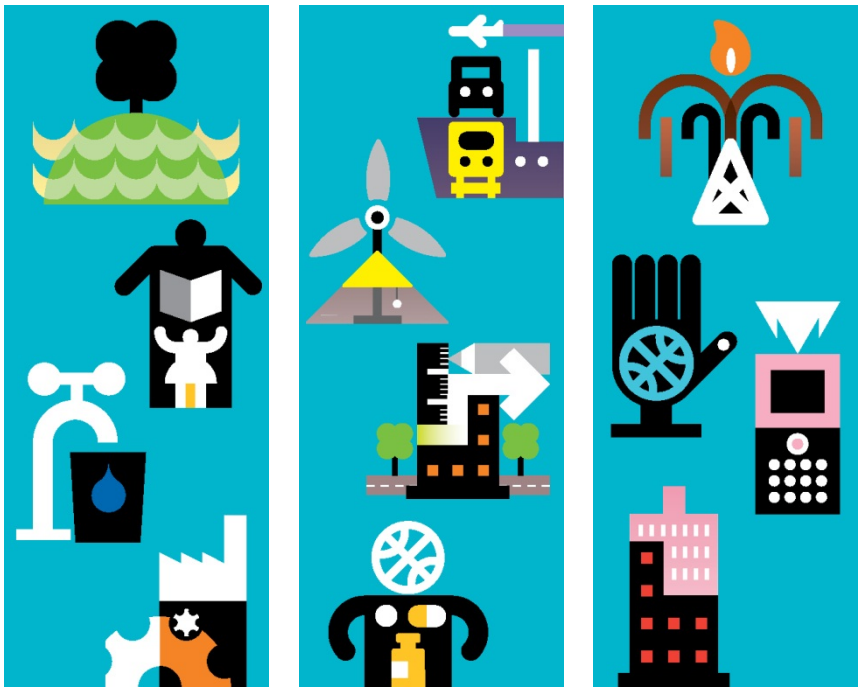

Coxheath, Maidstone

Technical Note: Junction capacity assessment results

June 2015

Maidstone Borough Council

Mott MacDonald

Coxheath, Maidstone

Technical Note: Junction capacity assessment results

June 2015

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Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
A	June 2015	S Almond	M Olley	M Olley	First Issue

Information Class: Standard

Contents

1 Introduction

In January 2015, Maidstone Borough Council (MBC) commissioned Mott MacDonald to undertake junction assessments at two locations in Coxheath; Linton Road crossroads, a signalised junction, and Stocketts Lane / Heath Road / Westerhill Road, a priority junction

The results were issued to MBC in a Technical Note, document reference 347826-TPN-ITD-001. MBC considered that with the Local Plan being in draft format, there was uncertainty over which developments were confirmed allocated and which ones were still aspirational. MBC confirmed the use of Tempro to predict likely growth in traffic to the future year, 2031. However, they considered the Tempro growth to be on the low side, potentially underestimating future traffic generation. To account for the shortfall, based on predicted housing stock in Maidstone, growth was uplifted by 6%, on top of the Tempro growth rate.

In March 2015, MBC commissioned Mott MacDonald to re-assess the same two junctions using the draft Local Plan allocations rather than generic growth to carry out the junction capacity assessments. As the Local Plan is draft, MBC supplied the development sites that needed to be accounted for in the junction capacity models, including development name, size and whether there was a Transport Assessment associated with the scheme (i.e. the site had been through the planning process).

This document, referred to as a Technical Note, summarises the results of the assessments.

The Technical Note will be structured as follows:

Section 2 describes the methodology and data used and input assumptions for calculating 2014 and 2031 traffic flows

Section 3 summarises the results of the junction capacity analysis, along with any recommended mitigation measures

2 Data

2.1 Background

As part of the agreed scope of work, MBC provided all the information required to carry out the two junction assessments. The information supplied was checked by Mott MacDonald for completeness, with any assumptions agreed by MBC. **Section 2.2** and **Section 2.3** set out the information and assumptions for each junction.

2.2 Existing traffic information

2.2.1 Stocketts Lane / Heath Road / Westerhill Road

In order to calculate traffic flows for 2014 (the agreed existing year), the following Transport Assessment was supplied:

- 'Proposed mixed-use development Clockhouse Farm, Coxheath, Kent' – Transport Assessment produced by Odyssey Markides, April 2014 (Planning reference: 14/0566)

Flows in passenger car units (PCUs) were calculated using the raw survey data contained in Appendix A of the supplied Transport Assessment. The survey was carried out on Thursday 24th October 2013. The flows were uplifted to 2014, the agreed existing year.

The 2014 flows were further uplifted, using Tempro and adjusted using the National Traffic Model (NTM), to predict future background traffic flows. This formed the 2031 scenario, the agreed future year.

2.2.2 Linton Road crossroads

In order to calculate traffic flows for 2014, the following Transport Assessment was supplied:

- 'Transport Assessment, Countryside Properties, Land North of Heath Road, Coxheath, Kent' - Transport Assessment produced by dha transport integrated transport and travel planning, May 2014 (Planning reference: 14/0836)

Flows in passenger car units (PCUs) were calculated using the raw survey data contained in Appendix H of the supplied Transport Assessment. The survey was carried out on Tuesday 22nd October 2013. The flows were uplifted to 2014, the agreed existing year.

The 2014 flows were further uplifted, using Tempro and adjusted using the National Traffic Model (NTM), to predict future background traffic flows. This formed the 2031 scenario, the agreed future year.

2.3 Development traffic information

The MBC Local Plan is at its draft stage, with no confirmation over what sites are definitely allocated for development and what sites are aspirational.

However, MBC require that the junctions in the future year are assessed based on the draft Local Plan, so the potential impact of the various sites on the two junctions can be assessed. In the absence of confirmed data in the Local Plan, MBC issued a list of development sites they consider as having an impact on the two junctions to be assessed.

MBC provided Transport Assessments which contained information on land use, trip generation and trip distribution for some of the proposed developments (in relation to the junctions being assessed as part of the proposed development in each Transport Assessment). For some of the developments, no Transport Assessments have been carried out yet. Assumptions had to be made for the latter and these were agreed with MBC.

2.3.1 Trip generation

Where a development had the number of arrivals and departures during the AM and PM weekday peak hour, i.e. in the associated Transport Assessment, this was used. Where no Transport Assessment associated with a listed scheme had been completed, i.e. proposed or aspirational development yet to go through planning, a comparable trip rate was used. This was based on location and generating a worst case scenario. The rates used were agreed with MBC.

One site in Coxheath had neither a Transport Assessment nor was it allocated for a residential land use. In the absence of comparable trip rates, TRICS 2014 (version 7.1.3) was used to estimate the likely level of vehicular traffic generated by an office employment use. The parameters used to identify survey sites and subsequent trip rates and generation were selected to most accurately reflect the location of the proposed site. These rates were agreed with MBC.

2.3.2 Trip distribution

In order to determine traffic distribution associated with all listed sites, two approaches were adopted.

1. Supplied Transport Assessments focused on junctions which that specific development would affect. The Transport Assessments did not necessarily contain distribution information for the two junctions this Technical Note looks at. If it did, the information was directly applied to the junction(s). If the proposed development, as listed by MBC, was on the same road as the development in the Transport Assessment, assumptions were made on likely movement.

2. Where no Transport Assessment had been completed as the development is still aspirational, i.e. the scheme has not been through planning, the distribution from the most comparable site with a Transport Assessment was used.

A final list of each scheme and its associated trip generation and trip distribution at the two junctions in Coxheath was submitted to MBC for review and approval.

A list of the developments which MBC wanted accounting for in the junction capacity assessments can be found in **Appendix A**.

2.4 Growth

TEMPRO (version 6.2 with planning dataset 62 and NTM dataset AF09) has been interrogated with regards to forecast growth in traffic between 2013 and 2014 (see **Table 2.1**) and 2014 and 2031 (see **Table 2.2**). The growth rates were adjusted using the NTM for a rural principal road in Coxheath.

Table 2.1: Tempro growth rates – 2013-2014

Time period	Factor
AM peak	1.003658085
PM peak	1.004254672

Table 2.2: Tempro growth rates – 2014-2031

Time period	Factor
AM peak	1.252457059
PM peak	1.270516961

2.5 Models

MBC provided information, by way of Transport Assessments from their Planning Portal, confirming that the models contained in the supplied Transport Assessments can be used and replicated for this work. The models used are the same as those models used in the previous work. Slight adjustments were made to the Linton Road cross roads junction as the signal priorities have changed. The signal information used in the model was supplied by MBC.

3 Junction Capacity Analysis

3.1 Introduction

Junction capacity analysis has been carried out at two junctions:

- Stocketts Lane / Heath Road / Westerhill Road; and
- Linton Road cross roads.

MBC agreed on the assessment years, which are 2014 and 2031, for both the AM and PM peak hour.

Two software packages have been used to assess the capacity and operation of the junctions. Picady (Junctions8) for the Stocketts Lane / Heath Road / Westerhill Road priority junction and LinSig (version 3) for the Linton Road signalised junction.

Picady calculates a ratio of flow to capacity (RFC), estimated maximum queuing, and delay (in seconds). An RFC of 0.85 or below is the desirable threshold, but a junction would be considered to operate adequately between an RFC of 0.85 and 1.00. Any RFC values exceeding 1.00 indicate the junction would operate over maximum capacity and would become saturated with queuing concerns.

LinSig software has been used to model the signal controlled junctions. Output from LinSig refers to Degree of Saturation % (DoS%, which is equivalent to RFC for roundabouts) as the primary measure of performance. A DoS of below 90% suggests a junction will operate within capacity. A DoS of 90% to 100% suggests a junction is over desired capacity but within its theoretical capacity, whilst a DoS in excess of 100% suggests a junction will be in excess of theoretical capacity.

If any modelling results exceed theoretical capacity; that being an RFC of 1.00 or DoS of 100%, the junction capacity assessment has been re-run with proposed mitigation measures. Any improvements are model specific, and not based on engineering design standards, i.e. the mitigation has been applied within the model only. Appropriate technical layouts would have to take into consideration the model parameters.

3.2 Stocketts Lane / Heath Road / Westerhill Road

Table 3.1 summarises the modelling results for the existing 2014 scenario.

Table 3.1: Picady results for existing 2014

Movement	AM peak			PM peak		
	RFC	Queue/PCUs	Delay (s)	RFC	Queue/PCUs	Delay (s)
Westerhill Road, right, ahead, left	0.38	1	16	0.35	1	15
Heath Road east, right	0.09	0	8	0.13	0	9
Stocketts Lane, left, ahead, right	0.20	0	11	0.27	0	13
Heath Road west, right	0.05	0	8	0.08	0	7

The model results indicate that the junction operated within capacity in 2014, with minimal queuing and congestion concern. During the AM peak, the maximum delay was recorded on Westerhill Road, with a RFC 0.38, queue of one PCU and delay of 16 seconds. Again, during the PM peak, the maximum delay was recorded on Westerhill Road, with a RFC of 0.35, queue of one PCU and delay of 15 seconds.

Table 3.2 summarises the modelling results for the Base 2031 scenario. This is predicted background traffic growth for 2031 without any development traffic applied.

Table 3.2: Picady results for Base 2031

Movement	AM peak			PM peak		
	RFC	Queue/PCUs	Delay (s)	RFC	Queue/PCUs	Delay (s)
Westerhill Road, right, ahead, left	0.54	1	25	0.52	1	25
Heath Road east, right	0.12	0	9	0.18	0	10
Stockett Lane, left, ahead, right	0.27	0	14	0.39	1	17
Heath Road west, right	0.07	0	8	0.12	0	8

The model results predict that the junction would operate within capacity in 2031, with minimal queuing and congestion concern. During the AM peak, the maximum delay was recorded on Westerhill Road, with a RFC 0.54, queue of one PCU and delay of 25 seconds. Again, during the PM peak, the maximum delay was recorded on Westerhill Road, with a RFC of 0.52, queue of one PCU and delay of 25 seconds.

Table 3.3 summarises the modelling results for the Design 2031 scenario. This is predicted background traffic growth for 2031 with development traffic applied.

Table 3.3: Picady results for Design 2031

Movement	AM peak			PM peak		
	RFC	Queue/PCUs	Delay (s)	RFC	Queue/PCUs	Delay (s)
Westerhill Road, right, ahead, left	0.58	1	30	0.57	1	29
Heath Road east, right	0.13	0	9	0.21	0	11
Stockett Lane, left, ahead, right	0.30	0	15	0.44	1	20
Heath Road west, right	0.07	0	9	0.12	0	8

The model results predict that the junction would operate within capacity in 2031 with development, with minimal queuing and congestion concern. During the AM peak, the maximum delay was recorded on Westerhill Road, with a RFC 0.58, queue of one PCU and delay of 30 seconds. Again, during the PM peak, the maximum delay was recorded on Westerhill Road, with a RFC of 0.57, queue of one PCU and delay of 29 seconds.

3.3 Linton cross roads

Table 3.4 summarises the modelling results for the existing 2014 scenario.

Table 3.4: LinSig results for existing 2014

Movement	AM peak		PM peak	
	DoS	Mean max queue (PCU)	DoS	Mean max queue (PCU)
A229 Linton Hill, ahead, right, left	75.1%	12	**92.6%**	**19**
Heath Road west, left, ahead, right	82.6%	15	**94.0%**	**20**
A229 Linton Road, left, ahead, right	**96.5%**	**27**	78.7%	9
Heath Road east, right, left, ahead	**93.6%**	**19**	95.0%	15

The results indicate that the junction operated between 90-100%; within its theoretical capacity. The results indicate that during the AM peak hour, there are 27 queuing PCUs on the A229 Linton Road and during the PM peak, the model indicates 20 queuing PCUs on Heath Road west.

Table 3.5 summarises the modelling results for the Base 2031 scenario. This is predicted background traffic growth for 2031 without development traffic applied.

Table 3.5: LinSig results for Base 2031

Movement	AM peak		PM peak	
	DoS	Mean max queue (PCU)	DoS	Mean max queue (PCU)
A229 Linton Hill, ahead, right, left	103.8%	26	115.3%	96
Heath Road west, left, ahead, right	90.3%	21	115.5%	75
A229 Linton Road, left, ahead, right	132.7%	143	99.7%	22
Heath Road east, right, left, ahead	131.1%	98	121.3%	68

The results predict that in 2031, the growth in background traffic would cause the junction to exceed capacity. The results show that during both the AM and PM peak hours, the junction would experience queuing and congestion on all arms. During the AM peak hour, A229 Linton Road and Heath Road east show the highest queuing, with 143 and 68 PCUs respectively. During the PM peak hour, the Heath Road east experiences the highest queuing with 96 PCUs.

Table 3.5 shows that the junction would exceed capacity with 2031 predicted future background traffic. For this reason the Design 2031 scenario was not modelled as the junction would already be saturated.

In order for the model to operate within capacity, i.e. a DoS below 100%, modifications to the existing junction layout have been made in order to accommodate estimated Design 2031 flows. These changes are:

- Increase the flare from 5.75m to 40.25m flare / lane (to accommodate eight PCUs) /on Heath Road west for right turning traffic;
- Add a 40.25m flare / lane (to accommodate seven PCUs) on Heath Road east for right turning traffic;
- Single lane flaring to the three lanes on Linton Road; one lane for right turning traffic at 80.5m (to accommodate 14 PCUs), the middle lane for ahead traffic, and a lane for ahead / left turning traffic at 86.25m (to accommodate 15 PCUs);
- Single lane flaring to three lanes on Linton Hill; one lane for right turning traffic at 69m (to accommodate 12 PCUs), the middle lane for ahead traffic, and a lane for ahead / left at 86.25m (to accommodate 15PCUs); and
- Two lane exit on Linton Road and Linton Hill

With the proposed modifications, the model predicts that the junction would operate within capacity. The proposed measures ensure the model performs within the critical thresholds, and not whether they are achievable in design or engineering terms.

It should be noted that the mitigation measures are improvements to the existing layout. Alternative layouts have not been considered for this work, i.e. roundabout, and the measures are model specific, not

based on engineering design standards, i.e. the mitigation has been applied within the model only. Appropriate technical layouts would have to take into consideration the model parameters, as well as practical measures such as available land and safety.

Table 3.7 summarises the Base 2031 results and **Table 3.8** summarises the Design 2031 results.

Table 3.7: LinSig results for Base 2031 – with proposed mitigation

Movement	AM peak		PM peak	
	DoS	Mean max queue (PCU)	DoS	Mean max queue (PCU)
A229 Linton Hill, ahead, left	68.7%	10	68.5%	8
A229 Linton Hill, ahead, right	69.7%	5	82.4%	11
Heath Road west, left, ahead, right	76.6%	13	81.2%	18
A229 Linton Road, left, ahead,	66.4%	8	58.7%	5
A229 Linton Road, ahead, right	79.2%	12	76.7%	9
Heath Road east, right, left, ahead	78.6%	14	58.8%	10

Table 3.8: LinSig results for Design 2031 – with proposed mitigation

Movement	AM peak		PM peak	
	DoS	Mean max queue (PCU)	DoS	Mean max queue (PCU)
A229 Linton Hill, ahead, left	54.5%	10	89.6%	17
A229 Linton Hill, ahead, right	71.2%	11	87.4%	17
Heath Road west, left, ahead, right	85.5%	21	86.8%	25
A229 Linton Road, left, ahead,	80.5%	15	74.2%	10
A229 Linton Road, ahead, right	88.9%	19	88.1%	14
Heath Road east, right, left, ahead	87.9%	18	87.2%	13

Appendix B contains all of the modelling output files.

4 Summary

In summary:

1. Traffic data was supplied by MBC by way of Transport Assessments on the MBC Planning Portal;
2. MBC confirmed that the junction assessment models and traffic data contained within the supplied Transport Assessments was to be used for this Coxheath Package assessment work;
3. MBC confirmed that the Local Plan is still draft but the assessments were to account for development sites and how these sites would affect the two junctions. In the absence of confirmed allocated sites, MBC supplied a list of what developments to account for;
4. Information contained within supplied Transport Assessments and assumptions on likely traffic movement was used to determine development trip distribution. The proposed distribution per site was reviewed by MBC and agreed for use;
5. The modelling results for the priority junction, Stocketts Lane / Heath Road / Westerhill Road, shows that the junction operated within capacity in 2014;
6. The modelling results for the priority junction, Stocketts Lane / Heath Road / Westerhill Road, show that the junction would operate within capacity for both Base and Design 2031;
7. The modelling results for the signalised junction at Linton Crossroads show that the junction operated within theoretical capacity in 2014;
8. The modelling results for the signalised junction at Linton Crossroads show that the junction would exceed capacity in Base 2031 and therefore Design 2031. Mitigation measures have been proposed to accommodate the Design 2031 traffic levels on the existing junction layout, i.e. signalised. These proposed measures have been entered as model parameters but have not been tested in design terms. Future technical layouts would have to take into consideration these model parameters. Based on these measures, the model shows the junction as operating within capacity.

Appendices

Appendix A. MBC development sites

Coxheath allocated sites									
Site Address	**Grid Ref.**	**Location type**	**Application number**	**Description of development**	**No. of houses and Mix**	**Private Dwellings**	**Affordable Dwellings**	**Other**	**Notes**
Linden Farm Stockett Lane Coxheath **POLICY H1(43)**	TQ 74380 51610 E 574380 N 151610	Adjacent to larger village settlement	13/2008	Outline planning application with all matters reserved, apart from means of access, for a mixed use development for both the establishment of outdoor community facilities & for residential development of up to 40 dwellings.	40 Mix unknown (viability assessment assumes approx. 411.5m²/unit)	40 units	0 units	Tennis courts (3) Bowling green (6 rinks) allotments (10 plots) and car park	Transport Statement submitted as part of application
Heathfield Heath Road Coxheath **POLICY H1 (44)**	TQ 74930 50913 E 574930 N 150953	Adjacent to larger village settlement	14/0836	Erection of 130 dwellings together with creation of a new access and landscaping provision.	130 6 1-bed flats 19 2-bed flats 27 2-bed houses 50 3-bed houses 28 4-bed houses	78 60%	52 40%		TA submitted as part of application
Forstal Lane Coxheath **POLICY H1 (45)**	TQ 74846 51516 E 574846 N 151516	Adjacent to larger village settlement	N/a		195 Mix not known (no application)	60%	40%		7.9ha developable area 25 d/ha Access to Forstal Lane only
Clockhouse Farm Heath Road Coxheath **POLICY RMX (4)**	TQ 74530 50968 E 574530 N 150968	Adjacent to larger village settlement	14/0566	Outline application for a mixed use development comprising up to 72 dwellings, up to 43 extra care apartments and provision of land for open space/community use with associated access and parking with access considered at this stage and all other matters reserved for future consideration.	72 units Likely mix 32 2-bed 36 3-bed 4 4-bed	43 60%	29 40%	Assisted living units 34x 2-bed flats 9x 1 bed flats 22 car parking spaces	Resolution to grant permission subject to s106 agreement being completed. TA submitted as part of application
Other applications on non-allocated sites									
Land N of Heath Road Coxheath	TQ73788 51347 E 573788 N 151347	Adjacent to larger village settlement	13/1979	Outline planning application for up to 55 residential dwellings with means of access. All other matters reserved.	55 Mix not known (Will be family housing)	47 85%	8 units 15% (see note)		15% affordable housing not yet a certainty. **Application submitted on basis of NO affordable housing** Transport Statement submitted as part of application
Other sites/allocations that may have an impact on Linton Crossroads									
Boughton Monchelsea									
POLICY H1 (47) Junction of Haste Hill Road and Hubbards Lane Boughton Monchelsea	TQ 76188 51306	Adjacent to larger settlement village			20 Units Mix unknown	60%	40%		NO APPLICATION SUBMITTED
Junction of	TQ 76942	Adjacent to			40 Units	60%	40%	PROPOSED NEW	NO APPLICATION

Church Street and Heath Road Boughton Monchelsea	50864	larger settlement village			Mix unknown			ALLOCATION ACCEPTED BY CABINET	SUBMITTED
Land at Lyewood Farm Green Lane Boughton Monchelsea	TQ 77202 51446	Adjacent to larger settlement village			25 Units Mix unknown	60%	40%	PROPOSED NEW ALLOCATION ACCEPTED BY CABINET Given closeness of site to Brishing Lane some traffic is likely to travel eastwards from site and not turn west towards the A229	NO APPLICATION SUBMITTED
Staplehurst									
Sites in Staplehurst are likely to send some traffic northwards along the A229 towards Maidstone passing through Linton Crossroads (see table for Staplehurst for details). Cannot be sure about % of such movements however.									
Marden									
Policy H1 (32) Howland Road Marden	TQ 75002 44628	Adjacent to Rural Service Centre	13/1291/OUT	Outline application for 44 dwellings comprising 5no. 1 bedroom, 9no. 2 bedroom, 17no. 3 bedroom, and 13no. 4 bedroom houses together with new access, associated parking, wildlife enhancement area, and attenuation pond with access considered at this stage and all other matters reserved for future consideration	44 Units 5 x 1-bed 9 x 2-bed 17 x 3-bed 13 x 4-bed	60%	40%	APPROVED 04/06/2014 NO RESERVED MATTERS APPLICATION	
POLICY H1 (33) Stanley Farm Plain Road Marden	TQ 74687 44139	Adjacent to Rural Service Centre	13/1585/OUT	An Outline application for 85 residential units, open space and allotments with access from Plain Road and Napoleon Drive. All other matters (appearance, landscaping, layout and scale) reserved for future consideration	85 Units Illustrative mix →	51 Units 10 x 2-bed houses 15 x 3-bed houses 19 x 4-bed houses 7 x 5-bed houses	34 Units 4 x 1-bed flats 4 x 2-bed flats 9 x 2-bed houses 12 x 3-bed houses 5 x 4-bed houses	RESOLUTION TO GRANT PERMISSION SUBJECT TO S106 AGREEMENT BEING COMPLETED	
Policy H1 (34) The Parsonage Goudhurst Road Marden	TQ 74120 44212	Adjacent to Rural Service Centre	13/0693/OUT	Outline planning application for a residential development of up to 144 dwellings (use class C3), including allotments, open spaces, infrastructure, landscaping, access and associated works with details of access and layout provided at this stage.	144 Units Illustrative mix →	86 units 16 x 1 & 2bed 32 x 3-bed 34 x 4-bed 4 x 5 -bed	58 Units 37 x 1 & 2bed 16 x 3-bed 5 x 4-bed	APPROVED 24/09/2014	
Policy H1 (35) Marden Cricket & Hockey Club Stanley Rd Marden	TQ 74843 44324	Adjacent to Rural Service Centre	13/1928/FULL	Full application for erection of 124 dwellings with parking, vehicular and pedestrian access, and associated hard and soft landscaping.	124 units	75 Units 3 x 1-bed flats 15x 2-bed hse 30x 3-bed hse 27x 4-bed hse	49 Units 15 x 1-bed flats 24 x 2-bed houses 10 x 3-bed houses	RESOLUTION TO GRANT PERMISSION SUBJECT TO S106 AGREEMENT BEING COMPLETED	

Former MAP Depot Goudhurst Road Marden	TQ 73943 44246	Adjacent to Rural Service Centre	13/0115/FULL	Demolition of existing industrial buildings and breaking up of associated hardstanding and redevelopment of site to accommodate 110 dwellings together with associated play trail, amenity space, allotments, new access, parking and landscaping	110 Units	66 units 18x 3-bed hse 44x 4-bed hse 4x 5-bed hse	44 Units 4x 1-bed flats 6x 2-bed flats 12x 2-bed hse 15x 3-bed hse 6x 4-bed hse	PERMITTED 01/10/2013 **UNDER CONSTRUCTION**	

Appendix B. Modelling outputs

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: Stockett Lane cross roads - priority junction.arc8
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Coxheath\PICADY\Modelling v2\01 Stockett Ln_Westerhill Rd_Heath Rd
Report generation date: 26/05/2015 10:45:03

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Stockett Lane priority cross roads - 2014							
Stream B-ACD	0.60	16.11	0.38	C	0.54	15.45	0.35	C
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
Stream A-D	0.11	8.06	0.09	A	0.16	8.67	0.13	A
Stream D-ABC	0.25	11.04	0.20	B	0.37	12.70	0.27	B
Stream C-ABD	0.06	7.88	0.05	A	0.10	7.33	0.08	A
Stream C-D	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-
	Stockett Lane priority cross roads - Base 2031							
Stream B-ACD	1.16	25.33	0.54	D	1.07	24.52	0.52	C
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

Stream A-D	0.14	8.72	0.12	A	0.23	9.90	0.18	A
Stream D-ABC	0.38	13.60	0.27	B	0.64	17.39	0.39	C
Stream C-ABD	0.08	8.41	0.07	A	0.14	7.76	0.12	A
Stream C-D	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-
	Stockett Lane priority cross roads - Design 2031							
Stream B-ACD	1.36	29.76	0.58	D	1.26	29.12	0.57	D
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
Stream A-D	0.16	8.98	0.13	A	0.28	10.62	0.21	B
Stream D-ABC	0.44	14.49	0.30	B	0.77	19.78	0.44	C
Stream C-ABD	0.08	8.65	0.07	A	0.15	7.91	0.12	A
Stream C-D	-	-	-	-	-	-	-	-
Stream C-A	-	-	-	-	-	-	-	-

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

"D1 - 2014, AM " model duration: 07:30 - 09:00
"D2 - 2014, PM" model duration: 16:30 - 18:00
"D4 - Base 2031, AM" model duration: 07:30 - 09:00
"D5 - Base 2031, PM" model duration: 16:30 - 18:00
"D6 - Design 2031, AM" model duration: 07:30 - 09:00
"D7 - Design 2031, PM" model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 26/05/2015 10:45:00

File summary

Title	(untitled)
Location	
Site Number	
Date	13/01/2015
Version	
Status	(new file)
Identifier	

Client	
Jobnumber	
Enumerator	alm42356
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Stockett Lane priority cross roads - 2014, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, AM	2014	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	12.65	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112

1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	510.00	100.000
B	ONE HOUR	✓	123.00	100.000
C	ONE HOUR	✓	377.00	100.000
D	ONE HOUR	✓	74.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	57.000	410.000	43.000
	B	53.000	0.000	39.000	31.000
	C	333.000	22.000	0.000	22.000
	D	47.000	10.000	17.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.11	0.80	0.08
	B	0.43	0.00	0.32	0.25
	C	0.88	0.06	0.00	0.06
	D	0.64	0.14	0.23	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.040	1.000	1.070
	B	1.000	1.000	1.000	1.000
	C	1.030	1.050	1.000	1.000
	D	1.000	1.000	1.070	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	4.0	0.0	7.0
	B	0.0	0.0	0.0	0.0

	C	3.0	5.0	0.0	0.0
	D	0.0	0.0	7.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.38	16.11	0.60	C
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.09	8.06	0.11	A
D-ABC	0.20	11.04	0.25	B
C-ABD	0.05	7.88	0.06	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	91.48	0.00	417.53	0.222	0.28	11.005	B
A-B	42.91	42.91	0.00	-	-	-	-	-
A-C	308.67	308.67	0.00	-	-	-	-	-
A-D	32.37	32.11	0.00	557.35	0.058	0.07	7.330	A
D-ABC	55.71	55.16	0.00	461.15	0.121	0.14	8.991	A
C-ABD	16.87	16.73	0.00	538.97	0.031	0.03	7.233	A
C-D	16.54	16.54	0.00	-	-	-	-	-

C-A	250.41	250.41	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	110.16	0.00	393.02	0.281	0.38	12.707	B
A-B	51.24	51.24	0.00	-	-	-	-	-
A-C	368.58	368.58	0.00	-	-	-	-	-
A-D	38.66	38.59	0.00	543.97	0.071	0.08	7.622	A
D-ABC	66.52	66.36	0.00	441.08	0.151	0.18	9.749	A
C-ABD	20.33	20.29	0.00	523.98	0.039	0.04	7.500	A
C-D	19.74	19.74	0.00	-	-	-	-	-
C-A	298.84	298.84	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	134.60	0.00	358.83	0.377	0.59	15.994	C
A-B	62.76	62.76	0.00	-	-	-	-	-
A-C	451.42	451.42	0.00	-	-	-	-	-
A-D	47.34	47.25	0.00	525.51	0.090	0.10	8.051	A
D-ABC	81.48	81.20	0.00	412.53	0.198	0.25	11.022	B
C-ABD	25.33	25.28	0.00	504.70	0.050	0.06	7.877	A
C-D	24.15	24.15	0.00	-	-	-	-	-
C-A	365.60	365.60	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	135.39	0.00	358.76	0.377	0.60	16.111	C
A-B	62.76	62.76	0.00	-	-	-	-	-
A-C	451.42	451.42	0.00	-	-	-	-	-

A-D	47.34	47.34	0.00	525.49	0.090	0.11	8.055	A
D-ABC	81.48	81.47	0.00	412.44	0.198	0.25	11.042	B
C-ABD	25.33	25.33	0.00	504.58	0.050	0.06	7.879	A
C-D	24.15	24.15	0.00	-	-	-	-	-
C-A	365.60	365.60	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	111.37	0.00	392.91	0.281	0.40	12.821	B
A-B	51.24	51.24	0.00	-	-	-	-	-
A-C	368.58	368.58	0.00	-	-	-	-	-
A-D	38.66	38.75	0.00	543.94	0.071	0.08	7.628	A
D-ABC	66.52	66.79	0.00	440.95	0.151	0.18	9.776	A
C-ABD	20.33	20.38	0.00	523.78	0.039	0.04	7.503	A
C-D	19.74	19.74	0.00	-	-	-	-	-
C-A	298.84	298.84	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	93.04	0.00	417.34	0.222	0.29	11.115	B
A-B	42.91	42.91	0.00	-	-	-	-	-
A-C	308.67	308.67	0.00	-	-	-	-	-
A-D	32.37	32.44	0.00	557.30	0.058	0.07	7.341	A
D-ABC	55.71	55.88	0.00	460.96	0.121	0.14	9.027	A
C-ABD	16.87	16.90	0.00	538.81	0.031	0.03	7.238	A
C-D	16.54	16.54	0.00	-	-	-	-	-
C-A	250.41	250.41	0.00	-	-	-	-	-

Stockett Lane priority cross roads - 2014, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, PM	2014	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	12.25	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)

A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112
1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default	Vehicle	Vehicle	Vehicle	Vehicle Mix	PCU	Default	Estimate	Turning	Turning	Turning

Vehicle Mix	Mix Varies Over Time	Mix Varies Over Turn	Mix Varies Over Entry	Source	Factor for a HV (PCU)	Turning Proportions	from entry/exit counts	Proportions Vary Over Time	Proportions Vary Over Turn	Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	429.00	100.000
B	ONE HOUR	✓	115.00	100.000
C	ONE HOUR	✓	492.00	100.000
D	ONE HOUR	✓	97.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	74.000	295.000	60.000
	B	54.000	0.000	35.000	26.000
	C	409.000	38.000	0.000	45.000
	D	60.000	24.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.17	0.69	0.14
	B	0.47	0.00	0.30	0.23
	C	0.83	0.08	0.00	0.09
	D	0.62	0.25	0.13	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.020	1.030
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.020	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	2.0	3.0
	B	0.0	0.0	0.0	0.0
	C	1.0	0.0	0.0	0.0
	D	2.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.35	15.45	0.54	C
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.13	8.67	0.16	A
D-ABC	0.27	12.70	0.37	B
C-ABD	0.08	7.33	0.10	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	86.58	85.55	0.00	418.12	0.207	0.26	10.792	B
A-B	55.71	55.71	0.00	-	-	-	-	-
A-C	222.09	222.09	0.00	-	-	-	-	-
A-D	45.17	44.80	0.00	535.68	0.084	0.09	7.549	A
D-ABC	73.03	72.25	0.00	447.25	0.163	0.20	9.699	A
C-ABD	29.55	29.32	0.00	557.59	0.053	0.06	6.813	A
C-D	33.79	33.79	0.00	-	-	-	-	-
C-A	307.07	307.07	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	103.38	103.01	0.00	393.70	0.263	0.35	12.368	B
A-B	66.52	66.52	0.00	-	-	-	-	-
A-C	265.20	265.20	0.00	-	-	-	-	-
A-D	53.94	53.84	0.00	518.06	0.104	0.12	7.985	A
D-ABC	87.20	86.95	0.00	425.08	0.205	0.26	10.770	B
C-ABD	35.86	35.80	0.00	547.67	0.065	0.07	7.035	A
C-D	40.29	40.29	0.00	-	-	-	-	-
C-A	366.15	366.15	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS

B-ACD	126.62	125.90	0.00	359.57	0.352	0.53	15.356	C
A-B	81.48	81.48	0.00	-	-	-	-	-
A-C	324.80	324.80	0.00	-	-	-	-	-
A-D	66.06	65.91	0.00	493.78	0.134	0.16	8.663	A
D-ABC	106.80	106.35	0.00	393.69	0.271	0.37	12.662	B
C-ABD	45.23	45.14	0.00	536.51	0.084	0.10	7.331	A
C-D	49.21	49.21	0.00	-	-	-	-	-
C-A	447.26	447.26	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	126.62	126.59	0.00	359.45	0.352	0.54	15.455	C
A-B	81.48	81.48	0.00	-	-	-	-	-
A-C	324.80	324.80	0.00	-	-	-	-	-
A-D	66.06	66.06	0.00	493.75	0.134	0.16	8.669	A
D-ABC	106.80	106.79	0.00	393.61	0.271	0.37	12.705	B
C-ABD	45.23	45.23	0.00	536.52	0.084	0.10	7.335	A
C-D	49.21	49.21	0.00	-	-	-	-	-
C-A	447.26	447.26	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	103.38	104.08	0.00	393.51	0.263	0.36	12.469	B
A-B	66.52	66.52	0.00	-	-	-	-	-
A-C	265.20	265.20	0.00	-	-	-	-	-
A-D	53.94	54.09	0.00	518.01	0.104	0.12	7.996	A
D-ABC	87.20	87.63	0.00	424.96	0.205	0.27	10.818	B
C-ABD	35.86	35.96	0.00	547.70	0.065	0.07	7.039	A

C-D	40.29	40.29	0.00	-	-	-	-	-
C-A	366.15	366.15	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	86.58	86.97	0.00	417.81	0.207	0.27	10.893	B
A-B	55.71	55.71	0.00	-	-	-	-	-
A-C	222.09	222.09	0.00	-	-	-	-	-
A-D	45.17	45.27	0.00	535.58	0.084	0.10	7.563	A
D-ABC	73.03	73.29	0.00	447.06	0.163	0.20	9.756	A
C-ABD	29.55	29.61	0.00	557.47	0.053	0.06	6.825	A
C-D	33.79	33.79	0.00	-	-	-	-	-
C-A	307.07	307.07	0.00	-	-	-	-	-

Stockett Lane priority cross roads - Base 2031, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2031, AM	Base 2031	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	17.87	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112
1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	638.00	100.000
B	ONE HOUR	✓	154.00	100.000
C	ONE HOUR	✓	472.00	100.000

D	ONE HOUR	✓	92.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	72.000	513.000	53.000
	B	67.000	0.000	49.000	38.000
	C	417.000	27.000	0.000	28.000
	D	58.000	13.000	21.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.11	0.80	0.08
	B	0.44	0.00	0.32	0.25
	C	0.88	0.06	0.00	0.06
	D	0.63	0.14	0.23	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.040	1.000	1.070
	B	1.000	1.000	1.000	1.000
	C	1.030	1.050	1.000	1.000
	D	1.000	1.000	1.070	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To

From		A	B	C	D
	A	0.0	4.0	0.0	7.0
	B	0.0	0.0	0.0	0.0
	C	3.0	5.0	0.0	0.0
	D	0.0	0.0	7.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.54	25.33	1.16	D
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.12	8.72	0.14	A
D-ABC	0.27	13.60	0.38	B
C-ABD	0.07	8.41	0.08	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.94	114.26	0.00	386.25	0.300	0.42	13.158	B
A-B	54.21	54.21	0.00	-	-	-	-	-
A-C	386.21	386.21	0.00	-	-	-	-	-
A-D	39.90	39.56	0.00	540.08	0.074	0.08	7.692	A

D-ABC	69.26	68.50	0.00	434.34	0.159	0.19	9.970	A
C-ABD	20.95	20.77	0.00	519.67	0.040	0.04	7.570	A
C-D	21.04	21.04	0.00	-	-	-	-	-
C-A	313.35	313.35	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	138.44	137.64	0.00	355.08	0.390	0.62	16.492	C
A-B	64.73	64.73	0.00	-	-	-	-	-
A-C	461.18	461.18	0.00	-	-	-	-	-
A-D	47.65	47.56	0.00	523.32	0.091	0.11	8.096	A
D-ABC	82.71	82.45	0.00	408.13	0.203	0.25	11.212	B
C-ABD	25.43	25.37	0.00	502.35	0.051	0.06	7.919	A
C-D	25.10	25.10	0.00	-	-	-	-	-
C-A	373.79	373.79	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	169.56	167.52	0.00	311.33	0.545	1.13	24.639	C
A-B	79.27	79.27	0.00	-	-	-	-	-
A-C	564.82	564.82	0.00	-	-	-	-	-
A-D	58.35	58.22	0.00	500.22	0.117	0.14	8.712	A
D-ABC	101.29	100.81	0.00	370.23	0.274	0.37	13.540	B
C-ABD	32.12	32.03	0.00	480.98	0.067	0.08	8.408	A
C-D	30.68	30.68	0.00	-	-	-	-	-
C-A	456.88	456.88	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS

B-ACD	169.56	169.43	0.00	311.22	0.545	1.16	25.330	D
A-B	79.27	79.27	0.00	-	-	-	-	-
A-C	564.82	564.82	0.00	-	-	-	-	-
A-D	58.35	58.35	0.00	500.20	0.117	0.14	8.717	A
D-ABC	101.29	101.28	0.00	370.00	0.274	0.38	13.597	B
C-ABD	32.12	32.12	0.00	480.80	0.067	0.08	8.413	A
C-D	30.68	30.68	0.00	-	-	-	-	-
C-A	456.88	456.88	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	138.44	140.46	0.00	354.91	0.390	0.66	16.938	C
A-B	64.73	64.73	0.00	-	-	-	-	-
A-C	461.18	461.18	0.00	-	-	-	-	-
A-D	47.65	47.77	0.00	523.28	0.091	0.11	8.104	A
D-ABC	82.71	83.17	0.00	407.83	0.203	0.26	11.274	B
C-ABD	25.43	25.51	0.00	502.03	0.051	0.06	7.923	A
C-D	25.10	25.10	0.00	-	-	-	-	-
C-A	373.79	373.79	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.94	116.82	0.00	385.98	0.300	0.44	13.417	B
A-B	54.21	54.21	0.00	-	-	-	-	-
A-C	386.21	386.21	0.00	-	-	-	-	-
A-D	39.90	39.99	0.00	540.00	0.074	0.09	7.705	A
D-ABC	69.26	69.53	0.00	434.03	0.160	0.20	10.035	B
C-ABD	20.95	21.00	0.00	519.44	0.040	0.05	7.580	A

C-D	21.04	21.04	0.00	-	-	-	-	-
C-A	313.35	313.35	0.00	-	-	-	-	-

Stockett Lane priority cross roads - Base 2031, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2031, PM	Base 2031	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	17.29	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major

B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112
1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-

1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	545.00	100.000
B	ONE HOUR	✓	146.00	100.000
C	ONE HOUR	✓	624.00	100.000
D	ONE HOUR	✓	123.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	**B**	**C**	**D**
From	**A**	0.000	94.000	375.000	76.000
	B	69.000	0.000	44.000	33.000
	C	519.000	48.000	0.000	57.000
	D	76.000	30.000	17.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.17	0.69	0.14
	B	0.47	0.00	0.30	0.23
	C	0.83	0.08	0.00	0.09
	D	0.62	0.24	0.14	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.020	1.030
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.020	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	2.0	3.0
	B	0.0	0.0	0.0	0.0
	C	1.0	0.0	0.0	0.0
	D	2.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.52	24.52	1.07	C

A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.18	9.90	0.23	A
D-ABC	0.39	17.39	0.64	C
C-ABD	0.12	7.76	0.14	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	109.92	108.34	0.00	383.95	0.286	0.39	12.992	B
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	282.32	282.32	0.00	-	-	-	-	-
A-D	57.22	56.70	0.00	511.44	0.112	0.13	8.145	A
D-ABC	92.60	91.46	0.00	416.40	0.222	0.28	11.176	B
C-ABD	38.20	37.89	0.00	544.25	0.070	0.08	7.108	A
C-D	42.71	42.71	0.00	-	-	-	-	-
C-A	388.87	388.87	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	131.25	130.51	0.00	352.16	0.373	0.58	16.183	C
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	337.12	337.12	0.00	-	-	-	-	-
A-D	68.32	68.17	0.00	489.09	0.140	0.17	8.807	A

D-ABC	110.57	110.13	0.00	387.14	0.286	0.40	13.132	B
C-ABD	46.96	46.86	0.00	534.40	0.088	0.10	7.388	A
C-D	50.87	50.87	0.00	-	-	-	-	-
C-A	463.14	463.14	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	160.75	158.90	0.00	307.39	0.523	1.04	23.942	C
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	412.88	412.88	0.00	-	-	-	-	-
A-D	83.68	83.43	0.00	458.29	0.183	0.23	9.886	A
D-ABC	135.43	134.47	0.00	344.98	0.393	0.64	17.231	C
C-ABD	60.68	60.52	0.00	525.42	0.115	0.14	7.750	A
C-D	61.98	61.98	0.00	-	-	-	-	-
C-A	564.37	564.37	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	160.75	160.64	0.00	307.16	0.523	1.07	24.521	C
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	412.88	412.88	0.00	-	-	-	-	-
A-D	83.68	83.67	0.00	458.24	0.183	0.23	9.899	A
D-ABC	135.43	135.39	0.00	344.79	0.393	0.64	17.393	C
C-ABD	60.68	60.68	0.00	525.45	0.115	0.14	7.757	A
C-D	61.98	61.98	0.00	-	-	-	-	-
C-A	564.37	564.37	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS

B-ACD	131.25	133.08	0.00	351.81	0.373	0.61	16.590	C
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	337.12	337.12	0.00	-	-	-	-	-
A-D	68.32	68.56	0.00	489.00	0.140	0.17	8.825	A
D-ABC	110.57	111.50	0.00	386.88	0.286	0.41	13.278	B
C-ABD	46.96	47.12	0.00	534.47	0.088	0.10	7.396	A
C-D	50.86	50.86	0.00	-	-	-	-	-
C-A	463.14	463.14	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	109.92	110.72	0.00	383.47	0.287	0.41	13.239	B
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	282.32	282.32	0.00	-	-	-	-	-
A-D	57.22	57.37	0.00	511.31	0.112	0.13	8.172	A
D-ABC	92.60	93.08	0.00	416.10	0.223	0.29	11.299	B
C-ABD	38.21	38.30	0.00	544.10	0.070	0.08	7.125	A
C-D	42.71	42.71	0.00	-	-	-	-	-
C-A	388.87	388.87	0.00	-	-	-	-	-

Stockett Lane priority cross roads - Design 2031, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Design 2031, AM	Design 2031	AM		ONE HOUR	07:30	09:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	20.00	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm	Lane Width	Lane Width (Left)	Lane Width (Right)	Width at give-	Width at 5m	Width at 10m	Width at 15m	Width at 20m	Estimate Flare	Flare Length	Visibility To Left	Visibility To Right

	Type	(m)	(m)	(m)	way (m)	(m)	(m)	(m)	(m)	Length	(PCU)	(m)	(m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112
1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	695.00	100.000
B	ONE HOUR	✓	154.00	100.000
C	ONE HOUR	✓	505.00	100.000
D	ONE HOUR	✓	100.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	72.000	566.000	57.000
	B	67.000	0.000	49.000	38.000
	C	450.000	27.000	0.000	28.000
	D	66.000	13.000	21.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.10	0.81	0.08
	B	0.44	0.00	0.32	0.25
	C	0.89	0.05	0.00	0.06
	D	0.66	0.13	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To

		A	B	C	D
From	A	1.000	1.040	1.000	1.070
	B	1.000	1.000	1.000	1.000
	C	1.030	1.050	1.000	1.000
	D	1.000	1.000	1.070	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	4.0	0.0	7.0
	B	0.0	0.0	0.0	0.0
	C	3.0	5.0	0.0	0.0
	D	0.0	0.0	7.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.58	29.76	1.36	D
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.13	8.98	0.16	A
D-ABC	0.30	14.49	0.44	B
C-ABD	0.07	8.65	0.08	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (07:30-07:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.94	114.17	0.00	372.28	0.311	0.44	13.856	B
A-B	54.21	54.21	0.00	-	-	-	-	-
A-C	426.11	426.11	0.00	-	-	-	-	-
A-D	42.91	42.54	0.00	534.21	0.080	0.09	7.829	A
D-ABC	75.29	74.44	0.00	431.47	0.174	0.21	10.201	B
C-ABD	21.02	20.84	0.00	510.38	0.041	0.05	7.714	A
C-D	21.04	21.04	0.00	-	-	-	-	-
C-A	338.13	338.13	0.00	-	-	-	-	-

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	138.44	137.52	0.00	338.12	0.409	0.67	17.861	C
A-B	64.73	64.73	0.00	-	-	-	-	-
A-C	508.82	508.82	0.00	-	-	-	-	-
A-D	51.24	51.14	0.00	516.31	0.099	0.12	8.279	A
D-ABC	89.90	89.60	0.00	403.32	0.223	0.29	11.621	B
C-ABD	25.58	25.52	0.00	491.71	0.052	0.06	8.100	A
C-D	25.10	25.10	0.00	-	-	-	-	-
C-A	403.31	403.31	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	169.56	167.00	0.00	289.99	0.585	1.31	28.676	D
A-B	79.27	79.27	0.00	-	-	-	-	-
A-C	623.18	623.18	0.00	-	-	-	-	-
A-D	62.76	62.61	0.00	491.64	0.128	0.15	8.975	A

D-ABC	110.10	109.51	0.00	362.17	0.304	0.43	14.412	B
C-ABD	32.47	32.38	0.00	468.92	0.069	0.08	8.646	A
C-D	30.67	30.67	0.00	-	-	-	-	-
C-A	492.87	492.87	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	169.56	169.38	0.00	289.86	0.585	1.36	29.760	D
A-B	79.27	79.27	0.00	-	-	-	-	-
A-C	623.18	623.18	0.00	-	-	-	-	-
A-D	62.76	62.75	0.00	491.61	0.128	0.16	8.981	A
D-ABC	110.10	110.08	0.00	361.89	0.304	0.44	14.493	B
C-ABD	32.47	32.47	0.00	468.72	0.069	0.08	8.651	A
C-D	30.67	30.67	0.00	-	-	-	-	-
C-A	492.87	492.87	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	138.44	141.01	0.00	337.92	0.410	0.72	18.507	C
A-B	64.73	64.73	0.00	-	-	-	-	-
A-C	508.82	508.82	0.00	-	-	-	-	-
A-D	51.24	51.39	0.00	516.27	0.099	0.12	8.290	A
D-ABC	89.90	90.47	0.00	402.97	0.223	0.30	11.703	B
C-ABD	25.58	25.66	0.00	491.35	0.052	0.06	8.108	A
C-D	25.10	25.10	0.00	-	-	-	-	-
C-A	403.31	403.31	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS

B-ACD	115.94	116.95	0.00	371.98	0.312	0.46	14.173	B
A-B	54.21	54.21	0.00	-	-	-	-	-
A-C	426.11	426.11	0.00	-	-	-	-	-
A-D	42.91	43.01	0.00	534.13	0.080	0.09	7.846	A
D-ABC	75.29	75.60	0.00	431.15	0.175	0.22	10.276	B
C-ABD	21.03	21.08	0.00	510.12	0.041	0.05	7.723	A
C-D	21.04	21.04	0.00	-	-	-	-	-
C-A	338.13	338.13	0.00	-	-	-	-	-

Stockett Lane priority cross roads - Design 2031, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Stockett Lane priority cross roads	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Design 2031, PM	Design 2031	PM		ONE HOUR	16:30	18:00	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	19.63	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major
D	D	(untitled)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	6.60		0.00		2.20	90.00		
C	6.60		0.00		2.20	90.00	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.30										10	10
D	One lane	2.80										10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	626.083	-	-	-	-	-	-	0.236	0.337	0.236	-	-	-
1	B-A	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	-	0.224	0.224	0.112

1	B-C	649.161	0.097	0.245	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	B-D, offside lane	500.448	0.089	0.224	0.224	-	-	-	0.141	0.321	0.141	-	-	-
1	C-B	626.083	0.236	0.236	0.337	-	-	-	-	-	-	-	-	-
1	D-A	617.613	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-B, offside lane	476.127	0.134	0.134	0.305	-	-	-	0.213	0.213	0.084	-	-	-
1	D-C	476.127	-	0.134	0.305	0.107	0.213	0.213	0.213	0.213	0.084	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	596.00	100.000
B	ONE HOUR	✓	146.00	100.000
C	ONE HOUR	✓	680.00	100.000
D	ONE HOUR	✓	129.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	94.000	416.000	86.000
	B	69.000	0.000	44.000	33.000
	C	575.000	48.000	0.000	57.000
	D	82.000	30.000	17.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.16	0.70	0.14
	B	0.47	0.00	0.30	0.23
	C	0.85	0.07	0.00	0.08
	D	0.64	0.23	0.13	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.020	1.030
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.020	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	2.0	3.0
	B	0.0	0.0	0.0	0.0

	C	1.0	0.0	0.0	0.0
	D	2.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.57	29.12	1.26	D
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.21	10.62	0.28	B
D-ABC	0.44	19.78	0.77	C
C-ABD	0.12	7.91	0.15	A
C-D	-	-	-	-
C-A	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	109.92	108.26	0.00	368.93	0.298	0.42	13.727	B
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	313.19	313.19	0.00	-	-	-	-	-
A-D	64.75	64.14	0.00	501.48	0.129	0.15	8.469	A
D-ABC	97.12	95.87	0.00	406.11	0.239	0.31	11.705	B
C-ABD	38.49	38.17	0.00	537.02	0.072	0.08	7.215	A
C-D	42.70	42.70	0.00	-	-	-	-	-

C-A	430.75	430.75	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	131.25	130.40	0.00	333.79	0.393	0.63	17.622	C
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	373.98	373.98	0.00	-	-	-	-	-
A-D	77.31	77.13	0.00	477.19	0.162	0.20	9.265	A
D-ABC	115.97	115.44	0.00	373.67	0.310	0.45	14.087	B
C-ABD	47.53	47.43	0.00	526.69	0.090	0.10	7.517	A
C-D	50.85	50.85	0.00	-	-	-	-	-
C-A	512.93	512.93	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	160.75	158.39	0.00	284.09	0.566	1.22	28.112	D
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	458.02	458.02	0.00	-	-	-	-	-
A-D	94.69	94.37	0.00	443.72	0.213	0.28	10.604	B
D-ABC	142.03	140.81	0.00	326.40	0.435	0.75	19.502	C
C-ABD	61.99	61.81	0.00	517.88	0.120	0.15	7.901	A
C-D	61.93	61.93	0.00	-	-	-	-	-
C-A	624.77	624.77	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	160.75	160.59	0.00	283.78	0.566	1.26	29.116	D
A-B	103.50	103.50	0.00	-	-	-	-	-
A-C	458.02	458.02	0.00	-	-	-	-	-

A-D	94.69	94.68	0.00	443.66	0.213	0.28	10.624	B
D-ABC	142.03	141.98	0.00	326.16	0.435	0.77	19.776	C
C-ABD	61.99	61.99	0.00	517.91	0.120	0.15	7.909	A
C-D	61.93	61.93	0.00	-	-	-	-	-
C-A	624.77	624.77	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	131.25	133.61	0.00	333.35	0.394	0.67	18.227	C
A-B	84.50	84.50	0.00	-	-	-	-	-
A-C	373.98	373.98	0.00	-	-	-	-	-
A-D	77.31	77.62	0.00	477.10	0.162	0.20	9.290	A
D-ABC	115.97	117.17	0.00	373.35	0.311	0.47	14.297	B
C-ABD	47.53	47.71	0.00	526.75	0.090	0.11	7.529	A
C-D	50.85	50.85	0.00	-	-	-	-	-
C-A	512.93	512.93	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-ACD	109.92	110.86	0.00	368.39	0.298	0.43	14.031	B
A-B	70.77	70.77	0.00	-	-	-	-	-
A-C	313.19	313.19	0.00	-	-	-	-	-
A-D	64.75	64.93	0.00	501.34	0.129	0.15	8.501	A
D-ABC	97.12	97.69	0.00	405.77	0.239	0.32	11.856	B
C-ABD	38.50	38.60	0.00	536.85	0.072	0.08	7.234	A
C-D	42.70	42.70	0.00	-	-	-	-	-
C-A	430.74	430.74	0.00	-	-	-	-	-

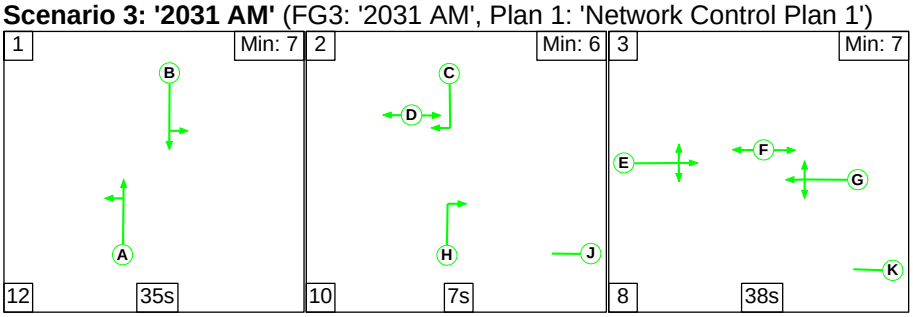
Basic Results Summary

User and Project Details

Project:	**Maidstone BC Junction Assessments**
Title:	**Coxheath**
Location:	Maidstone
File name:	Coxheath_Base_A.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Lane, Southampton SO50 9NW
Notes:	Note the 1PCU flare on Heath Road West is not shown on drawing but is clearly visible and marked on Google Earth

Stage Sequence Diagram

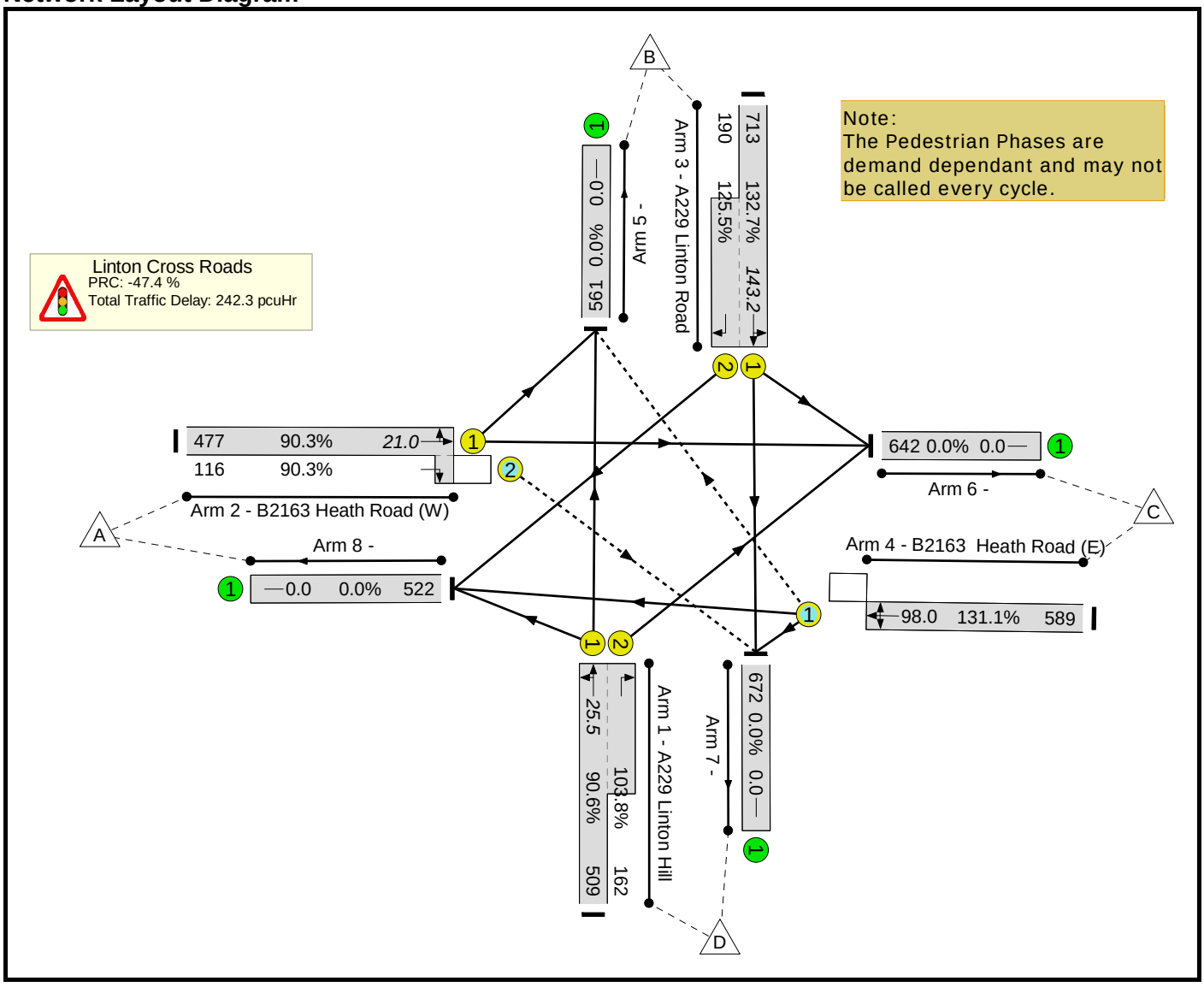
Scenario 3: '2031 AM' (FG3: '2031 AM', Plan 1: 'Network Control Plan 1')



Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**132.7%**	**161**	**0**	**26**	**242.3**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**132.7%**	**161**	**0**	**26**	**242.3**	-	-
1/1+1/2	A229 Linton Hill Ahead Right Left	U	A H		1	39:9	-	671	1895:1717	562+156	90.6 : 103.8%	-	-	-	15.6	83.9	25.5
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	38	-	593	1882:1665	528+128	90.3 : 90.3%	114	0	2	10.0	60.9	21.0
3/1+3/2	A229 Linton Road Left Ahead Right	U	B C		1	35:9	-	903	1877:1665	537+151	132.7 : 125.5%	-	-	-	129.9	517.8	143.2
4/1	B2163 Heath Road (E) Right Left Ahead	O	G		1	38	-	589	1906	449	131.1%	47	0	24	86.7	530.2	98.0

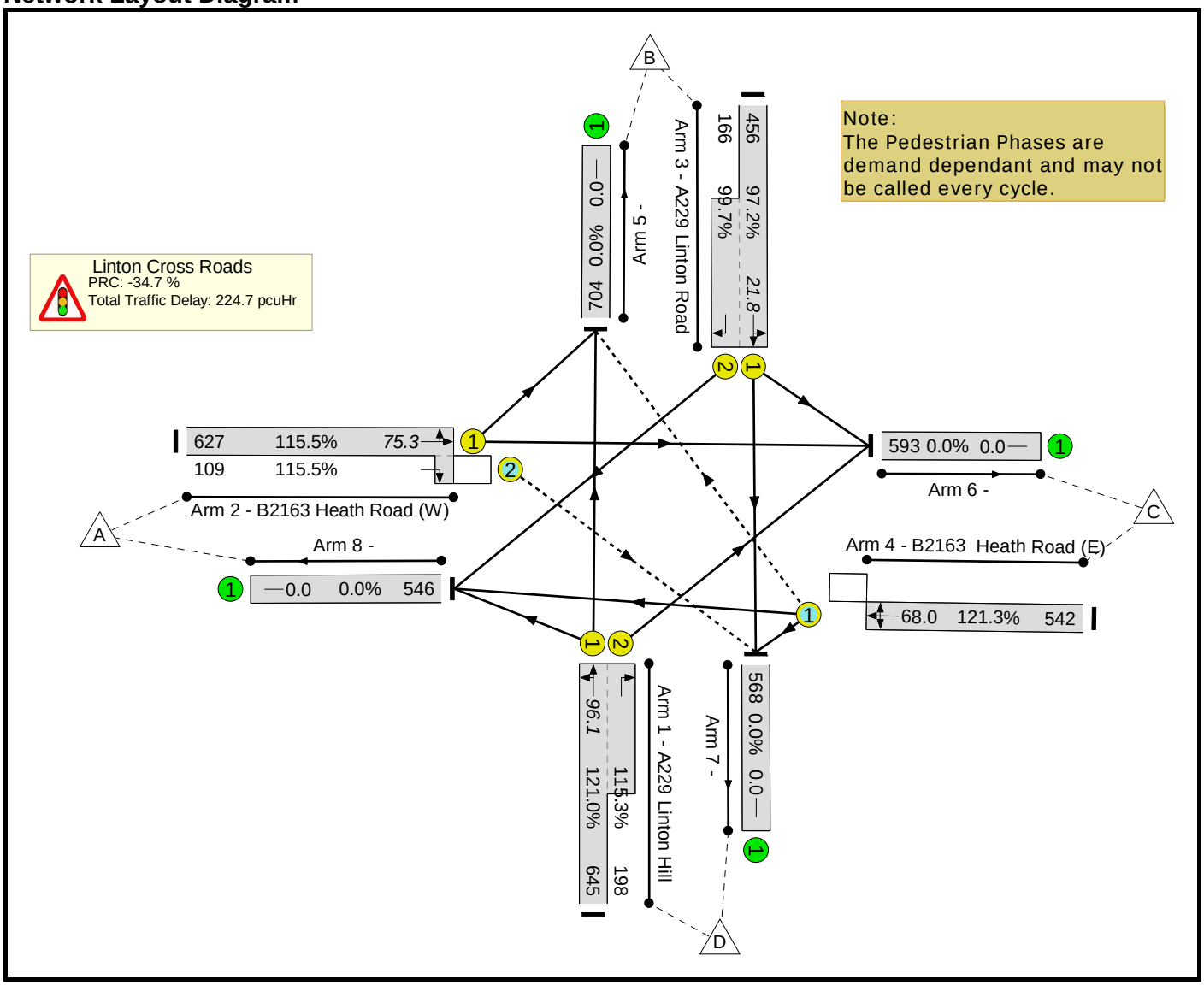
C1 PRC for Signalled Lanes (%): -47.4 Total Delay for Signalled Lanes (pcuHr): 242.28 Cycle Time (s): 110

PRC Over All Lanes (%): -47.4 Total Delay Over All Lanes(pcuHr): 242.28

Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**121.3%**	**94**	**0**	**80**	**224.7**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**121.3%**	**94**	**0**	**80**	**224.7**	-	-
1/1+1/2	A229 Linton Hill Ahead Right Left	U	A H		1	28:8	-	843	1909:1717	533+172	121.0 : 115.3%	-	-	-	85.4	364.7	96.1
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	30	-	736	1865:1665	543+94	115.5 : 115.5%	94	0	0	64.3	314.6	75.3
3/1+3/2	A229 Linton Road Left Ahead Right	U	B C		1	24:8	-	622	1900:1665	469+167	97.2 : 99.7%	-	-	-	15.3	88.7	21.8
4/1	B2163 Heath Road (E) Right Left Ahead	O	G		1	30	-	542	1915	447	121.3%	0	0	80	59.6	396.0	68.0

C1

PRC for Signalled Lanes (%): -34.7
PRC Over All Lanes (%): -34.7

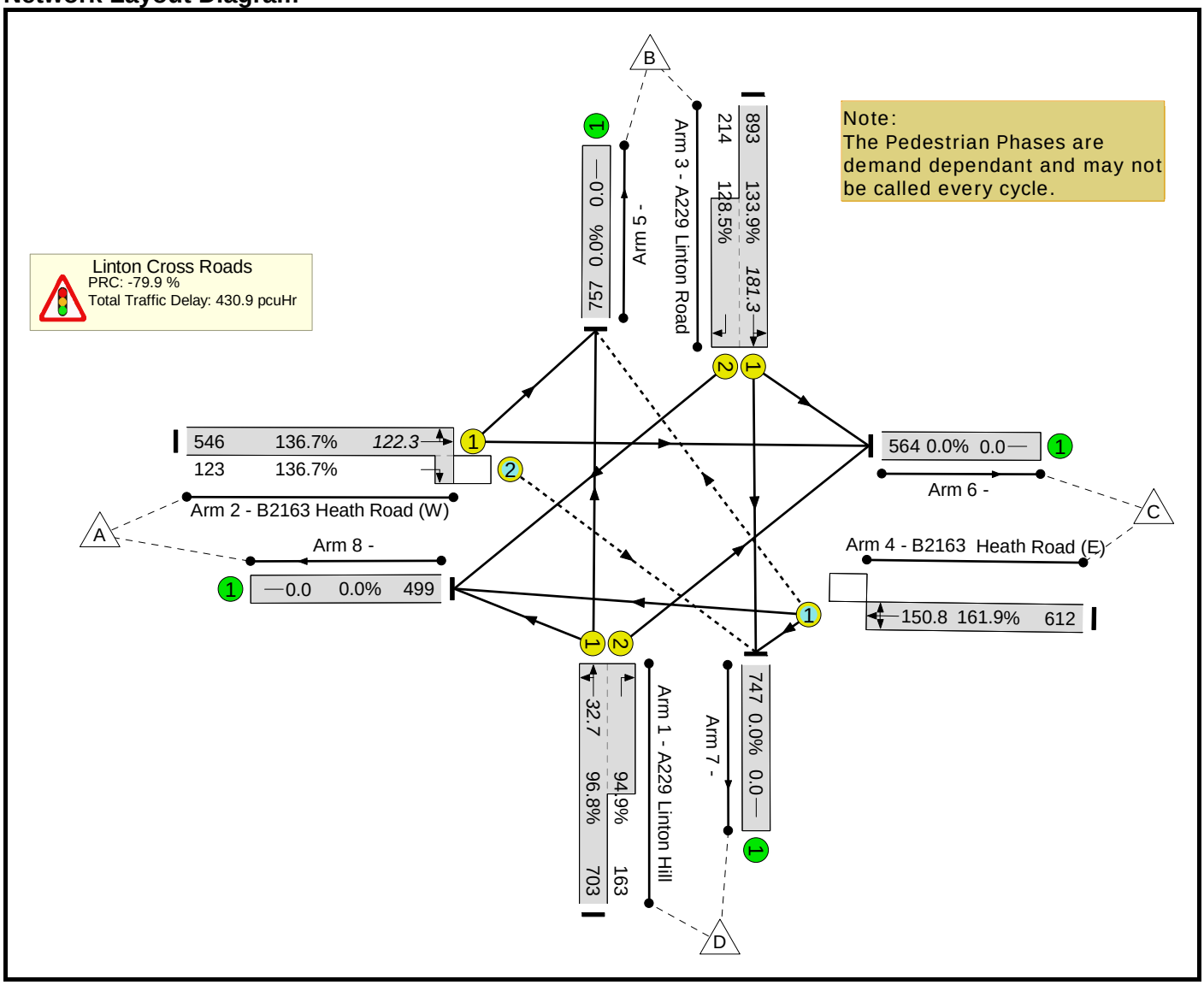
Total Delay for Signalled Lanes (pcuHr): 224.67
Total Delay Over All Lanes(pcuHr): 224.67

Cycle Time (s): 90

Basic Results Summary

Scenario 5: '2031 Design AM' (FG5: '2031 Design AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**161.9%**	**85**	**0**	**70**	**430.9**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**161.9%**	**85**	**0**	**70**	**430.9**	-	-
1/1+1/2	A229 Linton Hill Ahead Right Left	U	A H		1	48:10	-	866	1910:1717	726+172	96.8 : 94.9%	-	-	-	16.6	68.9	32.7
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	28	-	669	1872:1665	399+90	136.7 : 136.7%	85	0	5	111.0	597.5	122.3
3/1+3/2	A229 Linton Road Left Ahead Right	U	B C		1	44:10	-	1107	1890:1665	667+167	133.9 : 128.5%	-	-	-	163.0	530.1	181.3
4/1	B2163 Heath Road (E) Right Left Ahead	O	G		1	28	-	612	1903	378	161.9%	0	0	65	140.3	825.3	150.8

C1

PRC for Signalled Lanes (%): -79.9
PRC Over All Lanes (%): -79.9

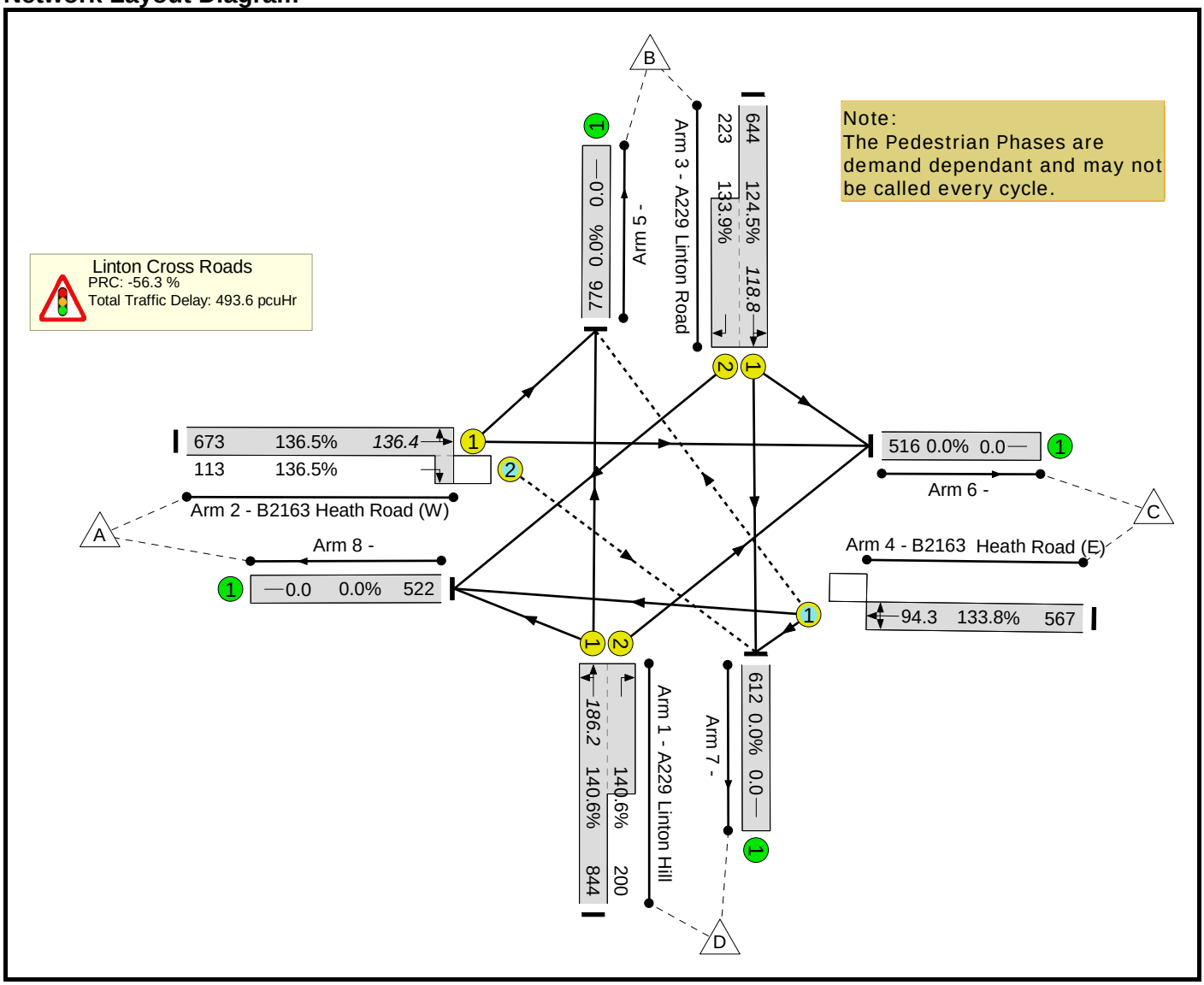
Total Delay for Signalled Lanes (pcuHr): 430.93
Total Delay Over All Lanes(pcuHr): 430.93

Cycle Time (s): 110

Basic Results Summary

Scenario 6: '2031 Design PM' (FG6: '2031 Design PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**140.6%**	**83**	**0**	**80**	**493.6**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**140.6%**	**83**	**0**	**80**	**493.6**	-	-
1/1+1/2	A229 Linton Hill Ahead Right Left	U	A H		1	31:8	-	1044	1918:1717	600+142	140.6 : 140.6%	-	-	-	173.3	597.5	186.2
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	27	-	786	1862:1665	493+83	136.5 : 136.5%	83	0	0	125.2	573.3	136.4
3/1+3/2	A229 Linton Road Left Ahead Right	U	B C		1	27:8	-	867	1907:1665	517+167	124.5 : 133.9%	-	-	-	109.2	453.4	118.8
4/1	B2163 Heath Road (E) Right Left Ahead	O	G		1	27	-	567	1913	424	133.8%	0	0	80	85.9	545.6	94.3

C1 PRC for Signalled Lanes (%): -56.3 Total Delay for Signalled Lanes (pcuHr): 493.57 Cycle Time (s): 90

PRC Over All Lanes (%): -56.3 Total Delay Over All Lanes(pcuHr): 493.57

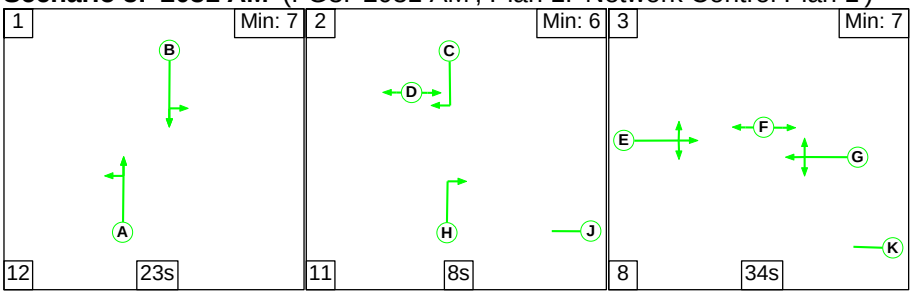
Basic Results Summary

User and Project Details

Project:	**Maidstone BC Junction Assessments**
Title:	**Coxheath**
Location:	Maidstone
File name:	Coxheath_2031_A.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Lane, Southampton SO50 9NW
Notes:	Phase delays added3 PCU flares on Heath Road ApproachesFlare length on Linton Road and Linton Hill increased (14PCU and 12PCU) and a flare (15PCU) added for ahead traffic, Funnel on exits should be of minimum 15PCU)

Stage Sequence Diagram

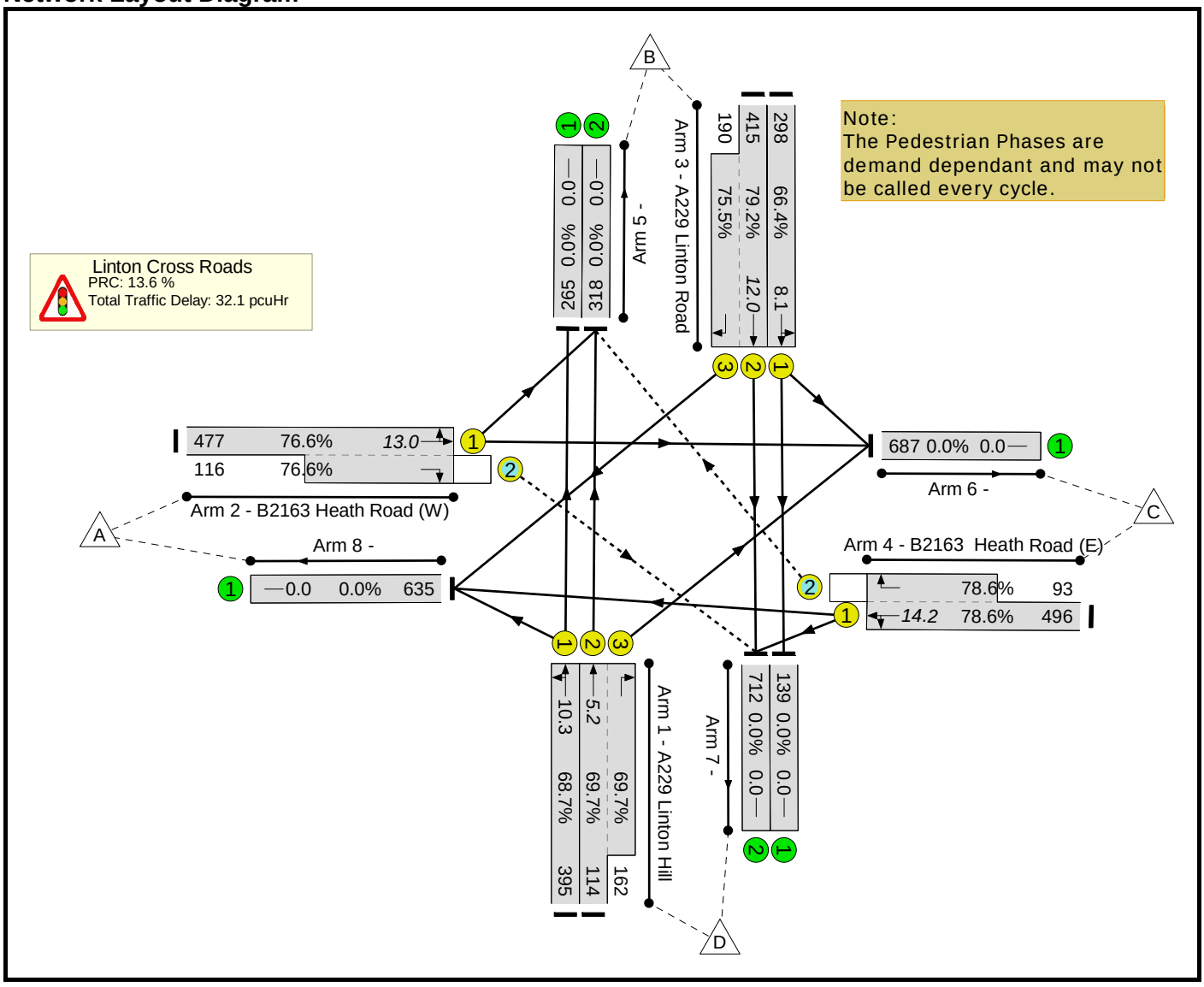
Scenario 3: '2031 AM' (FG3: '2031 AM', Plan 1: 'Network Control Plan 1')



Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**79.2%**	**201**	**0**	**8**	**32.1**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**79.2%**	**201**	**0**	**8**	**32.1**	-	-
1/1	A229 Linton Hill Ahead Left	U	A		1	28	-	395	1902	575	68.7%	-	-	-	4.3	39.4	10.3
1/2+1/3	A229 Linton Hill Ahead Right	U	A H		1	28:12	-	276	2120:1717	164+233	69.7 : 69.7%	-	-	-	3.7	48.2	5.2
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	35	-	593	1882:1665	623+151	76.6 : 76.6%	108	0	8	6.3	38.2	13.0
3/1	A229 Linton Road Left Ahead	U	B		1	23	-	298	1796	449	66.4%	-	-	-	3.7	44.1	8.1
3/2+3/3	A229 Linton Road Ahead Right	U	B C		1	23:13	-	605	2095:1786	524+252	79.2 : 75.5%	-	-	-	7.7	45.8	12.0
4/1+4/2	B2163 Heath Road (E) Right Left Ahead	U+O	G		1	34	-	589	1942:1764	631+118	78.6 : 78.6%	93	0	0	6.5	39.4	14.2

C1

PRC for Signalled Lanes (%): 13.6
PRC Over All Lanes (%): 13.6

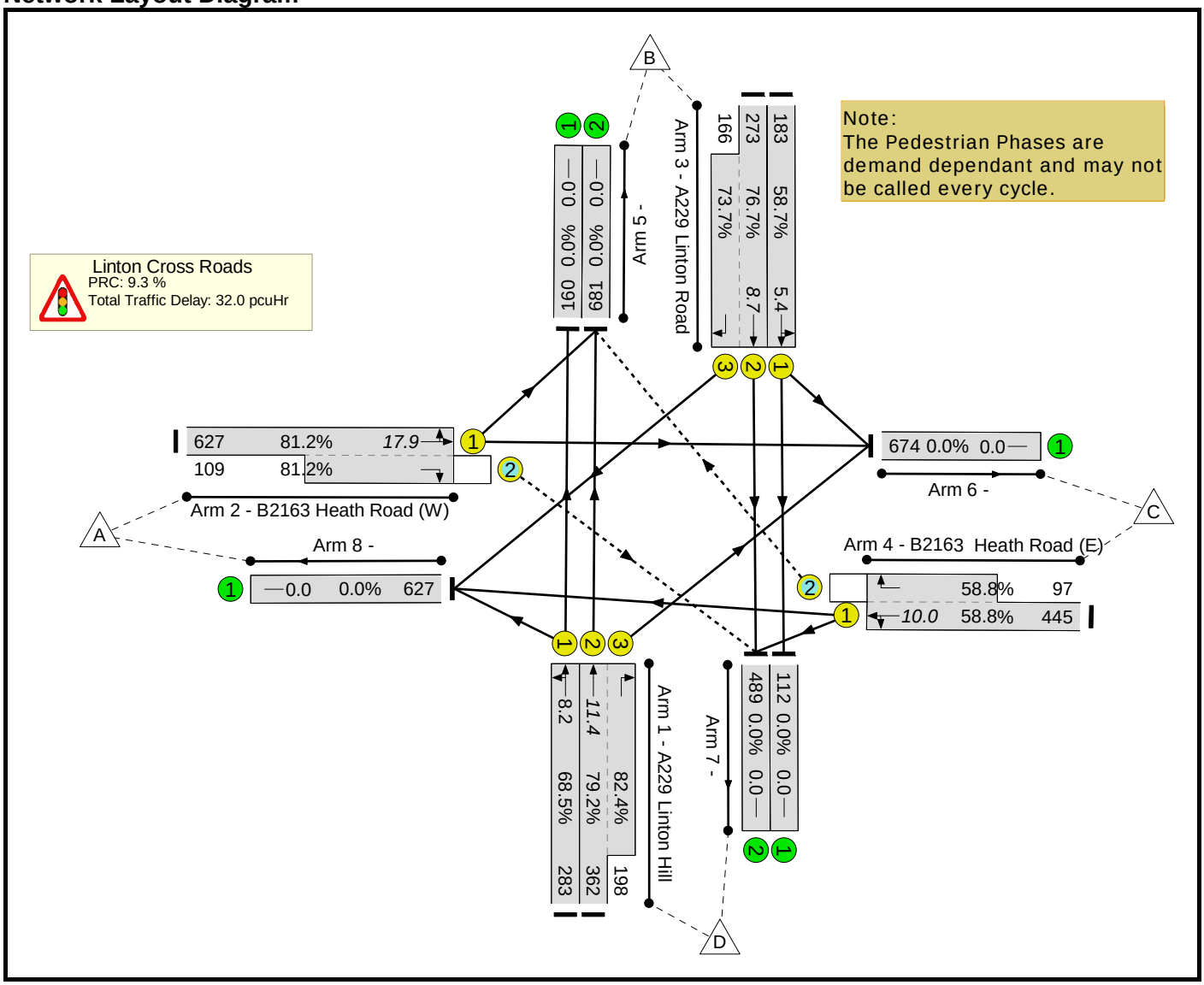
Total Delay for Signalled Lanes (pcuHr): 32.10
Total Delay Over All Lanes(pcuHr): 32.10

Cycle Time (s): 96

Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.4%**	**205**	**0**	**1**	**32.0**	**-**	**-**
Linton Cross Roads	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.4%**	**205**	**0**	**1**	**32.0**	**-**	**-**
1/1	A229 Linton Hill Ahead Left	U	A		1	21	-	283	1878	413	68.5%	-	-	-	3.9	49.4	8.2
1/2+1/3	A229 Linton Hill Ahead Right	U	A H		1	21:13	-	560	2120:1717	457+240	79.2 : 82.4%	-	-	-	8.0	51.2	11.4
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	45	-	736	1865:1665	772+134	81.2 : 81.2%	108	0	1	6.9	33.6	17.9
3/1	A229 Linton Road Left Ahead	U	B		1	16	-	183	1833	312	58.7%	-	-	-	2.6	52.1	5.4
3/2+3/3	A229 Linton Road Ahead Right	U	B C		1	16:14	-	439	2095:1786	356+225	76.7 : 73.7%	-	-	-	6.4	52.1	8.7
4/1+4/2	B2163 Heath Road (E) Right Left Ahead	U+O	G		1	44	-	542	1960:1764	757+165	58.8 : 58.8%	97	0	0	4.3	28.4	10.0

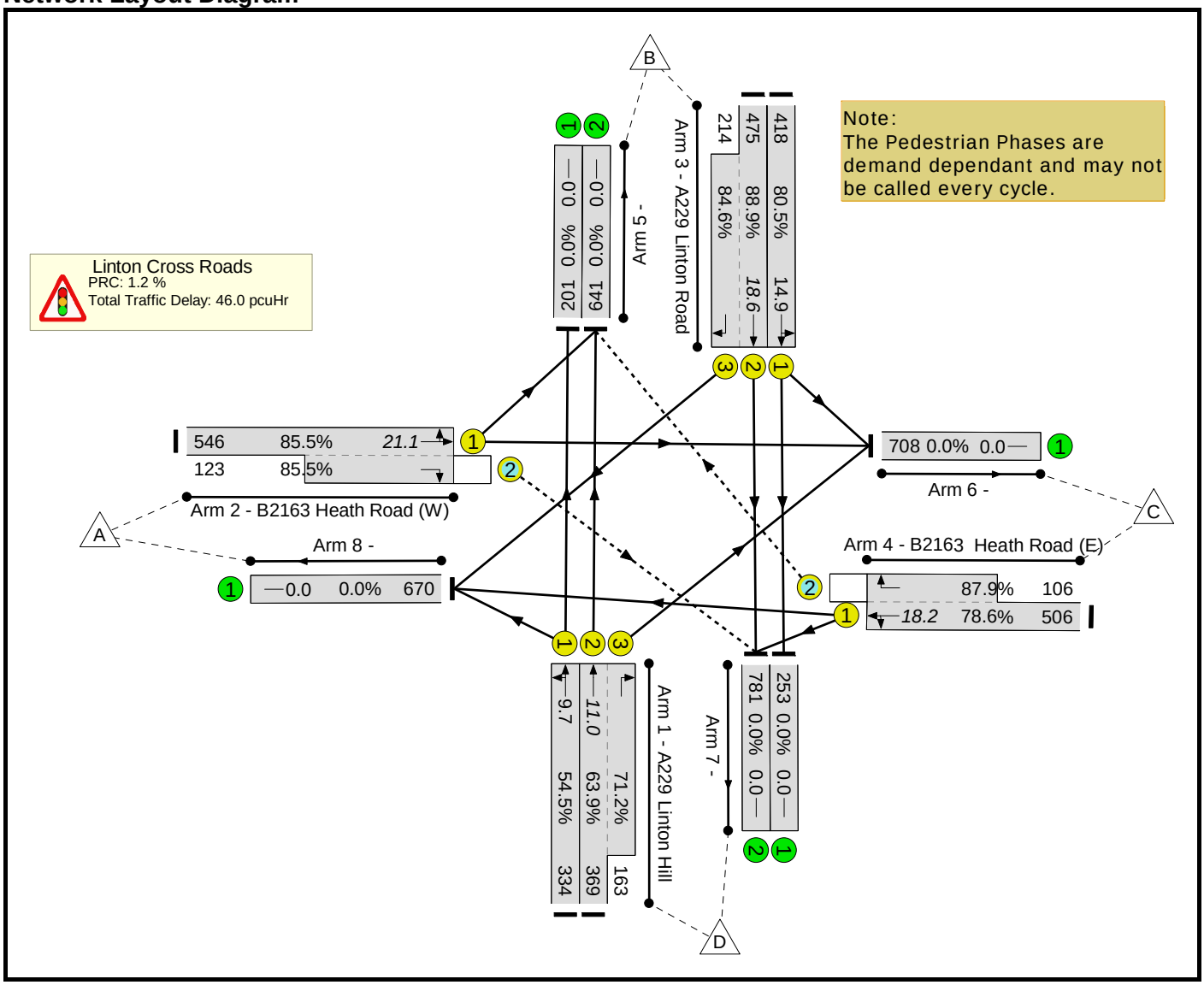
C1 PRC for Signalled Lanes (%): 9.3 Total Delay for Signalled Lanes (pcuHr): 32.00 Cycle Time (s): 100

PRC Over All Lanes (%): 9.3 Total Delay Over All Lanes(pcuHr): 32.00

Basic Results Summary

Scenario 5: '2031 Design AM' (FG5: '2031 Design AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**88.9%**	**195**	**0**	**34**	**46.0**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**88.9%**	**195**	**0**	**34**	**46.0**	-	-
1/1	A229 Linton Hill Ahead Left	U	A		1	38	-	334	1886	613	54.5%	-	-	-	3.7	39.7	9.7
1/2+1/3	A229 Linton Hill Ahead Right	U	A H		1	38:15	-	532	2120:1717	577+229	63.9 : 71.2%	-	-	-	6.6	44.7	11.0
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	46	-	669	1872:1665	638+144	85.5 : 85.5%	113	0	10	9.5	50.9	21.1
3/1	A229 Linton Road Left Ahead	U	B		1	33	-	418	1832	519	80.5%	-	-	-	6.6	57.1	14.9
3/2+3/3	A229 Linton Road Ahead Right	U	B C		1	33:16	-	689	2095:1786	534+253	88.9 : 84.6%	-	-	-	11.5	60.3	18.6
4/1+4/2	B2163 Heath Road (E) Right Left Ahead	U+O	G		1	45	-	612	1942:1764	644+121	78.6 : 87.9%	82	0	24	8.1	47.4	18.2

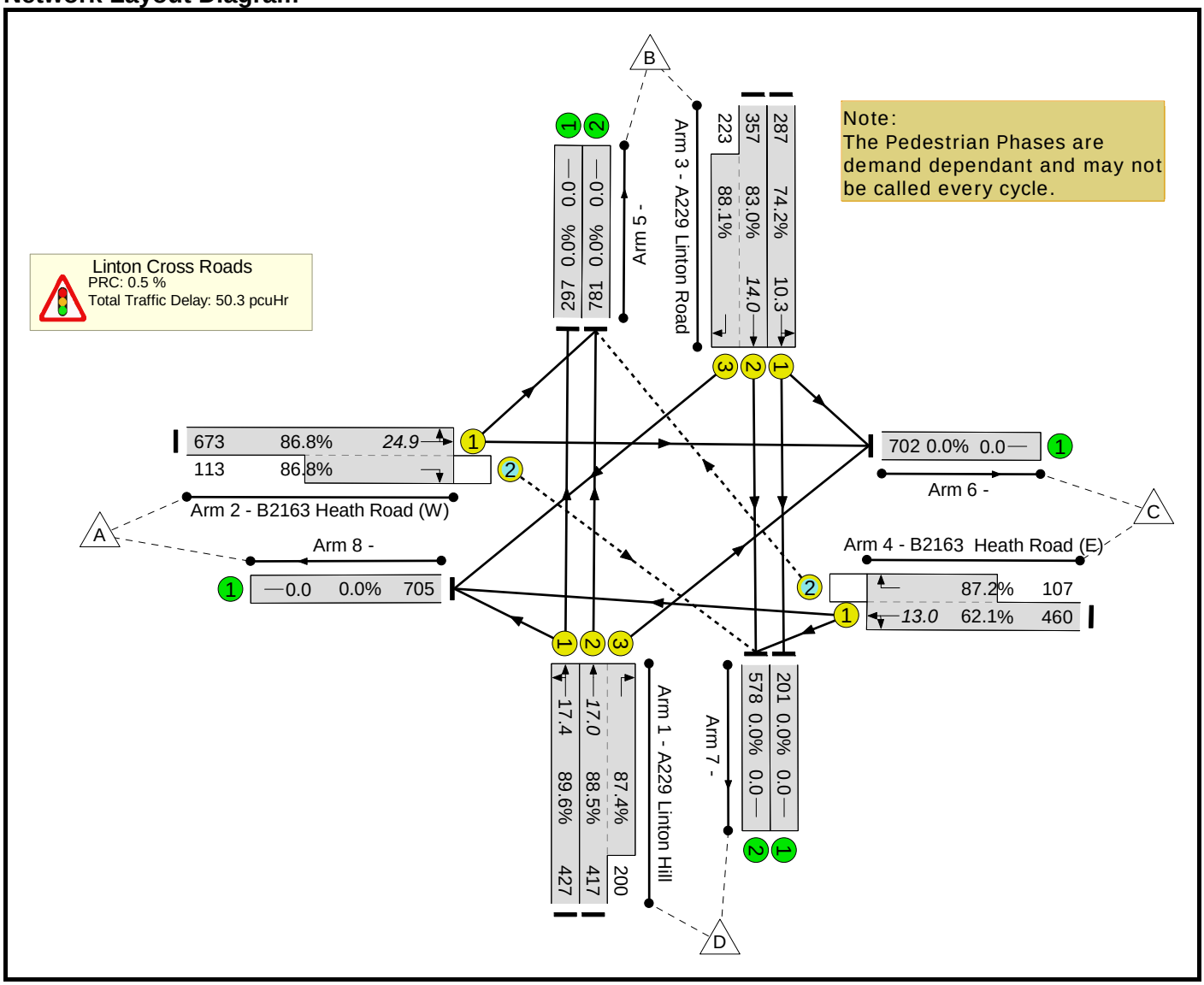
C1 PRC for Signalled Lanes (%): 1.2 Total Delay for Signalled Lanes (pcuHr): 45.96 Cycle Time (s): 120

PRC Over All Lanes (%): 1.2 Total Delay Over All Lanes(pcuHr): 45.96

Basic Results Summary

Scenario 6: '2031 Design PM' (FG6: '2031 Design PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Coxheath	-	-	-		-	-	-	-	-	-	**89.6%**	**192**	**0**	**28**	**50.3**	-	-
Linton Cross Roads	-	-	-		-	-	-	-	-	-	**89.6%**	**192**	**0**	**28**	**50.3**	-	-
1/1	A229 Linton Hill Ahead Left	U	A		1	29	-	427	1907	477	89.6%	-	-	-	8.9	74.9	17.4
1/2+1/3	A229 Linton Hill Ahead Right	U	A H		1	29:15	-	617	2120:1717	471+229	88.5 : 87.4%	-	-	-	11.1	65.0	17.0
2/1+2/2	B2163 Heath Road (W) Left Ahead Right	U+O	E		1	55	-	786	1862:1665	776+130	86.8 : 86.8%	112	0	1	9.4	43.1	24.9
3/1	A229 Linton Road Left Ahead	U	B		1	24	-	287	1857	387	74.2%	-	-	-	4.9	62.0	10.3
3/2+3/3	A229 Linton Road Ahead Right	U	B C		1	24:16	-	580	2095:1786	430+253	83.0 : 88.1%	-	-	-	10.3	63.9	14.0
4/1+4/2	B2163 Heath Road (E) Right Left Ahead	U+O	G		1	54	-	567	1960:1764	741+123	62.1 : 87.2%	80	0	27	5.6	35.5	13.0

C1 PRC for Signalled Lanes (%): 0.5 Total Delay for Signalled Lanes (pcuHr): 50.27 Cycle Time (s): 120

PRC Over All Lanes (%): 0.5 Total Delay Over All Lanes(pcuHr): 50.27