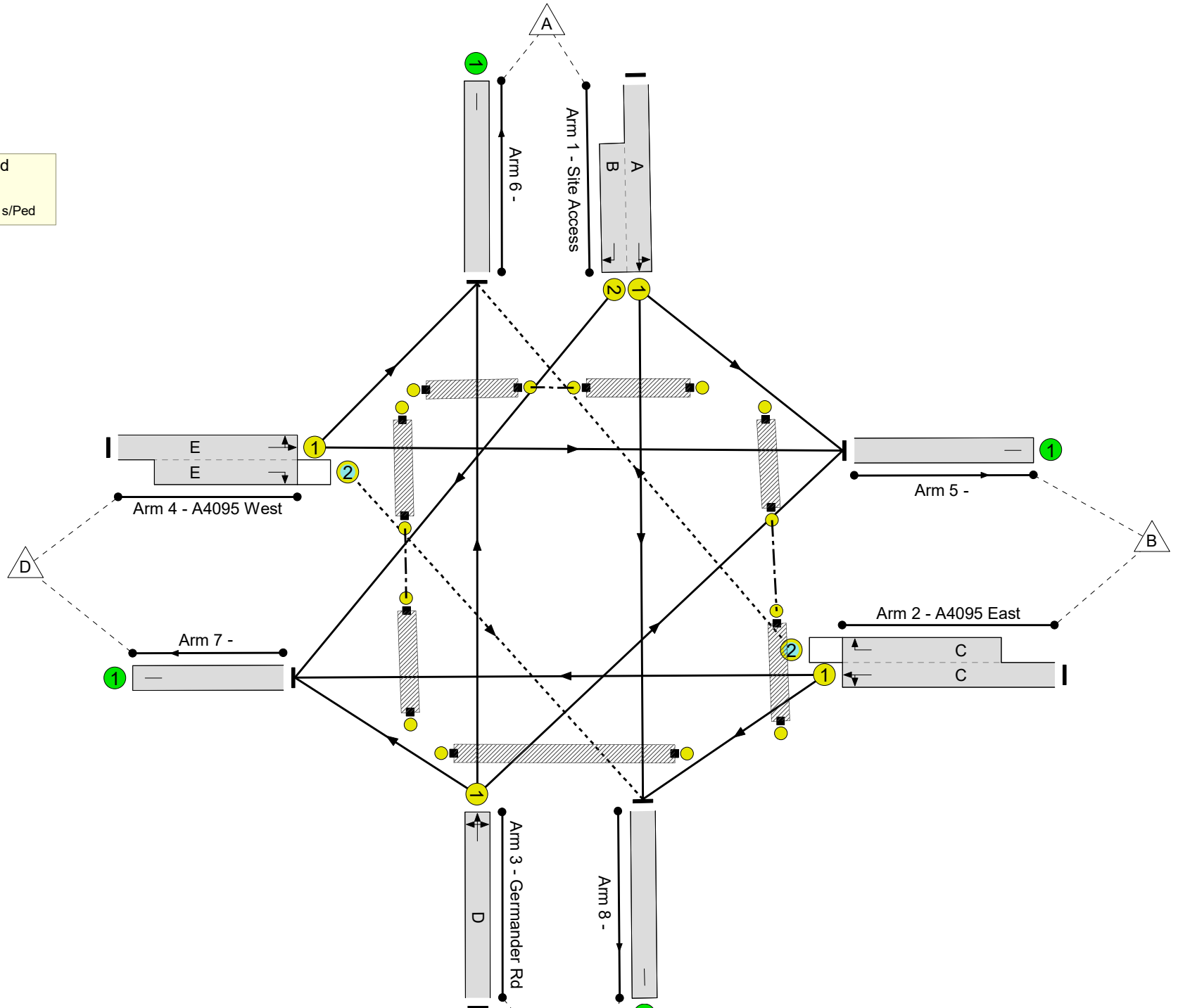
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 7.4 %
Total Traffic Delay: 18.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

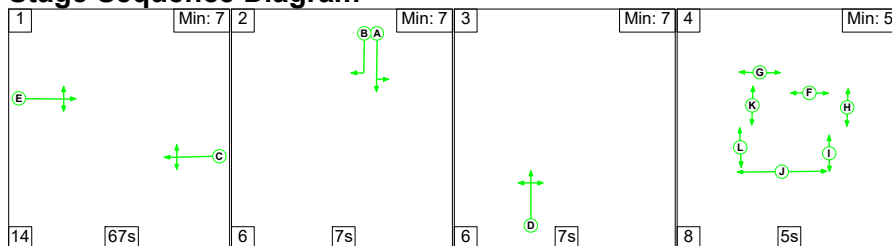
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.8%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	83.8%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	11	-	199	1802:1860	180+57	83.8 : 83.8%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	63	-	951	1951:1821	817+327	83.1 : 83.1%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	37	1793	120	31.0%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	63	-	522	1944:1857	969+103	48.7 : 48.7%
5/1		U	N/A	N/A	-		-	-	-	627	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	304	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

Scenario 4: 'New Scenario' (FG4: 'Year 2031 Dev 1b PM', Plan 1: 'Network Control Plan 1')

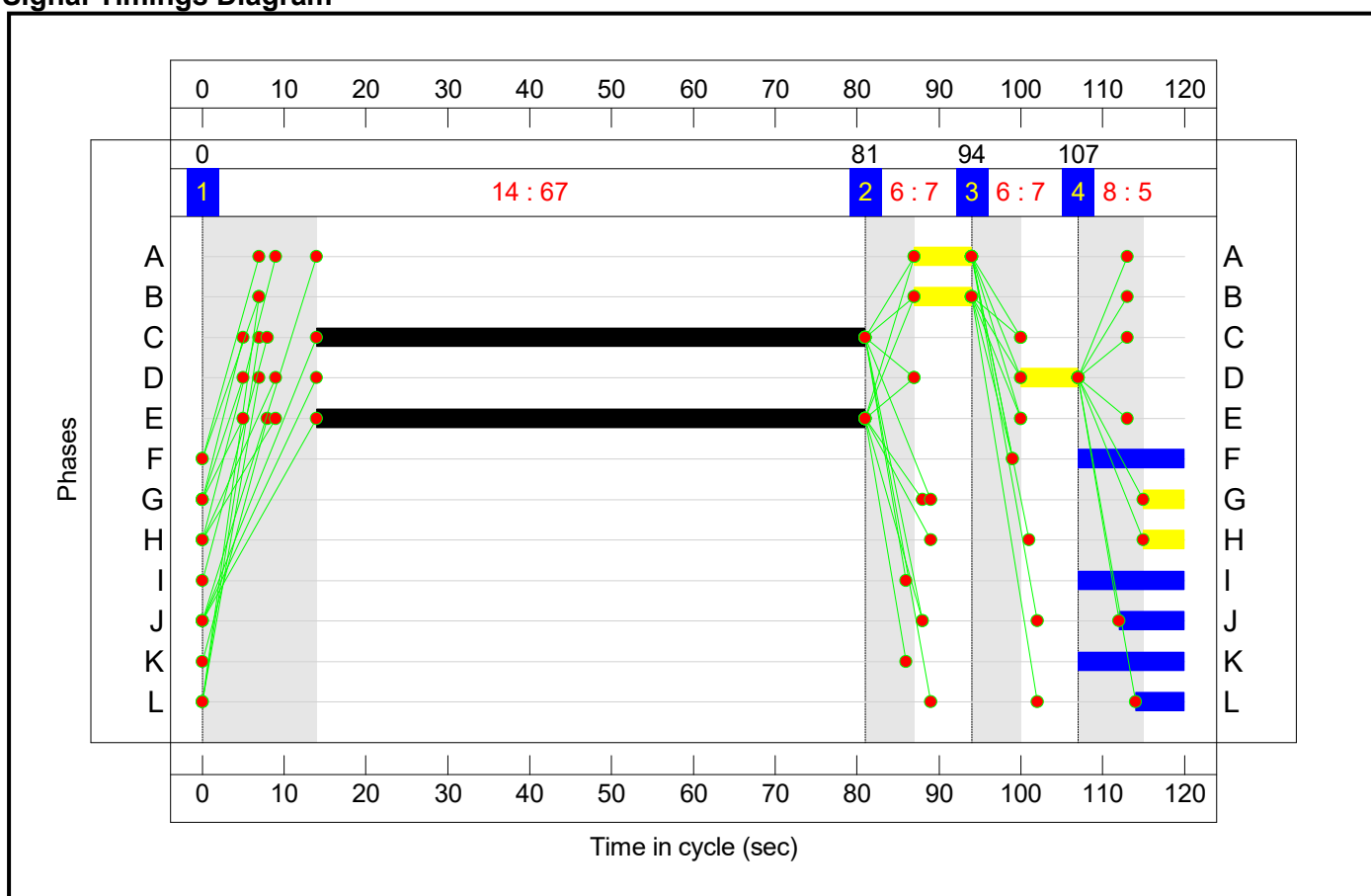
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	67	7	7	5
Change Point	0	81	94	107

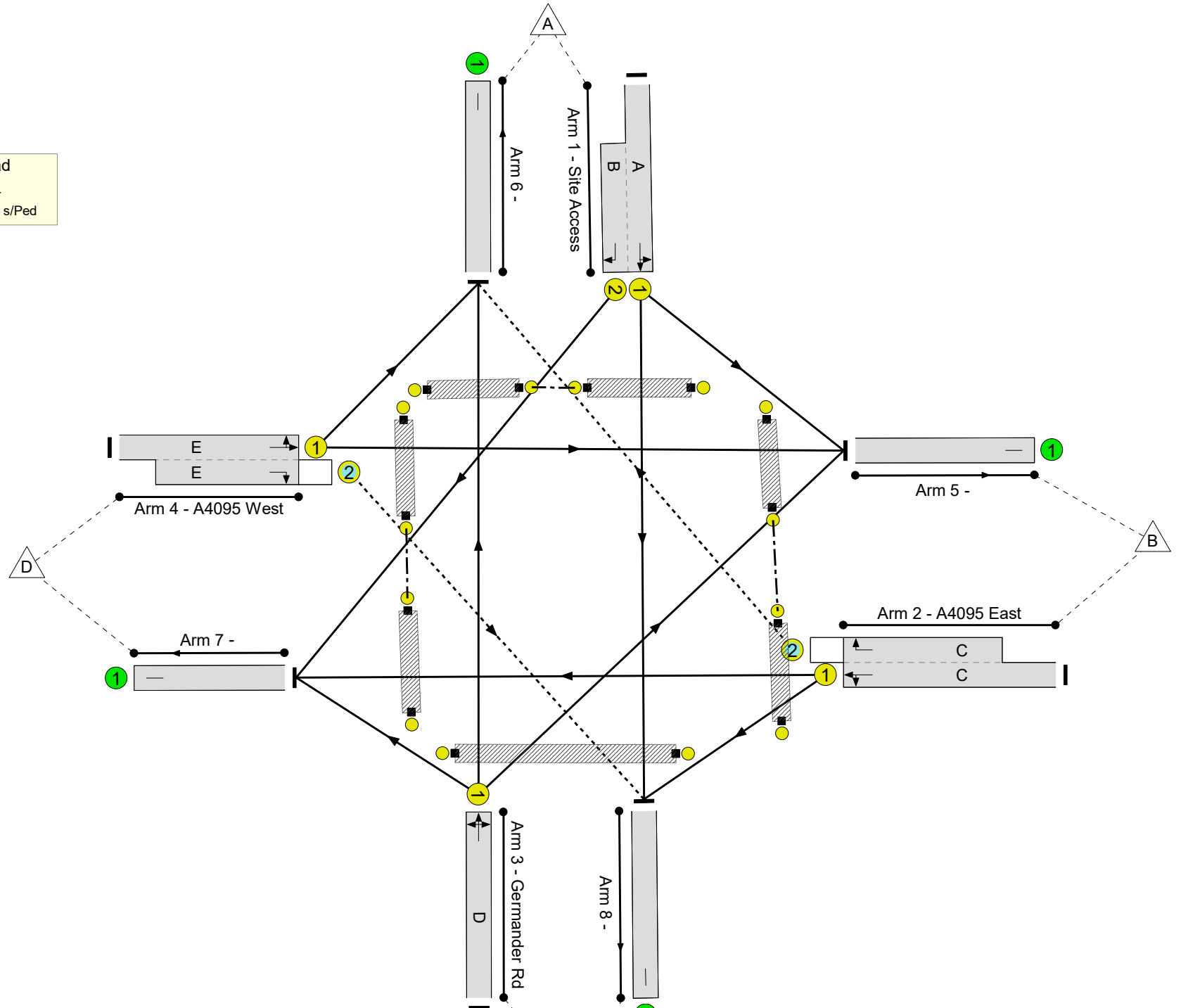
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Eastern Site Access Road
PRC: 16.7 %
Total Traffic Delay: 11.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

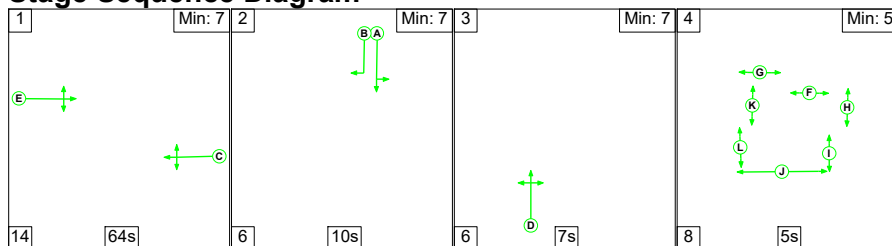
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.1%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	77.1%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	35	1842:1860	43+124	21.0 : 21.0%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	67	-	904	1946:1821	924+248	77.1 : 77.1%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	22	1800	120	18.3%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	67	-	638	1949:1857	1044+89	56.3 : 56.3%
5/1		U	N/A	N/A	-		-	-	-	593	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

Scenario 5: 'New Scenario' (FG5: 'Year 2026 Dev 1a AM', Plan 1: 'Network Control Plan 1')

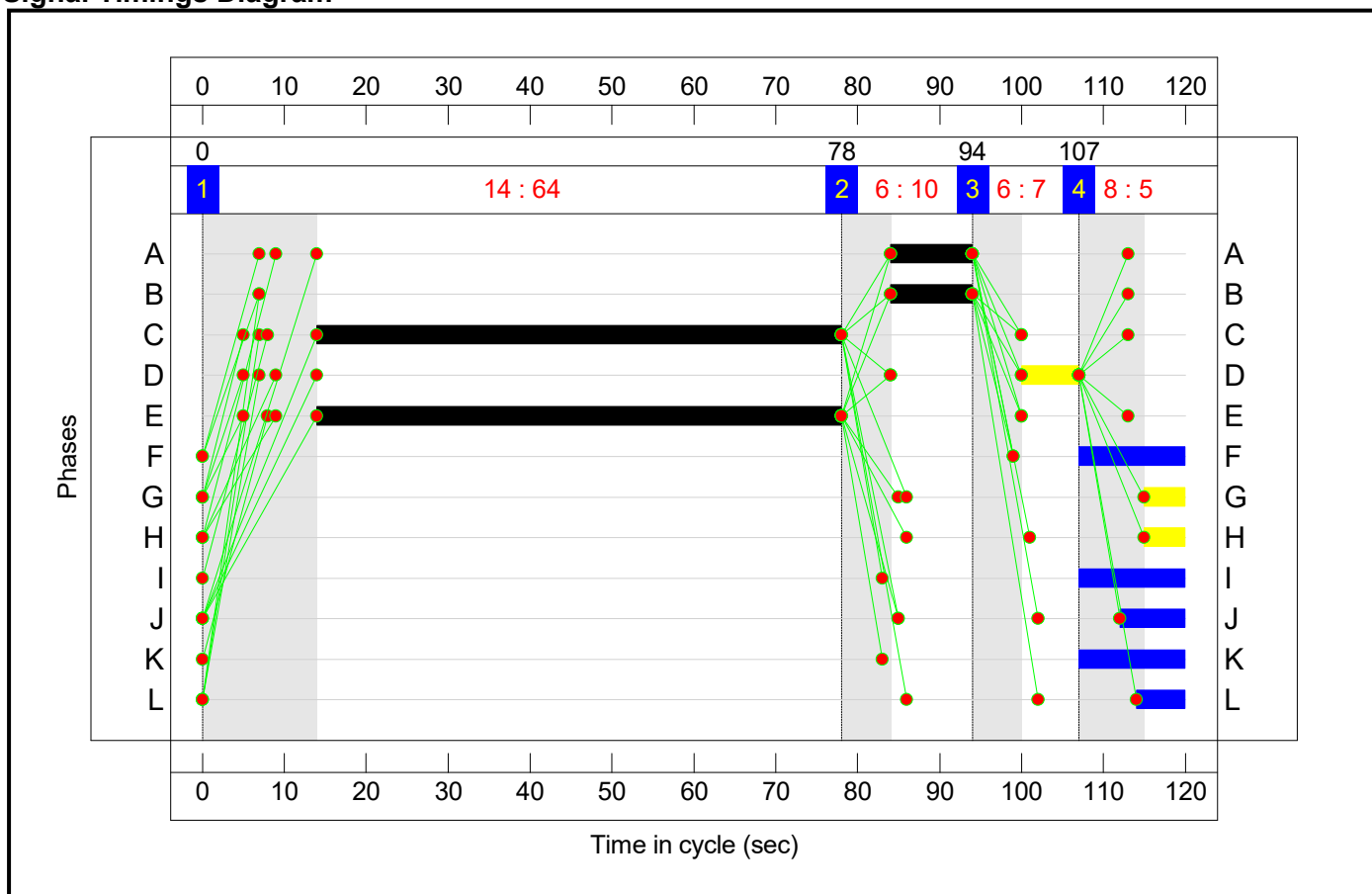
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	64	10	7	5
Change Point	0	78	94	107

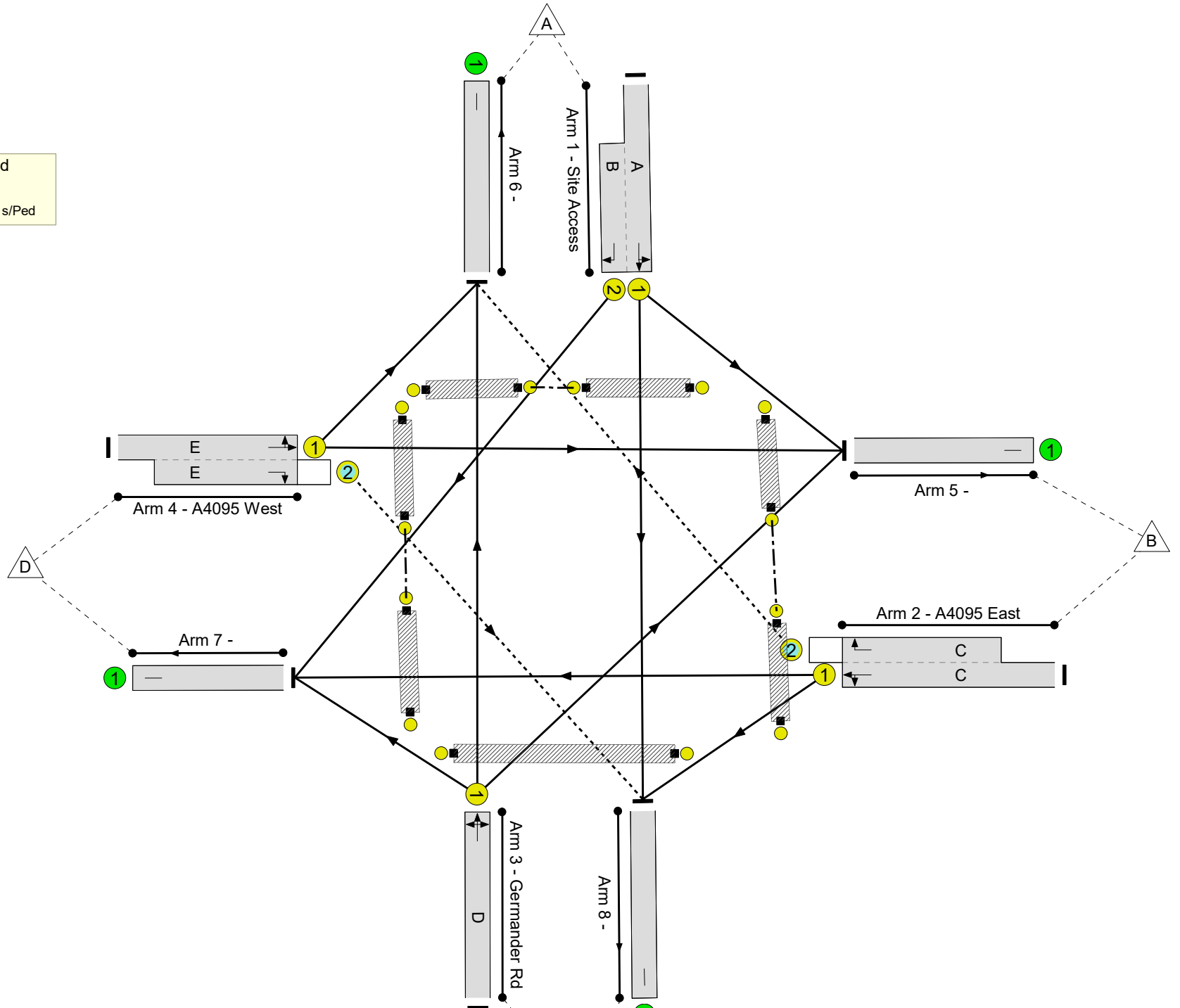
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 23.0 %
Total Traffic Delay: 15.5 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	73.2%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	10	-	176	1802:1860	165+79	72.0 : 72.0%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	64	-	717	1940:1821	1027+36	67.5 : 67.5%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	33	1774	118	27.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	64	-	791	1953:1857	1013+68	73.2 : 73.2%
5/1		U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	33	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	679	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	122	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

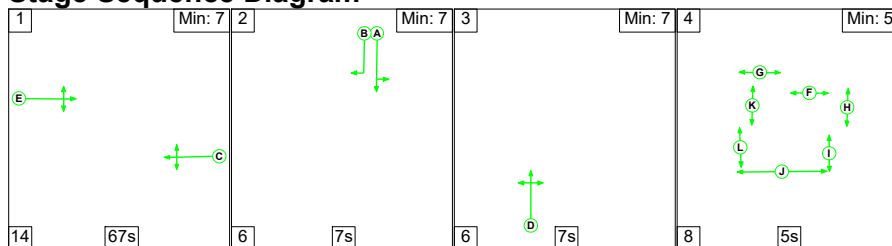
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	74	0	0	11.4	3.8	0.4	15.5	-	-	-	-
Eastern Site Access Road	-	-	74	0	0	11.4	3.8	0.4	15.5	-	-	-	-
1/1+1/2	176	176	-	-	-	2.6	1.2	-	3.8	77.8	3.8	1.2	5.1
2/1+2/2	717	717	24	0	0	3.9	1.0	0.1	5.0	25.3	16.6	1.0	17.6
3/1	33	33	-	-	-	0.5	0.2	-	0.7	74.3	1.0	0.2	1.2
4/1+4/2	791	791	50	0	0	4.4	1.4	0.2	6.0	27.4	18.9	1.4	20.2
5/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	33	33	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	679	679	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	122	122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 23.0 Total Delay for Signalled Lanes (pcuHr): 15.54 Cycle Time (s): 120 PRC Over All Lanes (%): 23.0 Total Delay Over All Lanes(pcuHr): 15.54													

Full Input Data And Results

Scenario 6: 'New Scenario' (FG6: 'Year 2026 Dev 1a PM', Plan 1: 'Network Control Plan 1')

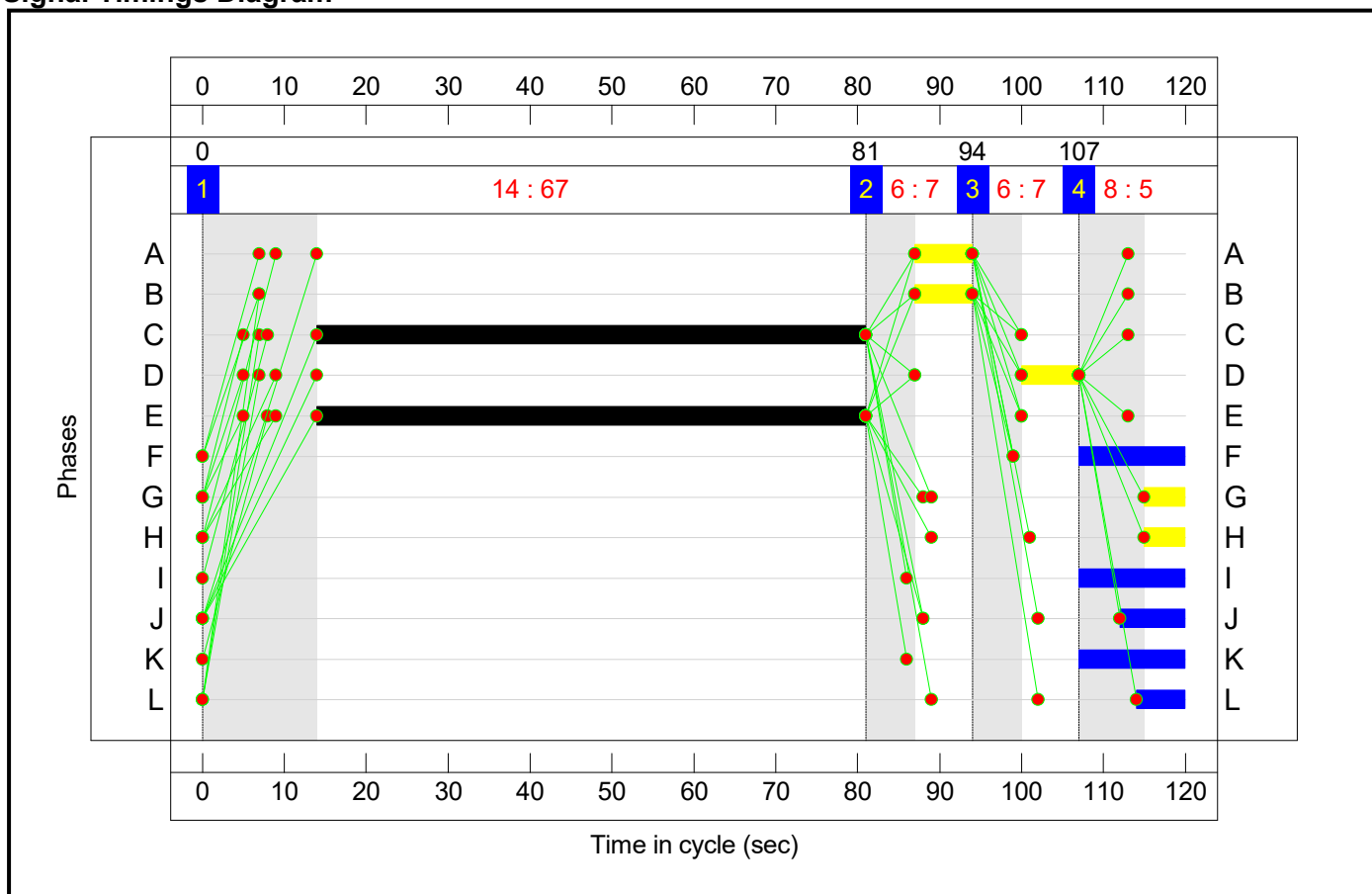
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	67	7	7	5
Change Point	0	81	94	107

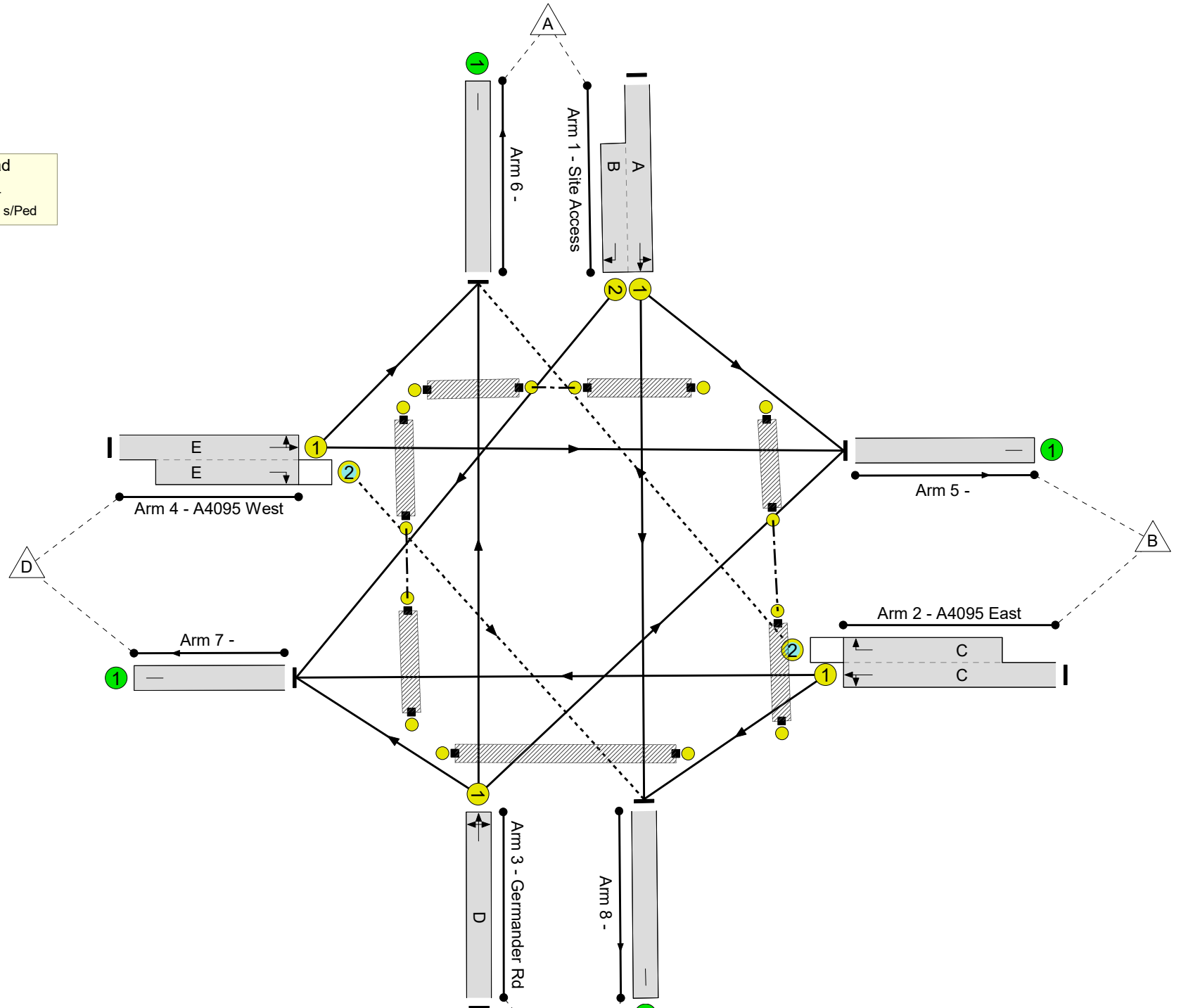
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Eastern Site Access Road
 PRC: 1.2 %
 Total Traffic Delay: 21.7 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

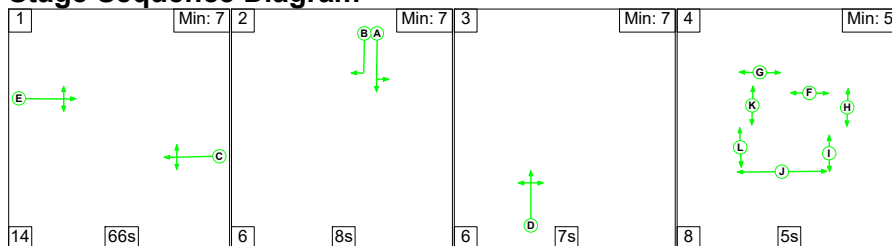
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	112	1803:1860	120+59	62.4 : 62.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	67	-	941	1935:1821	1024+100	83.7 : 83.7%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	16	1783	119	13.5%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	67	-	995	1936:1857	1063+56	88.9 : 88.9%
5/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	184	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	776	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

Scenario 7: 'New Scenario' (FG7: 'Year 2026 Dev 1b AM', Plan 1: 'Network Control Plan 1')

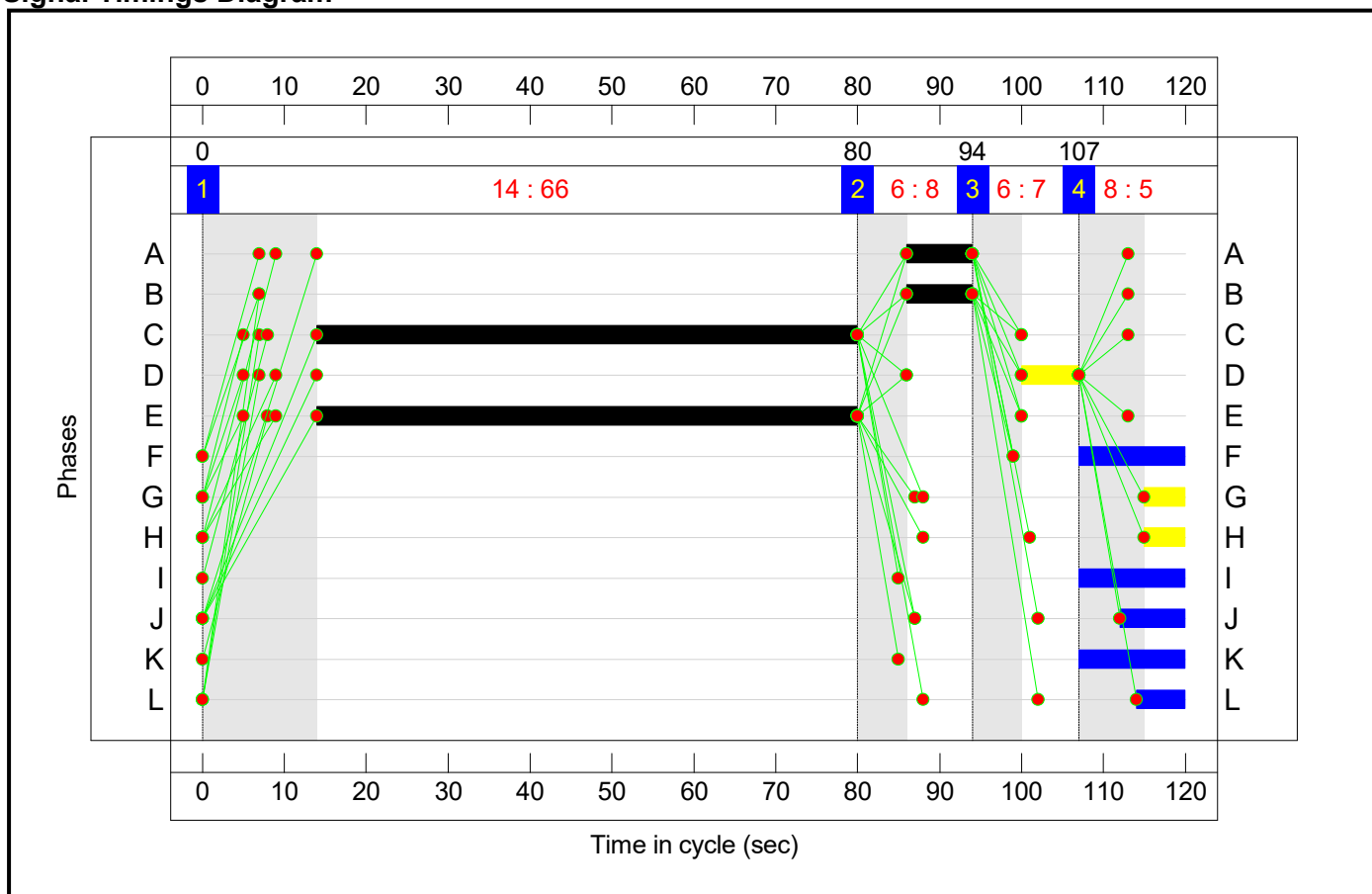
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	66	8	7	5
Change Point	0	80	94	107

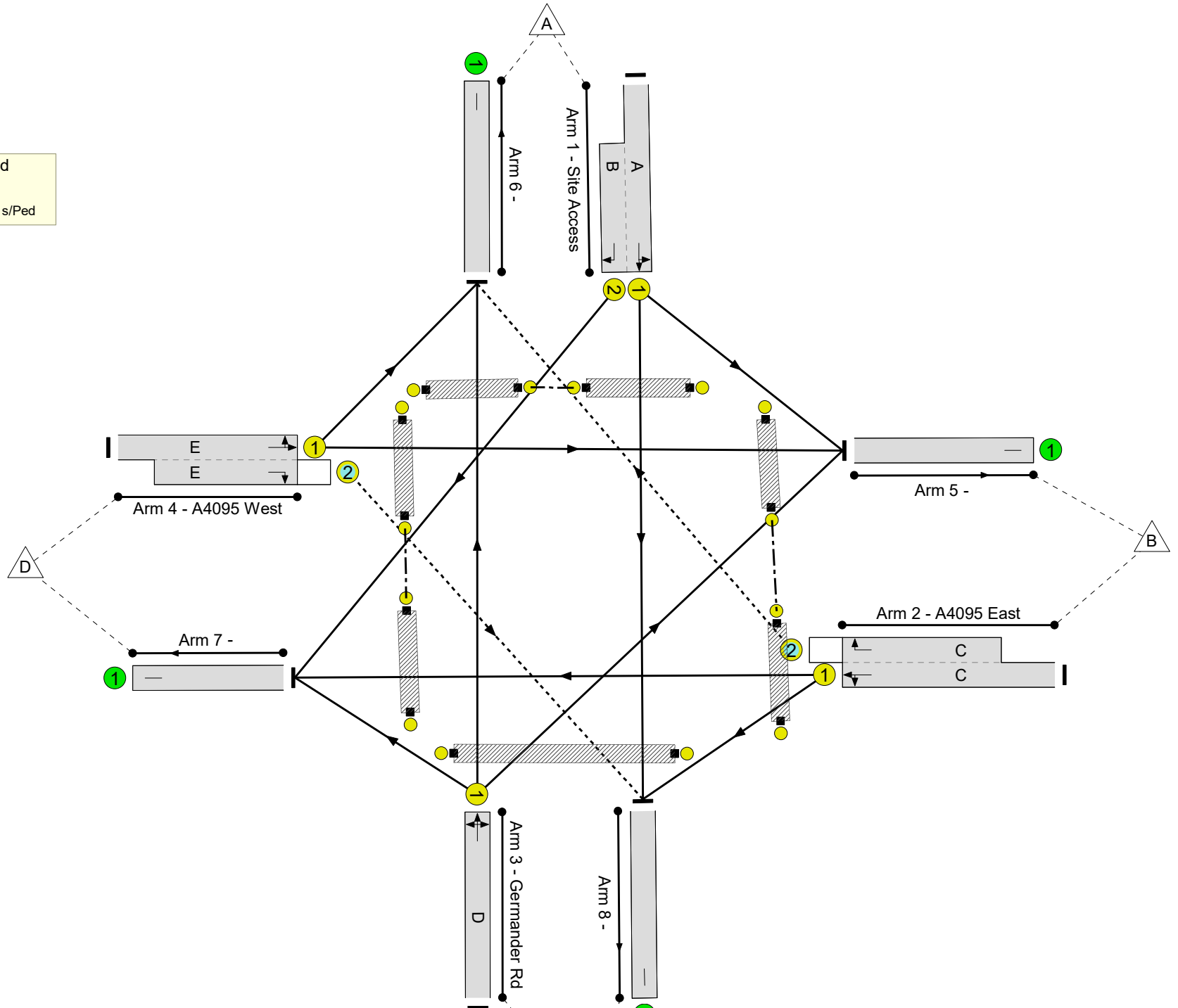
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
 PRC: 26.2 %
 Total Traffic Delay: 14.0 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

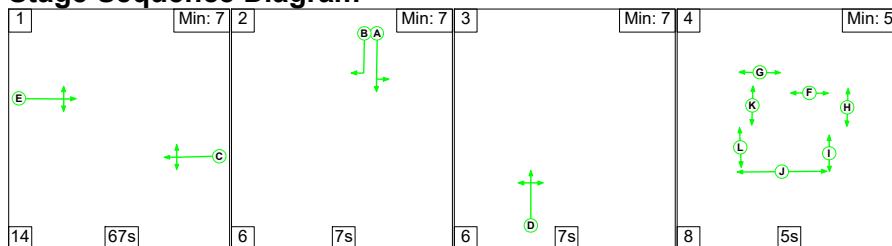
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	71.3%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	71.3%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	8	-	135	1801:1860	135+65	67.4 : 67.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	66	-	717	1940:1821	1054+43	65.4 : 65.4%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	33	1774	118	27.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	66	-	794	1952:1857	1043+70	71.3 : 71.3%
5/1		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	39	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

Scenario 8: 'New Scenario' (FG8: 'Year 2026 Dev 1b PM', Plan 1: 'Network Control Plan 1')

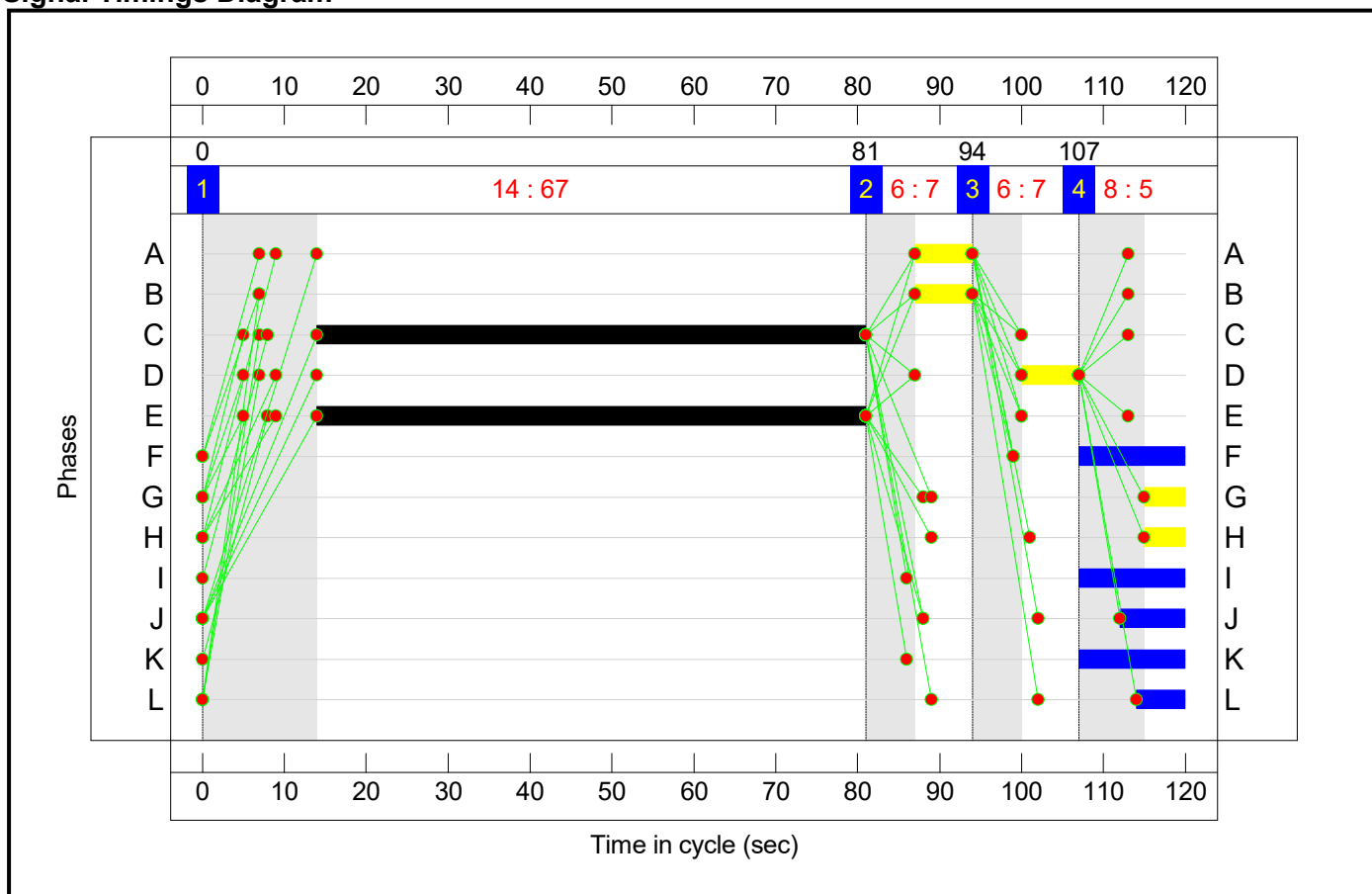
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	67	7	7	5
Change Point	0	81	94	107

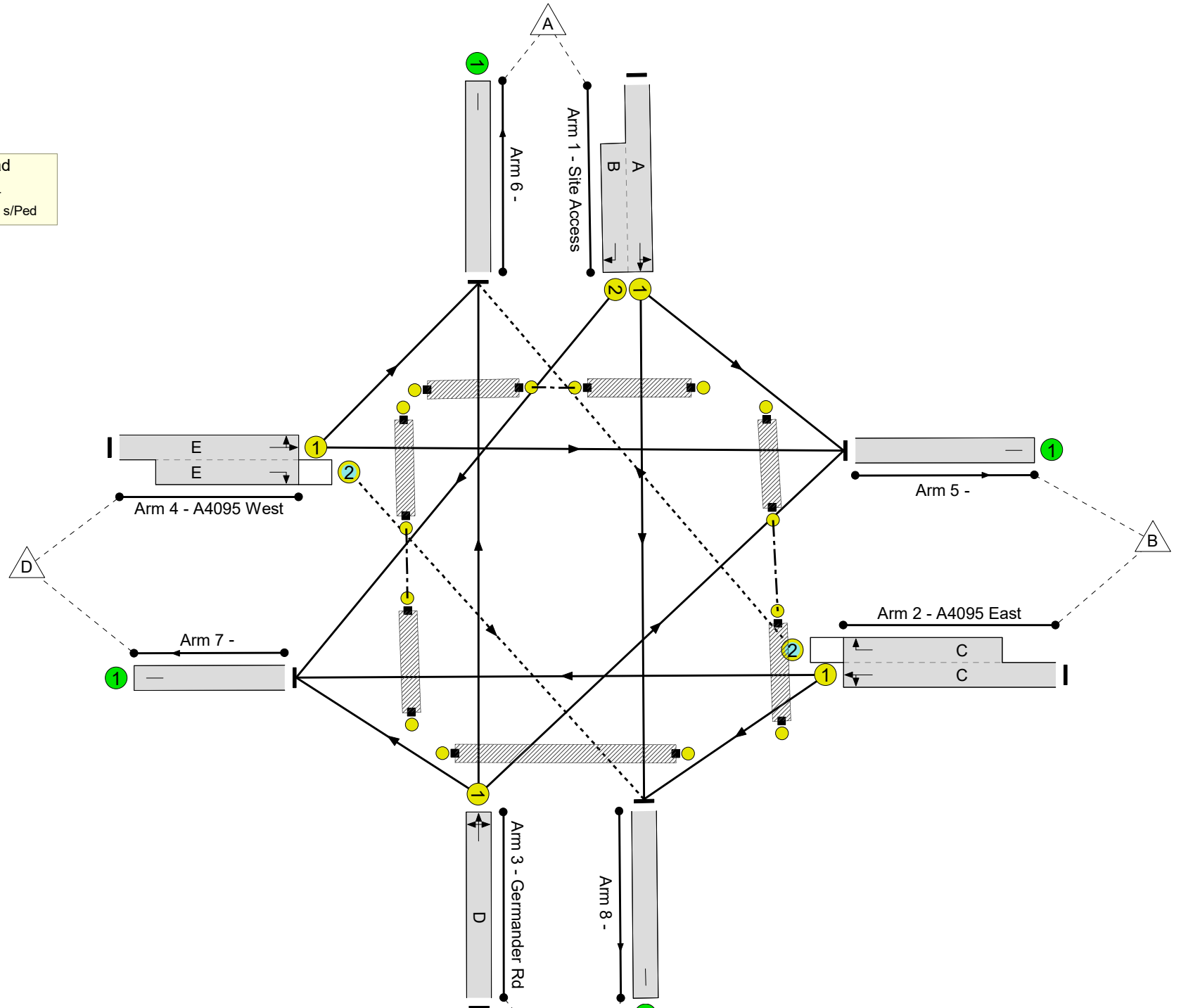
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 2.0 %
Total Traffic Delay: 20.6 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	79	1804:1860	120+59	44.1 : 44.1%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	67	-	944	1935:1821	1037+83	84.3 : 84.3%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	16	1783	119	13.5%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	67	-	989	1939:1857	1064+57	88.3 : 88.3%
5/1		U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	780	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	171	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	I		1	13	-	0	-	0	0.0%

Full Input Data And Results

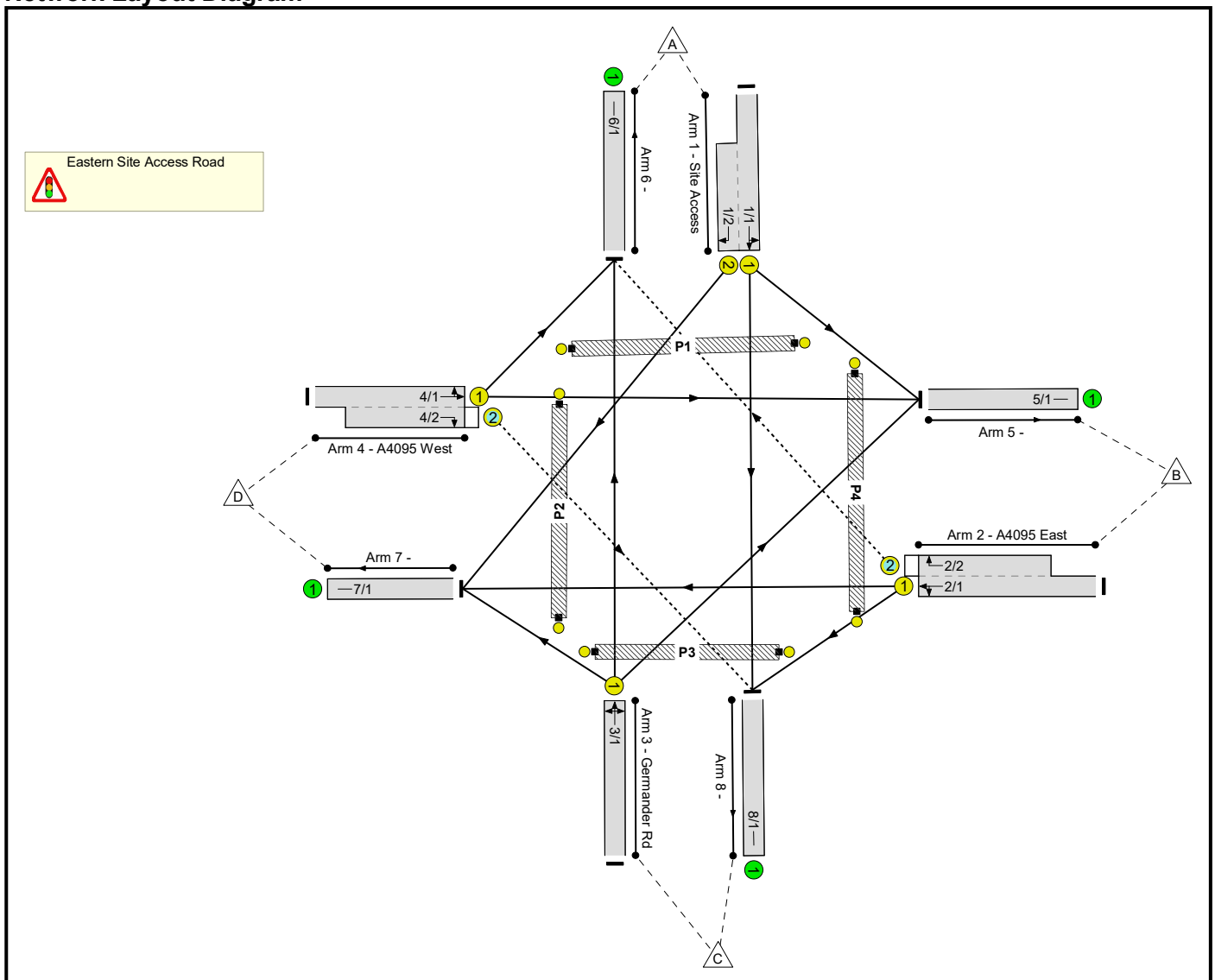
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	106	0	14	12.9	6.6	1.0	20.6	-	-	-	-
Eastern Site Access Road	-	-	106	0	14	12.9	6.6	1.0	20.6	-	-	-	-
1/1+1/2	79	79	-	-	-	1.2	0.4	-	1.6	71.4	1.7	0.4	2.1
2/1+2/2	944	944	56	0	14	5.4	2.6	0.7	8.7	33.3	24.9	2.6	27.5
3/1	16	16	-	-	-	0.2	0.1	-	0.3	70.2	0.5	0.1	0.6
4/1+4/2	989	989	50	0	0	6.0	3.6	0.4	10.0	36.2	27.8	3.6	31.3
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	780	780	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	171	171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		2.0	Total Delay for Signalled Lanes (pcuHr):			20.56	Cycle Time (s): 120			
			PRC Over All Lanes (%):		2.0	Total Delay Over All Lanes(pcuHr):			20.56				

Full Input Data And Results
Full Input Data And Results

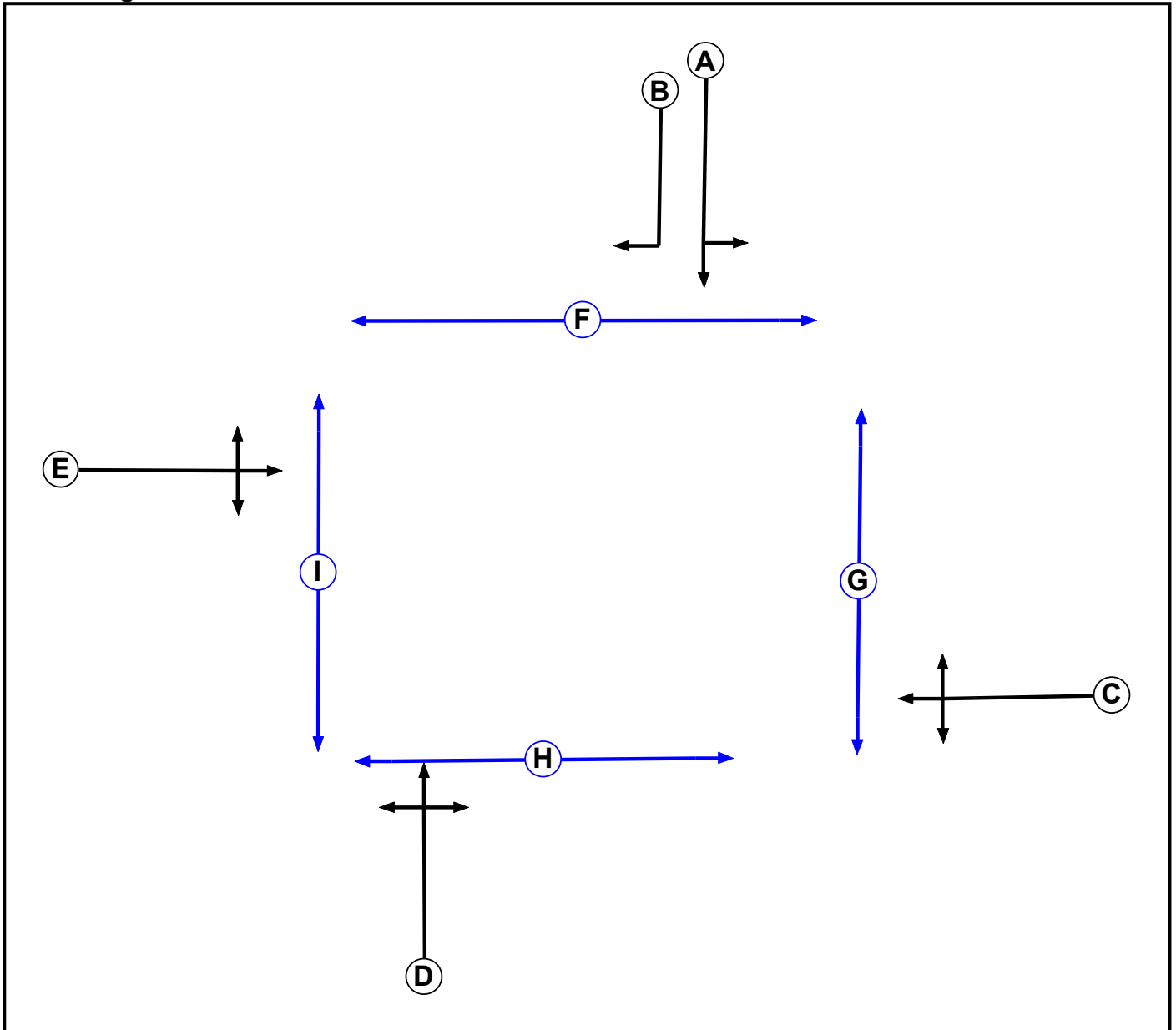
User and Project Details

Project:	20300 – Bicester
Title:	Site Eastern Access Junction with Ped and Cycle Opposed
Location:	Bicester
Additional detail:	
File name:	Site Eastern Access Junction (Updated Ped Opposed).lsg3x
Author:	
Company:	Jubb
Address:	Cardiff

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		6	6
G	Pedestrian		6	6
H	Pedestrian		7	7
I	Pedestrian		6	6

Full Input Data And Results

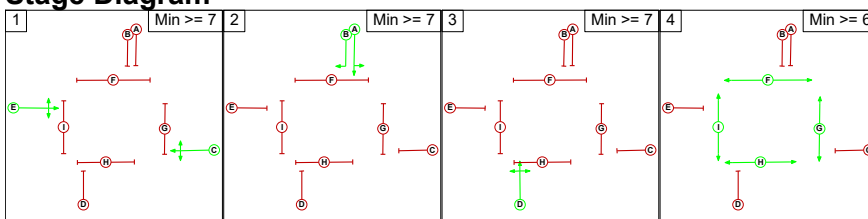
Phase Intergrens Matrix

Terminating Phase	Starting Phase									
		A	B	C	D	E	F	G	H	I
	A	-	-	6	6	6	5	8	9	-
	B	-	-	6	6	6	5	-	-	9
	C	6	6	-	6	-	9	5	7	9
	D	6	6	6	-	6	8	8	5	7
	E	6	6	-	6	-	7	9	9	5
	F	12	12	12	12	12	-	-	-	-
	G	15	-	15	15	15	-	-	-	-
	H	15	-	15	15	15	-	-	-	-
I	-	15	15	15	15	-	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1	-	6	6	9
	2	6	-	6	9
	3	6	6	-	8
4	15	15	15	-	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Eastern Site Access Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (A4095 East)	6/1 (Right)	1439	0	4/1	1.09	All	1.00	-	0.50	1	2.00
4/2 (A4095 West)	8/1 (Right)	1439	0	2/1	1.09	All	1.00	-	0.50	1	2.00

Full Input Data And Results

Lane Input Data

Junction: Eastern Site Access Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Site Access)	U	A	2	3	60.0	Geom	-	3.15	0.00	Y	Arm 5 Left	21.00
											Arm 8 Ahead	Inf
1/2 (Site Access)	U	B	2	3	7.8	Geom	-	3.15	0.00	Y	Arm 7 Right	40.00
2/1 (A4095 East)	U	C	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Left	20.00
2/2 (A4095 East)	O	C	2	3	9.6	Geom	-	3.40	0.00	Y	Arm 6 Right	20.40
											Arm 5 Right	17.60
3/1 (Germander Rd)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Left	8.50
4/1 (A4095 West)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Left	15.60
4/2 (A4095 West)	O	E	2	3	9.9	Geom	-	3.40	0.00	Y	Arm 8 Right	28.40
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Year 2031 Dev 1a AM'	08:00	09:00	01:00	
2: 'Year 2031 Dev 1a PM'	17:00	18:00	01:00	
3: 'Year 2031 Dev 1b AM'	08:00	09:00	01:00	
4: 'Year 2031 Dev 1b PM'	17:00	18:00	01:00	
5: 'Year 2026 Dev 1a AM'	08:00	09:00	01:00	
6: 'Year 2026 Dev 1a PM'	17:00	18:00	01:00	
7: 'Year 2026 Dev 1b AM'	08:00	09:00	01:00	
8: 'Year 2026 Dev 1b PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev 1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	217	2	76	295
	B	267	0	17	652	936
	C	6	31	0	0	37
	D	26	447	50	0	523
	Tot.	299	695	69	728	1791

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: Eastern Site Access Road	
1/1 (with short)	295(In) 219(Out)
1/2 (short)	76
2/1 (with short)	936(In) 669(Out)
2/2 (short)	267
3/1	37
4/1 (with short)	523(In) 473(Out)
4/2 (short)	50
5/1	695
6/1	299
7/1	728
8/1	69

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.1 %	1802	1802
				Arm 8 Ahead	Inf	0.9 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	97.5 %	1951	1951
				Arm 8 Left	20.00	2.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	83.8 %	1797	1797
				Arm 6 Ahead	Inf	16.2 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.5 %	1945	1945
				Arm 6 Left	15.60	5.5 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev 1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	52	4	32	88
	B	186	0	43	661	890
	C	4	18	0	0	22
	D	22	558	50	0	630
	Tot.	212	628	97	693	1630

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	88(In) 56(Out)
1/2 (short)	32
2/1 (with short)	890(In) 704(Out)
2/2 (short)	186
3/1	22
4/1 (with short)	630(In) 580(Out)
4/2 (short)	50
5/1	628
6/1	212
7/1	693
8/1	97

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	92.9 % 7.1 %	1810	1810
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	93.9 % 6.1 %	1946	1946
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	81.8 % 18.2 % 0.0 %	1800	1800
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	96.2 % 3.8 %	1948	1948
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'New Scenario' (FG3: 'Year 2031 Dev 1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	150	1	48	199
	B	272	0	17	662	951
	C	5	32	0	0	37
	D	27	445	50	0	522
	Tot.	304	627	68	710	1709

Traffic Lane Flows

Lane	Scenario 3: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	199(In) 151(Out)
1/2 (short)	48
2/1 (with short)	951(In) 679(Out)
2/2 (short)	272
3/1	37
4/1 (with short)	522(In) 472(Out)
4/2 (short)	50
5/1	627
6/1	304
7/1	710
8/1	68

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.3 %	1802	1802
				Arm 8 Ahead	Inf	0.7 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	97.5 %	1951	1951
				Arm 8 Left	20.00	2.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	86.5 %	1793	1793
				Arm 6 Ahead	Inf	13.5 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.3 %	1944	1944
				Arm 6 Left	15.60	5.7 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'New Scenario' (FG4: 'Year 2031 Dev 1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	6	3	26	35
	B	191	0	43	670	904
	C	4	18	0	0	22
	D	19	569	50	0	638
	Tot.	214	593	96	696	1599

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	35(In) 9(Out)
1/2 (short)	26
2/1 (with short)	904(In) 713(Out)
2/2 (short)	191
3/1	22
4/1 (with short)	638(In) 588(Out)
4/2 (short)	50
5/1	593
6/1	214
7/1	696
8/1	96

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	66.7 % 33.3 %	1842	1842
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	94.0 % 6.0 %	1946	1946
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	81.8 % 18.2 % 0.0 %	1800	1800
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	96.8 % 3.2 %	1949	1949
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 5: 'New Scenario' (FG5: 'Year 2026 Dev 1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	118	1	57	176
	B	24	0	71	622	717
	C	0	33	0	0	33
	D	9	732	50	0	791
	Tot.	33	883	122	679	1717

Traffic Lane Flows

Lane	Scenario 5: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	176(In) 119(Out)
1/2 (short)	57
2/1 (with short)	717(In) 693(Out)
2/2 (short)	24
3/1	33
4/1 (with short)	791(In) 741(Out)
4/2 (short)	50
5/1	883
6/1	33
7/1	679
8/1	122

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	99.2 %	1802	1802
				Arm 8 Ahead	Inf	0.8 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	89.8 %	1940	1940
				Arm 8 Left	20.00	10.2 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	100.0 %	1774	1774
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	98.8 %	1953	1953
				Arm 6 Left	15.60	1.2 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'New Scenario' (FG6: 'Year 2026 Dev 1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	74	1	37	112
	B	84	0	118	739	941
	C	1	15	0	0	16
	D	99	846	50	0	995
	Tot.	184	935	169	776	2064

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	112(In) 75(Out)
1/2 (short)	37
2/1 (with short)	941(In) 857(Out)
2/2 (short)	84
3/1	16
4/1 (with short)	995(In) 945(Out)
4/2 (short)	50
5/1	935
6/1	184
7/1	776
8/1	169

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	98.7 % 1.3 %	1803	1803
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	86.2 % 13.8 %	1935	1935
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	93.8 % 6.3 % 0.0 %	1783	1783
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	89.5 % 10.5 %	1936	1936
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 7: 'New Scenario' (FG7: 'Year 2026 Dev 1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	91	0	44	135
	B	28	0	71	618	717
	C	0	33	0	0	33
	D	11	733	50	0	794
	Tot.	39	857	121	662	1679

Traffic Lane Flows

Lane	Scenario 7: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	135(In) 91(Out)
1/2 (short)	44
2/1 (with short)	717(In) 689(Out)
2/2 (short)	28
3/1	33
4/1 (with short)	794(In) 744(Out)
4/2 (short)	50
5/1	857
6/1	39
7/1	662
8/1	121

Full Input Data And Results

Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left	21.00	100.0 %	1801	1801
				Arm 8 Ahead	Inf	0.0 %		
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	89.7 %	1940	1940
				Arm 8 Left	20.00	10.3 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right	17.60	100.0 %	1774	1774
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Left	8.50	0.0 %		
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead	Inf	98.5 %	1952	1952
				Arm 6 Left	15.60	1.5 %		
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'New Scenario' (FG8: 'Year 2026 Dev 1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	52	1	26	79
	B	70	0	120	754	944
	C	1	15	0	0	16
	D	80	859	50	0	989
	Tot.	151	926	171	780	2028

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: New Scenario
Junction: Eastern Site Access Road	
1/1 (with short)	79(In) 53(Out)
1/2 (short)	26
2/1 (with short)	944(In) 874(Out)
2/2 (short)	70
3/1	16
4/1 (with short)	989(In) 939(Out)
4/2 (short)	50
5/1	926
6/1	151
7/1	780
8/1	171

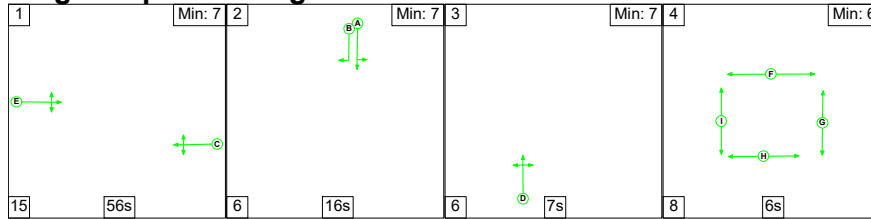
Lane Saturation Flows

Junction: Eastern Site Access Road								
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 (Site Access)	3.15	0.00	Y	Arm 5 Left Arm 8 Ahead	21.00 Inf	98.1 % 1.9 %	1804	1804
1/2 (Site Access)	3.15	0.00	Y	Arm 7 Right	40.00	100.0 %	1860	1860
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 20.00	86.3 % 13.7 %	1935	1935
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	20.40	100.0 %	1821	1821
3/1 (Germander Rd)	3.10	0.00	Y	Arm 5 Right Arm 6 Ahead Arm 7 Left	17.60 Inf 8.50	93.8 % 6.3 % 0.0 %	1783	1783
4/1 (A4095 West)	3.40	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.60	91.5 % 8.5 %	1939	1939
4/2 (A4095 West)	3.40	0.00	Y	Arm 8 Right	28.40	100.0 %	1857	1857
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev 1a AM', Plan 1: 'Network Control Plan 1')

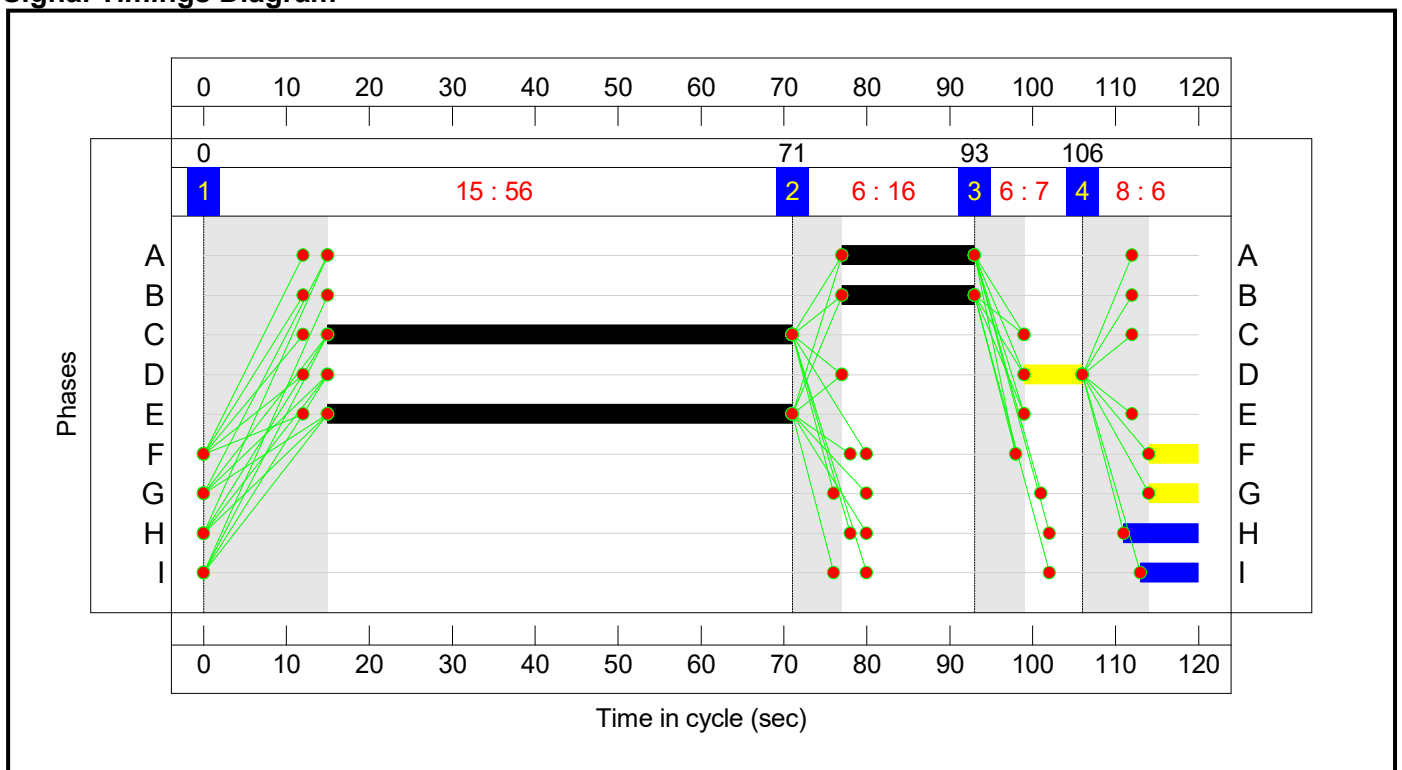
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	56	16	7	6
Change Point	0	71	93	106

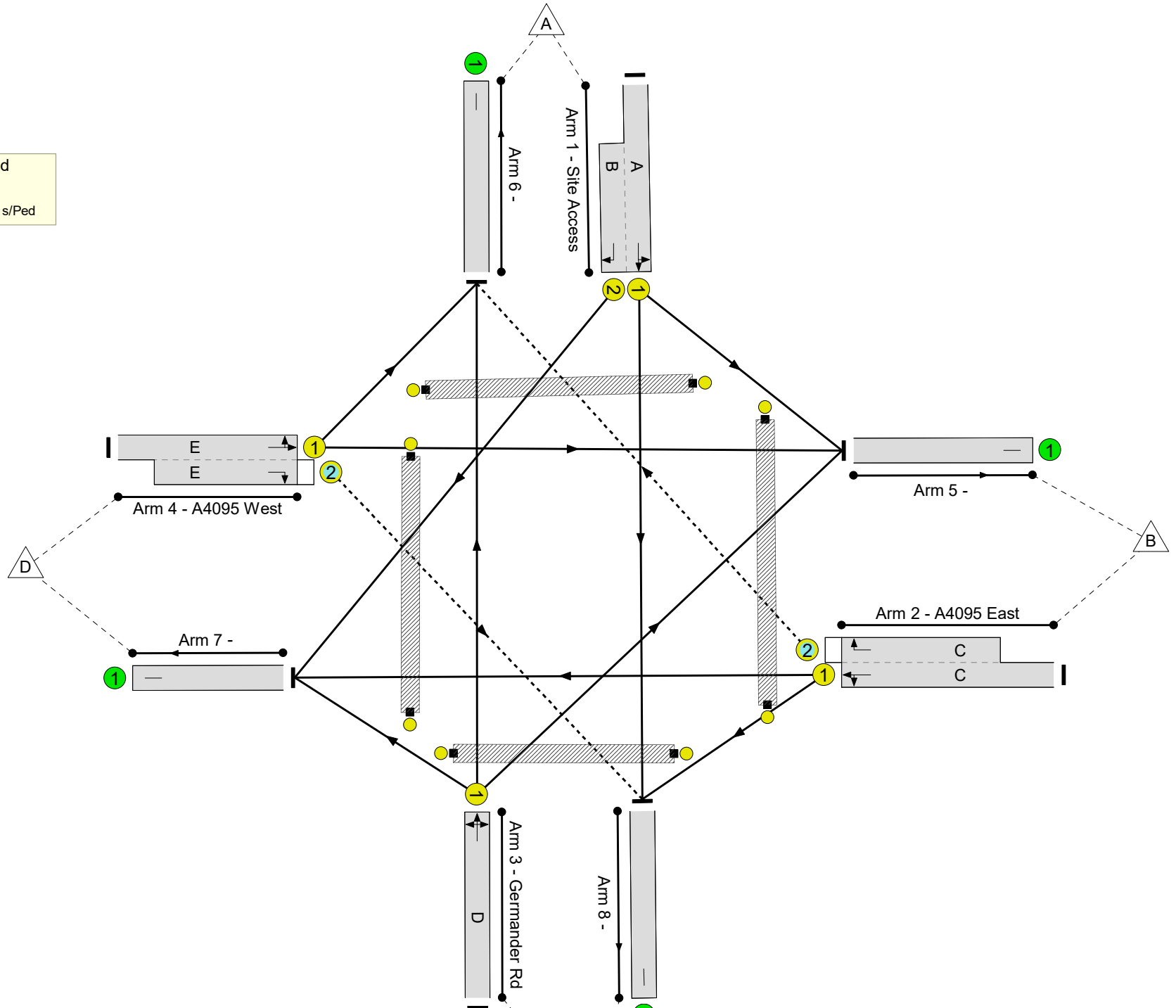
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Eastern Site Access Road
 PRC: -0.8 %
 Total Traffic Delay: 24.2 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.7%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	90.7%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	16	-	295	1802:1860	255+89	85.8 : 85.8%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	56	-	936	1951:1821	738+294	90.7 : 90.7%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	37	1797	120	30.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	56	-	523	1945:1857	868+88	54.5 : 56.8%
5/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

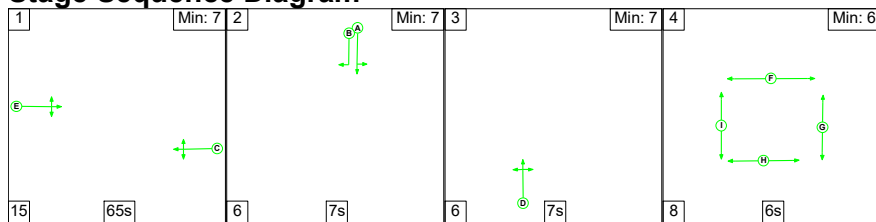
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	317	0	0	15.5	8.0	0.8	24.2	-	-	-	-
Eastern Site Access Road	-	-	317	0	0	15.5	8.0	0.8	24.2	-	-	-	-
1/1+1/2	295	295	-	-	-	4.0	2.7	-	6.8	82.4	7.1	2.7	9.8
2/1+2/2	936	936	267	0	0	7.7	4.5	0.4	12.5	48.1	24.2	4.5	28.7
3/1	37	37	-	-	-	0.5	0.2	-	0.8	75.0	1.2	0.2	1.4
4/1+4/2	523	523	50	0	0	3.2	0.6	0.4	4.2	29.0	10.9	0.6	11.5
5/1	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): -0.8 Total Delay for Signalled Lanes (pcuHr): 24.24 Cycle Time (s): 120 PRC Over All Lanes (%): -0.8 Total Delay Over All Lanes(pcuHr): 24.24</p>													

Full Input Data And Results

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev 1a PM', Plan 1: 'Network Control Plan 1')

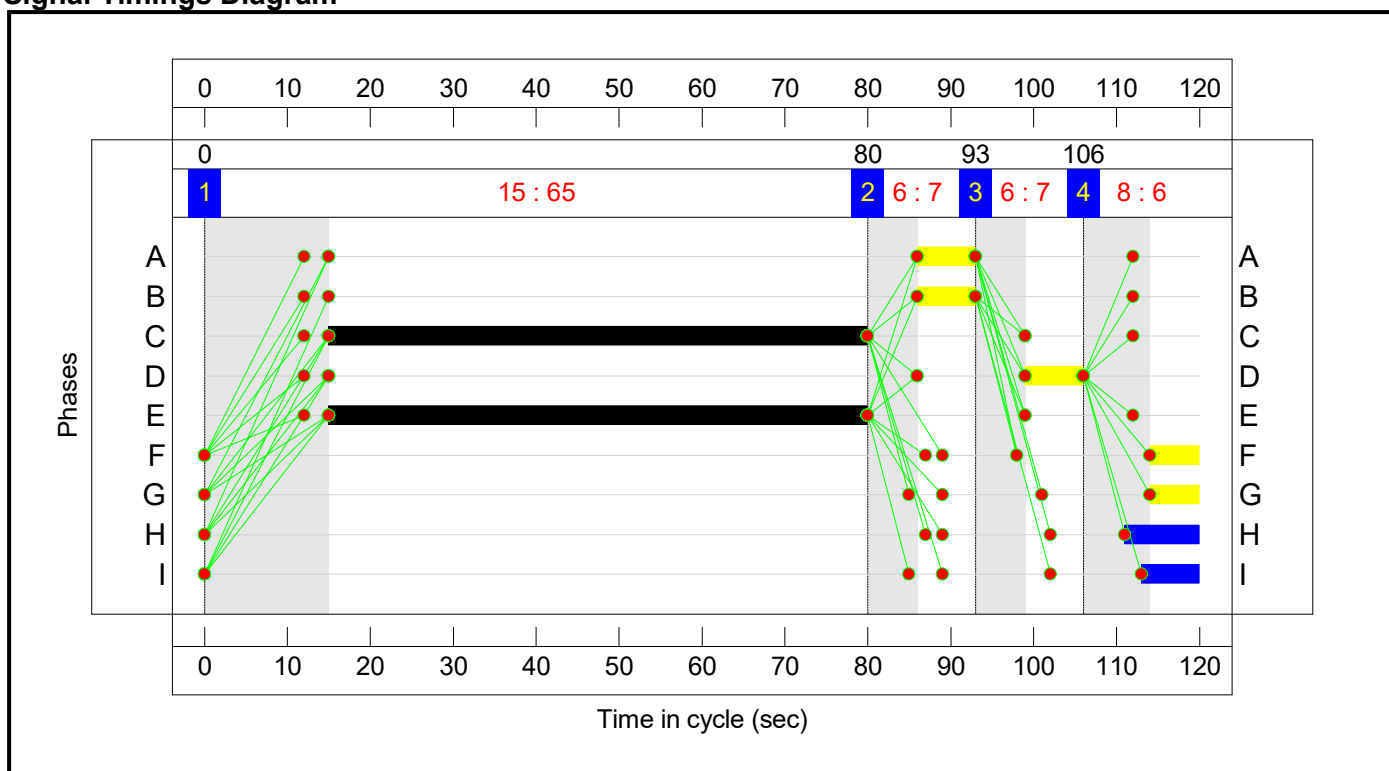
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	65	7	7	6
Change Point	0	80	93	106

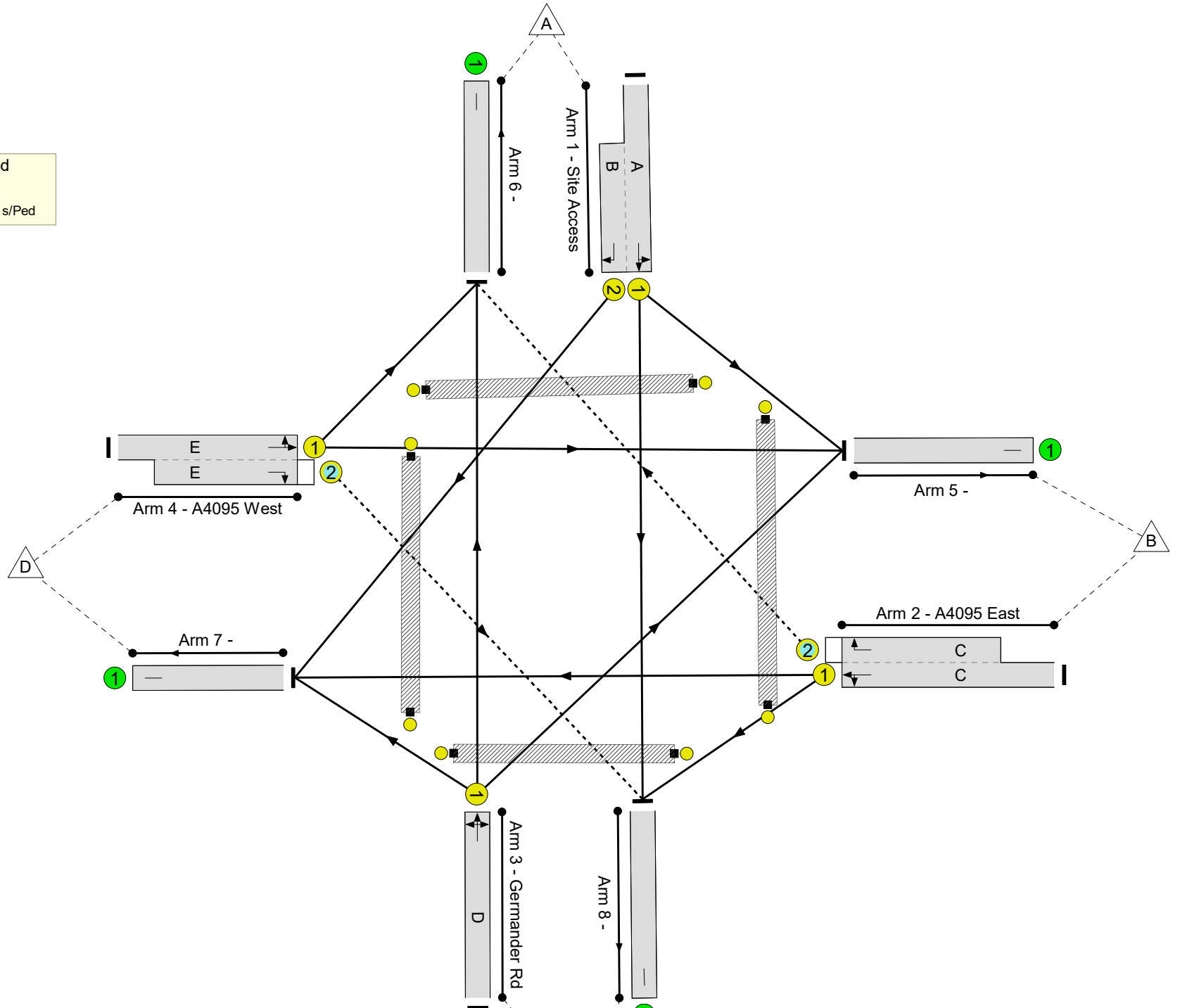
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Eastern Site Access Road
PRC: 15.2 %
Total Traffic Delay: 13.5 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	78.1%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	78.1%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	88	1810:1860	121+69	46.4 : 46.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	65	-	890	1946:1821	901+238	78.1 : 78.1%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	22	1800	120	18.3%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	65	-	630	1948:1857	1013+87	57.2 : 57.2%
5/1		U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	97	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

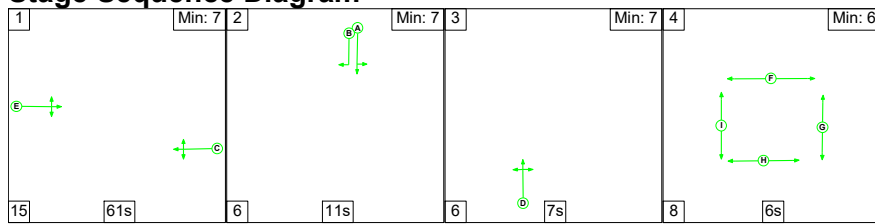
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	236	0	0	9.8	3.0	0.6	13.5	-	-	-	-
Eastern Site Access Road	-	-	236	0	0	9.8	3.0	0.6	13.5	-	-	-	-
1/1+1/2	88	88	-	-	-	1.3	0.4	-	1.7	71.2	1.8	0.4	2.2
2/1+2/2	890	890	186	0	0	5.2	1.8	0.3	7.3	29.5	19.7	1.8	21.5
3/1	22	22	-	-	-	0.3	0.1	-	0.4	71.3	0.7	0.1	0.8
4/1+4/2	630	630	50	0	0	3.0	0.7	0.3	4.0	22.8	12.4	0.7	13.1
5/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	97	97	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		15.2	Total Delay for Signalled Lanes (pcuHr):			13.46	Cycle Time (s): 120			
			PRC Over All Lanes (%):		15.2	Total Delay Over All Lanes(pcuHr):			13.46				

Full Input Data And Results

Scenario 3: 'New Scenario' (FG3: 'Year 2031 Dev 1b AM', Plan 1: 'Network Control Plan 1')

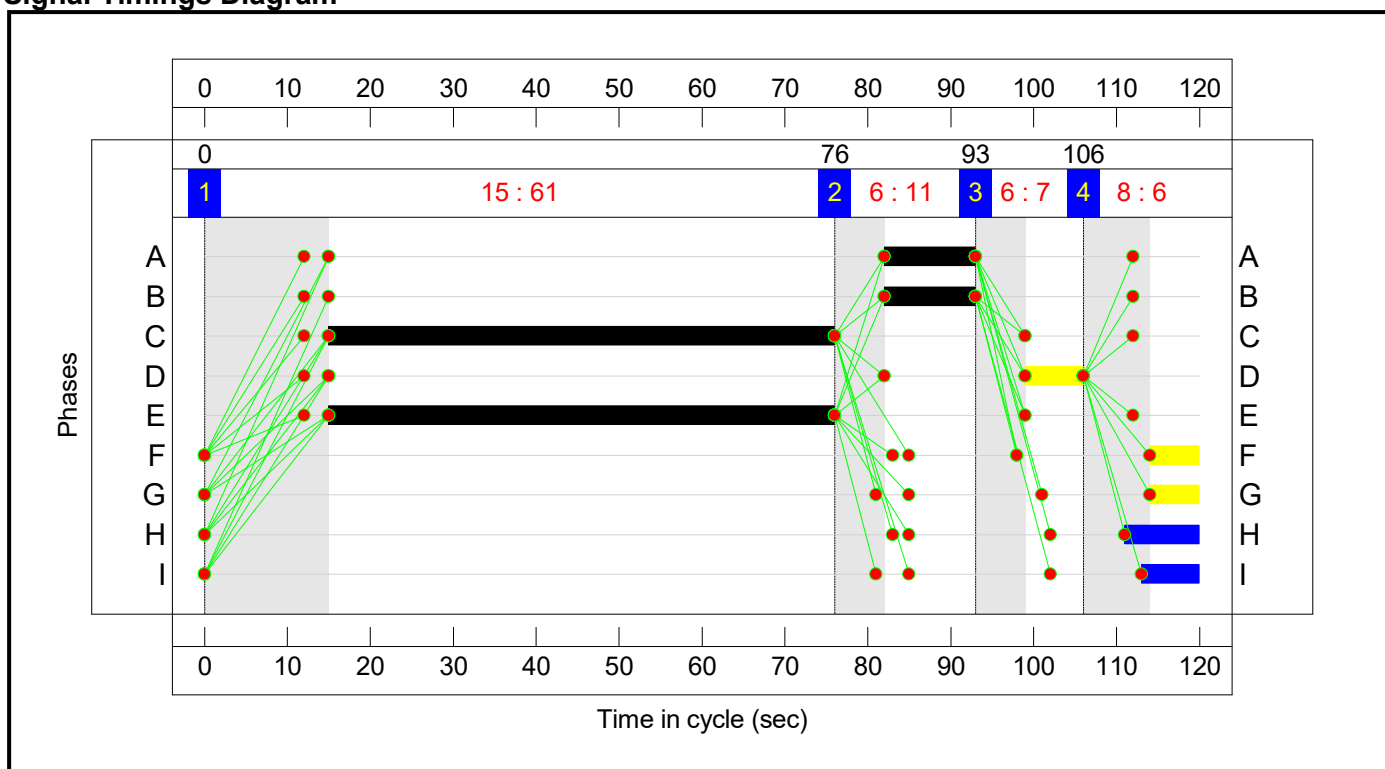
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	61	11	7	6
Change Point	0	76	93	106

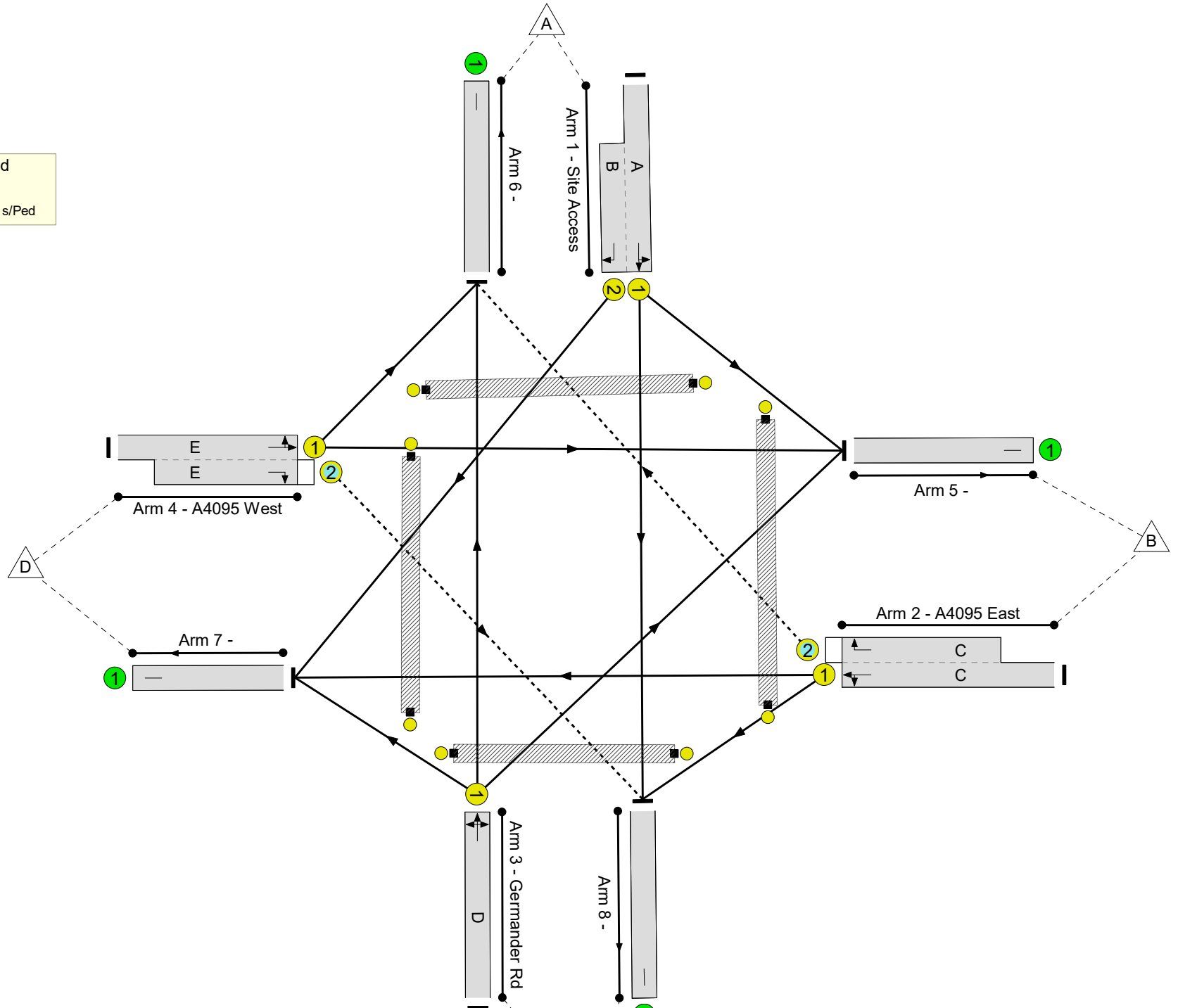
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 5.3 %
Total Traffic Delay: 19.4 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.5%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	85.5%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	11	-	199	1802:1860	180+57	83.8 : 83.8%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	61	-	951	1951:1821	794+318	85.5 : 85.5%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	37	1793	120	31.0%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	61	-	522	1944:1857	940+100	50.2 : 50.2%
5/1		U	N/A	N/A	-		-	-	-	627	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	304	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

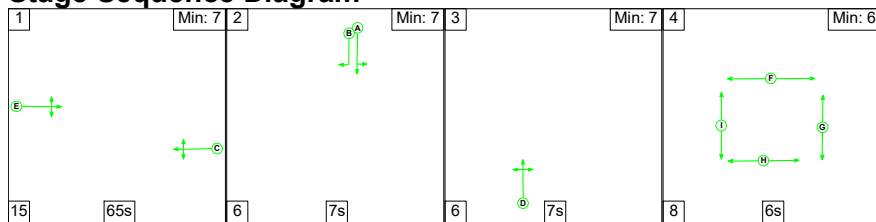
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	322	0	0	12.8	5.9	0.7	19.4	-	-	-	-
Eastern Site Access Road	-	-	322	0	0	12.8	5.9	0.7	19.4	-	-	-	-
1/1+1/2	199	199	-	-	-	2.9	2.3	-	5.2	94.1	4.9	2.3	7.2
2/1+2/2	951	951	272	0	0	6.6	2.8	0.3	9.8	37.2	22.3	2.8	25.2
3/1	37	37	-	-	-	0.5	0.2	-	0.8	75.1	1.2	0.2	1.4
4/1+4/2	522	522	50	0	0	2.7	0.5	0.4	3.6	24.6	10.0	0.5	10.5
5/1	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	304	304	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		5.3	Total Delay for Signalled Lanes (pcuHr):			19.36	Cycle Time (s): 120			
			PRC Over All Lanes (%):		5.3	Total Delay Over All Lanes(pcuHr):			19.36				

Full Input Data And Results

Scenario 4: 'New Scenario' (FG4: 'Year 2031 Dev 1b PM', Plan 1: 'Network Control Plan 1')

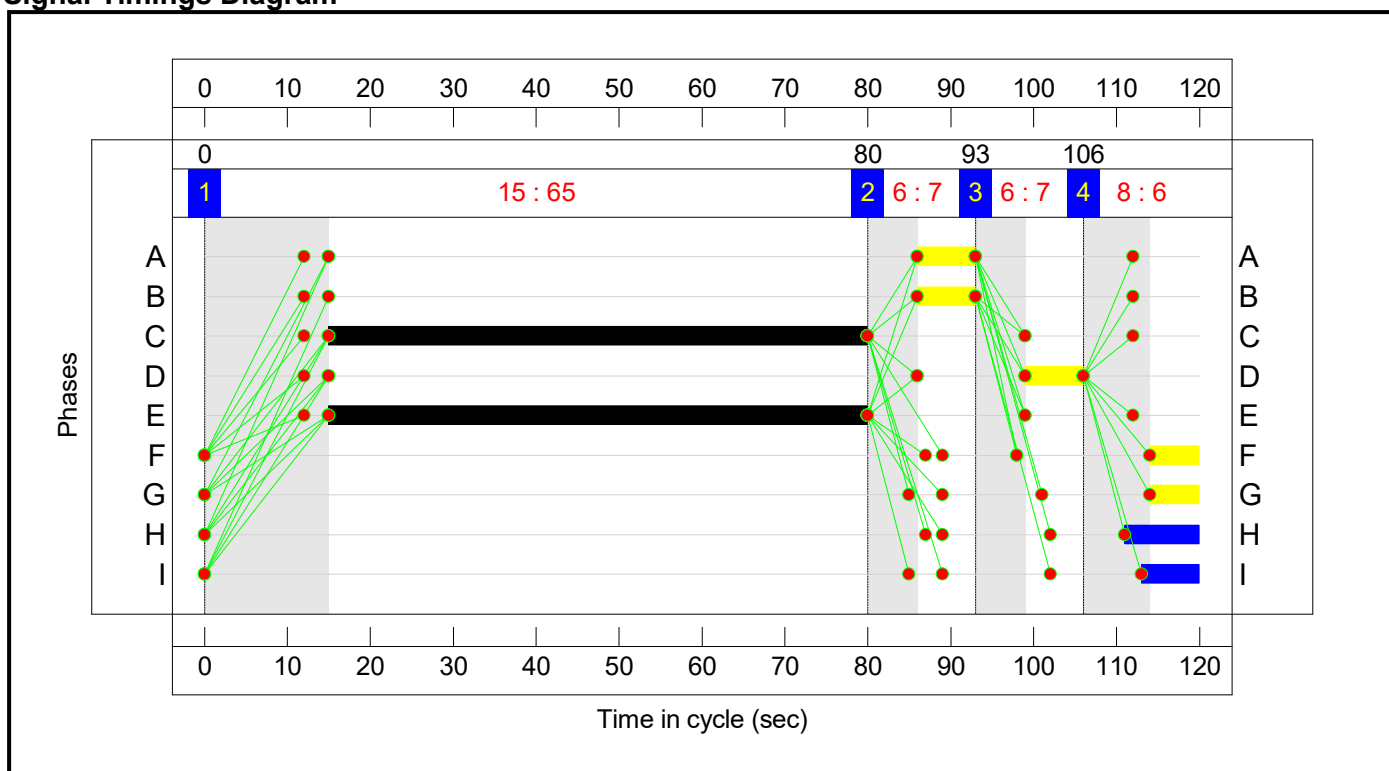
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	65	7	7	6
Change Point	0	80	93	106

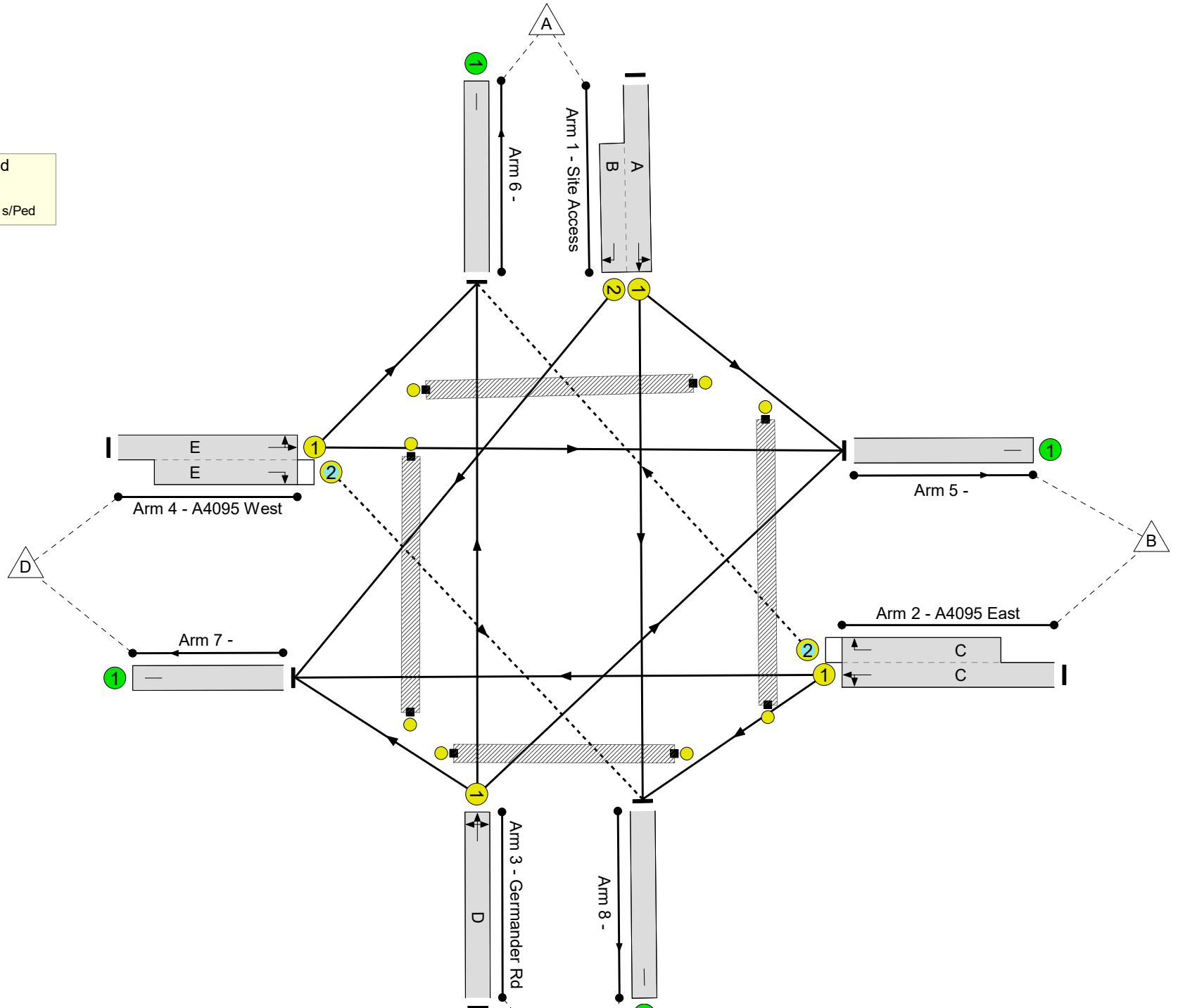
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 13.5 %
Total Traffic Delay: 12.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	79.3%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	79.3%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	35	1842:1860	43+124	21.0 : 21.0%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	65	-	904	1946:1821	899+241	79.3 : 79.3%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	22	1800	120	18.3%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	65	-	638	1949:1857	1014+86	58.0 : 58.0%
5/1		U	N/A	N/A	-		-	-	-	593	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

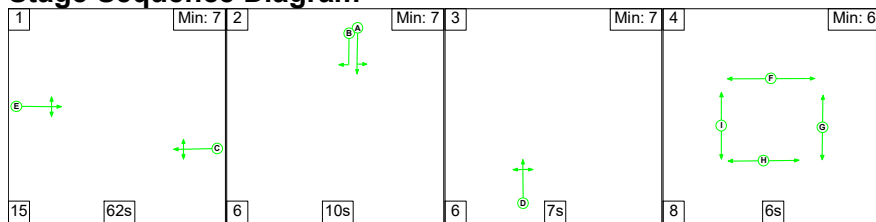
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	241	0	0	9.3	2.8	0.7	12.8	-	-	-	-
Eastern Site Access Road	-	-	241	0	0	9.3	2.8	0.7	12.8	-	-	-	-
1/1+1/2	35	35	-	-	-	0.5	0.1	-	0.6	66.6	0.8	0.1	0.9
2/1+2/2	904	904	191	0	0	5.4	1.9	0.3	7.6	30.3	20.5	1.9	22.4
3/1	22	22	-	-	-	0.3	0.1	-	0.4	71.3	0.7	0.1	0.8
4/1+4/2	638	638	50	0	0	3.1	0.7	0.3	4.1	23.0	12.8	0.7	13.5
5/1	593	593	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	96	96	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 13.5 Total Delay for Signalled Lanes (pcuHr): 12.76 Cycle Time (s): 120</p> <p> PRC Over All Lanes (%): 13.5 Total Delay Over All Lanes(pcuHr): 12.76</p>													

Full Input Data And Results

Scenario 5: 'New Scenario' (FG5: 'Year 2026 Dev 1a AM', Plan 1: 'Network Control Plan 1')

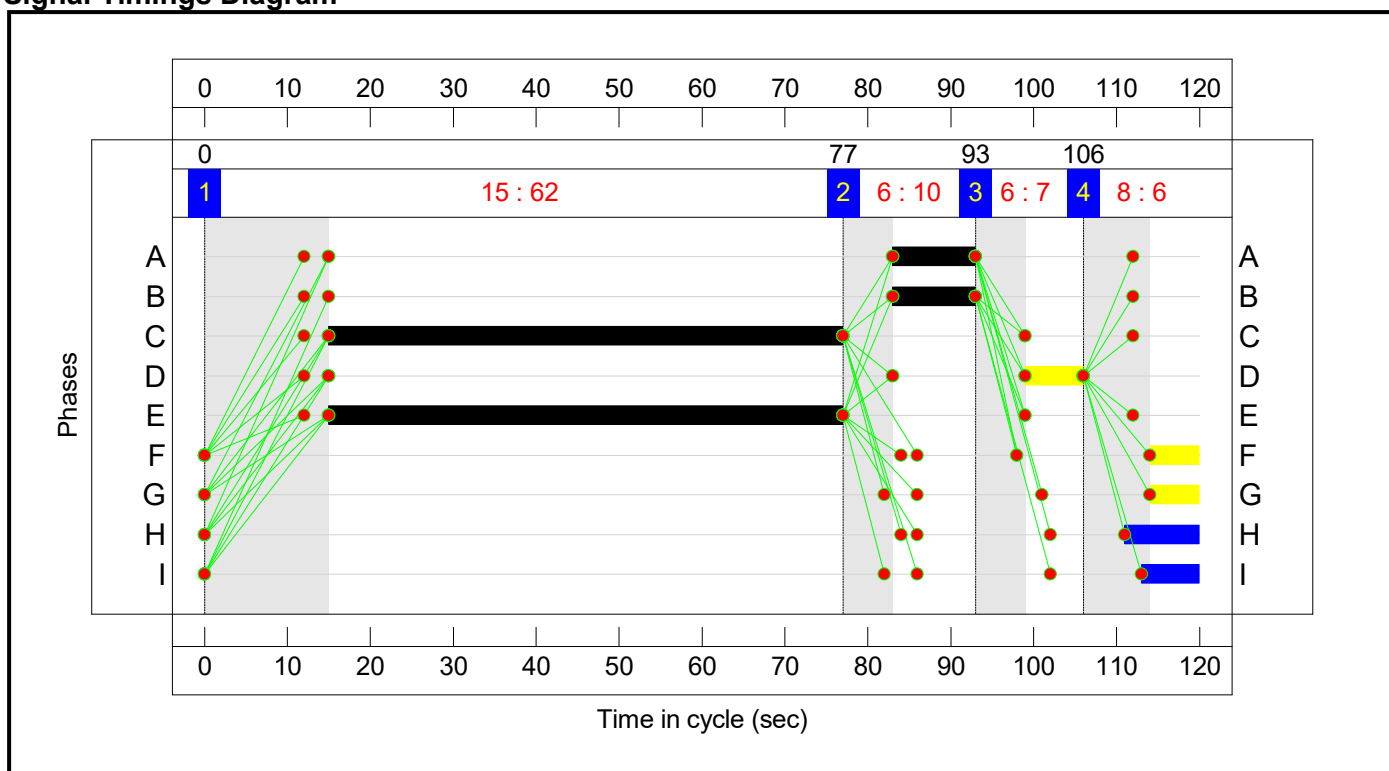
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	62	10	7	6
Change Point	0	77	93	106

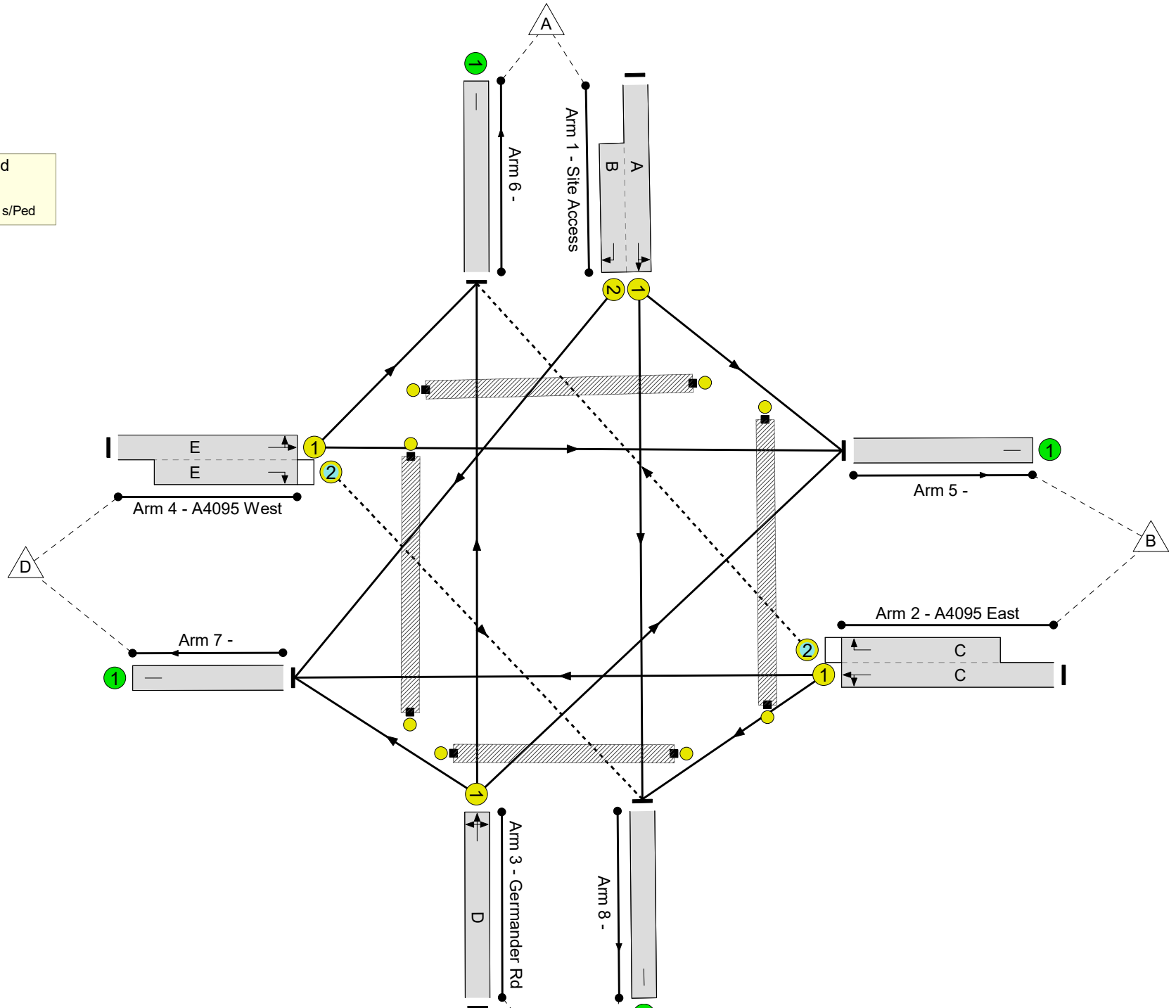
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: 19.3 %
Total Traffic Delay: 16.5 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.4%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	75.4%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	10	-	176	1802:1860	165+79	72.0 : 72.0%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	62	-	717	1940:1821	996+34	69.6 : 69.6%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	33	1774	118	27.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	62	-	791	1953:1857	982+66	75.4 : 75.4%
5/1		U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	33	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	679	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	122	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

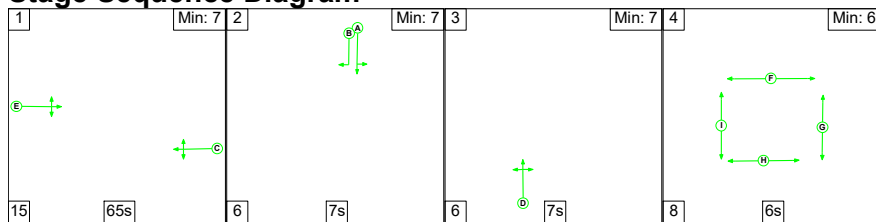
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	74	0	0	12.0	4.1	0.4	16.5	-	-	-	-
Eastern Site Access Road	-	-	74	0	0	12.0	4.1	0.4	16.5	-	-	-	-
1/1+1/2	176	176	-	-	-	2.6	1.2	-	3.8	77.8	3.8	1.2	5.1
2/1+2/2	717	717	24	0	0	4.2	1.1	0.1	5.5	27.4	17.4	1.1	18.5
3/1	33	33	-	-	-	0.5	0.2	-	0.7	74.3	1.0	0.2	1.2
4/1+4/2	791	791	50	0	0	4.8	1.5	0.2	6.5	29.8	19.8	1.5	21.3
5/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	33	33	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	679	679	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	122	122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		19.3	Total Delay for Signalled Lanes (pcuHr):			16.48	Cycle Time (s): 120			
			PRC Over All Lanes (%):		19.3	Total Delay Over All Lanes(pcuHr):			16.48				

Full Input Data And Results

Scenario 6: 'New Scenario' (FG6: 'Year 2026 Dev 1a PM', Plan 1: 'Network Control Plan 1')

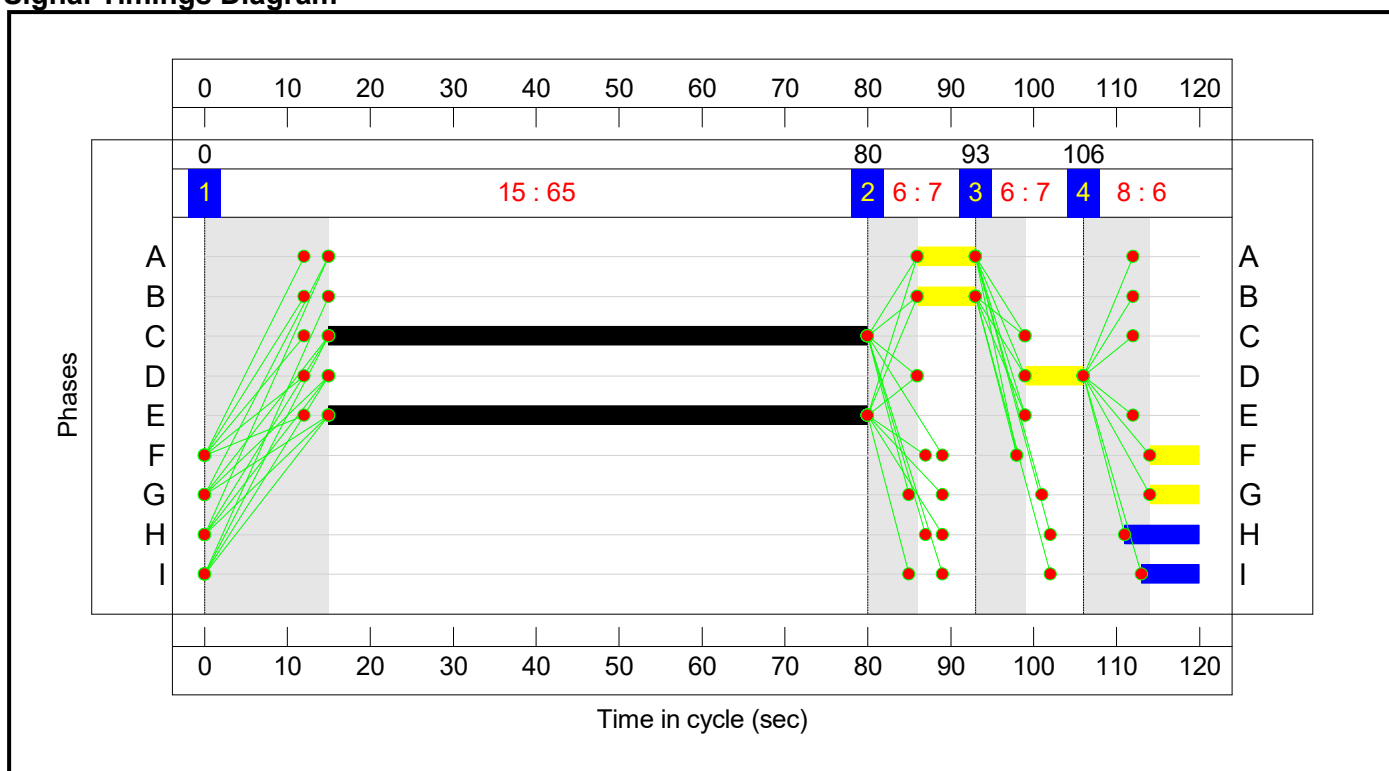
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	65	7	7	6
Change Point	0	80	93	106

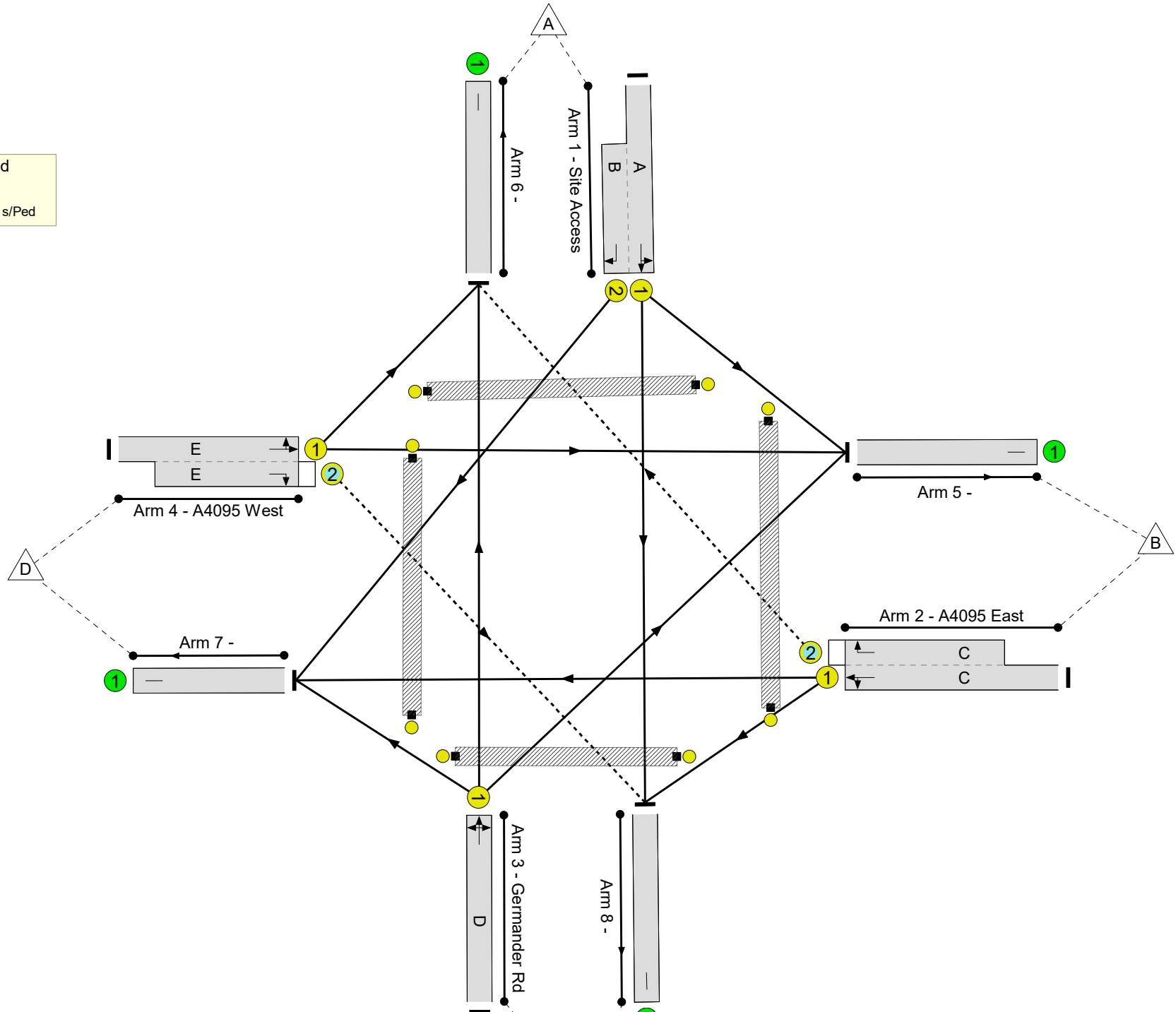
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: -49.4 %
Total Traffic Delay: 36.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	134.4%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	134.4%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	112	1803:1860	120+59	62.4 : 62.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	65	-	941	1935:1821	995+62	86.1 : 134.4%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	16	1783	119	13.5%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	65	-	995	1936:1857	1033+55	91.5 : 91.5%
5/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	184	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	776	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

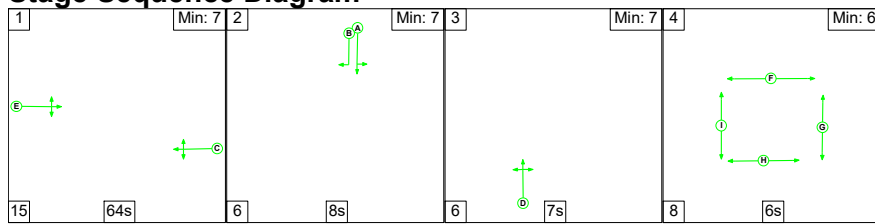
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	89	0	23	15.6	20.3	0.9	36.8	-	-	-	-
Eastern Site Access Road	-	-	89	0	23	15.6	20.3	0.9	36.8	-	-	-	-
1/1+1/2	112	112	-	-	-	1.7	0.8	-	2.5	80.2	2.4	0.8	3.2
2/1+2/2	941	919	39	0	23	7.1	14.5	0.5	22.2	84.8	25.5	14.5	40.0
3/1	16	16	-	-	-	0.2	0.1	-	0.3	70.2	0.5	0.1	0.6
4/1+4/2	995	995	50	0	0	6.6	4.9	0.4	11.9	42.9	29.3	4.9	34.2
5/1	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	776	776	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	169	169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		-49.4	Total Delay for Signalled Lanes (pcuHr):			36.84	Cycle Time (s): 120			
			PRC Over All Lanes (%):		-49.4	Total Delay Over All Lanes(pcuHr):			36.84				

Full Input Data And Results

Scenario 7: 'New Scenario' (FG7: 'Year 2026 Dev 1b AM', Plan 1: 'Network Control Plan 1')

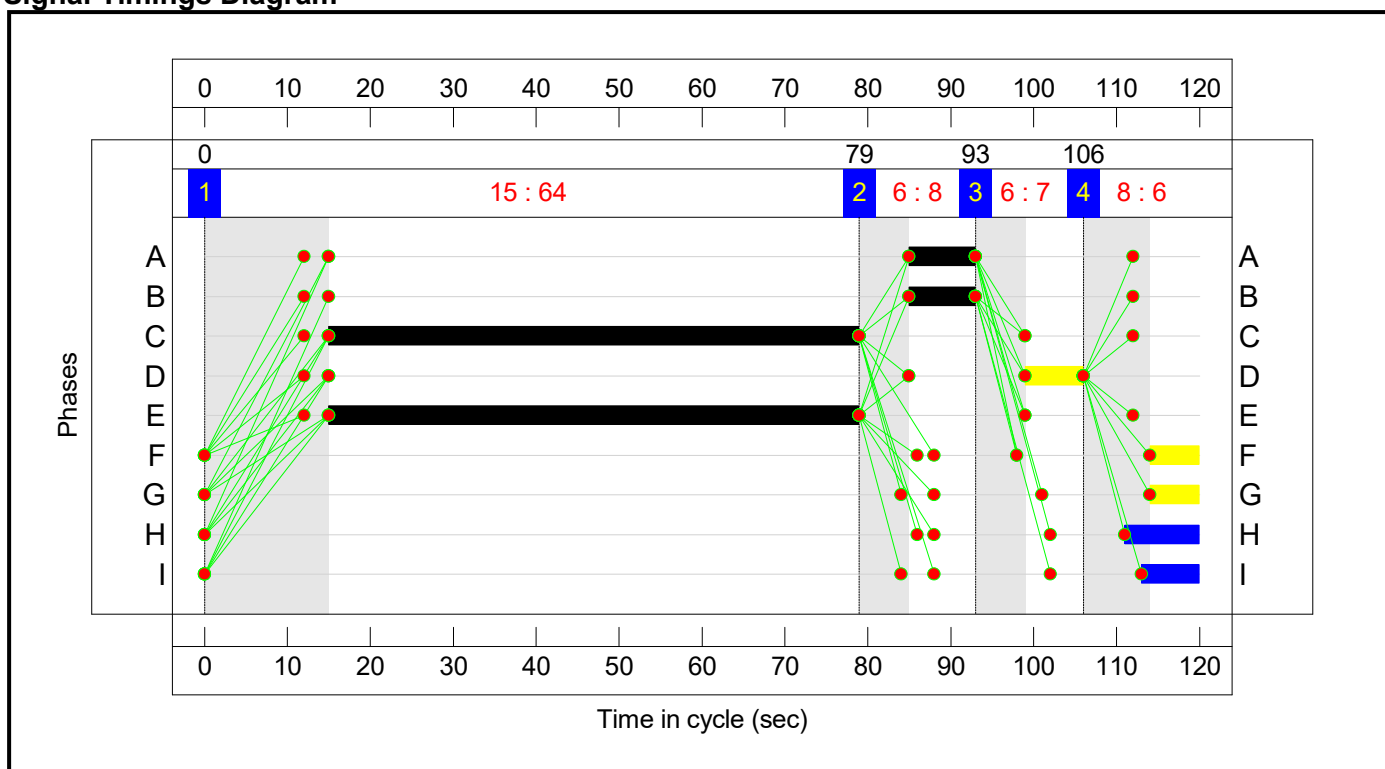
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	64	8	7	6
Change Point	0	79	93	106

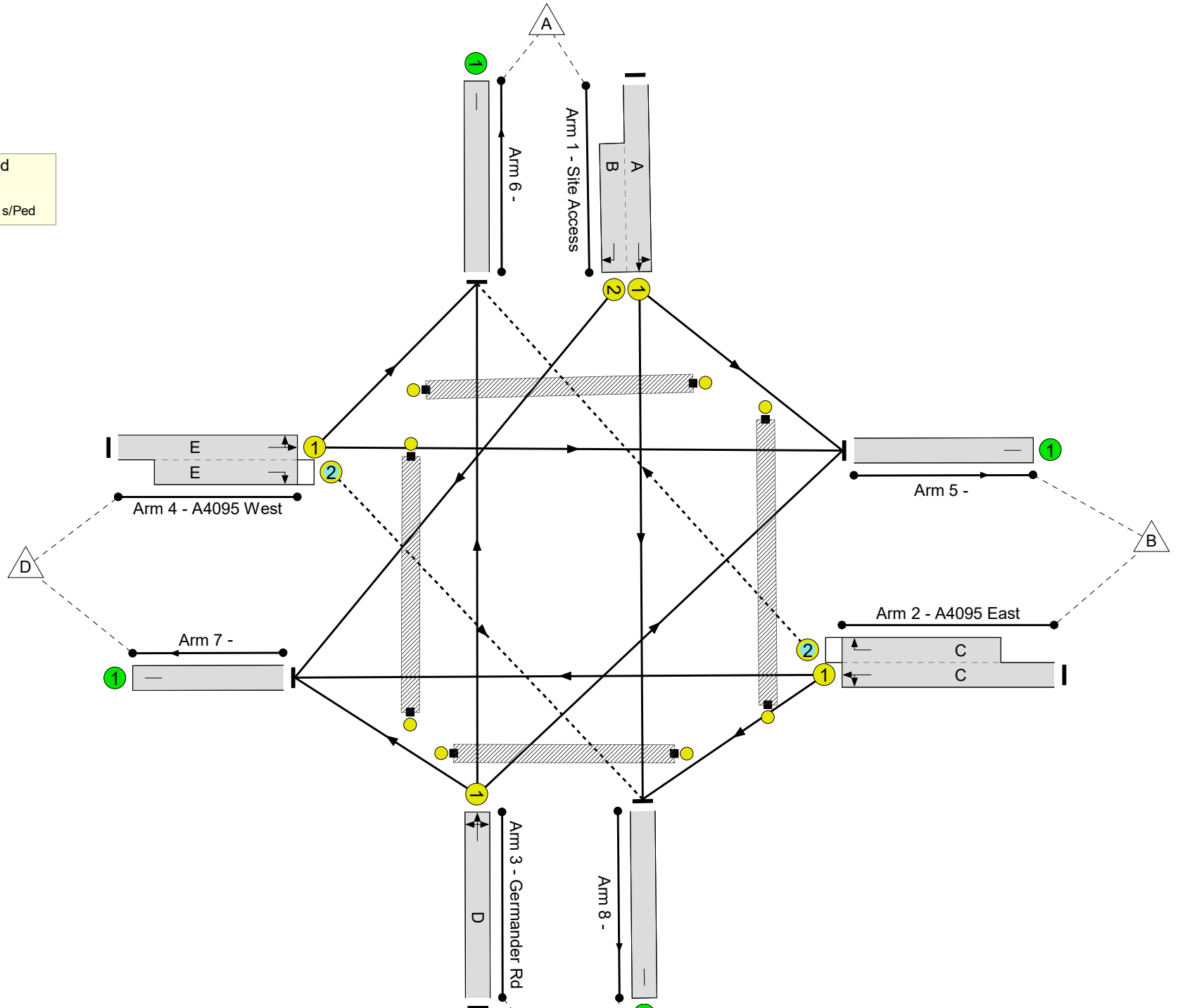
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Eastern Site Access Road
 PRC: 22.5 %
 Total Traffic Delay: 14.8 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	8	-	135	1801:1860	135+65	67.4 : 67.4%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	64	-	717	1940:1821	1023+42	67.4 : 67.4%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	33	1774	118	27.9%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	64	-	794	1952:1857	1013+68	73.5 : 73.5%
5/1		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	39	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

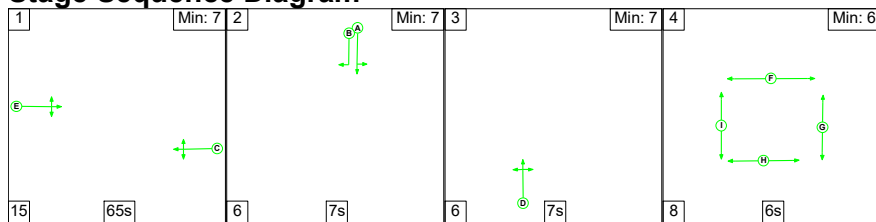
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	78	0	0	10.8	3.6	0.4	14.8	-	-	-	-
Eastern Site Access Road	-	-	78	0	0	10.8	3.6	0.4	14.8	-	-	-	-
1/1+1/2	135	135	-	-	-	2.0	1.0	-	3.0	80.3	2.9	1.0	3.9
2/1+2/2	717	717	28	0	0	3.9	1.0	0.2	5.1	25.4	16.5	1.0	17.6
3/1	33	33	-	-	-	0.5	0.2	-	0.7	74.3	1.0	0.2	1.2
4/1+4/2	794	794	50	0	0	4.5	1.4	0.2	6.1	27.5	19.2	1.4	20.6
5/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	39	39	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		22.5	Total Delay for Signalled Lanes (pcuHr):			14.82	Cycle Time (s): 120			
			PRC Over All Lanes (%):		22.5	Total Delay Over All Lanes (pcuHr):			14.82				

Full Input Data And Results

Scenario 8: 'New Scenario' (FG8: 'Year 2026 Dev 1b PM', Plan 1: 'Network Control Plan 1')

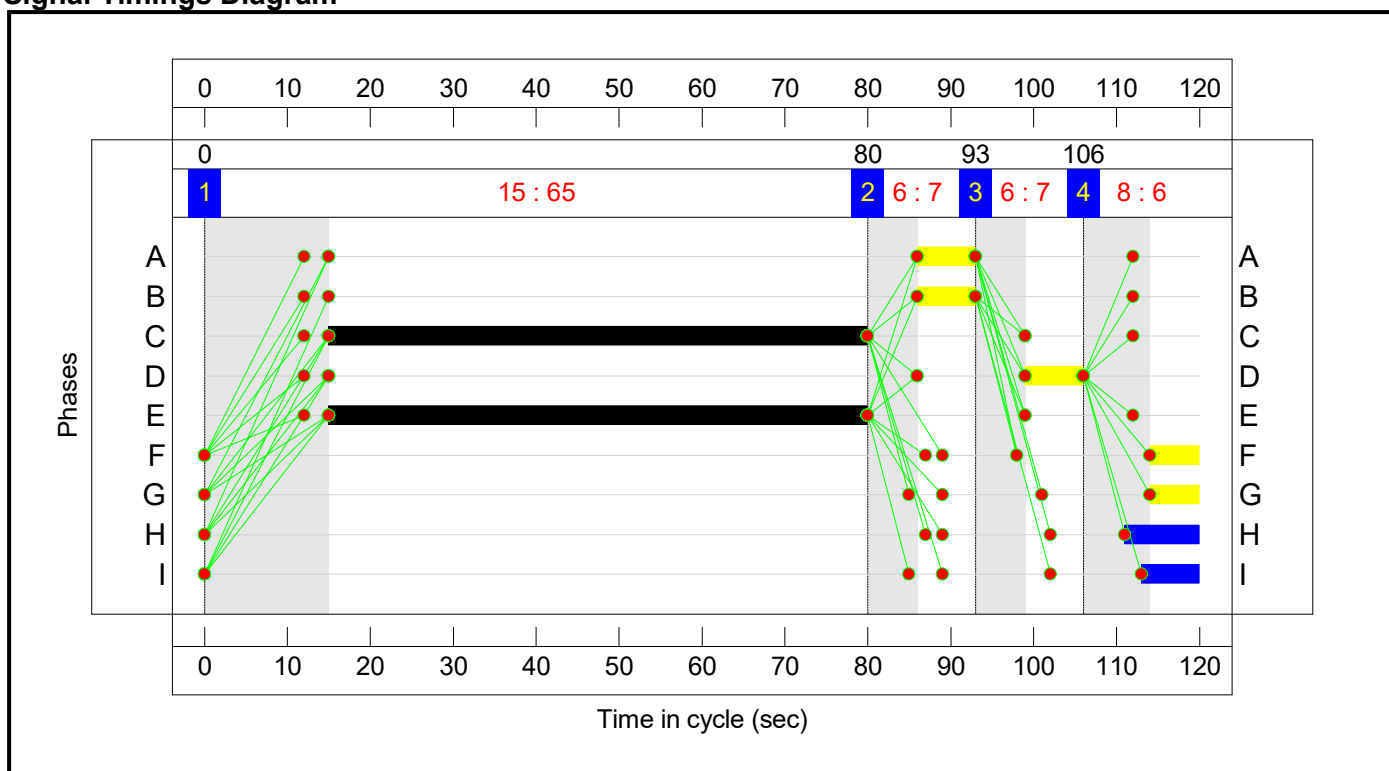
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4
Duration	65	7	7	6
Change Point	0	80	93	106

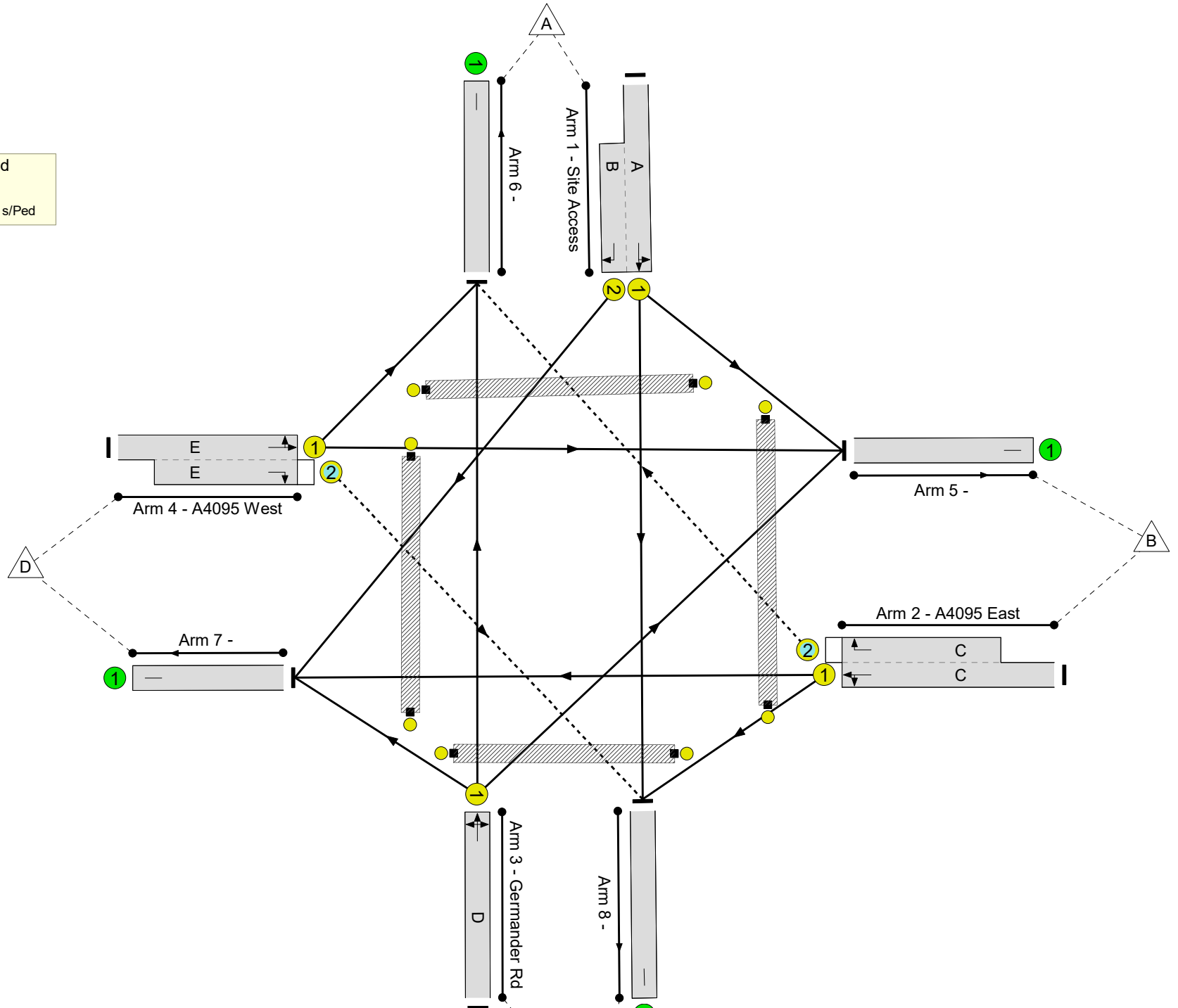
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

 Eastern Site Access Road
PRC: -19.8 %
Total Traffic Delay: 26.2 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	107.9%
Eastern Site Access Road	-	-	N/A	-	-		-	-	-	-	-	-	107.9%
1/1+1/2	Site Access Left Right Ahead	U	N/A	N/A	A B		1	7	-	79	1804:1860	120+59	44.1 : 44.1%
2/1+2/2	A4095 East Right Ahead Left	U+O	N/A	N/A	C		1	65	-	944	1935:1821	1008+65	86.7 : 107.9%
3/1	Germander Rd Right Ahead Left	U	N/A	N/A	D		1	7	-	16	1783	119	13.5%
4/1+4/2	A4095 West Ahead Left Right	U+O	N/A	N/A	E		1	65	-	989	1939:1857	1033+55	90.9 : 90.9%
5/1		U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	780	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	171	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	92	0	23	14.3	11.1	0.9	26.2	-	-	-	-
Eastern Site Access Road	-	-	92	0	23	14.3	11.1	0.9	26.2	-	-	-	-
1/1+1/2	79	79	-	-	-	1.2	0.4	-	1.6	71.4	1.7	0.4	2.1
2/1+2/2	944	939	42	0	23	6.3	6.0	0.5	12.9	49.1	26.0	6.0	32.0
3/1	16	16	-	-	-	0.2	0.1	-	0.3	70.2	0.5	0.1	0.6
4/1+4/2	989	989	50	0	0	6.5	4.6	0.4	11.5	41.8	28.9	4.6	33.4
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	780	780	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	171	171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): -19.8 Total Delay for Signalled Lanes (pcuHr): 26.22 Cycle Time (s): 120 PRC Over All Lanes (%): -19.8 Total Delay Over All Lanes(pcuHr): 26.22</p>													

North West Bicester – Hawkwell Village

20300

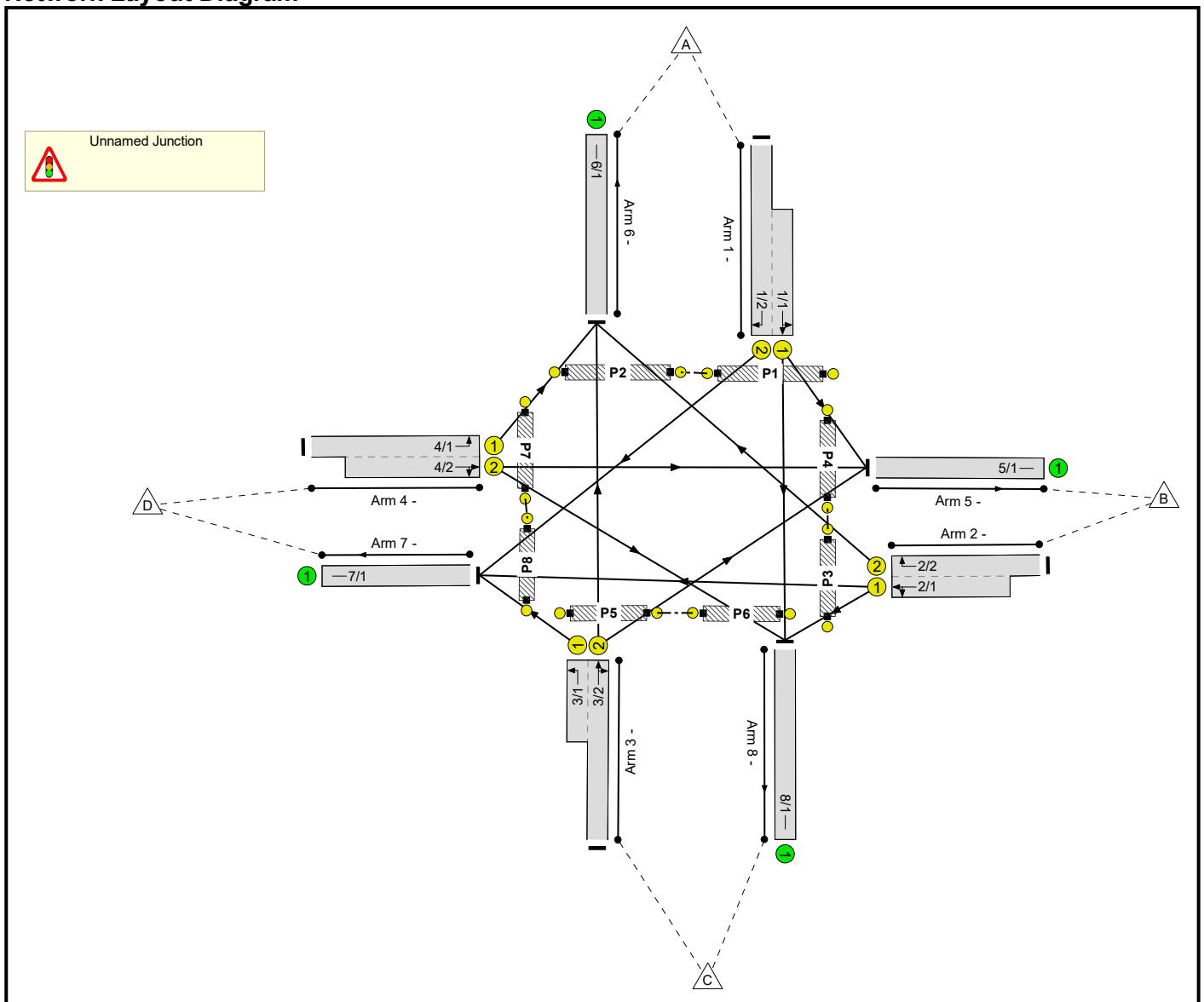
Appendix K

Full Input Data And Results
Full Input Data And Results

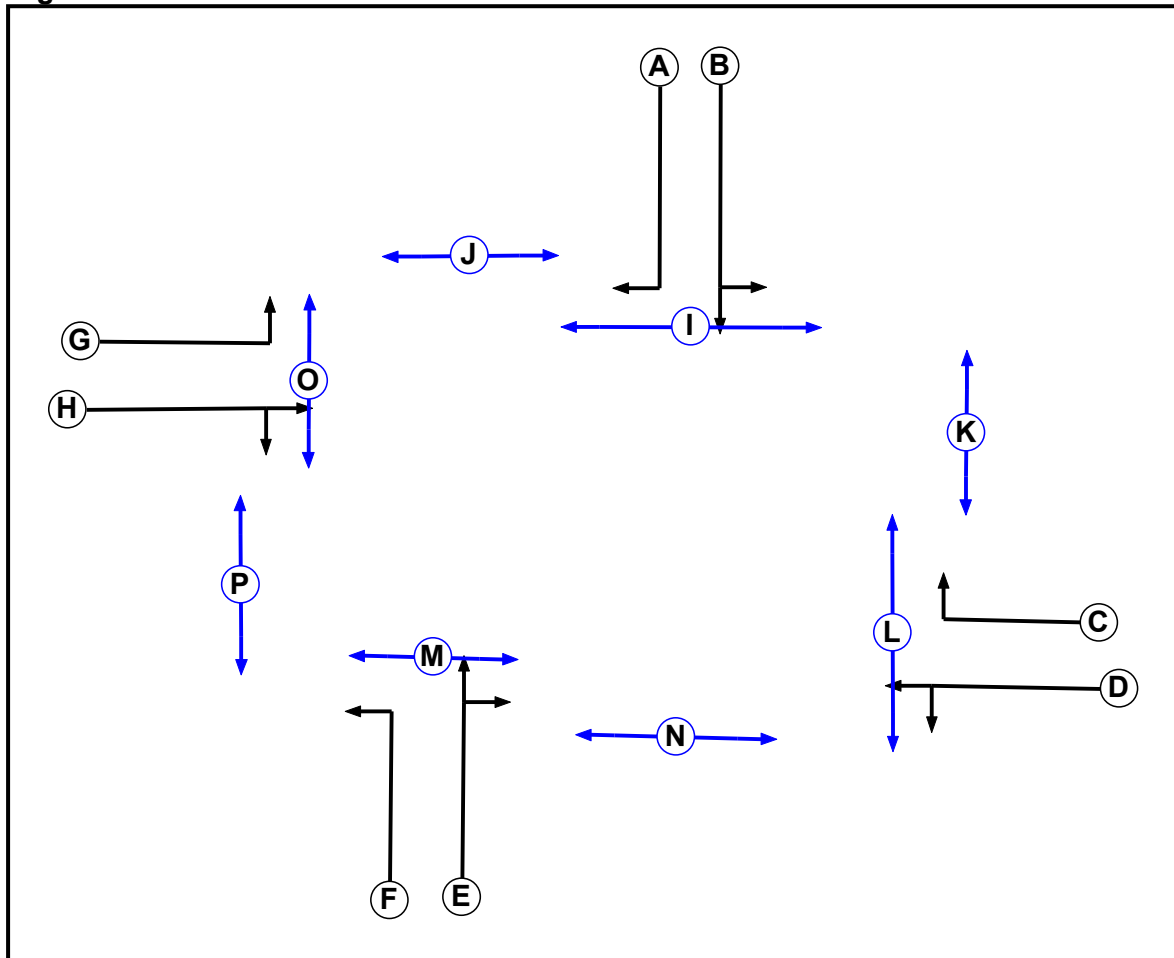
User and Project Details

Project:	20300 – Bicester
Title:	Proposed Link Road Crossroads Junction with Ped Splitter Islands
Location:	Bicester
Additional detail:	
File name:	Link Road Crossroads Updated Drawing.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5
L	Pedestrian		7	7
M	Pedestrian		7	7
N	Pedestrian		5	5
O	Pedestrian		5	5
P	Pedestrian		5	5

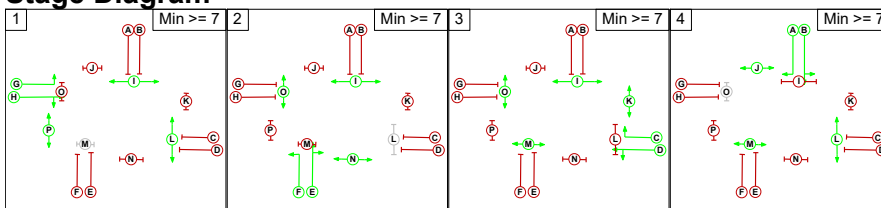
Phase Intergrens Matrix

		Starting Phase															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Terminating Phase	A	-	-	6	6	6	6	-	6	5	-	-	-	-	8	-	8
	B	-	-	6	6	6	-	-	6	5	-	6	-	-	-	-	-
	C	6	6	-	-	6	-	6	6	-	8	-	5	-	-	-	-
	D	6	6	-	-	6	6	-	6	-	-	-	5	-	7	-	8
	E	6	6	6	6	-	-	6	6	-	8	8	-	5	-	-	-
	F	6	-	-	6	-	-	-	-	-	-	-	-	5	-	-	6
	G	-	-	6	-	6	-	-	-	6	8	-	-	-	5	-	-
	H	6	6	6	6	6	-	-	-	-	-	-	-	-	8	5	-
	I	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	J	-	-	9	-	9	-	9	-	-	-	-	-	-	-	-	-
	K	-	9	-	-	9	-	9	-	-	-	-	-	-	-	-	-
	L	-	-	9	9	-	-	-	-	-	-	-	-	-	-	-	-
	M	-	-	-	-	9	9	-	-	-	-	-	-	-	-	-	-
	N	9	-	-	9	-	-	-	9	-	-	-	-	-	-	-	-
	O	-	-	-	-	-	-	9	9	-	-	-	-	-	-	-	-
	P	9	-	-	9	-	9	-	-	-	-	-	-	-	-	-	-

Phases in Stage

Stage No.	Phases in Stage
1	GHILP
2	EFINO
3	CDIKMO
4	ABJLM

Stage Diagram



Phase Delays

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

Full Input Data And Results

Prohibited Stage Change

From Stage	To Stage			
	1	2	3	4
1		9	9	9
2	9		9	9
3	9	9		9
4	9	9	9	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	B	2	3	9.1	Geom	-	3.40	0.00	Y	Arm 5 Left	20.00
											Arm 8 Ahead	Inf
1/2	U	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 7 Right	23.00
2/1	U	D	2	3	11.8	Geom	-	3.40	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Left	19.00
2/2	U	C	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Right	26.00
3/1	U	F	2	3	5.9	Geom	-	3.40	0.00	Y	Arm 7 Left	22.00
3/2	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Right	26.00
											Arm 6 Ahead	Inf
4/1	U	G	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Left	17.00
4/2	U	H	2	3	13.2	Geom	-	3.40	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Right	26.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Year 2031 Dev1a AM'	08:00	09:00	01:00	
2: 'Year 2031 Dev1a PM'	17:00	18:00	01:00	
3: 'Year 2031 Dev1b AM'	08:00	09:00	01:00	
4: 'Year 2031 Dev1b PM'	17:00	18:00	01:00	

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	62	153	241	456	
B	534	0	15	44	593	
C	84	8	0	23	115	
D	188	263	15	0	466	
Tot.	806	333	183	308	1630	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: Unnamed Junction	
1/1 (short)	215
1/2 (with short)	456(In) 241(Out)
2/1 (short)	59
2/2 (with short)	593(In) 534(Out)
3/1 (short)	23
3/2 (with short)	115(In) 92(Out)
4/1 (with short)	466(In) 188(Out)
4/2 (short)	278
5/1	333
6/1	806
7/1	308
8/1	183

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.40	0.00	Y	Arm 5 Left Arm 8 Ahead	20.00 Inf	28.8 % 71.2 %	1914	1914
1/2	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1	3.40	0.00	Y	Arm 7 Ahead Arm 8 Left	Inf 19.00	74.6 % 25.4 %	1917	1917
2/2	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2	3.40	0.00	Y	Arm 5 Right Arm 6 Ahead	26.00 Inf	8.7 % 91.3 %	1945	1945
4/1	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2	3.40	0.00	Y	Arm 5 Ahead Arm 8 Right	Inf 26.00	94.6 % 5.4 %	1949	1949
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	37	145	162	344
	B	371	0	15	23	409
	C	134	13	0	48	195
	D	247	382	54	0	683
	Tot.	752	432	214	233	1631

Traffic Lane Flows

Lane	Scenario 2: New Scenario
Junction: Unnamed Junction	
1/1 (short)	182
1/2 (with short)	344(In) 162(Out)
2/1 (short)	38
2/2 (with short)	409(In) 371(Out)
3/1 (short)	48
3/2 (with short)	195(In) 147(Out)
4/1 (with short)	683(In) 247(Out)
4/2 (short)	436
5/1	432
6/1	752
7/1	233
8/1	214

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.40	0.00	Y	Arm 5 Left	20.00	20.3 %	1926	1926
				Arm 8 Ahead	Inf	79.7 %		
1/2	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1	3.40	0.00	Y	Arm 7 Ahead	Inf	60.5 %	1896	1896
				Arm 8 Left	19.00	39.5 %		
2/2	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945
				Arm 6 Ahead	Inf	91.2 %		
4/1	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2	3.40	0.00	Y	Arm 5 Ahead	Inf	87.6 %	1941	1941
				Arm 8 Right	26.00	12.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Copy of Scenario 1' (FG3: 'Year 2031 Dev1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	53	137	217	407
	B	545	0	14	37	596
	C	83	8	0	23	114
	D	154	261	15	0	430
	Tot.	782	322	166	277	1547

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Copy of Scenario 1
Junction: Unnamed Junction	
1/1 (short)	190
1/2 (with short)	407(In) 217(Out)
2/1 (short)	51
2/2 (with short)	596(In) 545(Out)
3/1 (short)	23
3/2 (with short)	114(In) 91(Out)
4/1 (with short)	430(In) 154(Out)
4/2 (short)	276
5/1	322
6/1	782
7/1	277
8/1	166

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.40	0.00	Y	Arm 5 Left	20.00	27.9 %	1915	1915	
				Arm 8 Ahead	Inf	72.1 %			
1/2	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835	
2/1	3.40	0.00	Y	Arm 7 Ahead	Inf	72.5 %	1914	1914	
				Arm 8 Left	19.00	27.5 %			
2/2	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848	
3/1	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830	
3/2	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945	
				Arm 6 Ahead	Inf	91.2 %			
4/1	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796	
4/2	3.40	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1949	1949	
				Arm 8 Right	26.00	5.4 %			
5/1	Infinite Saturation Flow							Inf	Inf
6/1	Infinite Saturation Flow							Inf	Inf
7/1	Infinite Saturation Flow							Inf	Inf
8/1	Infinite Saturation Flow							Inf	Inf

Full Input Data And Results

Scenario 4: 'Copy of New Scenario' (FG4: 'Year 2031 Dev1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	27	142	115	284
	B	382	0	14	21	417
	C	133	13	0	48	194
	D	204	398	58	0	660
	Tot.	719	438	214	184	1555

Traffic Lane Flows

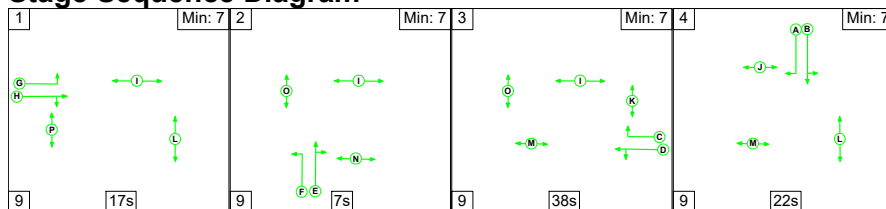
Lane	Scenario 4: Copy of New Scenario
Junction: Unnamed Junction	
1/1 (short)	169
1/2 (with short)	284(In) 115(Out)
2/1 (short)	35
2/2 (with short)	417(In) 382(Out)
3/1 (short)	48
3/2 (with short)	194(In) 146(Out)
4/1 (with short)	660(In) 204(Out)
4/2 (short)	456
5/1	438
6/1	719
7/1	184
8/1	214

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.40	0.00	Y	Arm 5 Left	20.00	16.0 %	1932	1932
				Arm 8 Ahead	Inf	84.0 %		
1/2	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1	3.40	0.00	Y	Arm 7 Ahead	Inf	60.0 %	1895	1895
				Arm 8 Left	19.00	40.0 %		
2/2	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2	3.40	0.00	Y	Arm 5 Right	26.00	8.9 %	1945	1945
				Arm 6 Ahead	Inf	91.1 %		
4/1	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2	3.40	0.00	Y	Arm 5 Ahead	Inf	87.3 %	1941	1941
				Arm 8 Right	26.00	12.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev1a AM', Plan 1: 'Network Control Plan 1')

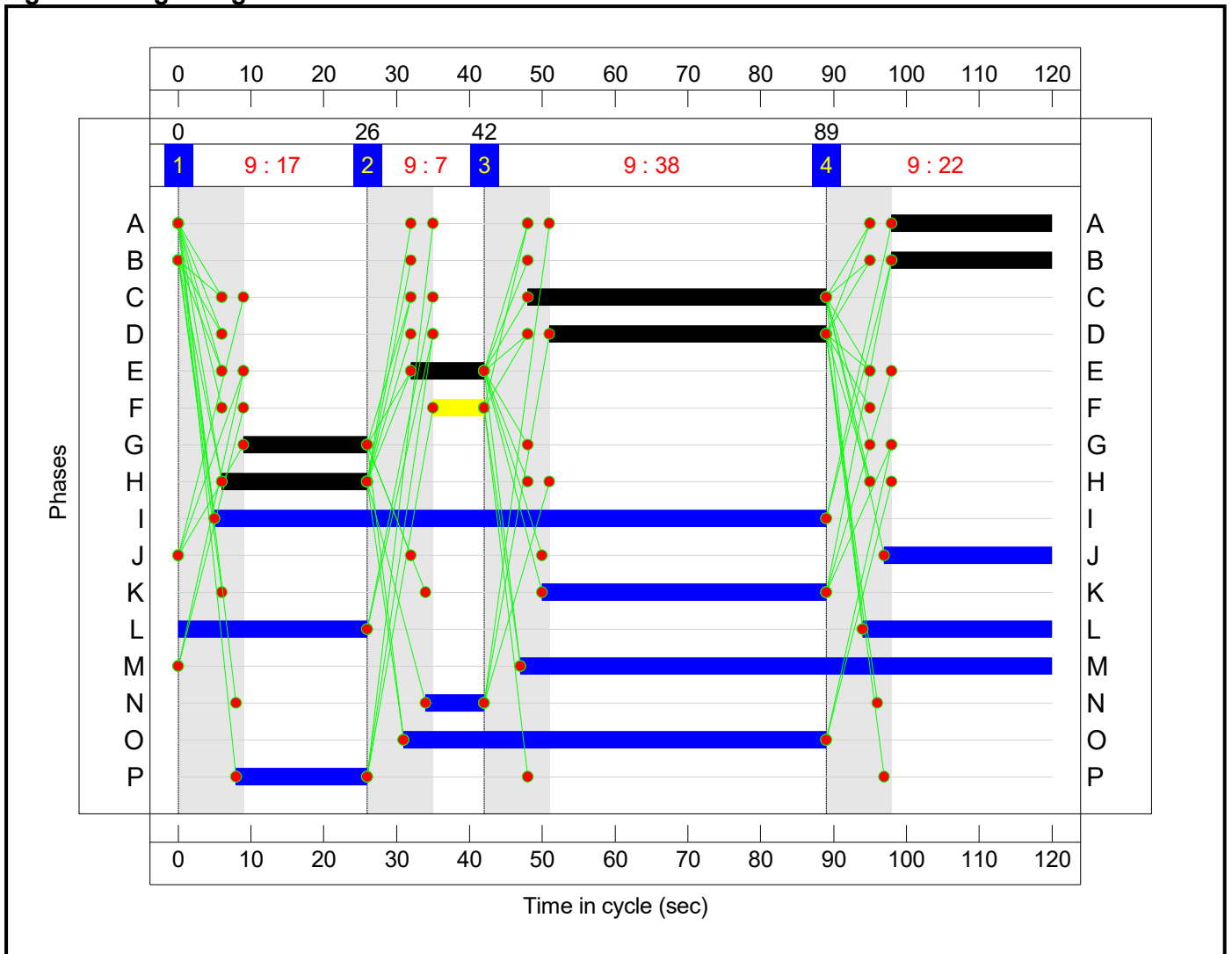
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	17	7	38	22
Change Point	0	26	42	89

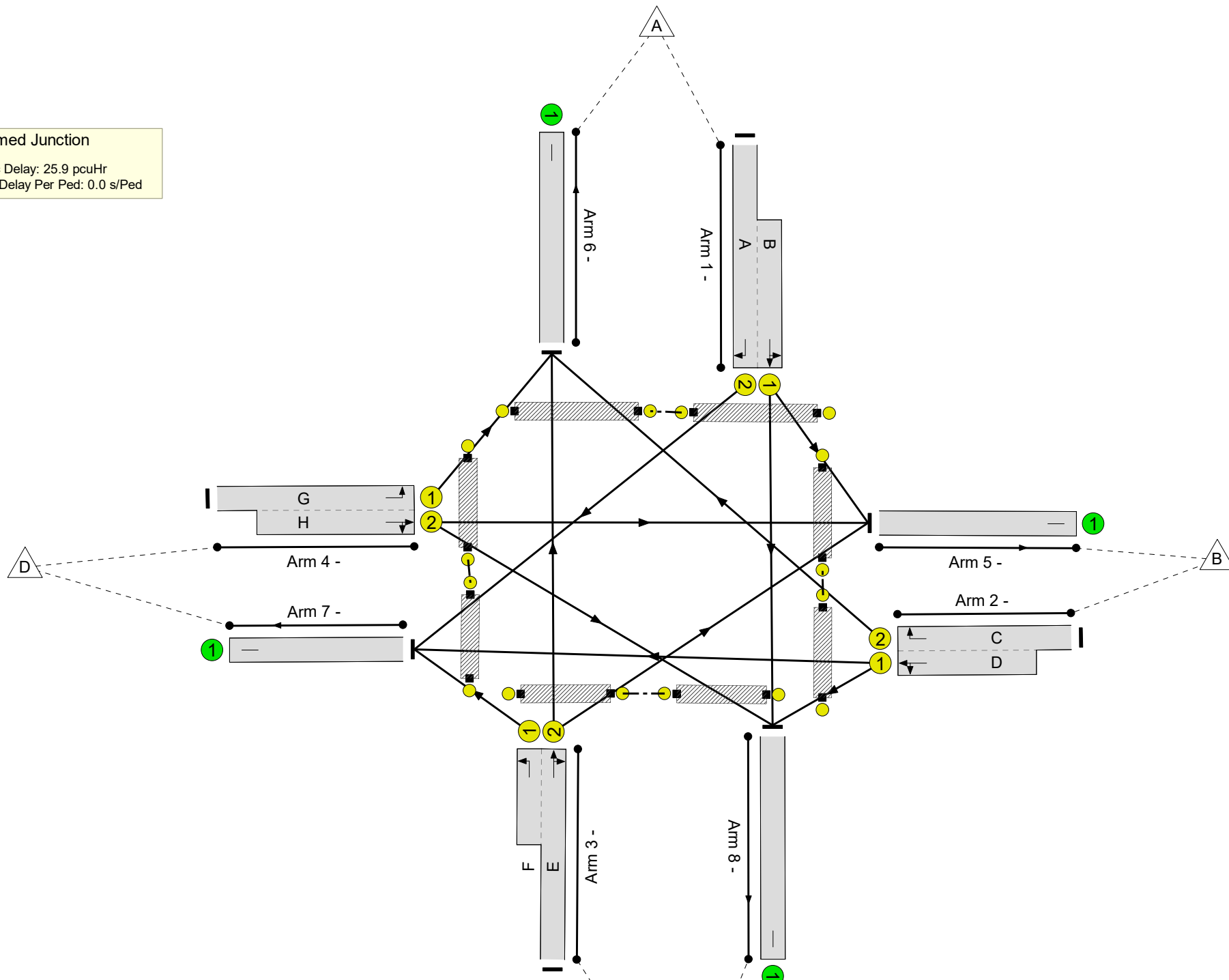
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 7.1 %
Total Traffic Delay: 25.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	84.0%
1/2+1/1	Left Right Ahead	U	N/A	N/A	A B		1	22	-	456	1835:1914	314+280	76.8 : 76.8%
2/2+2/1	Right Ahead Left	U	N/A	N/A	C D		1	41:38	-	593	1848:1917	635+70	84.0 : 84.0%
3/2+3/1	Right Ahead Left	U	N/A	N/A	E F		1	10:7	-	115	1945:1830	178+45	51.6 : 51.6%
4/1+4/2	Ahead Left Right	U	N/A	N/A	G H		1	17:20	-	466	1796:1949	242+341	77.8 : 81.5%
5/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	308	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	84	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	23	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	L		1	52	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	39	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	M		1	73	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	N		1	8	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	58	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	P		1	18	-	0	-	0	0.0%

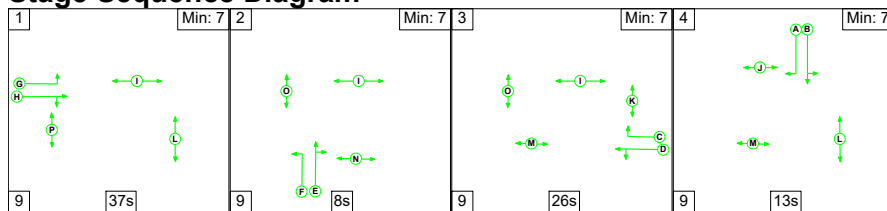
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	19.3	6.6	0.0	25.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	19.3	6.6	0.0	25.9	-	-	-	-
1/2+1/1	456	456	-	-	-	5.7	1.6	-	7.3	57.5	7.4	1.6	9.0
2/2+2/1	593	593	-	-	-	5.8	2.5	-	8.3	50.5	16.7	2.5	19.2
3/2+3/1	115	115	-	-	-	1.7	0.5	-	2.2	68.7	2.9	0.5	3.4
4/1+4/2	466	466	-	-	-	6.2	1.9	-	8.1	62.9	8.9	1.9	10.8
5/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		7.1	Total Delay for Signalled Lanes (pcuHr):			25.92	Cycle Time (s): 120			
			PRC Over All Lanes (%):		7.1	Total Delay Over All Lanes(pcuHr):			25.92				

Full Input Data And Results

Scenario 2: 'New Scenario' (FG2: 'Year 2031 Dev1a PM', Plan 1: 'Network Control Plan 1')

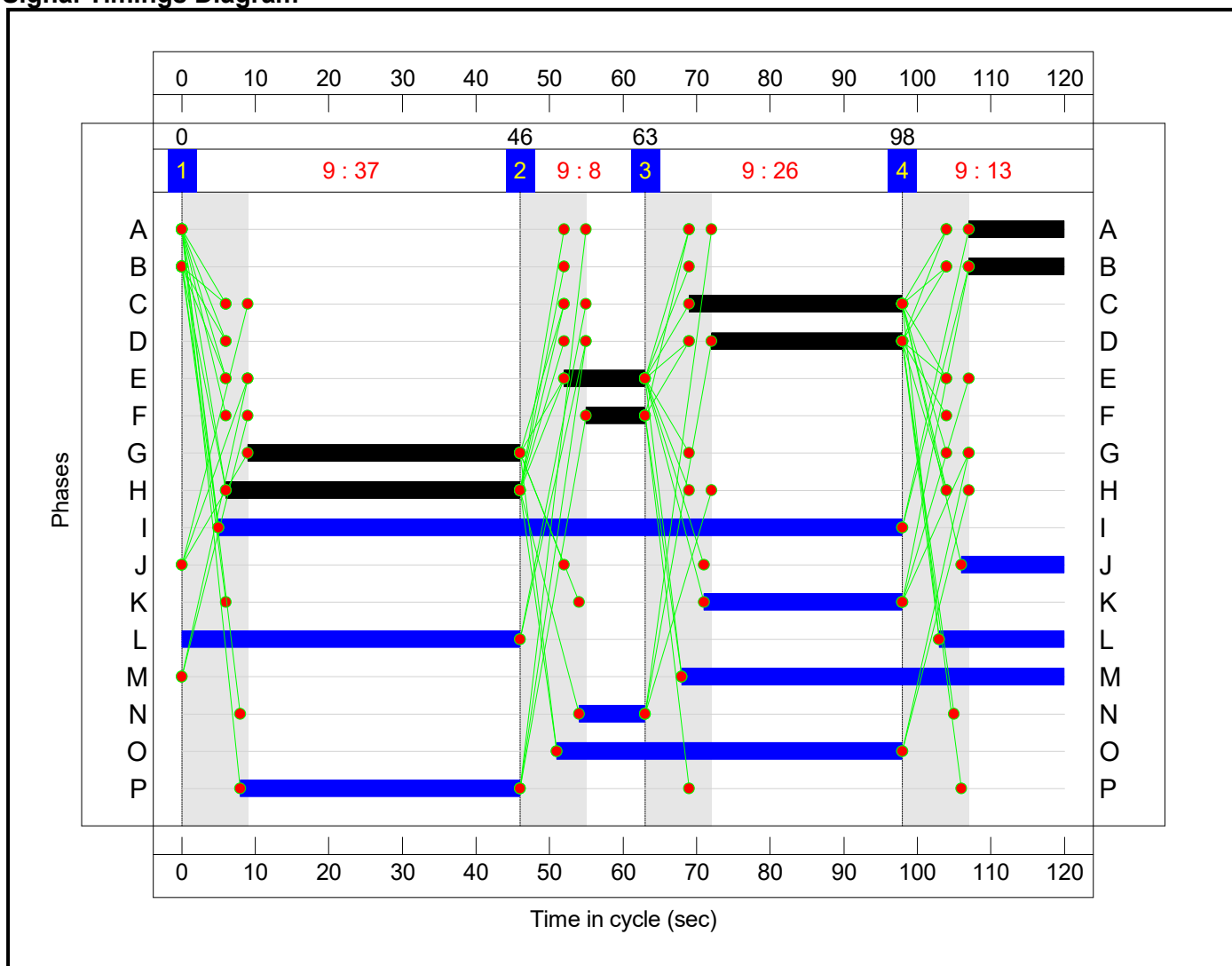
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	8	26	13
Change Point	0	46	63	98

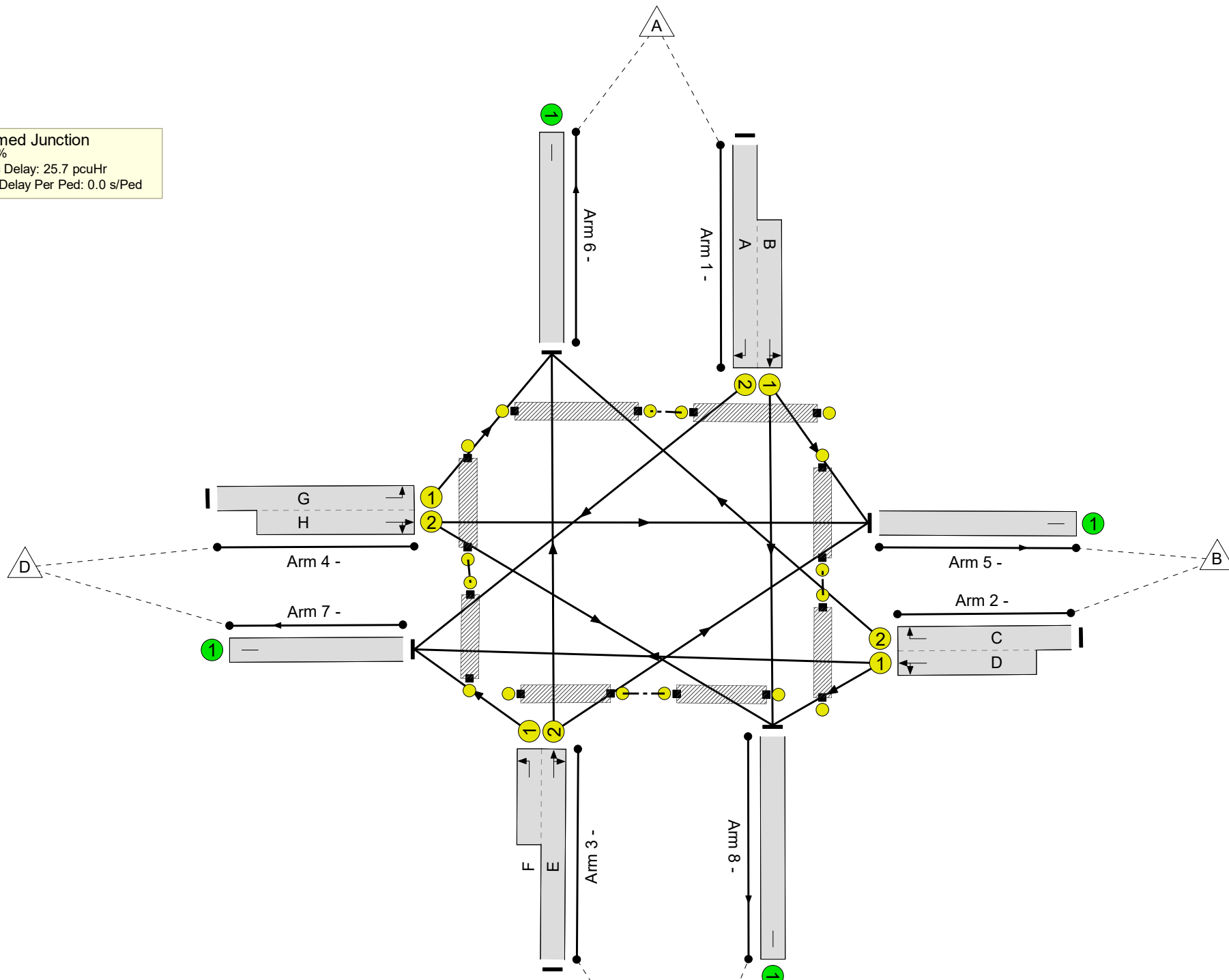
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 11.1 %
Total Traffic Delay: 25.7 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.0%
1/2+1/1	Left Right Ahead	U	N/A	N/A	A B		1	13	-	344	1835:1926	214+225	75.7 : 81.0%
2/2+2/1	Right Ahead Left	U	N/A	N/A	C D		1	29:26	-	409	1848:1896	462+47	80.3 : 80.3%
3/2+3/1	Right Ahead Left	U	N/A	N/A	E F		1	11:8	-	195	1945:1830	195+64	75.6 : 75.6%
4/1+4/2	Ahead Left Right	U	N/A	N/A	G H		1	37:40	-	683	1796:1941	320+565	77.1 : 77.1%
5/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	93	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	L		1	63	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	27	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	M		1	52	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	N		1	9	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	47	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	P		1	38	-	0	-	0	0.0%

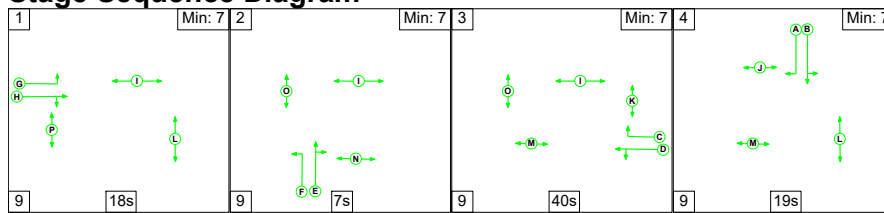
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.8	6.8	0.0	25.7	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.8	6.8	0.0	25.7	-	-	-	-
1/2+1/1	344	344	-	-	-	4.9	1.8	-	6.7	69.9	5.9	1.8	7.7
2/2+2/1	409	409	-	-	-	4.7	2.0	-	6.7	59.0	11.5	2.0	13.5
3/2+3/1	195	195	-	-	-	2.9	1.5	-	4.3	79.9	4.7	1.5	6.2
4/1+4/2	683	683	-	-	-	6.3	1.7	-	8.0	41.9	12.2	1.7	13.9
5/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		11.1	Total Delay for Signalled Lanes (pcuHr):			25.66	Cycle Time (s): 120			
			PRC Over All Lanes (%):		11.1	Total Delay Over All Lanes(pcuHr):			25.66				

Full Input Data And Results

Scenario 3: 'Copy of Scenario 1' (FG3: 'Year 2031 Dev1b AM', Plan 1: 'Network Control Plan 1')

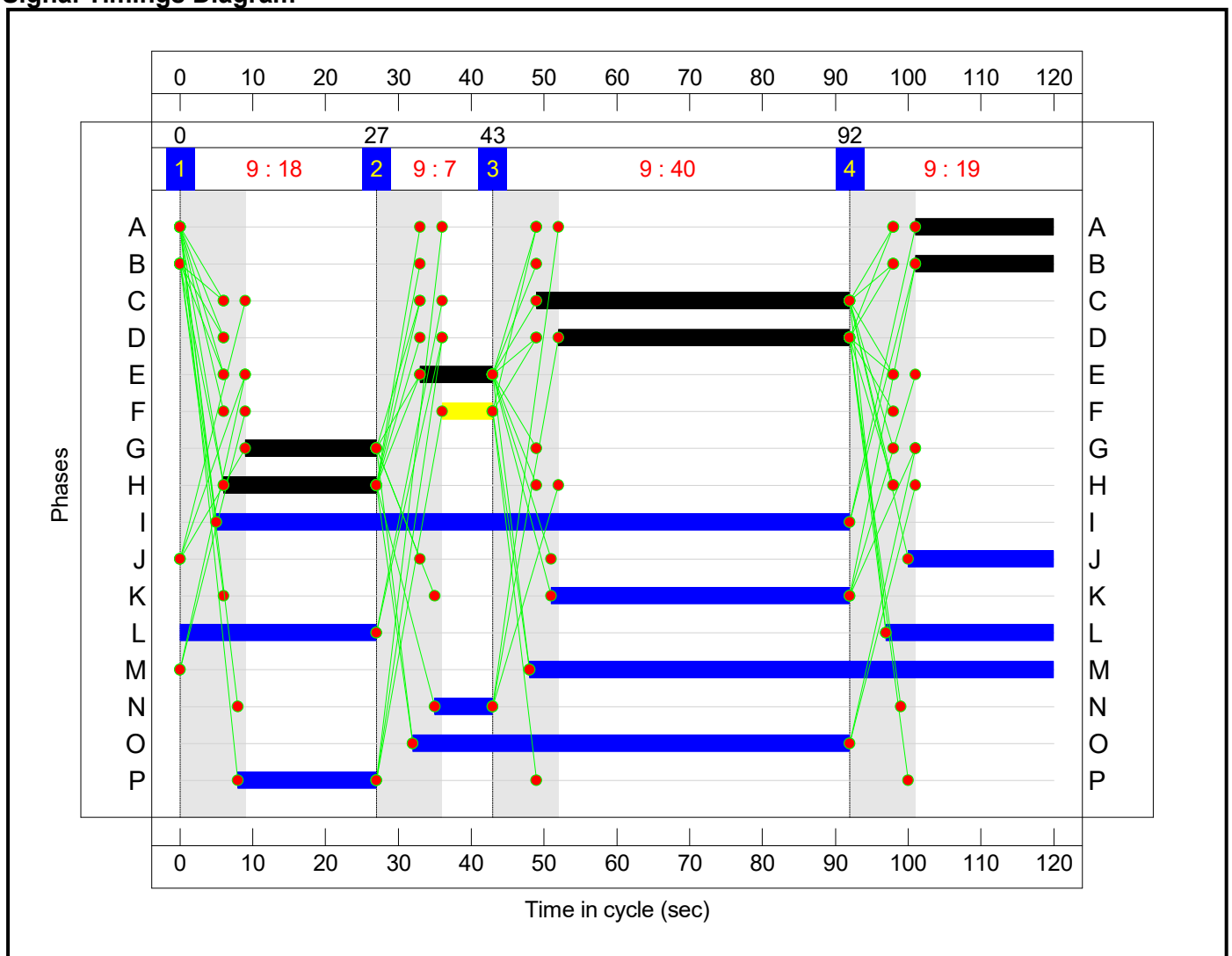
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	18	7	40	19
Change Point	0	27	43	92

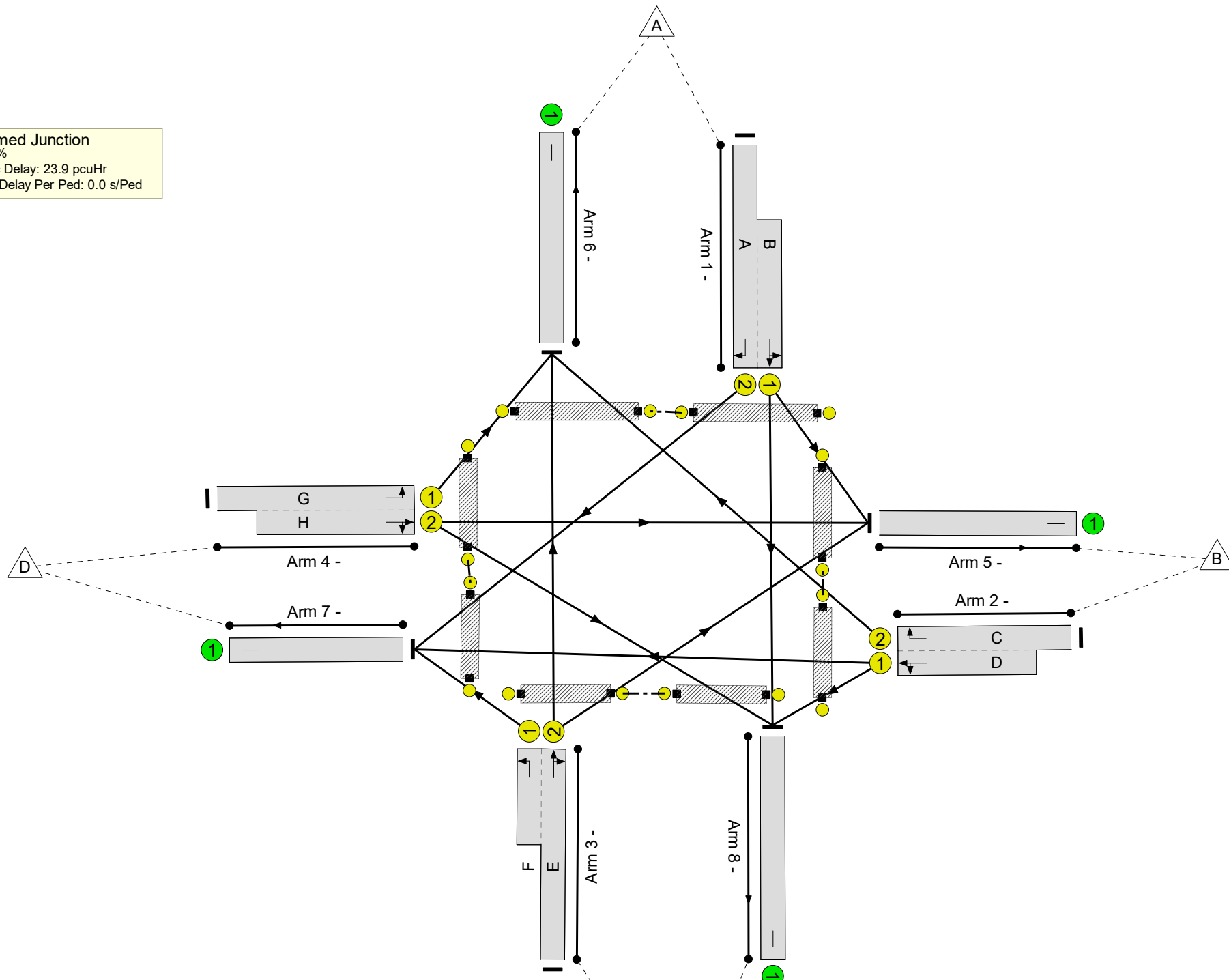
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 10.3 %
Total Traffic Delay: 23.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
1/2+1/1	Left Right Ahead	U	N/A	N/A	A B		1	19	-	407	1835:1915	289+253	75.0 : 75.0%
2/2+2/1	Right Ahead Left	U	N/A	N/A	C D		1	43:40	-	596	1848:1914	668+62	81.6 : 81.6%
3/2+3/1	Right Ahead Left	U	N/A	N/A	E F		1	10:7	-	114	1945:1830	178+45	51.0 : 51.0%
4/1+4/2	Ahead Left Right	U	N/A	N/A	G H		1	18:21	-	430	1796:1949	199+357	77.2 : 77.2%
5/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	87	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	20	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	L		1	50	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	41	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	M		1	72	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	N		1	8	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	60	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	P		1	19	-	0	-	0	0.0%

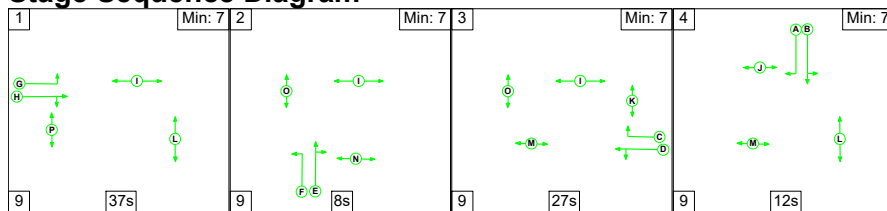
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.1	5.8	0.0	23.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.1	5.8	0.0	23.9	-	-	-	-
1/2+1/1	407	407	-	-	-	5.3	1.5	-	6.8	59.8	6.8	1.5	8.3
2/2+2/1	596	596	-	-	-	5.6	2.2	-	7.7	46.7	16.6	2.2	18.8
3/2+3/1	114	114	-	-	-	1.7	0.5	-	2.2	68.5	2.9	0.5	3.4
4/1+4/2	430	430	-	-	-	5.6	1.7	-	7.2	60.4	8.7	1.7	10.4
5/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	782	782	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		10.3	Total Delay for Signalled Lanes (pcuHr):			23.88	Cycle Time (s): 120			
			PRC Over All Lanes (%):		10.3	Total Delay Over All Lanes(pcuHr):			23.88				

Full Input Data And Results

Scenario 4: 'Copy of New Scenario' (FG4: 'Year 2031 Dev1b PM', Plan 1: 'Network Control Plan 1')

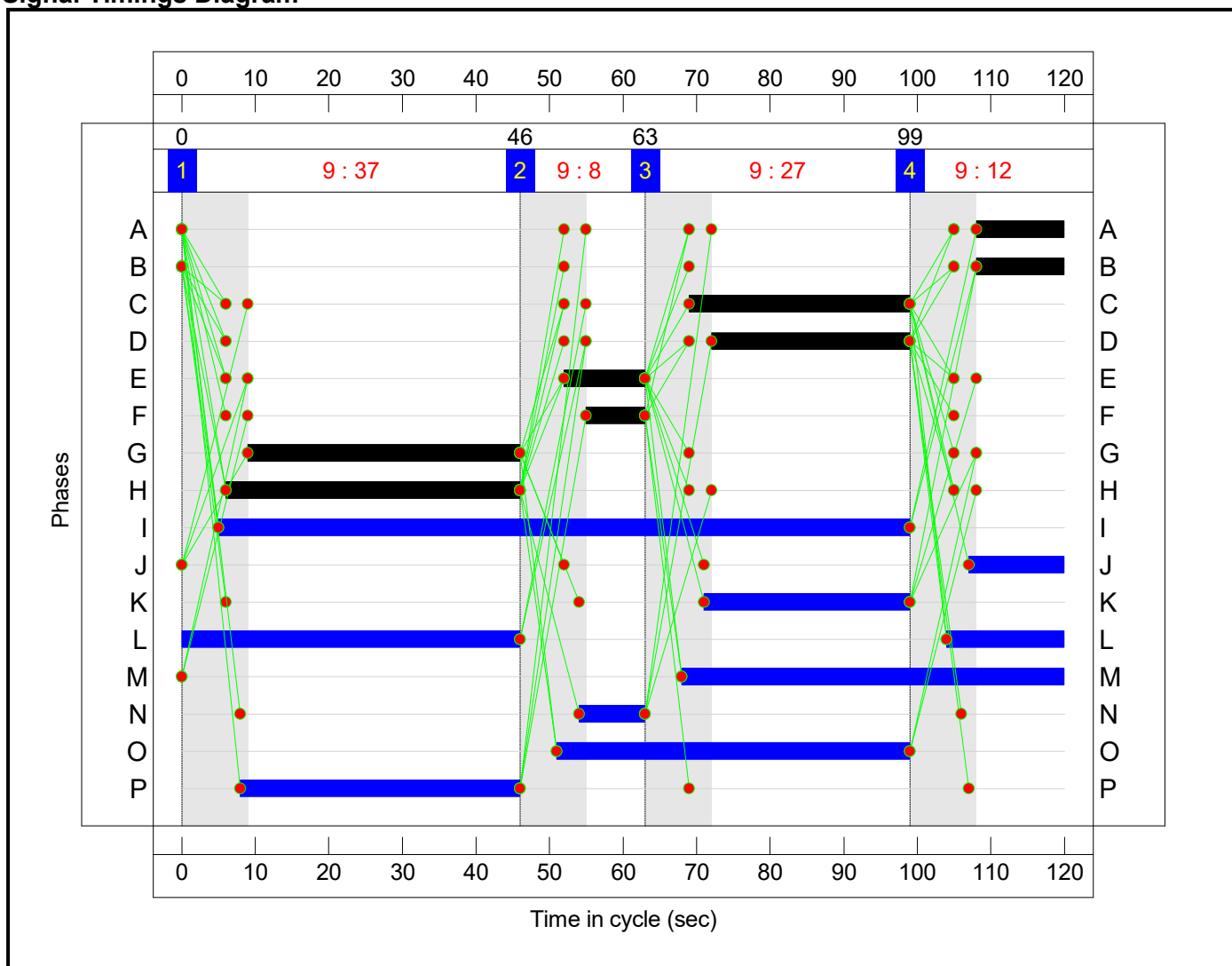
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	8	27	12
Change Point	0	46	63	99

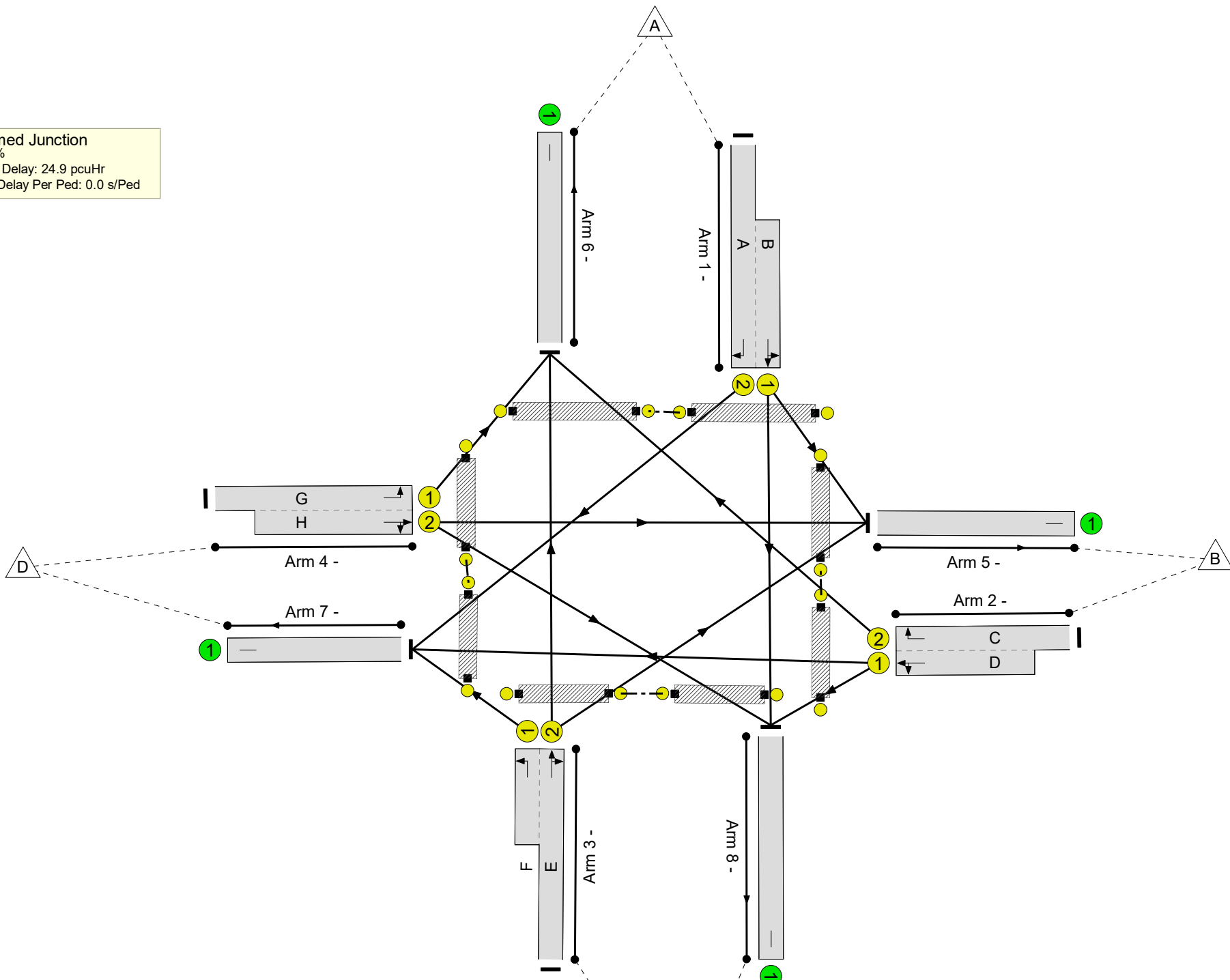
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 11.5 %
Total Traffic Delay: 24.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
1/2+1/1	Left Right Ahead	U	N/A	N/A	A B		1	12	-	284	1835:1932	142+209	80.7 : 80.7%
2/2+2/1	Right Ahead Left	U	N/A	N/A	C D		1	30:27	-	417	1848:1895	477+44	80.0 : 80.0%
3/2+3/1	Right Ahead Left	U	N/A	N/A	E F		1	11:8	-	194	1945:1830	195+64	75.1 : 75.1%
4/1+4/2	Ahead Left Right	U	N/A	N/A	G H		1	37:40	-	660	1796:1941	259+580	78.6 : 78.6%
5/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	184	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	94	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	13	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	L		1	62	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	28	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	M		1	52	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	N		1	9	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	48	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	P		1	38	-	0	-	0	0.0%

Full Input Data And Results

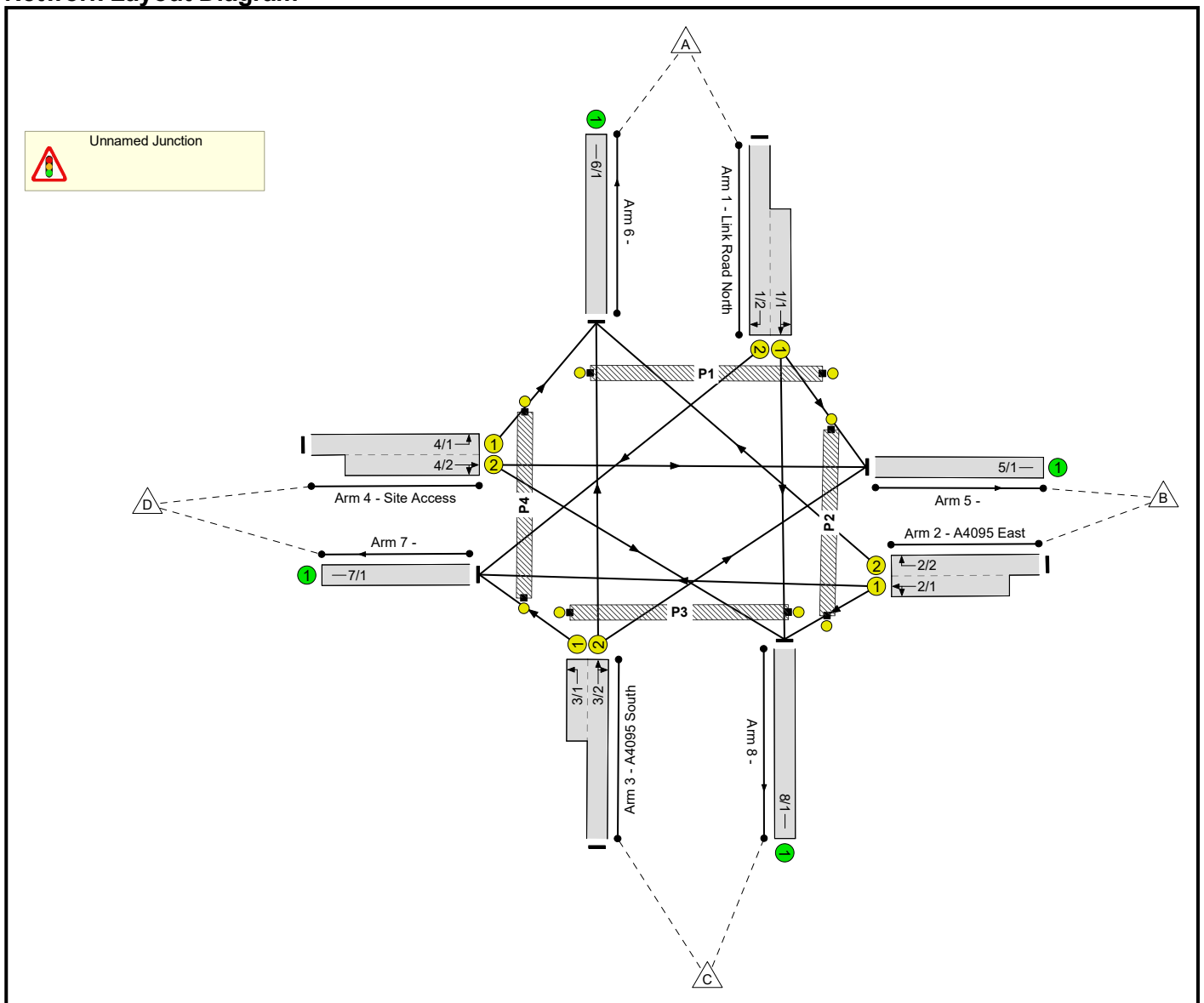
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	17.8	7.2	0.0	24.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	17.8	7.2	0.0	24.9	-	-	-	-
1/2+1/1	284	284	-	-	-	4.1	2.0	-	6.1	76.8	5.5	2.0	7.5
2/2+2/1	417	417	-	-	-	4.8	1.9	-	6.7	57.8	11.9	1.9	13.8
3/2+3/1	194	194	-	-	-	2.8	1.4	-	4.3	79.3	4.7	1.4	6.1
4/1+4/2	660	660	-	-	-	6.1	1.8	-	7.9	43.1	13.0	1.8	14.9
5/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	184	184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		11.5	Total Delay for Signalled Lanes (pcuHr):			24.93	Cycle Time (s): 120			
			PRC Over All Lanes (%):		11.5	Total Delay Over All Lanes(pcuHr):			24.93				

Full Input Data And Results
Full Input Data And Results

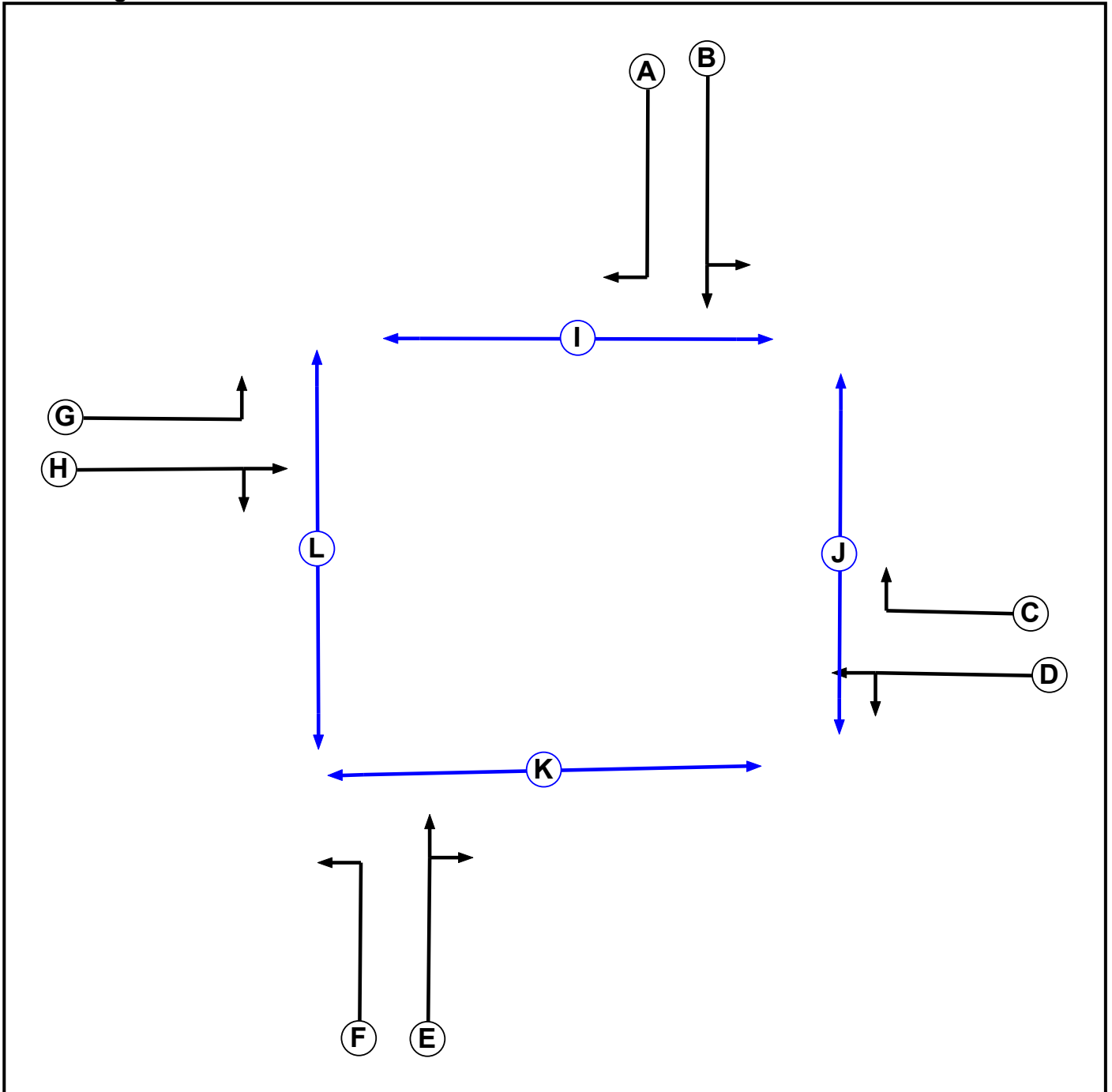
User and Project Details

Project:	20300 – Bicester
Title:	Western Site Access Junction with Ped and Cycle Crossings
Location:	Bicester
Additional detail:	
File name:	Link Road Crossroads Updated Drawing (Updated Ped).lsg3x
Author:	
Company:	Jubb
Address:	Cardiff

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7
K	Pedestrian		7	7
L	Pedestrian		7	7

Phase Intergreens Matrix

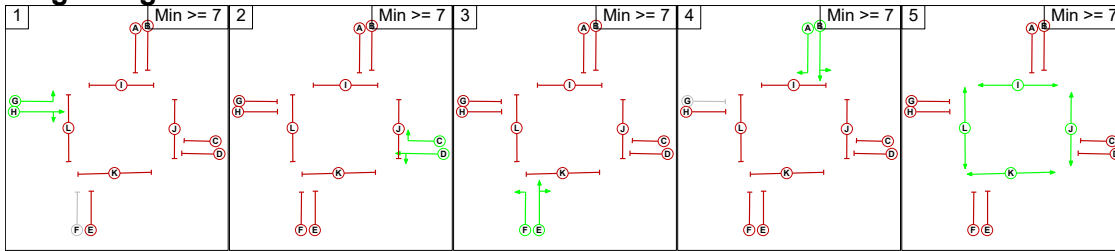
		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A	-	6	6	6	6	-	6	5	-	-	9	
	B	-	-	6	6	6	-	-	6	5	8	9	-
	C	6	6	-	6	-	6	6	8	5	-	-	
	D	6	6	-	-	6	6	-	6	-	5	8	9
	E	6	6	6	6	-	6	6	6	9	5	-	
	F	6	-	-	6	-	-	-	-	-	5	8	
	G	-	-	6	-	6	-	-	8	-	-	5	
	H	6	6	6	6	6	-	-	-	6	9	5	
	I	15	15	15	-	15	-	15	-	-	-	-	
	J	-	15	15	15	15	-	-	15	-	-	-	
	K	-	15	-	15	15	15	-	15	-	-	-	
	L	15	-	-	15	-	15	15	15	-	-	-	

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1		6	6	6	9
	2	6		6	6	9
	3	6	6		6	9
	4	6	6	6		9
	5	15	15	15	15	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Link Road North)	U	B	2	3	9.1	Geom	-	3.40	0.00	Y	Arm 5 Left	20.00
											Arm 8 Ahead	Inf
1/2 (Link Road North)	U	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 7 Right	23.00
2/1 (A4095 East)	U	D	2	3	11.8	Geom	-	3.40	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Left	19.00
2/2 (A4095 East)	U	C	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Right	26.00
3/1 (A4095 South)	U	F	2	3	5.9	Geom	-	3.40	0.00	Y	Arm 7 Left	22.00
3/2 (A4095 South)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Right	26.00
											Arm 6 Ahead	Inf
4/1 (Site Access)	U	G	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Left	17.00
4/2 (Site Access)	U	H	2	3	13.2	Geom	-	3.40	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Right	26.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Year 2031 Dev1a AM'	08:00	09:00	01:00	
2: 'Year 2031 Dev1a PM'	17:00	18:00	01:00	
3: 'Year 2031 Dev1b AM'	08:00	09:00	01:00	
4: 'Year 2031 Dev1b PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev1a AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	62	153	241	456
	B	534	0	15	44	593
	C	84	8	0	23	115
	D	188	263	15	0	466
	Tot.	806	333	183	308	1630

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: Unnamed Junction	
1/1 (short)	215
1/2 (with short)	456(In) 241(Out)
2/1 (short)	59
2/2 (with short)	593(In) 534(Out)
3/1 (short)	23
3/2 (with short)	115(In) 92(Out)
4/1 (with short)	466(In) 188(Out)
4/2 (short)	278
5/1	333
6/1	806
7/1	308
8/1	183

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	28.8 %	1914	1914
				Arm 8 Ahead	Inf	71.2 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	74.6 %	1917	1917
				Arm 8 Left	19.00	25.4 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.7 %	1945	1945
				Arm 6 Ahead	Inf	91.3 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1949	1949
				Arm 8 Right	26.00	5.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Scenario 2' (FG2: 'Year 2031 Dev1a PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					Tot.
	A	B	C	D		
Origin	A	0	37	145	162	344
	B	371	0	15	23	409
	C	134	13	0	48	195
	D	247	382	54	0	683
	Tot.	752	432	214	233	1631

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Scenario 2
Junction: Unnamed Junction	
1/1 (short)	182
1/2 (with short)	344(In) 162(Out)
2/1 (short)	38
2/2 (with short)	409(In) 371(Out)
3/1 (short)	48
3/2 (with short)	195(In) 147(Out)
4/1 (with short)	683(In) 247(Out)
4/2 (short)	436
5/1	432
6/1	752
7/1	233
8/1	214

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	20.3 %	1926	1926
				Arm 8 Ahead	Inf	79.7 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	60.5 %	1896	1896
				Arm 8 Left	19.00	39.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945
				Arm 6 Ahead	Inf	91.2 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	87.6 %	1941	1941
				Arm 8 Right	26.00	12.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Scenario 3' (FG3: 'Year 2031 Dev1b AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D		
A	0	53	137	217	407	
B	545	0	14	37	596	
C	83	8	0	23	114	
D	154	261	15	0	430	
Tot.	782	322	166	277	1547	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Scenario 3
Junction: Unnamed Junction	
1/1 (short)	190
1/2 (with short)	407(In) 217(Out)
2/1 (short)	51
2/2 (with short)	596(In) 545(Out)
3/1 (short)	23
3/2 (with short)	114(In) 91(Out)
4/1 (with short)	430(In) 154(Out)
4/2 (short)	276
5/1	322
6/1	782
7/1	277
8/1	166

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	27.9 %	1915	1915
				Arm 8 Ahead	Inf	72.1 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	72.5 %	1914	1914
				Arm 8 Left	19.00	27.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945
				Arm 6 Ahead	Inf	91.2 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1949	1949
				Arm 8 Right	26.00	5.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Scenario 4' (FG4: 'Year 2031 Dev1b PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D		
A	0	27	142	115	284	
B	382	0	14	21	417	
C	133	13	0	48	194	
D	204	398	58	0	660	
Tot.	719	438	214	184	1555	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Scenario 4
Junction: Unnamed Junction	
1/1 (short)	169
1/2 (with short)	284(In) 115(Out)
2/1 (short)	35
2/2 (with short)	417(In) 382(Out)
3/1 (short)	48
3/2 (with short)	194(In) 146(Out)
4/1 (with short)	660(In) 204(Out)
4/2 (short)	456
5/1	438
6/1	719
7/1	184
8/1	214

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	16.0 %	1932	1932
				Arm 8 Ahead	Inf	84.0 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	60.0 %	1895	1895
				Arm 8 Left	19.00	40.0 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.9 %	1945	1945
				Arm 6 Ahead	Inf	91.1 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	87.3 %	1941	1941
				Arm 8 Right	26.00	12.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Scenario 5' (FG1: 'Year 2031 Dev1a AM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D		
A	0	62	153	241	456	
B	534	0	15	44	593	
C	84	8	0	23	115	
D	188	263	15	0	466	
Tot.	806	333	183	308	1630	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Scenario 5
Junction: Unnamed Junction	
1/1 (short)	215
1/2 (with short)	456(In) 241(Out)
2/1 (short)	59
2/2 (with short)	593(In) 534(Out)
3/1 (short)	23
3/2 (with short)	115(In) 92(Out)
4/1 (with short)	466(In) 188(Out)
4/2 (short)	278
5/1	333
6/1	806
7/1	308
8/1	183

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	28.8 %	1914	1914
				Arm 8 Ahead	Inf	71.2 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	74.6 %	1917	1917
				Arm 8 Left	19.00	25.4 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.7 %	1945	1945
				Arm 6 Ahead	Inf	91.3 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1949	1949
				Arm 8 Right	26.00	5.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Scenario 6' (FG2: 'Year 2031 Dev1a PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D		
A	0	37	145	162	344	
B	371	0	15	23	409	
C	134	13	0	48	195	
D	247	382	54	0	683	
Tot.	752	432	214	233	1631	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Scenario 6
Junction: Unnamed Junction	
1/1 (short)	182
1/2 (with short)	344(In) 162(Out)
2/1 (short)	38
2/2 (with short)	409(In) 371(Out)
3/1 (short)	48
3/2 (with short)	195(In) 147(Out)
4/1 (with short)	683(In) 247(Out)
4/2 (short)	436
5/1	432
6/1	752
7/1	233
8/1	214

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	20.3 %	1926	1926
				Arm 8 Ahead	Inf	79.7 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	60.5 %	1896	1896
				Arm 8 Left	19.00	39.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945
				Arm 6 Ahead	Inf	91.2 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	87.6 %	1941	1941
				Arm 8 Right	26.00	12.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Scenario 7' (FG3: 'Year 2031 Dev1b AM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	53	137	217	407
B	545	0	14	37	596	
C	83	8	0	23	114	
D	154	261	15	0	430	
Tot.	782	322	166	277	1547	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Scenario 7
Junction: Unnamed Junction	
1/1 (short)	190
1/2 (with short)	407(In) 217(Out)
2/1 (short)	51
2/2 (with short)	596(In) 545(Out)
3/1 (short)	23
3/2 (with short)	114(In) 91(Out)
4/1 (with short)	430(In) 154(Out)
4/2 (short)	276
5/1	322
6/1	782
7/1	277
8/1	166

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	27.9 %	1915	1915
				Arm 8 Ahead	Inf	72.1 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	72.5 %	1914	1914
				Arm 8 Left	19.00	27.5 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
3/2 (A4095 South)	3.40	0.00	Y	Arm 5 Right	26.00	8.8 %	1945	1945
				Arm 6 Ahead	Inf	91.2 %		
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1949	1949
				Arm 8 Right	26.00	5.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Scenario 8' (FG4: 'Year 2031 Dev1b PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D		
A	0	27	142	115	284	
B	382	0	14	21	417	
C	133	13	0	48	194	
D	204	398	58	0	660	
Tot.	719	438	214	184	1555	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Scenario 8
Junction: Unnamed Junction	
1/1 (short)	169
1/2 (with short)	284(In) 115(Out)
2/1 (short)	35
2/2 (with short)	417(In) 382(Out)
3/1 (short)	48
3/2 (with short)	194(In) 146(Out)
4/1 (with short)	660(In) 204(Out)
4/2 (short)	456
5/1	438
6/1	719
7/1	184
8/1	214

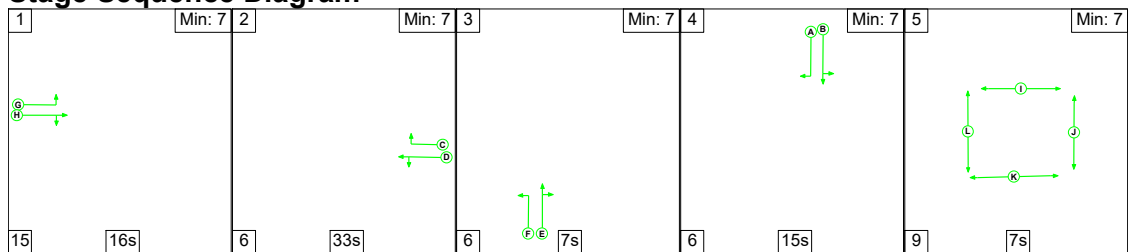
Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Link Road North)	3.40	0.00	Y	Arm 5 Left	20.00	16.0 %	1932	1932
				Arm 8 Ahead	Inf	84.0 %		
1/2 (Link Road North)	3.40	0.00	Y	Arm 7 Right	23.00	100.0 %	1835	1835
2/1 (A4095 East)	3.40	0.00	Y	Arm 7 Ahead	Inf	60.0 %	1895	1895
				Arm 8 Left	19.00	40.0 %		
2/2 (A4095 East)	3.40	0.00	Y	Arm 6 Right	26.00	100.0 %	1848	1848
3/1 (A4095 South)	3.40	0.00	Y	Arm 7 Left	22.00	100.0 %	1830	1830
				Arm 5 Right	26.00	8.9 %		
3/2 (A4095 South)	3.40	0.00	Y	Arm 6 Ahead	Inf	91.1 %	1945	1945
4/1 (Site Access)	3.40	0.00	Y	Arm 6 Left	17.00	100.0 %	1796	1796
4/2 (Site Access)	3.40	0.00	Y	Arm 5 Ahead	Inf	87.3 %	1941	1941
				Arm 8 Right	26.00	12.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Scenario 1' (FG1: 'Year 2031 Dev1a AM', Plan 1: 'Network Control Plan 1')

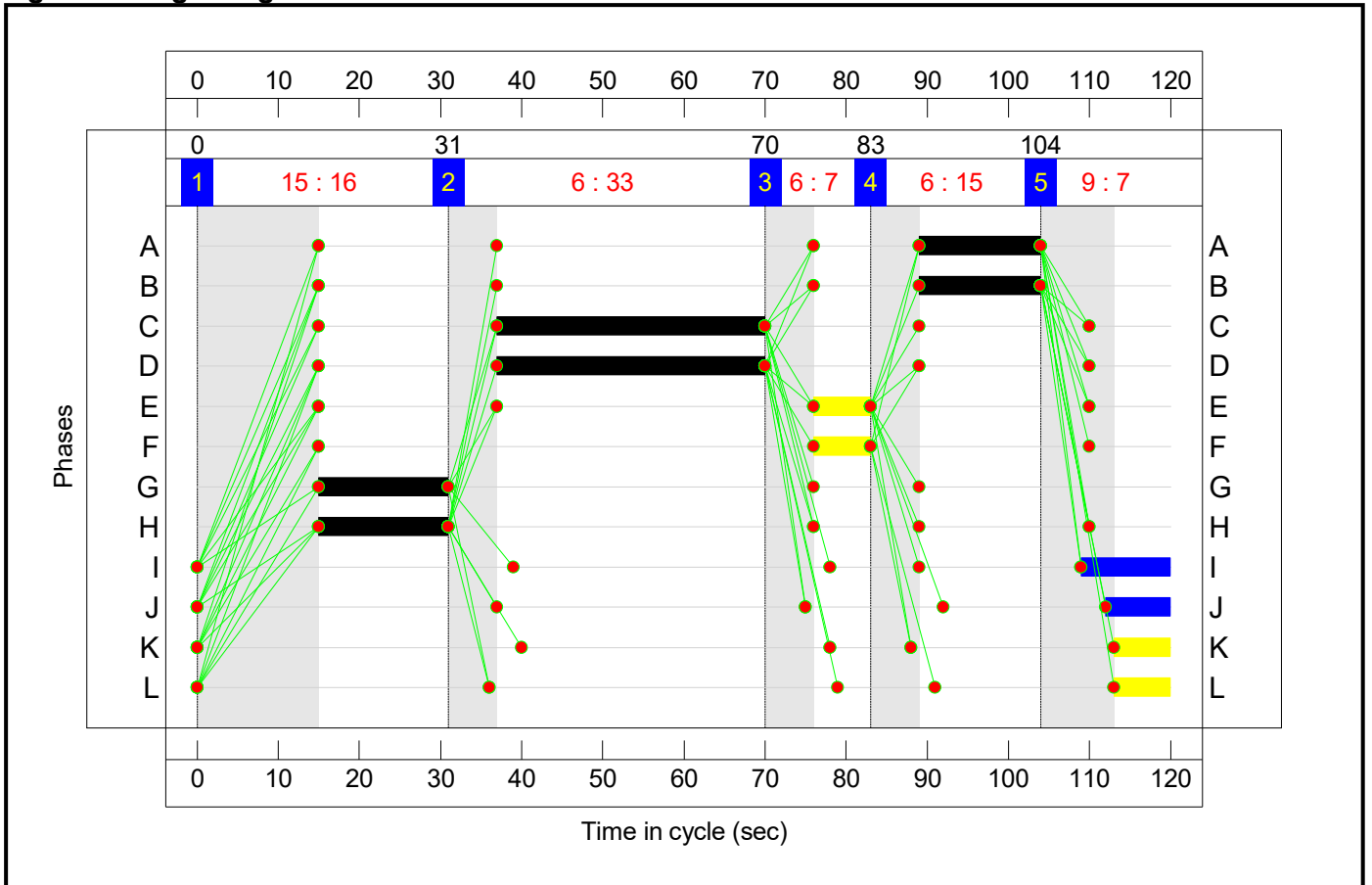
Stage Sequence Diagram



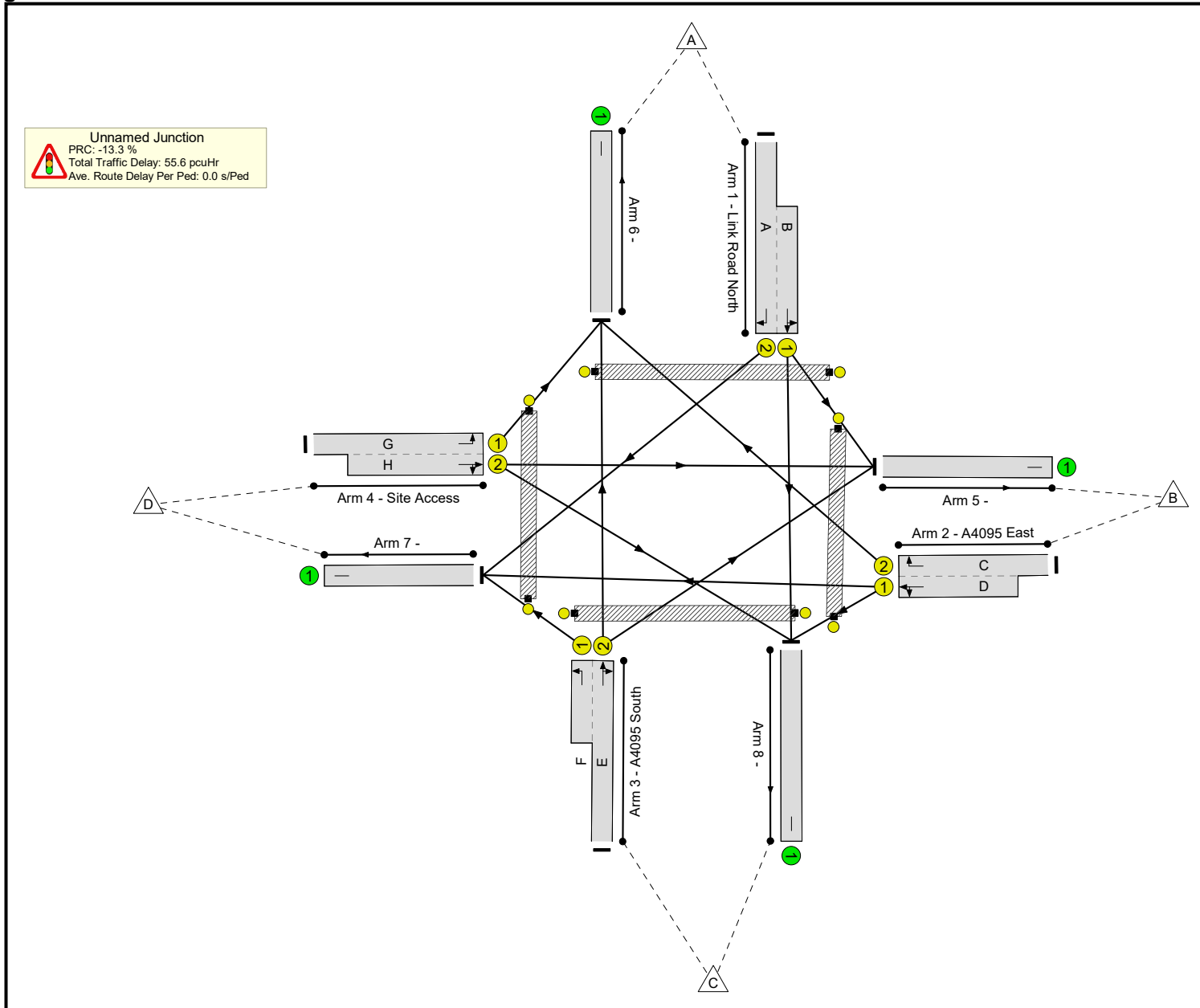
Stage Timings

Stage	1	2	3	4	5
Duration	16	33	7	15	7
Change Point	0	31	70	83	104

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	102.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	102.0%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		1	15	-	456	1835:1914	245+218	98.5 : 98.5%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		1	33	-	593	1848:1917	524+58	102.0 : 102.0%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		1	7	-	115	1945:1830	130+32	71.0 : 71.0%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		1	16	-	466	1796:1949	213+276	88.4 : 100.7%
5/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	308	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

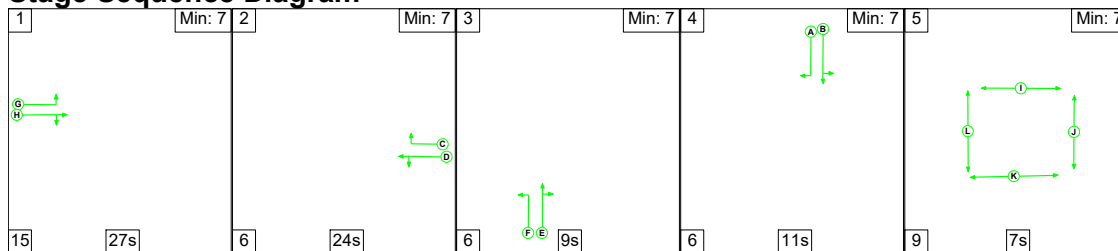
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	22.5	33.1	0.0	55.6	-	-	-	-
Unnamed Junction	-	-	0	0	0	22.5	33.1	0.0	55.6	-	-	-	-
1/2+1/1	456	456	-	-	-	6.5	9.1	-	15.6	123.1	8.0	9.1	17.0
2/2+2/1	593	581	-	-	-	7.6	15.4	-	23.0	139.4	19.2	15.4	34.6
3/2+3/1	115	115	-	-	-	1.7	1.2	-	2.9	90.9	3.0	1.2	4.2
4/1+4/2	466	464	-	-	-	6.7	7.4	-	14.1	109.0	9.3	7.4	16.8
5/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	796	796	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	307	307	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -13.3 Total Delay for Signalled Lanes (pcuHr): 55.57 Cycle Time (s): 120 PRC Over All Lanes (%): -13.3 Total Delay Over All Lanes(pcuHr): 55.57													

Full Input Data And Results

Scenario 2: 'Scenario 2' (FG2: 'Year 2031 Dev1a PM', Plan 1: 'Network Control Plan 1')

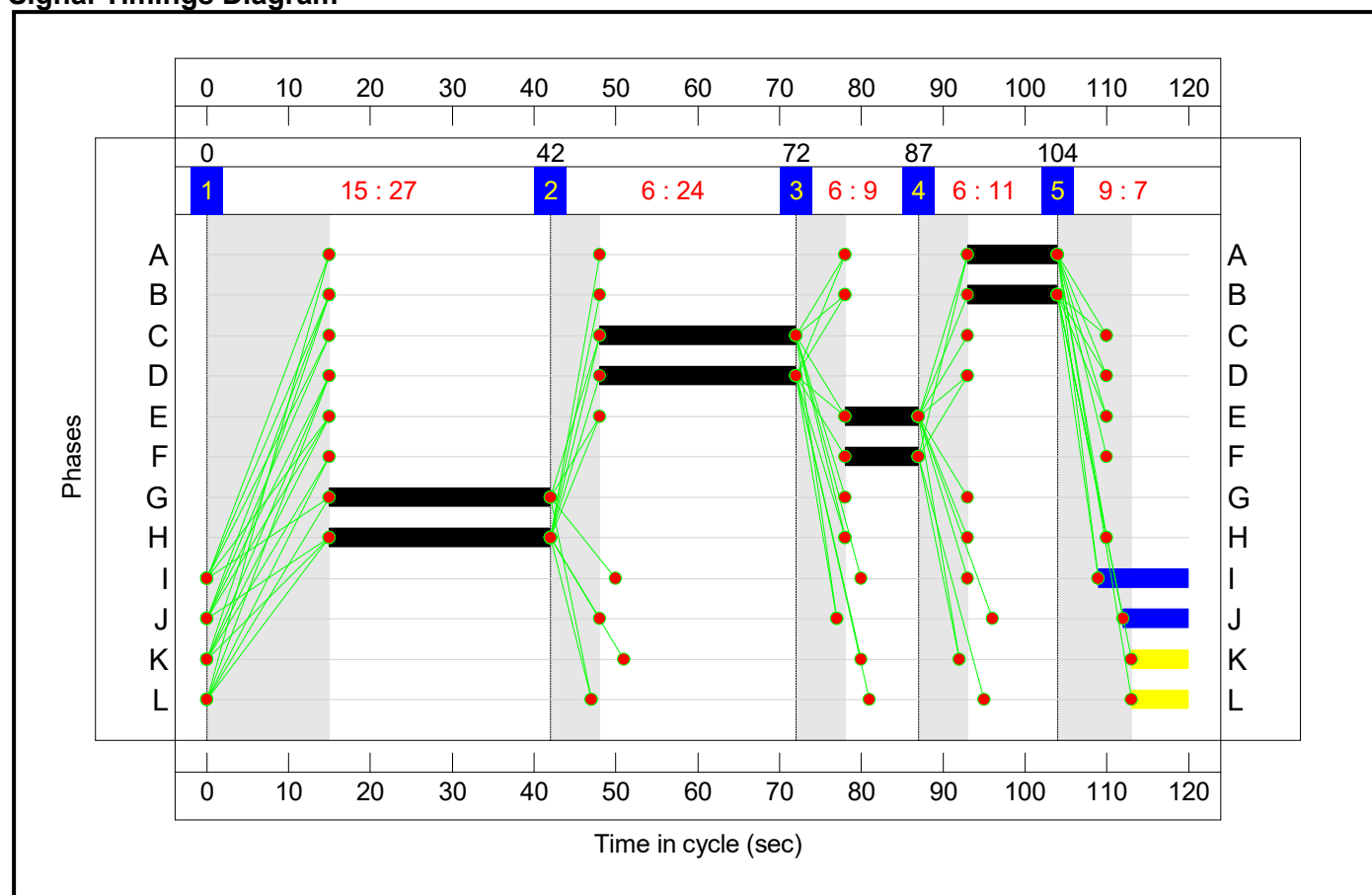
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	24	9	11	7
Change Point	0	42	72	87	104

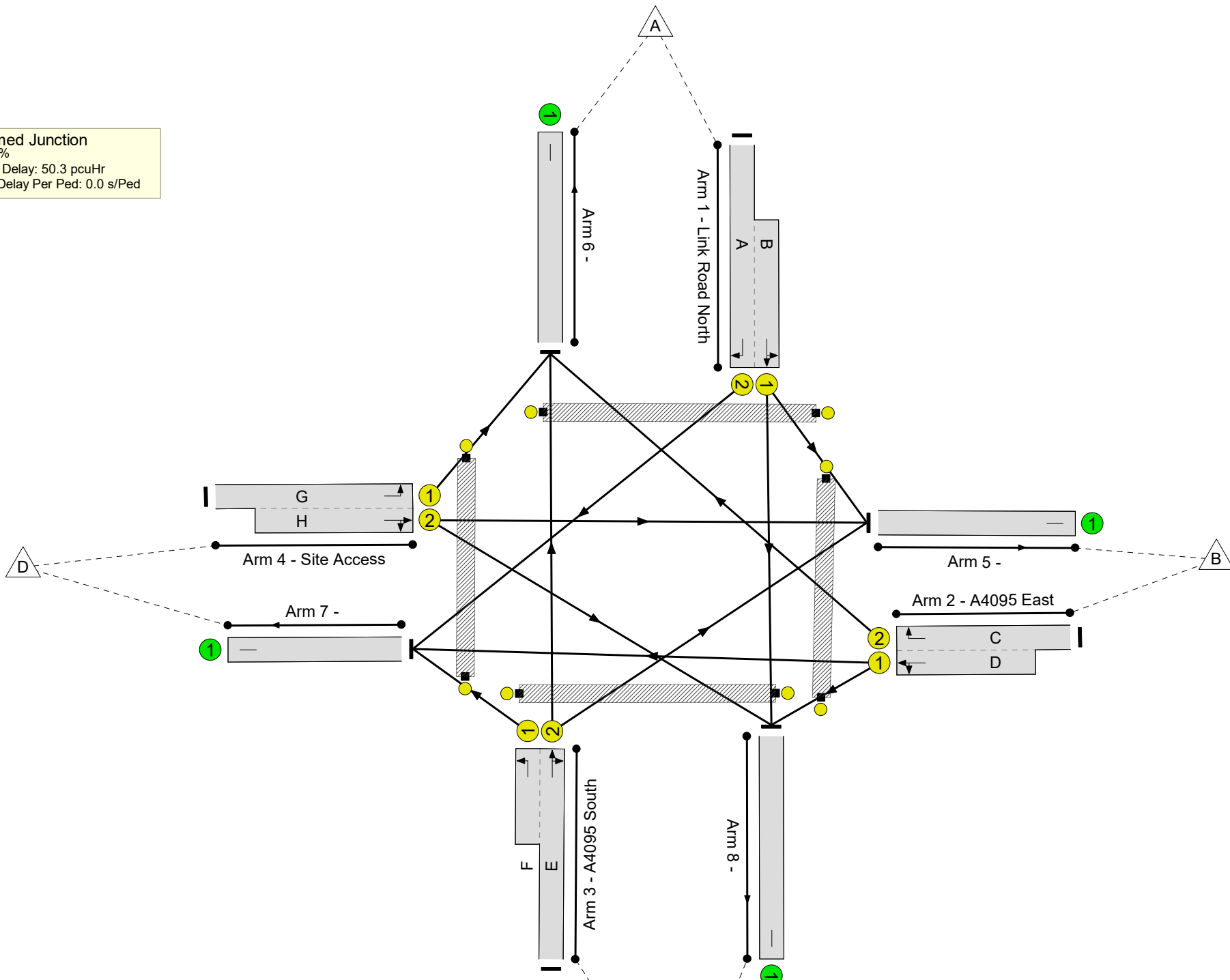
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: -11.4 %
Total Traffic Delay: 50.3 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	100.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	100.3%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		1	11	-	344	1835:1926	183+193	88.3 : 94.5%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		1	24	-	409	1848:1896	385+39	96.4 : 96.4%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		1	9	-	195	1945:1830	162+53	90.7 : 90.7%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		1	27	-	683	1796:1941	246+435	100.3 : 100.3%
5/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

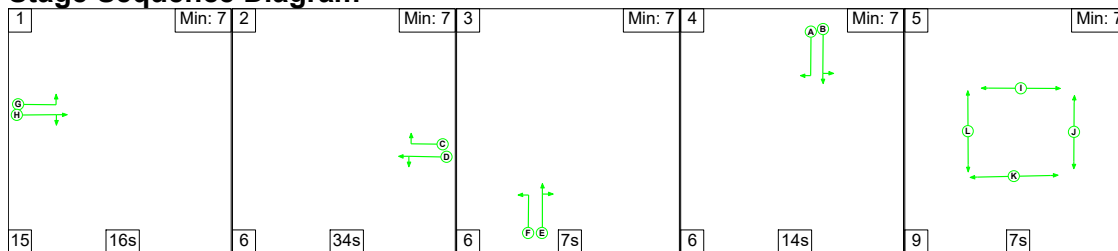
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.9	28.3	0.0	50.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	21.9	28.3	0.0	50.3	-	-	-	-
1/2+1/1	344	344	-	-	-	5.1	4.2	-	9.4	97.9	6.0	4.2	10.3
2/2+2/1	409	409	-	-	-	5.3	7.0	-	12.2	107.6	12.2	7.0	19.1
3/2+3/1	195	195	-	-	-	2.9	3.6	-	6.5	120.1	4.8	3.6	8.4
4/1+4/2	683	681	-	-	-	8.7	13.6	-	22.2	117.1	15.5	13.6	29.0
5/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	751	751	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -11.4 Total Delay for Signalled Lanes (pcuHr): 50.28 Cycle Time (s): 120 PRC Over All Lanes (%): -11.4 Total Delay Over All Lanes(pcuHr): 50.28													

Full Input Data And Results

Scenario 3: 'Scenario 3' (FG3: 'Year 2031 Dev1b AM', Plan 1: 'Network Control Plan 1')

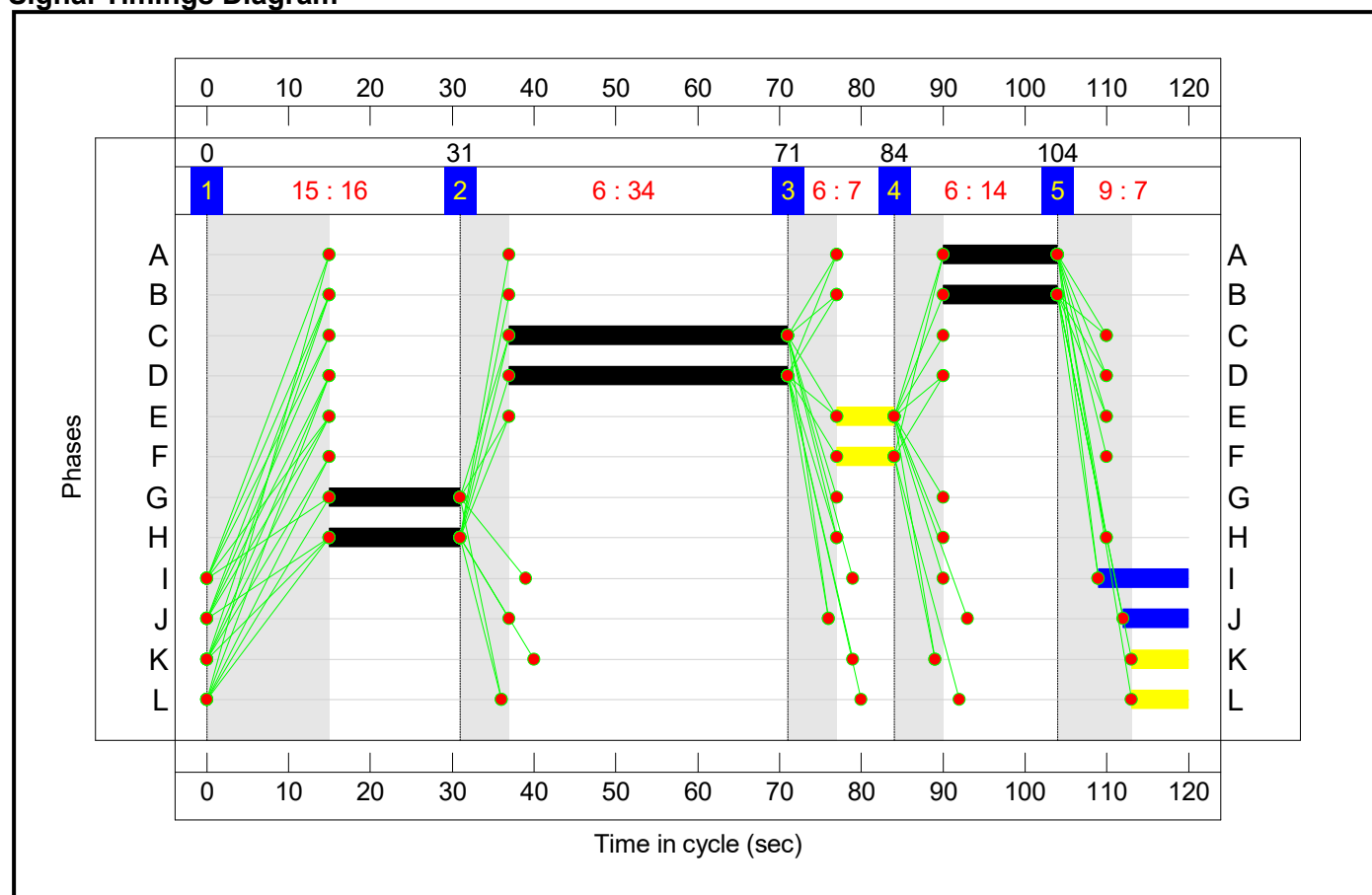
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	16	34	7	14	7
Change Point	0	31	71	84	104

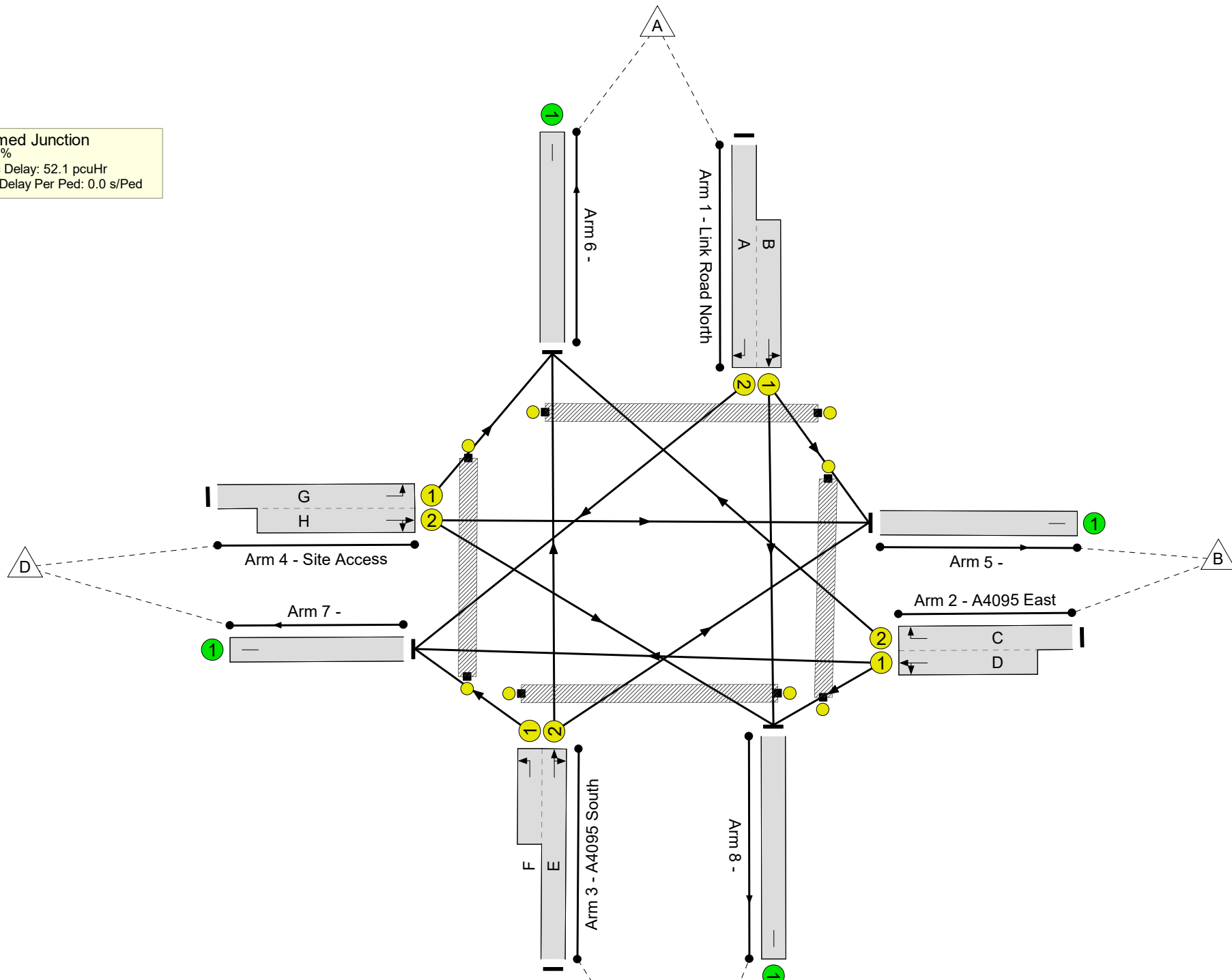
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: -12.3 %
Total Traffic Delay: 52.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	101.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	101.1%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		1	14	-	407	1835:1915	229+201	94.6 : 94.6%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		1	34	-	596	1848:1914	539+50	101.1 : 101.1%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		1	7	-	114	1945:1830	130+33	70.2 : 70.2%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		1	16	-	430	1796:1949	154+276	100.0 : 100.0%
5/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

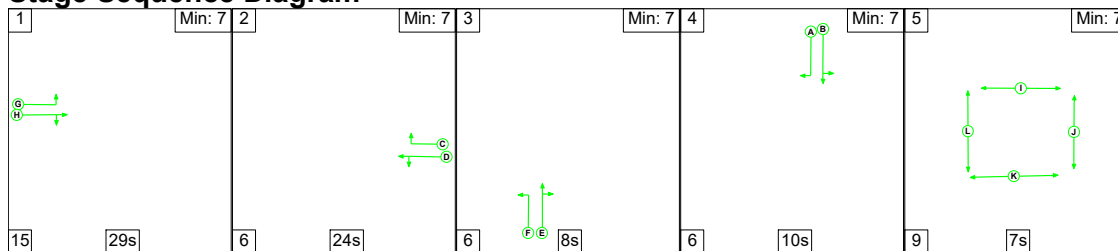
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.8	31.2	0.0	52.1	-	-	-	-
Unnamed Junction	-	-	0	0	0	20.8	31.2	0.0	52.1	-	-	-	-
1/2+1/1	407	407	-	-	-	5.8	5.8	-	11.7	103.2	7.2	5.8	13.0
2/2+2/1	596	589	-	-	-	7.3	14.0	-	21.2	128.2	19.1	14.0	33.1
3/2+3/1	114	114	-	-	-	1.7	1.1	-	2.8	90.0	3.0	1.1	4.1
4/1+4/2	430	430	-	-	-	6.0	10.3	-	16.3	136.8	9.1	10.3	19.4
5/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	776	776	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -12.3 Total Delay for Signalled Lanes (pcuHr): 52.08 Cycle Time (s): 120 PRC Over All Lanes (%): -12.3 Total Delay Over All Lanes(pcuHr): 52.08													

Full Input Data And Results

Scenario 4: 'Scenario 4' (FG4: 'Year 2031 Dev1b PM', Plan 1: 'Network Control Plan 1')

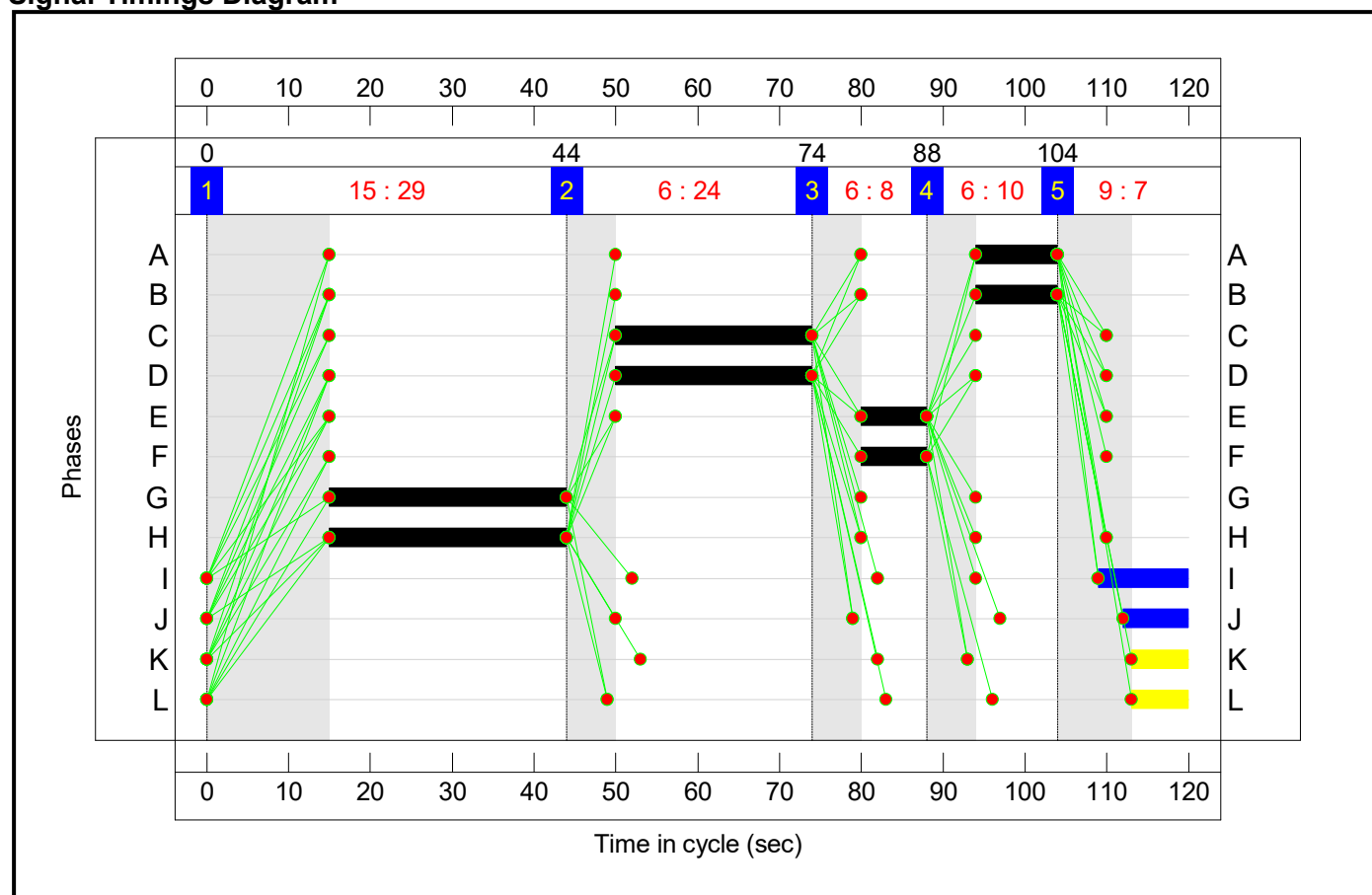
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	29	24	8	10	7
Change Point	0	44	74	88	104

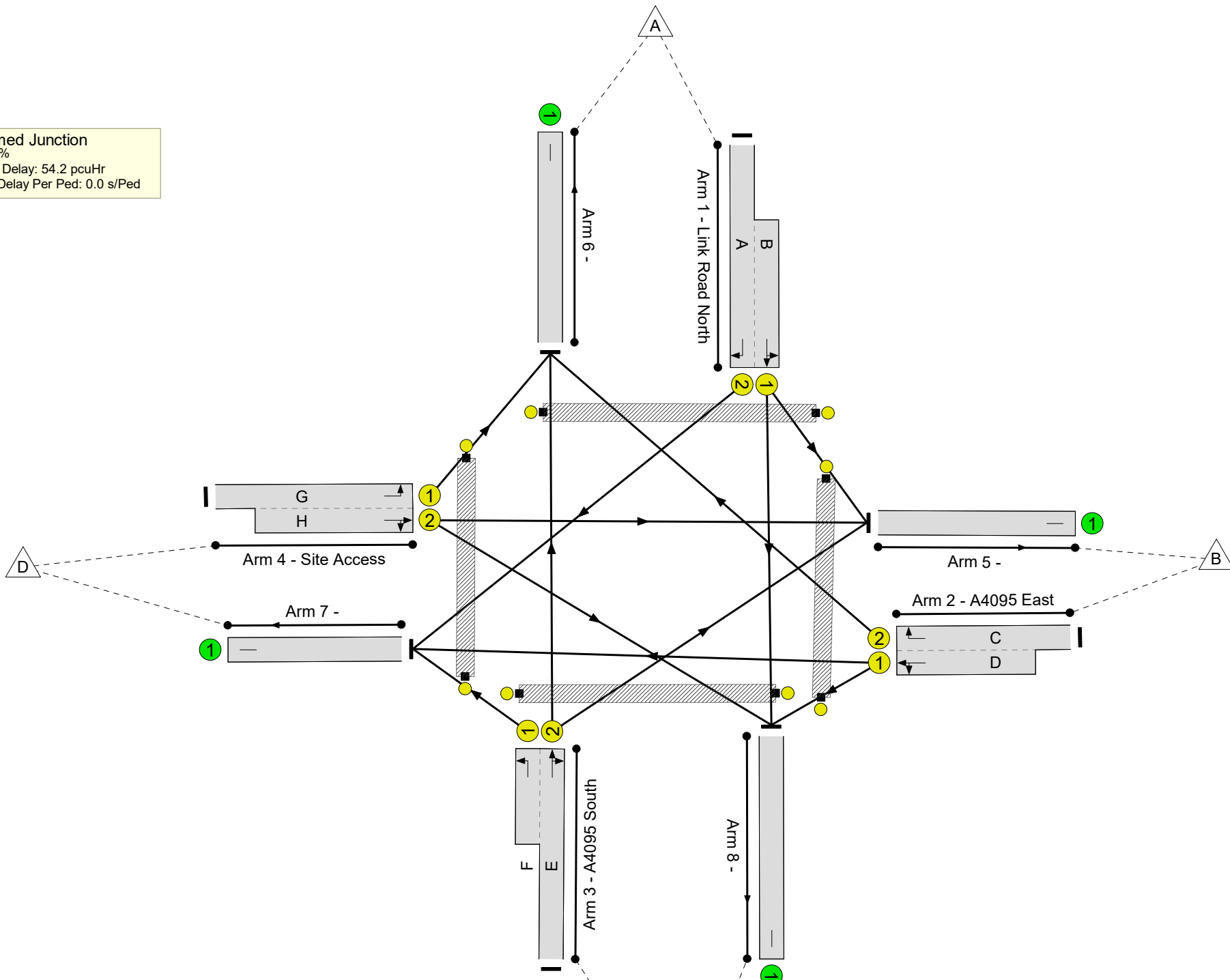
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: -11.2 %
Total Traffic Delay: 54.2 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		1	10	-	284	1835:1932	121+177	95.4 : 95.4%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		1	24	-	417	1848:1895	385+35	99.2 : 99.2%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		1	8	-	194	1945:1830	146+48	100.1 : 100.1%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		1	29	-	660	1796:1941	206+460	99.2 : 99.2%
5/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	184	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

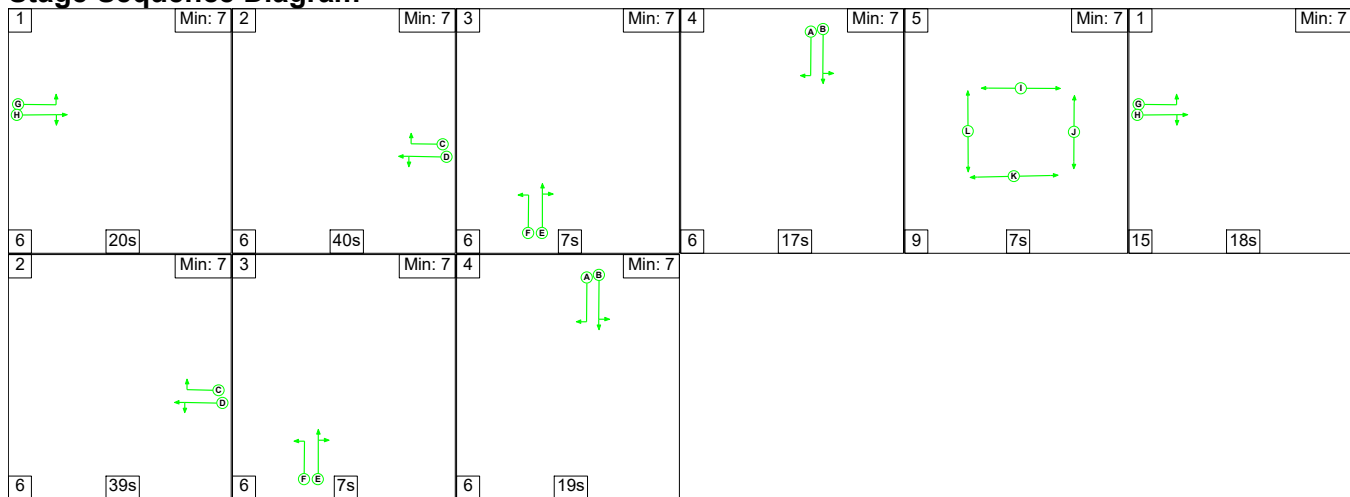
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.5	33.6	0.0	54.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	20.5	33.6	0.0	54.2	-	-	-	-
1/2+1/1	284	284	-	-	-	4.2	5.7	-	9.9	125.7	5.6	5.7	11.3
2/2+2/1	417	417	-	-	-	5.4	9.4	-	14.8	128.0	12.6	9.4	22.1
3/2+3/1	194	194	-	-	-	3.0	7.0	-	10.0	184.9	4.9	7.0	11.9
4/1+4/2	660	660	-	-	-	7.9	11.5	-	19.4	106.1	16.0	11.5	27.5
5/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	184	184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		-11.2	Total Delay for Signalled Lanes (pcuHr):		54.16	Cycle Time (s): 120				
			PRC Over All Lanes (%):		-11.2	Total Delay Over All Lanes(pcuHr):		54.16					

Full Input Data And Results

Scenario 5: 'Scenario 5' (FG1: 'Year 2031 Dev1a AM', Plan 2: 'Network Control Plan 2')

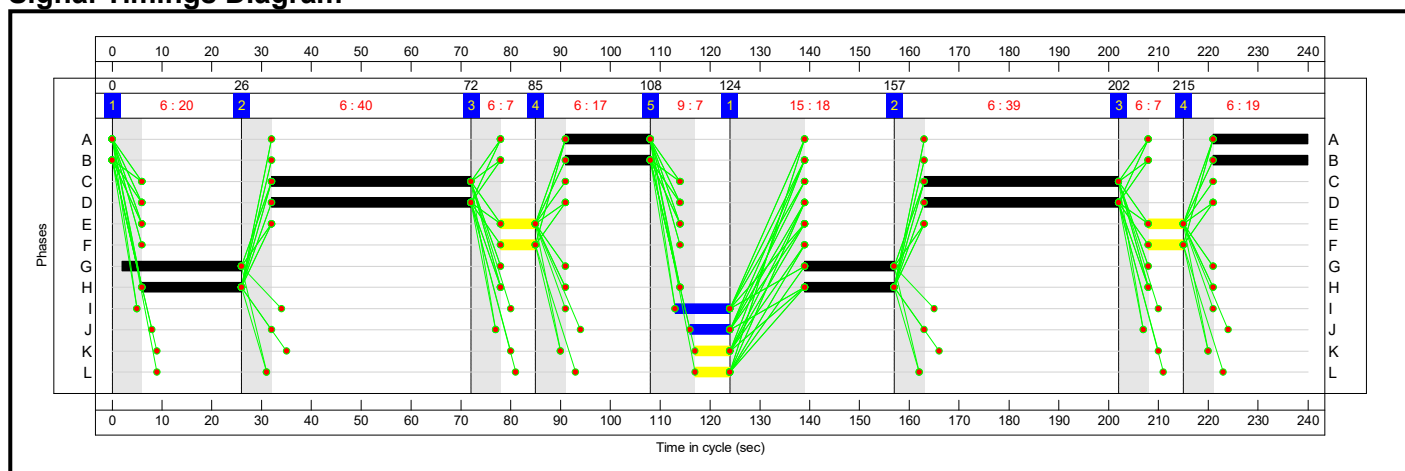
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	2	3	4
Duration	20	40	7	17	7	18	39	7	19
Change Point	0	26	72	85	108	124	157	202	215

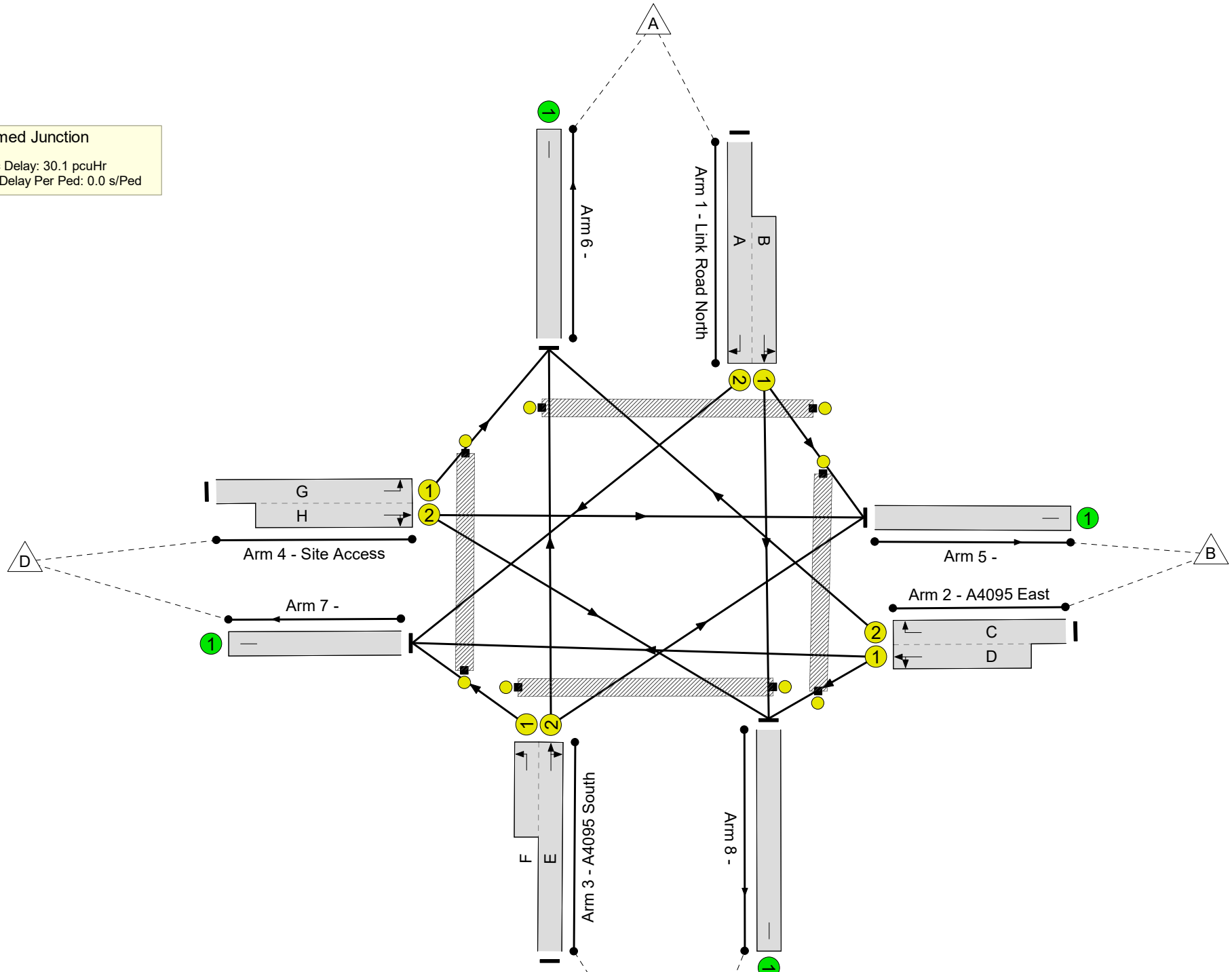
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 3.6 %
Total Traffic Delay: 30.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	86.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	86.9%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		2	36	-	456	1835:1914	281+251	85.8 : 85.8%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		2	79	-	593	1848:1917	614+68	86.9 : 86.9%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		2	14	-	115	1945:1830	130+32	71.0 : 71.0%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		2	42:38	-	466	1796:1949	220+325	85.6 : 85.6%
5/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	308	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

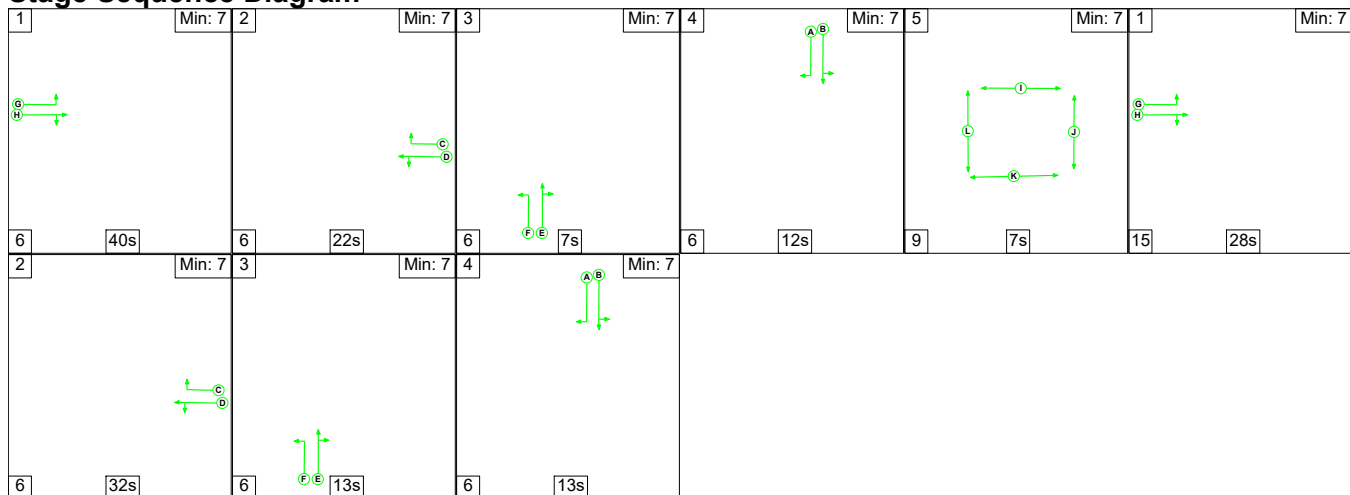
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.2	9.8	0.0	30.1	-	-	-	-
Unnamed Junction	-	-	0	0	0	20.2	9.8	0.0	30.1	-	-	-	-
1/2+1/1	456	456	-	-	-	6.2	2.8	-	9.0	71.2	8.6	2.8	11.4
2/2+2/1	593	593	-	-	-	6.1	3.1	-	9.2	55.8	19.5	3.1	22.6
3/2+3/1	115	115	-	-	-	1.8	1.2	-	2.9	91.4	3.3	1.2	4.4
4/1+4/2	466	466	-	-	-	6.2	2.8	-	9.0	69.2	10.0	2.8	12.8
5/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		3.6	Total Delay for Signalled Lanes (pcuHr):		30.09	Cycle Time (s): 240				
			PRC Over All Lanes (%):		3.6	Total Delay Over All Lanes(pcuHr):		30.09					

Full Input Data And Results

Scenario 6: 'Scenario 6' (FG2: 'Year 2031 Dev1a PM', Plan 2: 'Network Control Plan 2')

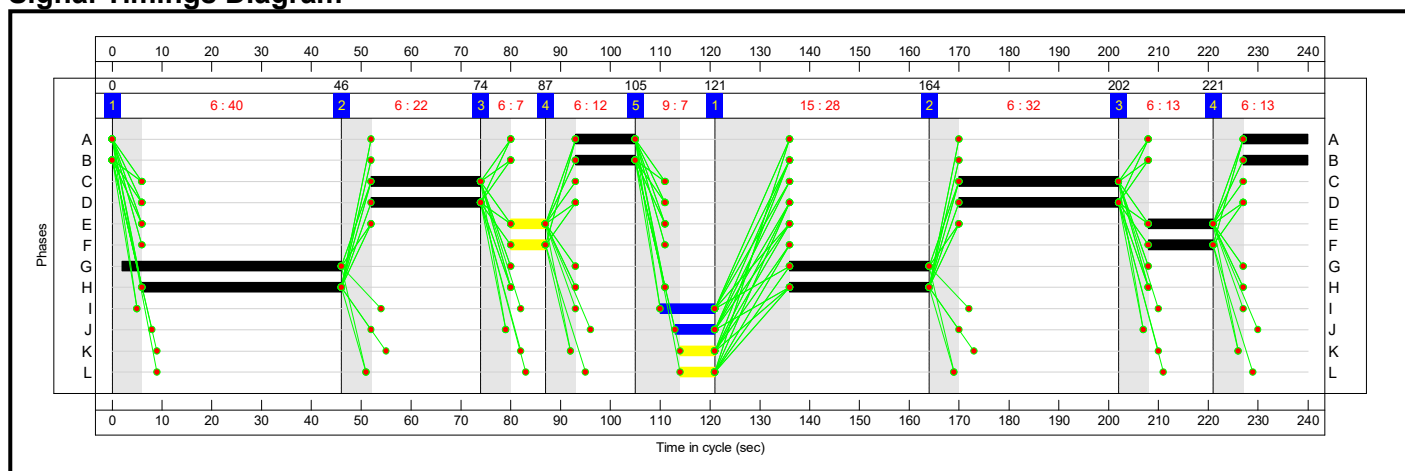
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	2	3	4
Duration	40	22	7	12	7	28	32	13	13
Change Point	0	46	74	87	105	121	164	202	221

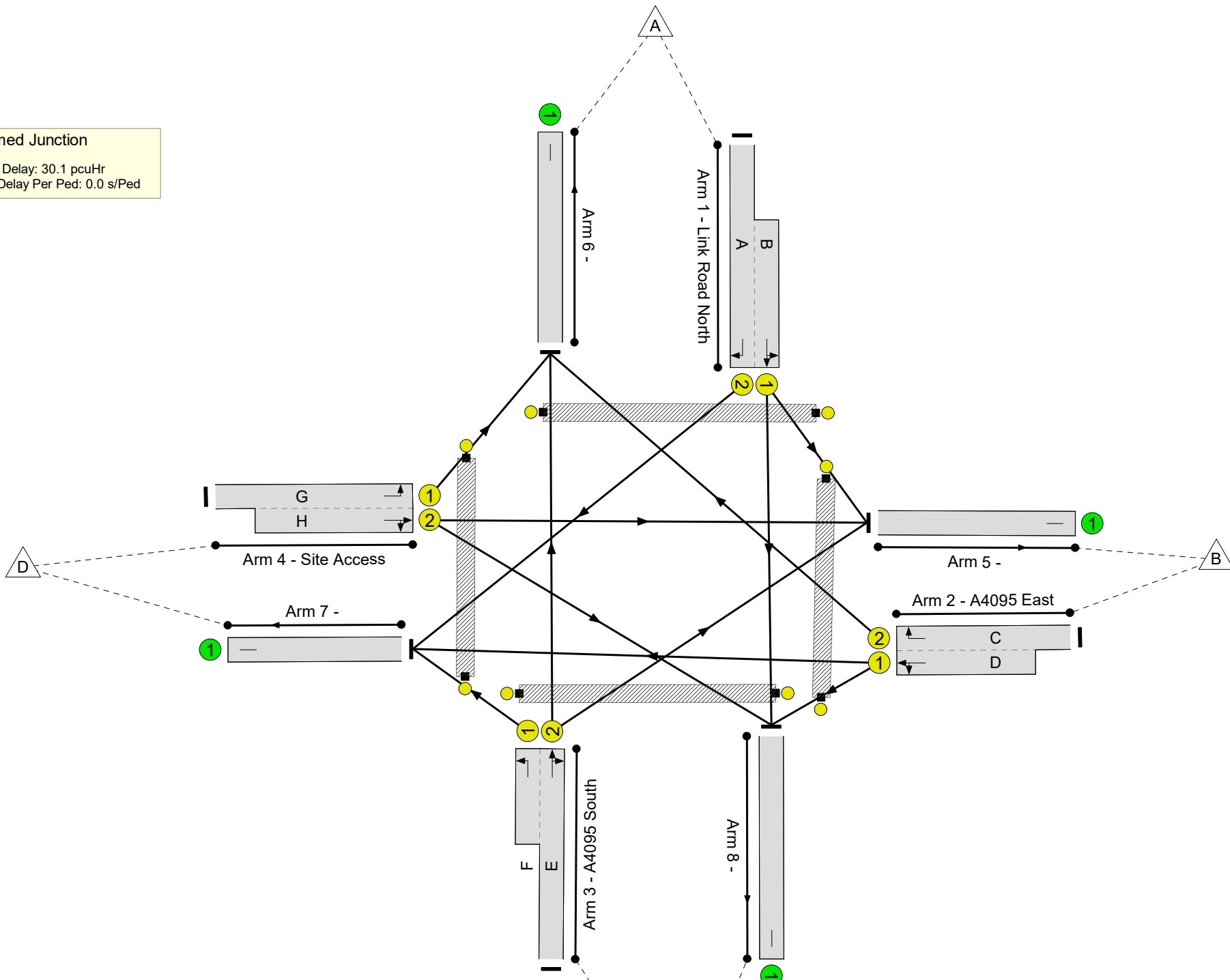
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 4.2 %
Total Traffic Delay: 30.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	86.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	86.3%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		2	25	-	344	1835:1926	201+217	80.7 : 84.0%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		2	54	-	409	1848:1896	431+44	86.0 : 86.0%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		2	20	-	195	1945:1830	178+58	82.5 : 82.5%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		2	72:68	-	683	1796:1941	286+505	86.3 : 86.3%
5/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

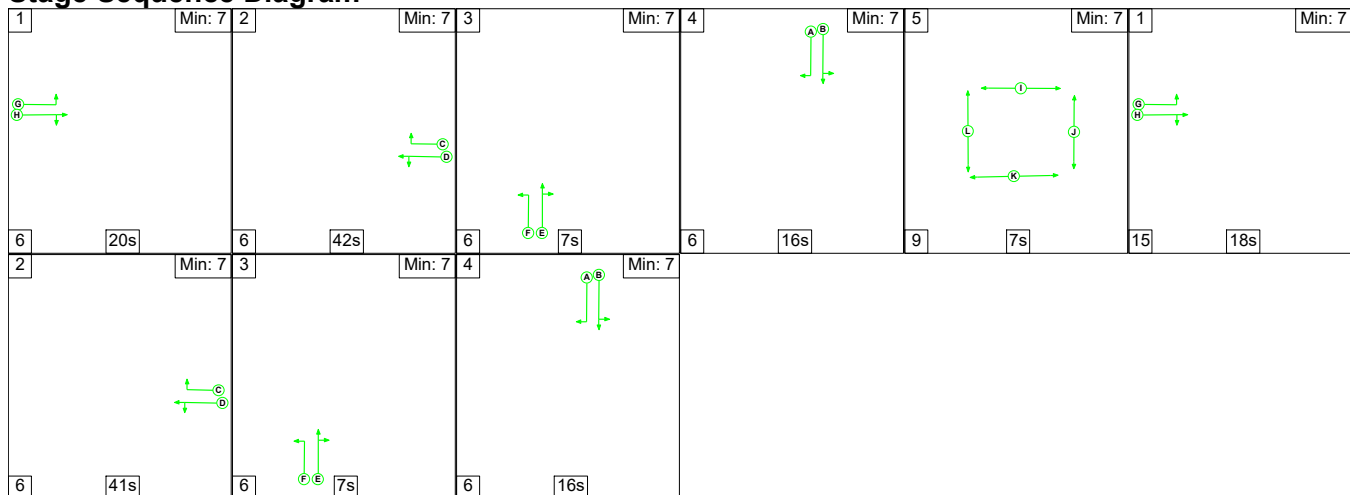
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	19.9	10.2	0.0	30.1	-	-	-	-
Unnamed Junction	-	-	0	0	0	19.9	10.2	0.0	30.1	-	-	-	-
1/2+1/1	344	344	-	-	-	5.1	2.2	-	7.3	76.1	6.7	2.2	8.9
2/2+2/1	409	409	-	-	-	4.9	2.8	-	7.8	68.4	12.2	2.8	15.0
3/2+3/1	195	195	-	-	-	2.9	2.1	-	5.0	92.9	5.3	2.1	7.4
4/1+4/2	683	683	-	-	-	7.0	3.0	-	10.0	52.7	14.5	3.0	17.5
5/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 4.2 Total Delay for Signalled Lanes (pcuHr): 30.08 Cycle Time (s): 240 PRC Over All Lanes (%): 4.2 Total Delay Over All Lanes(pcuHr): 30.08													

Full Input Data And Results

Scenario 7: 'Scenario 7' (FG3: 'Year 2031 Dev1b AM', Plan 2: 'Network Control Plan 2')

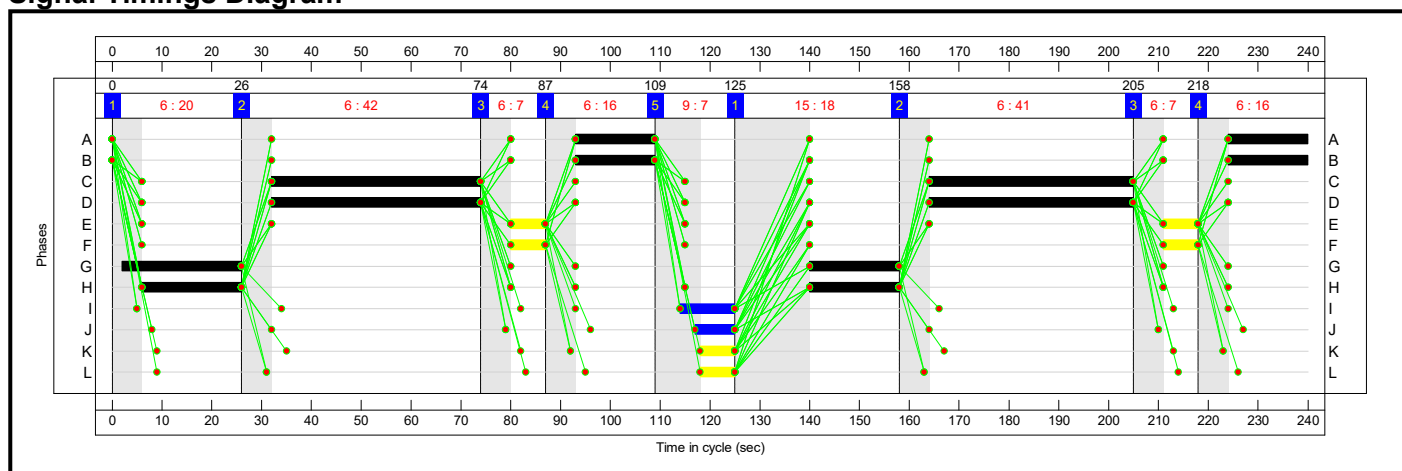
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	2	3	4
Duration	20	42	7	16	7	18	41	7	16
Change Point	0	26	74	87	109	125	158	205	218

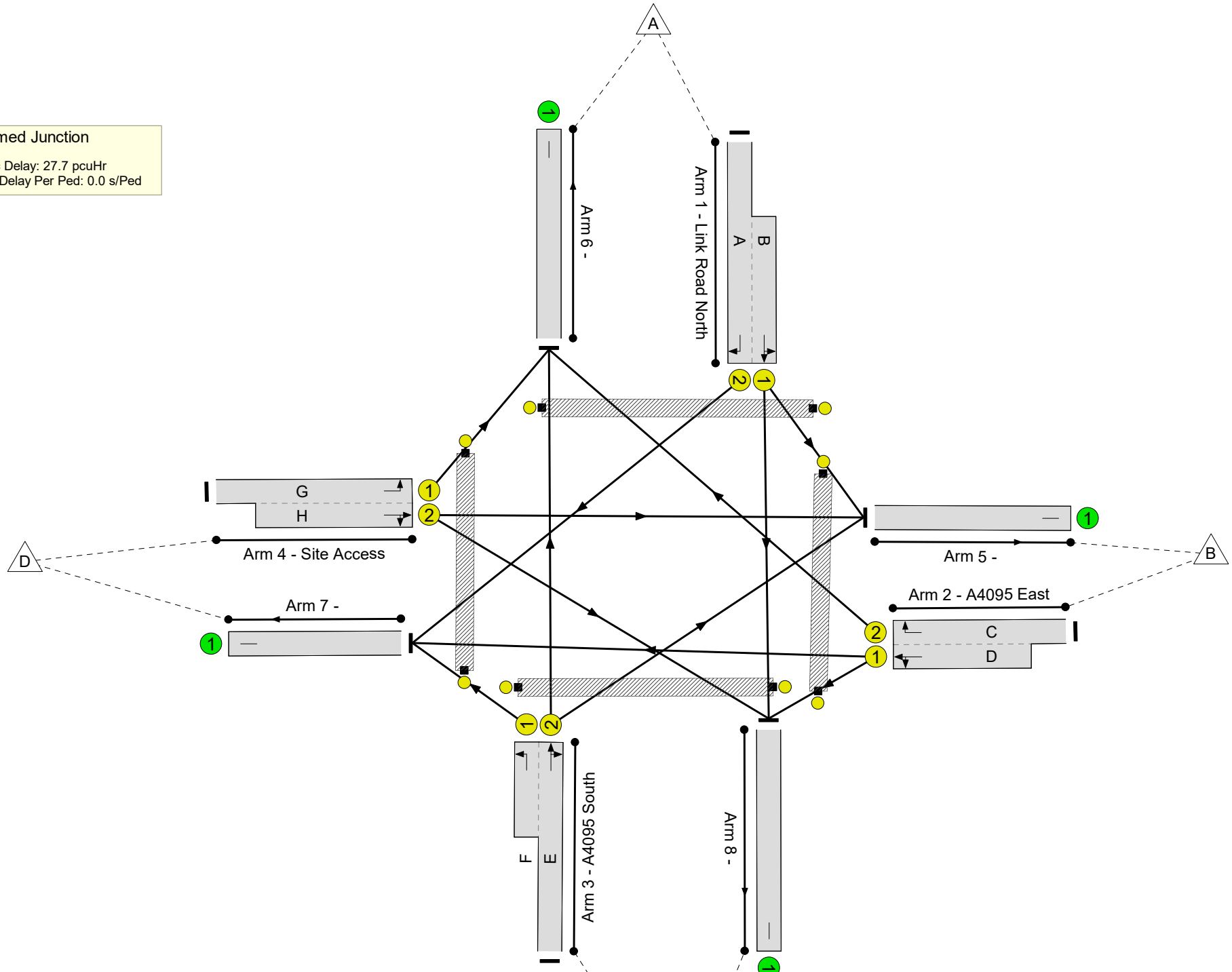
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 5.9 %
Total Traffic Delay: 27.7 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	85.0%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		2	32	-	407	1835:1915	260+228	83.5 : 83.5%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		2	83	-	596	1848:1914	647+61	84.3 : 84.3%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		2	14	-	114	1945:1830	130+33	70.2 : 70.2%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		2	42:38	-	430	1796:1949	181+325	85.0 : 85.0%
5/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

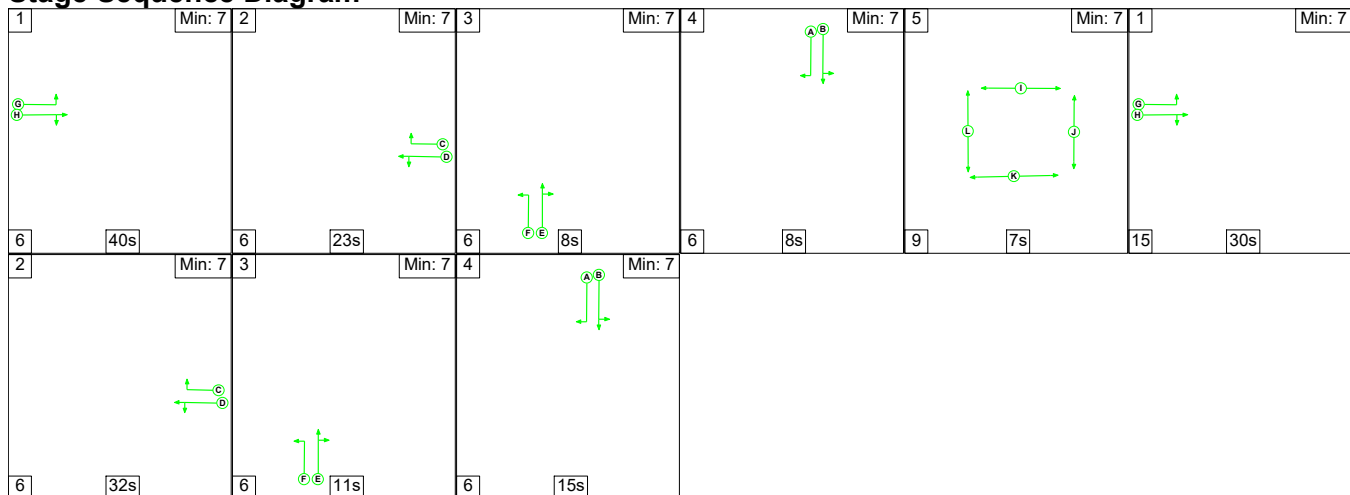
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	19.0	8.7	0.0	27.7	-	-	-	-
Unnamed Junction	-	-	0	0	0	19.0	8.7	0.0	27.7	-	-	-	-
1/2+1/1	407	407	-	-	-	5.7	2.4	-	8.1	71.3	7.8	2.4	10.2
2/2+2/1	596	596	-	-	-	5.9	2.6	-	8.5	51.2	19.8	2.6	22.3
3/2+3/1	114	114	-	-	-	1.7	1.1	-	2.9	90.5	3.3	1.1	4.4
4/1+4/2	430	430	-	-	-	5.7	2.6	-	8.3	69.9	10.0	2.6	12.7
5/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	782	782	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 5.9 Total Delay for Signalled Lanes (pcuHr): 27.75 Cycle Time (s): 240 PRC Over All Lanes (%): 5.9 Total Delay Over All Lanes(pcuHr): 27.75</p>													

Full Input Data And Results

Scenario 8: 'Scenario 8' (FG4: 'Year 2031 Dev1b PM', Plan 2: 'Network Control Plan 2')

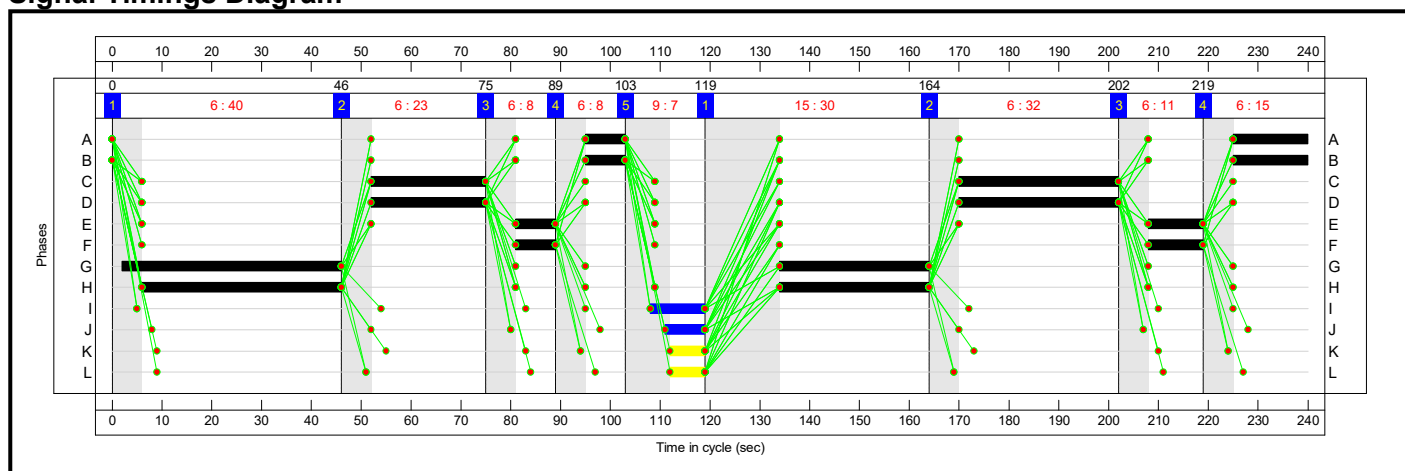
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	2	3	4
Duration	40	23	8	8	7	30	32	11	15
Change Point	0	46	75	89	103	119	164	202	219

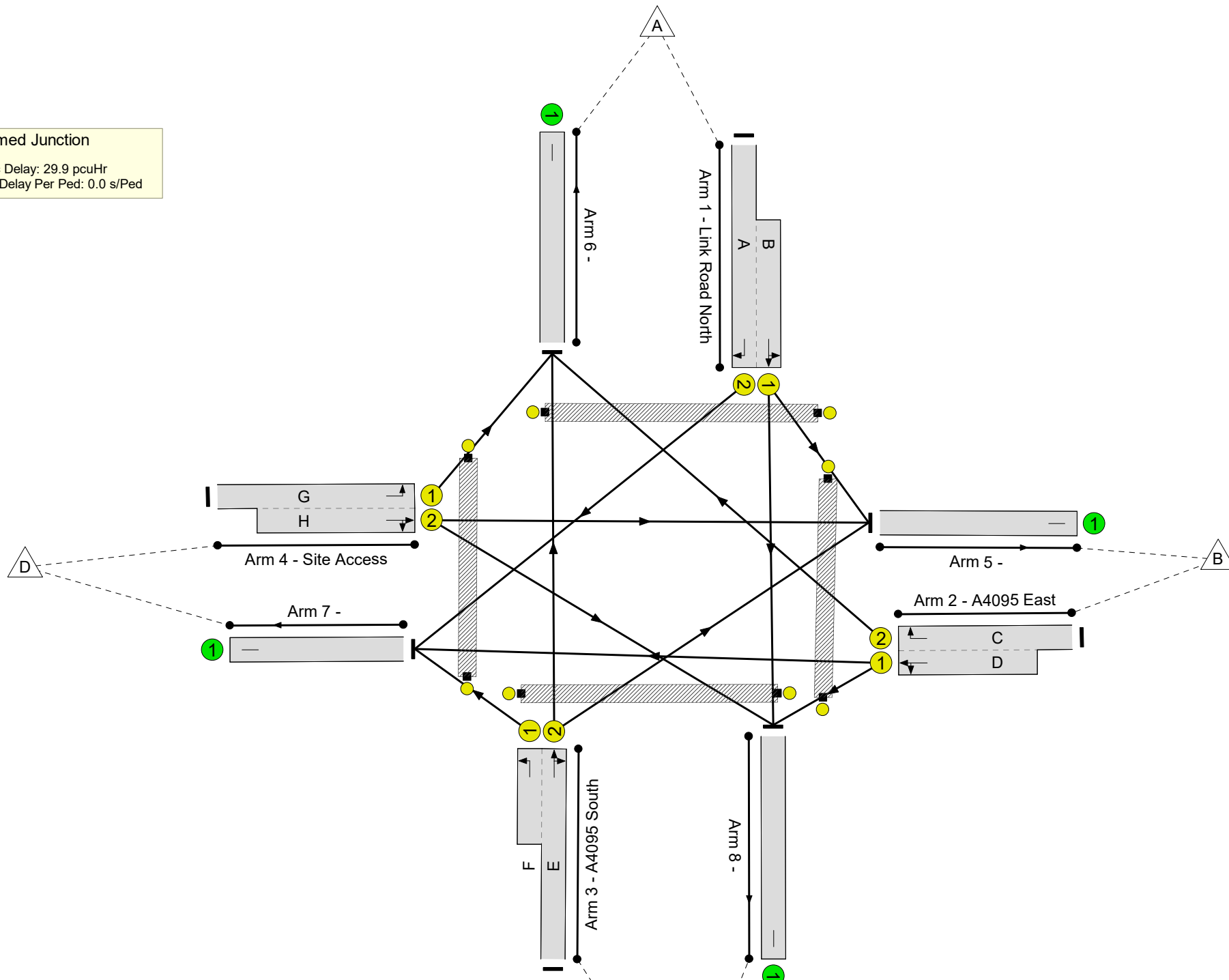
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Unnamed Junction
PRC: 3.4 %
Total Traffic Delay: 29.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
1/2+1/1	Link Road North Left Right Ahead	U	N/A	N/A	A B		2	23	-	284	1835:1932	137+201	84.0 : 84.0%
2/2+2/1	A4095 East Right Ahead Left	U	N/A	N/A	C D		2	55	-	417	1848:1895	439+40	87.0 : 87.0%
3/2+3/1	A4095 South Right Ahead Left	U	N/A	N/A	E F		2	19	-	194	1945:1830	170+56	85.8 : 85.8%
4/1+4/2	Site Access Ahead Left Right	U	N/A	N/A	G H		2	74:70	-	660	1796:1941	235+525	86.8 : 86.8%
5/1		U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	184	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	I		1	11	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	J		1	8	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	K		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	L		1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.8	11.2	0.0	29.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.8	11.2	0.0	29.9	-	-	-	-
1/2+1/1	284	284	-	-	-	4.2	2.4	-	6.6	83.6	6.2	2.4	8.6
2/2+2/1	417	417	-	-	-	5.0	3.1	-	8.1	69.7	12.5	3.1	15.6
3/2+3/1	194	194	-	-	-	2.9	2.6	-	5.5	101.9	5.2	2.6	7.7
4/1+4/2	660	660	-	-	-	6.7	3.1	-	9.8	53.4	15.0	3.1	18.1
5/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	184	184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 3.4 Total Delay for Signalled Lanes (pcuHr): 29.94 Cycle Time (s): 240 PRC Over All Lanes (%): 3.4 Total Delay Over All Lanes(pcuHr): 29.94</p>													

North West Bicester – Hawkwell Village

20300

Appendix L

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Junction 7 St Johns St - B4100 Mini RA Flat.j10
Path: Y:\PROJECT FOLDER\20300 Bicester\Calculations\Transport\ARCADY
Report generation date: 31/05/2023 09:26:15

- »Year 2031 Base, AM
- »Year 2031 Base, PM
- »Year 2031 Base + Committed, AM
- »Year 2031 Base + Committed, PM
- »Year 2031 + Dev 1a, AM
- »Year 2031 + Dev 1a, PM
- »Year 2031 + Dev 1b, AM
- »Year 2031 + Dev 1b, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2031 Base						
1 - B4100 North	173.2	708.53	1.22	128.4	525.99	1.16
2 - St Johns Street	3.8	21.66	0.78	4.1	24.36	0.80
3 - B4100 South	1.7	7.19	0.62	3.9	13.91	0.80
Year 2031 Base + Committed						
1 - B4100 North	143.3	592.08	1.18	143.3	586.18	1.18
2 - St Johns Street	4.1	22.68	0.79	4.3	25.23	0.81
3 - B4100 South	1.9	7.93	0.65	4.1	14.54	0.80
Year 2031 + Dev 1a						
1 - B4100 North	190.4	778.74	1.24	159.8	652.29	1.20
2 - St Johns Street	4.5	24.56	0.81	13.3	68.13	0.95
3 - B4100 South	2.0	8.03	0.65	4.8	16.91	0.83
Year 2031 + Dev 1b						
1 - B4100 North	183.1	751.02	1.23	152.5	622.90	1.19
2 - St Johns Street	4.4	24.20	0.81	12.6	65.02	0.94
3 - B4100 South	1.9	7.99	0.65	4.7	16.47	0.82

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	29/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JUBB\SRadford
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Year 2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	283.88	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		283.88	F

Arms

Arms

Arm	Name	Description
1	B4100 North	
2	St Johns Street	
3	B4100 South	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - B4100 North	3.70	3.70	4.60	2.6	14.50	11.00	0.0	✓
2 - St Johns Street	3.20	3.20	6.80	41.0	17.00	12.00	0.0	
3 - B4100 South	3.00	2.80	8.30	38.0	19.00	10.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B4100 North	0.525	892
2 - St Johns Street	0.710	1242
3 - B4100 South	0.616	1456

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	950	100.000
2 - St Johns Street		✓	650	100.000
3 - B4100 South		✓	842	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	245	705
	2 - St Johns Street	147	0	503
	3 - B4100 South	631	211	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	6	0
	2 - St Johns Street	11	0	9
	3 - B4100 South	2	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.22	708.53	173.2	F
2 - St Johns Street	0.78	21.66	3.8	C
3 - B4100 South	0.62	7.19	1.7	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	950	209	782	1.215	765	46.2	119.046	F
2 - St Johns Street	650	568	839	0.775	636	3.4	18.354	C
3 - B4100 South	842	144	1367	0.616	835	1.6	6.993	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	950	211	781	1.216	780	88.7	321.465	F
2 - St Johns Street	650	579	831	0.782	649	3.7	21.354	C
3 - B4100 South	842	147	1366	0.617	842	1.7	7.185	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	950	211	781	1.216	781	131.0	514.661	F
2 - St Johns Street	650	579	831	0.782	650	3.8	21.585	C
3 - B4100 South	842	147	1365	0.617	842	1.7	7.189	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	950	211	781	1.216	781	173.2	708.532	F
2 - St Johns Street	650	580	831	0.782	650	3.8	21.660	C
3 - B4100 South	842	147	1365	0.617	842	1.7	7.190	A

Year 2031 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	197.52	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		197.52	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	909	100.000
2 - St Johns Street		✓	630	100.000
3 - B4100 South		✓	1032	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	163	746
	2 - St Johns Street	259	0	371
	3 - B4100 South	831	201	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	9	0
	2 - St Johns Street	6	0	5
	3 - B4100 South	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.16	525.99	128.4	F
2 - St Johns Street	0.80	24.36	4.1	C
3 - B4100 South	0.80	13.91	3.9	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	909	198	788	1.154	766	35.7	95.666	F
2 - St Johns Street	630	629	796	0.792	616	3.6	19.722	C
3 - B4100 South	1032	253	1300	0.794	1017	3.7	12.467	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	909	201	786	1.156	785	66.8	246.785	F
2 - St Johns Street	630	644	785	0.802	629	4.0	23.789	C
3 - B4100 South	1032	258	1297	0.796	1031	3.8	13.819	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	909	201	786	1.156	786	97.7	386.210	F
2 - St Johns Street	630	645	785	0.803	630	4.1	24.211	C
3 - B4100 South	1032	259	1296	0.796	1032	3.9	13.889	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	909	201	786	1.156	786	128.4	525.994	F
2 - St Johns Street	630	645	784	0.803	630	4.1	24.363	C
3 - B4100 South	1032	259	1296	0.796	1032	3.9	13.912	B

Year 2031 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	229.19	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		229.19	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	915	100.000
2 - St Johns Street		✓	665	100.000
3 - B4100 South		✓	880	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	242	673
	2 - St Johns Street	166	0	499
	3 - B4100 South	661	219	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	6	0
	2 - St Johns Street	9	0	9
	3 - B4100 South	2	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.18	592.08	143.3	F
2 - St Johns Street	0.79	22.68	4.1	C
3 - B4100 South	0.65	7.93	1.9	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	915	217	778	1.176	758	39.2	104.302	F
2 - St Johns Street	665	558	846	0.786	651	3.6	18.855	C
3 - B4100 South	880	162	1356	0.649	872	1.9	7.655	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	915	219	777	1.178	775	74.1	273.979	F
2 - St Johns Street	665	570	837	0.794	664	3.9	22.275	C
3 - B4100 South	880	166	1354	0.650	880	1.9	7.918	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	915	219	777	1.178	776	108.7	432.774	F
2 - St Johns Street	665	571	837	0.795	665	4.0	22.583	C
3 - B4100 South	880	166	1354	0.650	880	1.9	7.923	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	915	219	777	1.178	777	143.3	592.080	F
2 - St Johns Street	665	571	837	0.795	665	4.1	22.682	C
3 - B4100 South	880	166	1354	0.650	880	1.9	7.925	A

Year 2031 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	219.93	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		219.93	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	923	100.000
2 - St Johns Street		✓	636	100.000
3 - B4100 South		✓	1043	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	165	758
	2 - St Johns Street	260	0	376
	3 - B4100 South	839	204	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	9	0
	2 - St Johns Street	6	0	5
	3 - B4100 South	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.18	586.18	143.3	F
2 - St Johns Street	0.81	25.23	4.3	D
3 - B4100 South	0.80	14.54	4.1	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	923	201	786	1.174	766	39.1	103.134	F
2 - St Johns Street	636	629	795	0.800	621	3.8	20.304	C
3 - B4100 South	1043	254	1300	0.803	1028	3.9	12.914	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	923	204	785	1.176	783	74.0	271.050	F
2 - St Johns Street	636	643	786	0.810	634	4.1	24.622	C
3 - B4100 South	1043	259	1296	0.805	1042	4.0	14.434	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	923	204	785	1.176	784	108.7	428.350	F
2 - St Johns Street	636	644	785	0.810	635	4.3	25.078	D
3 - B4100 South	1043	260	1296	0.805	1043	4.1	14.517	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	923	204	785	1.176	784	143.3	586.178	F
2 - St Johns Street	636	644	785	0.810	636	4.3	25.228	D
3 - B4100 South	1043	260	1296	0.805	1043	4.1	14.543	B

Year 2031 + Dev 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	306.76	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		306.76	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	966	100.000
2 - St Johns Street		✓	683	100.000
3 - B4100 South		✓	881	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	266	700
	2 - St Johns Street	173	0	510
	3 - B4100 South	667	214	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	6	0
	2 - St Johns Street	9	0	9
	3 - B4100 South	2	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.24	778.74	190.4	F
2 - St Johns Street	0.81	24.56	4.5	C
3 - B4100 South	0.65	8.03	2.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	966	212	781	1.238	765	50.2	128.118	F
2 - St Johns Street	683	554	849	0.805	667	4.0	20.125	C
3 - B4100 South	881	169	1352	0.652	873	1.9	7.742	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	966	214	780	1.239	779	97.0	350.349	F
2 - St Johns Street	683	564	842	0.811	682	4.3	24.079	C
3 - B4100 South	881	173	1350	0.653	881	1.9	8.019	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	966	214	780	1.239	779	143.7	564.182	F
2 - St Johns Street	683	565	841	0.812	683	4.5	24.434	C
3 - B4100 South	881	173	1349	0.653	881	1.9	8.025	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	966	214	780	1.239	779	190.4	778.736	F
2 - St Johns Street	683	565	841	0.812	683	4.5	24.555	C
3 - B4100 South	881	173	1349	0.653	881	2.0	8.027	A

Year 2031 + Dev 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	249.30	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		249.30	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	939	100.000
2 - St Johns Street		✓	747	100.000
3 - B4100 South		✓	1046	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	176	763
	2 - St Johns Street	315	0	432
	3 - B4100 South	840	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	9	0
	2 - St Johns Street	5	0	4
	3 - B4100 South	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.20	652.29	159.8	F
2 - St Johns Street	0.95	68.13	13.3	F
3 - B4100 South	0.83	16.91	4.8	C

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	939	203	786	1.195	767	42.9	111.411	F
2 - St Johns Street	747	624	800	0.934	713	8.6	35.191	E
3 - B4100 South	1046	301	1271	0.823	1029	4.4	14.351	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	939	206	784	1.198	783	82.0	297.837	F
2 - St Johns Street	747	636	791	0.945	737	11.1	56.610	F
3 - B4100 South	1046	311	1264	0.827	1045	4.6	16.611	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	939	206	784	1.198	783	120.9	474.734	F
2 - St Johns Street	747	637	790	0.945	742	12.4	63.906	F
3 - B4100 South	1046	313	1263	0.828	1046	4.7	16.828	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	939	206	784	1.198	784	159.8	652.287	F
2 - St Johns Street	747	637	790	0.945	743	13.3	68.125	F
3 - B4100 South	1046	313	1263	0.828	1046	4.8	16.915	C

Year 2031 + Dev 1b, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	295.29	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		295.29	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	957	100.000
2 - St Johns Street		✓	673	100.000
3 - B4100 South		✓	883	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	249	708
	2 - St Johns Street	168	0	505
	3 - B4100 South	666	217	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	6	0
	2 - St Johns Street	9	0	9
	3 - B4100 South	2	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.23	751.02	183.1	F
2 - St Johns Street	0.81	24.20	4.4	C
3 - B4100 South	0.65	7.99	1.9	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	957	215	779	1.229	763	48.5	124.534	F
2 - St Johns Street	673	564	842	0.800	657	3.9	19.908	C
3 - B4100 South	883	164	1355	0.652	875	1.9	7.714	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	957	217	778	1.230	777	93.5	338.932	F
2 - St Johns Street	673	575	834	0.807	672	4.2	23.740	C
3 - B4100 South	883	168	1353	0.653	883	1.9	7.987	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	957	217	778	1.230	778	138.3	544.622	F
2 - St Johns Street	673	575	834	0.807	673	4.3	24.081	C
3 - B4100 South	883	168	1353	0.653	883	1.9	7.992	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	957	217	778	1.230	778	183.1	751.021	F
2 - St Johns Street	673	575	834	0.807	673	4.4	24.197	C
3 - B4100 South	883	168	1352	0.653	883	1.9	7.995	A

Year 2031 + Dev 1b, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	237.81	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		237.81	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 North		✓	932	100.000
2 - St Johns Street		✓	741	100.000
3 - B4100 South		✓	1043	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	171	761
	2 - St Johns Street	310	0	431
	3 - B4100 South	838	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B4100 North	2 - St Johns Street	3 - B4100 South
From	1 - B4100 North	0	9	0
	2 - St Johns Street	5	0	4
	3 - B4100 South	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B4100 North	1.19	622.90	152.5	F
2 - St Johns Street	0.94	65.02	12.6	F
3 - B4100 South	0.82	16.47	4.7	C

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	932	202	786	1.186	767	41.2	107.698	F
2 - St Johns Street	741	626	798	0.929	708	8.2	34.404	D
3 - B4100 South	1043	296	1273	0.819	1026	4.2	14.076	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	932	205	784	1.188	783	78.4	285.876	F
2 - St Johns Street	741	639	788	0.940	732	10.6	54.654	F
3 - B4100 South	1043	306	1267	0.823	1042	4.5	16.196	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	932	205	784	1.188	784	115.5	454.084	F
2 - St Johns Street	741	640	788	0.940	736	11.8	61.287	F
3 - B4100 South	1043	308	1266	0.824	1043	4.6	16.394	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 North	932	205	784	1.188	784	152.5	622.904	F
2 - St Johns Street	741	640	788	0.941	738	12.6	65.015	F
3 - B4100 South	1043	309	1266	0.824	1043	4.7	16.470	C

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Junction 8 Buckingham Rd- B4100 Mini RA Flat.j10
Path: Y:\PROJECT FOLDER\20300 Bicester\Calculations\Transport\ARCADY
Report generation date: 31/05/2023 09:23:37

- »2031 Base, AM
- »2031 Base, PM
- »2031 Base + Committed, AM
- »2031 Base + Committed, PM
- »2031 + Dev 1a, AM
- »2031 + Dev 1a, PM
- »2031 + Dev 1b, AM
- »2031 + Dev 1b, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2031 Base						
1 - Banbury Rd	23.6	212.64	1.02	1.7	26.44	0.63
2 - Buckingham Rd	1.0	6.97	0.49	1.5	7.79	0.60
3 - B4100 South	3.8	18.73	0.79	74.1	262.23	1.07
2031 Base + Committed						
1 - Banbury Rd	10.9	109.51	0.94	1.7	26.18	0.63
2 - Buckingham Rd	0.9	6.72	0.48	1.5	7.86	0.60
3 - B4100 South	5.7	26.29	0.85	78.4	276.30	1.07
2031 + Dev 1a						
1 - Banbury Rd	6.2	58.10	0.87	2.3	32.68	0.70
2 - Buckingham Rd	1.0	7.07	0.50	1.2	7.08	0.55
3 - B4100 South	3.4	17.15	0.77	69.1	245.45	1.06
2031 + Dev 1b						
1 - Banbury Rd	11.2	111.98	0.95	1.6	25.12	0.62
2 - Buckingham Rd	0.9	6.59	0.47	1.3	7.33	0.57
3 - B4100 South	6.0	27.41	0.86	124.0	425.93	1.12

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	29/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JUBB\SRadford
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 Base	AM	FLAT	08:00	09:00	60	15
D2	2031 Base	PM	FLAT	17:00	18:00	60	15
D3	2031 Base + Committed	AM	FLAT	08:00	09:00	60	15
D4	2031 Base + Committed	PM	FLAT	17:00	18:00	60	15
D5	2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15
D6	2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15
D7	2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15
D8	2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	62.95	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		62.95	F

Arms

Arms

Arm	Name	Description
1	Banbury Rd	
2	Buckingham Rd	
3	B4100 South	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Banbury Rd	3.00	3.00	3.60	1.0	10.20	5.20	0.0	
2 - Buckingham Rd	3.10	3.10	4.20	1.7	18.50	20.00	0.0	✓
3 - B4100 South	2.90	2.90	4.30	1.4	15.60	14.00	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Banbury Rd	0.598	718
2 - Buckingham Rd	0.800	1346
3 - B4100 South	0.503	944

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 Base	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	411	100.000
2 - Buckingham Rd		✓	509	100.000
3 - B4100 South		✓	747	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	1	410
	2 - Buckingham Rd	1	0	508
	3 - B4100 South	220	527	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	0
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	1.02	212.64	23.6	F
2 - Buckingham Rd	0.49	6.97	1.0	A
3 - B4100 South	0.79	18.73	3.8	C

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	411	517	409	1.005	371	9.9	68.740	F
2 - Buckingham Rd	509	371	1049	0.485	505	0.9	6.636	A
3 - B4100 South	747	0.99	943	0.792	733	3.6	16.564	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	411	527	403	1.019	389	15.3	135.530	F
2 - Buckingham Rd	509	388	1035	0.492	509	1.0	6.906	A
3 - B4100 South	747	1.00	943	0.792	746	3.7	18.593	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	411	527	403	1.020	393	19.7	177.126	F
2 - Buckingham Rd	509	392	1032	0.493	509	1.0	6.952	A
3 - B4100 South	747	1.00	943	0.792	747	3.8	18.690	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	411	527	403	1.020	395	23.6	212.635	F
2 - Buckingham Rd	509	395	1030	0.494	509	1.0	6.973	A
3 - B4100 South	747	1.00	943	0.792	747	3.8	18.727	C

2031 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	142.24	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		142.24	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 Base	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	230	100.000
2 - Buckingham Rd		✓	697	100.000
3 - B4100 South		✓	1003	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	2	228
	2 - Buckingham Rd	4	0	693
	3 - B4100 South	376	627	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.63	26.44	1.7	D
2 - Buckingham Rd	0.60	7.79	1.5	A
3 - B4100 South	1.07	262.23	74.1	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	230	565	380	0.605	224	1.5	22.582	C
2 - Buckingham Rd	697	222	1168	0.597	691	1.5	7.533	A
3 - B4100 South	1003	4	942	1.065	904	24.6	61.494	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	230	584	369	0.623	229	1.6	25.891	D
2 - Buckingham Rd	697	227	1164	0.599	697	1.5	7.780	A
3 - B4100 South	1003	4	942	1.065	934	41.8	139.861	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	230	586	368	0.626	230	1.6	26.296	D
2 - Buckingham Rd	697	228	1164	0.599	697	1.5	7.788	A
3 - B4100 South	1003	4	942	1.065	938	58.2	201.800	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	230	587	367	0.627	230	1.7	26.442	D
2 - Buckingham Rd	697	228	1164	0.599	697	1.5	7.789	A
3 - B4100 South	1003	4	942	1.065	939	74.1	262.233	F

2031 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	39.21	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		39.21	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2031 Base + Committed	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	381	100.000
2 - Buckingham Rd		✓	504	100.000
3 - B4100 South		✓	805	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	1	380
	2 - Buckingham Rd	1	0	503
	3 - B4100 South	279	526	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.94	109.51	10.9	F
2 - Buckingham Rd	0.48	6.72	0.9	A
3 - B4100 South	0.85	26.29	5.7	D

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	381	513	412	0.926	355	6.4	51.978	F
2 - Buckingham Rd	504	354	1062	0.474	500	0.9	6.429	A
3 - B4100 South	805	0.99	943	0.854	785	5.1	21.144	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	381	525	404	0.943	372	8.6	86.819	F
2 - Buckingham Rd	504	371	1049	0.480	504	0.9	6.667	A
3 - B4100 South	805	1.00	943	0.854	803	5.5	25.719	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	381	526	404	0.944	376	10.0	100.747	F
2 - Buckingham Rd	504	375	1046	0.482	504	0.9	6.705	A
3 - B4100 South	805	1.00	943	0.854	804	5.6	26.126	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	381	526	404	0.944	377	10.9	109.506	F
2 - Buckingham Rd	504	376	1045	0.482	504	0.9	6.721	A
3 - B4100 South	805	1.00	943	0.854	805	5.7	26.287	D

2031 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 87% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	149.54	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		149.54	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2031 Base + Committed	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	233	100.000
2 - Buckingham Rd		✓	699	100.000
3 - B4100 South		✓	1008	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	2	231
	2 - Buckingham Rd	4	0	695
	3 - B4100 South	386	622	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.63	26.18	1.7	D
2 - Buckingham Rd	0.60	7.86	1.5	A
3 - B4100 South	1.07	276.30	78.4	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	233	559	384	0.607	227	1.5	22.448	C
2 - Buckingham Rd	699	225	1166	0.600	693	1.5	7.599	A
3 - B4100 South	1008	4	942	1.071	906	25.6	63.145	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	233	577	373	0.624	232	1.6	25.668	D
2 - Buckingham Rd	699	230	1162	0.602	699	1.5	7.854	A
3 - B4100 South	1008	4	942	1.071	935	43.8	145.326	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	233	579	372	0.626	233	1.6	26.043	D
2 - Buckingham Rd	699	231	1161	0.602	699	1.5	7.862	A
3 - B4100 South	1008	4	942	1.071	938	61.3	211.459	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	233	580	371	0.627	233	1.7	26.175	D
2 - Buckingham Rd	699	231	1161	0.602	699	1.5	7.863	A
3 - B4100 South	1008	4	942	1.071	939	78.4	276.297	F

2031 + Dev 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	24.02	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		24.02	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	403	100.000
2 - Buckingham Rd		✓	515	100.000
3 - B4100 South		✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	403
	2 - Buckingham Rd	1	0	514
	3 - B4100 South	299	429	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	0
	3 - B4100 South	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.87	58.10	6.2	F
2 - Buckingham Rd	0.50	7.07	1.0	A
3 - B4100 South	0.77	17.15	3.4	C

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	403	421	466	0.865	384	4.7	38.361	E
2 - Buckingham Rd	515	384	1039	0.496	511	1.0	6.777	A
3 - B4100 South	728	0.99	943	0.772	715	3.2	15.461	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	403	429	462	0.873	400	5.6	53.598	F
2 - Buckingham Rd	515	400	1026	0.502	515	1.0	7.038	A
3 - B4100 South	728	1.00	943	0.772	728	3.3	17.063	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	403	429	462	0.873	402	5.9	56.685	F
2 - Buckingham Rd	515	402	1025	0.503	515	1.0	7.062	A
3 - B4100 South	728	1.00	943	0.772	728	3.4	17.126	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	403	429	462	0.873	402	6.2	58.098	F
2 - Buckingham Rd	515	402	1024	0.503	515	1.0	7.069	A
3 - B4100 South	728	1.00	943	0.772	728	3.4	17.150	C

2031 + Dev 1a, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	136.98	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		136.98	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	262	100.000
2 - Buckingham Rd		✓	623	100.000
3 - B4100 South		✓	998	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	262
	2 - Buckingham Rd	2	0	621
	3 - B4100 South	384	614	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.70	32.68	2.3	D
2 - Buckingham Rd	0.55	7.08	1.2	A
3 - B4100 South	1.06	245.45	69.1	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	262	556	386	0.679	254	2.0	26.330	D
2 - Buckingham Rd	623	254	1143	0.545	618	1.2	6.873	A
3 - B4100 South	998	2	943	1.059	904	23.6	59.509	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	262	575	374	0.700	261	2.2	31.618	D
2 - Buckingham Rd	623	261	1137	0.548	623	1.2	7.068	A
3 - B4100 South	998	2	943	1.059	934	39.5	133.324	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	262	577	373	0.702	262	2.3	32.391	D
2 - Buckingham Rd	623	262	1137	0.548	623	1.2	7.078	A
3 - B4100 South	998	2	943	1.059	938	54.5	190.279	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	262	578	372	0.704	262	2.3	32.685	D
2 - Buckingham Rd	623	262	1136	0.548	623	1.2	7.079	A
3 - B4100 South	998	2	943	1.059	940	69.1	245.454	F

2031 + Dev 1b, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	40.47	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		40.47	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	384	100.000
2 - Buckingham Rd		✓	498	100.000
3 - B4100 South		✓	811	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	10	374
	2 - Buckingham Rd	1	0	497
	3 - B4100 South	288	523	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.95	111.98	11.2	F
2 - Buckingham Rd	0.47	6.59	0.9	A
3 - B4100 South	0.86	27.41	6.0	D

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	384	509	414	0.929	358	6.5	52.306	F
2 - Buckingham Rd	498	349	1067	0.467	495	0.9	6.314	A
3 - B4100 South	811	0.99	943	0.860	790	5.3	21.736	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	384	522	406	0.946	375	8.8	88.018	F
2 - Buckingham Rd	498	365	1054	0.473	498	0.9	6.536	A
3 - B4100 South	811	1.00	943	0.860	809	5.7	26.742	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	384	523	406	0.947	378	10.2	102.647	F
2 - Buckingham Rd	498	369	1051	0.474	498	0.9	6.573	A
3 - B4100 South	811	1.00	943	0.860	810	5.9	27.219	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	384	523	406	0.947	380	11.2	111.981	F
2 - Buckingham Rd	498	370	1050	0.474	498	0.9	6.588	A
3 - B4100 South	811	1.00	943	0.860	811	6.0	27.415	D

2031 + Dev 1b, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 87% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	235.77	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		235.77	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Banbury Rd		✓	235	100.000
2 - Buckingham Rd		✓	664	100.000
3 - B4100 South		✓	1058	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	2	233
	2 - Buckingham Rd	4	0	660
	3 - B4100 South	421	637	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Banbury Rd	2 - Buckingham Rd	3 - B4100 South
From	1 - Banbury Rd	0	0	1
	2 - Buckingham Rd	0	0	1
	3 - B4100 South	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Banbury Rd	0.62	25.12	1.6	D
2 - Buckingham Rd	0.57	7.33	1.3	A
3 - B4100 South	1.12	425.93	124.0	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	235	551	388	0.605	229	1.5	22.107	C
2 - Buckingham Rd	664	227	1164	0.570	659	1.3	7.123	A
3 - B4100 South	1058	4	942	1.124	916	35.6	80.902	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	235	565	380	0.618	235	1.6	24.839	C
2 - Buckingham Rd	664	233	1160	0.572	664	1.3	7.327	A
3 - B4100 South	1058	4	942	1.124	939	65.4	204.062	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	235	566	380	0.619	235	1.6	25.059	D
2 - Buckingham Rd	664	233	1160	0.573	664	1.3	7.334	A
3 - B4100 South	1058	4	942	1.124	940	94.8	314.950	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Banbury Rd	235	566	379	0.619	235	1.6	25.124	D
2 - Buckingham Rd	664	233	1160	0.573	664	1.3	7.334	A
3 - B4100 South	1058	4	942	1.124	941	124.0	425.930	F

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Junction 19 A4095 - B4030 RA Flat.j10
Path: Y:\PROJECT FOLDER\20300 Bicester\Calculations\Transport\ARCADY
Report generation date: 31/05/2023 09:21:36

- »Year 2031 Base, AM
- »Year 2031 Base, PM
- »Year 2031 Base + Committed, AM
- »Year 2031 Base + Committed, PM
- »Year 2031 + Dev 1a, AM
- »Year 2031 + Dev 1a, PM
- »Year 2031 + Dev 1b, AM
- »Year 2031 + Dev 1b, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2031 Base						
1 - A4095 Howes Ln N	3.4	15.89	0.75	0.9	6.74	0.44
2 - B4030 Middleton Stoney Rd	3.3	16.58	0.76	0.9	6.21	0.49
3 - A4095 South	0.8	4.97	0.42	3.1	10.17	0.75
4 - B4030 West	1.2	6.85	0.55	1.5	9.68	0.60
Year 2031 Base + Committed						
1 - A4095 Howes Ln N	4.5	21.16	0.80	1.0	7.36	0.48
2 - B4030 Middleton Stoney Rd	4.5	21.71	0.82	1.2	6.98	0.53
3 - A4095 South	0.9	5.40	0.45	3.7	12.13	0.78
4 - B4030 West	2.2	10.29	0.69	2.0	11.47	0.66
Year 2031 + Dev 1a						
1 - A4095 Howes Ln N	8.2	35.48	0.89	1.2	8.16	0.53
2 - B4030 Middleton Stoney Rd	5.8	27.42	0.86	1.3	7.73	0.57
3 - A4095 South	0.9	5.50	0.46	5.0	15.71	0.83
4 - B4030 West	2.3	10.75	0.70	2.4	13.60	0.70
Year 2031 + Dev 1b						
1 - A4095 Howes Ln N	7.2	31.41	0.87	1.1	7.76	0.50
2 - B4030 Middleton Stoney Rd	5.4	25.49	0.85	1.3	7.49	0.56
3 - A4095 South	0.9	5.31	0.44	4.6	14.55	0.82
4 - B4030 West	2.2	10.08	0.68	2.2	12.80	0.69

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	A4095/B4030 RA
Location	Bicester
Site number	Junction 19
Date	26/05/2023
Version	A
Status	(new file)
Identifier	SR
Client	HLM
Jobnumber	20300
Enumerator	JUBB\SRadford
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15	✓
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15	✓
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15	✓
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15	✓
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15	✓
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15	✓
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15	✓
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

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

Year 2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	11.60	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.60	B

Arms

Arms

Arm	Name	Description	No give-way line
1	A4095 Howes Ln N		
2	B4030 Middleton Stoney Rd		
3	A4095 South		
4	B4030 West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A4095 Howes Ln N	3.40	6.21	9.8	21.0	54.0	18.0		
2 - B4030 Middleton Stoney Rd	3.65	6.90	7.7	20.0	54.0	40.0		
3 - A4095 South	4.13	7.13	8.8	25.0	54.0	20.0		
4 - B4030 West	3.50	7.10	5.9	20.0	54.0	26.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4095 Howes Ln N	0.572	1539
2 - B4030 Middleton Stoney Rd	0.538	1472
3 - A4095 South	0.613	1761
4 - B4030 West	0.547	1447

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	787	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	723	100.000
3 - A4095 South		FLAT	✓	586	100.000
4 - B4030 West		FLAT	✓	650	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	66	628	93
	2 - B4030 Middleton Stoney Rd	45	4	230	444
	3 - A4095 South	214	219	0	153
	4 - B4030 West	20	377	253	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	33	17	6
	2 - B4030 Middleton Stoney Rd	45	0	0	3
	3 - A4095 South	43	0	0	1
	4 - B4030 West	14	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.75	15.89	3.4	C	787	787
2 - B4030 Middleton Stoney Rd	0.76	16.58	3.3	C	723	723
3 - A4095 South	0.42	4.97	0.8	A	586	586
4 - B4030 West	0.55	6.85	1.2	A	650	650

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	787	197	847	1054	0.746	774	277	0.0	3.2	14.405	B
2 - B4030 Middleton Stoney Rd	723	181	960	955	0.757	711	661	0.0	3.0	14.659	B
3 - A4095 South	586	147	576	1408	0.416	583	1095	0.0	0.8	4.897	A
4 - B4030 West	650	163	479	1186	0.548	645	680	0.0	1.2	6.706	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	787	197	853	1051	0.749	786	279	3.2	3.4	15.813	C
2 - B4030 Middleton Stoney Rd	723	181	974	948	0.763	722	666	3.0	3.2	16.448	C
3 - A4095 South	586	147	585	1402	0.418	586	1110	0.8	0.8	4.968	A
4 - B4030 West	650	163	482	1184	0.549	650	690	1.2	1.2	6.845	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	787	197	853	1051	0.749	787	279	3.4	3.4	15.868	C
2 - B4030 Middleton Stoney Rd	723	181	974	948	0.763	723	666	3.2	3.2	16.546	C
3 - A4095 South	586	147	586	1402	0.418	586	1111	0.8	0.8	4.970	A
4 - B4030 West	650	163	482	1184	0.549	650	690	1.2	1.2	6.845	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	787	197	853	1051	0.749	787	279	3.4	3.4	15.888	C
2 - B4030 Middleton Stoney Rd	723	181	974	948	0.763	723	666	3.2	3.3	16.575	C
3 - A4095 South	586	147	586	1402	0.418	586	1111	0.8	0.8	4.970	A
4 - B4030 West	650	163	482	1184	0.549	650	690	1.2	1.2	6.845	A

Year 2031 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	8.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	458	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	551	100.000
3 - A4095 South		FLAT	✓	1095	100.000
4 - B4030 West		FLAT	✓	572	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	36	355	67
	2 - B4030 Middleton Stoney Rd	45	3	129	374
	3 - A4095 South	477	375	0	243
	4 - B4030 West	65	304	203	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	0	8	10
	2 - B4030 Middleton Stoney Rd	8	0	1	0
	3 - A4095 South	8	0	0	1
	4 - B4030 West	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.44	6.74	0.9	A	458	458
2 - B4030 Middleton Stoney Rd	0.49	6.21	0.9	A	551	551
3 - A4095 South	0.75	10.17	3.1	B	1095	1095
4 - B4030 West	0.60	9.68	1.5	A	572	572

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	458	115	876	1038	0.441	455	581	0.0	0.8	6.605	A
2 - B4030 Middleton Stoney Rd	551	138	620	1138	0.484	547	711	0.0	0.9	6.104	A
3 - A4095 South	1095	274	486	1463	0.748	1083	681	0.0	3.0	9.533	A
4 - B4030 West	572	143	890	961	0.595	566	678	0.0	1.5	9.282	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	458	115	885	1033	0.443	458	587	0.8	0.9	6.739	A
2 - B4030 Middleton Stoney Rd	551	138	625	1136	0.485	551	718	0.9	0.9	6.207	A
3 - A4095 South	1095	274	489	1461	0.749	1095	687	3.0	3.0	10.148	B
4 - B4030 West	572	143	900	956	0.599	572	684	1.5	1.5	9.673	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	458	115	885	1033	0.444	458	587	0.9	0.9	6.740	A
2 - B4030 Middleton Stoney Rd	551	138	625	1136	0.485	551	718	0.9	0.9	6.208	A
3 - A4095 South	1095	274	489	1461	0.749	1095	687	3.0	3.0	10.163	B
4 - B4030 West	572	143	900	955	0.599	572	684	1.5	1.5	9.681	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	458	115	885	1033	0.444	458	587	0.9	0.9	6.740	A
2 - B4030 Middleton Stoney Rd	551	138	625	1136	0.485	551	718	0.9	0.9	6.208	A
3 - A4095 South	1095	274	489	1461	0.749	1095	687	3.0	3.1	10.169	B
4 - B4030 West	572	143	900	955	0.599	572	684	1.5	1.5	9.683	A

Year 2031 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	15.10	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.10	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	783	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	773	100.000
3 - A4095 South		FLAT	✓	622	100.000
4 - B4030 West		FLAT	✓	793	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	81	605	97
	2 - B4030 Middleton Stoney Rd	72	4	230	467
	3 - A4095 South	252	221	0	149
	4 - B4030 West	41	472	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	37	16	6
	2 - B4030 Middleton Stoney Rd	25	0	0	3
	3 - A4095 South	35	0	0	1
	4 - B4030 West	6	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.80	21.16	4.5	C	783	783
2 - B4030 Middleton Stoney Rd	0.82	21.71	4.5	C	773	773
3 - A4095 South	0.45	5.40	0.9	A	622	622
4 - B4030 West	0.69	10.29	2.2	B	793	793

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	783	196	967	986	0.795	767	362	0.0	4.1	18.024	C
2 - B4030 Middleton Stoney Rd	773	193	964	953	0.811	757	770	0.0	4.0	17.823	C
3 - A4095 South	622	156	627	1377	0.452	618	1095	0.0	0.9	5.292	A
4 - B4030 West	793	198	545	1150	0.690	784	700	0.0	2.2	9.769	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	783	196	977	980	0.799	782	365	4.1	4.4	20.898	C
2 - B4030 Middleton Stoney Rd	773	193	981	944	0.819	772	778	4.0	4.4	21.286	C
3 - A4095 South	622	156	639	1369	0.454	622	1114	0.9	0.9	5.395	A
4 - B4030 West	793	198	549	1147	0.691	793	712	2.2	2.2	10.276	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	783	196	977	980	0.799	783	365	4.4	4.4	21.094	C
2 - B4030 Middleton Stoney Rd	773	193	982	944	0.819	773	778	4.4	4.5	21.604	C
3 - A4095 South	622	156	640	1369	0.454	622	1115	0.9	0.9	5.398	A
4 - B4030 West	793	198	549	1147	0.691	793	713	2.2	2.2	10.288	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	783	196	977	980	0.799	783	365	4.4	4.5	21.158	C
2 - B4030 Middleton Stoney Rd	773	193	982	944	0.819	773	778	4.5	4.5	21.706	C
3 - A4095 South	622	156	640	1369	0.454	622	1115	0.9	0.9	5.399	A
4 - B4030 West	793	198	549	1147	0.691	793	713	2.2	2.2	10.291	B

Year 2031 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	10.08	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.08	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	481	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	598	100.000
3 - A4095 South		FLAT	✓	1116	100.000
4 - B4030 West		FLAT	✓	629	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	37	362	82
	2 - B4030 Middleton Stoney Rd	47	3	128	420
	3 - A4095 South	484	372	0	260
	4 - B4030 West	72	343	214	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	0	8	8
	2 - B4030 Middleton Stoney Rd	8	0	1	0
	3 - A4095 South	8	0	0	1
	4 - B4030 West	2	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.48	7.36	1.0	A	481	481
2 - B4030 Middleton Stoney Rd	0.53	6.98	1.2	A	598	598
3 - A4095 South	0.78	12.13	3.7	B	1116	1116
4 - B4030 West	0.66	11.47	2.0	B	629	629

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	481	120	921	1012	0.475	477	596	0.0	1.0	7.172	A
2 - B4030 Middleton Stoney Rd	598	150	652	1121	0.533	593	746	0.0	1.1	6.820	A
3 - A4095 South	1116	279	548	1425	0.783	1102	698	0.0	3.5	11.093	B
4 - B4030 West	629	157	895	958	0.656	621	755	0.0	1.9	10.787	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	481	120	932	1006	0.478	481	603	1.0	1.0	7.360	A
2 - B4030 Middleton Stoney Rd	598	150	658	1118	0.535	598	755	1.1	1.1	6.977	A
3 - A4095 South	1116	279	552	1423	0.784	1116	704	3.5	3.6	12.087	B
4 - B4030 West	629	157	906	952	0.660	629	762	1.9	2.0	11.449	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	481	120	932	1006	0.478	481	603	1.0	1.0	7.362	A
2 - B4030 Middleton Stoney Rd	598	150	658	1118	0.535	598	755	1.1	1.2	6.978	A
3 - A4095 South	1116	279	552	1423	0.784	1116	704	3.6	3.7	12.121	B
4 - B4030 West	629	157	906	952	0.661	629	762	2.0	2.0	11.469	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	481	120	932	1006	0.478	481	603	1.0	1.0	7.362	A
2 - B4030 Middleton Stoney Rd	598	150	658	1118	0.535	598	755	1.2	1.2	6.978	A
3 - A4095 South	1116	279	552	1423	0.784	1116	704	3.7	3.7	12.133	B
4 - B4030 West	629	157	906	952	0.661	629	762	2.0	2.0	11.475	B

Year 2031 + Dev 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	21.00	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.00	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	872	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	796	100.000
3 - A4095 South		FLAT	✓	621	100.000
4 - B4030 West		FLAT	✓	791	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	118	653	101
	2 - B4030 Middleton Stoney Rd	85	4	231	476
	3 - A4095 South	274	218	0	129
	4 - B4030 West	42	494	255	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	23	14	6
	2 - B4030 Middleton Stoney Rd	20	0	0	3
	3 - A4095 South	31	0	0	1
	4 - B4030 West	6	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.89	35.48	8.2	E	872	872
2 - B4030 Middleton Stoney Rd	0.86	27.42	5.8	D	796	796
3 - A4095 South	0.46	5.50	0.9	A	621	621
4 - B4030 West	0.70	10.75	2.3	B	791	791

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	872	218	961	989	0.882	845	397	0.0	6.7	25.162	D
2 - B4030 Middleton Stoney Rd	796	199	983	943	0.844	777	823	0.0	4.8	20.522	C
3 - A4095 South	621	155	649	1363	0.456	617	1110	0.0	0.9	5.375	A
4 - B4030 West	791	198	576	1133	0.698	782	691	0.0	2.3	10.154	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	872	218	971	984	0.887	868	401	6.7	7.6	33.606	D
2 - B4030 Middleton Stoney Rd	796	199	1006	931	0.855	793	833	4.8	5.5	26.252	D
3 - A4095 South	621	155	664	1354	0.459	621	1135	0.9	0.9	5.494	A
4 - B4030 West	791	198	581	1130	0.700	791	704	2.3	2.3	10.730	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	872	218	971	983	0.887	870	401	7.6	8.0	34.922	D
2 - B4030 Middleton Stoney Rd	796	199	1008	930	0.856	795	834	5.5	5.7	27.107	D
3 - A4095 South	621	155	665	1353	0.459	621	1138	0.9	0.9	5.500	A
4 - B4030 West	791	198	581	1130	0.700	791	705	2.3	2.3	10.747	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	872	218	971	983	0.887	871	401	8.0	8.2	35.478	E
2 - B4030 Middleton Stoney Rd	796	199	1008	929	0.856	796	834	5.7	5.8	27.421	D
3 - A4095 South	621	155	666	1353	0.459	621	1138	0.9	0.9	5.502	A
4 - B4030 West	791	198	581	1130	0.700	791	706	2.3	2.3	10.752	B

Year 2031 + Dev 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	12.21	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.21	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	525	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	631	100.000
3 - A4095 South		FLAT	✓	1163	100.000
4 - B4030 West		FLAT	✓	641	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	41	400	84
	2 - B4030 Middleton Stoney Rd	73	3	125	430
	3 - A4095 South	526	379	0	258
	4 - B4030 West	77	357	207	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	0	8	7
	2 - B4030 Middleton Stoney Rd	5	0	1	0
	3 - A4095 South	8	0	0	1
	4 - B4030 West	2	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.53	8.16	1.2	A	525	525
2 - B4030 Middleton Stoney Rd	0.57	7.73	1.3	A	631	631
3 - A4095 South	0.83	15.71	5.0	C	1163	1163
4 - B4030 West	0.70	13.60	2.4	B	641	641

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	525	131	932	1006	0.522	520	666	0.0	1.1	7.878	A
2 - B4030 Middleton Stoney Rd	631	158	684	1104	0.572	626	769	0.0	1.3	7.505	A
3 - A4095 South	1163	291	585	1402	0.829	1145	725	0.0	4.6	13.641	B
4 - B4030 West	641	160	966	919	0.697	632	764	0.0	2.2	12.452	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	525	131	945	998	0.526	525	676	1.1	1.2	8.149	A
2 - B4030 Middleton Stoney Rd	631	158	691	1100	0.573	631	779	1.3	1.3	7.724	A
3 - A4095 South	1163	291	590	1399	0.831	1162	732	4.6	4.8	15.569	C
4 - B4030 West	641	160	980	912	0.703	641	772	2.2	2.3	13.539	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	525	131	946	998	0.526	525	676	1.2	1.2	8.157	A
2 - B4030 Middleton Stoney Rd	631	158	691	1100	0.574	631	780	1.3	1.3	7.728	A
3 - A4095 South	1163	291	590	1399	0.831	1163	732	4.8	4.9	15.677	C
4 - B4030 West	641	160	981	911	0.703	641	772	2.3	2.4	13.588	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	525	131	946	998	0.526	525	676	1.2	1.2	8.160	A
2 - B4030 Middleton Stoney Rd	631	158	691	1100	0.574	631	780	1.3	1.3	7.730	A
3 - A4095 South	1163	291	590	1399	0.831	1163	732	4.9	5.0	15.714	C
4 - B4030 West	641	160	981	911	0.703	641	772	2.4	2.4	13.602	B

Year 2031 + Dev 1b, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	19.18	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.18	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	860	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	789	100.000
3 - A4095 South		FLAT	✓	604	100.000
4 - B4030 West		FLAT	✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	112	648	100
	2 - B4030 Middleton Stoney Rd	78	4	232	475
	3 - A4095 South	256	218	0	130
	4 - B4030 West	40	488	254	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	23	14	6
	2 - B4030 Middleton Stoney Rd	20	0	0	3
	3 - A4095 South	31	0	0	1
	4 - B4030 West	6	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.87	31.41	7.2	D	860	860
2 - B4030 Middleton Stoney Rd	0.85	25.49	5.4	D	789	789
3 - A4095 South	0.44	5.31	0.9	A	604	604
4 - B4030 West	0.68	10.08	2.2	B	782	782

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	860	215	955	993	0.866	836	370	0.0	6.1	23.426	C
2 - B4030 Middleton Stoney Rd	789	197	978	946	0.834	771	812	0.0	4.6	19.648	C
3 - A4095 South	604	151	641	1368	0.442	601	1108	0.0	0.9	5.204	A
4 - B4030 West	782	196	551	1146	0.682	774	690	0.0	2.1	9.586	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	860	215	964	988	0.871	857	374	6.1	6.8	30.180	D
2 - B4030 Middleton Stoney Rd	789	197	999	934	0.845	787	821	4.6	5.1	24.602	C
3 - A4095 South	604	151	655	1359	0.444	604	1131	0.9	0.9	5.308	A
4 - B4030 West	782	196	556	1144	0.684	782	703	2.1	2.1	10.062	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	860	215	964	987	0.871	859	374	6.8	7.1	31.056	D
2 - B4030 Middleton Stoney Rd	789	197	1001	933	0.845	788	822	5.1	5.3	25.250	D
3 - A4095 South	604	151	656	1359	0.445	604	1133	0.9	0.9	5.313	A
4 - B4030 West	782	196	556	1143	0.684	782	704	2.1	2.2	10.075	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	860	215	964	987	0.871	859	374	7.1	7.2	31.406	D
2 - B4030 Middleton Stoney Rd	789	197	1001	933	0.846	789	822	5.3	5.4	25.487	D
3 - A4095 South	604	151	657	1359	0.445	604	1133	0.9	0.9	5.314	A
4 - B4030 West	782	196	556	1143	0.684	782	705	2.2	2.2	10.079	B

Year 2031 + Dev 1b, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	11.48	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.48	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 Howes Ln N		FLAT	✓	505	100.000
2 - B4030 Middleton Stoney Rd		FLAT	✓	624	100.000
3 - A4095 South		FLAT	✓	1150	100.000
4 - B4030 West		FLAT	✓	635	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	39	385	81
	2 - B4030 Middleton Stoney Rd	66	3	125	430
	3 - A4095 South	516	376	0	258
	4 - B4030 West	76	349	210	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 Howes Ln N	2 - B4030 Middleton Stoney Rd	3 - A4095 South	4 - B4030 West
From	1 - A4095 Howes Ln N	0	0	8	7
	2 - B4030 Middleton Stoney Rd	5	0	1	0
	3 - A4095 South	8	0	0	1
	4 - B4030 West	2	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 Howes Ln N	0.50	7.76	1.1	A	505	505
2 - B4030 Middleton Stoney Rd	0.56	7.49	1.3	A	624	624
3 - A4095 South	0.82	14.55	4.6	B	1150	1150
4 - B4030 West	0.69	12.80	2.2	B	635	635

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	505	126	925	1010	0.500	501	649	0.0	1.1	7.520	A
2 - B4030 Middleton Stoney Rd	624	156	669	1112	0.561	619	756	0.0	1.3	7.282	A
3 - A4095 South	1150	288	575	1408	0.817	1133	713	0.0	4.3	12.852	B
4 - B4030 West	635	159	947	930	0.683	627	761	0.0	2.1	11.831	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	505	126	937	1003	0.504	505	658	1.1	1.1	7.750	A
2 - B4030 Middleton Stoney Rd	624	156	676	1108	0.563	624	767	1.3	1.3	7.481	A
3 - A4095 South	1150	288	580	1406	0.818	1149	720	4.3	4.5	14.447	B
4 - B4030 West	635	159	960	922	0.688	635	769	2.1	2.2	12.756	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	505	126	938	1002	0.504	505	658	1.1	1.1	7.756	A
2 - B4030 Middleton Stoney Rd	624	156	676	1108	0.563	624	767	1.3	1.3	7.485	A
3 - A4095 South	1150	288	580	1406	0.818	1150	720	4.5	4.5	14.526	B
4 - B4030 West	635	159	961	922	0.689	635	769	2.2	2.2	12.791	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 Howes Ln N	505	126	938	1002	0.504	505	658	1.1	1.1	7.757	A
2 - B4030 Middleton Stoney Rd	624	156	676	1108	0.563	624	767	1.3	1.3	7.485	A
3 - A4095 South	1150	288	580	1406	0.818	1150	720	4.5	4.6	14.552	B
4 - B4030 West	635	159	961	922	0.689	635	769	2.2	2.2	12.801	B

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Junction 15 A4095 - B4100 RA Flat.j10
Path: Y:\PROJECT FOLDER\20300 Bicester\Calculations\Transport\ARCADY
Report generation date: 31/05/2023 09:17:31

- »Year 2031 Base, AM
- »Year 2031 Base , PM
- »Year 2031 Base + Committed, AM
- »Year 2031 Base + Committed, PM
- »Year 2031 + Dev 1a, AM
- »Year 2031 + Dev 1a, PM
- »Year 2031 + Dev 1b, AM
- »Year 2031 + Dev 1b, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2031 Base						
1 - A4095 East	4.0	12.92	0.78	5.0	14.06	0.83
2 - Banbury Rd B4100 South	0.4	5.09	0.30	0.8	7.39	0.45
3 - Lords Lane A4095 West	0.8	5.75	0.41	1.5	8.48	0.59
4 - B4100 North	6.1	18.32	0.86	1.9	8.07	0.65
Year 2031 Base + Committed						
1 - A4095 East	7.4	22.06	0.88	6.1	16.76	0.86
2 - Banbury Rd B4100 South	0.8	7.12	0.45	1.0	8.14	0.49
3 - Lords Lane A4095 West	1.2	7.74	0.50	1.7	9.32	0.62
4 - B4100 North	6.5	19.30	0.86	2.4	9.42	0.70
Year 2031 + Dev 1a						
1 - A4095 East	8.6	26.37	0.89	9.4	25.25	0.91
2 - Banbury Rd B4100 South	0.9	7.39	0.48	1.9	12.80	0.66
3 - Lords Lane A4095 West	2.2	11.59	0.66	2.5	14.82	0.71
4 - B4100 North	10.1	31.55	0.91	3.3	11.74	0.76
Year 2031 + Dev 1b						
1 - A4095 East	7.4	22.67	0.88	8.5	22.95	0.90
2 - Banbury Rd B4100 South	0.9	7.13	0.46	1.6	11.21	0.61
3 - Lords Lane A4095 West	1.6	9.37	0.59	1.9	11.77	0.65
4 - B4100 North	8.2	25.08	0.89	3.1	10.91	0.75

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	A4095/B4030 RA
Location	Bicester
Site number	Junction 19
Date	26/05/2023
Version	A
Status	(new file)
Identifier	SR
Client	HLM
Jobnumber	20300
Enumerator	JUBB\SRadford
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15	✓
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15	✓
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15	✓
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15	✓
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15	✓
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15	✓
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15	✓
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

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

Year 2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	13.07	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.07	B

Arms

Arms

Arm	Name	Description	No give-way line
1	A4095 East		
2	Banbury Rd B4100 South		
3	Lords Lane A4095 West		
4	B4100 North		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A4095 East	3.70	7.80	15.8	13.3	40.0	17.0		
2 - Banbury Rd B4100 South	3.65	7.40	20.4	14.5	40.0	24.0		
3 - Lords Lane A4095 West	4.30	6.30	10.4	34.4	40.0	16.0		
4 - B4100 North	3.30	7.10	19.3	21.2	40.0	10.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4095 East	0.675	1837
2 - Banbury Rd B4100 South	0.668	1826
3 - Lords Lane A4095 West	0.682	1794
4 - B4100 North	0.690	1829

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Year 2031 Base	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1121	100.000
2 - Banbury Rd B4100 South		FLAT	✓	310	100.000
3 - Lords Lane A4095 West		FLAT	✓	527	100.000
4 - B4100 North		FLAT	✓	1237	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	74	538	509
	2 - Banbury Rd B4100 South	107	0	51	152
	3 - Lords Lane A4095 West	431	24	0	72
	4 - B4100 North	664	426	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	19	8
	2 - Banbury Rd B4100 South	3	0	0	1
	3 - Lords Lane A4095 West	19	0	0	25
	4 - B4100 North	9	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.78	12.92	4.0	B	1121	1121
2 - Banbury Rd B4100 South	0.30	5.09	0.4	A	310	310
3 - Lords Lane A4095 West	0.41	5.75	0.8	A	527	527
4 - B4100 North	0.86	18.32	6.1	C	1237	1237

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1121	280	587	1441	0.778	1106	1187	0.0	3.7	11.635	B
2 - Banbury Rd B4100 South	310	78	1177	1039	0.298	308	515	0.0	0.4	4.988	A
3 - Lords Lane A4095 West	527	132	760	1276	0.413	524	726	0.0	0.8	5.657	A
4 - B4100 North	1237	309	559	1444	0.857	1215	725	0.0	5.6	15.273	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1121	280	596	1434	0.782	1120	1201	3.7	3.9	12.841	B
2 - Banbury Rd B4100 South	310	78	1193	1029	0.301	310	523	0.4	0.4	5.083	A
3 - Lords Lane A4095 West	527	132	768	1271	0.415	527	736	0.8	0.8	5.747	A
4 - B4100 North	1237	309	562	1442	0.858	1236	733	5.6	5.9	18.044	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1121	280	597	1434	0.782	1121	1202	3.9	3.9	12.901	B
2 - Banbury Rd B4100 South	310	78	1194	1029	0.301	310	524	0.4	0.4	5.085	A
3 - Lords Lane A4095 West	527	132	768	1271	0.415	527	736	0.8	0.8	5.748	A
4 - B4100 North	1237	309	562	1442	0.858	1236	733	5.9	6.1	18.242	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1121	280	597	1434	0.782	1121	1202	3.9	4.0	12.916	B
2 - Banbury Rd B4100 South	310	78	1194	1028	0.301	310	524	0.4	0.4	5.086	A
3 - Lords Lane A4095 West	527	132	768	1271	0.415	527	736	0.8	0.8	5.749	A
4 - B4100 North	1237	309	562	1442	0.858	1237	733	6.1	6.1	18.317	C

Year 2031 Base , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	10.51	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.51	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Year 2031 Base	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1309	100.000
2 - Banbury Rd B4100 South		FLAT	✓	400	100.000
3 - Lords Lane A4095 West		FLAT	✓	648	100.000
4 - B4100 North		FLAT	✓	857	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	2	76	572	659
	2 - Banbury Rd B4100 South	140	0	44	216
	3 - Lords Lane A4095 West	551	34	0	63
	4 - B4100 North	505	183	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	5	5
	2 - Banbury Rd B4100 South	0	0	0	1
	3 - Lords Lane A4095 West	8	0	0	0
	4 - B4100 North	8	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.83	14.06	5.0	B	1309	1309
2 - Banbury Rd B4100 South	0.45	7.39	0.8	A	400	400
3 - Lords Lane A4095 West	0.59	8.48	1.5	A	648	648
4 - B4100 North	0.65	8.07	1.9	A	857	857

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1309	327	383	1578	0.829	1290	1187	0.0	4.7	12.386	B
2 - Banbury Rd B4100 South	400	100	1383	902	0.443	397	290	0.0	0.8	7.118	A
3 - Lords Lane A4095 West	648	162	1005	1109	0.584	642	775	0.0	1.5	8.129	A
4 - B4100 North	857	214	721	1333	0.643	850	926	0.0	1.9	7.761	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1309	327	386	1576	0.831	1308	1198	4.7	4.9	13.959	B
2 - Banbury Rd B4100 South	400	100	1401	890	0.449	400	293	0.8	0.8	7.382	A
3 - Lords Lane A4095 West	648	162	1016	1101	0.588	648	785	1.5	1.5	8.470	A
4 - B4100 North	857	214	727	1328	0.645	857	938	1.9	1.9	8.062	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1309	327	386	1576	0.831	1309	1198	4.9	5.0	14.035	B
2 - Banbury Rd B4100 South	400	100	1402	890	0.450	400	293	0.8	0.8	7.390	A
3 - Lords Lane A4095 West	648	162	1017	1101	0.589	648	785	1.5	1.5	8.481	A
4 - B4100 North	857	214	727	1328	0.645	857	938	1.9	1.9	8.068	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1309	327	386	1576	0.831	1309	1198	5.0	5.0	14.063	B
2 - Banbury Rd B4100 South	400	100	1402	890	0.450	400	293	0.8	0.8	7.392	A
3 - Lords Lane A4095 West	648	162	1017	1101	0.589	648	785	1.5	1.5	8.482	A
4 - B4100 North	857	214	727	1328	0.645	857	938	1.9	1.9	8.070	A

Year 2031 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	16.98	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.98	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Year 2031 Base + Committed	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1245	100.000
2 - Banbury Rd B4100 South		FLAT	✓	426	100.000
3 - Lords Lane A4095 West		FLAT	✓	541	100.000
4 - B4100 North		FLAT	✓	1239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	70	518	657
	2 - Banbury Rd B4100 South	110	0	52	264
	3 - Lords Lane A4095 West	441	24	0	76
	4 - B4100 North	650	439	150	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	19	6
	2 - Banbury Rd B4100 South	5	0	0	1
	3 - Lords Lane A4095 West	19	0	0	22
	4 - B4100 North	9	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.88	22.06	7.4	C	1245	1245
2 - Banbury Rd B4100 South	0.45	7.12	0.8	A	426	426
3 - Lords Lane A4095 West	0.50	7.74	1.2	A	541	541
4 - B4100 North	0.86	19.30	6.5	C	1239	1239

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1245	311	602	1430	0.870	1219	1184	0.0	6.4	17.233	C
2 - Banbury Rd B4100 South	426	107	1298	959	0.444	423	523	0.0	0.8	6.801	A
3 - Lords Lane A4095 West	541	135	1015	1102	0.491	537	706	0.0	1.1	7.476	A
4 - B4100 North	1239	310	570	1436	0.863	1216	981	0.0	5.8	15.810	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1245	311	612	1423	0.875	1243	1200	6.4	7.0	21.428	C
2 - Banbury Rd B4100 South	426	107	1322	943	0.452	426	532	0.8	0.8	7.096	A
3 - Lords Lane A4095 West	541	135	1030	1092	0.495	541	719	1.1	1.1	7.730	A
4 - B4100 North	1239	310	575	1433	0.865	1237	996	5.8	6.2	18.951	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1245	311	613	1423	0.875	1244	1201	7.0	7.3	21.885	C
2 - Banbury Rd B4100 South	426	107	1324	942	0.452	426	533	0.8	0.8	7.113	A
3 - Lords Lane A4095 West	541	135	1030	1092	0.496	541	720	1.1	1.2	7.740	A
4 - B4100 North	1239	310	575	1433	0.865	1238	996	6.2	6.4	19.203	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1245	311	613	1423	0.875	1245	1201	7.3	7.4	22.057	C
2 - Banbury Rd B4100 South	426	107	1325	941	0.453	426	533	0.8	0.8	7.117	A
3 - Lords Lane A4095 West	541	135	1031	1091	0.496	541	720	1.2	1.2	7.744	A
4 - B4100 North	1239	310	575	1433	0.865	1239	997	6.4	6.5	19.297	C

Year 2031 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	12.18	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.18	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Year 2031 Base + Committed	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1337	100.000
2 - Banbury Rd B4100 South		FLAT	✓	423	100.000
3 - Lords Lane A4095 West		FLAT	✓	658	100.000
4 - B4100 North		FLAT	✓	924	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	2	75	574	686
	2 - Banbury Rd B4100 South	138	0	44	241
	3 - Lords Lane A4095 West	554	34	0	70
	4 - B4100 North	547	204	173	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	5	4
	2 - Banbury Rd B4100 South	0	0	0	1
	3 - Lords Lane A4095 West	7	0	0	0
	4 - B4100 North	8	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.86	16.76	6.1	C	1337	1337
2 - Banbury Rd B4100 South	0.49	8.14	1.0	A	423	423
3 - Lords Lane A4095 West	0.62	9.32	1.7	A	658	658
4 - B4100 North	0.70	9.42	2.4	A	924	924

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1337	334	407	1562	0.856	1315	1229	0.0	5.5	14.125	B
2 - Banbury Rd B4100 South	423	106	1412	883	0.479	419	309	0.0	0.9	7.757	A
3 - Lords Lane A4095 West	658	165	1052	1077	0.611	652	779	0.0	1.6	8.832	A
4 - B4100 North	924	231	721	1332	0.694	915	983	0.0	2.3	8.922	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1337	334	411	1559	0.858	1336	1241	5.5	5.9	16.540	C
2 - Banbury Rd B4100 South	423	106	1434	868	0.487	423	313	0.9	0.9	8.127	A
3 - Lords Lane A4095 West	658	165	1066	1067	0.617	658	790	1.6	1.7	9.295	A
4 - B4100 North	924	231	728	1328	0.696	924	996	2.3	2.4	9.405	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1337	334	411	1559	0.858	1337	1241	5.9	6.0	16.703	C
2 - Banbury Rd B4100 South	423	106	1435	868	0.487	423	313	0.9	0.9	8.138	A
3 - Lords Lane A4095 West	658	165	1067	1067	0.617	658	791	1.7	1.7	9.313	A
4 - B4100 North	924	231	728	1327	0.696	924	997	2.4	2.4	9.417	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1337	334	411	1559	0.858	1337	1241	6.0	6.1	16.762	C
2 - Banbury Rd B4100 South	423	106	1435	868	0.488	423	313	0.9	1.0	8.142	A
3 - Lords Lane A4095 West	658	165	1067	1067	0.617	658	791	1.7	1.7	9.317	A
4 - B4100 North	924	231	728	1327	0.696	924	997	2.4	2.4	9.421	A

Year 2031 + Dev 1a, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	22.82	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.82	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	Year 2031 + Dev 1a	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1221	100.000
2 - Banbury Rd B4100 South		FLAT	✓	458	100.000
3 - Lords Lane A4095 West		FLAT	✓	695	100.000
4 - B4100 North		FLAT	✓	1209	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	69	468	684
	2 - Banbury Rd B4100 South	110	0	48	300
	3 - Lords Lane A4095 West	542	82	0	71
	4 - B4100 North	596	459	154	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	20	6
	2 - Banbury Rd B4100 South	5	0	0	1
	3 - Lords Lane A4095 West	15	0	0	25
	4 - B4100 North	10	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.89	26.37	8.6	D	1221	1221
2 - Banbury Rd B4100 South	0.48	7.39	0.9	A	458	458
3 - Lords Lane A4095 West	0.66	11.59	2.2	B	695	695
4 - B4100 North	0.91	31.55	10.1	D	1209	1209

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1221	305	678	1379	0.885	1193	1225	0.0	7.1	19.147	C
2 - Banbury Rd B4100 South	458	115	1275	974	0.470	454	595	0.0	0.9	7.006	A
3 - Lords Lane A4095 West	695	174	1075	1061	0.655	687	655	0.0	2.1	10.723	B
4 - B4100 North	1209	302	726	1329	0.910	1177	1036	0.0	8.1	21.600	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1221	305	693	1369	0.892	1217	1245	7.1	8.0	25.074	D
2 - Banbury Rd B4100 South	458	115	1302	956	0.479	458	608	0.9	0.9	7.352	A
3 - Lords Lane A4095 West	695	174	1092	1050	0.662	695	668	2.1	2.2	11.523	B
4 - B4100 North	1209	302	734	1323	0.913	1204	1053	8.1	9.3	29.572	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1221	305	694	1368	0.893	1220	1247	8.0	8.4	25.998	D
2 - Banbury Rd B4100 South	458	115	1304	955	0.480	458	609	0.9	0.9	7.379	A
3 - Lords Lane A4095 West	695	174	1093	1049	0.663	695	669	2.2	2.2	11.573	B
4 - B4100 North	1209	302	734	1323	0.914	1207	1054	9.3	9.8	30.944	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1221	305	694	1368	0.893	1220	1247	8.4	8.6	26.372	D
2 - Banbury Rd B4100 South	458	115	1305	954	0.480	458	610	0.9	0.9	7.387	A
3 - Lords Lane A4095 West	695	174	1094	1049	0.663	695	670	2.2	2.2	11.589	B
4 - B4100 North	1209	302	734	1323	0.914	1208	1055	9.8	10.1	31.550	D

Year 2031 + Dev 1a, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	17.67	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.67	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Year 2031 + Dev 1a	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1393	100.000
2 - Banbury Rd B4100 South		FLAT	✓	547	100.000
3 - Lords Lane A4095 West		FLAT	✓	626	100.000
4 - B4100 North		FLAT	✓	1027	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	2	72	504	815
	2 - Banbury Rd B4100 South	136	0	29	382
	3 - Lords Lane A4095 West	520	39	0	67
	4 - B4100 North	623	233	171	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	6	4
	2 - Banbury Rd B4100 South	0	0	0	1
	3 - Lords Lane A4095 West	8	0	0	0
	4 - B4100 North	7	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.91	25.25	9.4	D	1393	1393
2 - Banbury Rd B4100 South	0.66	12.80	1.9	B	547	547
3 - Lords Lane A4095 West	0.71	14.82	2.5	B	626	626
4 - B4100 North	0.76	11.74	3.3	B	1027	1027

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1393	348	438	1541	0.904	1361	1264	0.0	7.9	18.510	C
2 - Banbury Rd B4100 South	547	137	1460	851	0.643	540	339	0.0	1.7	11.423	B
3 - Lords Lane A4095 West	626	157	1310	901	0.695	617	690	0.0	2.3	13.096	B
4 - B4100 North	1027	257	687	1356	0.758	1015	1240	0.0	3.1	10.728	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1393	348	443	1538	0.906	1389	1280	7.9	8.8	24.176	C
2 - Banbury Rd B4100 South	547	137	1489	832	0.658	546	344	1.7	1.9	12.672	B
3 - Lords Lane A4095 West	626	157	1332	886	0.707	625	703	2.3	2.5	14.659	B
4 - B4100 North	1027	257	696	1349	0.761	1027	1261	3.1	3.2	11.680	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1393	348	443	1538	0.906	1392	1281	8.8	9.2	24.932	C
2 - Banbury Rd B4100 South	547	137	1491	830	0.659	547	344	1.9	1.9	12.774	B
3 - Lords Lane A4095 West	626	157	1334	885	0.708	626	703	2.5	2.5	14.785	B
4 - B4100 North	1027	257	697	1349	0.761	1027	1263	3.2	3.3	11.726	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1393	348	443	1537	0.906	1392	1281	9.2	9.4	25.249	D
2 - Banbury Rd B4100 South	547	137	1491	830	0.659	547	344	1.9	1.9	12.801	B
3 - Lords Lane A4095 West	626	157	1334	884	0.708	626	704	2.5	2.5	14.817	B
4 - B4100 North	1027	257	697	1349	0.761	1027	1263	3.3	3.3	11.737	B

Year 2031 + Dev 1b, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	19.16	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.16	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	Year 2031 + Dev 1b	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1215	100.000
2 - Banbury Rd B4100 South		FLAT	✓	445	100.000
3 - Lords Lane A4095 West		FLAT	✓	626	100.000
4 - B4100 North		FLAT	✓	1222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	70	478	667
	2 - Banbury Rd B4100 South	110	0	48	287
	3 - Lords Lane A4095 West	511	47	0	68
	4 - B4100 North	604	465	153	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	20	6
	2 - Banbury Rd B4100 South	5	0	0	1
	3 - Lords Lane A4095 West	16	0	0	23
	4 - B4100 North	9	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.88	22.67	7.4	C	1215	1215
2 - Banbury Rd B4100 South	0.46	7.13	0.9	A	445	445
3 - Lords Lane A4095 West	0.59	9.37	1.6	A	626	626
4 - B4100 North	0.89	25.08	8.2	D	1222	1222

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1215	304	650	1397	0.869	1190	1205	0.0	6.3	17.491	C
2 - Banbury Rd B4100 South	445	111	1271	977	0.455	442	569	0.0	0.8	6.805	A
3 - Lords Lane A4095 West	626	157	1047	1080	0.579	620	665	0.0	1.6	8.901	A
4 - B4100 North	1222	306	662	1373	0.890	1194	1005	0.0	7.0	18.838	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1215	304	663	1389	0.875	1212	1223	6.3	7.0	21.934	C
2 - Banbury Rd B4100 South	445	111	1295	961	0.463	445	581	0.8	0.9	7.104	A
3 - Lords Lane A4095 West	626	157	1062	1070	0.585	626	678	1.6	1.6	9.343	A
4 - B4100 North	1222	306	668	1369	0.893	1219	1020	7.0	7.7	24.160	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1215	304	664	1388	0.875	1214	1224	7.0	7.3	22.472	C
2 - Banbury Rd B4100 South	445	111	1297	960	0.464	445	581	0.9	0.9	7.123	A
3 - Lords Lane A4095 West	626	157	1063	1069	0.586	626	678	1.6	1.6	9.364	A
4 - B4100 North	1222	306	668	1369	0.893	1221	1021	7.7	8.0	24.814	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1215	304	665	1388	0.876	1214	1225	7.3	7.4	22.675	C
2 - Banbury Rd B4100 South	445	111	1297	959	0.464	445	582	0.9	0.9	7.128	A
3 - Lords Lane A4095 West	626	157	1064	1069	0.586	626	679	1.6	1.6	9.370	A
4 - B4100 North	1222	306	668	1369	0.893	1221	1022	8.0	8.2	25.076	D

Year 2031 + Dev 1b, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4095/Howes Ln/Middleton Stoney Rd RA	Standard Roundabout		1, 2, 3, 4	15.85	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.85	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	Year 2031 + Dev 1b	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4095 East		FLAT	✓	1388	100.000
2 - Banbury Rd B4100 South		FLAT	✓	510	100.000
3 - Lords Lane A4095 West		FLAT	✓	593	100.000
4 - B4100 North		FLAT	✓	1025	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	2	72	513	801
	2 - Banbury Rd B4100 South	136	0	29	345
	3 - Lords Lane A4095 West	500	26	0	67
	4 - B4100 North	624	230	171	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A4095 East	2 - Banbury Rd B4100 South	3 - Lords Lane A4095 West	4 - B4100 North
From	1 - A4095 East	0	0	6	4
	2 - Banbury Rd B4100 South	0	0	0	1
	3 - Lords Lane A4095 West	8	0	0	0
	4 - B4100 North	7	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4095 East	0.90	22.95	8.5	C	1388	1388
2 - Banbury Rd B4100 South	0.61	11.21	1.6	B	510	510
3 - Lords Lane A4095 West	0.65	11.77	1.9	B	593	593
4 - B4100 North	0.75	10.91	3.1	B	1025	1025

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1388	347	422	1552	0.895	1359	1247	0.0	7.4	17.463	C
2 - Banbury Rd B4100 South	510	128	1457	853	0.598	504	324	0.0	1.5	10.238	B
3 - Lords Lane A4095 West	593	148	1261	934	0.635	586	700	0.0	1.8	10.814	B
4 - B4100 North	1025	256	656	1377	0.744	1013	1191	0.0	2.9	10.102	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1388	347	427	1548	0.896	1385	1261	7.4	8.1	22.191	C
2 - Banbury Rd B4100 South	510	128	1484	835	0.611	510	328	1.5	1.5	11.134	B
3 - Lords Lane A4095 West	593	148	1282	920	0.644	593	712	1.8	1.9	11.698	B
4 - B4100 North	1025	256	664	1372	0.747	1025	1211	2.9	3.0	10.867	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1388	347	427	1548	0.896	1387	1262	8.1	8.4	22.731	C
2 - Banbury Rd B4100 South	510	128	1486	833	0.612	510	328	1.5	1.6	11.195	B
3 - Lords Lane A4095 West	593	148	1283	919	0.645	593	713	1.9	1.9	11.752	B
4 - B4100 North	1025	256	664	1372	0.747	1025	1212	3.0	3.1	10.898	B

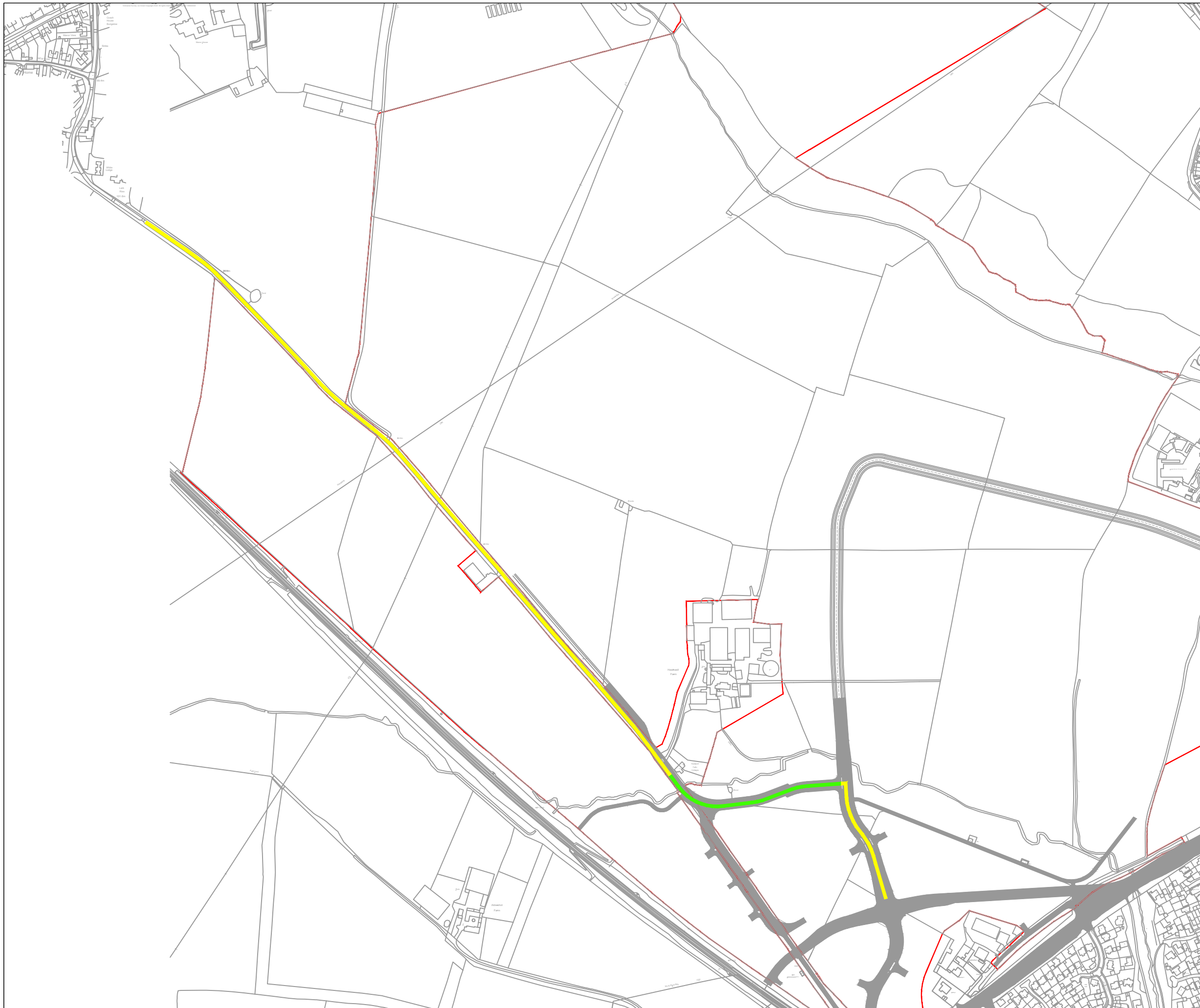
17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4095 East	1388	347	427	1548	0.896	1387	1262	8.4	8.5	22.952	C
2 - Banbury Rd B4100 South	510	128	1486	833	0.612	510	328	1.6	1.6	11.211	B
3 - Lords Lane A4095 West	593	148	1284	919	0.645	593	713	1.9	1.9	11.768	B
4 - B4100 North	1025	256	664	1372	0.747	1025	1213	3.1	3.1	10.905	B

North West Bicester – Hawkwell Village

20300

Appendix M



KEY

- Site Boundary
- 20mph Road
- 30mph Road
- Proposed Carriageway

Rev	Date	Description	By	Apvd
P1	12.05.22	Preliminary issue	DL	AW

PROJECT:
BICESTER

TITLE:
PROPOSED ROAD SPEEDS
SCENARIO 1

CLIENT:
HALLAM LAND MANAGEMENT

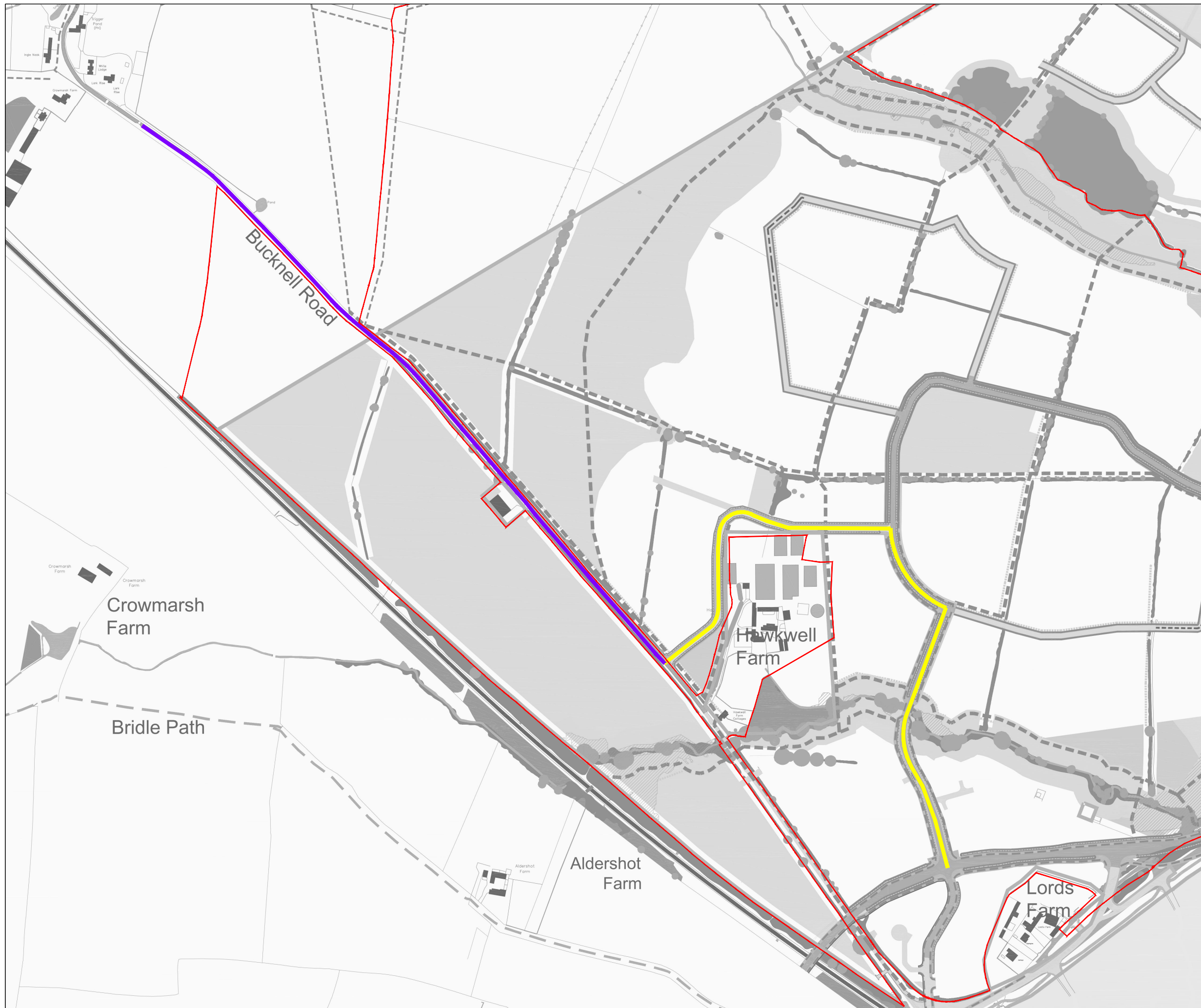
SCALE@A3:
NTS

PROJECT REF:
20300

DRAWING No: 049 **REV:** P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction





KEY

- Site Boundary
- 30mph Road
- 60mph Road

Rev	Date	Description	By	Apvd
P1	12.05.22	Preliminary issue	DL	AW

PROJECT:
BICESTER

TITLE:
PROPOSED ROAD SPEEDS
SCENARIO 3

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
NTS

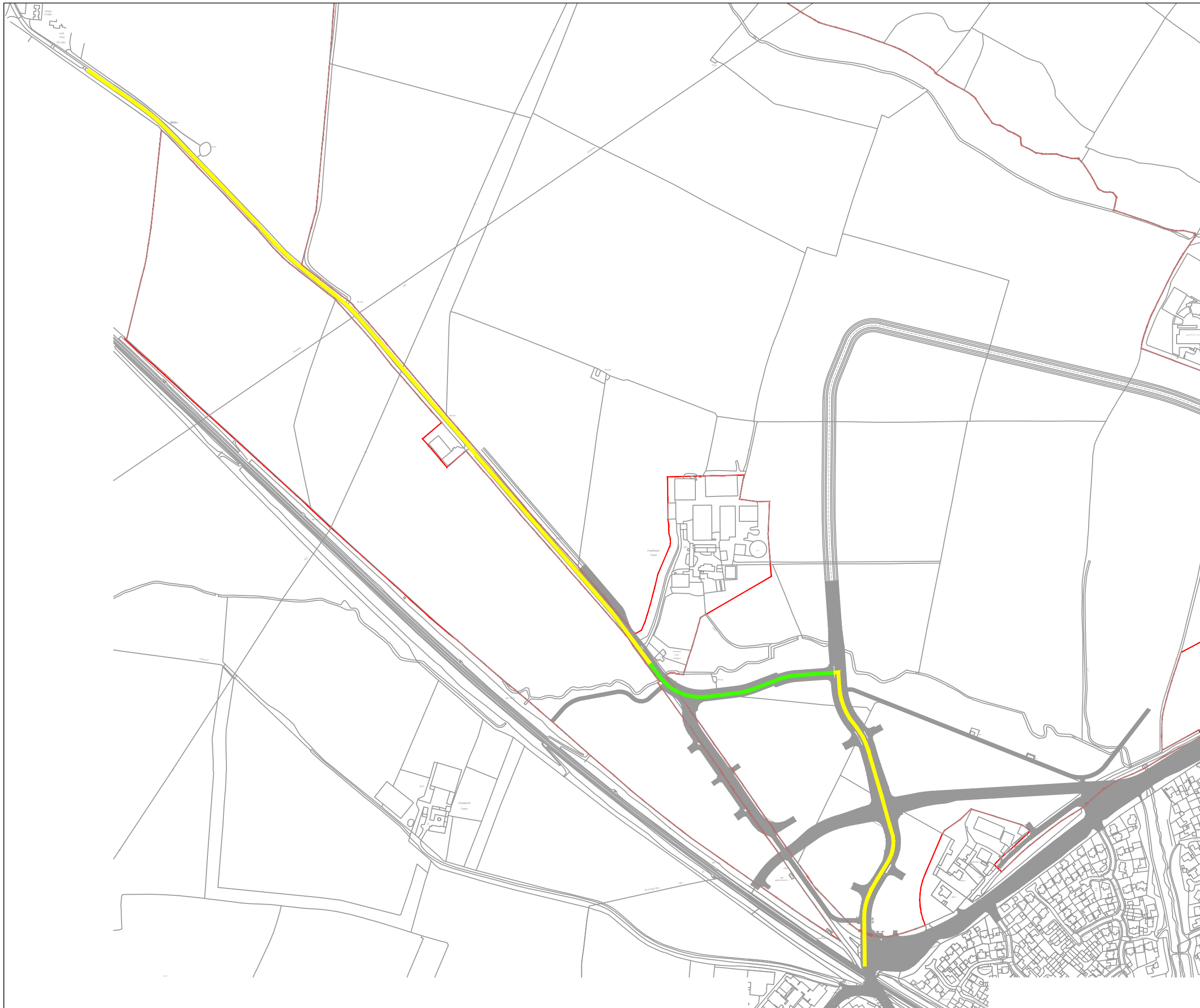
PROJECT REF:
20300

DRAWING No:
051

REV:
P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction





KEY

- Site Boundary
- 20mph Road
- 30mph Road
- Proposed Carriageway

Rev	Date	Description	By	Apvd
P1	12.05.22	Preliminary issue	DL	AW

PROJECT:
BICESTER

TITLE:
PROPOSED ROAD SPEEDS
SCENARIO 2

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
NTS

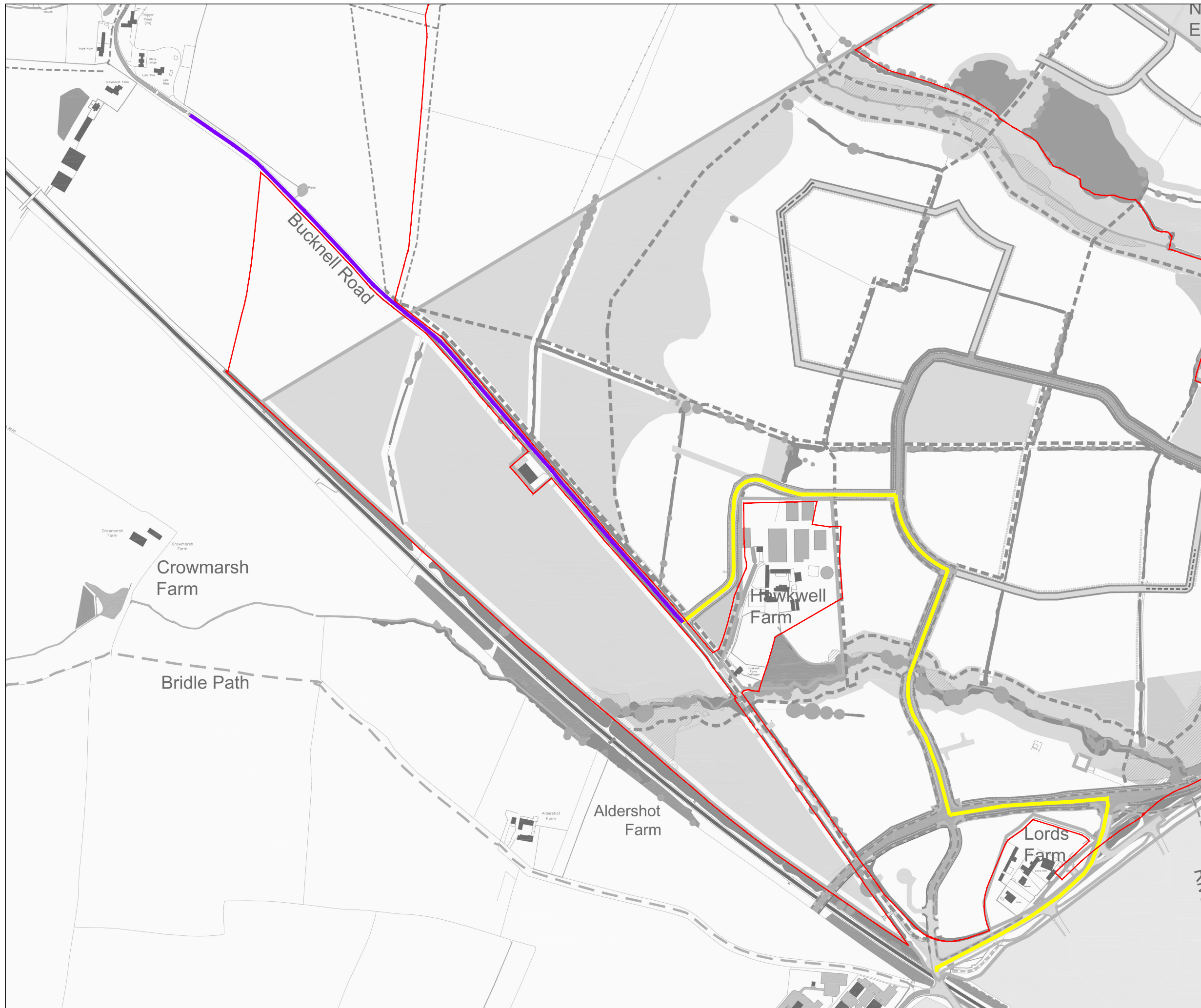
PROJECT REF:
20300

DRAWING No:
050

REV:
P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction





KEY

- Site Boundary
- 30mph Road
- 60mph Road

Rev	Date	Description	By	Apvd
P1	12.05.22	Preliminary issue	DL	AW

PROJECT:
BICESTER

TITLE:
PROPOSED ROAD SPEEDS
SCENARIO 4

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
NTS

PROJECT REF:
20300

DRAWING No: 052 **REV:** P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction



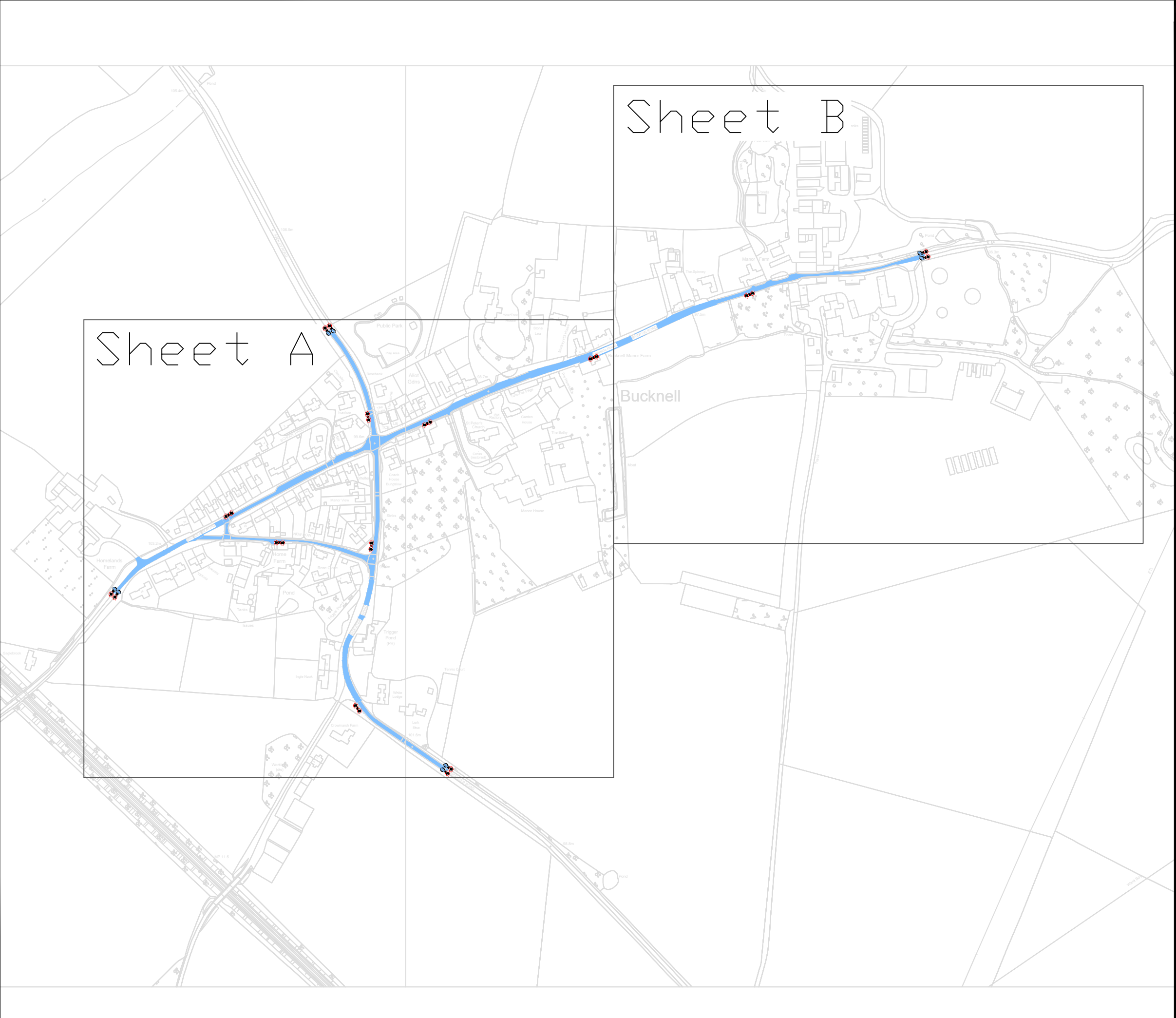
North West Bicester – Hawkwell Village

20300

Appendix N

Notes:

Proposed new 20mph



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Rev.	Date	Purpose of revision	Drawn	Checked	Approved

OXFORDSHIRE COUNTY COUNCIL

Bill Cotton
Director of Communities Operations
Oxfordshire County Council
County Hall
New Road
Oxford
OX1 1ND
Tel: 0845 310 1111

Project title

Bucknell 20mph Limit

Drawing title

General Layout

Drawing Status

Scale @ A3	Drawn by ER	Checked by	Approved by
	Date drawn	Date checked	Date approved

Oxfordshire Project No. & File Ref

North West Bicester – Hawkwell Village

20300

Appendix O

Report Number: JUBB/1464
Date: 10th May 2023
Prepared by: Julian Bartlett



HOWES LANE (A4095) / BUCKNELL ROAD / A4095 JUNCTION: PROPOSED SIGNALISATION INTERIM SCHEME

Road Safety Audit

Stage 1

Prepared For:
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Job Number: 1464

Client: Jubb Consulting Engineers Ltd

Highway Authority Oxfordshire County Council

Project: Howes Lane (A4095) / Bucknell Road / A4095 Junction: Proposed
Signalisation Interim Scheme

Document Title: Stage 1 Road Safety Audit

Date: 10th May 2023

Issue	Purpose/Status	Prepared by	Checked	Approved	Date
D1	DRAFT	Julian Bartlett	Lyn Jones	Julian Bartlett	May 2023
D2	Minor Typos	Julian Bartlett	Lyn Jones	Julian Bartlett	May 2023

J Bartlett Consulting Ltd has prepared this report in accordance with the instructions of the above named Client for their sole and specific use. Any other persons who may use the information contained herein do so at their own risk.

CONTENTS

1 Introduction.....2

2 Issues Raised By This Stage 1 Road Safety Audit.....6

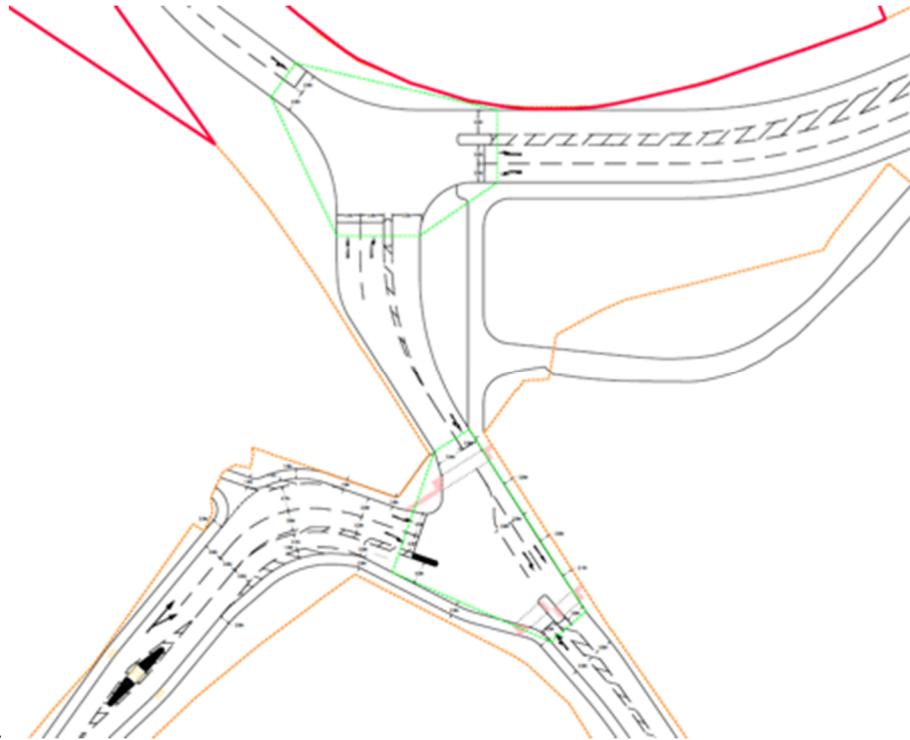
3 Issues Outside The Scope Of This Road Safety Audit.....7

4 Audit Team Statement.....8

5 Audit Location Plan.....9

1 INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit undertaken by J Bartlett Consulting Limited following a request from Amy Waites of the Bristol offices of Jubb Consulting Engineers Ltd. The Audit was carried out during April and May 2023.
- 1.2 This Safety Audit considers the introduction of a linked signal controlled interchange as indicated on the plan extract below. The proposals include a pedestrian facilities at two of the three arms of the southern section of the interchange



1.3 The audit team comprised the following individuals:

Julian Bartlett Road Safety Audit Team Leader
BEng MCIHT FSoRSA

Lyn Jones, Road Safety Audit Team Member
HNC, MCIHT, MSoRSA

Both Julian Bartlett and Lyn Jones, hold a Certificate of Competency in Road Safety Audit through the education route.

1.4 The following documents and drawings were made available to the Audit Team for this safety audit:

Drawings

Drawing Number	Rev	Title
20300 - 031	P3	Bucknell Road A4095 Signalized Junction
20300 - 032	P2	Bucknell Road - A4095 Signalised Junction Tracking
20300 - 040	P3	A4095 Signalised Junction Future Scenario Forward Visibility
20300 - 042	P3	A4095 Interim Signalised Junction Signing And Lighting

Documents

Howes Lane (A4095) / Bucknell Road / A4095 Junction Technical Note 10 v9 dated Feb 2023

Departures

None Notified.

1.5 The Audit Team undertook a site visit on 3rd April 2023 during the afternoon between 15:45 and 16:30. It was fine at the time of the site visit and the road surface was dry. Vehicle movements were as expected within the area with numerous turning movements through the linked junction. The audit team did note that the left turn from Howes Lane to Bucknell Road towards the existing roundabout appeared unusually heavy. One pedestrian was seen crossing Bucknell Road at the identified crossing point under the railway, the pedestrian found this movement difficult to

undertake due to visibility issues of approaching vehicles turning left from Howes Lane as identified above. No cyclists or motorcyclists were seen during the site visit.

- 1.6 The scheme has been examined and this report compiled only regarding the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.
- 1.7 The terms of reference for the audit are as described in the latest versions of National Highways Design Manual for Roads and Bridges (DMRB), Volume 5, Section 2, GG119 'Road Safety Audit'. The audit has also been undertaken in light of the philosophy outlined in the latest version of the CIHT 'Road Safety Guidelines'.
- 1.8 The Audit Team have referred to appropriate design documentation as required while undertaking this audit. Reference texts include but are not limited to the latest versions of
- Design Manual For Roads And Bridges (DMRB);
 - Manual For Streets;
 - Manual For Streets 2;
 - Highway Construction Details;
 - Specification For Highway Works;
 - Traffic Signs Manual Chapter 6;
 - Local Highway Authority Design Guide (if available);
 - Hampshire County Council's Technical Guidance Notes, (TG3 & TG18);
and
 - Traffic Signs Regulations and General Directions (TSRDG).
- 1.9 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG 119, and in no way, imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.
- 1.10 If issues were identified that are strictly outside the scope of this Road Safety Audit, or could not be classified as likely to increase the risk of personal injury collisions occurring, these have been included for completeness under Section 3 of this report.

It is also recommended that these are brought to the attention of the highway authority for their consideration if deemed appropriate

- 1.11 As far as the audit team are aware no previous stages of road safety audit were undertaken on the proposals as presented for this audit.

2 ISSUES RAISED BY THIS STAGE 1 ROAD SAFETY AUDIT

Drawing 20300 - 031 Rev P3

- 2.1 After due and careful consideration the audit team have been unable to identify any areas of concern in terms of road safety associated with the proposals presented for this stage of road safety audit.

Drawing 20300 – 032 Rev P2

- 2.2 The drawing shows vehicle tracking for the junction, while difficult all manoeuvres can be accommodated within the available carriageway space and are no worse than those for the current junction arrangement as indicated in the information provided. As such the audit team do not have concerns with regard to this information.

Drawing 20300 – 040 Rev P3

- 2.3 After due and careful consideration the audit team have been unable to identify any areas of concern in terms of road safety associated with the proposals presented for this stage of road safety audit

Drawing 20300 – 042 Rev P3

- 2.4 After due and careful consideration the audit team have been unable to identify any areas of concern in terms of road safety associated with the proposals presented for this stage of road safety audit.

3 ISSUES OUTSIDE THE SCOPE OF THIS ROAD SAFETY AUDIT

- 3.1 The drawings do not identify the likely position of the signal control equipment, which for such a complex junction arrangement could be important to the successful operation of the interchange. This is to be expected at this stage of audit, however it would be advantageous as part of the detailed design process to include off carriageway facilities for maintenance vehicles at or near the location of the controller units
- 3.2 Bucknell Road to the north of the signal-controlled junction is provided with a good level of both on and off carriageway cycle facilities. As part of the continued development of the design it would be advantageous to consider the need for advanced cycle stop lines for the wider interchange but in particular for this approach
- 3.3 The junction intervisibility envelopes for both junctions may be at least partially obscured by the existing railway infrastructure / verge space. The audit team are aware that this is not uncommon across the country and as such does not give rise to concern in terms of this audit.
- 3.4 The proposed layout of the signals is somewhat unusual in terms of the layout and in particular the identified inter-signal right turn lane to Howes Lane. It would be beneficial as part of the detailed design to provide an effective signing strategy for the intersection so that drivers are fully aware of appropriate lane selection to allow manoeuvres to be undertaken effectively. It may also be beneficial to provide yellow box markings to ensure turning movements are not held by stationary vehicles.

4 AUDIT TEAM STATEMENT

We certify that this Audit has been carried out adopting the principles contained in the National Highways standard GG 119 'Road Safety Audits' and in line with the philosophy outlined in the CIHT 'Road Safety Guidelines'.

Road Safety Audit Team Leader

Name: Julian Bartlett

Signed:



Position: Director

Organisation J Bartlett Consulting Ltd

Date: 18th May 2023

Road Safety Audit Team Member

Name: Lyn Jones

Signed:



Position: Associate

Organisation J Bartlett Consulting Ltd

Date: 18th May 2023

Contact Details as per record sheet

5 AUDIT LOCATION PLAN

Not required as no issues identified

North West Bicester – Hawkwell Village

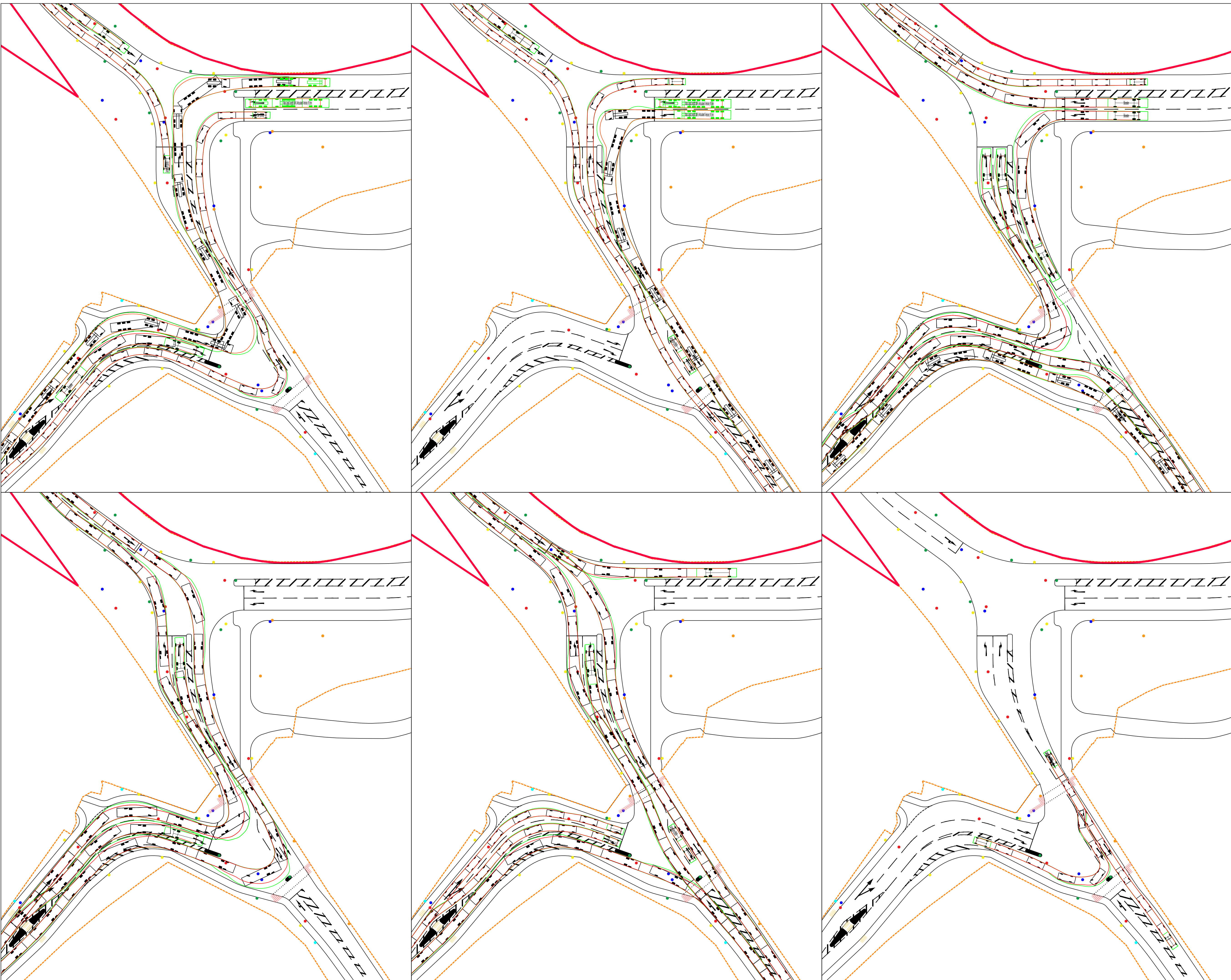
20300

Appendix P



North West Bicester – Hawkwell Village

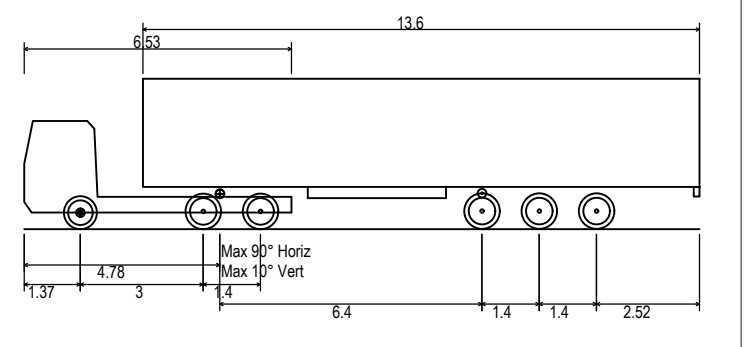
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Appendix Q

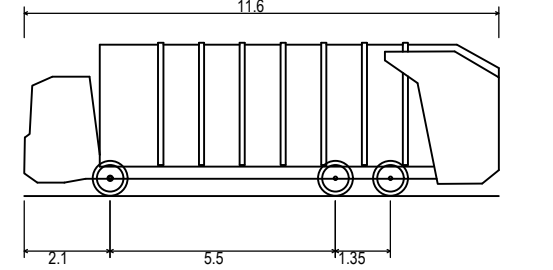


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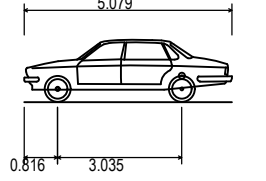
-  Site Boundary
-  Highway Boundary



Max Legal Length (UK) Articulated Vehicle (16.5m)
 Overall Length 16.500m
 Overall Width 2.550m
 Overall Body Height 3.681m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m



Bicester (Refuse Vehicle)
 Overall Length 11.600m
 Overall Width 2.550m
 Overall Body Height 3.742m
 Min Body Ground Clearance 0.295m
 Track Width 2.450m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 7.900m



Large Car (2006)
 Overall Length 5.079m
 Overall Width 1.872m
 Overall Body Height 1.562m
 Min Body Ground Clearance 0.310m
 Max Track Width 1.831m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 5.900m

P6	24.05.23	Junction Amended	MK	AW
P5	10.05.23	Amendments	MK	AW
P4	06.04.23	Title Changed	MK	AW
P3	31.03.23	Junction Amended	MK	AW
P2	17.02.23	Junction Amended	MK	AW
P1	06.01.23	Preliminary issue	MK	AW

Rev Date Description By Apvd

PROJECT:
BICESTER

TITLE:
BUCKNELL ROAD - A4095 JUNCTION
INTERIM DESIGN TRACKING

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A1:
1:500

PROJECT REF:
20300
DRAWING No: 032 **REV:** P6

Revision Referencing
 P = Preliminary A = Approval T = Tender C = Construction



North West Bicester – Hawkwell Village

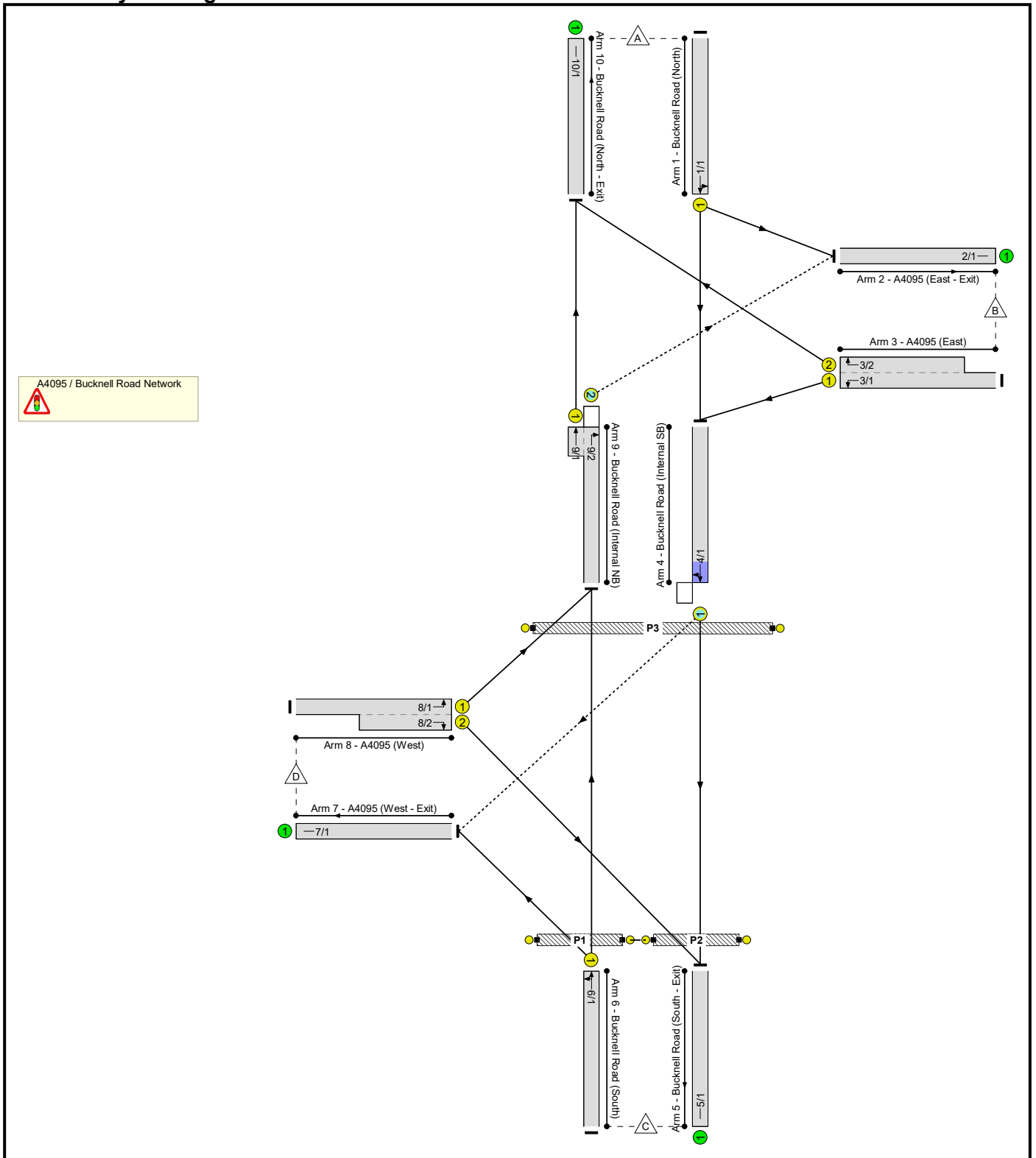
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Appendix R

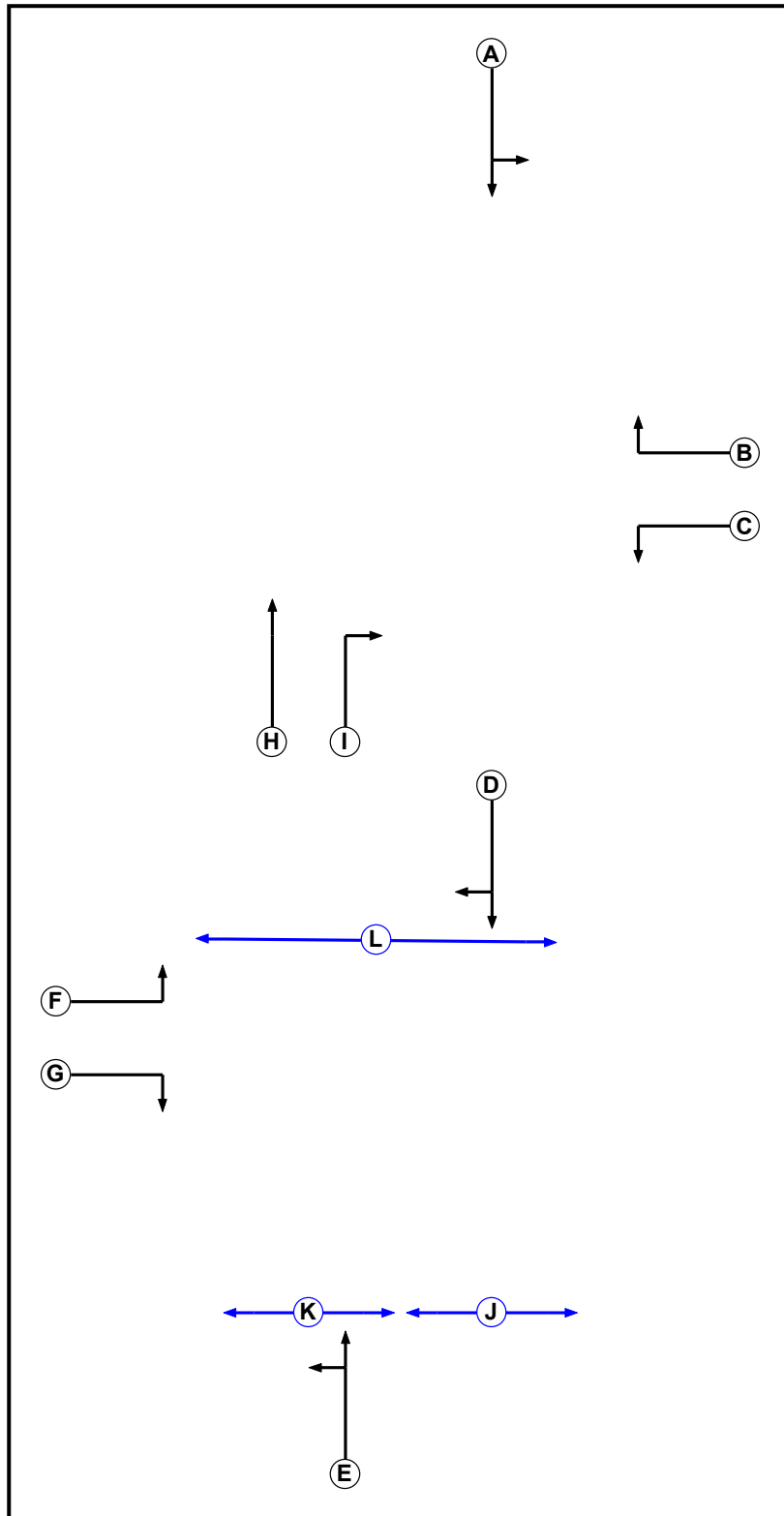
Full Input Data And Results**User and Project Details**

Project:	North West Bicester - Land North East of the Marylebone-Birmingham Railway Line
Title:	A4095 / Bucknell Road
Location:	Bicester, Oxfordshire
Client:	Hallam Land Management Ltd
Additional detail:	Based on Drawing No. 20300-031-P1.
File name:	A4095_Bucknell Road Junction Network (Pre-Link Road Layout)_16-05 Without Firethorn.Isg3x
Author:	MD / SR
Company:	Jubb
Address:	Suite B, Ground Floor West, St James Court, St James Parade, Bristol, BS1 3LH

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

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

Phase Intergreens Matrix

		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A		5	6	-	-	-	-	-	-	-	-	-
	B	5		-	-	-	-	-	5	5	-	-	-
	C	5	-		-	-	-	-	-	-	-	-	-
	D	-	-	-		-	-	5	-	-	8	-	5
	E	-	-	-	-		7	5	-	-	-	5	8
	F	-	-	-	-	5		-	-	-	-	-	6
	G	-	-	-	5	6	-		-	-	8	-	-
	H	-	5	-	-	-	-	-		-	-	-	-
	I	-	5	-	-	-	-	-	-		-	-	-
	J	-	-	-	6	-	-	6	-	-		-	-
	K	-	-	-	-	6	-	-	-	-	-		-
	L	-	-	-	9	9	9	-	-	-	-	-	

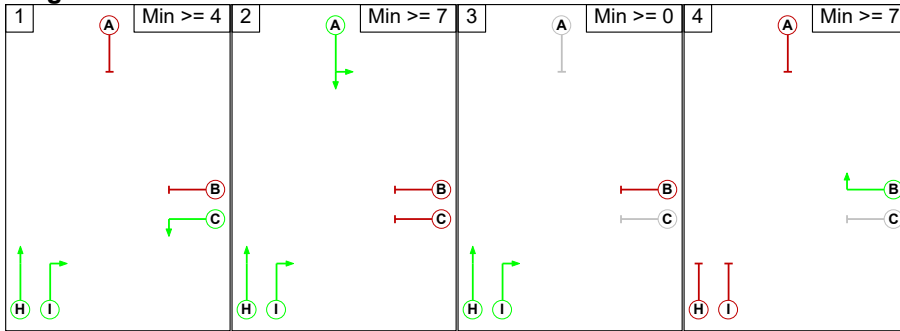
Phases in Stage

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

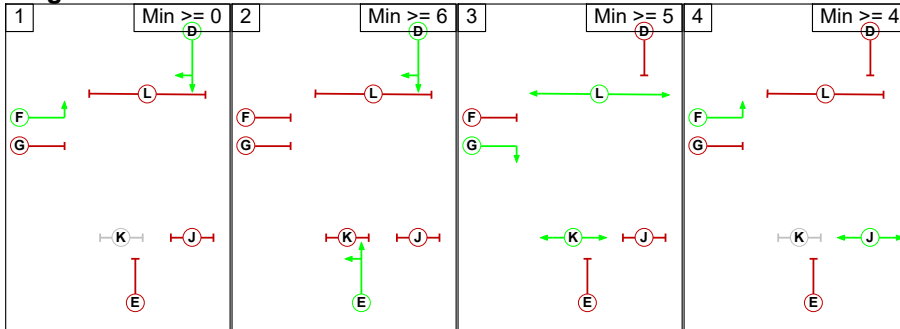
Full Input Data And Results

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

		To Stage			
		1	2	3	4
From Stage	1	5	0	5	
	2	6	0	5	
	3	2	2	5	
	4	5	5	5	

Stage Stream: 2

		To Stage			
		1	2	3	4
From Stage	1	5	6	8	
	2	7	8	8	
	3	9	9	9	
	4	6	6	6	

Full Input Data And Results

Full Input Data And Results

Give-Way Lane Input Data

Junction: A4095 / Bucknell Road Network											
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)
4/1 (Bucknell Road (Internal SB))	7/1 (Right)	1439	0	6/1	1.09	All	2.00	2.00	0.50	2	2.00
9/2 (Bucknell Road (Internal NB))	2/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: A4095 / Bucknell Road Network												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Bucknell Road (North))	U	A	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 2 Left	35.00
											Arm 4 Ahead	29.00
2/1 (A4095 (East - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A4095 (East))	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Left	12.00
3/2 (A4095 (East))	U	B	2	3	22.3	Geom	-	3.50	0.00	Y	Arm 10 Right	37.00
4/1 (Bucknell Road (Internal SB))	O	D	2	3	8.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 7 Right	10.00
5/1 (Bucknell Road (South - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bucknell Road (South))	U	E	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 7 Left	30.00
											Arm 9 Ahead	Inf
7/1 (A4095 (West - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (A4095 (West))	U	F	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 9 Left	7.00
8/2 (A4095 (West))	U	G	2	3	8.9	Geom	-	3.20	0.00	Y	Arm 5 Right	25.00
9/1 (Bucknell Road (Internal NB))	U	H	2	3	2.8	Geom	-	4.60	0.00	Y	Arm 10 Ahead	27.00
9/2 (Bucknell Road (Internal NB))	O	I	2	3	8.2	Geom	-	4.20	0.00	Y	Arm 2 Right	14.00
10/1 (Bucknell Road (North - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Strategic Model Hawkfield 2026 Development 1a - AM'	08:00	09:00	01:00	
2: 'Strategic Model Hawkfield 2026 Development 1a - PM'	17:00	18:00	01:00	
3: 'Strategic Model Hawkfield 2026 Development 2a - AM'	08:00	09:00	01:00	
4: 'Strategic Model Hawkfield 2026 Development 2a - PM'	17:00	18:00	01:00	
5: 'Strategic Model Hawkfield 2026 Development 1b - AM'	08:00	09:00	01:00	
6: 'Strategic Model Hawkfield 2026 Development 1b - PM'	17:00	18:00	01:00	
7: 'Strategic Model Hawkfield 2026 Development 2b - AM'	08:00	09:00	01:00	
8: 'Strategic Model Hawkfield 2026 Development 2b - PM'	17:00	18:00	01:00	

Scenario 1: 'Strategic Model Hawkfield Development 1a - AM' (FG1: 'Strategic Model Hawkfield 2026 Development 1a - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	163	13	55	231
	B	144	0	139	580	863
	C	56	236	0	325	617
	D	91	379	13	0	483
	Tot.	291	778	165	960	2194

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Strategic Model Hawkfield Development 1a - AM
Junction: A4095 / Bucknell Road Network	
1/1	231
2/1	778
3/1 (with short)	863(In) 719(Out)
3/2 (short)	144
4/1	787
5/1	165
6/1	617
7/1	960
8/1 (with short)	483(In) 470(Out)
8/2 (short)	13
9/1 (short)	147
9/2 (with short)	762(In) 615(Out)
10/1	291

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	70.6 %	1908	1908
				Arm 4 Ahead	29.00	29.4 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	19.3 %	1708	1708
				Arm 7 Right	10.00	80.7 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	52.7 %	1876	1876
				Arm 9 Ahead	Inf	47.3 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Strategic Model Hawkfield Development 1a - PM' (FG2: 'Strategic Model Hawkfield 2026 Development 1a - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	154	26	53	233
	B	84	0	261	544	889
	C	43	283	0	230	556
	D	96	630	17	0	743
	Tot.	223	1067	304	827	2421

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Strategic Model Hawkfield Development 1a - PM
Junction: A4095 / Bucknell Road Network	
1/1	233
2/1	1067
3/1 (with short)	889(In) 805(Out)
3/2 (short)	84
4/1	884
5/1	304
6/1	556
7/1	827
8/1 (with short)	743(In) 726(Out)
8/2 (short)	17
9/1 (short)	139
9/2 (with short)	1052(In) 913(Out)
10/1	223

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	66.1 %	1908	1908
				Arm 4 Ahead	29.00	33.9 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	32.5 %	1739	1739
				Arm 7 Right	10.00	67.5 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	41.4 %	1886	1886
				Arm 9 Ahead	Inf	58.6 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Strategic Model Hawkfield Development 2a - AM' (FG3: 'Strategic Model Hawkfield 2026 Development 2a - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	161	13	52	226
	B	152	0	149	582	883
	C	56	236	0	326	618
	D	90	378	13	0	481
	Tot.	298	775	175	960	2208

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Strategic Model Hawkfield Development 2a - AM
Junction: A4095 / Bucknell Road Network	
1/1	226
2/1	775
3/1 (with short)	883(In) 731(Out)
3/2 (short)	152
4/1	796
5/1	175
6/1	618
7/1	960
8/1 (with short)	481(In) 468(Out)
8/2 (short)	13
9/1 (short)	146
9/2 (with short)	760(In) 614(Out)
10/1	298

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	71.2 %	1908	1908
				Arm 4 Ahead	29.00	28.8 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	20.4 %	1711	1711
				Arm 7 Right	10.00	79.6 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	52.8 %	1876	1876
				Arm 9 Ahead	Inf	47.2 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Strategic Model Hawkfield Development 2a - PM' (FG4: 'Strategic Model Hawkfield 2026 Development 2a - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	164	29	63	256
	B	85	0	252	544	881
	C	43	293	0	192	528
	D	92	636	15	0	743
	Tot.	220	1093	296	799	2408

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Strategic Model Hawkfield Development 2a - PM
Junction: A4095 / Bucknell Road Network	
1/1	256
2/1	1093
3/1 (with short)	881(In) 796(Out)
3/2 (short)	85
4/1	888
5/1	296
6/1	528
7/1	799
8/1 (with short)	743(In) 728(Out)
8/2 (short)	15
9/1 (short)	135
9/2 (with short)	1064(In) 929(Out)
10/1	220

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	64.1 %	1907	1907
				Arm 4 Ahead	29.00	35.9 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.6 %	1737	1737
				Arm 7 Right	10.00	68.4 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	36.4 %	1891	1891
				Arm 9 Ahead	Inf	63.6 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Strategic Model Hawkfield Development 1b - AM' (FG5: 'Strategic Model Hawkfield 2026 Development 1b - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	171	13	56	240
	B	143	0	128	571	842
	C	58	245	0	322	625
	D	87	365	17	0	469
	Tot.	288	781	158	949	2176

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Strategic Model Hawkfield Development 1b - AM
Junction: A4095 / Bucknell Road Network	
1/1	240
2/1	781
3/1 (with short)	842(In) 699(Out)
3/2 (short)	143
4/1	768
5/1	158
6/1	625
7/1	949
8/1 (with short)	469(In) 452(Out)
8/2 (short)	17
9/1 (short)	145
9/2 (with short)	755(In) 610(Out)
10/1	288

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	71.3 %	1908	1908
				Arm 4 Ahead	29.00	28.7 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	18.4 %	1706	1706
				Arm 7 Right	10.00	81.6 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	51.5 %	1877	1877
				Arm 9 Ahead	Inf	48.5 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Strategic Model Hawkfield Development 1b - PM' (FG6: 'Strategic Model Hawkfield 2026 Development 1b - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	157	23	48	228
	B	83	0	253	542	878
	C	40	275	0	241	556
	D	92	635	19	0	746
	Tot.	215	1067	295	831	2408

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Strategic Model Hawkfield Development 1b - PM
Junction: A4095 / Bucknell Road Network	
1/1	228
2/1	1067
3/1 (with short)	878(In) 795(Out)
3/2 (short)	83
4/1	866
5/1	295
6/1	556
7/1	831
8/1 (with short)	746(In) 727(Out)
8/2 (short)	19
9/1 (short)	132
9/2 (with short)	1042(In) 910(Out)
10/1	215

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	68.9 %	1908	1908
				Arm 4 Ahead	29.00	31.1 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.9 %	1737	1737
				Arm 7 Right	10.00	68.1 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	43.3 %	1884	1884
				Arm 9 Ahead	Inf	56.7 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: ' Strategic Model Hawkfield Development 2b - AM' (FG7: 'Strategic Model Hawkfield 2026 Development 2b - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	172	12	52	236
	B	149	0	134	575	858
	C	58	246	0	322	626
	D	86	364	15	0	465
	Tot.	293	782	161	949	2185

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Strategic Model Hawkfield Development 2b - AM
Junction: A4095 / Bucknell Road Network	
1/1	236
2/1	782
3/1 (with short)	858(In) 709(Out)
3/2 (short)	149
4/1	773
5/1	161
6/1	626
7/1	949
8/1 (with short)	465(In) 450(Out)
8/2 (short)	15
9/1 (short)	144
9/2 (with short)	754(In) 610(Out)
10/1	293

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	72.9 %	1909	1909
				Arm 4 Ahead	29.00	27.1 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	18.9 %	1707	1707
				Arm 7 Right	10.00	81.1 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	51.4 %	1877	1877
				Arm 9 Ahead	Inf	48.6 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Strategic Model Hawkfield Development 2b - PM' (FG8: 'Strategic Model Hawkfield 2026 Development 2b - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	159	26	57	242
	B	84	0	247	538	869
	C	39	284	0	208	531
	D	89	640	22	0	751
	Tot.	212	1083	295	803	2393

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Strategic Model Hawkfield Development 2b - PM
Junction: A4095 / Bucknell Road Network	
1/1	242
2/1	1083
3/1 (with short)	869(In) 785(Out)
3/2 (short)	84
4/1	868
5/1	295
6/1	531
7/1	803
8/1 (with short)	751(In) 729(Out)
8/2 (short)	22
9/1 (short)	128
9/2 (with short)	1052(In) 924(Out)
10/1	212

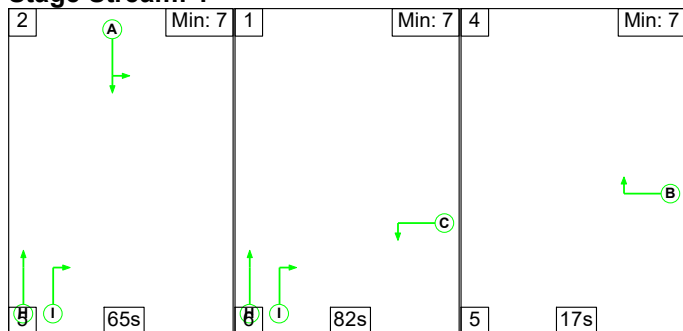
Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	65.7 %	1907	1907
				Arm 4 Ahead	29.00	34.3 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.5 %	1736	1736
				Arm 7 Right	10.00	68.5 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	39.2 %	1888	1888
				Arm 9 Ahead	Inf	60.8 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Strategic Model Hawkfield Development 1a - AM' (FG1: 'Strategic Model Hawkfield 2026 Development 1a - AM', Plan 1: 'Network Control Plan 1')

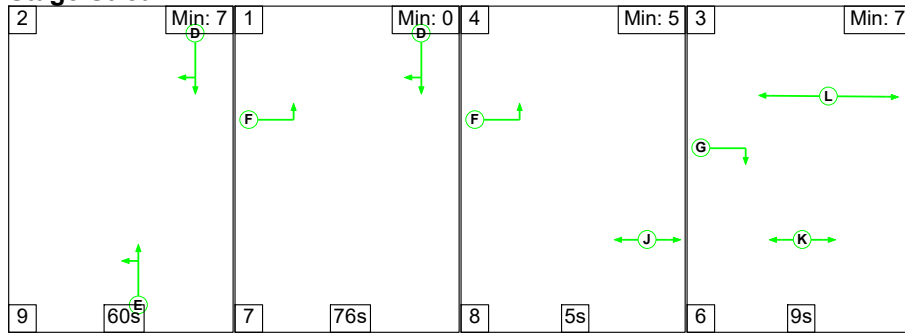
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

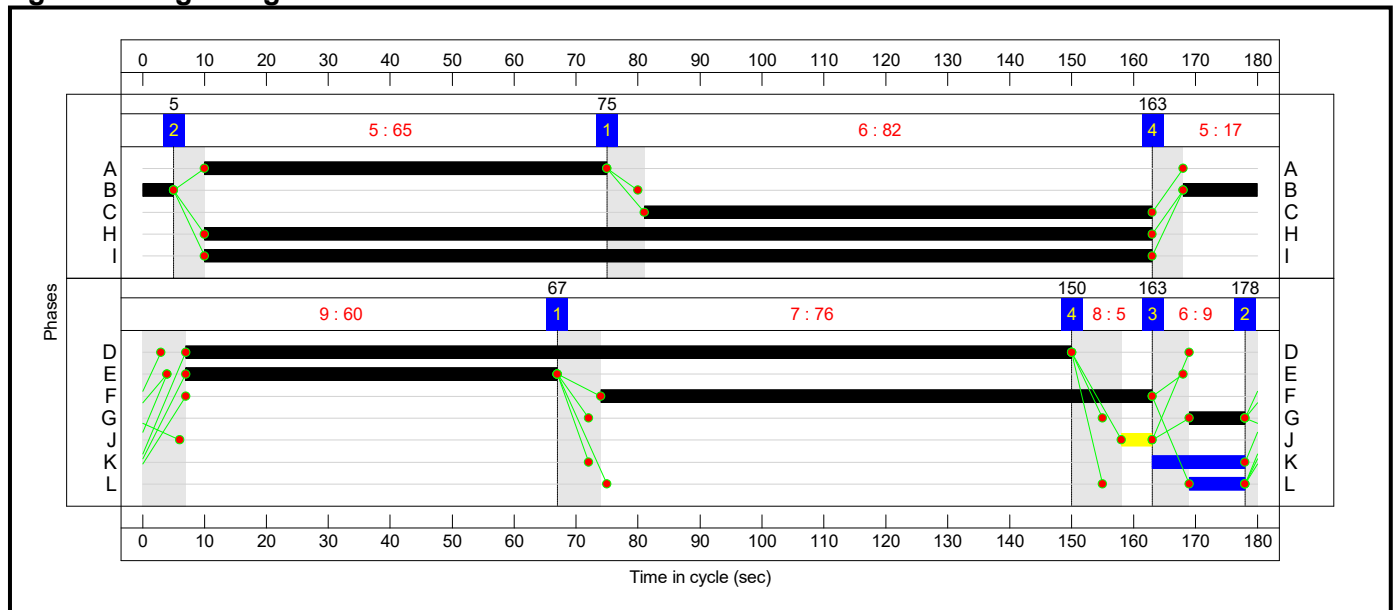
Stage Stream: 1

Stage	2	1	4
Duration	65	82	17
Change Point	5	75	163

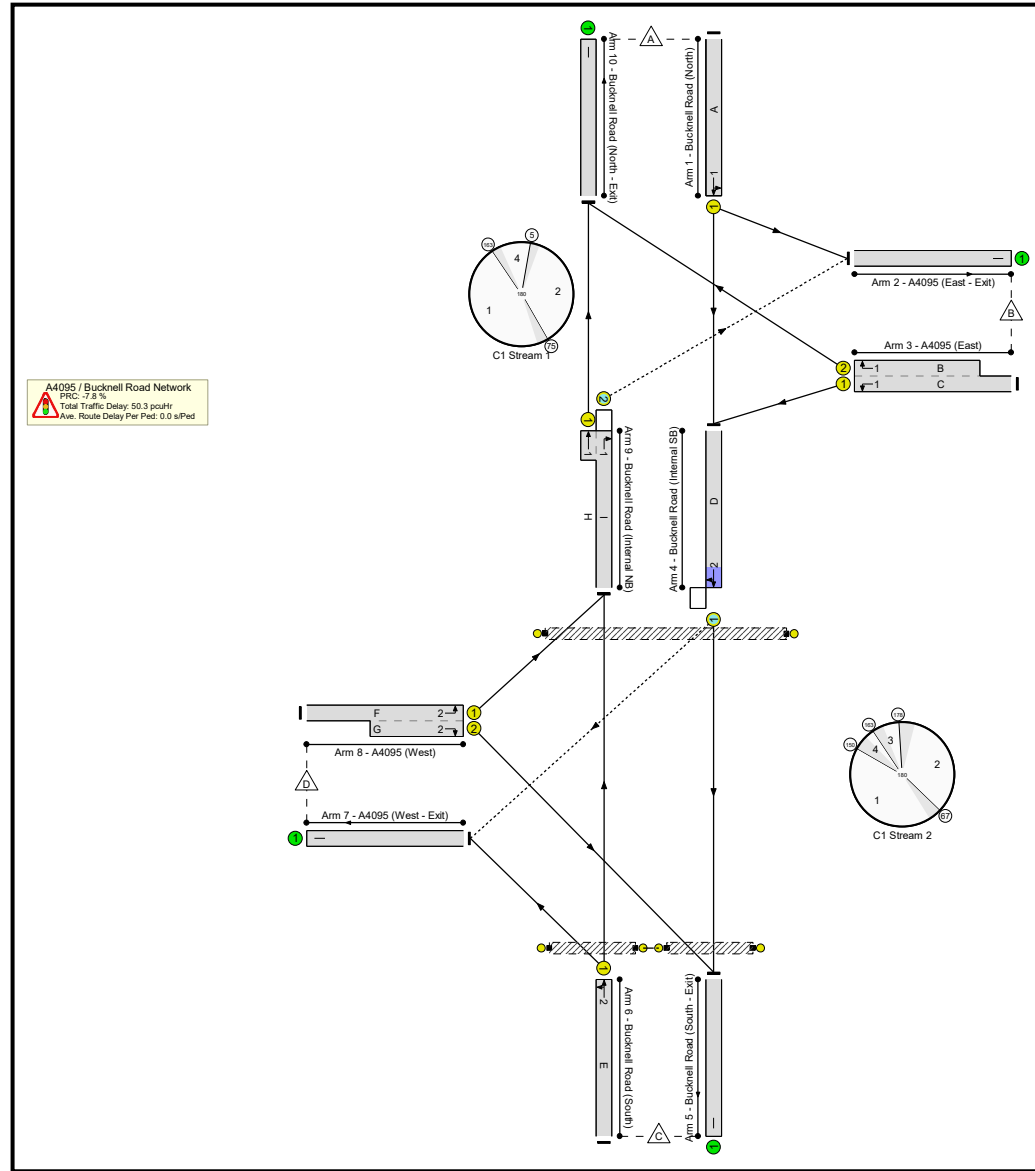
Stage Stream: 2

Stage	2	1	4	3
Duration	60	76	5	9
Change Point	178	67	150	163

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	97.0%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	97.0%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	65	-	231	1908	700	33.0%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	82:17	-	863	1747:1888	755+155	95.2 : 93.1%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	143	-	787	1708	828	95.1%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	165	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	60	-	617	1876	636	97.0%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	960	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	89:9	-	483	1643:1825	811+22	57.9 : 57.9%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	153	-	762	1838:1966	1126+269	54.6 : 54.6%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	15	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

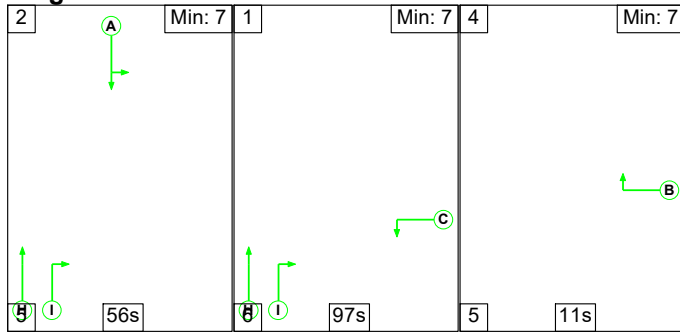
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	9	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	260	973	17	32.8	16.6	0.9	50.3	-	-	-	-
A4095 / Bucknell Road Network	-	-	260	973	17	32.8	16.6	0.9	50.3	-	-	-	-
1/1	231	231	-	-	-	2.6	0.2	-	2.9	44.9	8.3	0.2	8.5
2/1	778	778	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	863	863	-	-	-	12.1	7.1	-	19.2 (14.9+4.3)	80.2 (74.5:108.5)	36.5	7.1	43.6
4/1	787	787	10	611	13	3.4	0.0	0.7	4.1	18.7	9.8	0.0	9.8
5/1	165	165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	617	617	-	-	-	10.0	8.6	-	18.6	108.7	30.3	8.6	38.9
7/1	960	960	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	483	483	-	-	-	4.4	0.7	-	5.1 (4.8+0.3)	38.0 (36.6:86.0)	16.5	0.7	17.2
9/2+9/1	762	762	249	361	4	0.2	0.0	0.2	0.4 (0.4+0.0)	1.9 (2.2:0.6)	2.8	0.0	2.8
10/1	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-5.8	Total Delay for Signalled Lanes (pcuHr):			22.50	Cycle Time (s):		180	
		C1	Stream: 2 PRC for Signalled Lanes (%):		-7.8	Total Delay for Signalled Lanes (pcuHr):			27.81	Cycle Time (s):		180	
			PRC Over All Lanes (%):		-7.8	Total Delay Over All Lanes (pcuHr):			50.31				

Full Input Data And Results

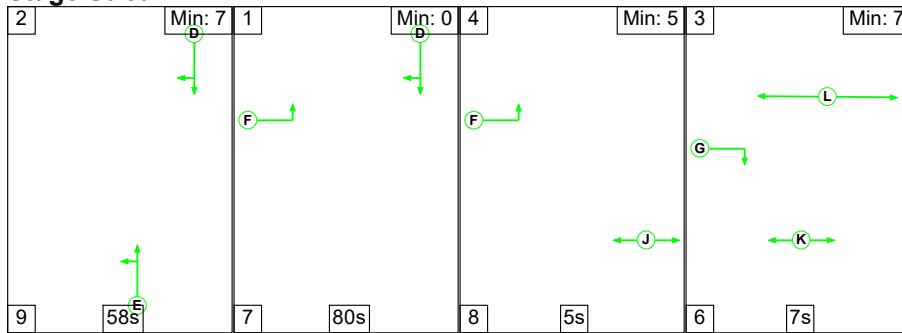
Scenario 2: 'Strategic Model Hawkfield Development 1a - PM' (FG2: 'Strategic Model Hawkfield 2026 Development 1a - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

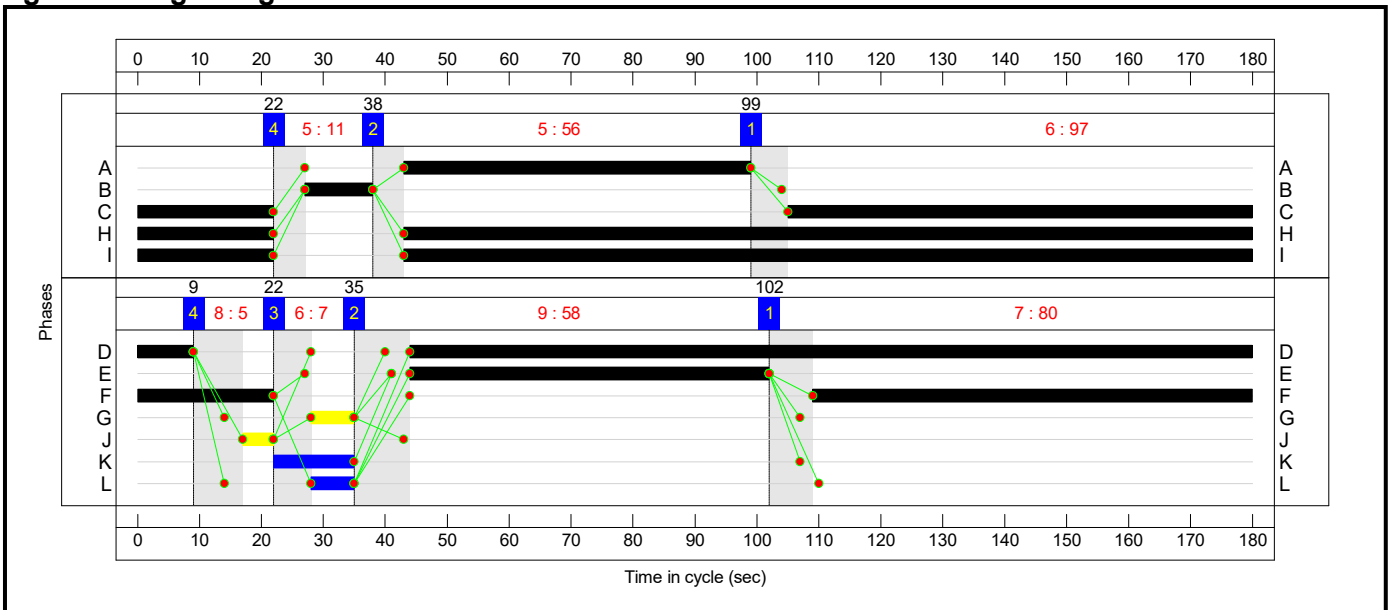
Stage Stream: 1

Stage	2	1	4
Duration	56	97	11
Change Point	38	99	22

Stage Stream: 2

Stage	2	1	4	3
Duration	58	80	5	7
Change Point	35	102	9	22

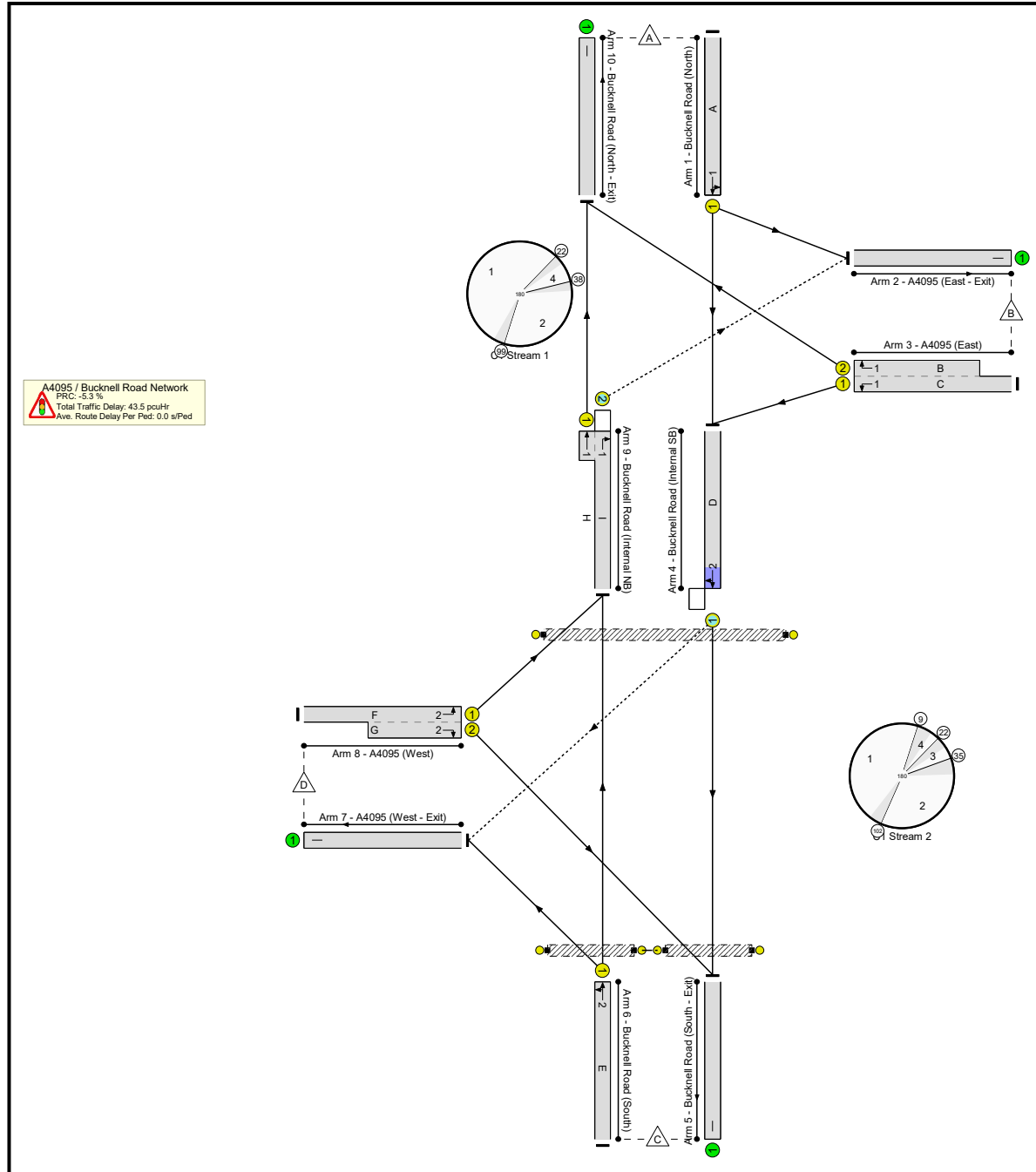
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	56	-	233	1908	604	38.6%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1067	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	97:11	-	889	1747:1888	913+95	88.2 : 88.2%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	884	1739	933	94.8%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	304	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	58	-	556	1886	618	89.9%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	93:7	-	743	1643:1825	849+20	85.5 : 85.5%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	159	-	1052	1838:1966	1242+189	73.5 : 73.5%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

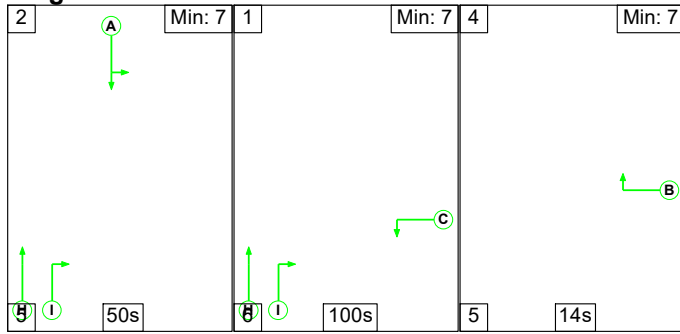
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	299	1198	13	31.9	10.6	1.0	43.5	-	-	-	-
A4095 / Bucknell Road Network	-	-	299	1198	13	31.9	10.6	1.0	43.5	-	-	-	-
1/1	233	233	-	-	-	3.1	0.3	-	3.4	52.7	9.1	0.3	9.4
2/1	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	889	889	-	-	-	9.7	3.5	-	13.2 (11.0+2.2)	53.6 (49.1:96.4)	35.9	3.5	39.5
4/1	884	884	37	554	6	2.0	0.0	0.6	2.7	10.8	5.5	0.0	5.5
5/1	304	304	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	556	556	-	-	-	8.9	4.0	-	12.9	83.3	26.4	4.0	30.4
7/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	743	743	-	-	-	7.8	2.8	-	10.6 (10.2+0.5)	51.6 (50.5:96.7)	31.6	2.8	34.4
9/2+9/1	1052	1052	262	644	7	0.3	0.0	0.4	0.7 (0.7+0.0)	2.4 (2.7:0.5)	8.8	0.0	8.8
10/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		2.0	Total Delay for Signalled Lanes (pcuHr):			17.35	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-5.3	Total Delay for Signalled Lanes (pcuHr):			26.18	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-5.3	Total Delay Over All Lanes (pcuHr):			43.53				

Full Input Data And Results

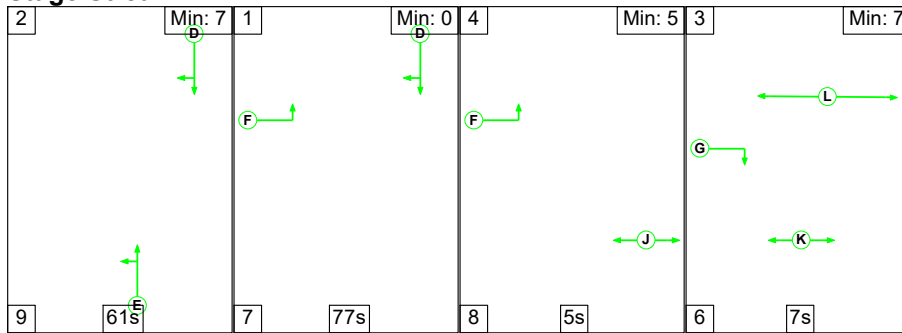
Scenario 3: 'Strategic Model Hawkfield Development 2a - AM' (FG3: 'Strategic Model Hawkfield 2026 Development 2a - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

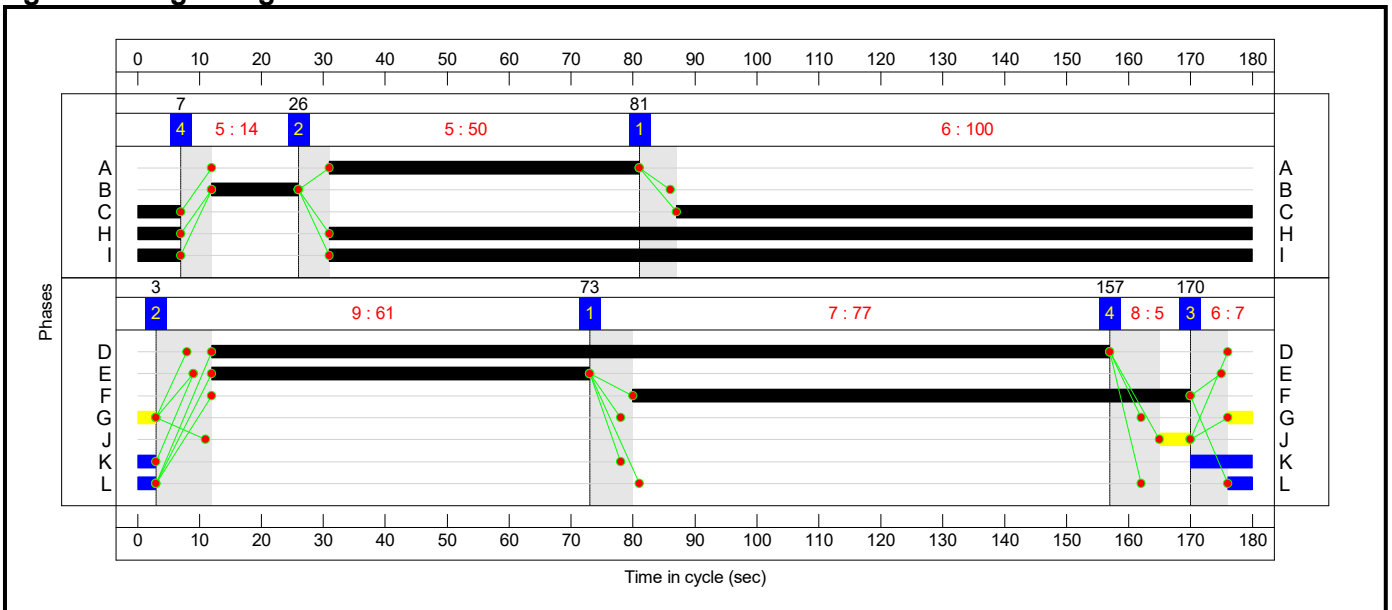
Stage Stream: 1

Stage	2	1	4
Duration	50	100	14
Change Point	26	81	7

Stage Stream: 2

Stage	2	1	4	3
Duration	61	77	5	7
Change Point	3	73	157	170

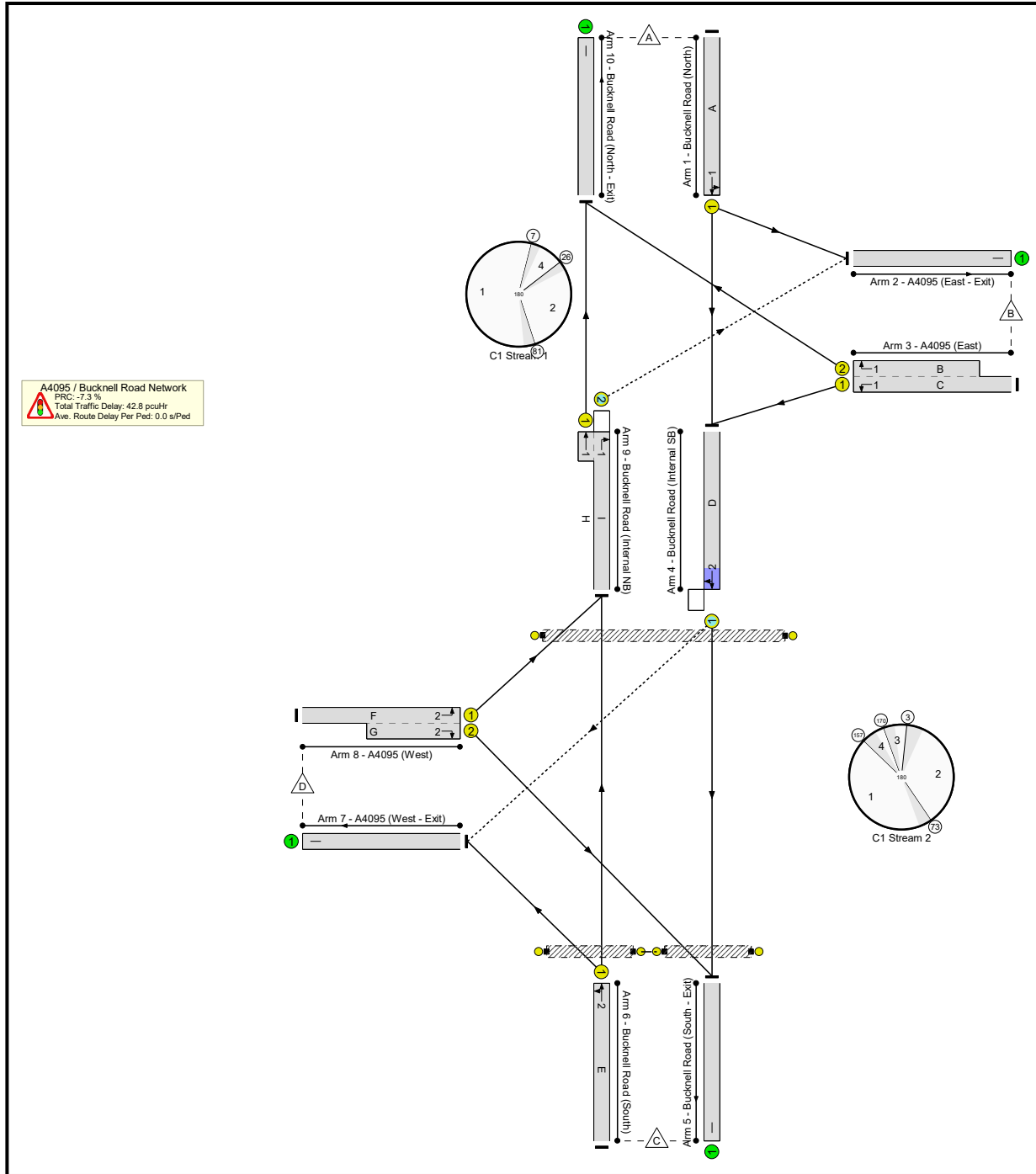
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	96.6%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	96.6%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	50	-	226	1908	541	41.8%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	775	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	100:14	-	883	1747:1888	900+157	81.3 : 96.6%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	796	1711	849	93.8%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	175	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	61	-	618	1876	646	95.6%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	960	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	90:7	-	481	1643:1825	820+23	57.1 : 57.1%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	156	-	760	1838:1966	1169+278	52.5 : 52.5%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%

Full Input Data And Results

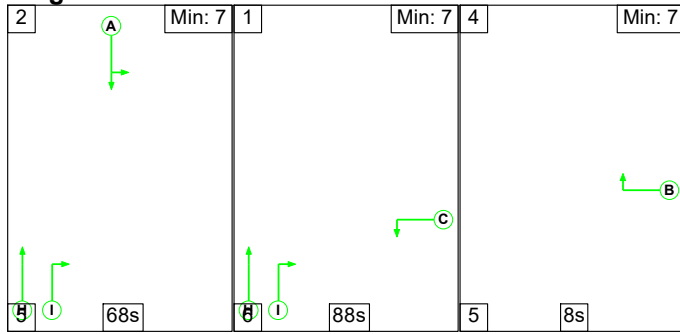
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)																					
Network: A4095 / Bucknell Road	-	-	239	1003	6	30.9	10.7	1.1	42.8	-	-	-	-																					
A4095 / Bucknell Road Network	-	-	239	1003	6	30.9	10.7	1.1	42.8	-	-	-	-																					
1/1	226	226	-	-	-	3.3	0.4	-	3.7	58.1	9.2	0.4	9.5																					
2/1	775	775	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
3/1+3/2	883	883	-	-	-	9.5	2.5	-	12.0 (8.1+3.9)	49.0 (39.9:92.3)	29.4	2.5	31.9																					
4/1	796	796	17	611	6	3.3	0.0	0.7	4.0	17.9	10.7	0.0	10.7																					
5/1	175	175	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	618	618	-	-	-	9.9	7.2	-	17.1	99.9	30.0	7.2	37.3																					
7/1	960	960	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1+8/2	481	481	-	-	-	4.3	0.7	-	5.0 (4.6+0.3)	37.1 (35.7:87.8)	16.3	0.7	17.0																					
9/2+9/1	760	760	222	392	0	0.6	0.0	0.4	1.1 (1.0+0.0)	5.0 (6.0:0.9)	11.5	0.0	11.5																					
10/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																					
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																					
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																					
<table style="width:100%; border:none;"> <tr> <td style="width:20%;"></td> <td style="width:20%;">C1 Stream: 1 PRC for Signalled Lanes (%):</td> <td style="width:20%;">-7.3</td> <td style="width:20%;"></td> <td style="width:20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width:10%;">16.72</td> <td style="width:20%;">Cycle Time (s): 180</td> </tr> <tr> <td></td> <td>C1 Stream: 2 PRC for Signalled Lanes (%):</td> <td>-6.3</td> <td></td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>26.07</td> <td>Cycle Time (s): 180</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%):</td> <td>-7.3</td> <td></td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>42.79</td> <td></td> </tr> </table>															C1 Stream: 1 PRC for Signalled Lanes (%):	-7.3		Total Delay for Signalled Lanes (pcuHr):	16.72	Cycle Time (s): 180		C1 Stream: 2 PRC for Signalled Lanes (%):	-6.3		Total Delay for Signalled Lanes (pcuHr):	26.07	Cycle Time (s): 180		PRC Over All Lanes (%):	-7.3		Total Delay Over All Lanes(pcuHr):	42.79	
	C1 Stream: 1 PRC for Signalled Lanes (%):	-7.3		Total Delay for Signalled Lanes (pcuHr):	16.72	Cycle Time (s): 180																												
	C1 Stream: 2 PRC for Signalled Lanes (%):	-6.3		Total Delay for Signalled Lanes (pcuHr):	26.07	Cycle Time (s): 180																												
	PRC Over All Lanes (%):	-7.3		Total Delay Over All Lanes(pcuHr):	42.79																													

Full Input Data And Results

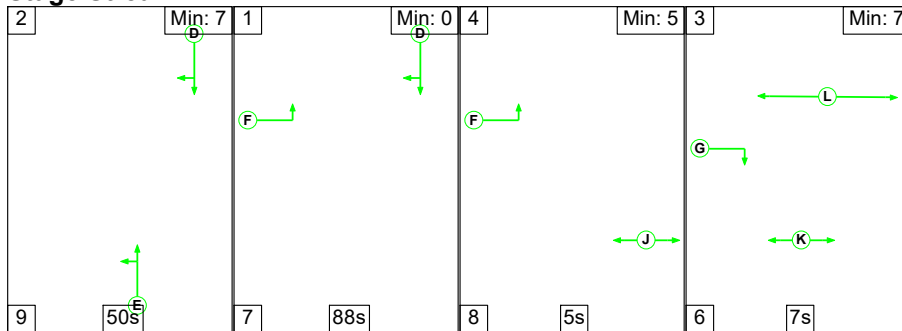
Scenario 4: 'Strategic Model Hawkfield Development 2a - PM' (FG4: 'Strategic Model Hawkfield 2026 Development 2a - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

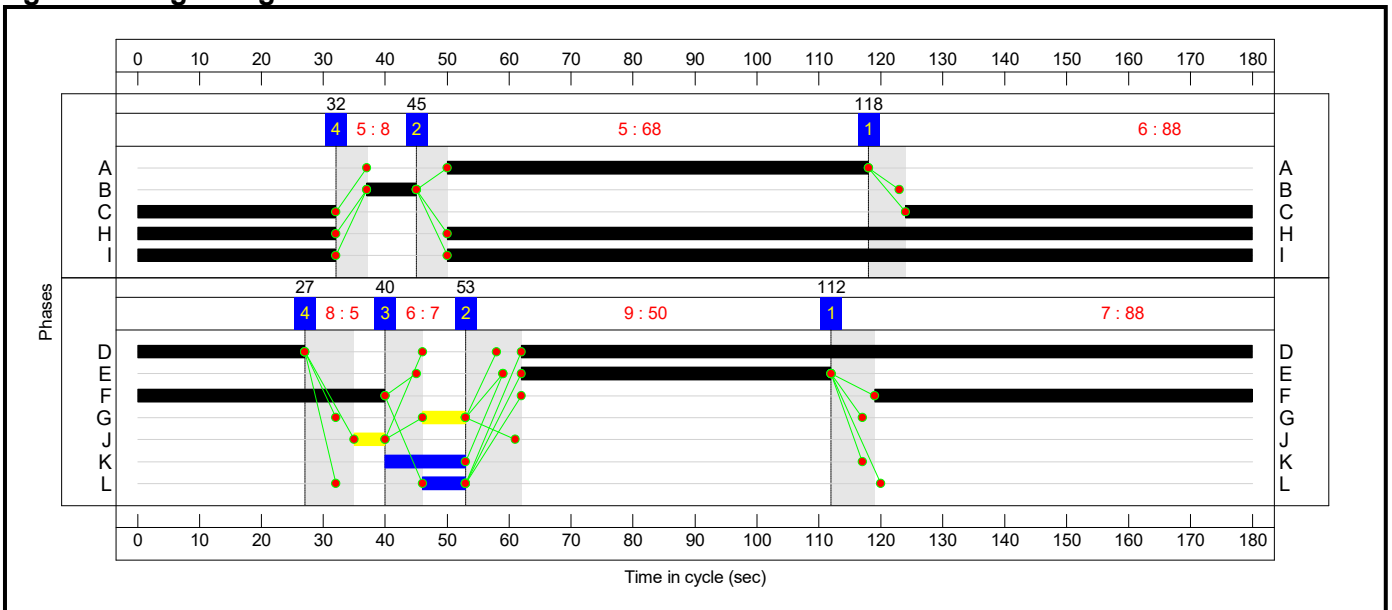
Stage Stream: 1

Stage	2	1	4
Duration	68	88	8
Change Point	45	118	32

Stage Stream: 2

Stage	2	1	4	3
Duration	50	88	5	7
Change Point	53	112	27	40

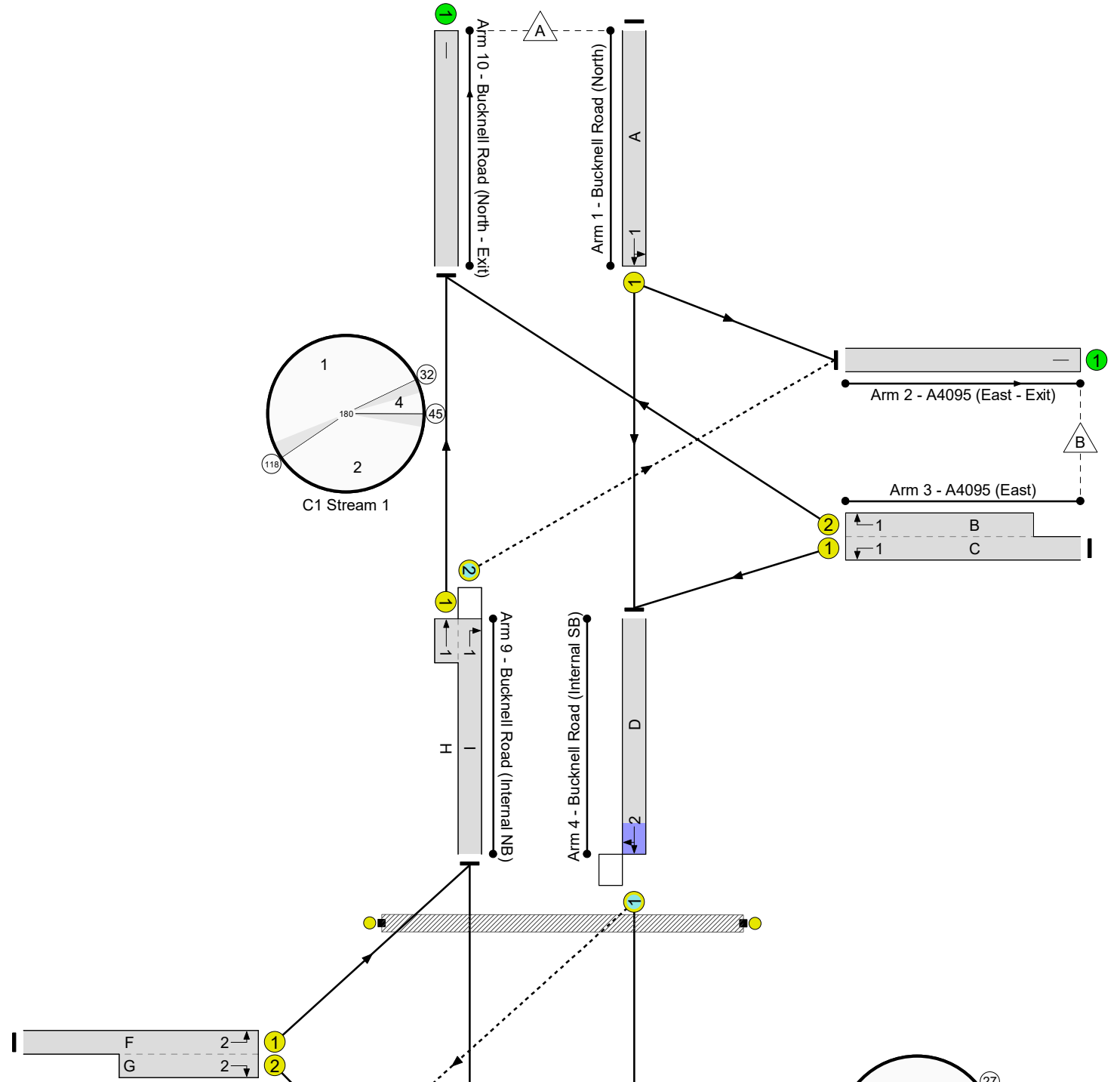
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



A4095 / Bucknell Road Network
 PRC: -9.5 %
 Total Traffic Delay: 53.0 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	98.5%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	98.5%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	68	-	256	1907	731	35.0%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1093	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	88:8	-	881	1747:1888	832+89	95.7 : 95.7%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	888	1737	946	93.8%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	50	-	528	1891	536	98.5%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	101:7	-	743	1643:1825	923+19	78.9 : 78.9%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	162	-	1064	1838:1966	1237+180	75.1 : 75.1%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

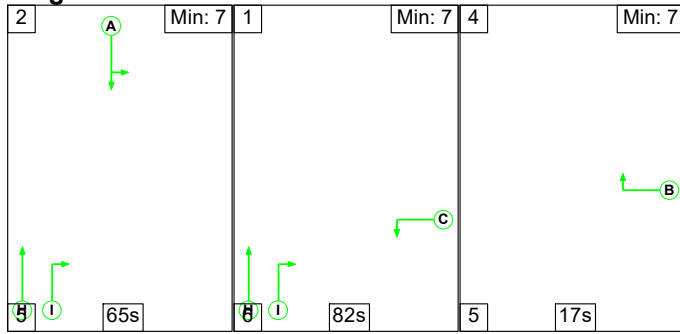
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	338	1179	19	32.4	19.7	0.9	53.0	-	-	-	-
A4095 / Bucknell Road Network	-	-	338	1179	19	32.4	19.7	0.9	53.0	-	-	-	-
1/1	256	256	-	-	-	2.8	0.3	-	3.1	43.3	9.1	0.3	9.4
2/1	1093	1093	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	881	881	-	-	-	11.4	7.9	-	19.3 (16.6+2.8)	79.0 (74.9:117.3)	39.5	7.9	47.4
4/1	888	888	5	590	12	2.0	0.0	0.6	2.5	10.2	8.0	0.0	8.0
5/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	528	528	-	-	-	9.4	9.7	-	19.1	126.7	26.1	9.7	35.8
7/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	743	743	-	-	-	6.5	1.8	-	8.3 (7.9+0.4)	40.3 (39.3:91.8)	28.7	1.8	30.5
9/2+9/1	1064	1064	333	589	7	0.3	0.0	0.4	0.7 (0.6+0.0)	2.2 (2.4:0.6)	3.5	0.0	3.5
10/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-6.3	Total Delay for Signalled Lanes (pcuHr):			23.06	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-9.5	Total Delay for Signalled Lanes (pcuHr):			29.95	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-9.5	Total Delay Over All Lanes (pcuHr):			53.01				

Full Input Data And Results

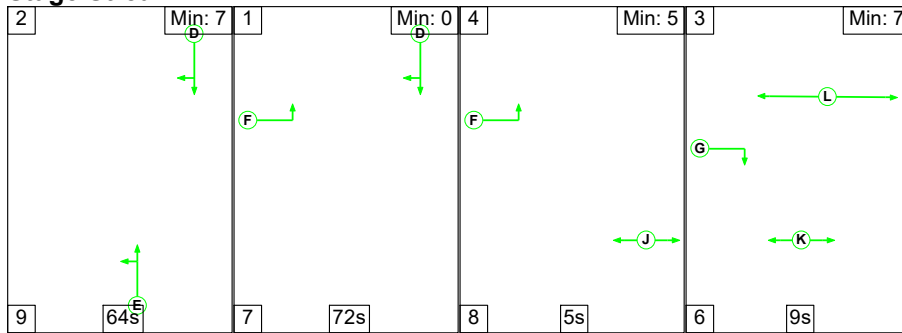
Scenario 5: 'Strategic Model Hawkfield Development 1b - AM' (FG5: 'Strategic Model Hawkfield 2026 Development 1b - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

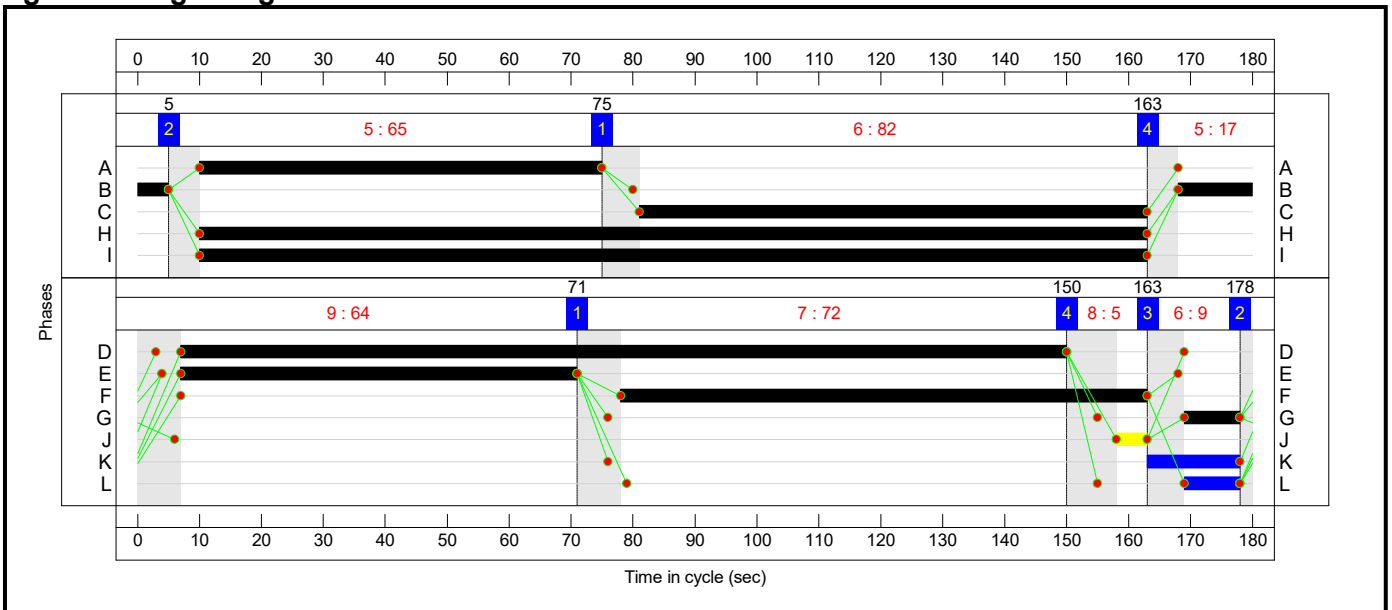
Stage Stream: 1

Stage	2	1	4
Duration	65	82	17
Change Point	5	75	163

Stage Stream: 2

Stage	2	1	4	3
Duration	64	72	5	9
Change Point	178	71	150	163

Signal Timings Diagram

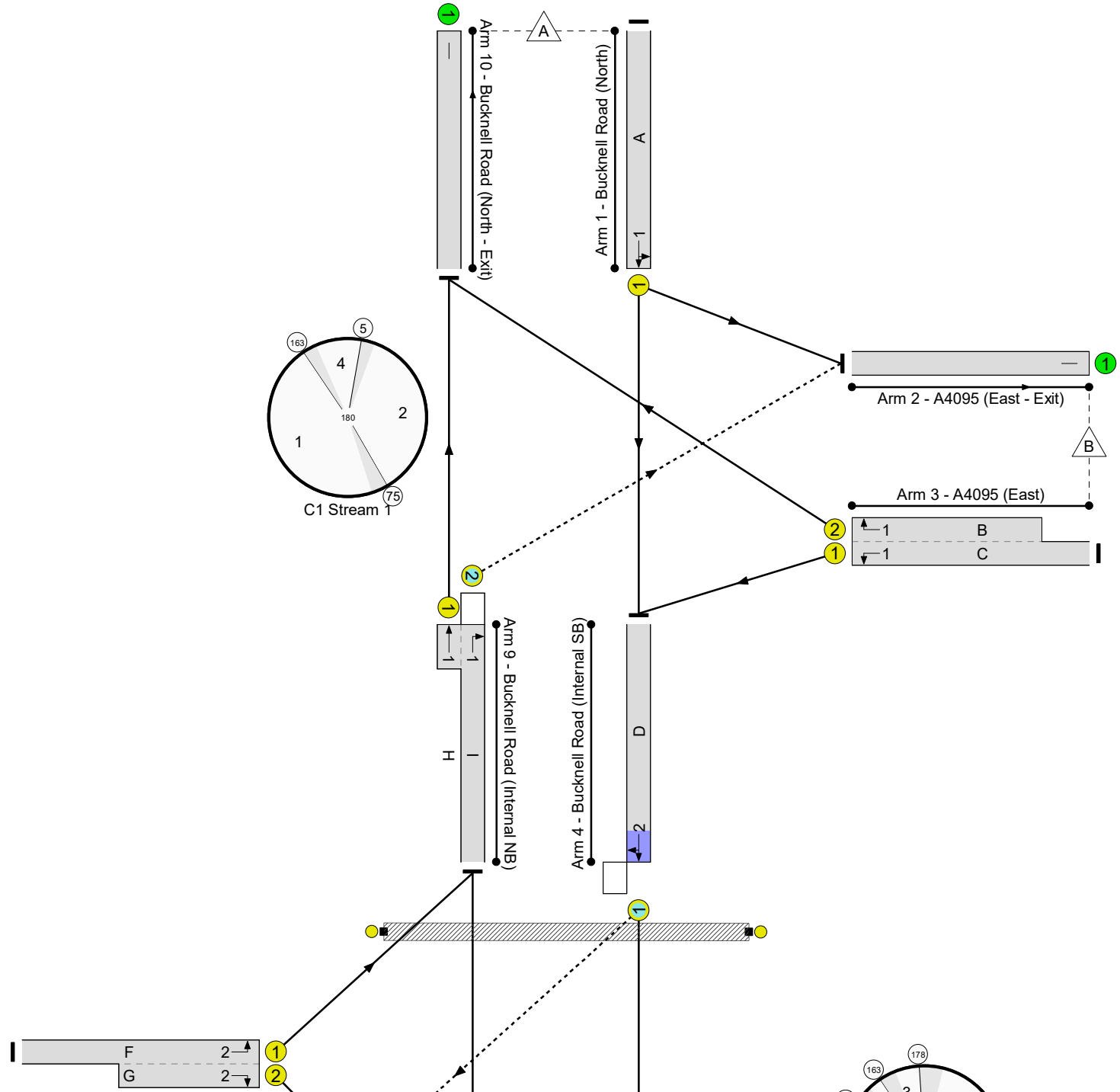


Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A4095 / Bucknell Road Network
 PRC: -4.6 %
 Total Traffic Delay: 43.6 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	65	-	240	1908	700	34.3%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	781	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	82:17	-	842	1747:1888	754+161	92.7 : 88.6%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	143	-	768	1706	816	94.2%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	158	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	64	-	625	1877	678	92.2%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	85:9	-	469	1643:1825	770+29	58.7 : 58.7%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	153	-	755	1838:1966	1120+266	54.5 : 54.5%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	15	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

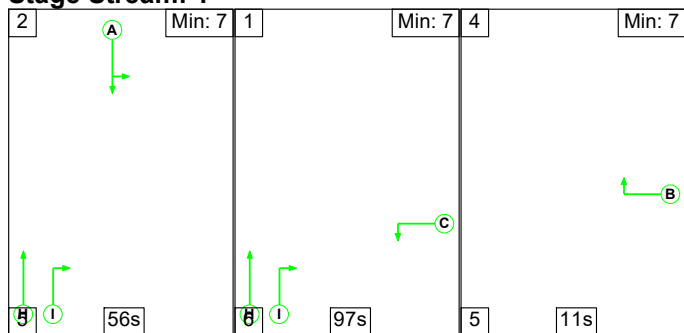
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	9	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	283	937	17	31.7	11.0	1.0	43.6	-	-	-	-
A4095 / Bucknell Road Network	-	-	283	937	17	31.7	11.0	1.0	43.6	-	-	-	-
1/1	240	240	-	-	-	2.8	0.3	-	3.0	45.2	8.7	0.3	8.9
2/1	781	781	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	842	842	-	-	-	11.7	5.0	-	16.7 (12.7+4.0)	71.4 (65.5:100.4)	34.5	5.0	39.5
4/1	768	768	31	583	13	2.9	0.0	0.7	3.6	17.0	8.8	0.0	8.8
5/1	158	158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	625	625	-	-	-	9.6	5.0	-	14.5	83.8	29.9	5.0	34.8
7/1	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	469	469	-	-	-	4.6	0.7	-	5.3 (4.9+0.4)	41.0 (39.3:86.5)	16.5	0.7	17.2
9/2+9/1	755	755	252	354	4	0.2	0.0	0.3	0.4 (0.4+0.0)	2.0 (2.4:0.6)	3.5	0.0	3.5
10/1	288	288	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-3.0	Total Delay for Signalled Lanes (pcuHr):			20.15	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-4.6	Total Delay for Signalled Lanes (pcuHr):			23.50	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-4.6	Total Delay Over All Lanes (pcuHr):			43.65				

Full Input Data And Results

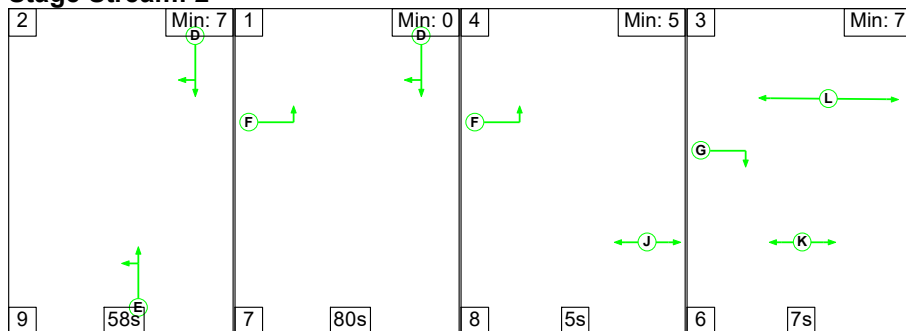
Scenario 6: 'Strategic Model Hawkfield Development 1b - PM' (FG6: 'Strategic Model Hawkfield 2026 Development 1b - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

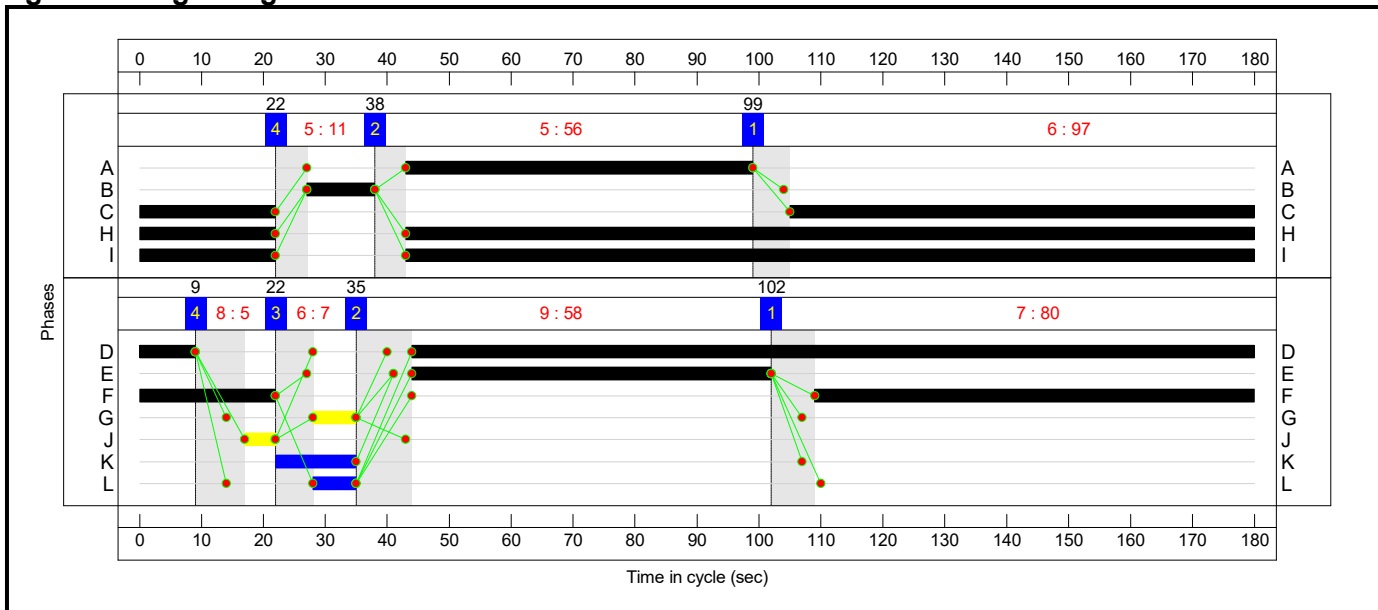
Stage Stream: 1

Stage	2	1	4
Duration	56	97	11
Change Point	38	99	22

Stage Stream: 2

Stage	2	1	4	3
Duration	58	80	5	7
Change Point	35	102	9	22

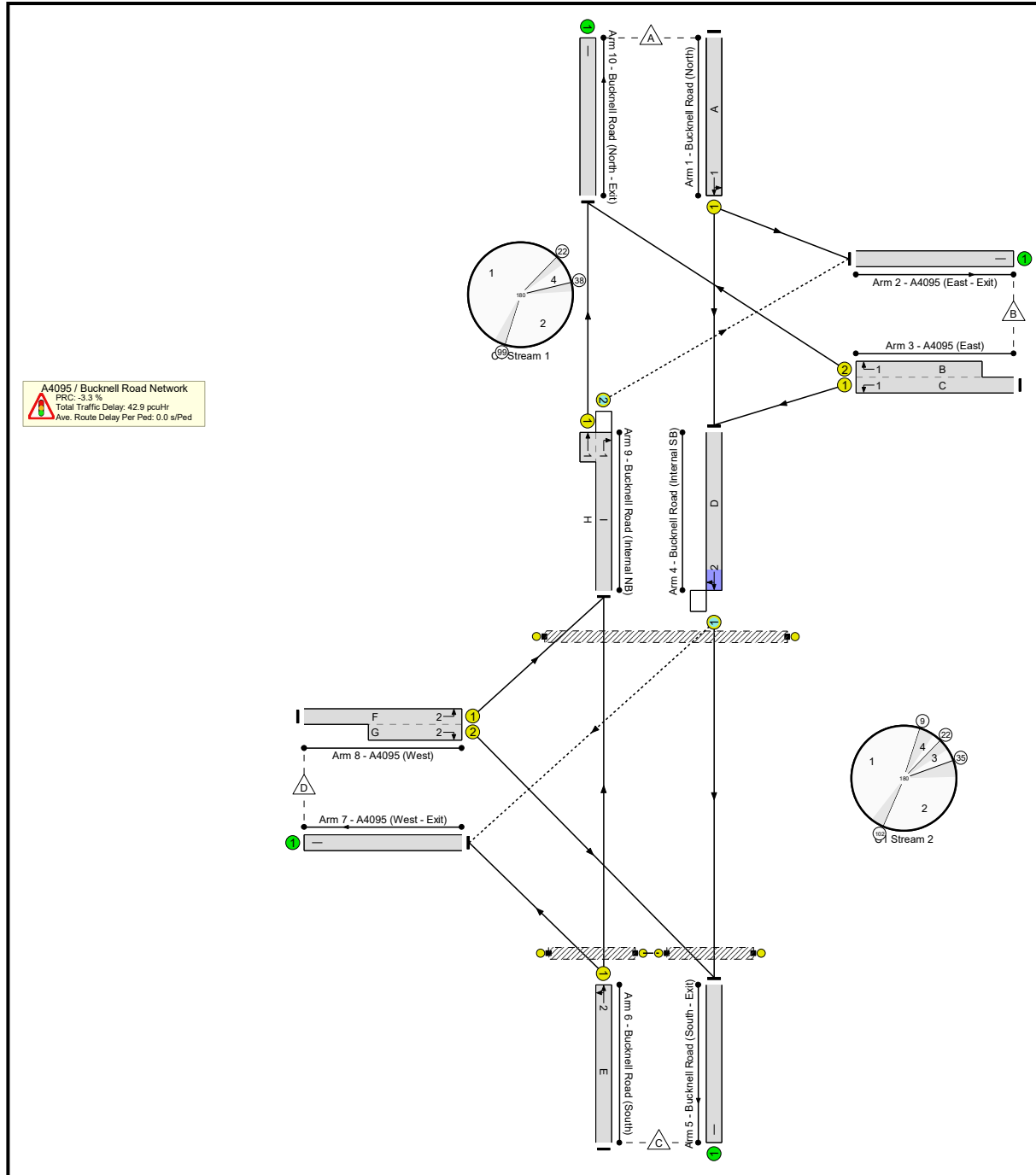
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	93.0%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	93.0%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	56	-	228	1908	604	37.7%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1067	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	97:11	-	878	1747:1888	913+95	87.1 : 87.1%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	866	1737	931	93.0%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	58	-	556	1884	618	90.0%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	831	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	93:7	-	746	1643:1825	848+22	85.8 : 85.8%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	159	-	1042	1838:1966	1250+181	72.8 : 72.8%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

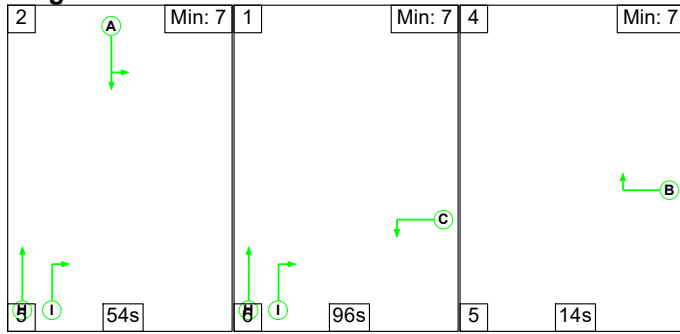
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	302	1185	13	31.5	10.4	1.0	42.9	-	-	-	-
A4095 / Bucknell Road Network	-	-	302	1185	13	31.5	10.4	1.0	42.9	-	-	-	-
1/1	228	228	-	-	-	3.0	0.3	-	3.3	52.5	8.8	0.3	9.1
2/1	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	878	878	-	-	-	9.5	3.2	-	12.7 (10.5+2.2)	52.1 (47.6:95.2)	35.0	3.2	38.2
4/1	866	866	37	547	6	1.9	0.0	0.6	2.6	10.6	5.0	0.0	5.0
5/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	556	556	-	-	-	8.9	4.0	-	12.9	83.6	26.4	4.0	30.4
7/1	831	831	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	746	746	-	-	-	7.9	2.9	-	10.8 (10.3+0.5)	52.0 (50.8:97.0)	31.9	2.9	34.8
9/2+9/1	1042	1042	265	638	7	0.3	0.0	0.4	0.6 (0.6+0.0)	2.2 (2.5:0.5)	7.2	0.0	7.2
10/1	215	215	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		3.3	Total Delay for Signalled Lanes (pcuHr):		16.68	Cycle Time (s):		180		
		C1	Stream: 2 PRC for Signalled Lanes (%):		-3.3	Total Delay for Signalled Lanes (pcuHr):		26.23	Cycle Time (s):		180		
			PRC Over All Lanes (%):		-3.3	Total Delay Over All Lanes(pcuHr):		42.92					

Full Input Data And Results

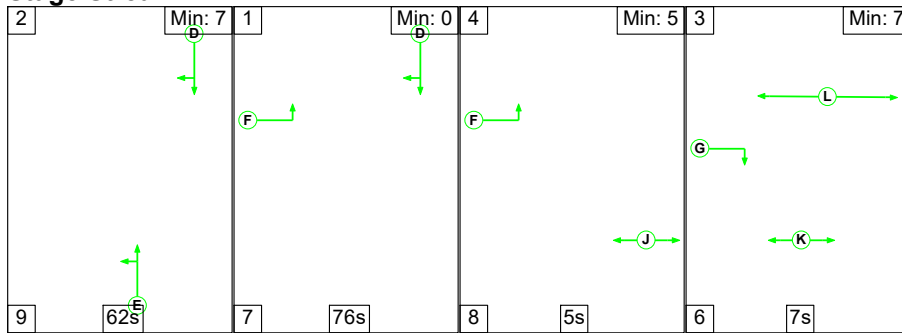
Scenario 7: ' Strategic Model Hawkfield Development 2b - AM' (FG7: 'Strategic Model Hawkfield 2026 Development 2b - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

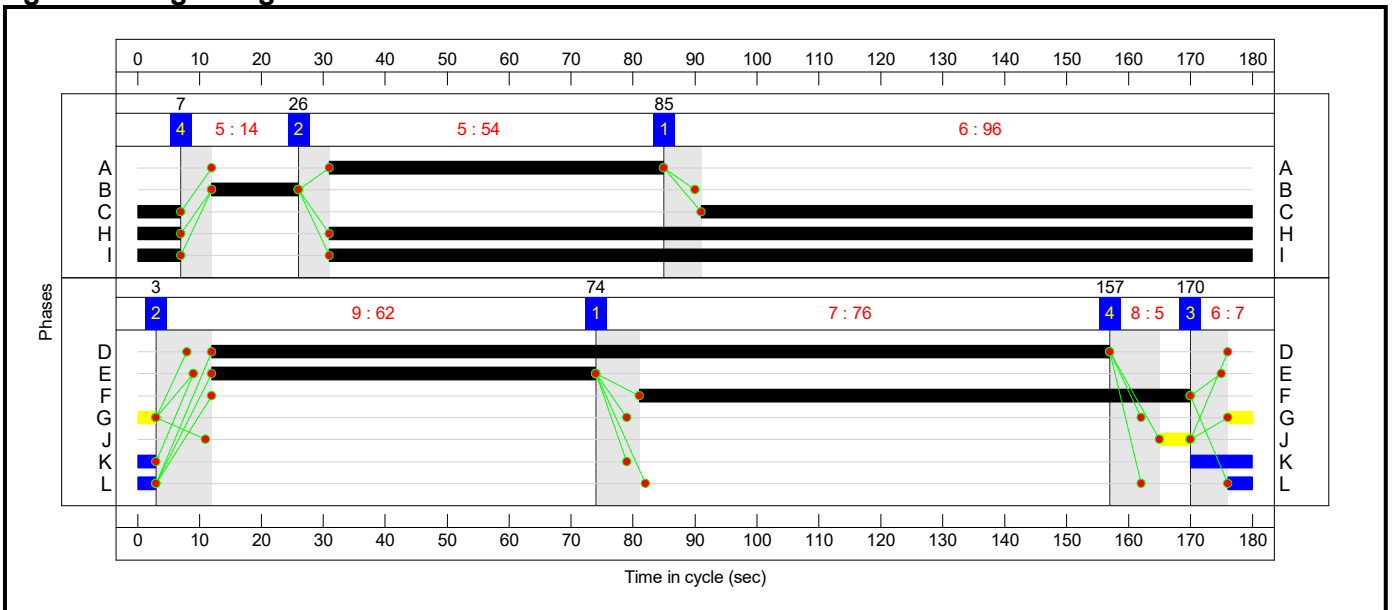
Stage Stream: 1

Stage	2	1	4
Duration	54	96	14
Change Point	26	85	7

Stage Stream: 2

Stage	2	1	4	3
Duration	62	76	5	7
Change Point	3	74	157	170

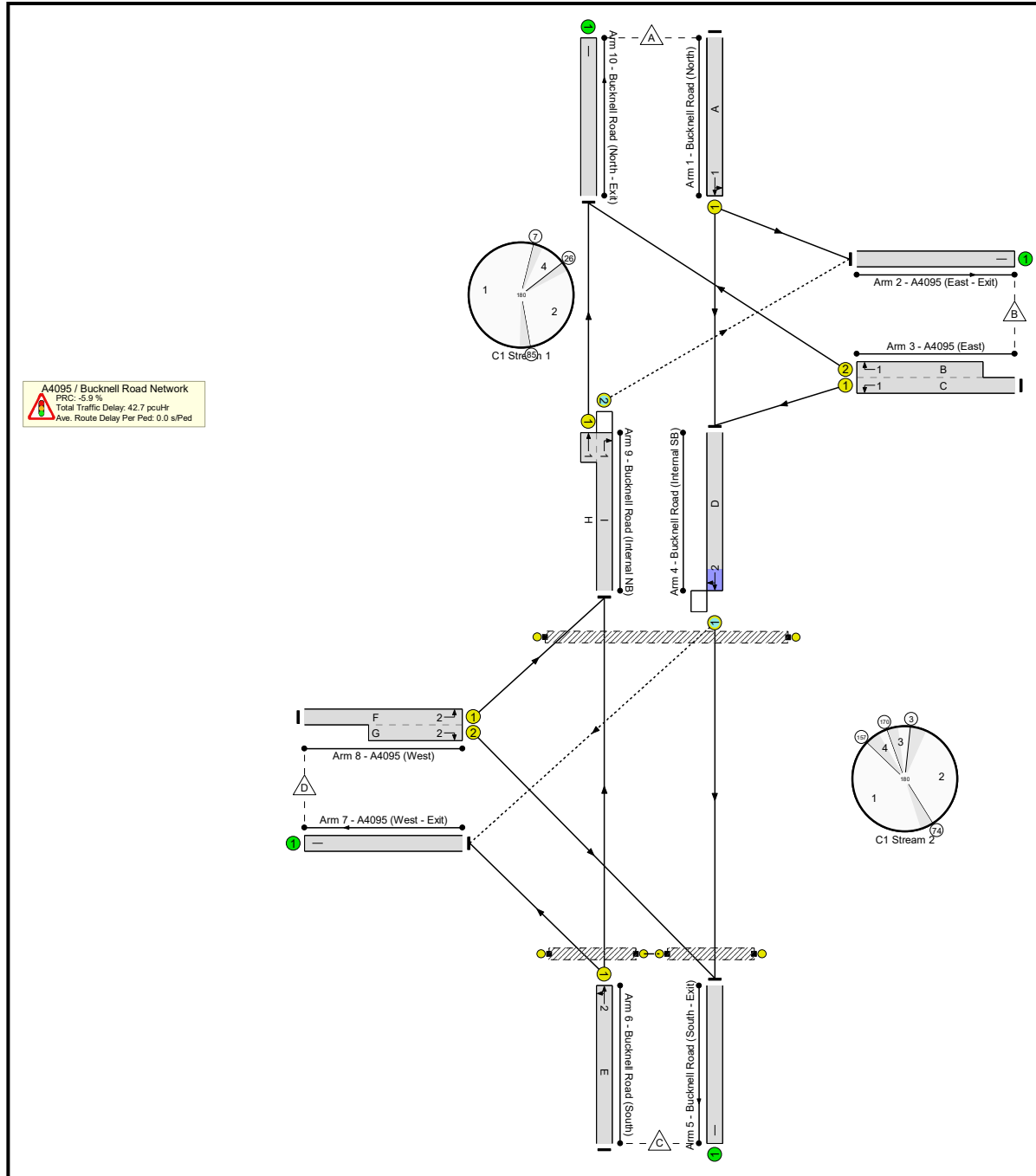
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	95.3%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	95.3%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	54	-	236	1909	583	40.5%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	96:14	-	858	1747:1888	866+157	81.8 : 94.7%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	773	1707	838	92.3%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	161	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	62	-	626	1877	657	95.3%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	89:7	-	465	1643:1825	808+27	55.7 : 55.7%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	156	-	754	1838:1966	1158+273	52.7 : 52.7%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%

Full Input Data And Results

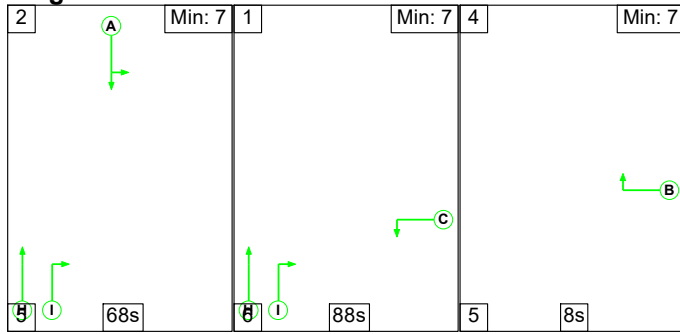
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	260	966	11	31.1	10.4	1.2	42.7	-	-	-	-
A4095 / Bucknell Road Network	-	-	260	966	11	31.1	10.4	1.2	42.7	-	-	-	-
1/1	236	236	-	-	-	3.2	0.3	-	3.6	54.7	9.3	0.3	9.6
2/1	782	782	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	858	858	-	-	-	9.8	2.5	-	12.3 (8.4+3.8)	51.5 (42.8:92.7)	29.2	2.5	31.7
4/1	773	773	17	599	11	3.2	0.0	0.7	3.9	18.2	10.4	0.0	10.4
5/1	161	161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	626	626	-	-	-	9.9	7.0	-	16.9	97.1	30.4	7.0	37.4
7/1	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	465	465	-	-	-	4.2	0.6	-	4.8 (4.5+0.4)	37.5 (35.8:87.8)	15.6	0.6	16.2
9/2+9/1	754	754	243	367	0	0.7	0.0	0.4	1.2 (1.1+0.0)	5.7 (6.7:1.1)	12.1	0.0	12.1
10/1	293	293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1 Stream: 1 PRC for Signalled Lanes (%):		-5.2		Total Delay for Signalled Lanes (pcuHr):		17.04		Cycle Time (s):		180	
		C1 Stream: 2 PRC for Signalled Lanes (%):		-5.9		Total Delay for Signalled Lanes (pcuHr):		25.64		Cycle Time (s):		180	
		PRC Over All Lanes (%):		-5.9		Total Delay Over All Lanes (pcuHr):		42.68					

Full Input Data And Results

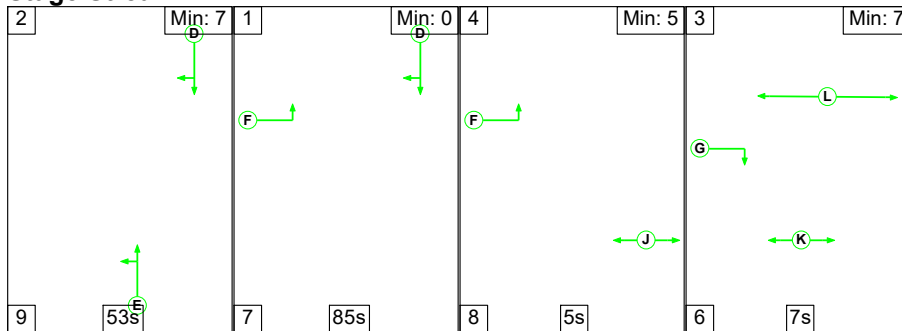
Scenario 8: 'Strategic Model Hawkfield Development 2b - PM' (FG8: 'Strategic Model Hawkfield 2026 Development 2b - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

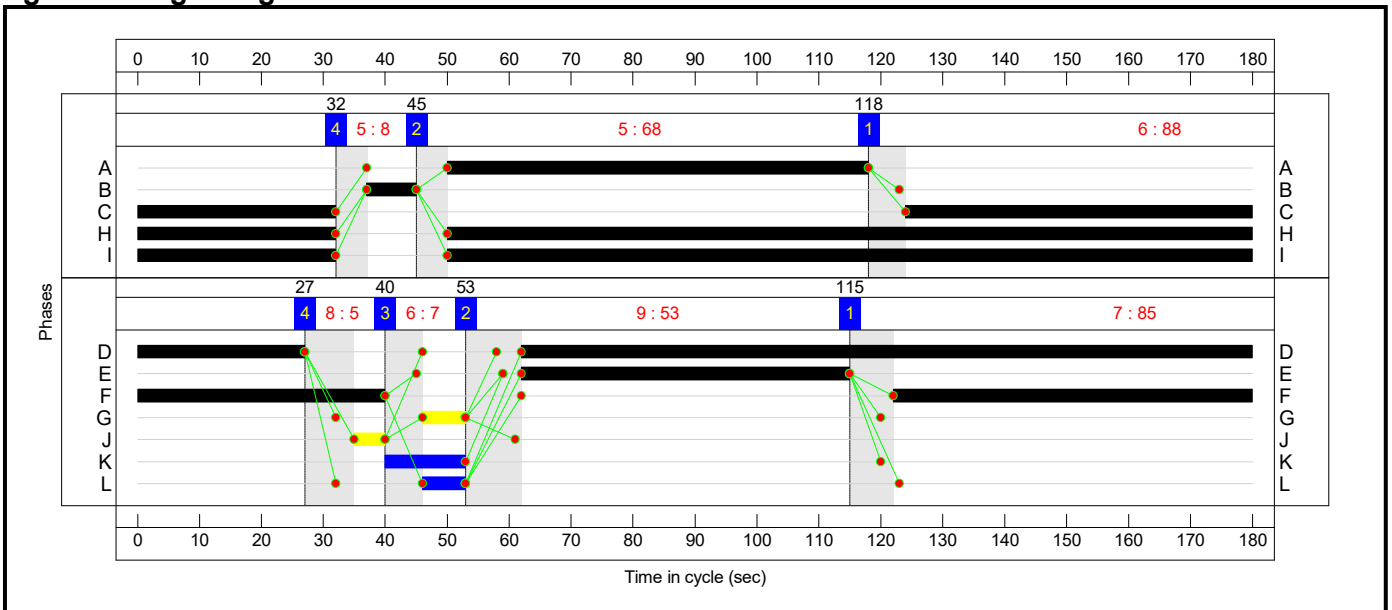
Stage Stream: 1

Stage	2	1	4
Duration	68	88	8
Change Point	45	118	32

Stage Stream: 2

Stage	2	1	4	3
Duration	53	85	5	7
Change Point	53	115	27	40

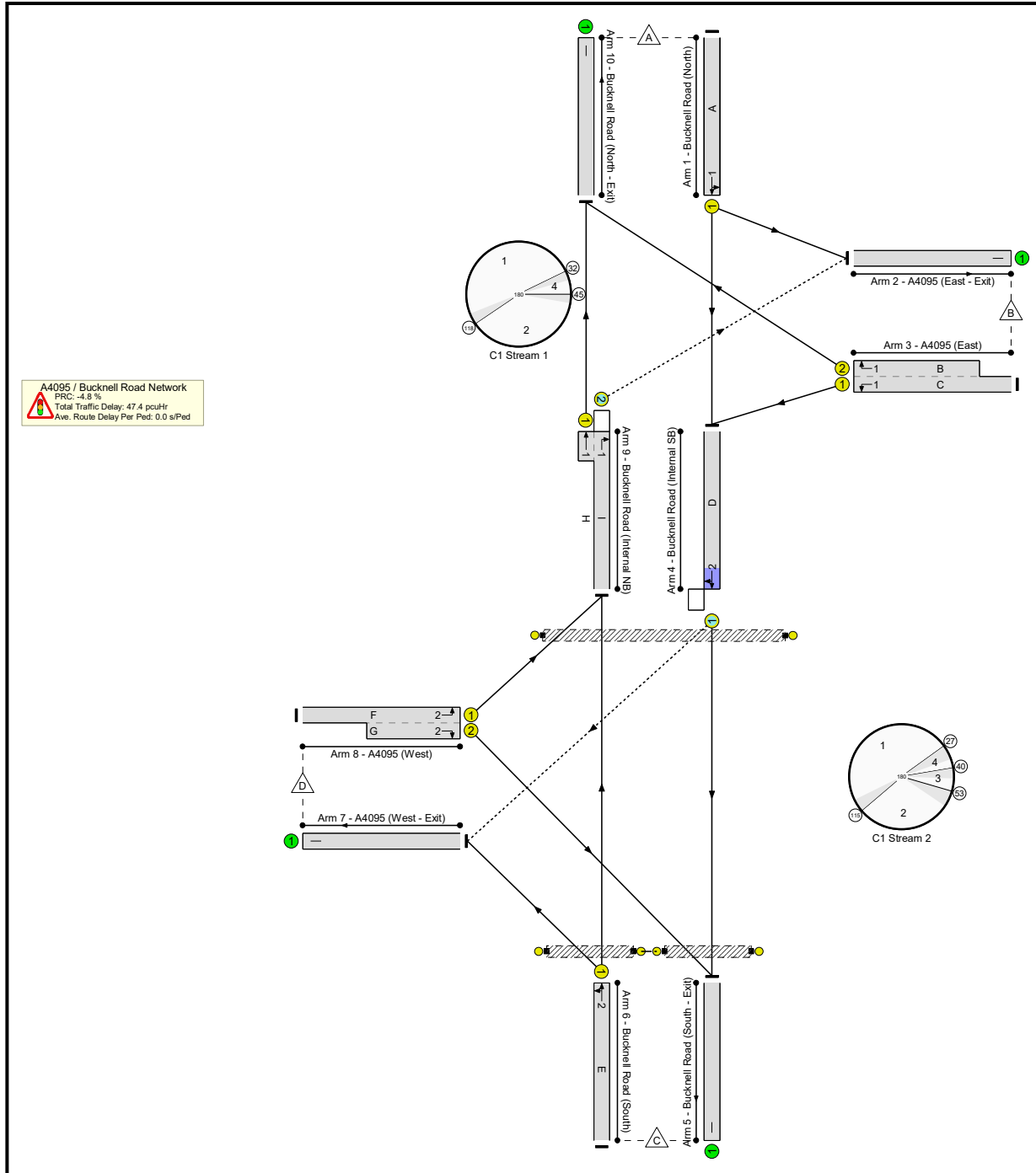
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	68	-	242	1907	731	33.1%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1083	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	88:8	-	869	1747:1888	832+89	94.3 : 94.3%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	868	1736	954	91.0%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	53	-	531	1888	566	93.8%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	98:7	-	751	1643:1825	890+27	81.9 : 81.9%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	162	-	1052	1838:1966	1254+174	73.7 : 73.7%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	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: A4095 / Bucknell Road	-	-	344	1156	19	31.8	14.8	0.9	47.4	-	-	-	-
A4095 / Bucknell Road Network	-	-	344	1156	19	31.8	14.8	0.9	47.4	-	-	-	-
1/1	242	242	-	-	-	2.6	0.2	-	2.9	42.9	8.5	0.2	8.8
2/1	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	869	869	-	-	-	11.2	6.6	-	17.8 (15.2+2.6)	73.7 (69.6:112.5)	38.4	6.6	45.1
4/1	868	868	21	562	12	1.5	0.0	0.6	2.1	8.8	7.0	0.0	7.0
5/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	531	531	-	-	-	9.1	5.7	-	14.7	99.9	25.8	5.7	31.5
7/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	751	751	-	-	-	7.2	2.2	-	9.4 (8.8+0.6)	44.9 (43.4:93.8)	30.2	2.2	32.4
9/2+9/1	1052	1052	323	594	7	0.3	0.0	0.3	0.5 (0.5+0.0)	1.8 (2.0:0.6)	2.7	0.0	2.7
10/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-4.8	Total Delay for Signalled Lanes (pcuHr):			21.21	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-4.2	Total Delay for Signalled Lanes (pcuHr):			26.23	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-4.8	Total Delay Over All Lanes (pcuHr):			47.44				

North West Bicester – Hawkwell Village

20300

Appendix S



North West Bicester – Hawkwell Village

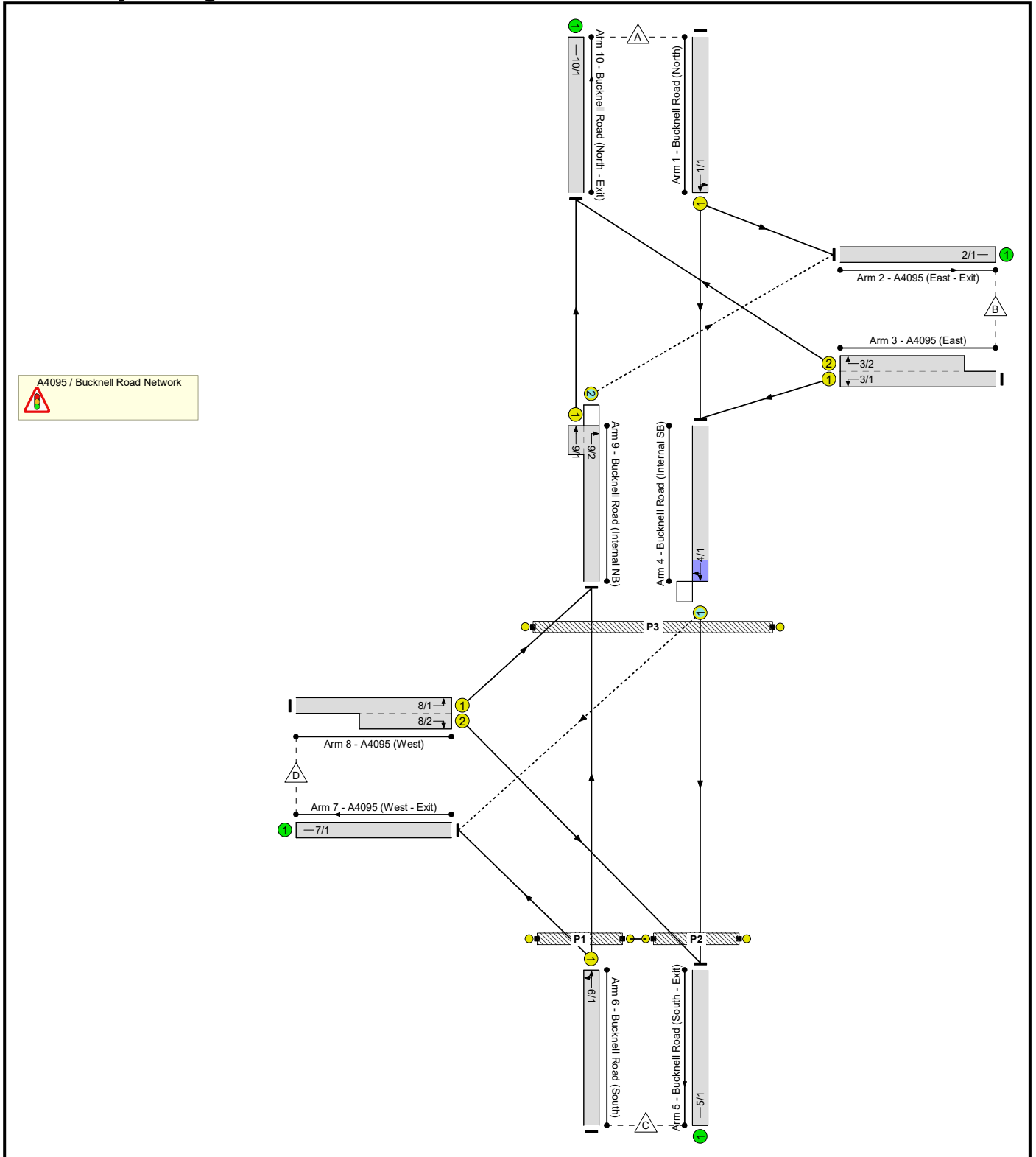
20300

Appendix T

Full Input Data And Results**User and Project Details**

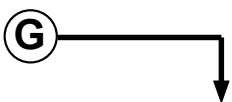
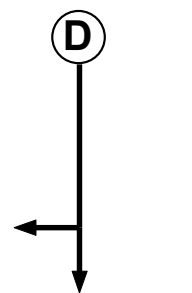
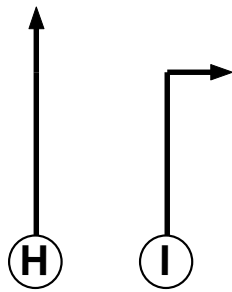
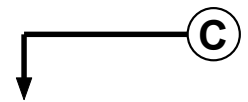
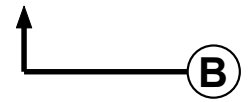
Project:	North West Bicester - Land North East of the Marylebone-Birmingham Railway Line
Title:	A4095 / Bucknell Road
Location:	Bicester, Oxfordshire
Client:	Hallam Land Management Ltd
Additional detail:	Based on Drawing No. 20300-031-P1.
File name:	A4095_Bucknell Road Junction Network (Pre-Link Road Layout)_16-05 with Firethorn.lsg3x
Author:	MD / SR
Company:	Jubb
Address:	Suite B, Ground Floor West, St James Court, St James Parade, Bristol, BS1 3LH

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

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

Phase Intergreens Matrix

		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A		5	6	-	-	-	-	-	-	-	-	-
	B	5		-	-	-	-	-	5	5	-	-	-
	C	5	-		-	-	-	-	-	-	-	-	-
	D	-	-	-		-	5	-	-	8	-	5	-
	E	-	-	-	-		7	5	-	-	-	5	8
	F	-	-	-	-	5		-	-	-	-	-	6
	G	-	-	-	5	6	-		-	-	8	-	-
	H	-	5	-	-	-	-	-		-	-	-	-
	I	-	5	-	-	-	-	-	-		-	-	-
	J	-	-	-	6	-	-	6	-	-		-	-
	K	-	-	-	-	6	-	-	-	-	-		-
	L	-	-	-	9	9	9	-	-	-	-	-	

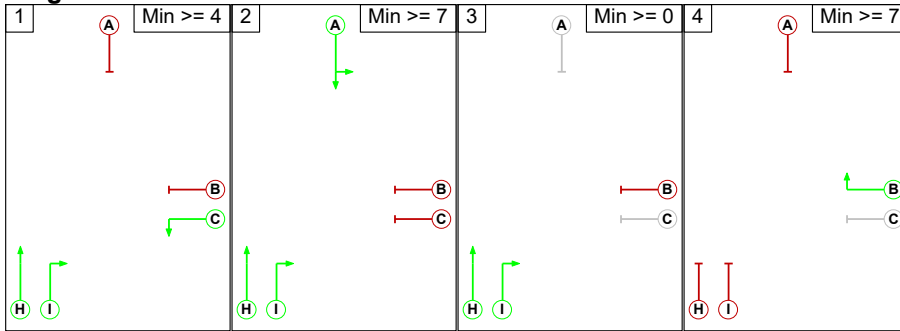
Phases in Stage

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

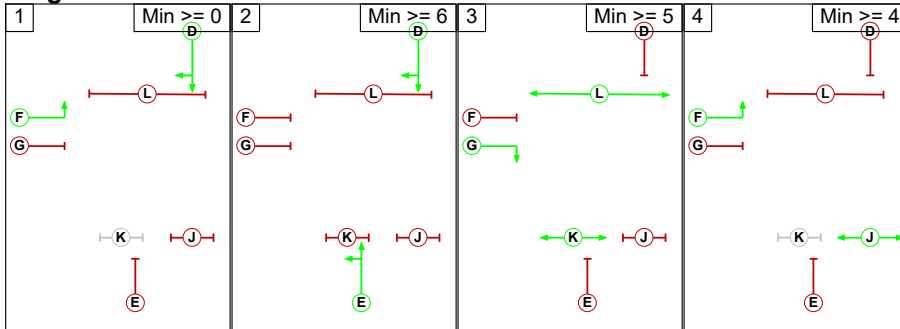
Full Input Data And Results

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

		To Stage			
		1	2	3	4
From Stage	1	5	0	5	
	2	6	0	5	
	3	2	2	5	
	4	5	5	5	

Stage Stream: 2

		To Stage			
		1	2	3	4
From Stage	1	5	6	8	
	2	7	8	8	
	3	9	9	9	
	4	6	6	6	

Full Input Data And Results

Full Input Data And Results

Give-Way Lane Input Data

Junction: A4095 / Bucknell Road Network											
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)
4/1 (Bucknell Road (Internal SB))	7/1 (Right)	1439	0	6/1	1.09	All	2.00	2.00	0.50	2	2.00
9/2 (Bucknell Road (Internal NB))	2/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: A4095 / Bucknell Road Network												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Bucknell Road (North))	U	A	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 2 Left	35.00
											Arm 4 Ahead	29.00
2/1 (A4095 (East - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A4095 (East))	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Left	12.00
3/2 (A4095 (East))	U	B	2	3	22.3	Geom	-	3.50	0.00	Y	Arm 10 Right	37.00
4/1 (Bucknell Road (Internal SB))	O	D	2	3	8.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 7 Right	10.00
5/1 (Bucknell Road (South - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bucknell Road (South))	U	E	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 7 Left	30.00
											Arm 9 Ahead	Inf
7/1 (A4095 (West - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (A4095 (West))	U	F	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 9 Left	7.00
8/2 (A4095 (West))	U	G	2	3	8.9	Geom	-	3.20	0.00	Y	Arm 5 Right	25.00
9/1 (Bucknell Road (Internal NB))	U	H	2	3	2.8	Geom	-	4.60	0.00	Y	Arm 10 Ahead	27.00
9/2 (Bucknell Road (Internal NB))	O	I	2	3	8.2	Geom	-	4.20	0.00	Y	Arm 2 Right	14.00
10/1 (Bucknell Road (North - Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Strategic Model Hawkfield 2026 Development 1a - AM'	08:00	09:00	01:00	
2: 'Strategic Model Hawkfield 2026 Development 1a - PM'	17:00	18:00	01:00	
3: 'Strategic Model Hawkfield 2026 Development 2a - AM'	08:00	09:00	01:00	
4: 'Strategic Model Hawkfield 2026 Development 2a - PM'	17:00	18:00	01:00	
5: 'Strategic Model Hawkfield 2026 Development 1b - AM'	08:00	09:00	01:00	
6: 'Strategic Model Hawkfield 2026 Development 1b - PM'	17:00	18:00	01:00	
7: 'Strategic Model Hawkfield 2026 Development 2b - AM'	08:00	09:00	01:00	
8: 'Strategic Model Hawkfield 2026 Development 2b - PM'	17:00	18:00	01:00	
11: 'SMH 2026 Dev 1a + Firethorn Dev - AM'	08:00	09:00	01:00	F1 + F9
12: 'SMH 2026 Dev 1a + Firethorn Dev - PM'	17:00	18:00	01:00	F2 + F10
13: 'SMH 2026 Dev 2a + Firethorn Dev - AM'	08:00	09:00	01:00	F3 + F9
14: 'SMH 2026 Dev 2a + Firethorn Dev - PM'	17:00	18:00	01:00	F4 + F10
15: 'SMH 2026 Dev 1b + Firethorn Dev - AM'	08:00	09:00	01:00	F5 + F9
16: 'SMH 2026 Dev 1b + Firethorn Dev - PM'	17:00	18:00	01:00	F6 + F10
17: 'SMH 2026 Dev 2b + Firethorn Dev - AM'	08:00	09:00	01:00	F7 + F9
18: 'SMH 2026 Dev 2b + Firethorn Dev - PM'	17:00	18:00	01:00	F8 + F10

Scenario 1: 'Strategic Model Hawkfield Development 1a - AM' (FG11: 'SMH 2026 Dev 1a + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					Tot.
	A	B	C	D		
Origin	A	0	163	13	55	231
	B	144	0	161	674	979
	C	56	242	0	325	623
	D	91	389	13	0	493
	Tot.	291	794	187	1054	2326

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Strategic Model Hawkfield Development 1a - AM
Junction: A4095 / Bucknell Road Network	
1/1	231
2/1	794
3/1 (with short)	979(In) 835(Out)
3/2 (short)	144
4/1	903
5/1	187
6/1	623
7/1	1054
8/1 (with short)	493(In) 480(Out)
8/2 (short)	13
9/1 (short)	147
9/2 (with short)	778(In) 631(Out)
10/1	291

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	70.6 %	1908	1908
				Arm 4 Ahead	29.00	29.4 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	19.3 %	1708	1708
				Arm 7 Right	10.00	80.7 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	52.2 %	1876	1876
				Arm 9 Ahead	Inf	47.8 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Strategic Model Hawkfield Development 1a - PM' (FG12: 'SMH 2026 Dev 1a + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	154	26	53	233
	B	84	0	271	566	921
	C	43	301	0	230	574
	D	96	669	17	0	782
	Tot.	223	1124	314	849	2510

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Strategic Model Hawkfield Development 1a - PM
Junction: A4095 / Bucknell Road Network	
1/1	233
2/1	1124
3/1 (with short)	921(In) 837(Out)
3/2 (short)	84
4/1	916
5/1	314
6/1	574
7/1	849
8/1 (with short)	782(In) 765(Out)
8/2 (short)	17
9/1 (short)	139
9/2 (with short)	1109(In) 970(Out)
10/1	223

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	66.1 %	1908	1908
				Arm 4 Ahead	29.00	33.9 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	32.4 %	1739	1739
				Arm 7 Right	10.00	67.6 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	40.1 %	1887	1887
				Arm 9 Ahead	Inf	59.9 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Strategic Model Hawkfield Development 2a - AM' (FG13: 'SMH 2026 Dev 2a + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	161	13	52	226
	B	152	0	171	676	999
	C	56	242	0	326	624
	D	90	388	13	0	491
	Tot.	298	791	197	1054	2340

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Strategic Model Hawkfield Development 2a - AM
Junction: A4095 / Bucknell Road Network	
1/1	226
2/1	791
3/1 (with short)	999(In) 847(Out)
3/2 (short)	152
4/1	912
5/1	197
6/1	624
7/1	1054
8/1 (with short)	491(In) 478(Out)
8/2 (short)	13
9/1 (short)	146
9/2 (with short)	776(In) 630(Out)
10/1	298

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	71.2 %	1908	1908
				Arm 4 Ahead	29.00	28.8 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	20.2 %	1710	1710
				Arm 7 Right	10.00	79.8 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	52.2 %	1876	1876
				Arm 9 Ahead	Inf	47.8 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Strategic Model Hawkfield Development 2a - PM' (FG14: 'SMH 2026 Dev 2a + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	164	29	63	256
	B	85	0	262	566	913
	C	43	311	0	192	546
	D	92	675	15	0	782
	Tot.	220	1150	306	821	2497

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Strategic Model Hawkfield Development 2a - PM
Junction: A4095 / Bucknell Road Network	
1/1	256
2/1	1150
3/1 (with short)	913(In) 828(Out)
3/2 (short)	85
4/1	920
5/1	306
6/1	546
7/1	821
8/1 (with short)	782(In) 767(Out)
8/2 (short)	15
9/1 (short)	135
9/2 (with short)	1121(In) 986(Out)
10/1	220

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	64.1 %	1907	1907
				Arm 4 Ahead	29.00	35.9 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.6 %	1737	1737
				Arm 7 Right	10.00	68.4 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	35.2 %	1892	1892
				Arm 9 Ahead	Inf	64.8 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Strategic Model Hawkfield Development 1b - AM' (FG15: 'SMH 2026 Dev 1b + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	171	13	56	240
	B	143	0	150	665	958
	C	58	251	0	322	631
	D	87	375	17	0	479
	Tot.	288	797	180	1043	2308

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Strategic Model Hawkfield Development 1b - AM
Junction: A4095 / Bucknell Road Network	
1/1	240
2/1	797
3/1 (with short)	958(In) 815(Out)
3/2 (short)	143
4/1	884
5/1	180
6/1	631
7/1	1043
8/1 (with short)	479(In) 462(Out)
8/2 (short)	17
9/1 (short)	145
9/2 (with short)	771(In) 626(Out)
10/1	288

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	71.3 %	1908	1908
				Arm 4 Ahead	29.00	28.7 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	18.4 %	1706	1706
				Arm 7 Right	10.00	81.6 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	51.0 %	1877	1877
				Arm 9 Ahead	Inf	49.0 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Strategic Model Hawkfield Development 1b - PM' (FG16: 'SMH 2026 Dev 1b + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	157	23	48	228
	B	83	0	263	564	910
	C	40	293	0	241	574
	D	92	674	19	0	785
	Tot.	215	1124	305	853	2497

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Strategic Model Hawkfield Development 1b - PM
Junction: A4095 / Bucknell Road Network	
1/1	228
2/1	1124
3/1 (with short)	910(In) 827(Out)
3/2 (short)	83
4/1	898
5/1	305
6/1	574
7/1	853
8/1 (with short)	785(In) 766(Out)
8/2 (short)	19
9/1 (short)	132
9/2 (with short)	1099(In) 967(Out)
10/1	215

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	68.9 %	1908	1908
				Arm 4 Ahead	29.00	31.1 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.8 %	1737	1737
				Arm 7 Right	10.00	68.2 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	42.0 %	1885	1885
				Arm 9 Ahead	Inf	58.0 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Strategic Model Hawkfield Development 2b - AM' (FG17: 'SMH 2026 Dev 2b + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	172	12	52	236
	B	149	0	156	669	974
	C	58	252	0	322	632
	D	86	374	15	0	475
	Tot.	293	798	183	1043	2317

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Strategic Model Hawkfield Development 2b - AM
Junction: A4095 / Bucknell Road Network	
1/1	236
2/1	798
3/1 (with short)	974(In) 825(Out)
3/2 (short)	149
4/1	889
5/1	183
6/1	632
7/1	1043
8/1 (with short)	475(In) 460(Out)
8/2 (short)	15
9/1 (short)	144
9/2 (with short)	770(In) 626(Out)
10/1	293

Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	72.9 %	1909	1909
				Arm 4 Ahead	29.00	27.1 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	18.9 %	1707	1707
				Arm 7 Right	10.00	81.1 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	50.9 %	1877	1877
				Arm 9 Ahead	Inf	49.1 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Strategic Model Hawkfield Development 2b - PM' (FG18: 'SMH 2026 Dev 2b + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	159	26	57	242
	B	84	0	257	560	901
	C	39	302	0	208	549
	D	89	679	22	0	790
	Tot.	212	1140	305	825	2482

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Strategic Model Hawkfield Development 2b - PM
Junction: A4095 / Bucknell Road Network	
1/1	242
2/1	1140
3/1 (with short)	901(In) 817(Out)
3/2 (short)	84
4/1	900
5/1	305
6/1	549
7/1	825
8/1 (with short)	790(In) 768(Out)
8/2 (short)	22
9/1 (short)	128
9/2 (with short)	1109(In) 981(Out)
10/1	212

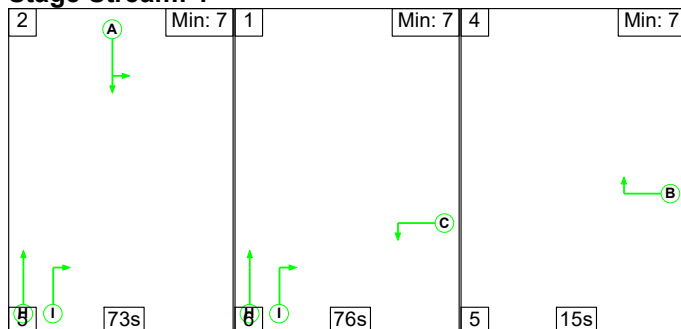
Lane Saturation Flows

Junction: A4095 / Bucknell Road Network								
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 (Bucknell Road (North))	3.80	0.00	Y	Arm 2 Left	35.00	65.7 %	1907	1907
				Arm 4 Ahead	29.00	34.3 %		
2/1 (A4095 (East - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A4095 (East))	3.50	0.00	Y	Arm 4 Left	12.00	100.0 %	1747	1747
3/2 (A4095 (East))	3.50	0.00	Y	Arm 10 Right	37.00	100.0 %	1888	1888
4/1 (Bucknell Road (Internal SB))	3.00	0.00	Y	Arm 5 Ahead	Inf	31.4 %	1736	1736
				Arm 7 Right	10.00	68.6 %		
5/1 (Bucknell Road (South - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bucknell Road (South))	3.10	0.00	Y	Arm 7 Left	30.00	37.9 %	1889	1889
				Arm 9 Ahead	Inf	62.1 %		
7/1 (A4095 (West - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A4095 (West))	3.80	0.00	Y	Arm 9 Left	7.00	100.0 %	1643	1643
8/2 (A4095 (West))	3.20	0.00	Y	Arm 5 Right	25.00	100.0 %	1825	1825
9/1 (Bucknell Road (Internal NB))	4.60	0.00	Y	Arm 10 Ahead	27.00	100.0 %	1966	1966
9/2 (Bucknell Road (Internal NB))	4.20	0.00	Y	Arm 2 Right	14.00	100.0 %	1838	1838
10/1 (Bucknell Road (North - Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Strategic Model Hawkfield Development 1a - AM' (FG11: 'SMH 2026 Dev 1a + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

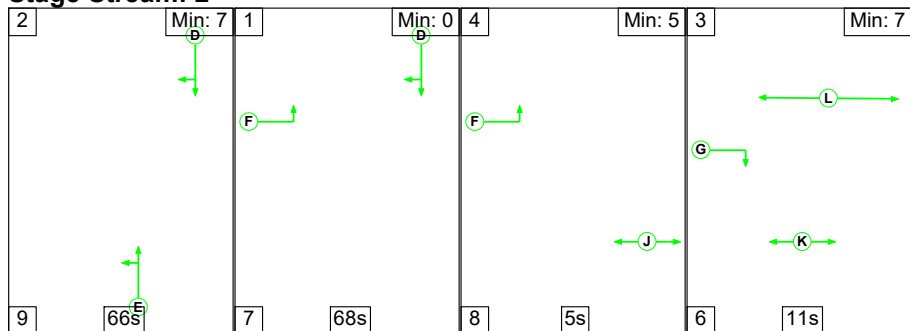
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

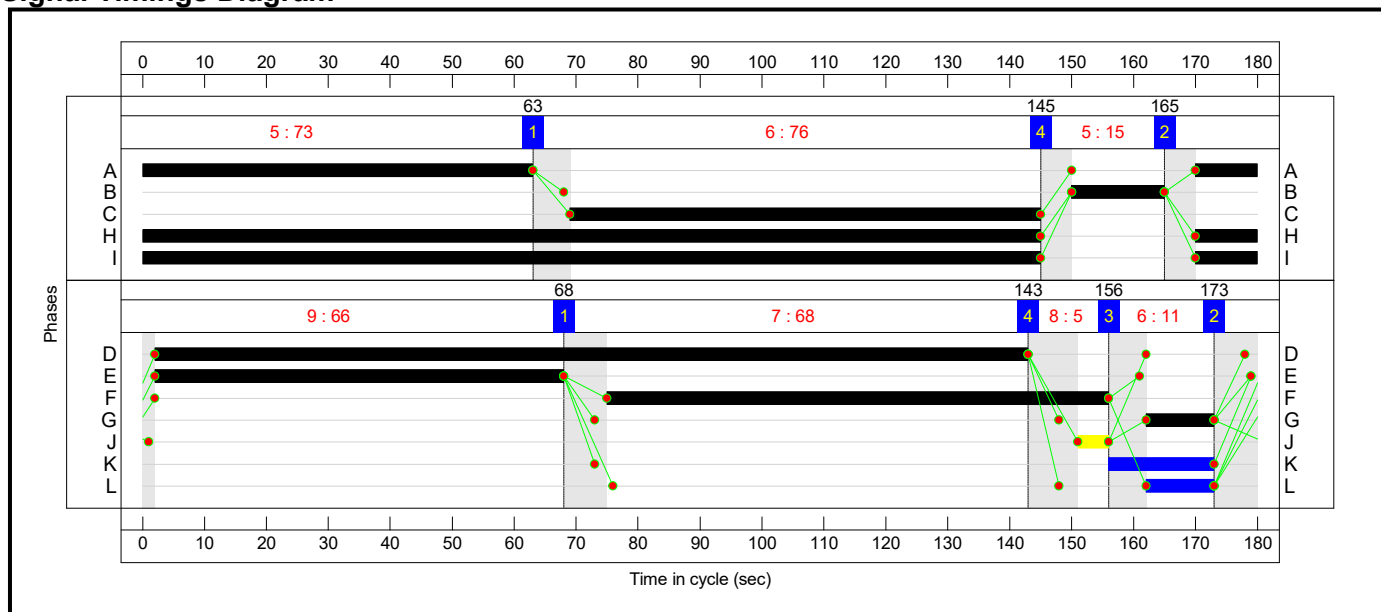
Stage Stream: 1

Stage	2	1	4
Duration	73	76	15
Change Point	165	63	145

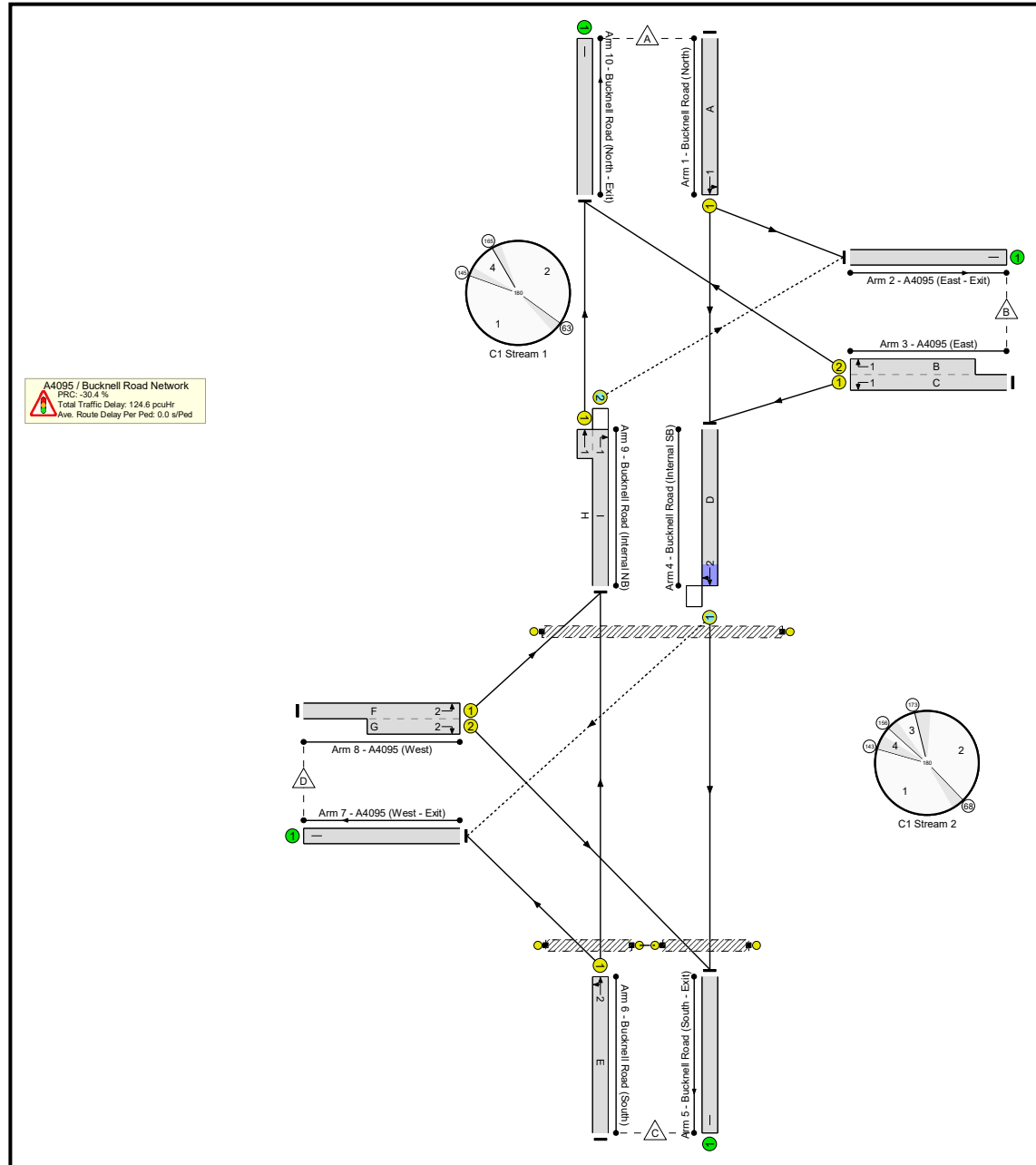
Stage Stream: 2

Stage	2	1	4	3
Duration	66	68	5	11
Change Point	173	68	143	156

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	117.3%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	117.3%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	73	-	231	1908	784	29.4%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	76:15	-	979	1747:1888	712+123	117.3 : 117.3%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	141	-	903	1708	797	97.8%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	187	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	66	-	623	1876	698	89.2%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	1054	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	81:11	-	493	1643:1825	740+20	64.8 : 64.8%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	155	-	778	1838:1966	1139+265	55.4 : 55.4%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	17	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	11	-	0	-	0	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: A4095 / Bucknell Road	-	-	299	944	18	43.2	80.5	0.9	124.6	-	-	-	-
A4095 / Bucknell Road Network	-	-	299	944	18	43.2	80.5	0.9	124.6	-	-	-	-
1/1	231	231	-	-	-	2.3	0.2	-	2.5	38.8	7.7	0.2	7.9
2/1	794	794	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	979	834	-	-	-	24.0	75.6	-	99.5 (84.8+14.8)	366.1 (365.5:369.4)	58.6	75.6	134.2
4/1	780	780	45	571	14	2.3	0.0	0.7	3.0	13.9	7.2	0.0	7.2
5/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	623	623	-	-	-	9.2	3.8	-	13.0	74.8	29.2	3.8	33.0
7/1	954	954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	493	493	-	-	-	5.3	0.9	-	6.2 (5.9+0.3)	45.5 (44.4:85.7)	18.7	0.9	19.6
9/2+9/1	778	778	253	373	4	0.2	0.0	0.2	0.4 (0.4+0.0)	1.8 (2.0:1.0)	1.9	0.0	1.9
10/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-30.4	Total Delay for Signalled Lanes (pcuHr):		102.43	Cycle Time (s):		180		
		C1	Stream: 2 PRC for Signalled Lanes (%):		-8.6	Total Delay for Signalled Lanes (pcuHr):		22.18	Cycle Time (s):		180		
			PRC Over All Lanes (%):		-30.4	Total Delay Over All Lanes (pcuHr):		124.61					

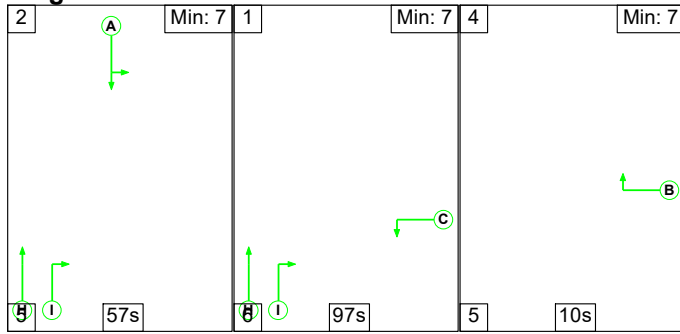
Full Input Data And Results

Scenario 2: 'Strategic Model Hawkfield Development 1a - PM' (FG12: 'SMH 2026 Dev 1a + Firethorn Dev - PM',

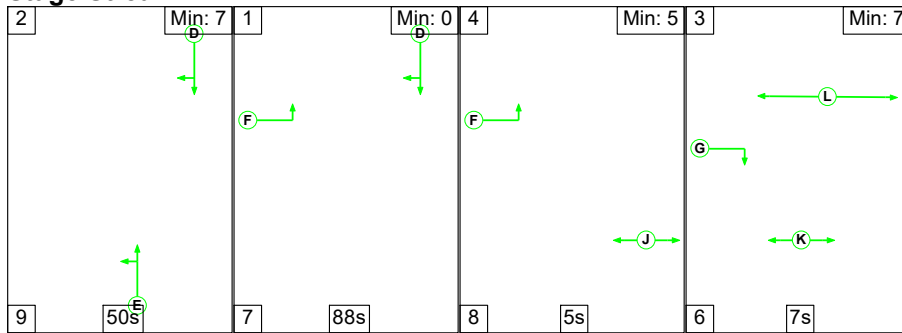
Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

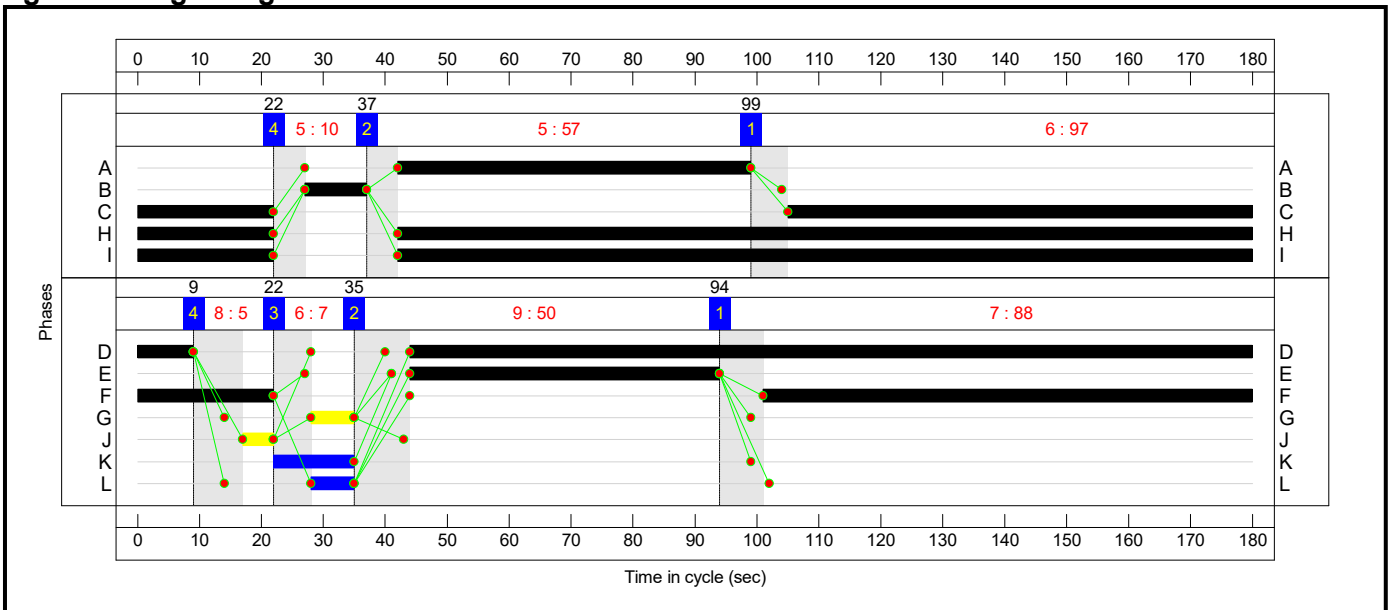
Stage Stream: 1

Stage	2	1	4
Duration	57	97	10
Change Point	37	99	22

Stage Stream: 2

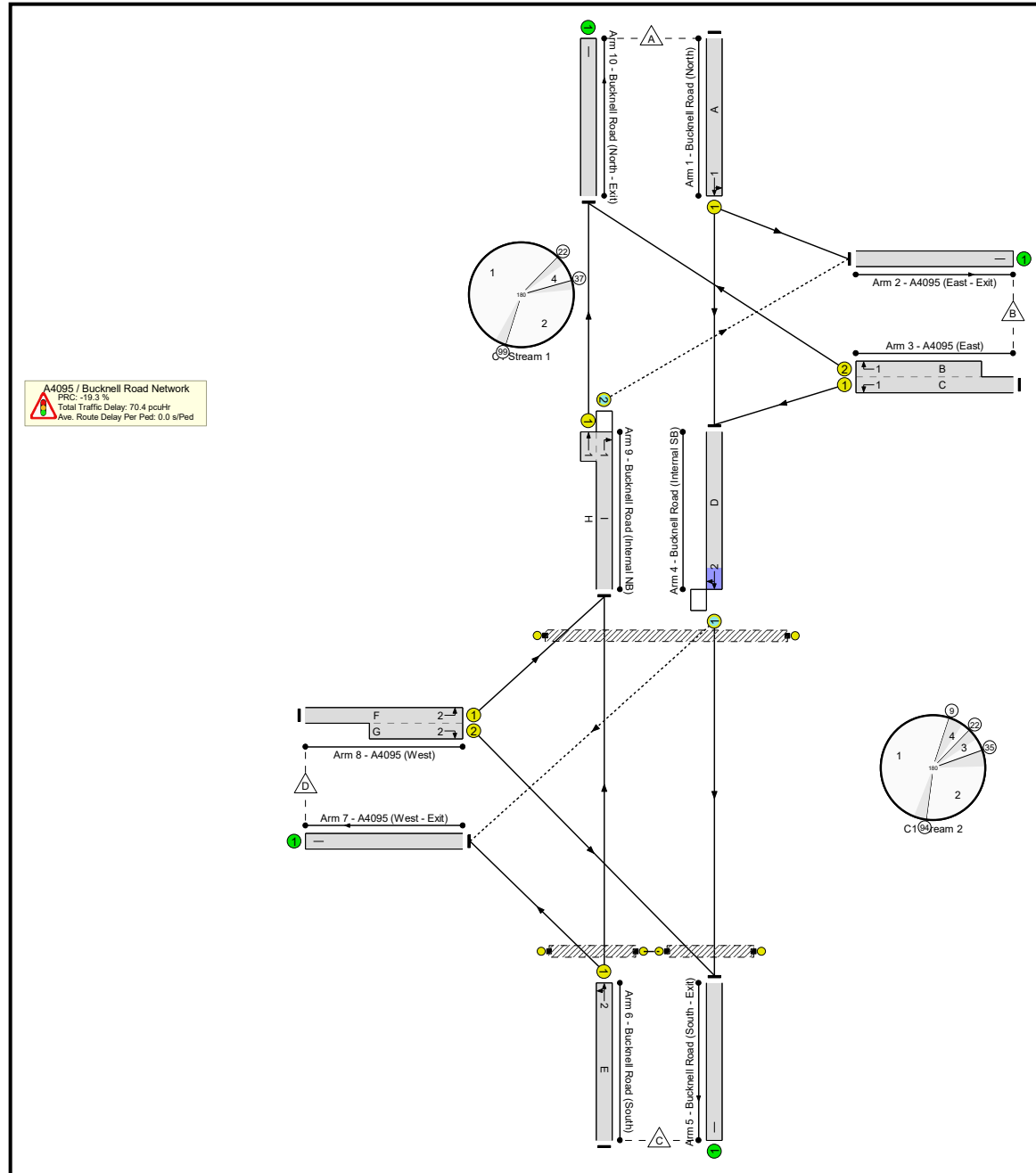
Stage	2	1	4	3
Duration	50	88	5	7
Change Point	35	94	9	22

Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results Network Layout Diagram



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	107.4%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	107.4%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	57	-	233	1908	615	37.9%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1124	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	97:10	-	921	1747:1888	914+92	91.6 : 91.6%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	916	1739	938	97.6%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	50	-	574	1887	535	107.4%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	101:7	-	782	1643:1825	922+20	83.0 : 83.0%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	160	-	1109	1838:1966	1257+180	75.5 : 75.5%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

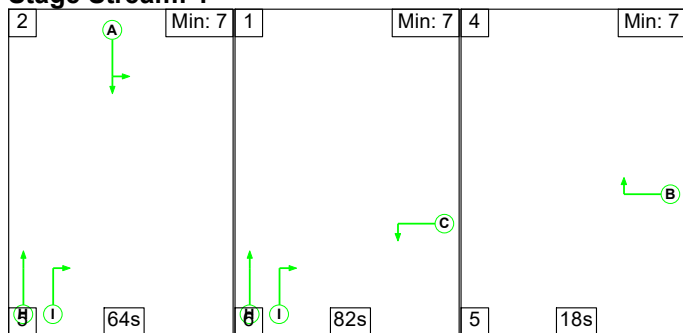
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	270	1279	19	36.6	32.9	1.0	70.4	-	-	-	-
A4095 / Bucknell Road Network	-	-	270	1279	19	36.6	32.9	1.0	70.4	-	-	-	-
1/1	233	233	-	-	-	3.0	0.3	-	3.4	51.8	8.9	0.3	9.2
2/1	1103	1103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	921	921	-	-	-	10.3	4.9	-	15.2 (12.8+2.4)	59.4 (55.2:102.1)	39.0	4.9	43.8
4/1	916	916	0	607	12	2.3	0.0	0.6	2.9	11.4	9.0	0.0	9.0
5/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	574	535	-	-	-	13.4	25.3	-	38.8	243.2	30.7	25.3	56.0
7/1	833	833	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	782	782	-	-	-	7.1	2.4	-	9.5 (9.0+0.4)	43.7 (42.6:93.9)	31.5	2.4	33.9
9/2+9/1	1085	1085	270	672	7	0.3	0.0	0.4	0.7 (0.7+0.0)	2.3 (2.6:0.5)	9.1	0.0	9.1
10/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-1.7	Total Delay for Signalled Lanes (pcuHr):			19.26	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-19.3	Total Delay for Signalled Lanes (pcuHr):			51.17	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-19.3	Total Delay Over All Lanes (pcuHr):			70.43				

Full Input Data And Results

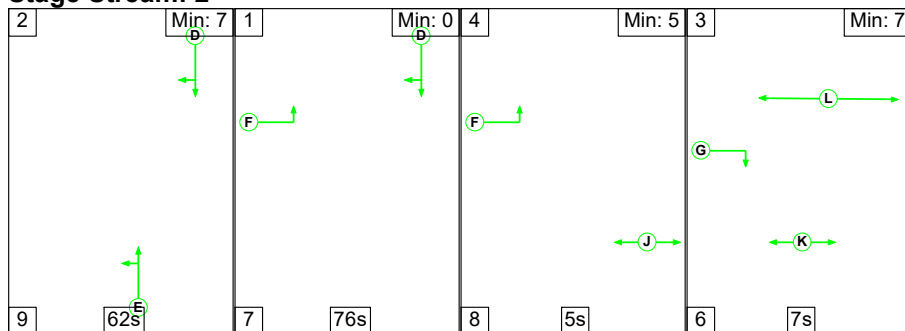
Scenario 3: 'Strategic Model Hawkfield Development 2a - AM' (FG13: 'SMH 2026 Dev 2a + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

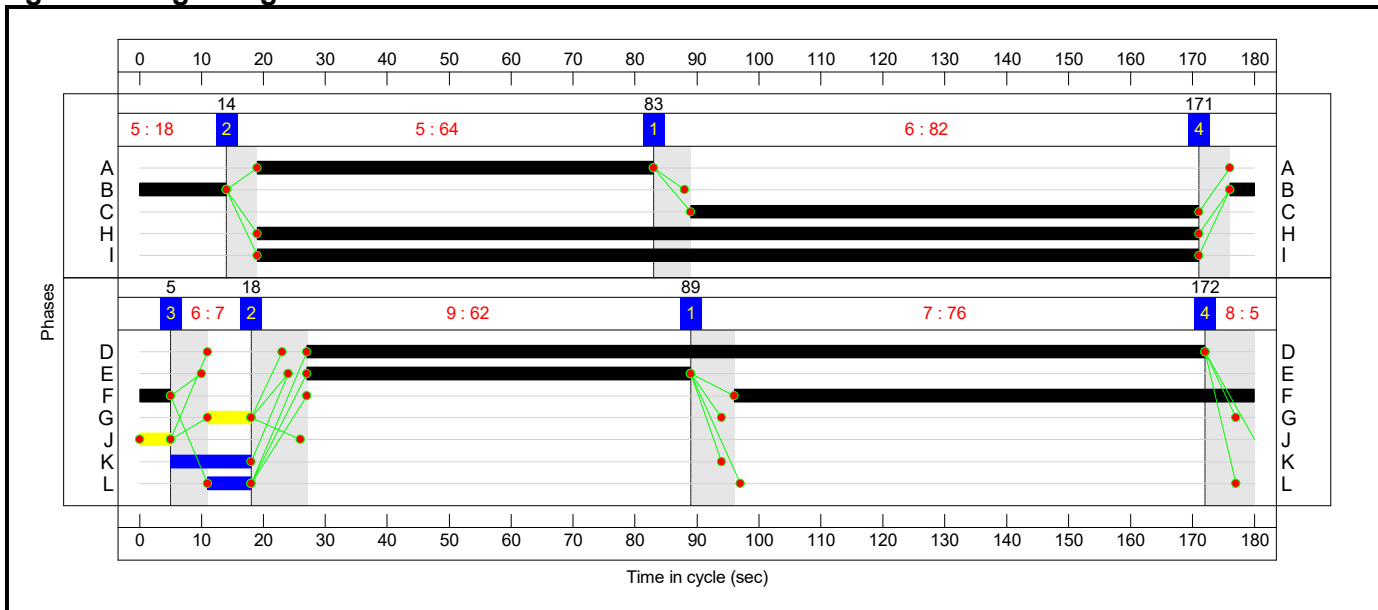
Stage Stream: 1

Stage	2	1	4
Duration	64	82	18
Change Point	14	83	171

Stage Stream: 2

Stage	2	1	4	3
Duration	62	76	5	7
Change Point	18	89	172	5

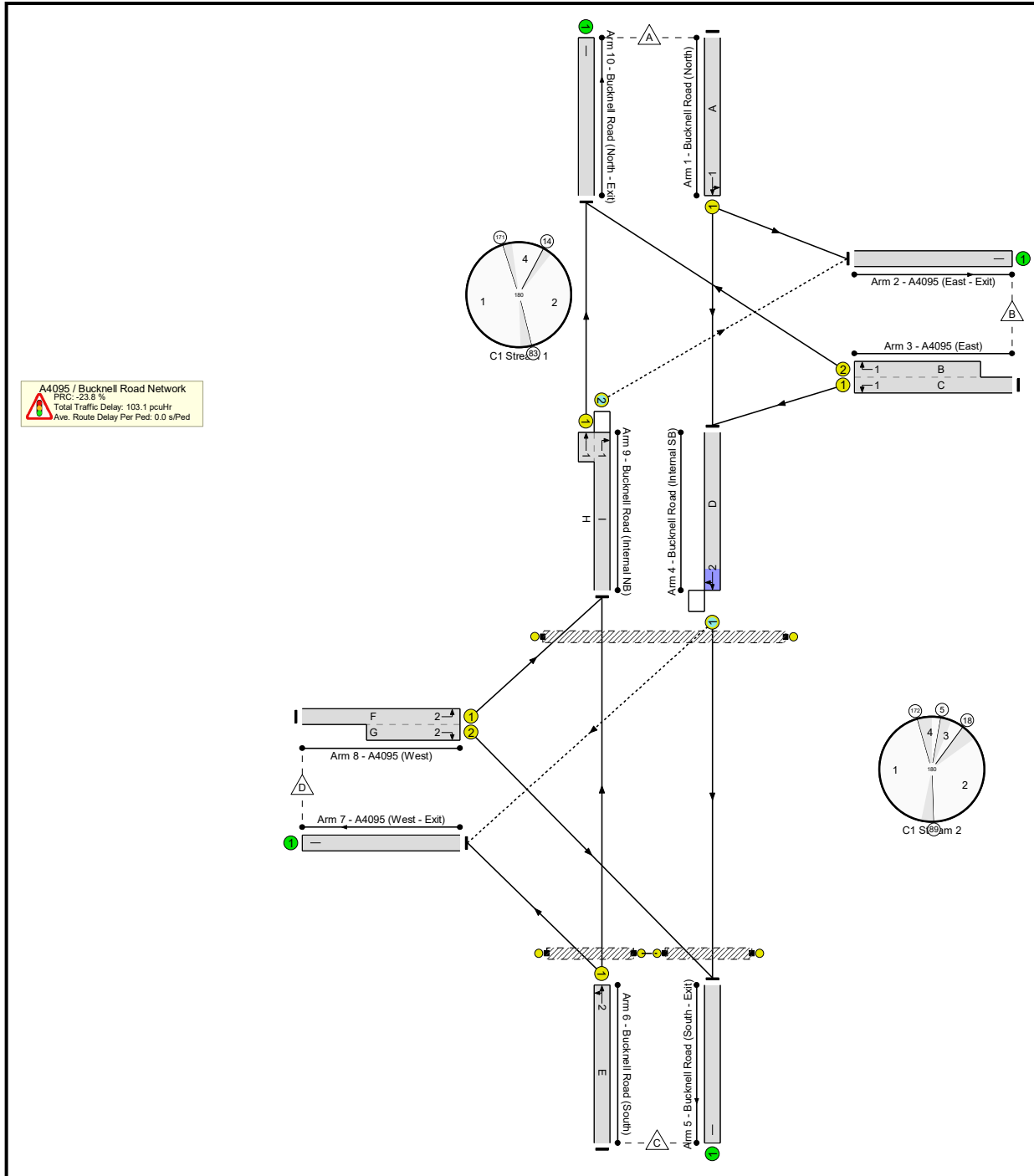
Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	111.4%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	111.4%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	64	-	226	1908	689	32.8%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	791	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	82:18	-	999	1747:1888	760+136	111.4 : 111.4%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	912	1710	842	98.0%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	62	-	624	1876	657	95.0%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	1054	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	89:7	-	491	1643:1825	811+22	58.9 : 58.9%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	152	-	776	1838:1966	1127+261	55.9 : 55.9%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	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: A4095 / Bucknell Road	-	-	258	1013	18	38.7	63.5	0.9	103.1	-	-	-	-
A4095 / Bucknell Road Network	-	-	258	1013	18	38.7	63.5	0.9	103.1	-	-	-	-
1/1	226	226	-	-	-	2.6	0.2	-	2.9	45.6	8.2	0.2	8.4
2/1	791	791	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	999	912	-	-	-	19.9	55.8	-	75.7 (63.9+11.8)	272.7 (271.5:279.2)	52.7	55.8	108.5
4/1	825	825	19	627	13	1.5	0.0	0.7	2.2	9.6	13.7	0.0	13.7
5/1	179	179	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	624	624	-	-	-	9.9	6.8	-	16.6	96.0	30.3	6.8	37.1
7/1	985	985	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	491	491	-	-	-	4.5	0.7	-	5.2 (4.9+0.3)	38.3 (37.0:88.1)	16.9	0.7	17.7
9/2+9/1	776	776	239	386	4	0.3	0.0	0.2	0.5 (0.5+0.1)	2.5 (2.8:1.2)	2.9	0.0	2.9
10/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-23.8	Total Delay for Signalled Lanes (pcuHr):			79.07	Cycle Time (s):		180	
		C1	Stream: 2 PRC for Signalled Lanes (%):		-8.8	Total Delay for Signalled Lanes (pcuHr):			24.08	Cycle Time (s):		180	
			PRC Over All Lanes (%):		-23.8	Total Delay Over All Lanes (pcuHr):			103.14				

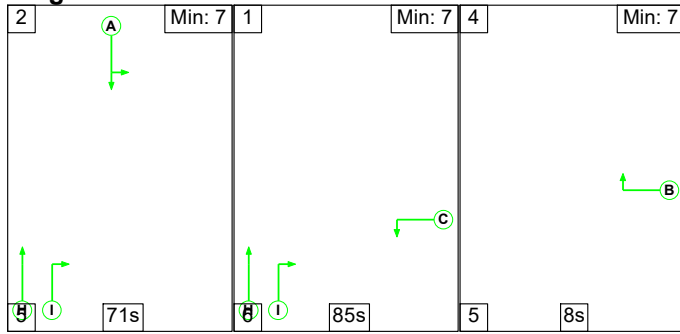
Full Input Data And Results

Scenario 4: 'Strategic Model Hawkfield Development 2a - PM' (FG14: 'SMH 2026 Dev 2a + Firethorn Dev - PM',

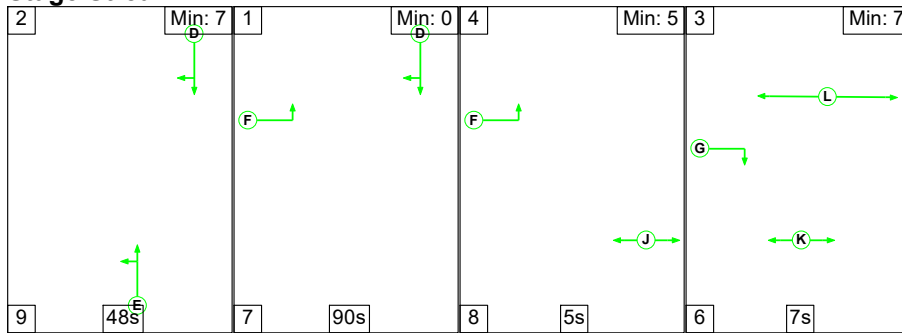
Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

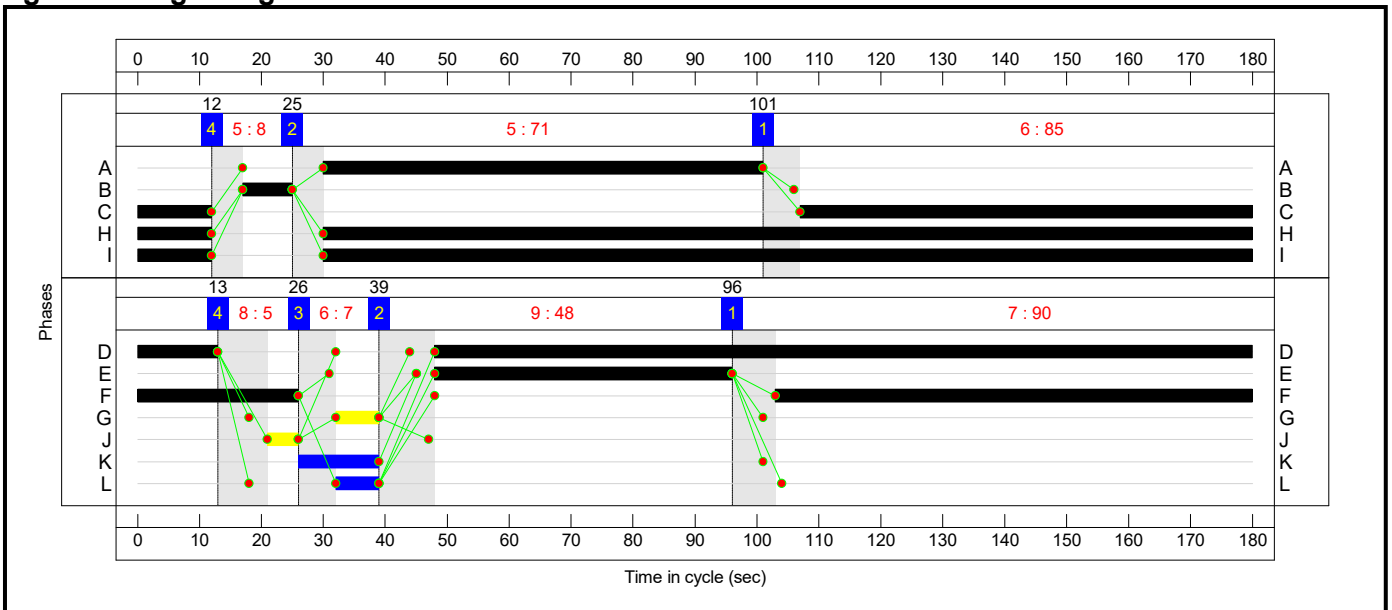
Stage Stream: 1

Stage	2	1	4
Duration	71	85	8
Change Point	25	101	12

Stage Stream: 2

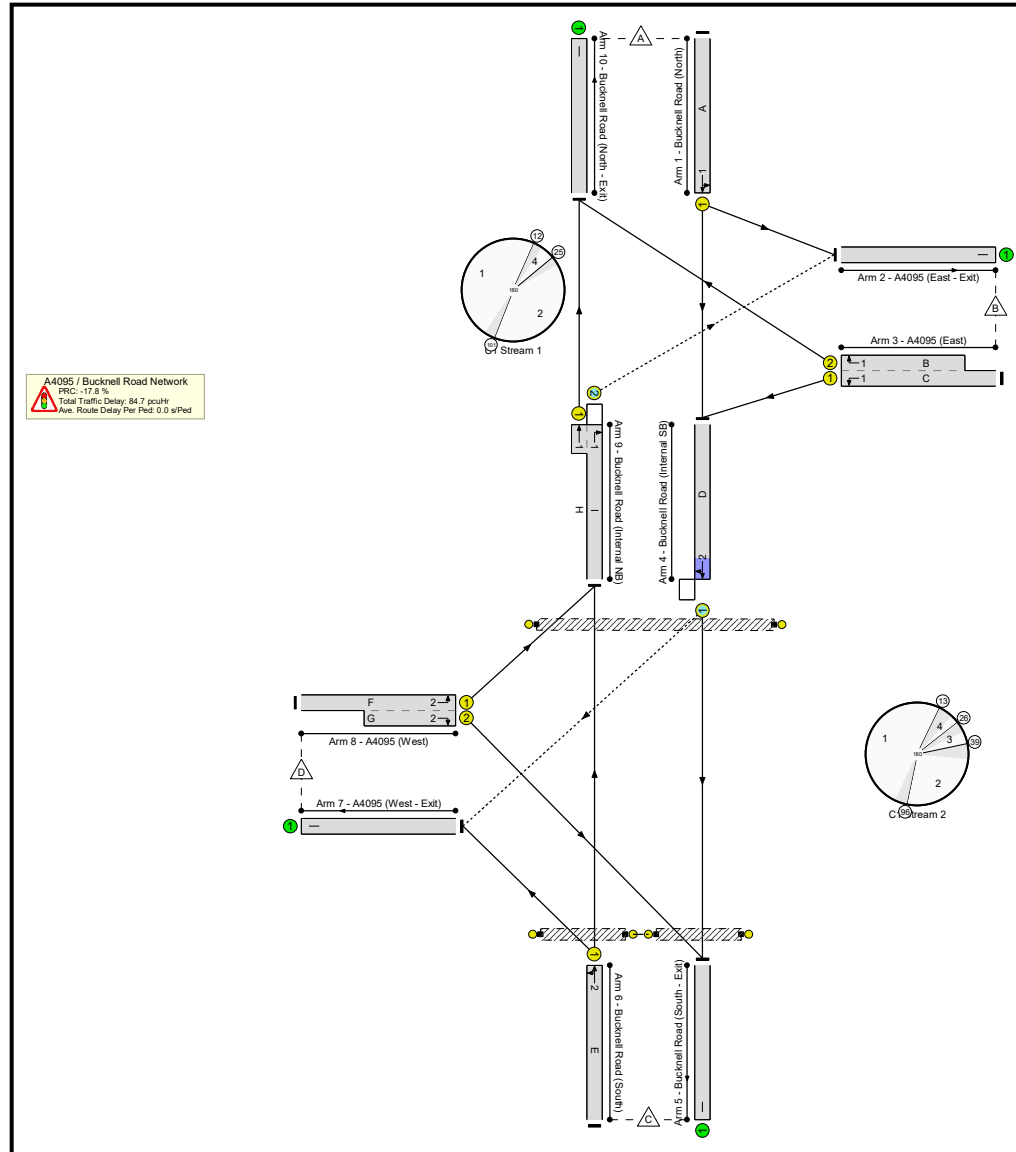
Stage	2	1	4	3
Duration	48	90	5	7
Change Point	39	96	13	26

Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	106.0%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	106.0%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	71	-	256	1907	763	33.6%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1150	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	85:8	-	913	1747:1888	807+83	102.6 : 102.6%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	920	1737	956	94.0%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	48	-	546	1892	515	106.0%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	821	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	103:7	-	782	1643:1825	941+18	81.5 : 81.5%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	162	-	1121	1838:1966	1237+169	78.3 : 78.2%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

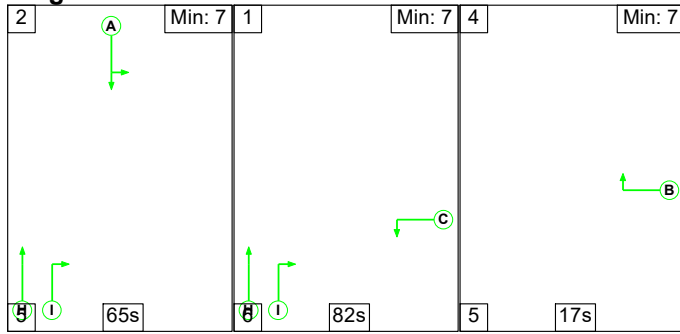
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	348	1215	20	37.8	46.2	0.8	84.7	-	-	-	-
A4095 / Bucknell Road Network	-	-	348	1215	20	37.8	46.2	0.8	84.7	-	-	-	-
1/1	256	256	-	-	-	2.7	0.3	-	2.9	41.0	8.8	0.3	9.1
2/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	913	892	-	-	-	13.8	22.0	-	35.8 (31.8+4.1)	141.3 (138.2:171.8)	44.4	22.0	66.4
4/1	899	899	0	602	12	1.7	0.0	0.5	2.2	8.8	7.2	0.0	7.2
5/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	546	515	-	-	-	12.4	21.8	-	34.1	225.1	28.8	21.8	50.6
7/1	796	796	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	782	782	-	-	-	6.8	2.1	-	8.9 (8.5+0.4)	41.0 (40.0:92.8)	30.7	2.1	32.8
9/2+9/1	1101	1101	348	613	8	0.4	0.0	0.3	0.7 (0.7+0.0)	2.4 (2.6:0.7)	4.1	0.0	4.1
10/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-14.0	Total Delay for Signalled Lanes (pcuHr):			39.48	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-17.8	Total Delay for Signalled Lanes (pcuHr):			45.26	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-17.8	Total Delay Over All Lanes(pcuHr):			84.74				

Full Input Data And Results

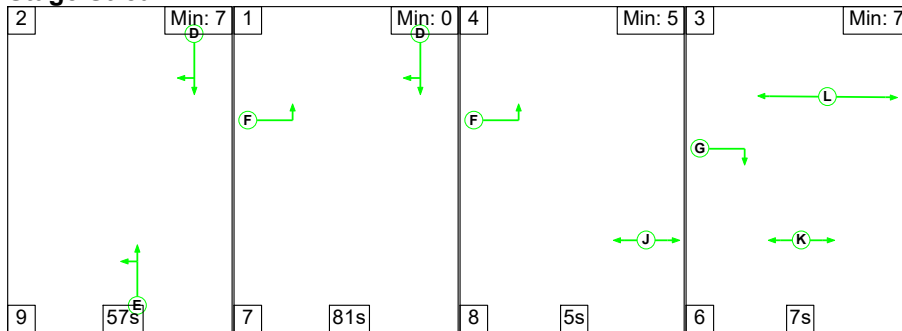
Scenario 5: 'Strategic Model Hawkfield Development 1b - AM' (FG15: 'SMH 2026 Dev 1b + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

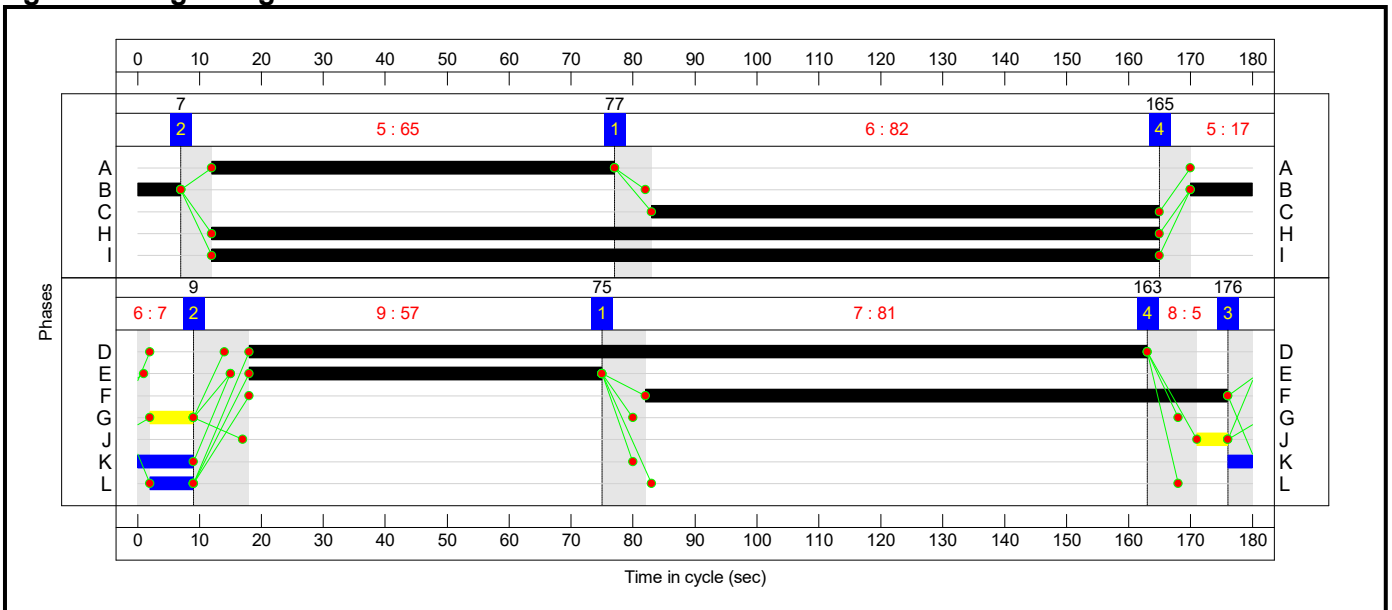
Stage Stream: 1

Stage	2	1	4
Duration	65	82	17
Change Point	7	77	165

Stage Stream: 2

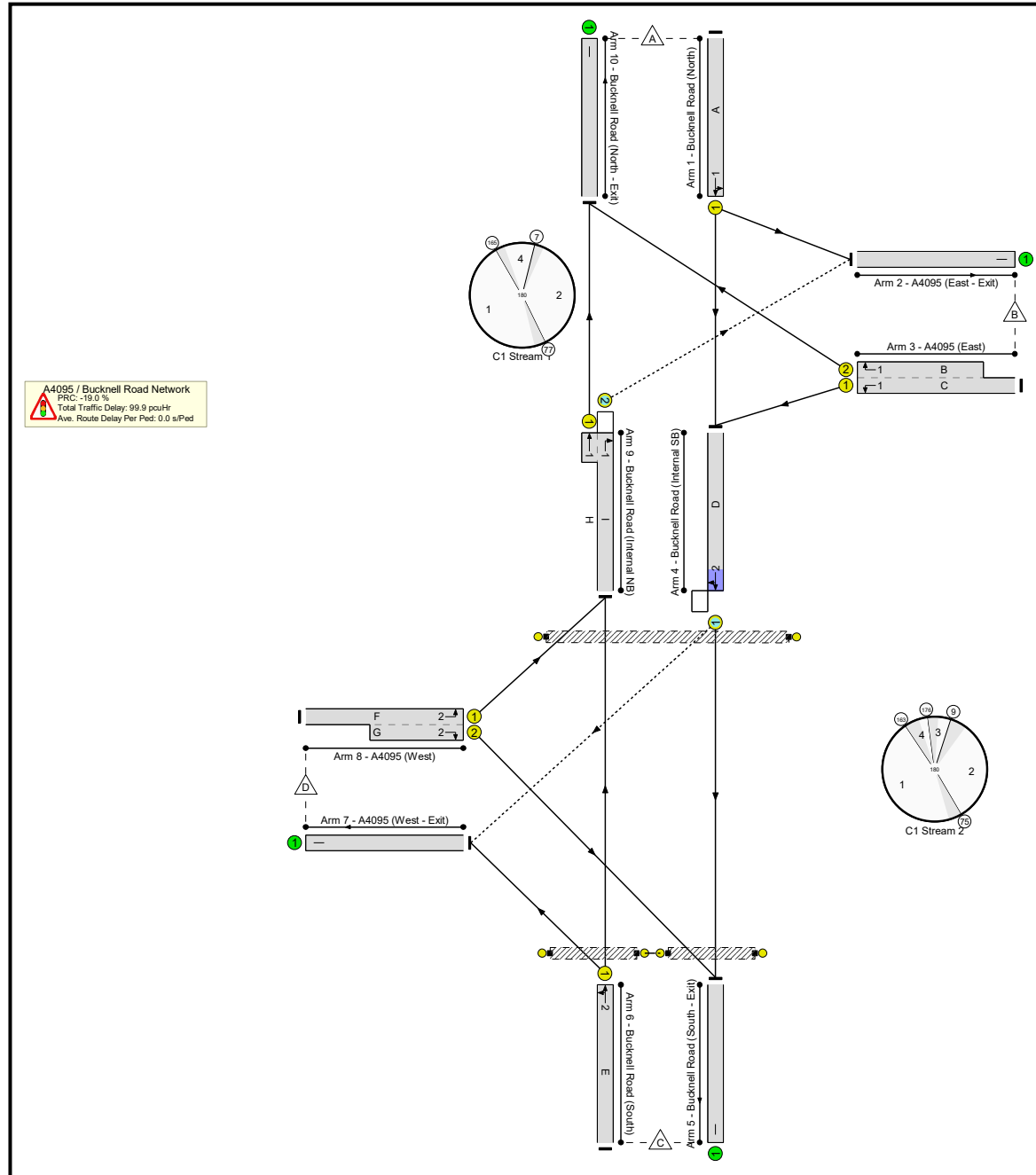
Stage	2	1	4	3
Duration	57	81	5	7
Change Point	9	75	163	176

Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	107.1%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	107.1%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	65	-	240	1908	700	34.3%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	797	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	82:17	-	958	1747:1888	761+134	107.1 : 107.1%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	884	1706	845	98.2%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	180	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	57	-	631	1877	605	104.3%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	1043	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	94:7	-	479	1643:1825	850+31	54.3 : 54.3%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	153	-	771	1838:1966	1123+260	54.8 : 54.8%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

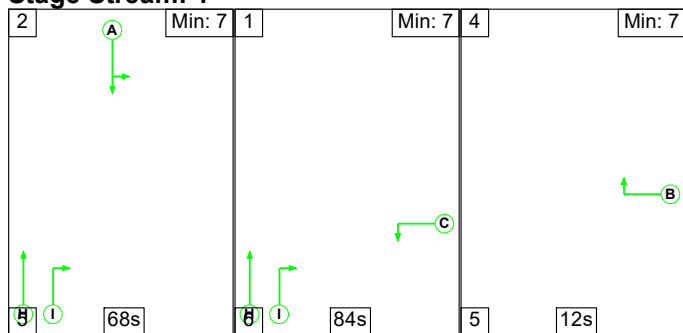
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	249	1026	18	39.4	59.6	0.9	99.9	-	-	-	-
A4095 / Bucknell Road Network	-	-	249	1026	18	39.4	59.6	0.9	99.9	-	-	-	-
1/1	240	240	-	-	-	2.8	0.3	-	3.0	45.2	8.7	0.3	8.9
2/1	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	958	904	-	-	-	17.3	38.0	-	55.3 (46.5+8.8)	207.9 (205.5:221.7)	50.4	38.0	88.4
4/1	830	830	0	663	14	2.2	0.0	0.6	2.8	12.1	7.2	0.0	7.2
5/1	170	170	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	631	605	-	-	-	13.0	20.7	-	33.7	192.1	32.9	20.7	53.6
7/1	986	986	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	479	479	-	-	-	4.0	0.6	-	4.6 (4.2+0.4)	34.3 (32.4:87.5)	15.4	0.6	16.0
9/2+9/1	758	758	249	362	4	0.3	0.0	0.3	0.5 (0.5+0.0)	2.4 (2.7:1.1)	1.9	0.0	1.9
10/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1	Stream: 1 PRC for Signalled Lanes (%):		-19.0	Total Delay for Signalled Lanes (pcuHr):			58.84	Cycle Time (s): 180			
		C1	Stream: 2 PRC for Signalled Lanes (%):		-15.9	Total Delay for Signalled Lanes (pcuHr):			41.03	Cycle Time (s): 180			
			PRC Over All Lanes (%):		-19.0	Total Delay Over All Lanes(pcuHr):			99.87				

Full Input Data And Results

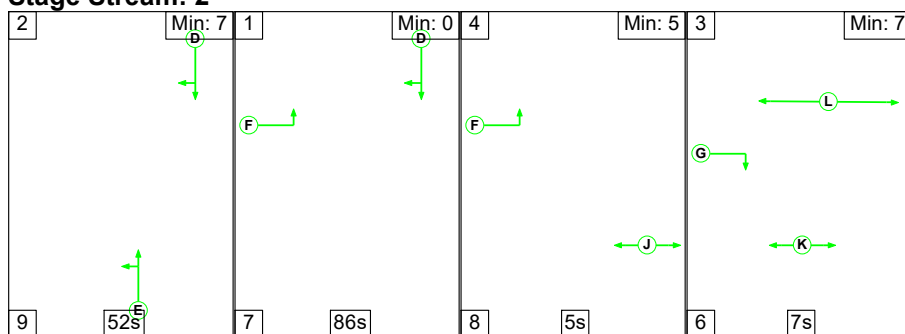
Scenario 6: 'Strategic Model Hawkfield Development 1b - PM' (FG16: 'SMH 2026 Dev 1b + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

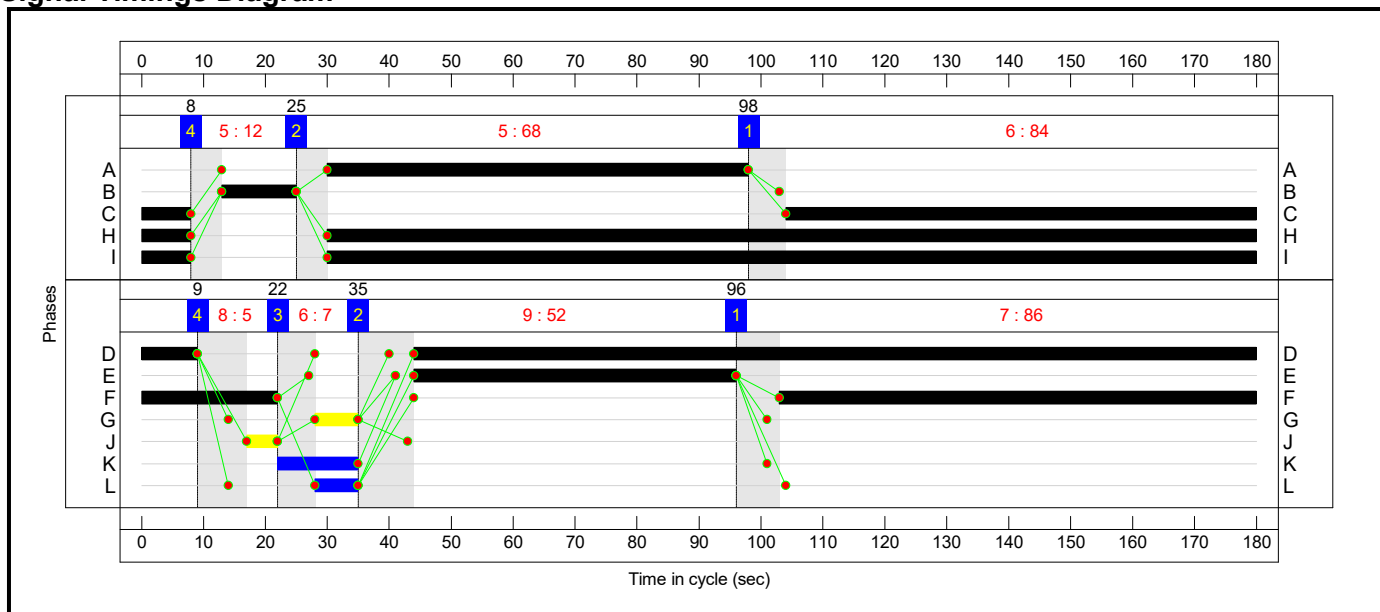
Stage Stream: 1

Stage	2	1	4
Duration	68	84	12
Change Point	25	98	8

Stage Stream: 2

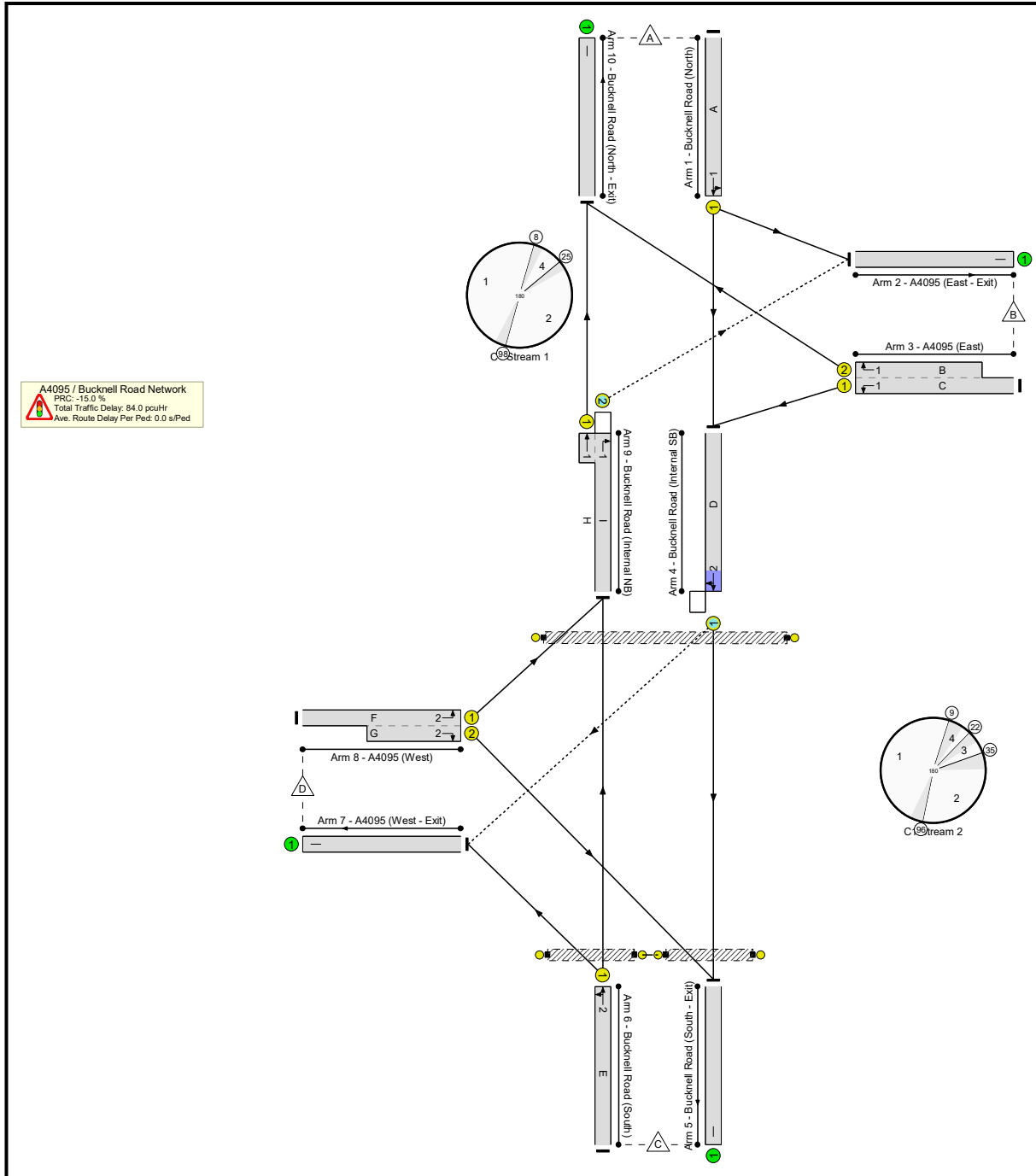
Stage	2	1	4	3
Duration	52	86	5	7
Change Point	35	96	9	22

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	103.5%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	103.5%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	68	-	228	1908	731	31.2%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1124	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	84:12	-	910	1747:1888	799+80	103.5 : 103.5%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	898	1737	918	94.8%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	52	-	574	1885	555	103.4%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	99:7	-	785	1643:1825	902+22	84.9 : 84.9%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	158	-	1099	1838:1966	1231+168	77.8 : 77.8%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

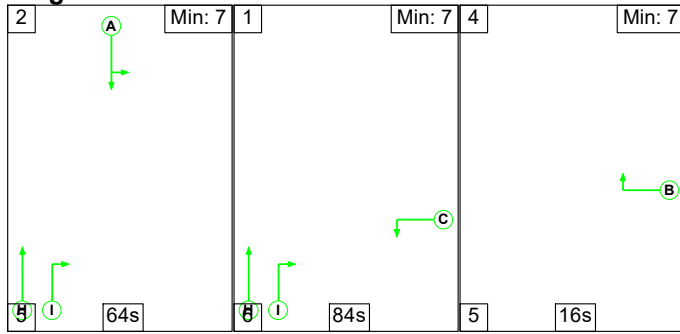
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	325	1206	20	37.8	45.3	0.9	84.0	-	-	-	-
A4095 / Bucknell Road Network	-	-	325	1206	20	37.8	45.3	0.9	84.0	-	-	-	-
1/1	228	228	-	-	-	2.5	0.2	-	2.7	42.4	8.0	0.2	8.2
2/1	1114	1114	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	910	882	-	-	-	14.3	24.7	-	39.0 (34.9+4.1)	154.3 (151.8:178.9)	44.8	24.7	69.5
4/1	870	870	0	581	12	1.4	0.0	0.6	2.0	8.2	6.2	0.0	6.2
5/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	574	555	-	-	-	11.6	17.6	-	29.3	183.6	29.6	17.6	47.3
7/1	826	826	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	785	785	-	-	-	7.5	2.7	-	10.2 (9.7+0.5)	47.0 (45.8:95.5)	32.5	2.7	35.2
9/2+9/1	1088	1088	325	625	7	0.5	0.0	0.3	0.8 (0.8+0.0)	2.6 (2.8:1.0)	4.1	0.0	4.1
10/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 Stream: 1 PRC for Signalled Lanes (%): -15.0						Total Delay for Signalled Lanes (pcuHr): 42.47			Cycle Time (s): 180				
C1 Stream: 2 PRC for Signalled Lanes (%): -14.9						Total Delay for Signalled Lanes (pcuHr): 41.50			Cycle Time (s): 180				
PRC Over All Lanes (%): -15.0						Total Delay Over All Lanes(pcuHr): 83.97							

Full Input Data And Results

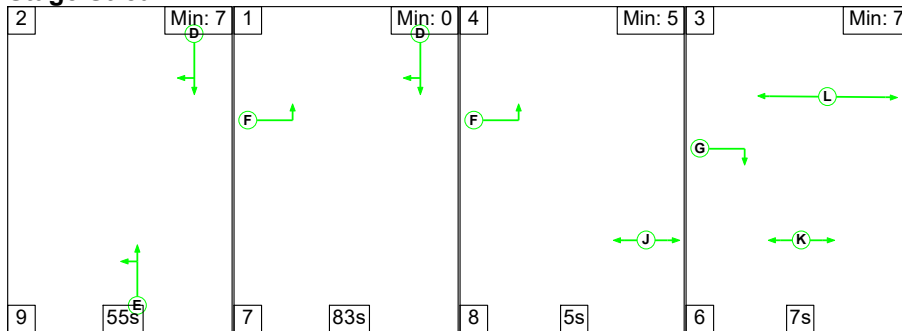
Scenario 7: 'Strategic Model Hawkfield Development 2b - AM' (FG17: 'SMH 2026 Dev 2b + Firethorn Dev - AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

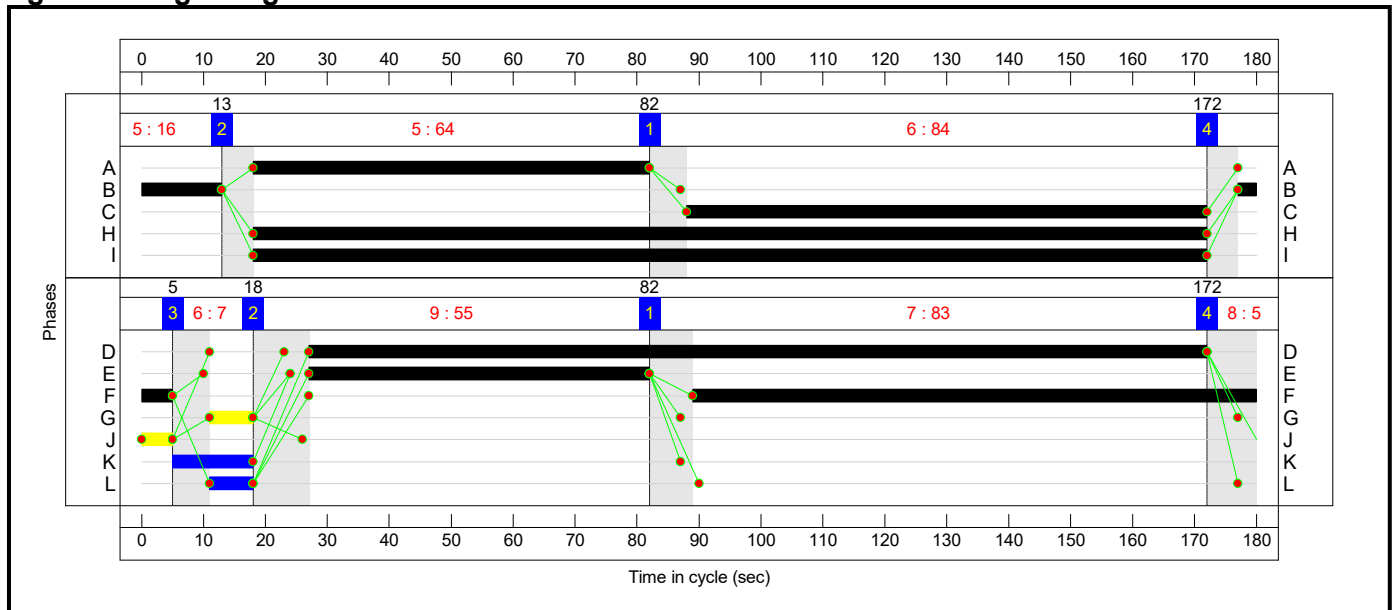
Stage Stream: 1

Stage	2	1	4
Duration	64	84	16
Change Point	13	82	172

Stage Stream: 2

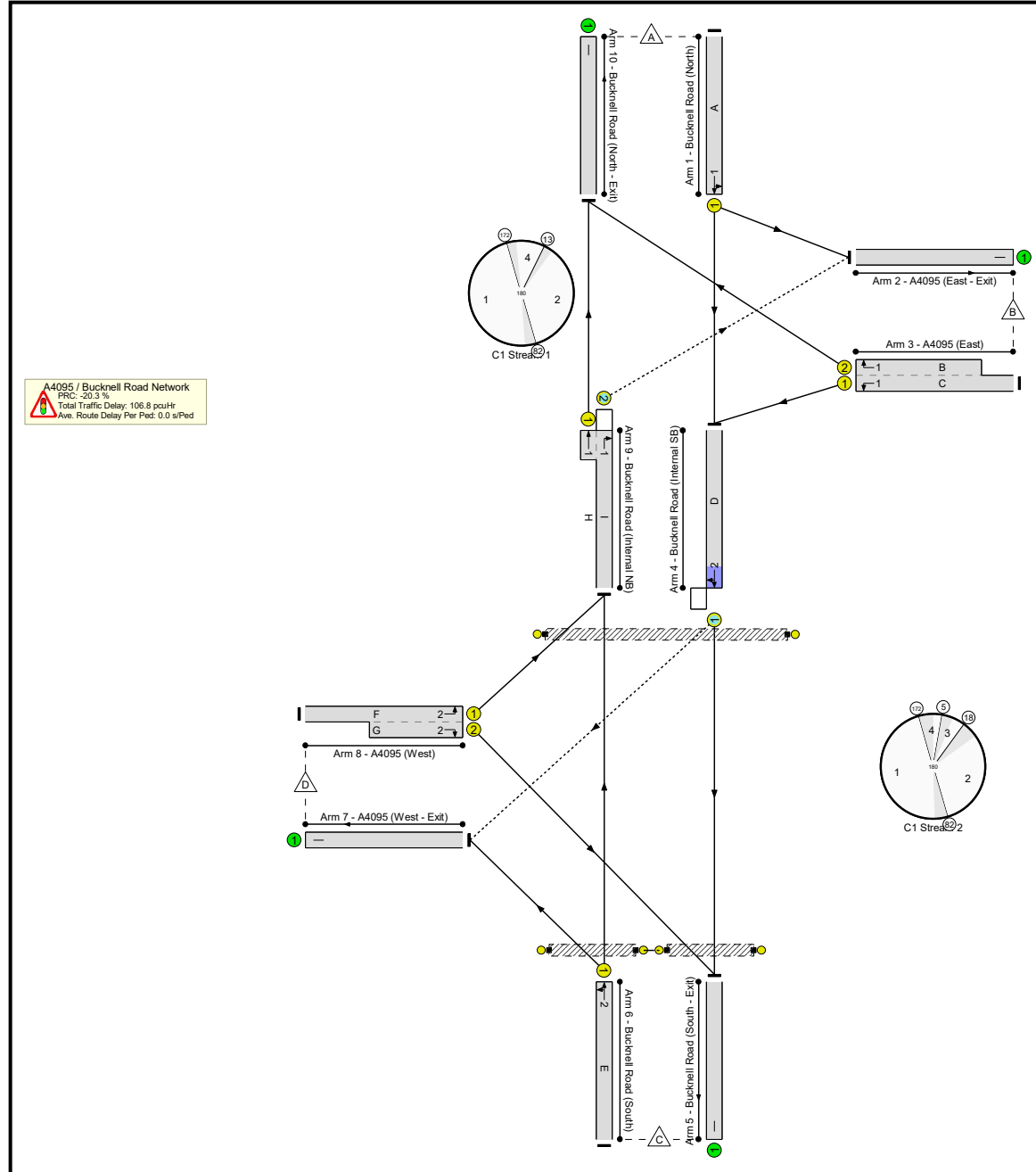
Stage	2	1	4	3
Duration	55	83	5	7
Change Point	18	82	172	5

Signal Timings Diagram



Full Input Data And Results

Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	108.2%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	108.2%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	64	-	236	1909	689	34.2%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	798	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	84:16	-	974	1747:1888	776+140	106.3 : 106.3%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	889	1707	865	97.2%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	55	-	632	1877	584	108.2%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	1043	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	96:7	-	475	1643:1825	871+28	52.8 : 52.8%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	154	-	770	1838:1966	1137+262	53.4 : 53.4%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

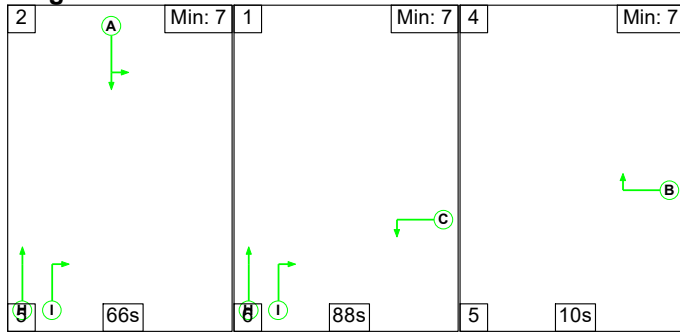
Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4095 / Bucknell Road	-	-	237	1034	18	40.2	65.8	0.8	106.8	-	-	-	-
A4095 / Bucknell Road Network	-	-	237	1034	18	40.2	65.8	0.8	106.8	-	-	-	-
1/1	236	236	-	-	-	2.7	0.3	-	3.0	45.9	8.6	0.3	8.8
2/1	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	974	925	-	-	-	16.9	35.5	-	52.5 (43.7+8.8)	194.0 (190.8:211.5)	48.9	35.5	84.4
4/1	840	840	0	668	13	1.6	0.0	0.6	2.2	9.6	6.1	0.0	6.1
5/1	174	174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	632	584	-	-	-	14.9	29.4	-	44.3	252.5	34.0	29.4	63.4
7/1	979	979	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	475	475	-	-	-	3.7	0.6	-	4.3 (3.9+0.4)	32.6 (30.8:87.2)	14.8	0.6	15.3
9/2+9/1	746	746	237	366	4	0.2	0.0	0.2	0.5 (0.4+0.0)	2.3 (2.6:1.1)	2.3	0.0	2.3
10/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1 Stream: 1 PRC for Signalled Lanes (%):		-18.1		Total Delay for Signalled Lanes (pcuHr):		55.97		Cycle Time (s):		180	
		C1 Stream: 2 PRC for Signalled Lanes (%):		-20.3		Total Delay for Signalled Lanes (pcuHr):		50.88		Cycle Time (s):		180	
		PRC Over All Lanes (%):		-20.3		Total Delay Over All Lanes(pcuHr):		106.85					

Full Input Data And Results

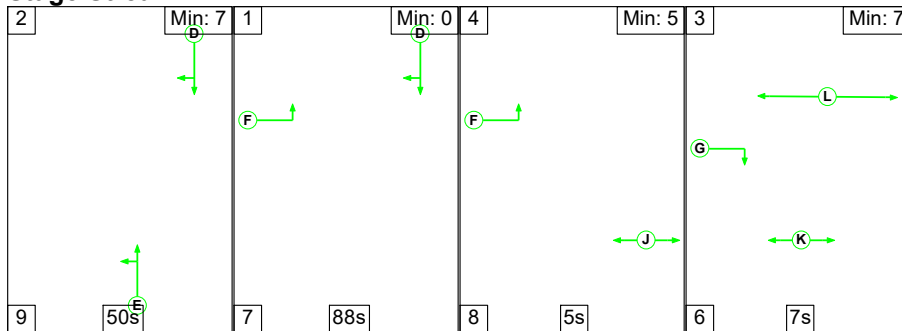
Scenario 8: 'Strategic Model Hawkfield Development 2b - PM' (FG18: 'SMH 2026 Dev 2b + Firethorn Dev - PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

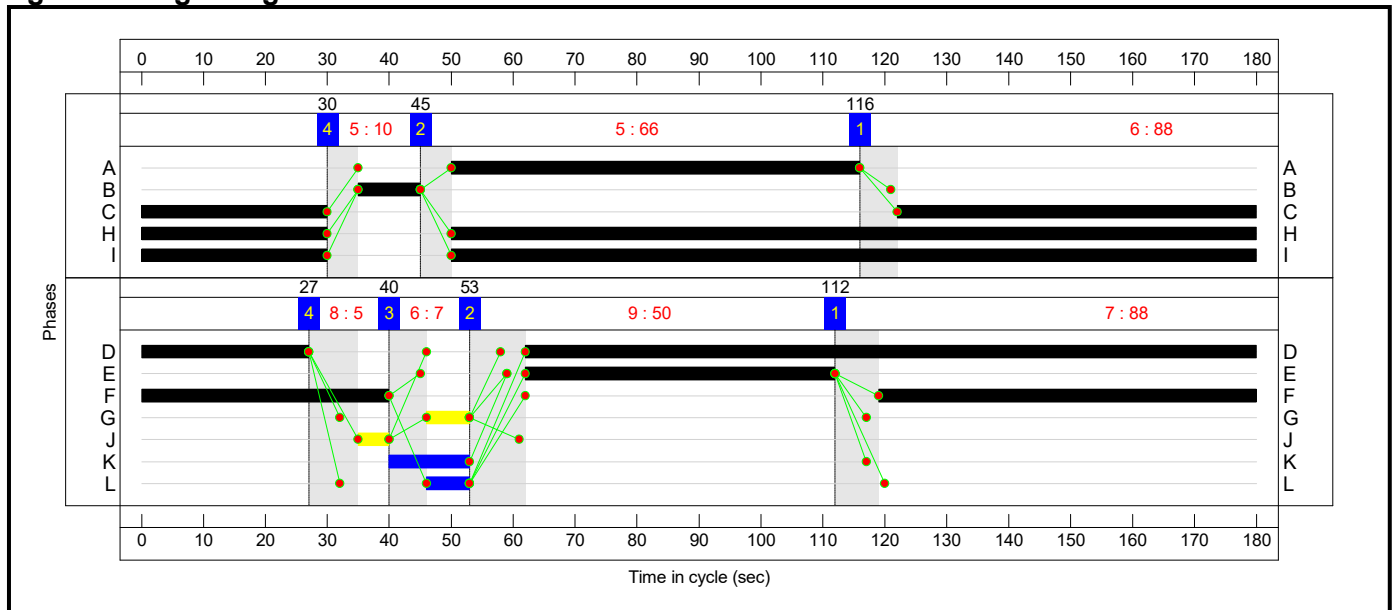
Stage Stream: 1

Stage	2	1	4
Duration	66	88	10
Change Point	45	116	30

Stage Stream: 2

Stage	2	1	4	3
Duration	50	88	5	7
Change Point	53	112	27	40

Signal Timings Diagram

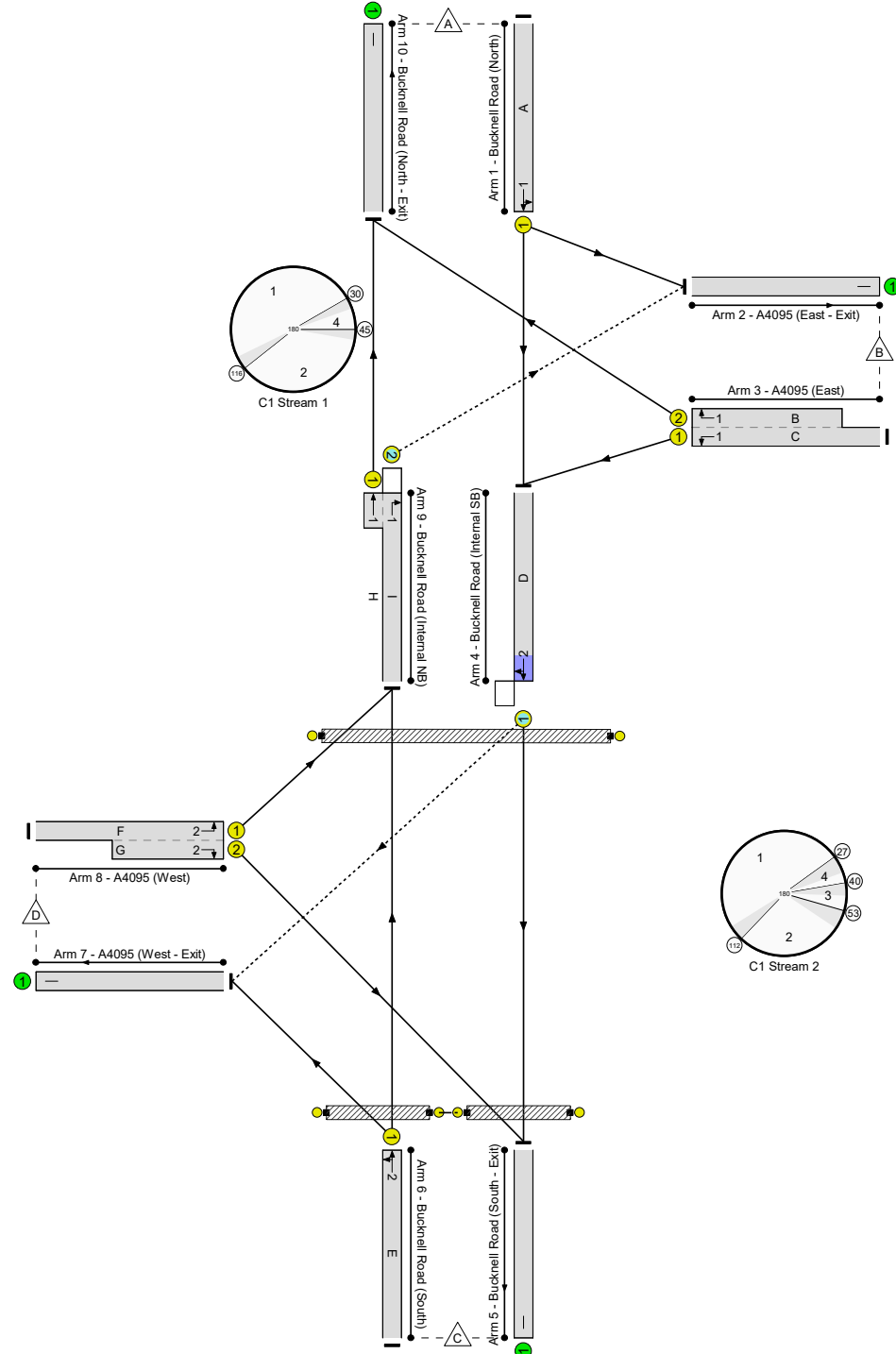


Full Input Data And Results

Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A4095 / Bucknell Road Network
 PRC: -14.0 %
 Total Traffic Delay: 65.6 pcu/hr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4095 / Bucknell Road	-	-	N/A	-	-		-	-	-	-	-	-	102.6%
A4095 / Bucknell Road Network	-	-	N/A	-	-		-	-	-	-	-	-	102.6%
1/1	Bucknell Road (North) Left Ahead	U	1	N/A	A		1	66	-	242	1907	710	34.1%
2/1	A4095 (East - Exit)	U	N/A	N/A	-		-	-	-	1140	Inf	Inf	0.0%
3/1+3/2	A4095 (East) Left Right	U	1	N/A	C B		1	88:10	-	901	1747:1888	833+86	98.0 : 98.0%
4/1	Bucknell Road (Internal SB) Ahead Right	O	2	N/A	D		1	145	-	900	1736	936	96.2%
5/1	Bucknell Road (South - Exit)	U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
6/1	Bucknell Road (South) Left Ahead	U	2	N/A	E		1	50	-	549	1889	535	102.6%
7/1	A4095 (West - Exit)	U	N/A	N/A	-		-	-	-	825	Inf	Inf	0.0%
8/1+8/2	A4095 (West) Right Left	U	2	N/A	F G		1	101:7	-	790	1643:1825	917+26	83.7 : 83.7%
9/2+9/1	Bucknell Road (Internal NB) Right Ahead	O+U	1	N/A	I H		1	160	-	1109	1838:1966	1243+162	78.3 : 78.3%
10/1	Bucknell Road (North - Exit)	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
Ped Link: P1	Pedestrians Crossing Bucknell Road Northbound	-	2	-	K		1	13	-	0	-	0	0.0%
Ped Link: P2	Pedestrians Crossing Bucknell Road Southbound	-	2	-	J		1	5	-	0	-	0	0.0%

Full Input Data And Results

Ped Link: P3	Unnamed Ped Link	-	2	-	L		1	7	-	0	-	0	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: A4095 / Bucknell Road	-	-	329	1242	20	35.1	29.5	1.0	65.6	-	-	-	-
A4095 / Bucknell Road Network	-	-	329	1242	20	35.1	29.5	1.0	65.6	-	-	-	-
1/1	242	242	-	-	-	2.7	0.3	-	3.0	44.5	8.7	0.3	8.9
2/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	901	901	-	-	-	11.8	11.1	-	23.0 (20.0+3.0)	91.9 (88.2:127.6)	41.8	11.1	52.9
4/1	900	900	0	605	12	2.0	0.0	0.6	2.5	10.1	7.8	0.0	7.8
5/1	305	305	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	549	535	-	-	-	10.9	15.7	-	26.5	174.0	28.1	15.7	43.8
7/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1+8/2	790	790	-	-	-	7.3	2.5	-	9.8 (9.2+0.6)	44.6 (43.2:94.5)	32.0	2.5	34.5
9/2+9/1	1100	1100	329	637	8	0.4	0.0	0.4	0.8 (0.8+0.0)	2.6 (2.9:0.8)	6.4	0.0	6.4
10/1	211	211	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
		C1 Stream: 1 PRC for Signalled Lanes (%): -8.9		Total Delay for Signalled Lanes (pcuHr): 26.78		Cycle Time (s): 180							
		C1 Stream: 2 PRC for Signalled Lanes (%): -14.0		Total Delay for Signalled Lanes (pcuHr): 38.85		Cycle Time (s): 180							
		PRC Over All Lanes (%): -14.0		Total Delay Over All Lanes(pcuHr): 65.63									

North West Bicester – Hawkwell Village

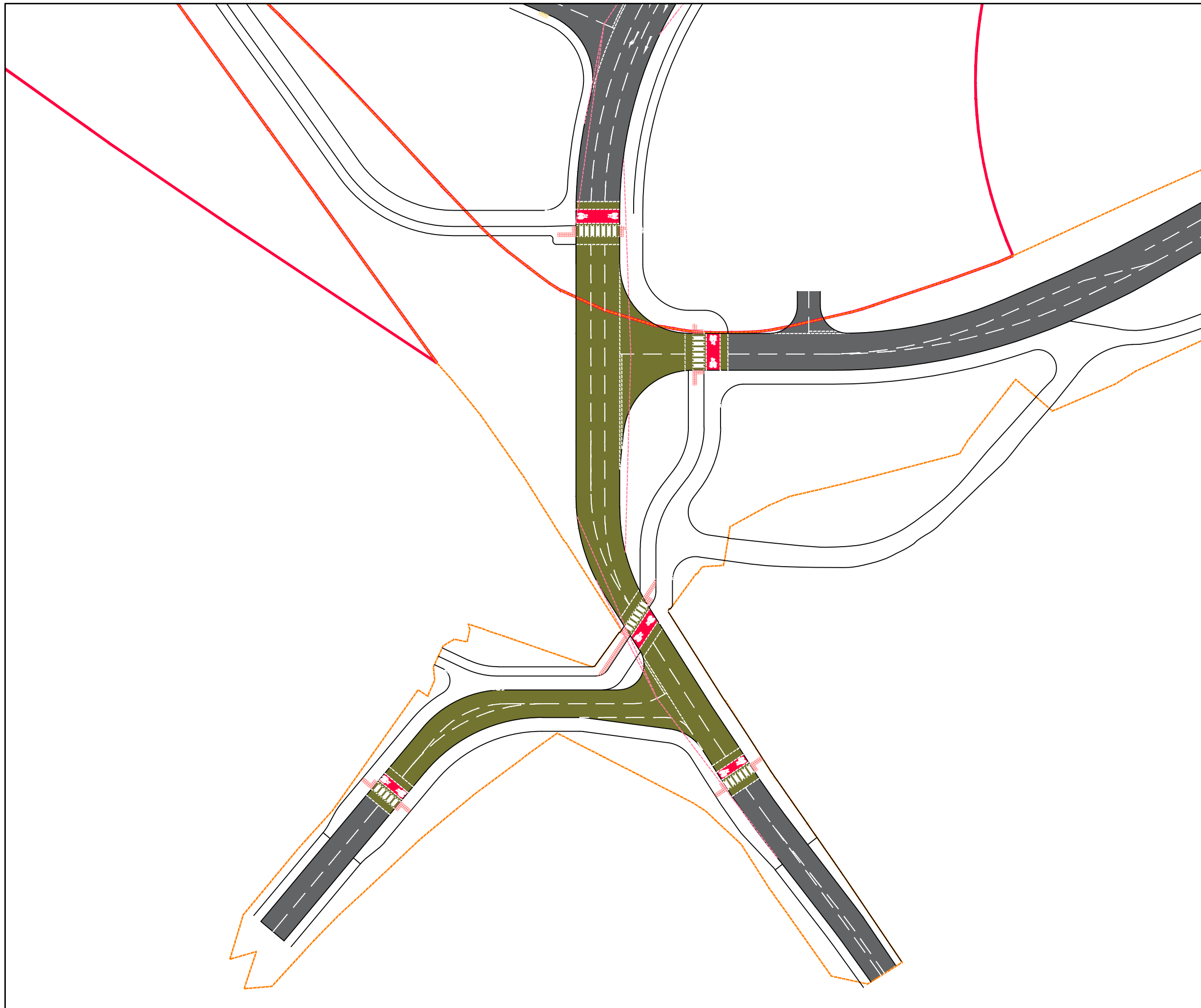
20300

Appendix U

North West Bicester – Hawkwell Village

20300

Appendix V



KEY

- Site Boundary
- Highway Boundary
- Carriageway
- Coloured Surface Treatment

Rev	Date	Description	By	Apvd
P1	12.04.23	Preliminary issue	MK	AW

PROJECT:
BICESTER

TITLE:
BUCKNELL ROAD - A4095 JUNCTION
FINAL DESIGN SURFACING

CLIENT:
HALLAM LAND MANAGEMENT

SCALE@A3:
1:800

PROJECT REF:
20300

DRAWING No:
047

REV:
P1

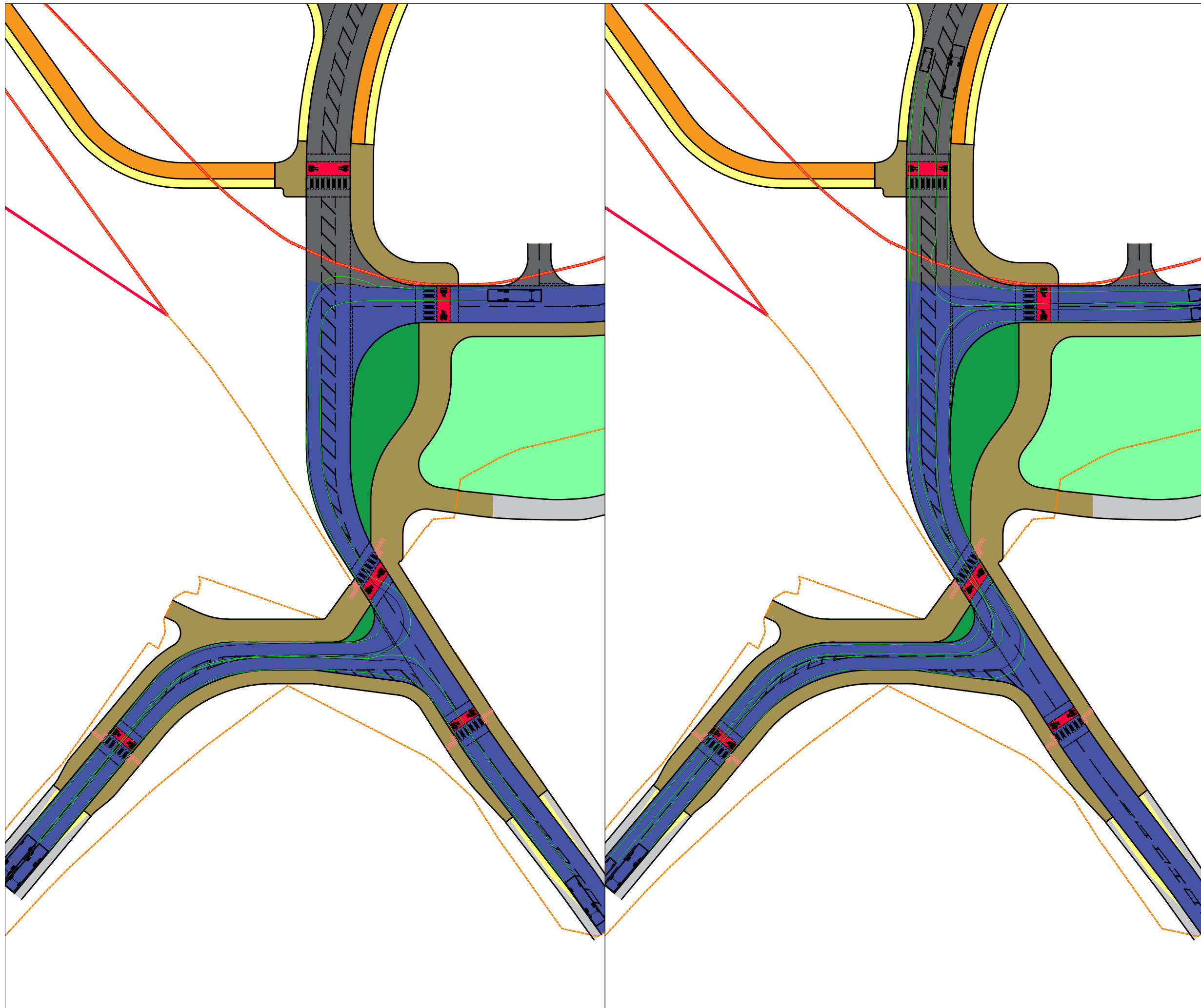
Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction





North West Bicester – Hawkwell Village

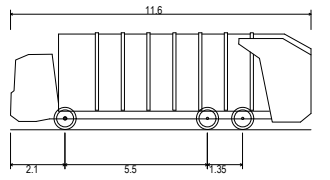
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Appendix W

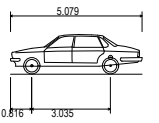


KEY

-  Site Boundary
-  Highway Boundary



Bicester
 Overall Length 11.600m
 Overall Width 2.550m
 Overall Body Height 3.742m
 Min Body Ground Clearance 0.295m
 Track Width 2.450m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 7.900m



Large Car (2006)
 Overall Length 5.079m
 Overall Width 1.872m
 Overall Body Height 1.525m
 Min Body Ground Clearance 0.310m
 Max Track Width 1.831m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 5.900m

P2	06.04.23	Junction Amendments	MK	AW
P1	19.12.22	Preliminary Design	MK	AW

Rev Date Description By Apvd

PROJECT:
 BICESTER

TITLE:
 BUCKNELL ROAD - A4095 JUNCTION
 FINAL DESIGN TRACKING

CLIENT:
 HALLAM LAND MANAGEMENT

SCALE@A3:
 1:800

PROJECT REF:
 20300
DRAWING No: 034 **REV:** P1

Revision Referencing
 P = Preliminary A = Approval T = Tender C = Construction

