

Technical Note 01

Project:	Colt International, New Lane, Havant	Office:	Southampton
Project No:	A090070-182	Prepared by:	Alvaro Guzman
Client:	The Homes and Communities Agency	Approved by:	Graham Sutton
Date:	July 2018	Status:	Draft
Subject:	Response to HCC Comments		

1 Introduction

- 1.1 A post-submission response was received (ref APP/18/00244) for a proposed development at Colt International, New Lane, Havant
- 1.2 This Technical Note (TN) seeks to address the highway issues raised in the response by Hampshire County Council (HCC). The HCC comments are included in **Appendix A**.

2 Multi-Modal Trip Assessment and Traffic Distribution

2.1 HCC Comment:

"The TA presents the proposed vehicular trip rates that could be expected for the proposed development during both the AM and PM weekday peak periods (0800-0900 and 1700-1800). The HA is concerned that vehicular trip rates estimated for the affordable housing are too low. For robustness, these should be the same as the vehicular trip rates for private housing."

- 2.2 Multi-modal trip generation has been re-assessed for the affordable housing by using the same trip rates for private housing. The trip generation that was obtained covered the AM peak (08:00-09:00) and the PM peak (16:00-1700). The vehicle trip rates can be seen in **Table 2.1** below.

Table 2.1: Vehicle Trip Rates

Development Type	AM Peak (0800-0900)		PM Peak (1600-1700)	
	Arrival	Departure	Arrival	Departure
Houses Privately Owned (per dwelling)	0.159	0.4	0.311	0.188
Employment – Office (per 100sqm)	2.132	0.286	0.346	1.593

- 2.3 The resultant vehicular trips for the development in the peak hours can be seen in **Table 2.2**.

Table 2.2: Vehicle Trip Generation

Development Type	Number of Units/SQM	AM Peak (0800-0900)		PM Peak (1600-1700)	
		Arrival	Departure	Arrival	Departure
Houses Privately Owned	99	16	40	31	19
Employment – Office	2860	61	8	10	46
Total		77	48	41	64

- 2.4 The above shows that there will be 125 two-way trips in the AM peak and 105 two-way trips in the PM peak.

3 Development Traffic Distribution and Assignment

3.1 HCC Comment:

"Trip distribution is obtained based on the existing flow proportions which were derived from the manual classified traffic counts surveys at each junction.

The HA is concerned about this method due to the fact that the northern end of both Martin Road and New Lane are not currently dominated by residential developments, therefore the surveyed traffic data is unlikely to represent the residential trips distribution correctly. The applicant should use a different method i.e. the census data "journey to work trips" (2011) to obtain the distribution for residential trips and to validate the distributions obtained from the survey data."

- 3.2 A sensitivity test has been undertaken to redistribute traffic on the basis that residential traffic will dominate traffic movements around the site, with trips being principally commutes to work in the AM peak hour and returning from work in the PM peak hour. Therefore, 2011 Census 'UK Travel Flows' have been used to determine the distribution of development trips through local highway network junctions.
- 3.3 The distribution of development traffic has been based on UK Travel Flows (Mid-layer Super Output Area - MSOA) data extracted from the 2011 Census via Nomis, the official labour market statistics provider.
- 3.4 In addition to modal split information, the UK Travel Flows datasets provide information on the origins of trips to work (i.e. where people who work in a particular MSOA live) and the destination of work trips from home (i.e. where people who live in a particular MSOA work). Consequently, it has been possible to determine travel to work flows between a specific MSOA and all other MSOAs.

Residential Distribution

- 3.5 'Havant 009' was chosen for the area of residence (origin) and 'All MSOAs' in the UK were chosen for the workplace areas (destinations). Data was exported from the database for all 'car driver' trips between the origin and destinations. This includes 'all usual residents aged 16 and over in employment the week before the Census'.
- 3.6 For the purposes of this assessment, routes between Havant 009 MSOA and the top 30 workplace destinations only have been assessed. Trips made to the top 30 workplace destinations used in this assessment account for 75% (1,094 out of a total of 1,450) of all reported car driver trips originating from Havant MSOA during the 2011 Census and therefore is considered to provide a representative sample for analysis.

Workplace Distribution

- 3.7 'Havant 009' was chosen for place of work (origin) and 'All MSOAs' in the UK were chosen for the area of residence (destinations). Data was exported from the database for all 'car driver' trips between the origin and destinations. This includes 'all usual residents aged 16 and over in employment the week before the Census'.
- 3.8 For the purposes of this assessment, routes between Havant 009 MSOA and the top 30 locations of residence only have been assessed. Trips made to the top 30 locations of residence used in this assessment account for 64% (1,249 out of a total of 1,962) of all reported car driver trips with destination of Havant 009 MSOA during the 2011 Census, and is therefore considered to provide a representative sample for analysis.
- 3.9 The spreadsheet showing full analysis of this data is provided at **Appendix B** and includes details of the top 30 'Places of Work: 2011 MSOAs' and the top 30 'Usual Residence: 2011 MSOAs' and the destinations within these MSOAs. The quickest (most desirable) routes between the proposed development Site and other MSOA destinations has been determined using route-planning software and recorded in journey stages. This data has been used to determine the percentage of development traffic anticipated to route through each of the study area junctions and associated turning proportions.
- 3.10 The projected AM and PM peak hour vehicle trips outlined in **Table 2.2**.
- 3.11 Trips have been assigned to the local highway network in accordance with the development traffic distribution calculations, resulting in the development traffic flow assignment included in **Appendix C**.

4 Highway Impact Assessment

4.1 HCC Comment:

"The TA assesses future year 2023 traffic condition for both AM peak (8:00-9:00) and PM peak (16:00-17:00). It's worth noting the time defined for PM peak here is different from the one defined in the earlier section of "Trip Generation" which is (17:00-18:00). This needs to be clarified.

Based on the TA, traffic surveys were carried out during school term time on 8th March 2017 to obtain vehicle turning movement data at following junctions near the site.

- *Martin Road/ Bartons Road*
- *New Lane/ Bartons Road*
- *Martin Road/ Site Access*
- *New Lane/ Site Access*

The growth rate figures for this area were then applied to the surveyed data to estimate the level of traffic flows in the network in 2023. Using the "growth" surveyed traffic data, junction modelling was undertaken to assess the traffic impact at the above four junctions for 2023 with and without development traffic.

The HA is concerned that traffic impact assessment has not been carried out to the requirements of HCC or guidance of NPPF which clearly states that "The assessment years should consider person trips from all committed developments that would impact significantly on the transport network, particularly where they substantially overlap, such as at the same junctions and/or on roads as the proposed development. The committed developments will typically include development sites that have extant planning permission as well as development plan allocations in an adopted or approved

plan.” Based on this guidance, traffic impact assessment should also include the following two committed developments and the two additional junctions.

Junctions:

- 1. Bartons Road/Comley Hill/ Emsworth Common Road*
- 2. Bartons Road/ B2149 Petesfield Road*

Committed development:

- 1. Approved developments at land south of Bartons Road (APP/15/01435)*
- 2. Approved development at Land north of Bartons Road (APP/14/00863)*

The applicant is required to undertake modelling tests for all six junctions for following scenarios:

- Existing traffic at base year 2018*
- 2023 Base traffic + traffic of committed development*
- 2023 Base traffic + traffic of committed development + proposed development”*

Introduction

- 4.2 As part of the highway capacity assessment, six junctions have been modelled to identify the potential future traffic impact of the proposed mixed-use development in the future year of 2023.
- 4.3 The following junctions have been assessed:
 - Junction 1: Martin Road / Bartons Road
 - Junction 2: New Lane / Bartons Road
 - Junction 3: Martin Road / Site Access
 - Junction 4: New Lane / Site Access
 - Junction 5: Bartons Road/ Comley Hil/ Emsworth Common Road
 - Junction 6: Bartons Road/ B325 Petersfield Road
- 4.4 Modelling of Junctions 1-5 has been undertaken using Junctions 9 (PICADY), and modelling of the signalised Junction 6 has been undertaken using the latest version of LinSig (v3).
- 4.5 The following assessments have been undertaken:
 - 2017 Base Assessment – AM Peak;
 - 2017 Base Assessment – PM Peak;
 - 2023 Base + Committed Development– AM Peak;
 - 2023 Base + Committed Development – PM Peak;
 - 2023 Base + Committed Development + Proposed Development– AM Peak; and
 - 2023 Base + Committed Development + Proposed Development – PM Peak.

Base Year Traffic Data

- 4.6 For a robust comparison, base modelling was undertaken using the data collected during the 2018 turning count surveys, and supplemented by the turning counts from the Development South of

Bartons Road Transport Assessment as the two additional junctions for which modelling has been requested were not surveyed as part of the Transport Assessment.

- 4.7 The resulting 2017 base traffic flows for the weekday AM peak (08:00-09:00) and the weekday PM peak (16:00-17:00) are presented on the diagrams located in **Appendix C**.
- 4.8 It should be noted that the current network PM peak hour has been calculated as 16:00-17:00, and the peak development trip generation for the site occurs between 17:00-18:00. To provide a robust assessment, the peak development trips have been added to the peak network hour; in reality,

Committed Development

- 4.9 Further to discussions with Hampshire County Council, the highway capacity assessments have been updated to account for two developments that have been permitted by Havant Borough Council; Land North of Bartons Road (APP/14/00863), comprising 55 dwellings and Land South of Bartons Road (APP/15/01435), comprising 175 dwellings.
- 4.10 Development flows for the committed developments have been derived from their respective Transport Assessments (TA). Traffic flows for the committed development schemes have been added to the Base 2023 traffic flows to provide the 2023 Base + Committed Development Scenario. 2023 Base + Committed Development traffic flow diagrams are included at **Appendix C**.
- 4.11 The development traffic, as assigned in the previous chapter, has been added to the 2023 Base + Committed Development traffic flows for the peak hours to produce the 2023 Base + Committed Development + Proposed Development flow diagrams, which are included at **Appendix C**.
- 4.12 The junction geometries used are include as **Appendix D**.

Junction Assessment Results

- 4.13 This section of the TA considers the impacts of the proposed development on the six junctions identified.

Junction 1 – Bartons Road/ Martin Road/ Prospect Lane

- 4.14 The Martin Road and Bartons Road priority junction has been modelled using Junctions 9. The full output results are contained in **Appendix E** and are summarised in **Table 4.1**.

Table 4.1 Model Results for Junction 1 - Bartons Road/ Martin Road/ Prospect Lane

Scenario	Arm	AM (08:00 – 09:00)			PM (16:00 – 17:00)		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2017 Base	Martin Lane (left turn)	0.1	6.77	0.11	0.2	6.91	0.13
	Martin Lane (right turn)	0.1	9.88	0.13	0.1	10.54	0.10
	Bartons Rd (E)	0.1	6.43	0.13	0.1	6.04	0.09
	Prospect Ln (left turn)	0.1	8.02	0.09	0.1	7.02	0.07
	Prospect Ln (right turn)	0.3	10.98	0.22	0.2	10.25	0.16

	Barons Rd (W)	0.2	5.29	0.13	0.1	5.60	0.10
2023 Base + Committed Development	Martin Lane (left turn)	0.1	7.14	0.12	0.2	7.04	0.14
	Martin Lane (right turn)	0.2	10.67	0.15	0.1	11.31	0.09
	Bartons Rd (E)	0.2	6.68	0.14	0.2	6.34	0.14
	Prospect Ln (left turn)	0.1	8.39	0.1	0.1	7.38	0.09
	Prospect Ln (right turn)	0.3	12.28	0.25	0.3	11.47	0.21
	Barons Rd (W)	0.1	5.42	0.13	0.2	5.82	0.14
2023 Base + Committed Development + Proposed Development	Martin Lane (left turn)	0.2	7.58	0.17	0.2	7.44	0.17
	Martin Lane (right turn)	0.2	11.79	0.19	0.1	12.13	0.12
	Bartons Rd (E)	0.2	6.86	0.14	0.2	6.40	0.14
	Prospect Ln (left turn)	0.1	8.7	0.10	0.1	7.45	0.09
	Prospect Ln (right turn)	0.4	12.98	0.26	0.3	11.87	0.22
	Barons Rd (W)	0.2	5.55	0.14	0.2	6.18	0.17

- 4.15 Table 4.1 shows that the priority junction of Martin Road and Bartons Road can accommodate all expected traffic growth up to 2023 and including the proposed development and the committed developments. The junction has significant residual capacity, with the highest RFC being on Prospect Lane at 0.26 in the AM peak hour.

Junction 2 – Bartons Road/ New Lane

- 4.16 The New Lane and Bartons Road priority junction has been modelled using Junctions 9. The full output results are contained in **Appendix E** and are summarised in **Table 4.2**.

Table 4.2 Model Results for Junction 2 - Bartons Road/ New Lane

Scenario	Arm	AM (08:00 – 09:00)			PM (16:00 – 17:00)		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2017 Base	New Lane (left turn)	0.2	7.59	0.18	0.5	10.78	0.33
	New Lane (right turn)	0.4	12.05	0.29	1.2	17.05	0.54
	Barton Rd (W)	0.8	7.48	0.34	0.4	6.52	0.18
2023 Base + Committed Development	New Lane (left turn)	0.3	8.19	0.21	0.6	12.55	0.38
	New Lane (right turn)	0.5	13.95	0.34	1.6	21.97	0.62
	Barton Rd (W)	1.0	7.83	0.37	0.5	6.45	0.21
2023 Base +	New Lane (left turn)	0.3	8.38	0.22	0.8	14.63	0.46

Committed Development + Proposed Development	New Lane (right turn)	0.6	15.54	0.37	1.8	25.31	0.66
	Barton Rd (W)	1.6	9.77	0.50	0.5	6.67	0.24

- 4.17 Table 4.2 shows that the priority junction of New Lane and Bartons Road can accommodate all traffic including the proposed development and the committed developments. The junction has spare capacity in all arms in both peaks with the highest RFC on New Lane at 0.66 in the PM peak hour.

Junction 3 - Site Access/ Martin Road

- 4.18 The Martin Road and proposed site access priority junction has been modelled using Junctions 9. The full output results are contained in **Appendix E** and are summarised in the following **Table 4.3**.

Table 4.3 Model Results for Junction 3 – Site Access/ Martin Road

Scenario	Arm	AM (08:00 – 09:00)			PM (16:00 – 17:00)		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2023 Base + Committed Development + Proposed Development	Site Access	0.1	6.98	0.08	0.1	6.69	0.04
	Martin Rd (S)	0.0	0	0.00	0.0	6	0.00

- 4.19 Table 4.3 shows that the junction will operate with significant spare capacity with the RFC reaching a high of 0.08.

Junction 4 – Site Access/ New Lane

- 4.20 The New Lane and the proposed site access priority junction has been modelled using Junctions 9. The full output results are contained in **Appendix E** and are summarised in the following **Table 4.4**.

Table 4.4 Model Results for Junction 4 – Site Access/ New Lane

Scenario	Arm	AM (08:00 – 09:00)			PM (16:00 – 17:00)		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2023 Base + Committed Development + Proposed Development	Site Access	0.0	6.09	0.01	0.1	6.62	0.08
	New Lane (N)	0.2	4.48	0.11	0.0	4.86	0.02

- 4.21 Table 4.4 shows that the junction of New Lane and the site access has adequate capacity with a maximum RFC of 0.11 on the Site Access.

Junction 5 – Bartons Road/ Comley Hill/ Emsworth Common Road

- 4.22 The Martin Road and Bartons Road priority junction has been modelled using Junctions 9. The full output results are contained in **Appendix E** and are summarised in the following **Table 4.5**.

Table 4.5 Model Results for Junction 5 – Bartons Rd/ Comley Hill/ Emsworth Common

Scenario	Arm	AM (08:00 – 09:00)			PM (16:00 – 17:00)		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2017 Base	Bartons Rd (left turn)	0.2	9.48	0.16	0.4	11.49	0.30
	Bartons Rd (right turn)	30.3	233.12	1.11	9.0	87.62	0.94
	Horndean Rd	0.2	7.56	0.14	0.1	6.55	0.06
	Emsworth Common (left turn)	0.0	8.74	0.04	0.1	10.61	0.11
	Emsworth Common (right turn)	1.4	24.3	0.60	10.9	107.56	0.97
	Comley Hill Road	0.3	9.58	0.24	0.2	9.04	0.16
2023 Base + Committed Development	Bartons Rd (left turn)	0.3	10.26	0.21	0.5	12.39	0.34
	Bartons Rd (right turn)	59.9	484.89	1.26	20.7	174.74	1.06
	Horndean Rd	0.2	8.31	0.17	0.1	6.83	0.07
	Emsworth Common (left turn)	0.1	9.40	0.05	0.1	11.01	0.12
	Emsworth Common (right turn)	2.0	32.80	0.68	26.3	220.93	1.10
	Comley Hill Road	0.3	10.09	0.26	0.3	10.17	0.21
2023 Base + Committed Development + Proposed Development	Bartons Rd (left turn)	0.3	10.35	0.22	0.5	12.57	0.35
	Bartons Rd (right turn)	64.9	533.49	1.29	24.0	197.38	1.08
	Horndean Rd	0.2	8.41	0.17	0.1	6.88	0.07
	Emsworth Common (left turn)	0.1	9.50	0.05	0.1	11.08	0.12
	Emsworth Common (right turn)	2.1	34.49	0.70	28.7	238.83	1.12
	Comley Hill Road	0.4	10.27	0.27	0.3	10.26	0.22

- 4.23 Table 4.5 indicates that the Bartons Road/Comley Hill/ Emsworth Common Road junction is currently operating over capacity and will continue to do so in the 2023 Base + Committed Development scenario, and is operates slightly further over capacity with the development traffic added. It should be noted that once the RFC of a junction passes 1.0, then the model becomes volatile and changes in queues and delays become unrepresentative.
- 4.24 However, the actual impact of the development on this junction is minimal, with the site contributing to a 1.1% increase in movements at the junction in the AM peak and a 0.9% increase in the PM peak (comprising 19 and 16 extra movements at the junction respectively). Therefore, it is not the

addition of the proposed development traffic that is causing capacity issues, and the development has a minimal impact.

- 4.25 In HCC's response, it was stated that "*Should the results of the assessment show that the impact to the local transport network is significant, the applicant is required to mitigate such impact caused by the proposed development via entering into a S106 agreement with the HA.*". A 1% increase in traffic, comprising no more than 19 vehicles in an hour, is not considered to be a significant impact and would fall within typical daily variations of traffic.

Junction 6 – Bartons Road/ B2149 Petersfield Road

- 4.26 The Bartons Road/ Petersfield Road signal-controlled junction has been modelled using Linsig (V3). The full output results are contained in **Appendix E** and are summarised in the following **Table 4.6**.

Table 4.6 Model Results for Junction 6

Scenario	Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
		DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)
2017 Base	Petersfield Road (North)	63.7%	10.2	60.6%	8.1
	Bartons Road	59.1%	6.1	60.0%	8.2
	Petersfield Road (South)	61.9%	8.6	58.0%	8.1
	PRC	41.2%		48.5%	
2023 Base + Committed Development	Petersfield Road (North)	68.6%	11.5	66.3%	9.2
	Bartons Road	67.2%	8.2	67.2%	9.5
	Petersfield Road (South)	68.1%	9.5	66.6%	9.8
	PRC	31.2%		33.9%	
2023 Base + Committed Development + Proposed Development	Petersfield Road (North)	71.4%	12.1	68.9%	9.5
	Bartons Road	68.8%	9.0	70.3%	10.3
	Petersfield Road (South)	71.4%	10.6	68.1%	10.3
	PRC	26.0%		28.0%	

Note. DoS = Degree of Saturation. MMQ = Mean Max Queue. PRC = Practical Reserve Capacity

- 4.27 Table 4.6 above shows that the existing signalised junction operates within capacity during all three modelled scenarios. The highest degree of saturation (DoS) is during the AM peak hour on the 2023 Base + Committed Development + Proposed Development scenario on Petersfield Road North and

South with Degree of Saturation of 71.4% resulting in a Mean Max Queue (MMQ) of 12 PCUs in the Northern arm and 11 PCU in the Southern Arm.

- 4.28 However, given that approximately 12 PCUs are able to queue on the Petersfield Road arm and that the majority of the vehicles on this queue would be discharged within the green stage for that lane, it is considered in practical terms that the junction would operate at a similar efficiency level as in the base year assessment.

5 Site Junctions

5.1 HCC Comment:

"Based on the masterplan, all three accesses appear to be in the same locations as the existing accesses. The HA does not object to the provision of vehicular accesses in the existing locations, however we would not support the application should the access arrangement be changed to directly onto Bartons Road, due to this road being main distributor road and the proximity of New Lane and Martins Road. The access locations will therefore be required to be secured through conditions on the application.

It is noted that the site access is a reserved matter for detailed consideration at full planning application stage. However, the highway authority recommends that additional information is provided at this stage to adequately demonstrate that the access points proposed provide safe and suitable access. To that end, it is recommended that visibility splays supported by speed survey and tracking analysis for refuse vehicles is provide now so that the location of the access points can be approved now."

- 5.2 No access will be provided onto Bartons Road and all three existing accesses will be retained as part of the development. Swept path analysis and visibility splays are shown on the drawings at **Appendix F**.

6 Walking and Cycling

6.1 HCC Comment:

"The master plan shows a path would be provided to link with the southern side of Bartons Road opposite the path linking to Sharp Copse Primary School on the northern side of Bartons Road. The developer should take the opportunity to provide a crossing that is suitable for both pedestrian and cyclists to cross Bartons Road safely. This improvement would be required to cater for increased pedestrian and cyclist movements.

The change in use of this site will result in an alteration in the type of walking and cycling journeys undertaken. The applicant must consider this with regards to the facilities within the area and additional infrastructure requirements as a result. There is an existing segregated cycle route on Petersfield Road to the west of the site and proposals under permitted development for a shared use path between the garden centre and New Lane. Connecting the proposed development with this infrastructure will need to be considered and appropriate infrastructure improvements secured."

- 6.2 Drawing A090070-182 SK04, included as **Appendix G** shows proposed pedestrian and cycle infrastructure improvements in the vicinity of the site, comprising the following:

- Widening of the existing footway along the northern site boundary to 3m to become a shared use footway/cycleway;
- The provision of an enlarged refuge island across Martin Road by the junction with Bartons Road, to allow crossing on the desire line;

- A new refuge island on New Lane for cyclists and pedestrians;
- The widening of the crossing point on Bartons Road in the vicinity of Prospect Lane, providing a link from the site to Sharps Copse Primary School to the north; and
- The provision of a new crossing point on Bartons Road adjacent to the existing westbound bus stop.

7 Personal Injury Accidents

7.1 HCC Comment:

"There have been three accidents which took place at New Lane junction involving interaction between cyclists and cars. This pattern could be mitigated through formal crossing for cyclists on Bartons Road. Should the applicant agree to widen the footway adjacent to the site, and provide a crossing suitable for both pedestrians and cyclists, it would improve the safety of this right turn movement."

- 7.2 As indicated previously, drawing A090070-182 SK04, included as **Appendix E**, shows the proposed pedestrian and cycle infrastructure improvements. This includes the widening of the footway adjacent to the site and the provision of a new crossing point on Bartons Road in the vicinity of New Lane.

8 Travel Plan

- 8.1 A separate response will be submitted addressing the issues raised concerning the Travel Plan.

9 Summary

- 9.1 This report seeks to address the comments raised by Hampshire County Council relating to highway and transportation matters.
- 9.2 Consequently, it is considered that there are no outstanding issues that should lead to any objection to the proposed development on highway grounds.



APPENDIX A

HCC RESPONSE



Hampshire
County Council

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<i>Enquiries to</i>	Anna Li	<i>My reference</i>	6/3/13/188 (APP/1667)
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<i>Date</i>	05 June 2018	<i>Email</i>	Anna.Li@hants.gov.uk

For attention of David Eaves

Dear Mr. Eaves,

Mixed use development comprising up to 100 new homes, including up to 40% affordable, 2860 sqm of employment floorspace and improved access onto New Lane and Martin Road. On-site parking for residential and employment uses will be provided. (full details to be submitted at a later stage).

Thank you for the opportunity to comment on the above application. The applicant is seeking an outline planning permission with all matters reserved. Following a review of the Transport Assessment (TA) and associated information submitted in support of the application, the Highway Authority wishes to make the following comments.

Policy Review

The Transport Assessment (TA) states the policy background to the proposals, and provides a summary of national, regional and local policies and supplementary planning documents referred to when the TA was prepared. The HA considers that the policies being referred to are appropriate and sufficient for assessing the highways impact of the proposed development.

Existing Conditions

The existing transport conditions were reviewed within the TA. Routes and frequencies of buses and trains were summarised in the section. In terms of the condition for walking and cycling, the TA has stated footpaths/ footways, cycle routes near the site and locations of local amenities and their distance to

the site and shown these on Figures 3.2 and 3.3. However, the details of existing crossings for pedestrians and cyclists have been omitted, as it failed to recognise the current unsatisfactory situation of the following:

- No crossing linking the access on Martin Road to the footpath around West Leigh Skatepark, St Alban's Church and the footpath on the western side of Martin Road;
- No crossing near the site access on New Lane to connect with the existing footpath & cycle route on New Lane;
- No direct and safe crossing on Bartons Road to link the site with the footpath leading to Sharp Copse Primary School; the TA failed to spot that the existing crossing on Bartons Road is not on the desire line for the proposed development site, hence it is unlikely to encourage the pedestrian and cyclists to use it.
- No cycle way along Bartons Road near the site frontage to connect the site into the existing cycle network on New Lane and proposed onward connections to be delivered through permitted development within the area.

All these issues should be clearly identified and addressed in this section.

Site Access

The submitted masterplan (Drawing No.A090070-182(ST1)51 Rev A) shows a total of three vehicular accesses are proposed for the site. Two accesses for the residential part of the development are proposed from Martin Road and one access for the employment aspect is from New Lane. It is stated in the TA that both the Martin Road and New Lane accesses will provide adequate space for refuse and emergency vehicles however neither detailed plan nor refuse vehicle tracking has been submitted.

Based on the masterplan, all three accesses appear to be in the same locations as the existing accesses. The HA does not object to the provision of vehicular accesses in the existing locations, however we would not support the application should the access arrangement be changed to directly onto Bartons Road, due to this road being main distributor road and the proximity of New Lane and Martins Road. The access locations will therefore be required to be secured through conditions on the application.

It is noted that the site access is a reserved matter for detailed consideration at full planning application stage. However, the highway authority recommends that additional information is provided at this stage to adequately demonstrate that the access points proposed provide safe and suitable

access. To that end, it is recommended that visibility splays supported by speed survey and tracking analysis for refuse vehicles is provide now so that the location of the access points can be approved now.

Walking and Cycling

The master plan shows that footways would be provided at all three vehicular accesses. Additionally, pedestrian paths are provided within the site for both residential and employment areas.

The HA does not object to the provision of footways and paths but considers the width for the internal paths should be designed to allow shared use between pedestrians and cyclists.

Furthermore, the master plan shows a path would be provided to link with the southern side of Bartons Road opposite the path linking to Sharp Copse Primary School on the northern side of Bartons Road. The developer should take the opportunity to provide a crossing that is suitable for both pedestrian and cyclists to cross Bartons Road safely. This improvement would be required to cater for increased pedestrian and cyclist movements.

The change in use of this site will result in an alteration in the type of walking and cycling journeys undertaken. The applicant must consider this with regards to the facilities within the area and additional infrastructure requirements as a result. There is an existing segregated cycle route on Petersfield Road to the west of the site and proposals under permitted development for a shared use path between the garden centre and New Lane. Connecting the proposed development with this infrastructure will need to be considered and appropriate infrastructure improvements secured.

Personal Injury Accident Data (PIAs)

Personal Injury Accident data for the period from 01/11/2011 to 31/10/2016 has been analysed in the TA for sections of Bartons Road, Martin Road and New Road near the site. It is stated in the TA that no accident have subsequently occurred in the study area in 2017. However records show that one more accident occurred at 18:25 on 17/01/2018 at the bend of Martin Road opposite West Leigh Business Park. This accident was classified as a “serious” accident and occurred due to driver lost control.

Based on the TA study, during this five year period, there were a total of 15 recorded accidents. 4 of these were classified as “serious” accidents with the remainder of the accidents being classified as “slight”. No fatal injuries have occurred. The majority of accidents recorded were attributed to factors such

as loss of control and poor driver judgement/error rather than any identified deficiency in the road layout itself.

However there have been three accidents which took place at New Lane junction involving interaction between cyclists and cars. This pattern could be mitigated through formal crossing for cyclists on Bartons Road. Should the applicant agree to widen the footway adjacent to the site, and provide a crossing suitable for both pedestrians and cyclists, it would improve the safety of this right turn movement.

In summary, the data presented within the TA indicates that it is unlikely that the development and associated traffic generated by the development will significantly worsen the existing highway safety of the surrounding highway network if the improvements to the walking and cycling infrastructure as described above are delivered.

Trip Generation and Distribution

The TA presents the proposed vehicular trip rates that could be expected for the proposed development during both the AM and PM weekday peak periods (0800-0900 and 1700-1800). The HA is concerned that vehicular trip rates estimated for the affordable housing are too low. For robustness, these should be the same as the vehicular trip rates for private housing.

Trip distribution is obtained based on the existing flow proportions which were derived from the manual classified traffic counts surveys at each junction.

The HA is concerned about this method due to the fact that the northern end of both Martin Road and New Lane are not currently dominated by residential developments, therefore the surveyed traffic data is unlikely to represent the residential trips distribution correctly. The applicant should use a different method i.e. the census data “journey to work trips” (2011) to obtain the distribution for residential trips and to validate the distributions obtained from the survey data.

Traffic Impact Assessment

The TA assesses future year 2023 traffic condition for both AM peak (8:00-9:00) and PM peak (16:00-17:00). It's worth noting the time defined for PM peak here is different from the one defined in the earlier section of “Trip Generation” which is (17:00-18:00). This needs to be clarified.

Based on the TA, traffic surveys were carried out during school term time on 8th March 2017 to obtain vehicle turning movement data at following junctions near the site.

- Martin Road/ Bartons Road
- New Lane/ Bartons Road
- Martin Road/ Site Access
- New Lane/ Site Access

The growth rate figures for this area were then applied to the surveyed data to estimate the level of traffic flows in the network in 2023. Using the “growth” surveyed traffic data, junction modelling was undertaken to assess the traffic impact at the above four junctions for 2023 with and without development traffic.

The HA is concerned that traffic impact assessment has not been carried out to the requirements of HCC or guidance of NPPF which clearly states that *“The assessment years should consider person trips from all committed developments that would impact significantly on the transport network, particularly where they substantially overlap, such as at the same junctions and/or on roads as the proposed development. The committed developments will typically include development sites that have extant planning permission as well as development plan allocations in an adopted or approved plan.”*

Based on this guidance, traffic impact assessment should also include the following two committed developments and the two additional junctions.

Junctions:

1. Bartons Road/Comley Hill/ Emsworth Common Road
2. Bartons Road/ B2149 Petesfield Road

Committed development:

1. Approved developments at land south of Bartons Road (APP/15/01435)
2. Approved development at Land north of Bartons Road (APP/14/00863)

The applicant is required to undertake modelling tests for all six junctions for following scenarios:

- Existing traffic at base year 2018
- 2023 Base traffic + traffic of committed development
- 2023 Base traffic + traffic of committed development + proposed development

Traffic Modelling

Base year AM peak modelling work has been reviewed. It appears that some of the geometry data has been put in the model incorrectly. In order, to understand how the geometry data was measured, the HA recommends that the applicant submits the drawings to show the measurements of the geometry data.

Travel Plan

The Framework Travel Plan (FTP) supports a development of 100 dwellings and 2,860 sq.m. of commercial floorspace. The FTP is clear and concise, but there remain a number of omissions which should be addressed at the framework stage. The headline improvements that are required are as follows (with additional comments and recommendations in the body of the report):

More information on the type of uses on site and the illustrative master plan should be included to ensure the right measures are brought forward.

- Detail on the walking route to the local centre on Somborne Drive should be provided, highlighting any gaps or deficiencies, as this will be key to increasing pedestrian modal share.
- Indication should be included on how much time the TPC will dedicate to this particular development and a clear commitment to marketing the Travel Plan and communicating with users through a website should be made.
- Interim modal shift targets have been set for an increase of 50% on the cycle mode share baseline. Additional measures to encourage cycling will be required to achieve this target.
- An Action Plan is required to clearly set out what will be undertaken by which time, and who will be responsible.

Introduction

The introduction must be amended before the FTP is acceptable.

Whilst the name of the developer responsible for Travel Plan is provided, along with suitable objectives which reference wider community benefits, there is no reference to the developer's policies on travel plans/sustainable travel.

In addition, it would be beneficial to see a clear statement of the motivation for the TP. This could refer to improving access to the site or making use of nearby bus and cycle routes. Provision of likely construction and opening dates would also be helpful.

Existing Conditions

This section is not acceptable. There are some key omissions relating to walking and there is almost no detail of the likely uses on site.

Good location plans are provided as well as sufficient information on bus services and train services. Bus services in particular offer potential as the stops are within 400m of the site entrance.

A good summary of the local facilities within walking distance of the site is provided. A plan showing the locations of these facilities should however also be provided in the FTP to ensure the potential for this mode can be adequately determined. As many of these facilities look to be in the local centre on Somborne Drive to the west of the site, a description of the walking route from the development should be included in the FTP along with any gaps or inadequacies identified.

Whilst this is a Framework Travel Plan for an outline application, no information at all is provided on the type of dwellings or commercial space to be provided. Even basic details such as whether apartments or houses are proposed and whether the commercial space will be B1, B2 has an important role in shaping the plan. Section 3.18 notes that there is an illustrative master plan – this should be provided as an appendix to the FTP. The proposed number of parking spaces, parking policy and any demand management for parking should be included in the FTP.

Proposed Travel Plan Measures

This section is not acceptable. Stronger commitment is required on a website for the Travel Plan, and additional measures are required for cycling.

Travel Plan Coordinator

Commitment is made to appoint a Travel Plan Co-ordinator (TPC) prior to occupation of the site to act as a point of contact for residents, develop and implement Travel Plan measures, promote the Travel Plan, monitor progress against agreed targets and report to HCC officers. The TPC will be a specialist external consultant, funded by the developer, working part-time, and will be appointed at least three months prior to occupation. Indication should be provided on the time commitment being made for the TPC role as part of the FTP.

Provision of Information

The proposed provision of information is acceptable. The proposal for a steering group to allow residents and employers to provide regular feedback to the TPC is to be welcomed. Mention is made of 'a regularly updated website to inform and engage with residents and businesses; and attendance at local community and workplace groups by the TPC'. The language of the FTP needs to be strengthened here to commit the developer to such a website. This will ensure the continued provision of information and feedback following the initial Welcome Packs.

The full Travel Plan should include provision of a noticeboard in addition to the website.

The full Travel Plan should include mention of the 'My Journey Hampshire' journey planner <http://www.myjourneyhampshire.com/> as this is a useful and free resource which could be publicised.

Walking

Further measures to encourage walking should be considered .

Cycling

As noted in the existing conditions section, National Route 22 can be accessed via Bartons Road and provides access to the centre of Havant. Measures to improve the cycling network on Bartons Road need to be considered. Furthermore, as referenced in the National Census data, cycling makes up 4% of residential trips and 5% of employee trips in the area. The FTP should be clearer about the nature and volume of cycle parking for residents and employees. In addition to cycle parking, showers, lockers and changing facilities should be provided for employees on the site. Consultations with a local cycle store should be initiated as part of the FTP.

Public Transport

Measures to encourage use of public transport are should be considered further. The full Travel Plan should specify the time period and value of the bus vouchers proposed for residents and employees. Consultation with the local bus operator can be detailed in the full Travel Plan.

Car Sharing

Measures to encourage car sharing are considered acceptable. The full Travel Plan needs to be mention of the web address for the Hampshire car sharing network www.hants.liftshare.com in the measures section.

No information is provided on encouraging smarter working measures which include Working from Home, Flexible working times, relocation closer to work, on-site creche, shop etc. These should be covered in the full Travel Plan.

Monitoring and Targets

This section is partially acceptable. The TPC will monitor the TP though surveys which will be undertaken 3 months after 50th occupation of the dwelling, and then annually for five years, which is acceptable.

Preliminary annual modal shift targets are provided, starting with the baseline census data. Some justification is provided on how these targets have been developed with regard to existing travel behaviour and realistic potential for modal shift. With the existing residential modal share of bicycle at 4% and considering that the site is located within a well-developed locality with easily reachable destinations, a 2.5 % increase in the share seems ambitious but possible as long as additional measures to encourage this mode are provided, as noted above.

Similarly, since the site is a mixed-use development, there would be ample opportunities for residents and commercial users to share their journeys on a regular and/or infrequent basis. As such the car sharing target of 11.5% seems reasonable.

In terms of walking targets, enough evidence is lacking in the TP to understand the quality of footpaths/ safe crossings as explained earlier. At the moment, the proposed 2.5% increase seems unrealistic unless further information is provided.

No Action Plan has been provided in the TP. An Action Plan should be provided detailing mode-wise action targets and methods of monitoring covering all the sustainable modes of walking, cycling, public transport and car sharing. The action plan should include funding and responsibility for each action, which is a required element. The action plan must be revised in line with the comments noted above. The measures in the action plan need to be spread throughout the life of the travel plan as well as at initial occupation in order to ensure that the targets are met.

Commitment is made to undertake travel questionnaire surveys after occupation at certain intervals but their compliance with TRICS is missing and should be included.

The inclusion of remedial measures is acceptable and is welcomed.

Whilst a section on funding is included, an indicative budget should be included in the FTP, and detail on how the various measures will be funded throughout the five-year span of the plan. This detail should also be reflected in the Action plan.

Recommendation

This FTP is currently not acceptable and it is our recommendation that the above comments are addressed prior to the acceptance.

Of particular note is the need to provide more details of the proposed uses on site, parking and cycle parking. An Action Plan is also required to clearly set out when measures, monitoring, liaison with HCC and appointment of the TPC and steering group will be undertaken. The Action Plan should state who is responsible for each action and include an indicative cost.

When responding to the above comments in a revised travel plan, the applicant must make reference to the sections and paragraphs of the travel plan where each specific point has been addressed.

Transport Contribution - Section 106 Agreement

As mentioned earlier, trips generated by the committed developments should also be included in the traffic assessment within this TA. Should the results of the assessment show that the impact to the local transport network is significant, the applicant is required to mitigate such impact caused by the proposed development via entering into a S106 agreement with the HA. The change in use of this site will result in an alteration in the type of walking and cycling journeys undertaken. The applicant must consider this with regard to the pedestrian and cycling facilities within the area and additional infrastructure requirements as a result.

Recommendation

Having regard to the above, the highway authority would recommend a holding objection until further information is submitted and the above concerns are addressed satisfactorily. However, if you are minded to determine the application prior to receiving the required further information, please do contact the highway authority for the refusal reasons.

I trust that the above is clear but please contact Anna Li on the above number should you need further information.

Yours faithfully

Ben Clifton
Team Leader – Highways Development Planning

Cc: Peter Marshall



APPENDIX B

CENSUS DATA

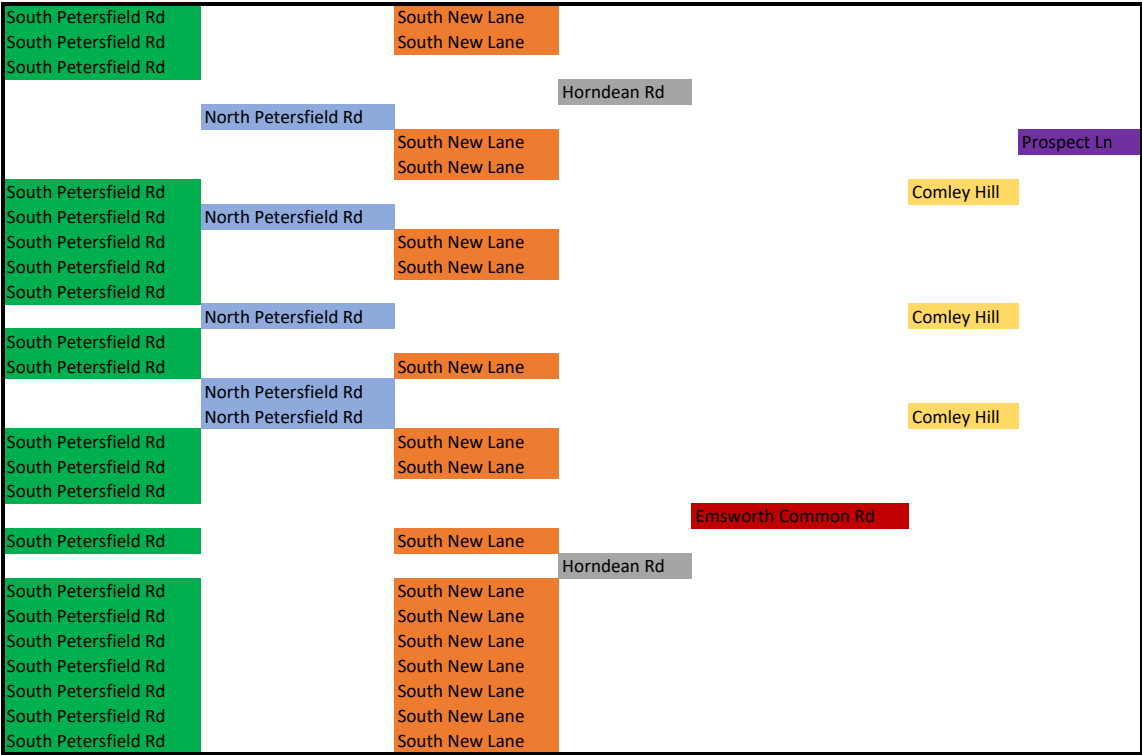
South Petersfield Rd	63%
North Petersfield Rd	5%
South New Lane	17%
Horndean Rd	5%
Emsworth Common Rd	7%
Comley Hill	3%

population All usual residents aged 16 and over in employment the week before the census
units Persons
date 2011
method of travel to work Driving a car or van

usual residence : 2011 super
output area - middle layer

place of work :
Havant 009
E02004770

Havant 018	E02006822	90	7.21%
Havant 014	E02004775	85	6.81%
Havant 010	E02004771	68	5.44%
Havant 013	E02004774	68	5.44%
Havant 008	E02004769	67	5.36%
Havant 009	E02004770	67	5.36%
Havant 011	E02004772	59	4.72%
East Hampshire 014	E02004710	48	3.84%
Havant 006	E02004767	47	3.76%
Havant 003	E02004764	46	3.68%
Havant 004	E02004765	42	3.36%
Havant 020	E02006831	41	3.28%
East Hampshire 016	E02006829	39	3.12%
Havant 005	E02004766	39	3.12%
Havant 007	E02004768	39	3.12%
Havant 019	E02006830	38	3.04%
East Hampshire 013	E02004709	37	2.96%
Havant 017	E02004778	30	2.40%
Portsmouth 008	E02003531	29	2.32%
Winchester 014	E02004842	29	2.32%
Chichester 007	E02006567	28	2.24%
Portsmouth 006	E02003529	28	2.24%
Chichester 009	E02006569	27	2.16%
Havant 015	E02004776	27	2.16%
Portsmouth 001	E02003524	24	1.92%
Portsmouth 011	E02003534	23	1.84%
Portsmouth 012	E02003535	23	1.84%
Portsmouth 015	E02003538	22	1.76%
Portsmouth 009	E02003532	20	1.60%
Portsmouth 014	E02003537	19	1.52%

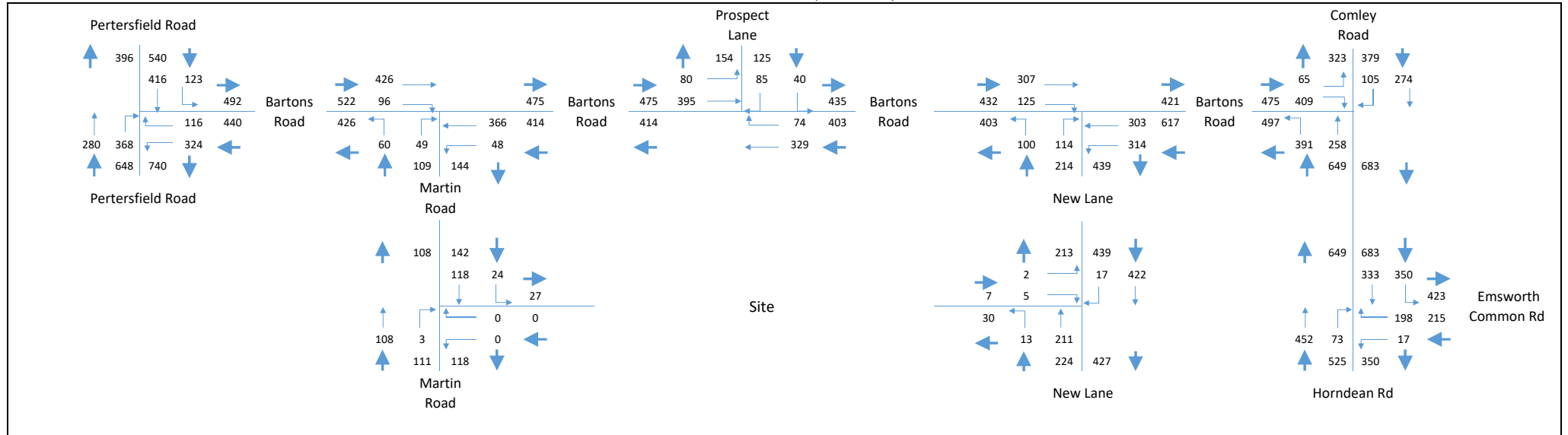


1249		
1,962	South Petersfield Rd	40%
64%	North Petersfield Rd	13%
	South New Lane	29%
	Horndean Rd	8%
	Emsworth Common Rd	2%
	Comley Hill	5%
	Prospect Ln	3%

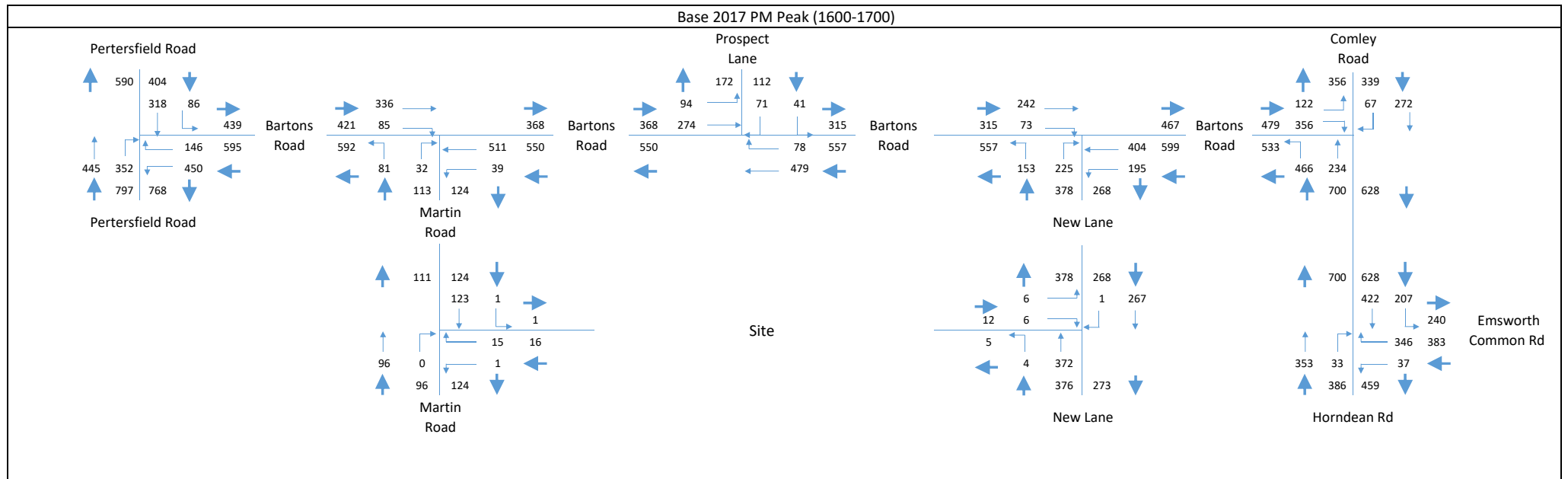
APPENDIX C

TRAFFIC FLOW DIAGRAMS

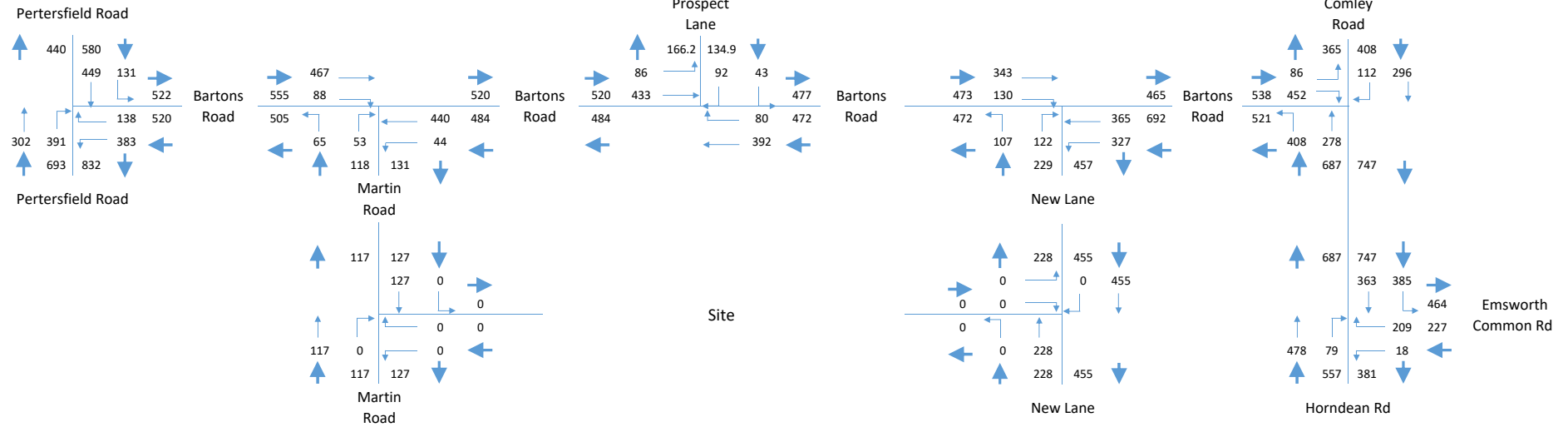
Base 2017 AM Peak (0800-0900)



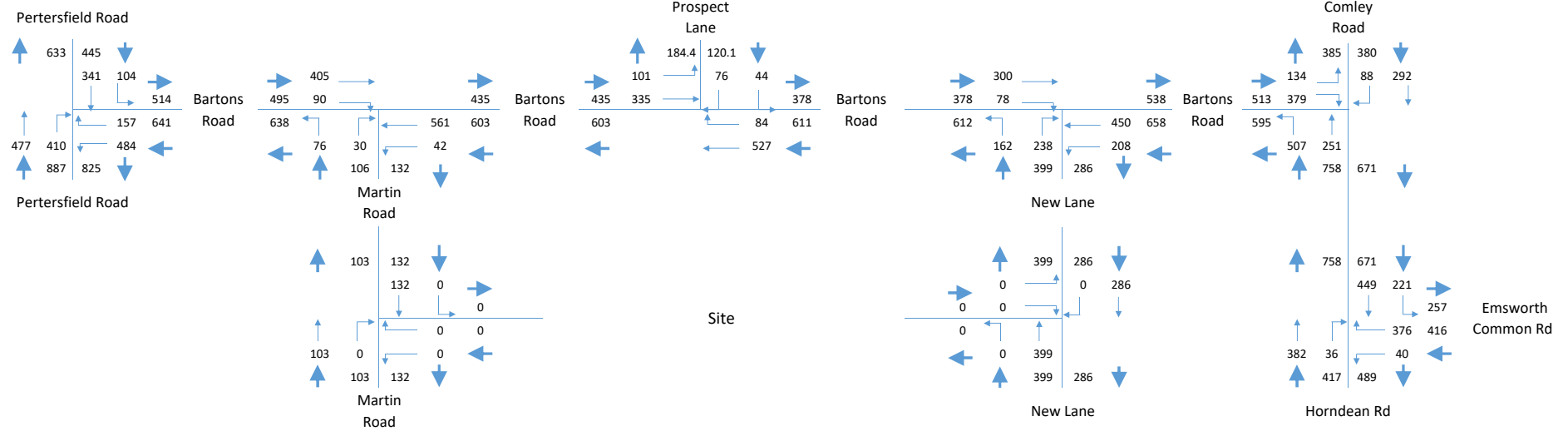
Base 2017 PM Peak (1600-1700)



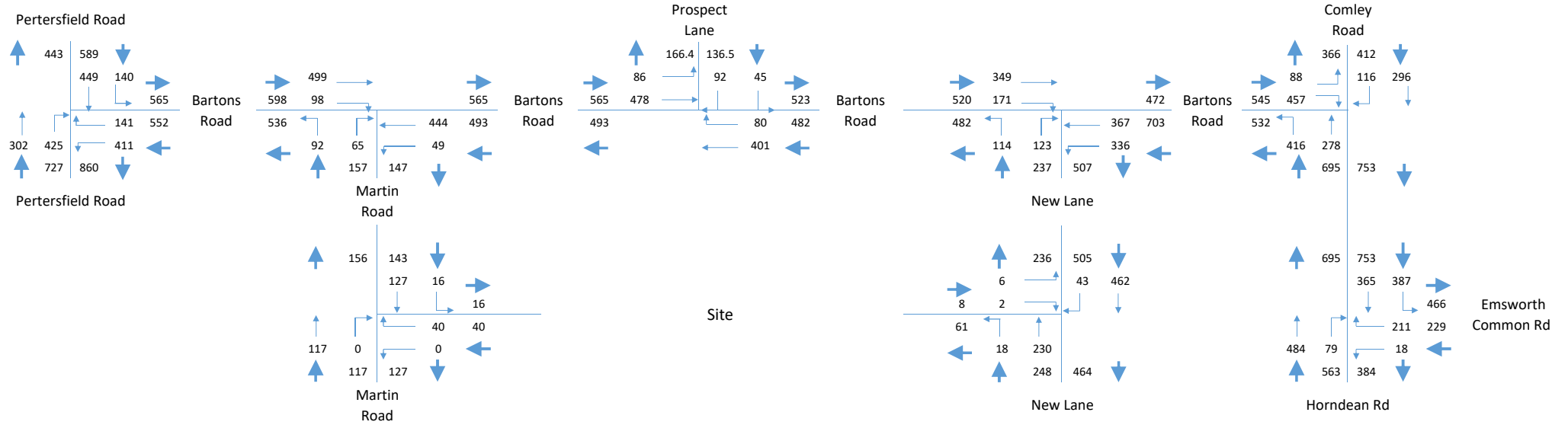
Base 2023 + Committed Development AM Peak (0800-0900)



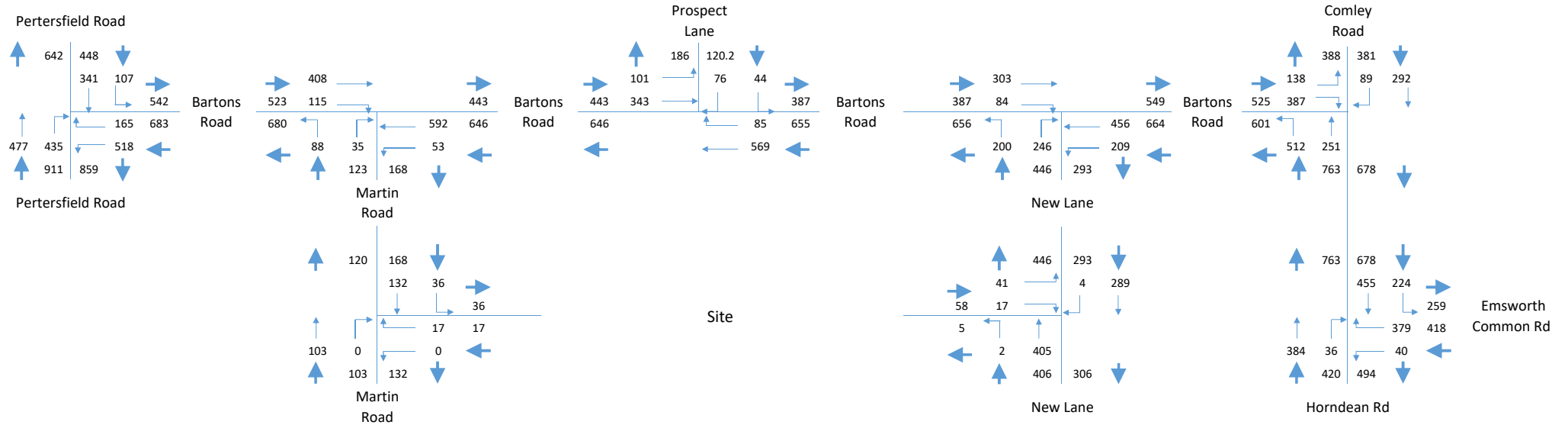
Base 2023 + Committed Development PM Peak (1600-1700)



Base 2023 + Committed Development + Proposed Dev AM Peak (0800-0900)



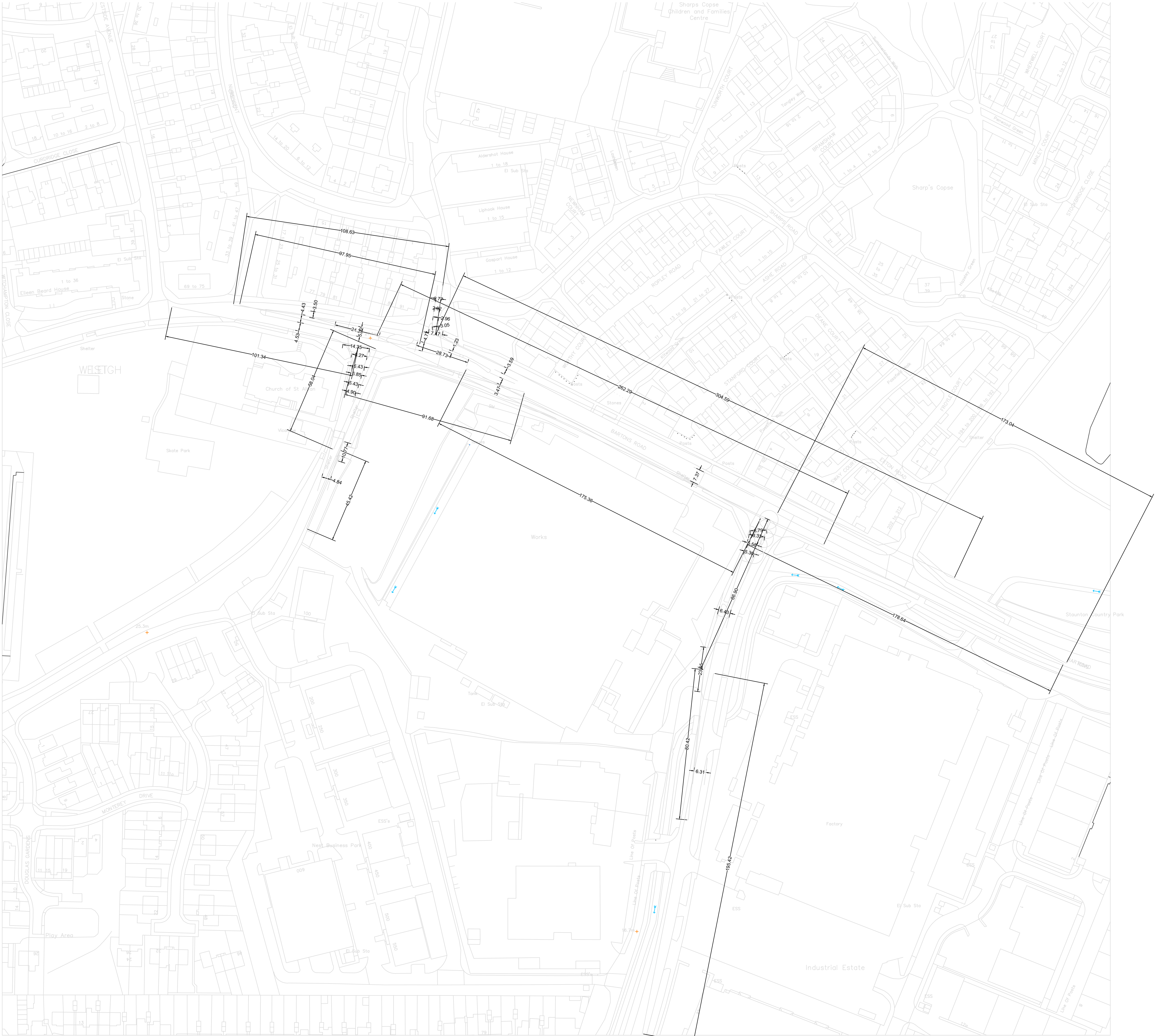
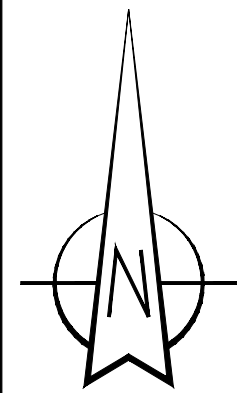
Base 2023 + Committed Development + Proposed Dev PM Peak (1600-1700)





APPENDIX D

JUNCTION MODELLING GEOMETRIES



Notes:

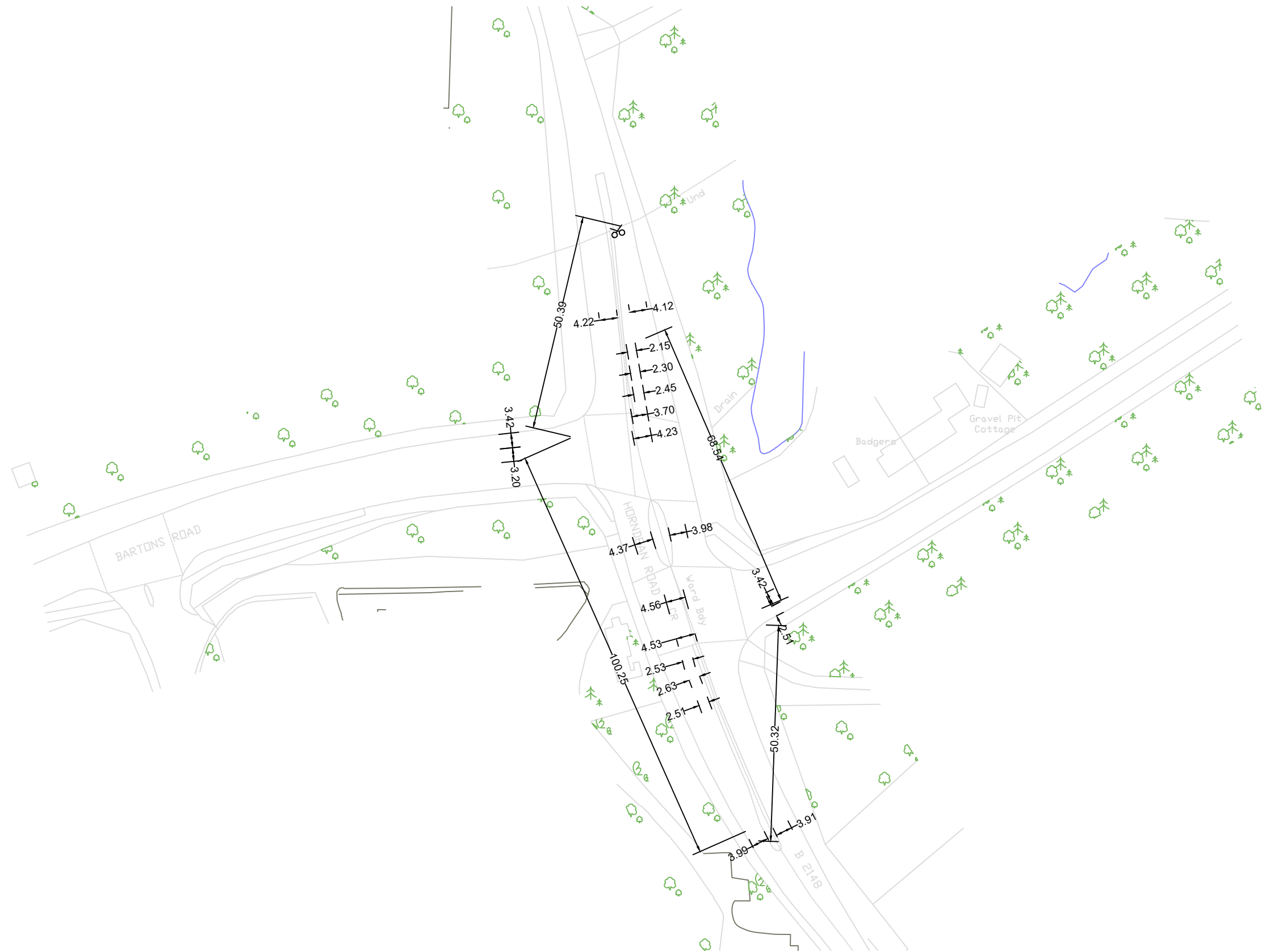
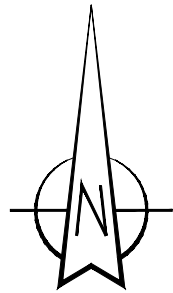
General

1. Do not scale from drawing.
2. All dimensions are in metres, unless stated otherwise.
3. This drawing is to be read & printed in colour.
4. This drawing is for illustrative purposes only.

Disclaimer

1. The information contained in this drawing is based on a combination of OS and data provided by others and WYG shall not be liable for any inaccuracies or deficiencies.

REV	DETAILS	DRAWN BY	CHECKED BY	DATE
CLIENT: Homes England				
PROJECT: Colt Industrial, New Lane Havant				
DRAWING TITLE: Junctions 1- 4 Geometry				
SCALES: 1:1000		SHEET SIZE: A1		
DRAWN: AG	CHECKED: GS	DATE: 27.07.18		
WYG Transport part of WYG group 11th Floor 1 Angel Court London EC2R 7HJ t: 0207 250 7500 f: 0207 250 7501 e: transport@wyg.com wyg.				
DRAWING NUMBER: A090070-182-001				REVISION: -



REV	DETAILS	DRAWN	CHECKED	DATE

Notes:

General

1. Do not scale from drawing.
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4. This drawing is for illustrative purposes only.

Disclaimer

1. The information contained in this drawing is based on a combination of OS and data provided by others and WYG shall not be liable for any inaccuracies or deficiencies.

PROJECT:

Colt Industrial, New Lane, Havant

DRAWING TITLE:

Junction 5 Geometry:
Bartons Rd / Comley Hill /
Emsworth Common Road

DRAWN:

AG

CHECKED:

GS

DATE:

27.07.18

SCALES:

1:1000

SHEET SIZE:

A3

CLIENT:

Client

WYG Transport
part of WYG group



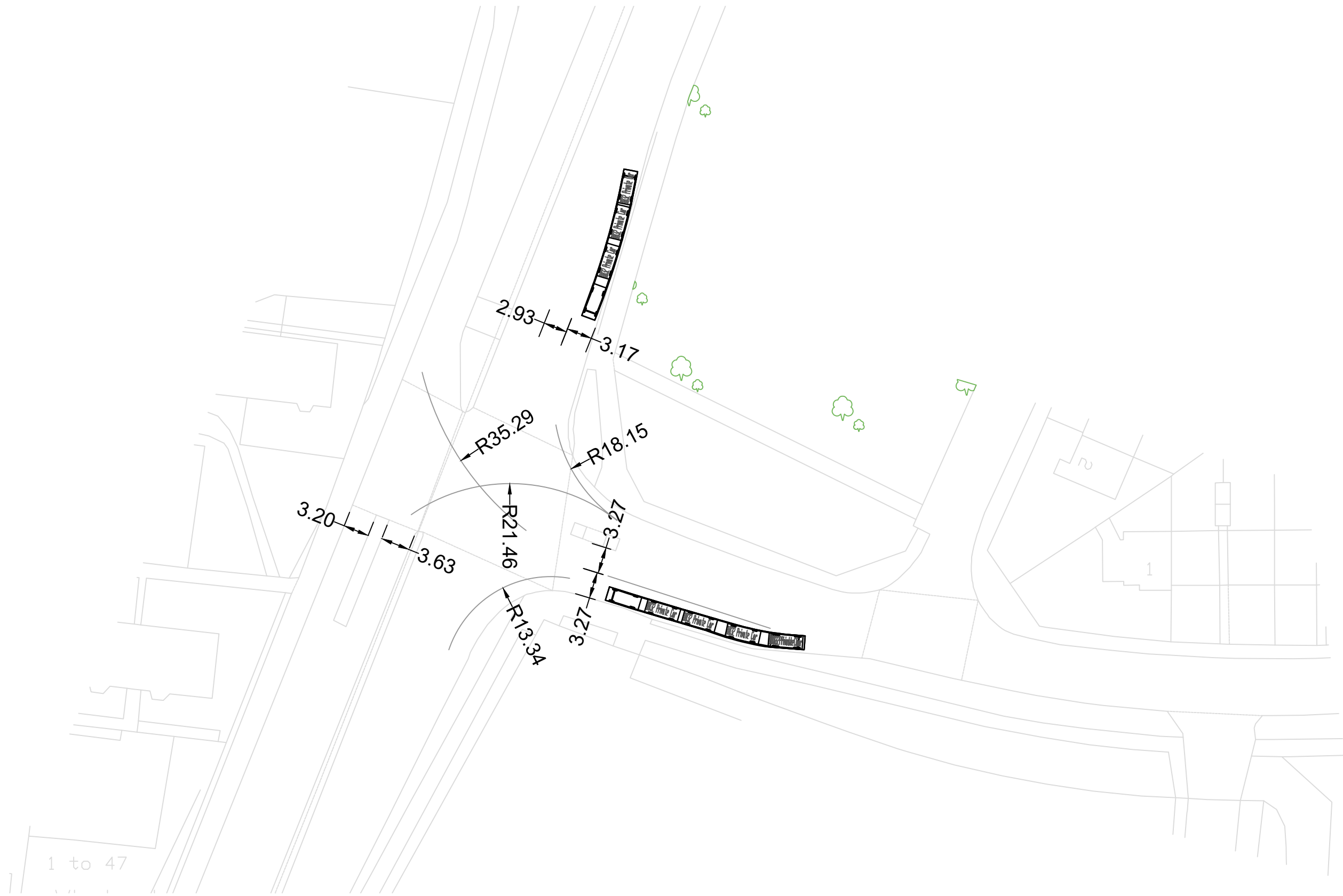
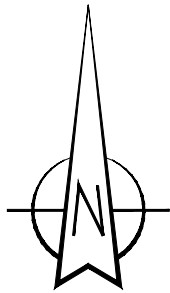
11th Floor 1 Angel Court London EC2R 7HJ
t: 0207 250 7500 f: 0207 250 7501 e: transport@wyg.com

DRAWING NUMBER:

A090070-182-002

REVISION:

-



REV	DETAILS	DRAWN	CHECKED	DATE

Notes:

General

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2. All dimensions are in metres, unless stated otherwise.
3. This drawing is to be read & printed in colour.
4. This drawing is for illustrative purposes only.

Disclaimer

1. The information contained in this drawing is based on a combination of OS and data provided by others and WYG shall not be liable for any inaccuracies or deficiencies.

PROJECT:

Colt Industrial, New Lane, Havant

DRAWING TITLE:

Junction 6 Geometry:
Bartons Rd / B2149 Petersfield Rd

CLIENT:

Client



DRAWN:

AG

CHECKED:

GS

DATE:

27.07.18

SCALE:

1:500

SHEET SIZE:

A3

DRAWING NUMBER:

A090070-182-003

REVISION:

-



APPENDIX E

JUNCTION MODELLING OUTPUTS

Junctions 9											
PICADY 9 - Priority Intersection Module											
Version: 9.0.2.5947											
© Copyright TRL Limited, 2017											
For sales and distribution information, program advice and maintenance, contact TRL:											
+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk											
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: Bartons Road - Martins Rd - Prospect Lane Staggered Crossroads.j9

Path: X:\Projects\2012\A090000\A090070-182 - Colt Industrial, New Lane, Havant\30 Technical\31 Modelling\J1.Bartons Rd-Martin Rd-Prospect Lane Junction

Report generation date: 27/07/2018 15:35:01

- »2017 Base, AM
- »2017 Base, PM
- »2023 Base + Committed Dev, AM
- »2023 Base + Committed Dev, PM
- »2023 Base + Committed Dev + Proposed Dev, AM
- »2023 Base + Committed Dev + Proposed Dev, PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2017 Base											
Stream B-C	0.1	0.5	6.77	0.11	A	70 % [Stream D-BC]	0.2	0.5	6.91	0.15	A	82 % [Stream D-BC]
Stream B-AD	0.1	0.5	9.88	0.13	A		0.1	0.5	10.54	0.09	B	
Stream A-BCD	0.1	0.5	6.43	0.13	A		0.1	0.5	6.04	0.13	A	
Stream D-A	0.1	0.5	8.02	0.09	A		0.1	0.5	7.02	0.08	A	
Stream D-BC	0.3	1.3	10.98	0.22	B		0.2	1.0	10.25	0.18	B	
Stream C-ABD	0.2	0.5	5.29	0.13	A		0.1	0.5	5.60	0.13	A	
	2023 Base + Committed Dev											
Stream B-C	0.1	0.5	7.14	0.12	A	53 % [Stream D-BC]	0.2	0.5	7.04	0.14	A	62 % [Stream D-BC]
Stream B-AD	0.2	0.5	10.67	0.15	B		0.1	0.5	11.31	0.09	B	
Stream A-BCD	0.2	0.5	6.68	0.14	A		0.2	0.5	6.34	0.14	A	
Stream D-A	0.1	0.5	8.39	0.10	A		0.1	0.5	7.38	0.09	A	
Stream D-BC	0.3	1.5	12.28	0.25	B		0.3	1.2	11.47	0.21	B	
Stream C-ABD	0.1	0.5	5.42	0.13	A		0.2	0.5	5.82	0.14	A	
	2023 Base + Committed Dev + Proposed Dev											
Stream B-C	0.2	0.6	7.58	0.17	A	47 % [Stream D-BC]	0.2	0.5	7.44	0.17	A	57 % [Stream D-BC]
Stream B-AD	0.2	1.1	11.79	0.19	B		0.1	0.5	12.13	0.12	B	
Stream A-BCD	0.2	0.5	6.86	0.14	A		0.2	0.5	6.40	0.14	A	
Stream D-A	0.1	0.5	8.70	0.10	A		0.1	0.5	7.45	0.09	A	
Stream D-BC	0.4	1.2	12.98	0.26	B		0.3	1.3	11.87	0.22	B	
Stream C-ABD	0.2	0.5	5.55	0.14	A		0.2	0.5	6.18	0.17	A	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/03/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\philip.eveleigh
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017 Base	AM	ONE HOUR	07:45	09:15	15
D2	2017 Base	PM	ONE HOUR	15:45	17:15	15
D3	2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	15
D4	2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	15
D5	2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	15
D6	2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2017 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	2.70	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	70	Stream D-BC

Arms

Arms

Arm	Name	Description	Arm type
A	Bartons Rd (E)		Major
B	Martin Rd		Minor
C	Bartons Rd (W)		Major
D	Prospect Ln		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 - Bartons Rd (E)	7.05	✓	1.20	✓	4.71	97.0	✓	4.80
C - Bartons Rd (W)	8.02	✓	4.42	✓	5.00	250.0	✓	4.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Martin Rd	One lane plus flare	10.00	8.27	6.43	5.85	5.43	✓	3.00	101	92
D - Prospect Ln	One lane plus flare	7.47	3.05	2.96	2.92	2.77	✓	1.00	250	109

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-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	802	-	-	-	0.297	0.297	0.297	-	0.297	-	-
1	B-AD	632	0.096	0.242	-	-	-	0.152	0.345	0.152	0.096	0.242
1	B-C	740	0.104	0.262	-	-	-	-	-	-	0.104	0.262
1	C-B	938	0.331	0.331	-	-	-	-	-	-	0.331	0.331
1	D-A	656	-	-	-	0.243	0.096	0.243	-	0.096	-	-
1	D-BC	656	0.177	0.177	0.401	0.281	0.111	0.281	-	0.111	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017 Base	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	403	100.000
B - Martin Rd		✓	109	100.000
C - Bartons Rd (W)		✓	522	100.000
D - Prospect Ln		✓	125	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	27	302	74
	B - Martin Rd	23	0	60	26
	C - Bartons Rd (W)	372	96	0	54
	D - Prospect Ln	40	21	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	0	3	1
	B - Martin Rd	2	0	2	0
	C - Bartons Rd (W)	4	0	0	0
	D - Prospect Ln	3	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.11	6.77	0.1	0.5	A
B-AD	0.13	9.88	0.1	0.5	A
A-BCD	0.13	6.43	0.1	0.5	A
A-B					
A-C					
D-A	0.09	8.02	0.1	0.5	A
D-BC	0.22	10.98	0.3	1.3	B
C-ABD	0.13	5.29	0.2	0.5	A
C-D					
C-A					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	652	0.069	45	0.1	6.046	A
B-AD	37	489	0.076	37	0.1	8.032	A
A-BCD	56	696	0.080	55	0.1	5.671	A
A-B	20			20			
A-C	227			227			
D-A	30	558	0.054	30	0.1	7.013	A
D-BC	64	499	0.128	63	0.1	8.370	A
C-ABD	72	834	0.087	72	0.1	4.718	A
C-D	41			41			
C-A	280			280			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	54	634	0.085	54	0.1	6.331	A
B-AD	44	461	0.096	44	0.1	8.720	A
A-BCD	67	676	0.098	66	0.1	5.969	A
A-B	24			24			
A-C	271			271			
D-A	36	537	0.067	36	0.1	7.393	A
D-BC	76	469	0.163	76	0.2	9.304	A
C-ABD	86	814	0.106	86	0.1	4.944	A
C-D	49			49			
C-A	334			334			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	609	0.109	66	0.1	6.761	A
B-AD	54	422	0.128	54	0.1	9.867	A
A-BCD	81	647	0.126	81	0.1	6.425	A
A-B	30			30			
A-C	333			333			
D-A	44	507	0.087	44	0.1	8.009	A
D-BC	94	426	0.219	93	0.3	10.956	B
C-ABD	106	787	0.134	106	0.2	5.284	A
C-D	59			59			
C-A	410			410			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	609	0.109	66	0.1	6.767	A
B-AD	54	422	0.128	54	0.1	9.876	A
A-BCD	81	647	0.126	81	0.1	6.428	A
A-B	30			30			
A-C	333			333			
D-A	44	507	0.087	44	0.1	8.016	A
D-BC	94	426	0.220	94	0.3	10.980	B
C-ABD	106	786	0.134	106	0.2	5.287	A
C-D	59			59			
C-A	410			410			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	54	633	0.085	54	0.1	6.337	A
B-AD	44	460	0.096	44	0.1	8.733	A
A-BCD	67	675	0.098	67	0.1	5.975	A
A-B	24			24			
A-C	271			271			
D-A	36	537	0.067	36	0.1	7.402	A
D-BC	76	469	0.163	77	0.2	9.334	A
C-ABD	86	814	0.106	86	0.1	4.949	A
C-D	49			49			
C-A	334			334			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	651	0.069	45	0.1	6.060	A
B-AD	37	488	0.076	37	0.1	8.049	A
A-BCD	56	696	0.080	56	0.1	5.681	A
A-B	20			20			
A-C	227			227			
D-A	30	558	0.054	30	0.1	7.028	A
D-BC	64	499	0.128	64	0.2	8.404	A
C-ABD	72	834	0.087	72	0.1	4.725	A
C-D	41			41			
C-A	280			280			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.00	0.00	0.08	0.08			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
ABCD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
ABCD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
D-A	0.07	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	0.15	0.03	0.26	0.47	0.50			N/A	N/A
ABCD	0.14	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.10	0.03	0.27	0.48	0.51			N/A	N/A
D-BC	0.28	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.15	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.03	0.26	0.46	0.48			N/A	N/A
B-AD	0.15	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.14	0.03	0.25	0.45	0.48			N/A	N/A
D-A	0.10	0.03	0.26	0.46	0.49			N/A	N/A
D-BC	0.28	0.03	0.31	1.00	1.31			N/A	N/A
C-ABD	0.15	0.03	0.25	0.45	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.00	0.00	0.10	0.10			N/A	N/A
B-AD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
ABCD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.00	0.00	0.08	0.08			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

2017 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	2.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	82	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2017 Base	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	557	100.000
B - Martin Rd		✓	113	100.000
C - Bartons Rd (W)		✓	421	100.000
D - Prospect Ln		✓	112	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	28	451	78
	B - Martin Rd	18	0	81	14
	C - Bartons Rd (W)	256	85	0	80
	D - Prospect Ln	41	11	60	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
	A - Bartons Rd (E)	0	3	0	0
	B - Martin Rd	0	0	0	0
	C - Bartons Rd (W)	4	0	0	2
	D - Prospect Ln	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.15	6.91	0.2	0.5	A
B-AD	0.09	10.54	0.1	0.5	B
A-BCD	0.13	6.04	0.1	0.5	A
A-B					
A-C					
D-A	0.08	7.02	0.1	0.5	A
D-BC	0.18	10.25	0.2	1.0	B
C-ABD	0.13	5.60	0.1	0.5	A
C-D					
C-A					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	667	0.091	61	0.1	5.929	A
B-AD	24	445	0.054	24	0.1	8.550	A
A-BCD	59	720	0.082	58	0.1	5.438	A
A-B	21			21			
A-C	340			340			
D-A	31	599	0.052	31	0.1	6.338	A
D-BC	53	500	0.107	53	0.1	8.043	A
C-ABD	64	801	0.080	64	0.1	4.883	A
C-D	60			60			
C-A	193			193			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	643	0.113	73	0.1	6.307	A
B-AD	29	416	0.069	29	0.1	9.289	A
A-BCD	70	704	0.100	70	0.1	5.678	A
A-B	25			25			
A-C	405			405			
D-A	37	582	0.063	37	0.1	6.601	A
D-BC	64	470	0.136	64	0.2	8.850	A
C-ABD	76	774	0.099	76	0.1	5.161	A
C-D	72			72			
C-A	230			230			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	611	0.146	89	0.2	6.901	A
B-AD	35	377	0.093	35	0.1	10.528	B
A-BCD	86	682	0.126	86	0.1	6.035	A
A-B	31			31			
A-C	497			497			
D-A	45	558	0.081	45	0.1	7.014	A
D-BC	78	429	0.182	78	0.2	10.239	B
C-ABD	94	737	0.127	93	0.1	5.592	A
C-D	88			88			
C-A	282			282			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	89	610	0.146	89	0.2	6.906	A
B-AD	35	377	0.093	35	0.1	10.536	B
A-BCD	86	682	0.126	86	0.1	6.038	A
A-B	31			31			
A-C	497			497			
D-A	45	558	0.081	45	0.1	7.018	A
D-BC	78	429	0.182	78	0.2	10.255	B
C-ABD	94	737	0.127	94	0.1	5.595	A
C-D	88			88			
C-A	282			282			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	73	643	0.113	73	0.1	6.314	A
B-AD	29	416	0.069	29	0.1	9.300	A
A-BCD	70	704	0.100	70	0.1	5.683	A
A-B	25			25			
A-C	405			405			
D-A	37	582	0.063	37	0.1	6.609	A
D-BC	64	470	0.136	64	0.2	8.869	A
C-ABD	76	774	0.099	77	0.1	5.166	A
C-D	72			72			
C-A	230			230			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	667	0.091	61	0.1	5.943	A
B-AD	24	445	0.054	24	0.1	8.565	A
ABCD	59	720	0.082	59	0.1	5.447	A
A-B	21			21			
A-C	340			340			
D-A	31	598	0.052	31	0.1	6.351	A
D-BC	53	500	0.107	54	0.1	8.067	A
C-ABD	64	800	0.080	64	0.1	4.891	A
C-D	60			60			
C-A	193			193			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.00	0.00	0.10	0.10			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
ABCD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-A	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-BC	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	0.07	0.03	0.25	0.46	0.48			N/A	N/A
ABCD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
D-A	0.07	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C-ABD	0.11	0.00	0.00	0.11	0.11			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.10	0.03	0.26	0.47	0.49			N/A	N/A
ABCD	0.14	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.09	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	0.22	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.14	0.03	0.26	0.46	0.49			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.10	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.14	0.03	0.25	0.45	0.48			N/A	N/A
D-A	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-BC	0.22	0.03	0.28	0.50	0.98			N/A	N/A
C-ABD	0.15	0.03	0.25	0.45	0.48			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.11	0.00	0.00	0.11	0.11			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C-ABD	0.11	0.00	0.00	0.11	0.11			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.00	0.00	0.10	0.10			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-A	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-BC	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

2023 Base + Committed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	2.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	53	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	472	100.000
B - Martin Rd		✓	118	100.000
C - Bartons Rd (W)		✓	554	100.000
D - Prospect Ln		✓	135	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	21	371	80
	B - Martin Rd	25	0	65	28
	C - Bartons Rd (W)	408	88	0	58
	D - Prospect Ln	43	23	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
	A - Bartons Rd (E)	0	0	3	1
	B - Martin Rd	2	0	2	0
	C - Bartons Rd (W)	4	0	0	0
	D - Prospect Ln	3	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.12	7.14	0.1	0.5	A
B-AD	0.15	10.67	0.2	0.5	B
A-BCD	0.14	6.68	0.2	0.5	A
A-B					
A-C					
D-A	0.10	8.39	0.1	0.5	A
D-BC	0.25	12.28	0.3	1.5	B
C-ABD	0.13	5.42	0.1	0.5	A
C-D					
C-A					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	637	0.077	49	0.1	6.242	A
B-AD	40	473	0.084	40	0.1	8.380	A
A-BCD	60	686	0.088	60	0.1	5.799	A
A-B	16			16			
A-C	279			279			
D-A	32	548	0.059	32	0.1	7.178	A
D-BC	69	481	0.144	69	0.2	8.853	A
C-ABD	66	817	0.081	66	0.1	4.790	A
C-D	44			44			
C-A	307			307			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	615	0.095	58	0.1	6.592	A
B-AD	48	442	0.108	48	0.1	9.215	A
A-BCD	72	664	0.108	72	0.1	6.142	A
A-B	19			19			
A-C	334			334			
D-A	39	525	0.074	39	0.1	7.624	A
D-BC	83	446	0.185	82	0.2	10.037	B
C-ABD	79	793	0.100	79	0.1	5.039	A
C-D	52			52			
C-A	367			367			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	586	0.122	71	0.1	7.136	A
B-AD	58	399	0.146	58	0.2	10.658	B
A-BCD	88	633	0.139	88	0.2	6.673	A
A-B	23			23			
A-C	408			408			
D-A	47	489	0.097	47	0.1	8.384	A
D-BC	101	399	0.254	101	0.3	12.244	B
C-ABD	97	761	0.127	97	0.1	5.418	A
C-D	64			64			
C-A	449			449			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	586	0.122	72	0.1	7.142	A
B-AD	58	399	0.146	58	0.2	10.672	B
A-BCD	88	633	0.139	88	0.2	6.676	A
A-B	23			23			
A-C	408			408			
D-A	47	489	0.097	47	0.1	8.392	A
D-BC	101	399	0.254	101	0.3	12.284	B
C-ABD	97	761	0.127	97	0.1	5.421	A
C-D	64			64			
C-A	449			449			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	615	0.095	59	0.1	6.603	A
B-AD	48	442	0.108	48	0.1	9.231	A
A-BCD	72	664	0.108	72	0.1	6.147	A
A-B	19			19			
A-C	334			334			
D-A	39	525	0.074	39	0.1	7.636	A
D-BC	83	446	0.185	83	0.2	10.080	B
C-ABD	79	793	0.100	79	0.1	5.043	A
C-D	52			52			
C-A	367			367			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	636	0.077	49	0.1	6.258	A
B-AD	40	473	0.084	40	0.1	8.400	A
ABCD	60	686	0.088	60	0.1	5.811	A
A-B	16			16			
A-C	279			279			
D-A	32	548	0.059	32	0.1	7.194	A
D-BC	69	480	0.144	70	0.2	8.900	A
C-ABD	66	817	0.081	66	0.1	4.797	A
C-D	44			44			
C-A	307			307			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.00	0.00	0.08	0.08			N/A	N/A
B-AD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
ABCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.11	0.00	0.00	0.11	0.11			N/A	N/A
B-AD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
ABCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.08	0.03	0.26	0.48	0.50			N/A	N/A
D-BC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-ABD	0.11	0.00	0.00	0.11	0.11			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	0.17	0.03	0.26	0.47	0.50			N/A	N/A
ABCD	0.16	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.11	0.03	0.27	0.48	0.51			N/A	N/A
D-BC	0.34	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.14	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.03	0.26	0.46	0.48			N/A	N/A
B-AD	0.17	0.03	0.25	0.46	0.48			N/A	N/A
ABCD	0.16	0.03	0.25	0.45	0.48			N/A	N/A
D-A	0.11	0.03	0.26	0.46	0.49			N/A	N/A
D-BC	0.34	0.03	0.32	1.19	1.51			N/A	N/A
C-ABD	0.15	0.03	0.25	0.45	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.11	0.00	0.00	0.11	0.11			N/A	N/A
B-AD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
A-BCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-ABD	0.11	0.00	0.00	0.11	0.11			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.00	0.00	0.09	0.09			N/A	N/A
B-AD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
A-BCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

2023 Base + Committed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	2.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	62	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	612	100.000
B - Martin Rd		✓	106	100.000
C - Bartons Rd (W)		✓	495	100.000
D - Prospect Ln		✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	30	498	84
	B - Martin Rd	15	0	76	15
	C - Bartons Rd (W)	319	90	0	86
	D - Prospect Ln	44	12	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
	A - Bartons Rd (E)	0	3	0	0
	B - Martin Rd	0	0	0	0
	C - Bartons Rd (W)	4	0	0	2
	D - Prospect Ln	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.14	7.04	0.2	0.5	A
B-AD	0.09	11.31	0.1	0.5	B
A-BCD	0.14	6.34	0.2	0.5	A
A-B					
A-C					
D-A	0.09	7.38	0.1	0.5	A
D-BC	0.21	11.47	0.3	1.2	B
C-ABD	0.14	5.82	0.2	0.5	A
C-D					
C-A					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	657	0.087	57	0.1	5.996	A
B-AD	23	427	0.053	22	0.1	8.887	A
A-BCD	63	705	0.090	63	0.1	5.601	A
A-B	23			23			
A-C	375			375			
D-A	33	585	0.057	33	0.1	6.515	A
D-BC	57	479	0.120	57	0.1	8.522	A
C-ABD	68	787	0.086	67	0.1	5.000	A
C-D	65			65			
C-A	240			240			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	68	631	0.108	68	0.1	6.399	A
B-AD	27	395	0.068	27	0.1	9.771	A
A-BCD	76	686	0.110	75	0.1	5.894	A
A-B	27			27			
A-C	448			448			
D-A	40	566	0.070	39	0.1	6.843	A
D-BC	68	445	0.154	68	0.2	9.557	A
C-ABD	81	758	0.107	81	0.1	5.318	A
C-D	77			77			
C-A	287			287			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	84	595	0.141	84	0.2	7.039	A
B-AD	33	351	0.094	33	0.1	11.304	B
A-BCD	92	660	0.140	92	0.2	6.338	A
A-B	33			33			
A-C	548			548			
D-A	48	537	0.090	48	0.1	7.372	A
D-BC	84	398	0.210	83	0.3	11.443	B
C-ABD	99	717	0.138	99	0.2	5.820	A
C-D	95			95			
C-A	351			351			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	84	595	0.141	84	0.2	7.044	A
B-AD	33	351	0.094	33	0.1	11.311	B
A-BCD	92	660	0.140	92	0.2	6.341	A
A-B	33			33			
A-C	548			548			
D-A	48	536	0.090	48	0.1	7.380	A
D-BC	84	398	0.210	84	0.3	11.467	B
C-ABD	99	717	0.138	99	0.2	5.823	A
C-D	95			95			
C-A	351			351			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	68	630	0.108	68	0.1	6.406	A
B-AD	27	395	0.068	27	0.1	9.781	A
A-BCD	76	686	0.110	76	0.1	5.897	A
A-B	27			27			
A-C	448			448			
D-A	40	565	0.070	40	0.1	6.853	A
D-BC	68	445	0.154	69	0.2	9.587	A
C-ABD	81	758	0.107	81	0.1	5.322	A
C-D	77			77			
C-A	287			287			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	656	0.087	57	0.1	6.010	A
B-AD	23	427	0.053	23	0.1	8.903	A
ABCD	63	705	0.090	63	0.1	5.612	A
A-B	23			23			
A-C	375			375			
D-A	33	584	0.057	33	0.1	6.530	A
D-BC	57	478	0.120	57	0.1	8.556	A
C-ABD	68	787	0.086	68	0.1	5.007	A
C-D	65			65			
C-A	240			240			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.00	0.00	0.09	0.09			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
ABCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	0.07	0.03	0.25	0.46	0.48			N/A	N/A
ABCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.07	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.10	0.03	0.26	0.47	0.50			N/A	N/A
ABCD	0.16	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.10	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	0.26	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.16	0.03	0.26	0.46	0.49			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.10	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.16	0.03	0.25	0.45	0.48			N/A	N/A
D-A	0.10	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.26	0.03	0.30	0.91	1.24			N/A	N/A
C-ABD	0.16	0.03	0.25	0.45	0.48			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.00	0.00	0.10	0.10			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

2023 Base + Committed Dev + Proposed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	3.03	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	481	100.000
B - Martin Rd		✓	158	100.000
C - Bartons Rd (W)		✓	597	100.000
D - Prospect Ln		✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	26	375	80
	B - Martin Rd	38	0	92	28
	C - Bartons Rd (W)	440	99	0	58
	D - Prospect Ln	45	23	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
	A - Bartons Rd (E)	0	0	3	1
	B - Martin Rd	2	0	2	0
	C - Bartons Rd (W)	4	0	0	0
	D - Prospect Ln	3	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.17	7.58	0.2	0.6	A
B-AD	0.19	11.79	0.2	1.1	B
A-BCD	0.14	6.86	0.2	0.5	A
A-B					
A-C					
D-A	0.10	8.70	0.1	0.5	A
D-BC	0.26	12.98	0.4	1.2	B
C-ABD	0.14	5.55	0.2	0.5	A
C-D					
C-A					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	69	641	0.108	69	0.1	6.410	A
B-AD	50	458	0.109	49	0.1	8.897	A
A-BCD	60	676	0.089	60	0.1	5.894	A
A-B	20			20			
A-C	282			282			
D-A	34	540	0.063	34	0.1	7.319	A
D-BC	69	470	0.147	69	0.2	9.088	A
C-ABD	75	815	0.091	74	0.1	4.858	A
C-D	44			44			
C-A	331			331			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	83	618	0.134	83	0.2	6.854	A
B-AD	59	426	0.139	59	0.2	9.928	A
A-BCD	72	652	0.110	72	0.1	6.270	A
A-B	23			23			
A-C	337			337			
D-A	40	515	0.079	40	0.1	7.819	A
D-BC	83	433	0.191	82	0.2	10.404	B
C-ABD	89	791	0.113	89	0.1	5.129	A
C-D	52			52			
C-A	396			396			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	101	586	0.173	101	0.2	7.568	A
B-AD	73	382	0.190	72	0.2	11.766	B
A-BCD	88	618	0.143	88	0.2	6.859	A
A-B	29			29			
A-C	413			413			
D-A	50	476	0.104	49	0.1	8.689	A
D-BC	101	383	0.264	101	0.4	12.928	B
C-ABD	109	758	0.144	109	0.2	5.546	A
C-D	64			64			
C-A	484			484			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	101	586	0.173	101	0.2	7.579	A
B-AD	73	381	0.190	73	0.2	11.790	B
A-BCD	88	618	0.143	88	0.2	6.862	A
A-B	29			29			
A-C	413			413			
D-A	50	476	0.104	50	0.1	8.701	A
D-BC	101	383	0.265	101	0.4	12.976	B
C-ABD	109	758	0.144	109	0.2	5.549	A
C-D	64			64			
C-A	484			484			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	83	618	0.134	83	0.2	6.872	A
B-AD	59	426	0.139	60	0.2	9.955	A
A-BCD	72	652	0.110	72	0.1	6.277	A
A-B	23			23			
A-C	337			337			
D-A	40	514	0.079	41	0.1	7.833	A
D-BC	83	433	0.191	83	0.2	10.455	B
C-ABD	89	790	0.113	89	0.1	5.135	A
C-D	52			52			
C-A	396			396			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	69	640	0.108	69	0.1	6.432	A
B-AD	50	458	0.109	50	0.1	8.931	A
ABCD	60	676	0.089	60	0.1	5.905	A
A-B	20			20			
A-C	282			282			
D-A	34	540	0.063	34	0.1	7.337	A
D-BC	69	470	0.148	70	0.2	9.140	A
C-ABD	75	814	0.092	75	0.1	4.868	A
C-D	44			44			
C-A	331			331			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
ABCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.00	0.00	0.16	0.16			N/A	N/A
B-AD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
ABCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.09	0.03	0.27	0.48	0.51			N/A	N/A
D-BC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-ABD	0.13	0.00	0.00	0.13	0.13			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	0.23	0.03	0.26	0.47	0.50			N/A	N/A
ABCD	0.17	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.12	0.03	0.27	0.48	0.51			N/A	N/A
D-BC	0.36	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.17	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.03	0.27	0.49	0.62			N/A	N/A
B-AD	0.24	0.03	0.29	0.69	1.11			N/A	N/A
ABCD	0.17	0.03	0.25	0.46	0.48			N/A	N/A
D-A	0.12	0.03	0.26	0.46	0.49			N/A	N/A
D-BC	0.36	0.03	0.32	1.19	1.19			N/A	N/A
C-ABD	0.17	0.03	0.25	0.45	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.00	0.00	0.16	0.16			N/A	N/A
B-AD	0.17	0.00	0.00	0.17	0.17			N/A	N/A
A-BCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-BC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-ABD	0.13	0.00	0.00	0.13	0.13			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
A-BCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

2023 Base + Committed Dev + Proposed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	D - Prospect Ln - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Martins Rd/Prospect Ln	Right-Left Stagger	Two-way	2.52	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	57	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	647	100.000
B - Martin Rd		✓	125	100.000
C - Bartons Rd (W)		✓	522	100.000
D - Prospect Ln		✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
From	A - Bartons Rd (E)	0	40	522	85
	B - Martin Rd	21	0	89	15
	C - Bartons Rd (W)	325	111	0	86
	D - Prospect Ln	44	12	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bartons Rd (E)	B - Martin Rd	C - Bartons Rd (W)	D - Prospect Ln
	A - Bartons Rd (E)	0	3	0	0
	B - Martin Rd	0	0	0	0
	C - Bartons Rd (W)	4	0	0	2
	D - Prospect Ln	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.17	7.44	0.2	0.5	A
B-AD	0.12	12.13	0.1	0.5	B
A-BCD	0.14	6.40	0.2	0.5	A
A-B					
A-C					
D-A	0.09	7.45	0.1	0.5	A
D-BC	0.22	11.87	0.3	1.3	B
C-ABD	0.17	6.18	0.2	0.5	A
C-D					
C-A					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	67	648	0.103	67	0.1	6.191	A
B-AD	27	417	0.065	27	0.1	9.208	A
A-BCD	64	702	0.091	64	0.1	5.631	A
A-B	30			30			
A-C	393			393			
D-A	33	583	0.057	33	0.1	6.544	A
D-BC	57	471	0.121	57	0.1	8.671	A
C-ABD	84	779	0.107	83	0.1	5.172	A
C-D	65			65			
C-A	245			245			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	80	620	0.129	80	0.1	6.658	A
B-AD	32	383	0.084	32	0.1	10.249	B
A-BCD	76	683	0.112	76	0.1	5.934	A
A-B	36			36			
A-C	469			469			
D-A	40	562	0.070	39	0.1	6.884	A
D-BC	68	436	0.157	68	0.2	9.785	A
C-ABD	100	748	0.133	100	0.2	5.554	A
C-D	77			77			
C-A	292			292			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	98	582	0.168	98	0.2	7.431	A
B-AD	40	337	0.118	39	0.1	12.111	B
A-BCD	94	656	0.143	93	0.2	6.395	A
A-B	44			44			
A-C	575			575			
D-A	48	532	0.091	48	0.1	7.438	A
D-BC	84	387	0.216	83	0.3	11.839	B
C-ABD	122	705	0.173	122	0.2	6.174	A
C-D	95			95			
C-A	358			358			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	98	582	0.168	98	0.2	7.440	A
B-AD	40	336	0.118	40	0.1	12.127	B
A-BCD	94	656	0.143	94	0.2	6.398	A
A-B	44			44			
A-C	575			575			
D-A	48	532	0.091	48	0.1	7.447	A
D-BC	84	387	0.216	84	0.3	11.874	B
C-ABD	122	705	0.173	122	0.2	6.177	A
C-D	95			95			
C-A	358			358			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	80	620	0.129	80	0.1	6.673	A
B-AD	32	383	0.084	33	0.1	10.268	B
A-BCD	76	683	0.112	77	0.1	5.940	A
A-B	36			36			
A-C	469			469			
D-A	40	562	0.070	40	0.1	6.898	A
D-BC	68	436	0.157	69	0.2	9.818	A
C-ABD	100	747	0.134	100	0.2	5.563	A
C-D	77			77			
C-A	292			292			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	67	648	0.103	67	0.1	6.203	A
B-AD	27	417	0.065	27	0.1	9.232	A
ABCD	64	702	0.091	64	0.1	5.643	A
A-B	30			30			
A-C	393			393			
D-A	33	582	0.057	33	0.1	6.560	A
D-BC	57	471	0.121	57	0.1	8.706	A
C-ABD	84	778	0.107	84	0.1	5.184	A
C-D	65			65			
C-A	245			245			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.11	0.00	0.00	0.11	0.11			N/A	N/A
B-AD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
ABCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.15	0.00	0.00	0.15	0.15			N/A	N/A
B-AD	0.09	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.08	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-ABD	0.15	0.00	0.00	0.15	0.15			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.20	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.13	0.03	0.26	0.47	0.49			N/A	N/A
ABCD	0.17	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.10	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	0.27	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.21	0.03	0.26	0.46	0.49			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.20	0.03	0.26	0.47	0.49			N/A	N/A
B-AD	0.13	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.17	0.03	0.25	0.45	0.48			N/A	N/A
D-A	0.10	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.27	0.03	0.30	0.96	1.27			N/A	N/A
C-ABD	0.21	0.03	0.26	0.47	0.49			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.15	0.00	0.00	0.15	0.15			N/A	N/A
B-AD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
A-BCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-ABD	0.16	0.00	0.00	0.16	0.16			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.10	0.00	0.00	0.10	0.10			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-ABD	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Junctions 9											
PICADY 9 - Priority Intersection Module											
Version: 9.0.2.5947											
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Filename: Bartons Rd - New Lane Junction.j9

Path: X:\Projects\2012\A090000\A090070-182 - Colt Industrial, New Lane, Havant\30 Technical\31 Modelling\J2.Bartons Rd - New Lane Junction

Report generation date: 27/07/2018 15:36:57

- »Base 2017, AM
- »Base 2017, PM
- »Base 2023 + Committed Dev, AM
- »Base 2023 + Committed Dev, PM
- »Base 2023 + Committed Dev + Proposed Dev, AM
- »Base 2023 + Committed Dev + Proposed Dev, PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Base 2017											
Stream B-C	0.2	1.0	7.59	0.18	A	50 % [Stream B-A]	0.5	2.2	10.78	0.33	B	21 % [Stream B-A]
Stream B-A	0.4	1.7	12.05	0.29	B		1.2	4.5	17.05	0.54	C	
Stream C-AB	0.8	3.1	7.48	0.34	A		0.4	1.3	6.52	0.18	A	
	Base 2023 + Committed Dev											
Stream B-C	0.3	1.2	8.19	0.21	A	36 % [Stream B-A]	0.6	2.9	12.55	0.38	B	11 % [Stream B-A]
Stream B-A	0.5	2.3	13.95	0.34	B		1.6	6.4	21.97	0.62	C	
Stream C-AB	1.0	4.3	7.83	0.37	A		0.5	1.4	6.45	0.21	A	
	Base 2023 + Committed Dev + Proposed Dev											
Stream B-C	0.3	1.3	8.38	0.22	A	28 % [Stream B-A]	0.8	3.9	14.63	0.46	B	7 % [Stream B-A]
Stream B-A	0.6	2.7	15.54	0.37	C		1.8	8.6	25.31	0.66	D	
Stream C-AB	1.6	8.1	9.77	0.50	A		0.5	1.5	6.67	0.24	A	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/03/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\philip.eveleigh
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2017	AM	ONE HOUR	07:45	09:15	15
D2	Base 2017	PM	ONE HOUR	15:45	17:15	15
D3	Base 2023 + Committed Dev	AM	ONE HOUR	07:45	09:15	15
D4	Base 2023 + Committed Dev	PM	ONE HOUR	15:45	17:15	15
D5	Base 2023 + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	15
D6	Base 2023 + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base 2017, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	2.92	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	50	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	Bartons Rd (E)		Major
B	New Lane		Minor
C	Bartons Rd (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Bartons Rd (W)	7.37			173.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - New Lane	One lane plus flare	10.00	8.80	8.33	5.58	5.30	✓	3.00	175	179

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	691	0.118	0.299	0.188	0.427
1	B-C	782	0.113	0.285	-	-
1	C-B	674	0.246	0.246	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2017	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	617	100.000
B - New Lane		✓	214	100.000
C - Bartons Rd (W)		✓	432	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	314	303
	B - New Lane	114	0	100
	C - Bartons Rd (W)	307	125	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	2
	B - New Lane	1	0	3
	C - Bartons Rd (W)	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.18	7.59	0.2	1.0	A
B-A	0.29	12.05	0.4	1.7	B
C-AB	0.34	7.48	0.8	3.1	A
C-A					
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	75	661	0.114	75	0.1	6.317	A
B-A	86	511	0.168	85	0.2	8.515	A
C-AB	139	719	0.193	137	0.3	6.362	A
C-A	187			187			
A-B	236			236			
A-C	228			228			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	90	636	0.141	90	0.2	6.790	A
B-A	102	476	0.215	102	0.3	9.715	A
C-AB	181	732	0.247	180	0.5	6.733	A
C-A	207			207			
A-B	282			282			
A-C	272			272			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	110	599	0.184	110	0.2	7.579	A
B-A	126	427	0.294	125	0.4	12.000	B
C-AB	252	751	0.335	250	0.8	7.441	A
C-A	224			224			
A-B	346			346			
A-C	334			334			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	110	598	0.184	110	0.2	7.592	A
B-A	126	427	0.294	126	0.4	12.052	B
C-AB	252	751	0.336	252	0.8	7.484	A
C-A	224			224			
A-B	346			346			
A-C	334			334			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	90	635	0.142	90	0.2	6.810	A
B-A	102	476	0.215	103	0.3	9.773	A
C-AB	182	732	0.248	183	0.5	6.793	A
C-A	207			207			
A-B	282			282			
A-C	272			272			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	75	661	0.114	75	0.1	6.338	A
B-A	86	511	0.168	86	0.2	8.569	A
C-AB	139	720	0.193	140	0.4	6.415	A
C-A	186			186			
A-B	236			236			
A-C	228			228			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.34	0.00	0.00	0.34	0.34			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-AB	0.49	0.00	0.00	0.49	0.49			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.03	0.26	0.47	0.50			N/A	N/A
B-A	0.41	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.78	0.03	0.27	0.78	0.78			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.03	0.28	0.51	0.97			N/A	N/A
B-A	0.42	0.03	0.32	1.33	1.68			N/A	N/A
C-AB	0.79	0.04	0.39	1.87	3.11			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-AB	0.51	0.00	0.00	0.51	0.51			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-A	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-AB	0.35	0.00	0.00	0.35	0.35			N/A	N/A

Base 2017, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	4.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Base 2017	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	599	100.000
B - New Lane		✓	378	100.000
C - Bartons Rd (W)		✓	315	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	195	404
	B - New Lane	225	0	153
	C - Bartons Rd (W)	242	73	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	3
	B - New Lane	0	0	3
	C - Bartons Rd (W)	3	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.33	10.78	0.5	2.2	B
B-A	0.54	17.05	1.2	4.5	C
C-AB	0.18	6.52	0.4	1.3	A
C-A					
A-B					
A-C					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	115	606	0.190	114	0.2	7.521	A
B-A	169	539	0.314	168	0.5	9.639	A
C-AB	75	689	0.109	74	0.2	6.073	A
C-A	162			162			
A-B	147			147			
A-C	304			304			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	138	571	0.241	137	0.3	8.526	A
B-A	202	506	0.400	201	0.7	11.800	B
C-AB	96	694	0.138	96	0.2	6.240	A
C-A	187			187			
A-B	175			175			
A-C	363			363			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	168	514	0.328	168	0.5	10.692	B
B-A	248	459	0.540	246	1.1	16.768	C
C-AB	130	703	0.185	129	0.4	6.509	A
C-A	217			217			
A-B	215			215			
A-C	445			445			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	168	512	0.329	168	0.5	10.775	B
B-A	248	458	0.540	248	1.2	17.055	C
C-AB	130	703	0.185	130	0.4	6.517	A
C-A	217			217			
A-B	215			215			
A-C	445			445			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	138	570	0.241	138	0.3	8.603	A
B-A	202	506	0.400	204	0.7	12.010	B
C-AB	96	694	0.138	96	0.2	6.253	A
C-A	187			187			
A-B	175			175			
A-C	363			363			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	115	605	0.190	116	0.2	7.576	A
B-A	169	539	0.314	170	0.5	9.782	A
C-AB	75	689	0.109	75	0.2	6.090	A
C-A	162			162			
A-B	147			147			
A-C	304			304			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B-A	0.45	0.00	0.00	0.45	0.45			N/A	N/A
C-AB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.65	0.15	0.90	1.38	1.44			N/A	N/A
C-AB	0.24	0.00	0.00	0.24	0.24			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.49	0.03	0.26	0.49	0.50			N/A	N/A
B-A	1.13	0.03	0.27	1.13	2.22			N/A	N/A
C-AB	0.35	0.03	0.27	0.49	0.52			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.50	0.03	0.32	1.45	2.19			N/A	N/A
B-A	1.15	0.03	0.28	1.15	4.47			N/A	N/A
C-AB	0.36	0.03	0.31	0.95	1.25			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.00	0.00	0.33	0.33			N/A	N/A
B-A	0.68	0.06	0.67	1.06	1.06			N/A	N/A
C-AB	0.24	0.00	0.00	0.24	0.24			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B-A	0.47	0.04	0.39	1.27	1.42			N/A	N/A
C-AB	0.18	0.00	0.00	0.18	0.18			N/A	N/A

Base 2023 + Committed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	3.15	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Base 2023 + Committed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	692	100.000
B - New Lane		✓	229	100.000
C - Bartons Rd (W)		✓	473	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	327	365
	B - New Lane	122	0	107
	C - Bartons Rd (W)	343	130	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	2
	B - New Lane	1	0	3
	C - Bartons Rd (W)	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.21	8.19	0.3	1.2	A
B-A	0.34	13.95	0.5	2.3	B
C-AB	0.37	7.83	1.0	4.3	A
C-A					
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	81	644	0.125	80	0.1	6.566	A
B-A	92	489	0.188	91	0.2	9.105	A
C-AB	152	726	0.209	150	0.4	6.437	A
C-A	204			204			
A-B	246			246			
A-C	275			275			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	96	614	0.157	96	0.2	7.150	A
B-A	110	450	0.244	109	0.3	10.668	B
C-AB	201	741	0.271	200	0.6	6.880	A
C-A	224			224			
A-B	294			294			
A-C	328			328			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	118	571	0.206	118	0.3	8.169	A
B-A	134	395	0.340	134	0.5	13.853	B
C-AB	285	763	0.373	283	1.0	7.773	A
C-A	236			236			
A-B	360			360			
A-C	402			402			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	118	571	0.207	118	0.3	8.190	A
B-A	134	395	0.340	134	0.5	13.945	B
C-AB	286	764	0.374	286	1.0	7.833	A
C-A	235			235			
A-B	360			360			
A-C	402			402			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	96	614	0.157	96	0.2	7.176	A
B-A	110	449	0.244	110	0.3	10.749	B
C-AB	202	742	0.272	203	0.6	6.954	A
C-A	223			223			
A-B	294			294			
A-C	328			328			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	81	643	0.125	81	0.1	6.596	A
B-A	92	489	0.188	92	0.2	9.177	A
C-AB	153	727	0.210	153	0.4	6.501	A
C-A	203			203			
A-B	246			246			
A-C	275			275			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.15	0.00	0.00	0.15	0.15			N/A	N/A
B-A	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.19	0.00	0.00	0.19	0.19			N/A	N/A
B-A	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C-AB	0.57	0.57	1.03	1.45	1.50			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.26	0.03	0.26	0.47	0.50			N/A	N/A
B-A	0.51	0.03	0.26	0.51	0.51			N/A	N/A
C-AB	0.97	0.03	0.27	0.97	0.97			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.30	0.88	1.23			N/A	N/A
B-A	0.51	0.03	0.31	1.44	2.33			N/A	N/A
C-AB	0.98	0.04	0.38	2.42	4.33			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.19	0.00	0.00	0.19	0.19			N/A	N/A
B-A	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C-AB	0.60	0.57	1.03	1.45	1.50			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.15	0.00	0.00	0.15	0.15			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.40	0.00	0.00	0.40	0.40			N/A	N/A

Base 2023 + Committed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	5.64	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	11	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Base 2023 + Committed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	658	100.000
B - New Lane		✓	400	100.000
C - Bartons Rd (W)		✓	378	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	208	450
	B - New Lane	238	0	162
	C - Bartons Rd (W)	300	78	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	3
	B - New Lane	0	0	3
	C - Bartons Rd (W)	3	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.38	12.55	0.6	2.9	B
B-A	0.62	21.97	1.6	6.4	C
C-AB	0.21	6.45	0.5	1.4	A
C-A					
A-B					
A-C					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	122	591	0.206	121	0.3	7.876	A
B-A	179	517	0.346	177	0.5	10.520	B
C-AB	86	709	0.122	85	0.2	5.982	A
C-A	198			198			
A-B	157			157			
A-C	339			339			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146	550	0.265	145	0.4	9.151	A
B-A	214	479	0.446	213	0.8	13.462	B
C-AB	113	720	0.156	112	0.3	6.150	A
C-A	227			227			
A-B	187			187			
A-C	405			405			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	178	476	0.374	177	0.6	12.364	B
B-A	262	425	0.616	259	1.5	21.286	C
C-AB	157	736	0.213	156	0.5	6.440	A
C-A	260			260			
A-B	229			229			
A-C	495			495			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	178	474	0.377	178	0.6	12.554	B
B-A	262	425	0.616	262	1.6	21.972	C
C-AB	157	736	0.213	157	0.5	6.451	A
C-A	259			259			
A-B	229			229			
A-C	495			495			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146	548	0.266	147	0.4	9.269	A
B-A	214	479	0.446	217	0.8	13.870	B
C-AB	113	720	0.157	113	0.3	6.161	A
C-A	227			227			
A-B	187			187			
A-C	405			405			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	122	589	0.207	122	0.3	7.952	A
B-A	179	517	0.347	180	0.5	10.725	B
C-AB	87	709	0.122	87	0.2	6.002	A
C-A	198			198			
A-B	157			157			
A-C	339			339			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B-A	0.52	0.52	1.00	1.40	1.45			N/A	N/A
C-AB	0.21	0.00	0.00	0.21	0.21			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.79	0.13	0.90	1.41	1.47			N/A	N/A
C-AB	0.29	0.00	0.00	0.29	0.29			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.60	0.03	0.27	0.60	0.60			N/A	N/A
B-A	1.52	0.03	0.29	1.52	6.34			N/A	N/A
C-AB	0.45	0.03	0.27	0.49	0.52			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.61	0.03	0.31	1.52	2.89			N/A	N/A
B-A	1.56	0.03	0.29	1.56	6.43			N/A	N/A
C-AB	0.46	0.04	0.39	1.26	1.41			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B-A	0.83	0.05	0.61	1.57	2.01			N/A	N/A
C-AB	0.30	0.00	0.00	0.30	0.30			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.26	0.46	0.49			N/A	N/A
B-A	0.54	0.04	0.38	1.46	1.62			N/A	N/A
C-AB	0.22	0.00	0.00	0.22	0.22			N/A	N/A

Base 2023 + Committed Dev + Proposed Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	4.03	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Base 2023 + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Bartons Rd (E)		✓	703	100.000
B - New Lane		✓	237	100.000
C - Bartons Rd (W)		✓	520	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	336	367
	B - New Lane	123	0	114
	C - Bartons Rd (W)	349	171	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	2
	B - New Lane	1	0	3
	C - Bartons Rd (W)	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.22	8.38	0.3	1.3	A
B-A	0.37	15.54	0.6	2.7	C
C-AB	0.50	9.77	1.6	8.1	A
C-A					
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	86	646	0.133	85	0.2	6.605	A
B-A	93	471	0.197	92	0.2	9.569	A
C-AB	202	727	0.277	199	0.5	7.014	A
C-A	190			190			
A-B	253			253			
A-C	276			276			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	102	615	0.167	102	0.2	7.230	A
B-A	111	428	0.258	110	0.3	11.416	B
C-AB	267	743	0.360	266	0.8	7.805	A
C-A	200			200			
A-B	302			302			
A-C	330			330			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	569	0.221	125	0.3	8.355	A
B-A	135	370	0.366	135	0.6	15.386	C
C-AB	380	766	0.497	378	1.5	9.610	A
C-A	192			192			
A-B	370			370			
A-C	404			404			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	568	0.221	126	0.3	8.383	A
B-A	135	369	0.367	135	0.6	15.538	C
C-AB	382	767	0.498	382	1.6	9.765	A
C-A	191			191			
A-B	370			370			
A-C	404			404			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	102	614	0.167	103	0.2	7.259	A
B-A	111	427	0.259	111	0.4	11.537	B
C-AB	269	744	0.361	272	0.9	7.959	A
C-A	199			199			
A-B	302			302			
A-C	330			330			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	86	645	0.133	86	0.2	6.637	A
B-A	93	470	0.197	93	0.3	9.657	A
C-AB	203	729	0.278	204	0.6	7.117	A
C-A	189			189			
A-B	253			253			
A-C	276			276			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.00	0.00	0.16	0.16			N/A	N/A
B-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.55	0.55	1.03	1.44	1.49			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B-A	0.35	0.00	0.00	0.35	0.35			N/A	N/A
C-AB	0.84	0.57	1.03	1.45	1.50			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.03	0.26	0.47	0.50			N/A	N/A
B-A	0.57	0.03	0.26	0.57	0.57			N/A	N/A
C-AB	1.53	0.03	0.28	1.53	3.50			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.03	0.31	1.01	1.32			N/A	N/A
B-A	0.58	0.03	0.31	1.49	2.69			N/A	N/A
C-AB	1.56	0.03	0.33	3.08	8.13			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.36	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.88	0.55	1.03	1.45	1.50			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.00	0.00	0.16	0.16			N/A	N/A
B-A	0.25	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.57	0.06	0.68	1.37	1.46			N/A	N/A

Base 2023 + Committed Dev + Proposed Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/New Lane	T-Junction	Two-way	6.67	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Base 2023 + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Bartons Rd (E)		✓	665	100.000
B - New Lane		✓	436	100.000
C - Bartons Rd (W)		✓	390	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	210	455
	B - New Lane	244	0	192
	C - Bartons Rd (W)	303	87	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bartons Rd (E)	B - New Lane	C - Bartons Rd (W)
From	A - Bartons Rd (E)	0	1	3
	B - New Lane	0	0	3
	C - Bartons Rd (W)	3	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.46	14.63	0.8	3.9	B
B-A	0.66	25.31	1.8	8.6	D
C-AB	0.24	6.67	0.5	1.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	145	595	0.243	143	0.3	8.184	A
B-A	184	505	0.363	181	0.6	11.036	B
C-AB	97	709	0.136	96	0.2	6.076	A
C-A	197			197			
A-B	158			158			
A-C	343			343			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	173	551	0.313	172	0.5	9.762	A
B-A	219	467	0.470	218	0.9	14.419	B
C-AB	126	720	0.175	126	0.3	6.285	A
C-A	224			224			
A-B	189			189			
A-C	409			409			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	211	469	0.451	210	0.8	14.255	B
B-A	269	410	0.655	265	1.8	24.217	C
C-AB	176	737	0.239	175	0.5	6.651	A
C-A	254			254			
A-B	231			231			
A-C	501			501			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	211	465	0.455	211	0.8	14.629	B
B-A	269	410	0.655	268	1.8	25.309	D
C-AB	176	737	0.239	176	0.5	6.666	A
C-A	253			253			
A-B	231			231			
A-C	501			501			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	173	548	0.315	174	0.5	9.956	A
B-A	219	467	0.470	223	0.9	14.984	B
C-AB	127	721	0.176	127	0.3	6.303	A
C-A	224			224			
A-B	189			189			
A-C	409			409			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	145	593	0.244	145	0.3	8.288	A
B-A	184	505	0.363	185	0.6	11.285	B
C-AB	97	710	0.137	97	0.2	6.101	A
C-A	197			197			
A-B	158			158			
A-C	343			343			

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.00	0.00	0.33	0.33			N/A	N/A
B-A	0.56	0.55	1.00	1.40	1.45			N/A	N/A
C-AB	0.24	0.00	0.00	0.24	0.24			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.46	0.00	0.00	0.46	0.46			N/A	N/A
B-A	0.86	0.12	0.91	1.44	1.44			N/A	N/A
C-AB	0.33	0.00	0.00	0.33	0.33			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.82	0.03	0.27	0.82	0.82			N/A	N/A
B-A	1.77	0.03	0.30	2.33	8.56			N/A	N/A
C-AB	0.52	0.03	0.27	0.52	0.52			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.84	0.03	0.30	1.50	3.94			N/A	N/A
B-A	1.83	0.03	0.29	1.83	8.03			N/A	N/A
C-AB	0.53	0.04	0.43	1.36	1.51			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.48	0.04	0.41	1.27	1.41			N/A	N/A
B-A	0.91	0.05	0.52	1.88	2.76			N/A	N/A
C-AB	0.34	0.00	0.00	0.34	0.34			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.34	0.03	0.28	0.51	0.99			N/A	N/A
B-A	0.58	0.04	0.37	1.21	1.96			N/A	N/A
C-AB	0.24	0.00	0.00	0.24	0.24			N/A	N/A

Junctions 9										
PICADY 9 - Priority Intersection Module										
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Filename: Martins Rd - Site Access Junction.j9

Path: X:\Projects\2012\A090000\A090070-182 - Colt Industrial, New Lane, Havant\30 Technical\31 Modelling\J3.Martins Rd - Site Access Junction

Report generation date: 27/07/2018 15:38:50

- »Base 2017, AM
- »Base 2017, PM
- »Base 2023 + Committed Dev, AM
- »Base 2023 + Committed Dev, PM
- »Base 2023 + Committed Dev + Proposed Dev, AM
- »Base 2023 + Committed Dev + Proposed Dev, PM

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
Base 2017										
Stream B-AC	0.0	0.00	0.00	A	900 %	0.0	6.45	0.03	A	603 %
Stream C-AB	0.0	5.69	0.01	A	[]	0.0	0.00	0.00	A	[Stream B-AC]
Base 2023 + Committed Dev										
Stream B-AC	0.0	0.00	0.00	A	900 %	0.0	0.00	0.00	A	900 %
Stream C-AB	0.0	0.00	0.00	A	[]	0.0	0.00	0.00	A	[]
Base 2023 + Committed Dev + Proposed Dev										
Stream B-AC	0.1	6.98	0.08	A	380 %	0.0	6.69	0.04	A	503 %
Stream C-AB	0.0	0.00	0.00	A	[Stream B-AC]	0.0	0.00	0.00	A	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/03/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\philip.eveleigh
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2017	AM	ONE HOUR	07:45	09:15	15
D2	Base 2017	PM	ONE HOUR	15:45	17:15	15
D3	Base 2023 + Committed Dev	AM	ONE HOUR	07:45	09:15	15
D4	Base 2023 + Committed Dev	PM	ONE HOUR	15:45	17:15	15
D5	Base 2023 + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	15
D6	Base 2023 + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base 2017, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	900	

Arms

Arms

Arm	Name	Description	Arm type
A	Martins Rd (N)		Major
B	Site Access		Minor
C	Martins Rd (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Martins Rd (S)	6.00			58.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	5.00	45	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	625	0.114	0.288	0.181	0.411
1	B-C	793	0.122	0.307	-	-
1	C-B	608	0.235	0.235	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2017	AM	ONE HOUR	07:45	09:15	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 (%)
A - Martins Rd (N)		✓	142	100.000
B - Site Access		✓	0	100.000
C - Martins Rd (S)		✓	111	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
A - Martins Rd (N)		0	24	118
B - Site Access		0	0	0
C - Martins Rd (S)		108	3	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
A - Martins Rd (N)		0	0	0
B - Site Access		0	0	0
C - Martins Rd (S)		2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.01	5.69	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	3	637	0.004	3	0.0	5.684	A
C-A	81			81			
A-B	18			18			
A-C	89			89			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	3	643	0.005	3	0.0	5.637	A
C-A	97			97			
A-B	22			22			
A-C	106			106			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	4	652	0.006	4	0.0	5.574	A
C-A	118			118			
A-B	26			26			
A-C	130			130			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	4	652	0.006	4	0.0	5.577	A
C-A	118			118			
A-B	26			26			
A-C	130			130			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	3	643	0.005	3	0.0	5.643	A
C-A	97			97			
A-B	22			22			
A-C	106			106			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	3	637	0.004	3	0.0	5.688	A
C-A	81			81			
A-B	18			18			
A-C	89			89			

Base 2017, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	603	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Base 2017	PM	ONE HOUR	15:45	17:15	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 (%)
A - Martins Rd (N)		✓	124	100.000
B - Site Access		✓	16	100.000
C - Martins Rd (S)		✓	96	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	1	123
	B - Site Access	15	0	1
	C - Martins Rd (S)	96	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	1
	B - Site Access	0	0	0
	C - Martins Rd (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	6.45	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	12	594	0.020	12	0.0	6.185	A
C-AB	0	586	0.000	0	0.0	0.000	A
C-A	72			72			
A-B	0.75			0.75			
A-C	93			93			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	586	0.025	14	0.0	6.293	A
C-AB	0	581	0.000	0	0.0	0.000	A
C-A	86			86			
A-B	0.90			0.90			
A-C	111			111			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	576	0.031	18	0.0	6.449	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	106			106			
A-B	1			1			
A-C	135			135			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	576	0.031	18	0.0	6.449	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	106			106			
A-B	1			1			
A-C	135			135			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	586	0.025	14	0.0	6.294	A
C-AB	0	581	0.000	0	0.0	0.000	A
C-A	86			86			
A-B	0.90			0.90			
A-C	111			111			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	12	594	0.020	12	0.0	6.185	A
C-AB	0	586	0.000	0	0.0	0.000	A
C-A	72			72			
A-B	0.75			0.75			
A-C	93			93			

Base 2023 + Committed Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	900	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Base 2023 + Committed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Martins Rd (N)		✓	127	100.000
B - Site Access		✓	0	100.000
C - Martins Rd (S)		✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	127
	B - Site Access	0	0	0
	C - Martins Rd (S)	117	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	0
	B - Site Access	0	0	0
	C - Martins Rd (S)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	0	585	0.000	0	0.0	0.000	A
C-A	88			88			
A-B	0			0			
A-C	96			96			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	0	581	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	0			0			
A-C	114			114			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	129			129			
A-B	0			0			
A-C	140			140			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	0	575	0.000	0	0.0	0.000	A
C-A	129			129			
A-B	0			0			
A-C	140			140			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	0	581	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	0			0			
A-C	114			114			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	0	585	0.000	0	0.0	0.000	A
C-A	88			88			
A-B	0			0			
A-C	96			96			

Base 2023 + Committed Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	900	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Base 2023 + Committed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Martins Rd (N)		✓	132	100.000
B - Site Access		✓	0	100.000
C - Martins Rd (S)		✓	103	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	132
	B - Site Access	0	0	0
	C - Martins Rd (S)	103	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	1
	B - Site Access	0	0	0
	C - Martins Rd (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	0	584	0.000	0	0.0	0.000	A
C-A	78			78			
A-B	0			0			
A-C	99			99			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	0	580	0.000	0	0.0	0.000	A
C-A	93			93			
A-B	0			0			
A-C	119			119			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	0	573	0.000	0	0.0	0.000	A
C-A	113			113			
A-B	0			0			
A-C	145			145			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	642	0.000	0	0.0	0.000	A
C-AB	0	573	0.000	0	0.0	0.000	A
C-A	113			113			
A-B	0			0			
A-C	145			145			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	653	0.000	0	0.0	0.000	A
C-AB	0	580	0.000	0	0.0	0.000	A
C-A	93			93			
A-B	0			0			
A-C	119			119			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	660	0.000	0	0.0	0.000	A
C-AB	0	584	0.000	0	0.0	0.000	A
C-A	78			78			
A-B	0			0			
A-C	99			99			

Base 2023 + Committed Dev + Proposed Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.93	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	380	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Base 2023 + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - Martins Rd (N)		✓	143	100.000
B - Site Access		✓	40	100.000
C - Martins Rd (S)		✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
From	A - Martins Rd (N)	0	16	127
	B - Site Access	40	0	0
	C - Martins Rd (S)	117	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
From	A - Martins Rd (N)	0	0	0
	B - Site Access	0	0	0
	C - Martins Rd (S)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.98	0.1	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	30	580	0.052	30	0.1	6.536	A
C-AB	0	582	0.000	0	0.0	0.000	A
C-A	88			88			
A-B	12			12			
A-C	96			96			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	36	572	0.063	36	0.1	6.720	A
C-AB	0	577	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	14			14			
A-C	114			114			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	44	560	0.079	44	0.1	6.982	A
C-AB	0	570	0.000	0	0.0	0.000	A
C-A	129			129			
A-B	18			18			
A-C	140			140			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	44	560	0.079	44	0.1	6.982	A
C-AB	0	570	0.000	0	0.0	0.000	A
C-A	129			129			
A-B	18			18			
A-C	140			140			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	36	572	0.063	36	0.1	6.724	A
C-AB	0	577	0.000	0	0.0	0.000	A
C-A	105			105			
A-B	14			14			
A-C	114			114			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	30	580	0.052	30	0.1	6.543	A
C-AB	0	582	0.000	0	0.0	0.000	A
C-A	88			88			
A-B	12			12			
A-C	96			96			

Base 2023 + Committed Dev + Proposed Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Martins Rd - Site Access	T-Junction	Two-way	0.45	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	503	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Base 2023 + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - Martins Rd (N)		✓	163	100.000
B - Site Access		✓	19	100.000
C - Martins Rd (S)		✓	103	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	31	132
	B - Site Access	19	0	0
	C - Martins Rd (S)	103	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Martins Rd (N)	B - Site Access	C - Martins Rd (S)
	A - Martins Rd (N)	0	0	1
	B - Site Access	0	0	0
	C - Martins Rd (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	6.69	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	580	0.025	14	0.0	6.365	A
C-AB	0	579	0.000	0	0.0	0.000	A
C-A	78			78			
A-B	23			23			
A-C	99			99			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	17	571	0.030	17	0.0	6.498	A
C-AB	0	573	0.000	0	0.0	0.000	A
C-A	93			93			
A-B	28			28			
A-C	119			119			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	21	559	0.037	21	0.0	6.691	A
C-AB	0	565	0.000	0	0.0	0.000	A
C-A	113			113			
A-B	34			34			
A-C	145			145			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	21	559	0.037	21	0.0	6.691	A
C-AB	0	565	0.000	0	0.0	0.000	A
C-A	113			113			
A-B	34			34			
A-C	145			145			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	17	571	0.030	17	0.0	6.501	A
C-AB	0	573	0.000	0	0.0	0.000	A
C-A	93			93			
A-B	28			28			
A-C	119			119			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	14	580	0.025	14	0.0	6.365	A
C-AB	0	579	0.000	0	0.0	0.000	A
C-A	78			78			
A-B	23			23			
A-C	99			99			

Junctions 9										
PICADY 9 - Priority Intersection Module										
Version: 9.0.2.5947 © Copyright TRL Limited, 2017										
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Filename: New Lane - Site Access Junction.j9

Path: X:\Projects\2012\A090000\A090070-182 - Colt Industrial, New Lane, Havant\30 Technical\31 Modelling\J4.New Lane - Site Access Junction

Report generation date: 27/07/2018 15:41:22

- »2017 Base, AM
- »2017 Base, PM
- »2023 Base + Committed Dev, AM
- »2023 Base + Committed Dev, PM
- »2023 Base + Committed Dev + Proposed Dev, AM
- »2023 Base + Committed Dev + Proposed Dev, PM

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2017 Base										
Stream B-AC	0.0	6.74	0.01	A	225 %	0.0	6.56	0.02	A	220 %
Stream C-AB	0.1	4.37	0.04	A	[Stream C-AB]	0.0	4.85	0.00	A	[Stream B-AC]
2023 Base + Committed Dev										
Stream B-AC	0.0	0.00	0.00	A	900 %	0.0	0.00	0.00	A	900 %
Stream C-AB	0.0	0.00	0.00	A	[]	0.0	0.00	0.00	A	[]
2023 Base + Committed Dev + Proposed Dev										
Stream B-AC	0.0	6.09	0.01	A	154 %	0.1	6.62	0.08	A	178 %
Stream C-AB	0.2	4.48	0.11	A	[Stream C-AB]	0.0	4.86	0.02	A	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/03/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\philip.eveleigh
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017 Base	AM	ONE HOUR	07:45	09:15	15
D2	2017 Base	PM	ONE HOUR	15:45	17:15	15
D3	2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	15
D4	2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	15
D5	2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	15
D6	2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2017 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	225	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	New Lane (S)		Major
B	Site Access		Minor
C	New Lane (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Lane (N)	6.40			195.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	5.00	86	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	655	0.117	0.296	0.186	0.423
1	B-C	809	0.122	0.308	-	-
1	C-B	687	0.262	0.262	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017 Base	AM	ONE HOUR	07:45	09:15	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 (%)
A - New Lane (S)		✓	224	100.000
B - Site Access		✓	7	100.000
C - New Lane (N)		✓	439	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	13	211
	B - Site Access	5	0	2
	C - New Lane (N)	422	17	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	8	2
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - New Lane (S)	169	169
	B - Site Access	5	5
	C - New Lane (N)	331	331
08:00-08:15	A - New Lane (S)	201	201
	B - Site Access	6	6
	C - New Lane (N)	395	395
08:15-08:30	A - New Lane (S)	247	247
	B - Site Access	8	8
	C - New Lane (N)	483	483
08:30-08:45	A - New Lane (S)	247	247
	B - Site Access	8	8
	C - New Lane (N)	483	483
08:45-09:00	A - New Lane (S)	201	201
	B - Site Access	6	6
	C - New Lane (N)	395	395
09:00-09:15	A - New Lane (S)	169	169
	B - Site Access	5	5
	C - New Lane (N)	331	331

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.74	0.0	A
C-AB	0.04	4.37	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	5	590	0.009	5	0.0	6.152	A
C-AB	20	847	0.024	20	0.0	4.371	A
C-A	310			310			
A-B	10			10			
A-C	159			159			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	570	0.011	6	0.0	6.385	A
C-AB	27	880	0.031	27	0.0	4.236	A
C-A	368			368			
A-B	12			12			
A-C	190			190			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	542	0.014	8	0.0	6.741	A
C-AB	38	926	0.041	38	0.1	4.069	A
C-A	446			446			
A-B	14			14			
A-C	232			232			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	542	0.014	8	0.0	6.741	A
C-AB	38	926	0.041	38	0.1	4.071	A
C-A	446			446			
A-B	14			14			
A-C	232			232			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	570	0.011	6	0.0	6.386	A
C-AB	27	880	0.031	27	0.0	4.242	A
C-A	368			368			
A-B	12			12			
A-C	190			190			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	5	590	0.009	5	0.0	6.155	A
C-AB	21	847	0.024	21	0.0	4.375	A
C-A	310			310			
A-B	10			10			
A-C	159			159			

2017 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.13	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	220	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2017 Base	PM	ONE HOUR	15:45	17:15	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 (%)
A - New Lane (S)		✓	376	100.000
B - Site Access		✓	12	100.000
C - New Lane (N)		✓	268	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	4	372
	B - Site Access	6	0	6
	C - New Lane (N)	267	1	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	25	1
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - New Lane (S)	283	283
	B - Site Access	9	9
	C - New Lane (N)	202	202
16:00-16:15	A - New Lane (S)	338	338
	B - Site Access	11	11
	C - New Lane (N)	241	241
16:15-16:30	A - New Lane (S)	414	414
	B - Site Access	13	13
	C - New Lane (N)	295	295
16:30-16:45	A - New Lane (S)	414	414
	B - Site Access	13	13
	C - New Lane (N)	295	295
16:45-17:00	A - New Lane (S)	338	338
	B - Site Access	11	11
	C - New Lane (N)	241	241
17:00-17:15	A - New Lane (S)	283	283
	B - Site Access	9	9
	C - New Lane (N)	202	202

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.56	0.0	A
C-AB	0.00	4.85	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	614	0.015	9	0.0	5.949	A
C-AB	1	745	0.001	1	0.0	4.848	A
C-A	201			201			
A-B	3			3			
A-C	280			280			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	592	0.018	11	0.0	6.189	A
C-AB	1	759	0.002	1	0.0	4.766	A
C-A	240			240			
A-B	4			4			
A-C	334			334			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	13	562	0.024	13	0.0	6.557	A
C-AB	2	778	0.002	2	0.0	4.653	A
C-A	293			293			
A-B	4			4			
A-C	410			410			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	13	562	0.024	13	0.0	6.557	A
C-AB	2	778	0.002	2	0.0	4.654	A
C-A	293			293			
A-B	4			4			
A-C	410			410			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	592	0.018	11	0.0	6.189	A
C-AB	1	759	0.002	1	0.0	4.771	A
C-A	240			240			
A-B	4			4			
A-C	334			334			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	614	0.015	9	0.0	5.951	A
C-AB	1	745	0.001	1	0.0	4.851	A
C-A	201			201			
A-B	3			3			
A-C	280			280			

2023 Base + Committed Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	900	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - New Lane (S)		✓	228	100.000
B - Site Access		✓	0	100.000
C - New Lane (N)		✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	0	228
	B - Site Access	0	0	0
	C - New Lane (N)	455	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	8	2
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - New Lane (S)	171	171
	B - Site Access	0	0
	C - New Lane (N)	343	343
08:00-08:15	A - New Lane (S)	205	205
	B - Site Access	0	0
	C - New Lane (N)	409	409
08:15-08:30	A - New Lane (S)	251	251
	B - Site Access	0	0
	C - New Lane (N)	501	501
08:30-08:45	A - New Lane (S)	251	251
	B - Site Access	0	0
	C - New Lane (N)	501	501
08:45-09:00	A - New Lane (S)	205	205
	B - Site Access	0	0
	C - New Lane (N)	409	409
09:00-09:15	A - New Lane (S)	171	171
	B - Site Access	0	0
	C - New Lane (N)	343	343

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	630	0.000	0	0.0	0.000	A
C-AB	0	642	0.000	0	0.0	0.000	A
C-A	343			343			
A-B	0			0			
A-C	171			171			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	612	0.000	0	0.0	0.000	A
C-AB	0	633	0.000	0	0.0	0.000	A
C-A	409			409			
A-B	0			0			
A-C	205			205			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	585	0.000	0	0.0	0.000	A
C-AB	0	621	0.000	0	0.0	0.000	A
C-A	501			501			
A-B	0			0			
A-C	251			251			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	585	0.000	0	0.0	0.000	A
C-AB	0	621	0.000	0	0.0	0.000	A
C-A	501			501			
A-B	0			0			
A-C	251			251			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	612	0.000	0	0.0	0.000	A
C-AB	0	633	0.000	0	0.0	0.000	A
C-A	409			409			
A-B	0			0			
A-C	205			205			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	630	0.000	0	0.0	0.000	A
C-AB	0	642	0.000	0	0.0	0.000	A
C-A	343			343			
A-B	0			0			
A-C	171			171			

2023 Base + Committed Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	900	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - New Lane (S)		✓	399	100.000
B - Site Access		✓	0	100.000
C - New Lane (N)		✓	286	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - New Lane (S)	B - Site Access	C - New Lane (N)
	A - New Lane (S)	0	0	399
	B - Site Access	0	0	0
	C - New Lane (N)	286	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - New Lane (S)	B - Site Access	C - New Lane (N)
	A - New Lane (S)	0	25	1
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - New Lane (S)	300	300
	B - Site Access	0	0
	C - New Lane (N)	215	215
16:00-16:15	A - New Lane (S)	359	359
	B - Site Access	0	0
	C - New Lane (N)	257	257
16:15-16:30	A - New Lane (S)	439	439
	B - Site Access	0	0
	C - New Lane (N)	315	315
16:30-16:45	A - New Lane (S)	439	439
	B - Site Access	0	0
	C - New Lane (N)	315	315
16:45-17:00	A - New Lane (S)	359	359
	B - Site Access	0	0
	C - New Lane (N)	257	257
17:00-17:15	A - New Lane (S)	300	300
	B - Site Access	0	0
	C - New Lane (N)	215	215

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	607	0.000	0	0.0	0.000	A
C-AB	0	608	0.000	0	0.0	0.000	A
C-A	215			215			
A-B	0			0			
A-C	300			300			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	583	0.000	0	0.0	0.000	A
C-AB	0	593	0.000	0	0.0	0.000	A
C-A	257			257			
A-B	0			0			
A-C	359			359			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	551	0.000	0	0.0	0.000	A
C-AB	0	572	0.000	0	0.0	0.000	A
C-A	315			315			
A-B	0			0			
A-C	439			439			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	551	0.000	0	0.0	0.000	A
C-AB	0	572	0.000	0	0.0	0.000	A
C-A	315			315			
A-B	0			0			
A-C	439			439			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	583	0.000	0	0.0	0.000	A
C-AB	0	593	0.000	0	0.0	0.000	A
C-A	257			257			
A-B	0			0			
A-C	359			359			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	607	0.000	0	0.0	0.000	A
C-AB	0	608	0.000	0	0.0	0.000	A
C-A	215			215			
A-B	0			0			
A-C	300			300			

2023 Base + Committed Dev + Proposed Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	154	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	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 (%)
A - New Lane (S)		✓	248	100.000
B - Site Access		✓	8	100.000
C - New Lane (N)		✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	18	230
	B - Site Access	3	0	5
	C - New Lane (N)	462	43	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	8	2
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - New Lane (S)	187	187
	B - Site Access	6	6
	C - New Lane (N)	380	380
08:00-08:15	A - New Lane (S)	223	223
	B - Site Access	7	7
	C - New Lane (N)	454	454
08:15-08:30	A - New Lane (S)	273	273
	B - Site Access	9	9
	C - New Lane (N)	556	556
08:30-08:45	A - New Lane (S)	273	273
	B - Site Access	9	9
	C - New Lane (N)	556	556
08:45-09:00	A - New Lane (S)	223	223
	B - Site Access	7	7
	C - New Lane (N)	454	454
09:00-09:15	A - New Lane (S)	187	187
	B - Site Access	6	6
	C - New Lane (N)	380	380

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.09	0.0	A
C-AB	0.11	4.48	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	647	0.009	6	0.0	5.613	A
C-AB	54	863	0.063	54	0.1	4.469	A
C-A	326			326			
A-B	14			14			
A-C	173			173			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	628	0.011	7	0.0	5.802	A
C-AB	72	899	0.080	72	0.1	4.374	A
C-A	382			382			
A-B	16			16			
A-C	207			207			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	599	0.015	9	0.0	6.094	A
C-AB	102	950	0.108	102	0.2	4.268	A
C-A	454			454			
A-B	20			20			
A-C	253			253			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	599	0.015	9	0.0	6.094	A
C-AB	102	951	0.108	102	0.2	4.273	A
C-A	454			454			
A-B	20			20			
A-C	253			253			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	7	627	0.011	7	0.0	5.806	A
C-AB	72	899	0.080	73	0.2	4.383	A
C-A	382			382			
A-B	16			16			
A-C	207			207			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	6	647	0.009	6	0.0	5.616	A
C-AB	54	863	0.063	55	0.1	4.478	A
C-A	326			326			
A-B	14			14			
A-C	173			173			

2023 Base + Committed Dev + Proposed Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	New Lane/Site Access	T-Junction	Two-way	0.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	178	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	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 (%)
A - New Lane (S)		✓	407	100.000
B - Site Access		✓	45	100.000
C - New Lane (N)		✓	296	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	3	404
	B - Site Access	13	0	32
	C - New Lane (N)	289	7	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane (S)	B - Site Access	C - New Lane (N)
From	A - New Lane (S)	0	25	1
	B - Site Access	0	0	0
	C - New Lane (N)	1	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - New Lane (S)	306	306
	B - Site Access	34	34
	C - New Lane (N)	223	223
16:00-16:15	A - New Lane (S)	366	366
	B - Site Access	40	40
	C - New Lane (N)	266	266
16:15-16:30	A - New Lane (S)	448	448
	B - Site Access	50	50
	C - New Lane (N)	326	326
16:30-16:45	A - New Lane (S)	448	448
	B - Site Access	50	50
	C - New Lane (N)	326	326
16:45-17:00	A - New Lane (S)	366	366
	B - Site Access	40	40
	C - New Lane (N)	266	266
17:00-17:15	A - New Lane (S)	306	306
	B - Site Access	34	34
	C - New Lane (N)	223	223

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.62	0.1	A
C-AB	0.02	4.86	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	34	646	0.052	34	0.1	5.877	A
C-AB	7	751	0.010	7	0.0	4.854	A
C-A	215			215			
A-B	2			2			
A-C	304			304			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	40	624	0.065	40	0.1	6.168	A
C-AB	10	766	0.012	10	0.0	4.775	A
C-A	257			257			
A-B	3			3			
A-C	363			363			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	593	0.084	49	0.1	6.622	A
C-AB	13	787	0.016	13	0.0	4.666	A
C-A	313			313			
A-B	3			3			
A-C	445			445			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	593	0.084	50	0.1	6.622	A
C-AB	13	787	0.016	13	0.0	4.669	A
C-A	313			313			
A-B	3			3			
A-C	445			445			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	40	624	0.065	41	0.1	6.170	A
C-AB	10	766	0.012	10	0.0	4.778	A
C-A	257			257			
A-B	3			3			
A-C	363			363			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	34	646	0.052	34	0.1	5.880	A
C-AB	7	751	0.010	7	0.0	4.856	A
C-A	215			215			
A-B	2			2			
A-C	304			304			

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2018
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Filename: Bartons Rd Comley Hill Emsworth.j9

Path: X:\Projects\2012\A090000\A090070-182 - Colt Industrial, New Lane, Havant\30 Technical\31 Modelling\Bartons Rd-Comley Hill-Emsworth Common Rd

Report generation date: 27/07/2018 12:43:33

»2017 Base, AM
»2017 Base, PM
»2023 Base + Committed Dev, AM
»2023 Base + Committed Dev, PM
»2023 Base + Committed Dev + Proposed Dev, AM
»2023 Base + Committed Dev + Proposed Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2017 Base								
Stream B-C	0.2	9.48	0.16	A	0.4	11.49	0.30	B
Stream B-AD	30.3	233.12	1.11	F	9.0	87.62	0.94	F
Stream A-BCD	0.2	7.56	0.14	A	0.1	6.55	0.06	A
Stream A-B								
Stream A-C								
Stream D-A	0.0	8.74	0.04	A	0.1	10.61	0.11	B
Stream D-BC	1.4	24.33	0.60	C	10.9	107.56	0.97	F
Stream C-ABD	0.3	9.58	0.24	A	0.2	9.04	0.16	A
Stream C-D								
Stream C-A								
2023 Base + Committed Dev								
Stream B-C	0.3	10.26	0.21	B	0.5	12.39	0.34	B
Stream B-AD	59.9	484.89	1.26	F	20.7	174.74	1.06	F
Stream A-BCD	0.2	8.31	0.17	A	0.1	6.83	0.07	A
Stream A-B								
Stream A-C								
Stream D-A	0.1	9.40	0.05	A	0.1	11.01	0.12	B
Stream D-BC	2.0	32.80	0.68	D	26.3	220.93	1.10	F
Stream C-ABD	0.3	10.09	0.26	B	0.3	10.17	0.21	B
Stream C-D								
Stream C-A								
2023 Base + Committed Dev + Proposed Dev								
Stream B-C	0.3	10.35	0.22	B	0.5	12.57	0.35	B
Stream B-AD	64.9	533.49	1.29	F	24.0	197.38	1.08	F
Stream A-BCD	0.2	8.41	0.17	A	0.1	6.88	0.07	A
Stream A-B								
Stream A-C								
Stream D-A	0.1	9.50	0.05	A	0.1	11.08	0.12	B
Stream D-BC	2.1	34.49	0.70	D	28.7	238.83	1.12	F
Stream C-ABD	0.4	10.27	0.27	B	0.3	10.26	0.22	B
Stream C-D								
Stream C-A								

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	Bartons Rd/ Comley Hill/ Emsworth Common Rd
Location	Havant
Site number	
Date	19/07/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG"alvaro.guzman
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2017 Base	AM	ONE HOUR	07:45	09:15	15
2017 Base	PM	ONE HOUR	15:45	17:15	15
2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	15
2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	15
2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	15
2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	15

2017 Base, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	64.47	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Horndean Rd (South)		Major
B	Bartons Road (West)		Minor
C	Comley Road (North)		Major
D	Emsworth Common Rd (East)		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	8.13	✓	3.45	✓	3.53	192.0	✓	9.00
C	8.35	✓	3.19	✓	2.97	53.0	✓	5.00

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	3.42	3.20	50	100
D	Two lanes	2.51	3.42	50	70

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-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	784.328	-	-	-	0.276	0.276	0.276	-	0.276	-	-
1	B-AD	593.770	0.091	0.229	-	-	-	0.144	0.327	0.144	0.091	0.229
1	B-C	715.773	0.099	0.249	-	-	-	-	-	-	0.099	0.249
1	C-B	655.064	0.228	0.228	-	-	-	-	-	-	0.228	0.228
1	D-A	635.233	-	-	-	0.223	0.088	0.223	-	0.088	-	-
1	D-BC	593.110	0.145	0.145	0.329	0.230	0.091	0.230	-	0.091	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2017 Base	AM	ONE HOUR	07:45	09:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	525.00	100.000
B		✓	475.00	100.000
C		✓	379.00	100.000
D		✓	214.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		A	B	C	D
	A	0.000	249.000	203.000	73.000
	B	175.000	0.000	65.000	235.000
	C	159.000	105.000	0.000	115.000
	D	17.000	142.000	55.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.16	9.48	0.2	A
B-AD	1.11	233.12	30.3	F
A-BCD	0.14	7.56	0.2	A
A-B				
A-C				
D-A	0.04	8.74	0.0	A
D-BC	0.60	24.33	1.4	C
C-ABD	0.24	9.58	0.3	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	48.94	532.90	0.092	48.53	0.1	7.425	A
B-AD	308.67	466.96	0.661	301.39	1.8	20.929	C
A-BCD	54.96	642.31	0.086	54.59	0.1	6.121	A
A-B	187.46			187.46			
A-C	152.83			152.83			
D-A	12.80	509.36	0.025	12.70	0.0	7.246	A
D-BC	148.31	443.95	0.334	146.34	0.5	12.022	B
C-ABD	79.05	543.72	0.145	78.38	0.2	7.726	A
C-D	86.58			86.58			
C-A	119.70			119.70			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58.43	490.60	0.119	58.30	0.1	8.324	A
B-AD	368.58	441.88	0.834	359.79	4.0	39.998	E
A-BCD	65.63	612.73	0.107	65.52	0.1	6.579	A
A-B	223.85			223.85			
A-C	182.49			182.49			
D-A	15.28	480.95	0.032	15.25	0.0	7.730	A
D-BC	177.10	413.78	0.428	176.15	0.7	15.087	C
C-ABD	94.40	521.69	0.181	94.20	0.2	8.418	A
C-D	103.38			103.38			
C-A	142.93			142.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	71.57	451.66	0.158	71.36	0.2	9.461	A
B-AD	451.42	407.66	1.107	394.27	18.3	124.542	F
A-BCD	80.37	572.20	0.140	80.20	0.2	7.315	A
A-B	274.15			274.15			
A-C	223.51			223.51			
D-A	18.72	440.45	0.043	18.67	0.0	8.534	A
D-BC	216.90	372.40	0.582	214.53	1.3	22.463	C
C-ABD	115.66	491.76	0.235	115.32	0.3	9.554	A
C-D	126.60			126.60			
C-A	175.03			175.03			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	71.57	451.41	0.159	71.56	0.2	9.477	A
B-AD	451.42	407.24	1.108	403.32	30.3	233.121	F
A-BCD	80.37	556.43	0.144	80.35	0.2	7.561	A
A-B	274.15			274.15			
A-C	223.51			223.51			
D-A	18.72	430.72	0.043	18.71	0.0	8.737	A
D-BC	216.90	363.75	0.596	216.52	1.4	24.333	C
C-ABD	115.66	491.22	0.235	115.65	0.3	9.585	A
C-D	126.60			126.60			
C-A	175.03			175.03			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58.43	466.94	0.125	58.60	0.1	8.821	A
B-AD	368.58	441.22	0.835	427.13	15.7	199.255	F
A-BCD	65.63	581.28	0.113	65.78	0.1	6.987	A
A-B	223.85			223.85			
A-C	182.49			182.49			
D-A	15.28	462.43	0.033	15.33	0.0	8.052	A
D-BC	177.10	396.54	0.447	179.43	0.8	16.753	C
C-ABD	94.40	520.85	0.181	94.73	0.2	8.456	A
C-D	103.38			103.38			
C-A	142.93			142.93			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	48.94	510.88	0.096	49.09	0.1	7.798	A
B-AD	308.67	466.24	0.662	362.82	2.2	48.474	E
A-BCD	54.96	625.00	0.088	55.08	0.1	6.319	A
A-B	187.46			187.46			
A-C	152.83			152.83			
D-A	12.80	498.91	0.026	12.83	0.0	7.408	A
D-BC	148.31	434.34	0.341	149.52	0.5	12.692	B
C-ABD	79.05	542.96	0.146	79.26	0.2	7.768	A
C-D	86.58			86.58			
C-A	119.70			119.70			

2017 Base, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	44.78	E

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2017 Base	PM	ONE HOUR	15:45	17:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	387.00	100.000
B		✓	479.00	100.000
C		✓	339.00	100.000
D		✓	383.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A	B	C	D
	A	0.000	199.000	155.000	33.000
	B	217.000	0.000	122.000	140.000
	C	205.000	67.000	0.000	67.000
	D	37.000	267.000	79.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
From		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.30	11.49	0.4	B
B-AD	0.94	87.62	9.0	F
A-BCD	0.06	6.55	0.1	A
A-B				
A-C				
D-A	0.11	10.61	0.1	B
D-BC	0.97	107.56	10.9	F
C-ABD	0.16	9.04	0.2	A
C-D				
C-A				

Main Results for each time segment

Main results: (15:45-16:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91.85	547.29	0.168	91.05	0.2	7.877	A
B-AD	268.77	475.57	0.565	263.79	1.2	16.637	C
A-BCD	24.84	653.73	0.038	24.69	0.0	5.721	A
A-B	149.82			149.82			
A-C	116.69			116.69			
D-A	27.86	472.41	0.059	27.61	0.1	8.089	A
D-BC	260.49	459.08	0.567	255.47	1.3	17.290	C
C-ABD	50.44	534.96	0.094	50.03	0.1	7.417	A
C-D	50.44			50.44			
C-A	154.33			154.33			

Main results: (16:00-16:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109.68	509.39	0.215	109.39	0.3	8.993	A
B-AD	320.94	451.88	0.710	316.94	2.2	25.903	D
A-BCD	29.67	627.00	0.047	29.63	0.0	6.026	A
A-B	178.90			178.90			
A-C	139.34			139.34			
D-A	33.26	435.71	0.076	33.18	0.1	8.940	A
D-BC	311.05	432.14	0.720	306.75	2.3	27.753	D
C-ABD	60.23	510.50	0.118	60.12	0.1	7.991	A
C-D	60.23			60.23			
C-A	184.29			184.29			

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	134.32	456.14	0.294	133.77	0.4	11.149	B
B-AD	393.06	419.59	0.937	373.97	7.0	61.827	F
A-BCD	36.33	590.85	0.061	36.27	0.1	6.491	A
A-B	219.10			219.10			
A-C	170.66			170.66			
D-A	40.74	384.01	0.106	40.60	0.1	10.478	B
D-BC	380.95	395.46	0.963	358.24	8.0	71.274	F
C-ABD	73.77	477.31	0.155	73.58	0.2	8.913	A
C-D	73.77			73.77			
C-A	225.71			225.71			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	134.32	447.61	0.300	134.27	0.4	11.486	B
B-AD	393.06	416.75	0.943	385.19	9.0	87.624	F
A-BCD	36.33	585.59	0.062	36.33	0.1	6.553	A
A-B	219.10			219.10			
A-C	170.66			170.66			
D-A	40.74	379.89	0.107	40.73	0.1	10.614	B
D-BC	380.95	392.09	0.972	369.47	10.9	107.562	F
C-ABD	73.77	472.14	0.156	73.76	0.2	9.036	A
C-D	73.77			73.77			
C-A	225.71			225.71			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109.68	493.33	0.222	110.21	0.3	9.411	A
B-AD	320.94	447.06	0.718	345.55	2.8	41.268	E
A-BCD	29.67	618.46	0.048	29.73	0.1	6.117	A
A-B	178.90			178.90			
A-C	139.34			139.34			
D-A	33.26	418.25	0.080	33.39	0.1	9.358	A
D-BC	311.05	426.67	0.729	342.32	3.1	51.700	F
C-ABD	60.23	501.73	0.120	60.42	0.1	8.162	A
C-D	60.23			60.23			
C-A	184.29			184.29			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91.85	541.78	0.170	92.18	0.2	8.012	A
B-AD	268.77	473.89	0.567	274.64	1.4	18.557	C
A-BCD	24.84	650.60	0.038	24.89	0.0	5.755	A
A-B	149.82			149.82			
A-C	116.69			116.69			
D-A	27.86	466.73	0.060	27.95	0.1	8.206	A
D-BC	260.49	457.03	0.570	267.18	1.4	19.570	C
C-ABD	50.44	532.17	0.095	50.57	0.1	7.479	A
C-D	50.44			50.44			
C-A	154.33			154.33			

2023 Base + Committed Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	131.94	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2023 Base + Committed Dev	AM	ONE HOUR	07:45	09:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	558.00	100.000
B		✓	537.00	100.000
C		✓	409.00	100.000
D		✓	227.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A	B	C	D
	A	0.000	260.000	219.000	79.000
	B	192.000	0.000	86.000	259.000
	C	171.000	113.000	0.000	125.000
	D	18.000	149.000	60.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
From		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.21	10.26	0.3	B
B-AD	1.26	484.89	59.9	F
A-BCD	0.17	8.31	0.2	A
A-B				
A-C				
D-A	0.05	9.40	0.1	A
D-BC	0.68	32.80	2.0	D
C-ABD	0.26	10.09	0.3	B
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	64.75	515.72	0.126	64.18	0.1	7.963	A
B-AD	339.54	457.75	0.742	329.28	2.6	26.285	D
A-BCD	59.48	629.23	0.095	59.06	0.1	6.310	A
A-B	195.74			195.74			
A-C	164.87			164.87			
D-A	13.55	498.71	0.027	13.44	0.0	7.416	A
D-BC	157.35	432.17	0.364	155.11	0.6	12.893	B
C-ABD	85.08	537.04	0.158	84.33	0.2	7.940	A
C-D	94.11			94.11			
C-A	128.74			128.74			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77.31	467.99	0.165	77.10	0.2	9.205	A
B-AD	405.44	430.82	0.941	386.43	7.3	62.976	F
A-BCD	71.02	596.29	0.119	70.90	0.1	6.850	A
A-B	233.73			233.73			
A-C	196.88			196.88			
D-A	16.18	467.20	0.035	16.15	0.0	7.981	A
D-BC	187.89	399.26	0.471	186.69	0.9	16.836	C
C-ABD	101.60	513.67	0.198	101.37	0.2	8.727	A
C-D	112.37			112.37			
C-A	153.72			153.72			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	94.69	445.82	0.212	94.41	0.3	10.236	B
B-AD	496.56	394.08	1.260	389.87	34.0	212.419	F
A-BCD	86.98	549.43	0.158	86.77	0.2	7.778	A
A-B	286.27			286.27			
A-C	241.12			241.12			
D-A	19.82	420.95	0.047	19.76	0.0	8.972	A
D-BC	230.11	353.17	0.652	226.65	1.7	27.708	D
C-ABD	124.51	482.01	0.258	124.11	0.3	10.047	B
C-D	137.59			137.59			
C-A	188.22			188.22			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	94.69	445.45	0.213	94.68	0.3	10.262	B
B-AD	496.56	393.50	1.262	392.74	59.9	435.309	F
A-BCD	86.98	520.00	0.167	86.93	0.2	8.311	A
A-B	286.27			286.27			
A-C	241.12			241.12			
D-A	19.82	402.85	0.049	19.81	0.1	9.398	A
D-BC	230.11	337.07	0.683	229.04	2.0	32.805	D
C-ABD	124.51	481.23	0.259	124.50	0.3	10.091	B
C-D	137.59			137.59			
C-A	188.22			188.22			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77.31	461.97	0.167	77.57	0.2	9.371	A
B-AD	405.44	429.86	0.943	422.81	55.6	484.894	F
A-BCD	71.02	532.99	0.133	71.19	0.2	7.798	A
A-B	233.73			233.73			
A-C	196.88			196.88			
D-A	16.18	430.15	0.038	16.23	0.0	8.699	A
D-BC	187.89	364.65	0.515	191.42	1.1	21.180	C
C-ABD	101.60	512.37	0.198	101.99	0.3	8.782	A
C-D	112.37			112.37			
C-A	153.72			153.72			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	64.75	474.37	0.136	64.92	0.2	8.795	A
B-AD	339.54	456.85	0.743	448.78	28.3	340.877	F
A-BCD	59.48	567.89	0.105	59.62	0.1	7.086	A
A-B	195.74			195.74			
A-C	164.87			164.87			
D-A	13.55	463.82	0.029	13.59	0.0	7.997	A
D-BC	157.35	398.56	0.395	159.11	0.7	15.141	C
C-ABD	85.08	536.03	0.159	85.31	0.2	7.992	A
C-D	94.11			94.11			
C-A	128.74			128.74			

2023 Base + Committed Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	88.20	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2023 Base + Committed Dev	PM	ONE HOUR	15:45	17:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	419.00	100.000
B		✓	513.00	100.000
C		✓	380.00	100.000
D		✓	415.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A	B	C	D
	A	0.000	217.000	166.000	36.000
	B	229.000	0.000	134.000	150.000
	C	220.000	88.000	0.000	72.000
	D	40.000	290.000	85.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
From		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.34	12.39	0.5	B
B-AD	1.06	174.74	20.7	F
A-BCD	0.07	6.83	0.1	A
A-B				
A-C				
D-A	0.12	11.01	0.1	B
D-BC	1.10	220.93	26.3	F
C-ABD	0.21	10.17	0.3	B
C-D				
C-A				

Main Results for each time segment

Main results: (15:45-16:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.88	533.77	0.189	99.96	0.2	8.281	A
B-AD	285.33	462.49	0.617	279.24	1.5	19.072	C
A-BCD	27.10	645.01	0.042	26.93	0.0	5.823	A
A-B	163.37			163.37			
A-C	124.97			124.97			
D-A	30.11	459.39	0.066	29.84	0.1	8.376	A
D-BC	282.32	449.48	0.628	275.96	1.6	20.086	C
C-ABD	66.25	525.01	0.126	65.68	0.1	7.828	A
C-D	54.21			54.21			
C-A	165.63			165.63			

Main results: (16:00-16:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	120.46	491.78	0.245	120.10	0.3	9.674	A
B-AD	340.71	436.05	0.781	334.47	3.1	33.465	D
A-BCD	32.36	616.28	0.053	32.32	0.1	6.164	A
A-B	195.08			195.08			
A-C	149.23			149.23			
D-A	35.96	418.90	0.086	35.87	0.1	9.396	A
D-BC	337.12	420.47	0.802	329.94	3.4	37.025	E
C-ABD	79.11	498.34	0.159	78.94	0.2	8.580	A
C-D	64.73			64.73			
C-A	197.77			197.77			

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	147.54	442.62	0.333	146.86	0.5	12.144	B
B-AD	417.29	399.88	1.044	378.33	12.8	97.915	F
A-BCD	39.64	577.17	0.069	39.56	0.1	6.696	A
A-B	238.92			238.92			
A-C	182.77			182.77			
D-A	44.04	375.84	0.117	43.89	0.1	10.841	B
D-BC	412.88	380.82	1.084	364.84	15.4	116.250	F
C-ABD	96.92	461.90	0.210	96.62	0.3	9.847	A
C-D	79.27			79.27			
C-A	242.20			242.20			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	147.54	437.84	0.337	147.49	0.5	12.395	B
B-AD	417.29	393.92	1.059	385.93	20.7	174.742	F
A-BCD	39.64	566.43	0.070	39.63	0.1	6.832	A
A-B	238.92			238.92			
A-C	182.77			182.77			
D-A	44.04	370.87	0.119	44.03	0.1	11.014	B
D-BC	412.88	373.98	1.104	369.35	26.3	220.934	F
C-ABD	96.92	450.97	0.215	96.89	0.3	10.165	B
C-D	79.27			79.27			
C-A	242.20			242.20			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	120.46	450.72	0.267	120.99	0.4	10.937	B
B-AD	340.71	423.83	0.804	399.95	5.9	125.899	F
A-BCD	32.36	595.17	0.054	32.43	0.1	6.399	A
A-B	195.08			195.08			
A-C	149.23			149.23			
D-A	35.96	385.04	0.093	36.08	0.1	10.321	B
D-BC	337.12	407.03	0.828	392.11	12.5	184.622	F
C-ABD	79.12	475.83	0.166	79.39	0.2	9.086	A
C-D	64.73			64.73			
C-A	197.77			197.77			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.88	518.79	0.194	101.39	0.2	8.636	A
B-AD	285.33	456.11	0.626	301.64	1.8	25.403	D
A-BCD	27.10	638.55	0.042	27.16	0.0	5.888	A
A-B	163.37			163.37			
A-C	124.97			124.97			
D-A	30.11	440.01	0.068	30.23	0.1	8.787	A
D-BC	282.32	445.30	0.634	324.95	1.9	38.699	E
C-ABD	66.25	513.59	0.129	66.46	0.1	8.054	A
C-D	54.21			54.21			
C-A	165.63			165.63			

2023 Base + Committed Dev + Proposed Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	145.16	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Committed Dev + Proposed Dev	AM	ONE HOUR	07:45	09:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	563.00	100.000
B		✓	545.00	100.000
C		✓	413.00	100.000
D		✓	229.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A	B	C	D
	A	0.000	265.000	219.000	79.000
	B	195.000	0.000	88.000	262.000
	C	171.000	117.000	0.000	125.000
	D	18.000	151.000	60.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
From		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.22	10.35	0.3	B
B-AD	1.29	533.49	64.9	F
A-BCD	0.17	8.41	0.2	A
A-B				
A-C				
D-A	0.05	9.50	0.1	A
D-BC	0.70	34.49	2.1	D
C-ABD	0.27	10.27	0.4	B
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66.25	513.36	0.129	65.66	0.1	8.031	A
B-AD	344.05	456.29	0.754	333.22	2.7	27.291	D
A-BCD	59.48	627.98	0.095	59.06	0.1	6.324	A
A-B	199.51			199.51			
A-C	164.87			164.87			
D-A	13.55	497.44	0.027	13.44	0.0	7.435	A
D-BC	158.85	430.90	0.369	156.57	0.6	13.020	B
C-ABD	88.09	535.84	0.164	87.31	0.2	8.013	A
C-D	94.10			94.10			
C-A	128.74			128.74			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79.11	464.76	0.170	78.89	0.2	9.322	A
B-AD	410.83	429.05	0.958	389.37	8.1	67.739	F
A-BCD	71.02	594.65	0.119	70.90	0.1	6.871	A
A-B	238.23			238.23			
A-C	196.88			196.88			
D-A	16.18	465.52	0.035	16.15	0.0	8.011	A
D-BC	189.68	397.65	0.477	188.44	0.9	17.102	C
C-ABD	105.20	512.24	0.205	104.96	0.3	8.833	A
C-D	112.36			112.36			
C-A	153.71			153.71			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	96.89	445.24	0.218	96.60	0.3	10.317	B
B-AD	503.17	391.92	1.284	388.40	36.8	229.211	F
A-BCD	86.98	546.77	0.159	86.77	0.2	7.823	A
A-B	291.77			291.77			
A-C	241.12			241.12			
D-A	19.82	418.35	0.047	19.76	0.0	9.031	A
D-BC	232.32	350.85	0.662	228.65	1.8	28.619	D
C-ABD	128.94	480.31	0.268	128.52	0.4	10.221	B
C-D	137.58			137.58			
C-A	188.20			188.20			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	96.89	444.85	0.218	96.88	0.3	10.345	B
B-AD	503.17	391.30	1.286	390.68	64.9	470.742	F
A-BCD	86.98	515.12	0.169	86.93	0.2	8.406	A
A-B	291.77			291.77			
A-C	241.12			241.12			
D-A	19.82	398.83	0.050	19.81	0.1	9.497	A
D-BC	232.32	333.52	0.697	231.07	2.1	34.489	D
C-ABD	128.94	479.48	0.269	128.93	0.4	10.269	B
C-D	137.58			137.58			
C-A	188.20			188.20			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	79.11	461.46	0.171	79.38	0.2	9.428	A
B-AD	410.83	428.03	0.960	421.53	62.2	533.488	F
A-BCD	71.02	526.05	0.135	71.19	0.2	7.917	A
A-B	238.23			238.23			
A-C	196.88			196.88			
D-A	16.18	425.29	0.038	16.23	0.0	8.801	A
D-BC	189.68	360.13	0.527	193.47	1.2	22.056	C
C-ABD	105.20	510.84	0.206	105.61	0.3	8.894	A
C-D	112.36			112.36			
C-A	153.71			153.71			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66.25	473.96	0.140	66.43	0.2	8.837	A
B-AD	344.05	455.34	0.756	448.14	36.2	398.705	F
A-BCD	59.48	559.35	0.106	59.63	0.1	7.205	A
A-B	199.51			199.51			
A-C	164.87			164.87			
D-A	13.55	458.44	0.030	13.59	0.0	8.094	A
D-BC	158.85	393.28	0.404	160.72	0.7	15.601	C
C-ABD	88.09	534.78	0.165	88.34	0.2	8.069	A
C-D	94.10			94.10			
C-A	128.74			128.74			

2023 Base + Committed Dev + Proposed Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Bartons Rd/Comley Hill/ Emsworth Common Road	Right-Left Stagger	Two-way	97.41	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Committed Dev + Proposed Dev	PM	ONE HOUR	15:45	17:15	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	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	421.00	100.000
B		✓	523.00	100.000
C		✓	381.00	100.000
D		✓	418.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A	B	C	D
	A	0.000	219.000	166.000	36.000
	B	234.000	0.000	137.000	152.000
	C	220.000	89.000	0.000	72.000
	D	40.000	293.000	85.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
From		A	B	C	D
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.35	12.57	0.5	B
B-AD	1.08	197.38	24.0	F
A-BCD	0.07	6.88	0.1	A
A-B				
A-C				
D-A	0.12	11.08	0.1	B
D-BC	1.12	238.83	28.7	F
C-ABD	0.22	10.26	0.3	B
C-D				
C-A				

Main Results for each time segment

Main results: (15:45-16:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	103.14	531.53	0.194	102.19	0.2	8.367	A
B-AD	290.60	461.90	0.629	284.20	1.6	19.625	C
A-BCD	27.10	643.55	0.042	26.93	0.0	5.836	A
A-B	164.87			164.87			
A-C	124.97			124.97			
D-A	30.11	457.65	0.066	29.84	0.1	8.410	A
D-BC	284.58	448.26	0.635	278.04	1.6	20.449	C
C-ABD	67.00	524.15	0.128	66.42	0.1	7.856	A
C-D	54.21			54.21			
C-A	165.63			165.63			

Main results: (16:00-16:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	123.16	488.88	0.252	122.78	0.3	9.823	A
B-AD	347.01	435.32	0.797	340.10	3.3	35.382	E
A-BCD	32.36	614.46	0.053	32.32	0.1	6.183	A
A-B	196.88			196.88			
A-C	149.23			149.23			
D-A	35.96	416.64	0.086	35.86	0.1	9.452	A
D-BC	339.81	418.96	0.811	332.18	3.5	38.377	E
C-ABD	80.01	497.27	0.161	79.84	0.2	8.620	A
C-D	64.73			64.73			
C-A	197.77			197.77			

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	150.84	442.15	0.341	150.14	0.5	12.299	B
B-AD	424.99	398.94	1.065	380.56	14.4	106.713	F
A-BCD	39.64	574.78	0.069	39.56	0.1	6.726	A
A-B	241.12			241.12			
A-C	182.77			182.77			
D-A	44.04	374.64	0.118	43.89	0.1	10.880	B
D-BC	416.19	378.86	1.099	364.43	16.5	122.736	F
C-ABD	98.02	460.51	0.213	97.71	0.3	9.915	A
C-D	79.27			79.27			
C-A	242.20			242.20			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	150.84	437.02	0.345	150.79	0.5	12.574	B
B-AD	424.99	392.54	1.083	386.59	24.0	197.379	F
A-BCD	39.64	562.53	0.070	39.63	0.1	6.883	A
A-B	241.12			241.12			
A-C	182.77			182.77			
D-A	44.04	368.97	0.119	44.03	0.1	11.078	B
D-BC	416.19	371.05	1.122	367.24	28.7	238.829	F
C-ABD	98.03	448.74	0.218	97.99	0.3	10.262	B
C-D	79.26			79.26			
C-A	242.20			242.20			

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

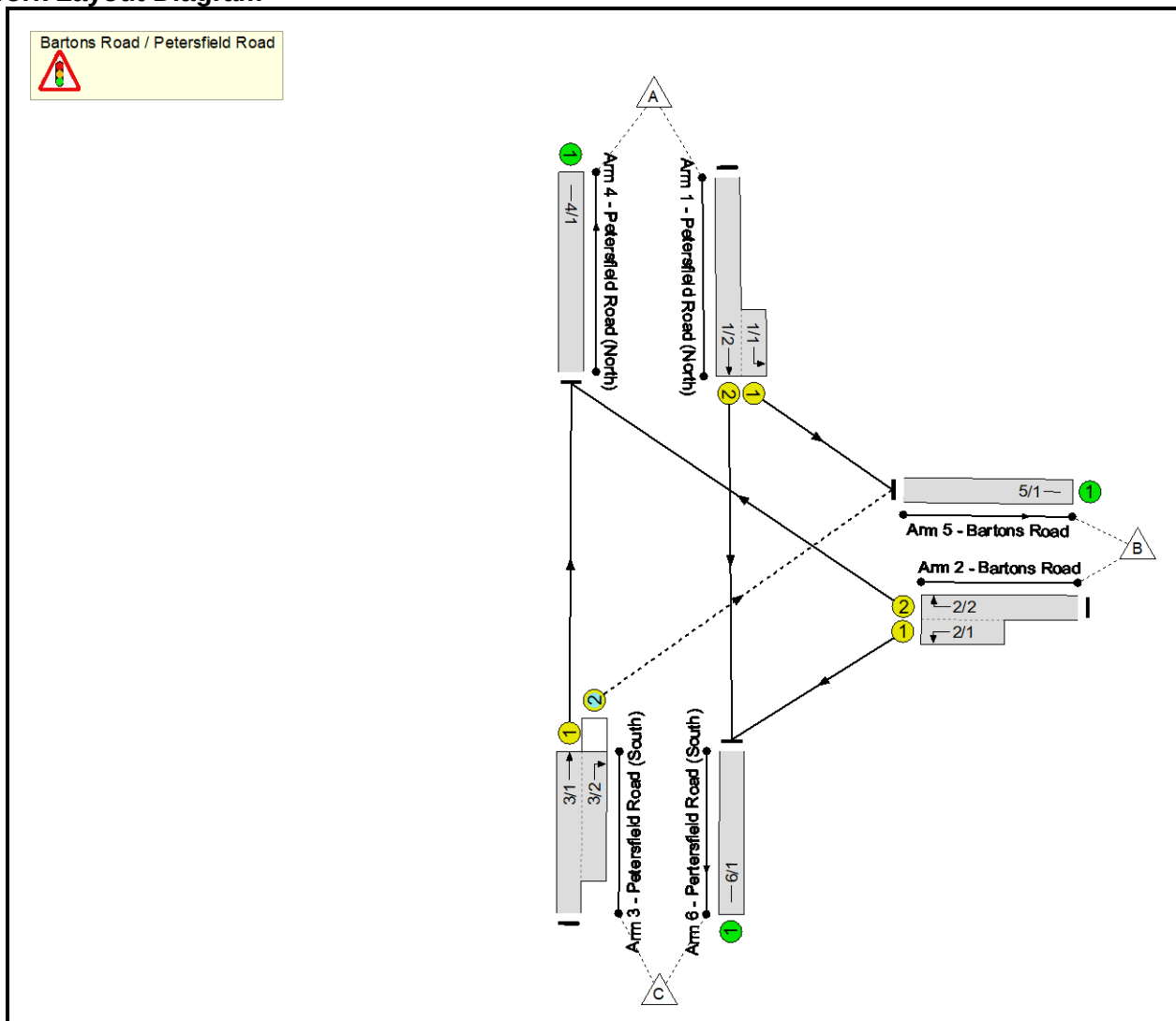
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	123.16	449.27	0.274	123.70	0.4	11.078	B
B-AD	347.01	421.96	0.822	405.10	9.5	157.563	F
A-BCD	32.36	589.71	0.055	32.43	0.1	6.459	A
A-B	196.88			196.88			
A-C	149.23			149.23			
D-A	35.96	382.43	0.094	36.08	0.1	10.399	B
D-BC	339.81	403.18	0.843	389.62	16.3	212.123	F
C-ABD	80.02	472.59	0.169	80.30	0.2	9.184	A
C-D	64.73			64.73			
C-A	197.77			197.77			

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

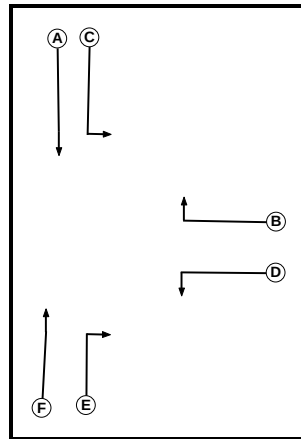
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	103.14	509.47	0.202	103.65	0.3	8.881	A
B-AD	290.60	453.71	0.641	320.99	1.9	32.272	D
A-BCD	27.10	633.06	0.043	27.16	0.0	5.941	A
A-B	164.87			164.87			
A-C	124.97			124.97			
D-A	30.11	431.09	0.070	30.23	0.1	8.984	A
D-BC	284.58	441.51	0.645	341.67	2.0	51.744	F
C-ABD	67.01	509.33	0.132	67.22	0.2	8.146	A
C-D	54.21			54.21			
C-A	165.63			165.63			

Full Input Data And Results**User and Project Details**

Project:	Bartons Road/ B2149 Petesfield Road
Title:	Colt Industrial
Location:	
Additional detail:	
File name:	Bartons Rd - Peterstfield Rd.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

Phase Intergreens Matrix

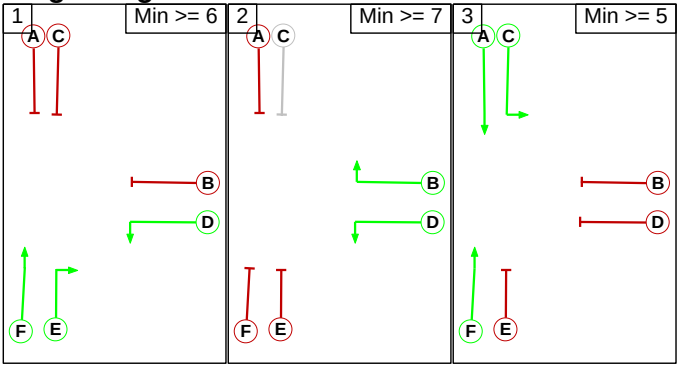
	Starting Phase						
Terminating Phase		A	B	C	D	E	F
	A		7	-	7	6	-
	B	6		-	-	7	8
	C	-	-		-	7	-
	D	6	-	-		-	-
	E	6	6	7	-		-
	F	-	6	-	-	-	

Phases in Stage

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

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		
From Stage		1	2	3
	1		6	7
	2	8		8
	3	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Bartons Road / Petersfield 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)
3/2 (Petersfield Road (South))	5/1 (Right)	1439	0	5/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	U	C	2	3	4.0	Geom	-	3.16	0.00	Y	Arm 5 Left	18.00
1/2 (Petersfield Road (North))	U	A	2	3	60.0	Geom	-	2.94	0.00	N	Arm 6 Ahead	Inf
2/1 (Bartons Road)	U	D	2	3	5.0	Geom	-	2.83	0.00	Y	Arm 6 Left	13.50
2/2 (Bartons Road)	U	B	2	3	60.0	Geom	-	2.92	0.00	N	Arm 4 Right	35.00
3/1 (Petersfield Road (South))	U	F	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 4 Ahead	Inf
3/2 (Petersfield Road (South))	O	E	2	3	24.3	Geom	-	3.63	0.00	Y	Arm 5 Right	21.00
4/1 (Petersfield Road (North))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Bartons Road)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Pertersfield Road (South))	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
7: 'AM Base 2017'	08:00	09:00	01:00	
8: 'PM Base 2017'	16:00	17:00	01:00	
9: 'AM 2023 Base Traffic + Committed Dev'	08:00	09:00	01:00	
10: 'PM 2023 Base Traffic + Committed Dev'	16:00	17:00	01:00	
11: 'AM 2023 Base Traffic + Committed Dev + Proposed Dev'	08:00	09:00	01:00	
12: 'PM 2023 Base Traffic + Committed Dev + Proposed Dev'	16:00	17:00	01:00	

Full Input Data And Results

Scenario 7: 'AM Base 2017' (FG7: 'AM Base 2017', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	123	416	539
	B	116	0	324	440
	C	280	368	0	648
	Tot.	396	491	740	1627

Traffic Lane Flows

Lane	Scenario 7: AM Base 2017
Junction: Bartons Road / Petersfield Road	
1/1 (short)	123
1/2 (with short)	539(In) 416(Out)
2/1 (short)	324
2/2 (with short)	440(In) 116(Out)
3/1 (with short)	648(In) 280(Out)
3/2 (short)	368
4/1	396
5/1	491
6/1	740

Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'PM Base 2017' (FG8: 'PM Base 2017', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination				
	A	B	C	Tot.	
Origin	A	0	86	318	404
	B	146	0	450	596
	C	445	352	0	797
	Tot.	591	438	768	1797

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: PM Base 2017
Junction: Bartons Road / Petersfield Road	
1/1 (short)	86
1/2 (with short)	404(In) 318(Out)
2/1 (short)	450
2/2 (with short)	596(In) 146(Out)
3/1 (with short)	797(In) 445(Out)
3/2 (short)	352
4/1	591
5/1	438
6/1	768

Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: 'AM 2023 Base + Committed Dev ' (FG9: 'AM 2023 Base Traffic + Committed Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	131	449	580
	B	138	0	383	521
	C	302	391	0	693
	Tot.	440	522	832	1794

Traffic Lane Flows

Lane	Scenario 9: AM 2023 Base + Committed Dev
Junction: Bartons Road / Petersfield Road	
1/1 (short)	131
1/2 (with short)	580(In) 449(Out)
2/1 (short)	383
2/2 (with short)	521(In) 138(Out)
3/1 (with short)	693(In) 302(Out)
3/2 (short)	391
4/1	440
5/1	522
6/1	832

Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: 'PM 2023 Base + Committed Dev' (FG10: 'PM 2023 Base Traffic + Committed Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	104	341	445
	B	157	0	484	641
	C	477	410	0	887
	Tot.	634	514	825	1973

Traffic Lane Flows

Lane	Scenario 10: PM 2023 Base + Committed Dev
Junction: Bartons Road / Petersfield Road	
1/1 (short)	104
1/2 (with short)	445(In) 341(Out)
2/1 (short)	484
2/2 (with short)	641(In) 157(Out)
3/1 (with short)	887(In) 477(Out)
3/2 (short)	410
4/1	634
5/1	514
6/1	825

Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Pertersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: 'AM 2023 Base + Committed Dev + Proposed Dev' (FG11: 'AM 2023 Base Traffic + Committed Dev + Proposed Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	140	449	589
	B	141	0	411	552
	C	302	425	0	727
	Tot.	443	565	860	1868

Traffic Lane Flows

Lane	Scenario 11: AM 2023 Base + Committed Dev + Proposed Dev
Junction: Bartons Road / Petersfield Road	
1/1 (short)	140
1/2 (with short)	589(In) 449(Out)
2/1 (short)	411
2/2 (with short)	552(In) 141(Out)
3/1 (with short)	727(In) 302(Out)
3/2 (short)	425
4/1	443
5/1	565
6/1	860

Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Pertersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: 'PM 2023 Base + Committed Dev + Proposed Dev' (FG12: 'PM 2023 Base Traffic + Committed Dev + Proposed Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	107	341	448
	B	164	0	514	678
	C	477	433	0	910
	Tot.	641	540	855	2036

Traffic Lane Flows

Lane	Scenario 12: PM 2023 Base + Committed Dev + Proposed Dev
Junction: Bartons Road / Petersfield Road	
1/1 (short)	107
1/2 (with short)	448(In) 341(Out)
2/1 (short)	514
2/2 (with short)	678(In) 164(Out)
3/1 (with short)	910(In) 477(Out)
3/2 (short)	433
4/1	641
5/1	540
6/1	855

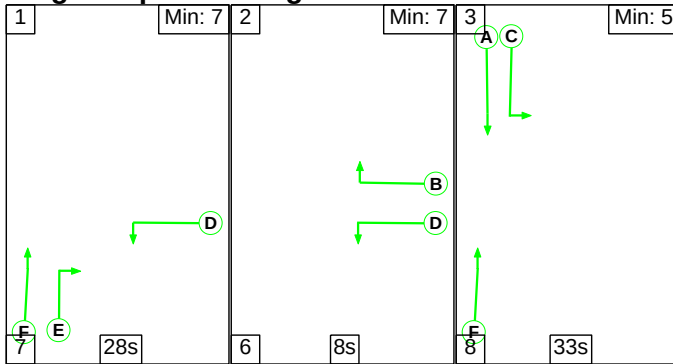
Lane Saturation Flows

Junction: Bartons Road / Petersfield 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 (Petersfield Road (North))	3.16	0.00	Y	Arm 5 Left	18.00	100.0 %	1782	1782
1/2 (Petersfield Road (North))	2.94	0.00	N	Arm 6 Ahead	Inf	100.0 %	2049	2049
2/1 (Bartons Road)	2.83	0.00	Y	Arm 6 Left	13.50	100.0 %	1708	1708
2/2 (Bartons Road)	2.92	0.00	N	Arm 4 Right	35.00	100.0 %	1963	1963
3/1 (Petersfield Road (South))	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935
3/2 (Petersfield Road (South))	3.63	0.00	Y	Arm 5 Right	21.00	100.0 %	1846	1846
4/1 (Petersfield Road (North) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Pertersfield Road (South) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: 'AM Base 2017' (FG7: 'AM Base 2017', Plan 1: 'Network Control Plan 1')

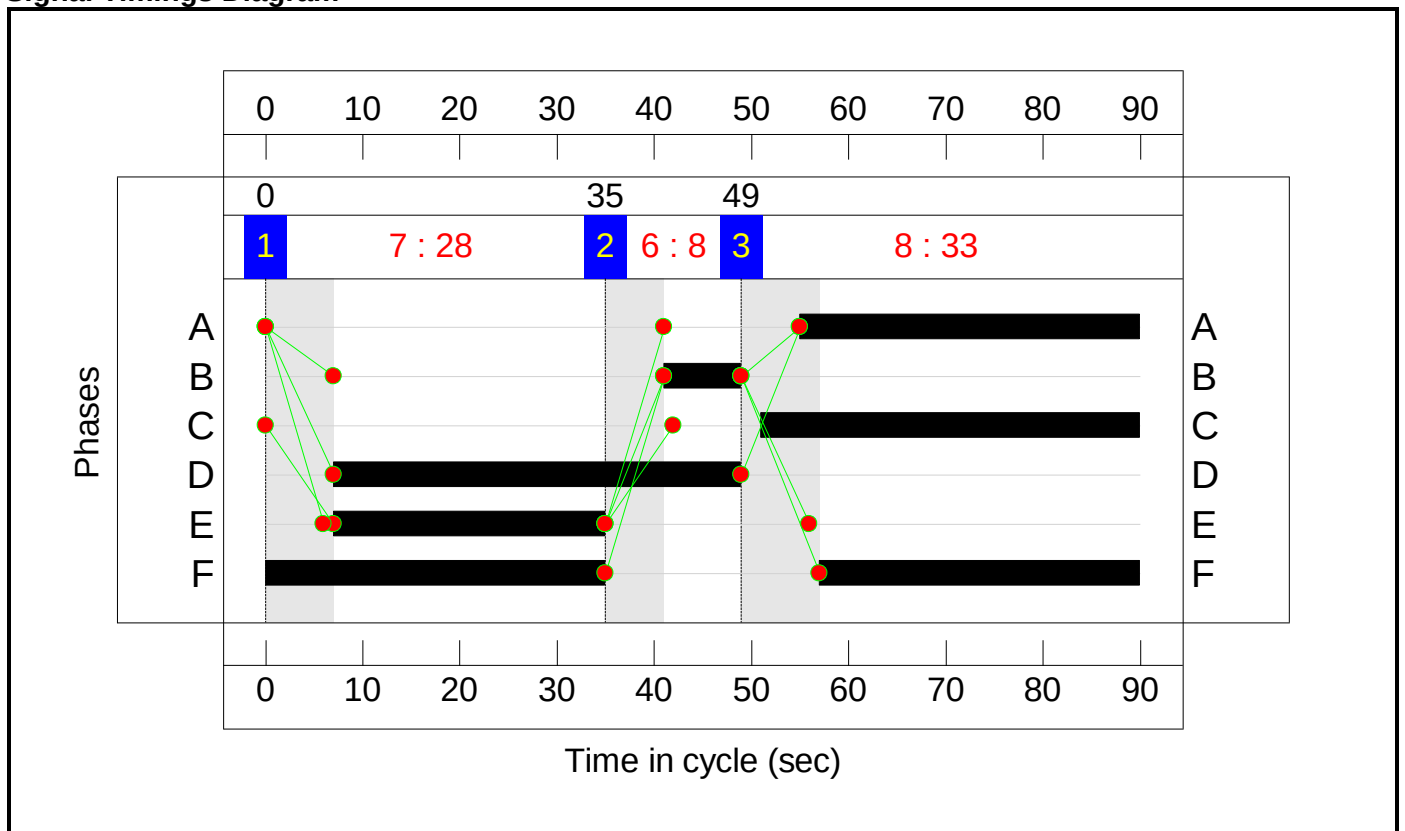
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	28	8	33
Change Point	0	35	49

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Colt Industrial	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
Bartons Road / Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
1/2+1/1	Petersfield Road (North) Left Ahead	U	N/A	N/A	A C		1	35:39	-	539	2049:1782	846	63.7%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	8:42	-	440	1963:1708	745	59.1%
3/1+3/2	Petersfield Road (South) Ahead Right	U+O	N/A	N/A	F E		1	68:28	-	648	1935:1846	1047	61.9%
4/1	Petersfield Road (North)	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	491	Inf	Inf	0.0%
6/1	Pertersfield Road (South)	U	N/A	N/A	-		-	-	-	740	Inf	Inf	0.0%

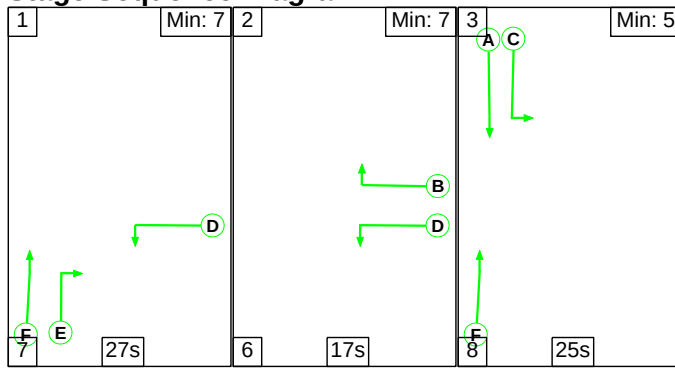
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Colt Industrial	-	-	0	360	8	8.5	2.4	0.0	10.9	-	-	-	-
Bartons Road / Petersfield Road	-	-	0	360	8	8.5	2.4	0.0	10.9	-	-	-	-
1/2+1/1	539	539	-	-	-	3.0	0.9	-	3.9	26.1	9.3	0.9	10.2
2/2+2/1	440	440	-	-	-	2.6	0.7	-	3.3	27.3	5.4	0.7	6.1
3/1+3/2	648	648	0	360	8	2.9	0.8	0.0	3.7	20.4	7.8	0.8	8.6
4/1	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	740	740	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 41.2 Total Delay for Signalled Lanes (pcuHr): 10.91 Cycle Time (s): 90 PRC Over All Lanes (%): 41.2 Total Delay Over All Lanes(pcuHr): 10.91													

Full Input Data And Results

Scenario 8: 'PM Base 2017' (FG8: 'PM Base 2017', Plan 1: 'Network Control Plan 1')

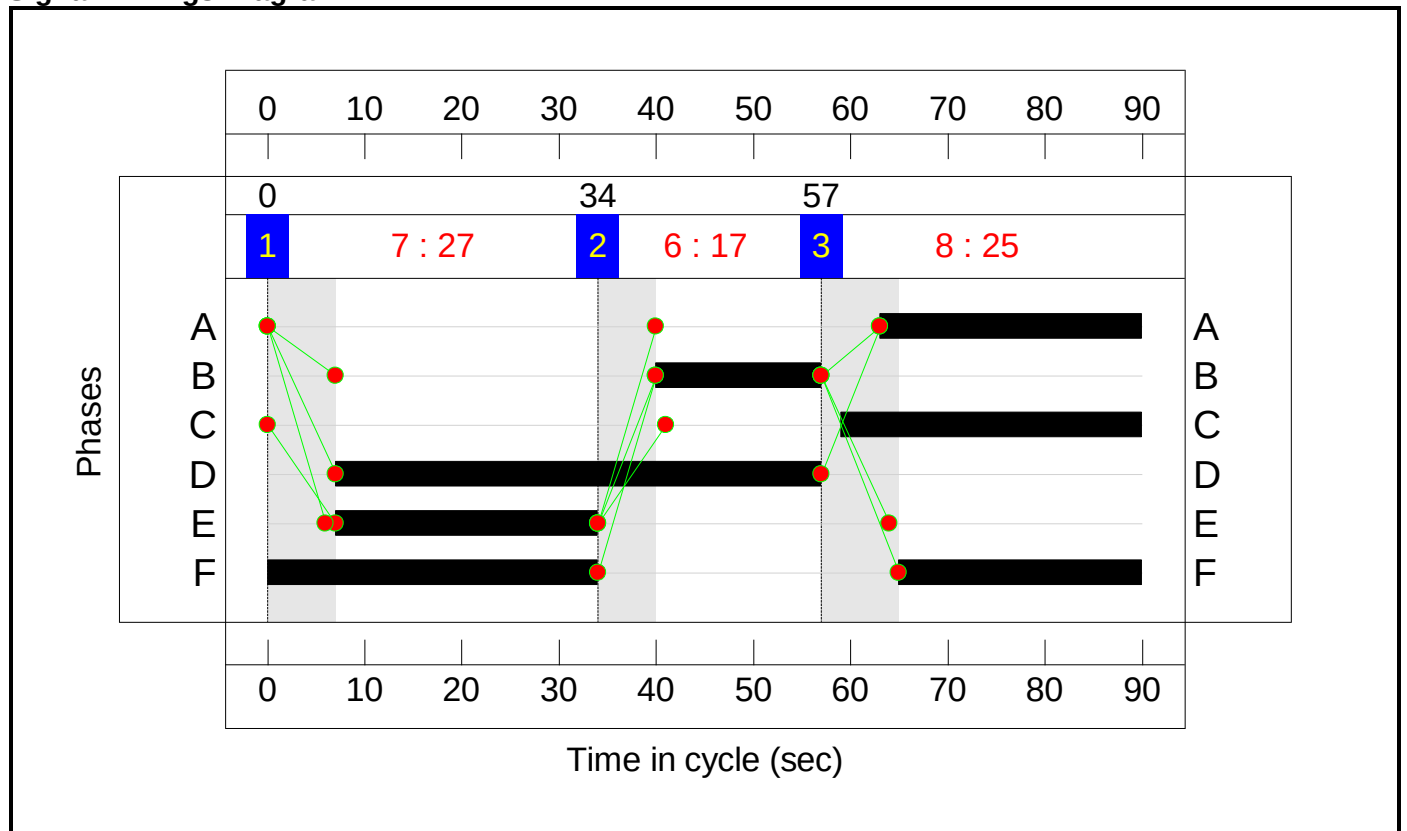
Stage Sequence Diagram



Stage Timings

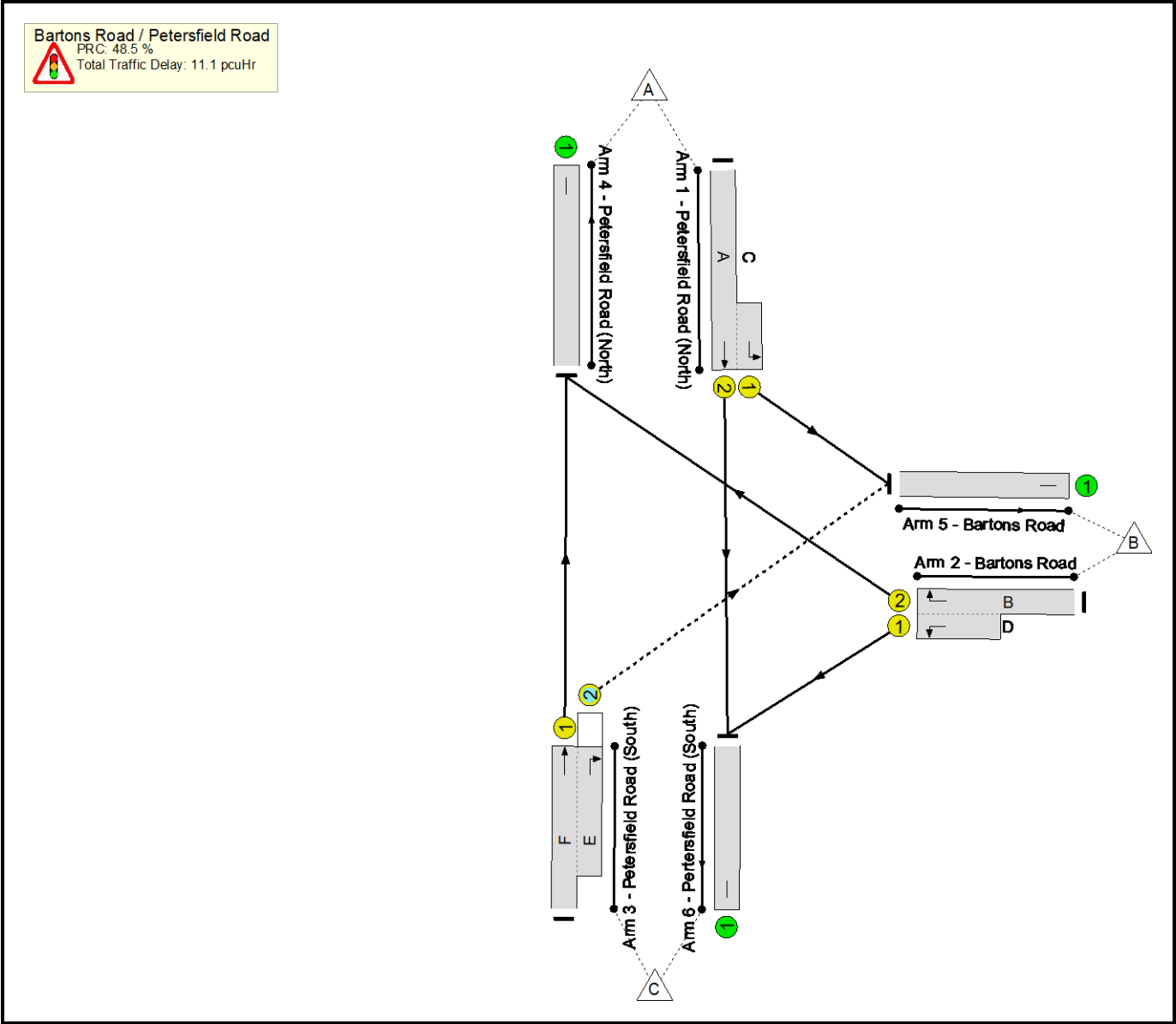
Stage	1	2	3
Duration	27	17	25
Change Point	0	34	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

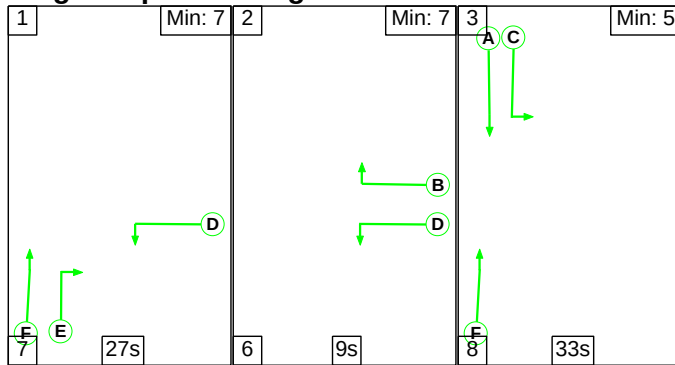


Network Results

Full Input Data And Results

Scenario 9: 'AM 2023 Base + Committed Dev ' (FG9: 'AM 2023 Base Traffic + Committed Dev', Plan 1: 'Network Control Plan 1')

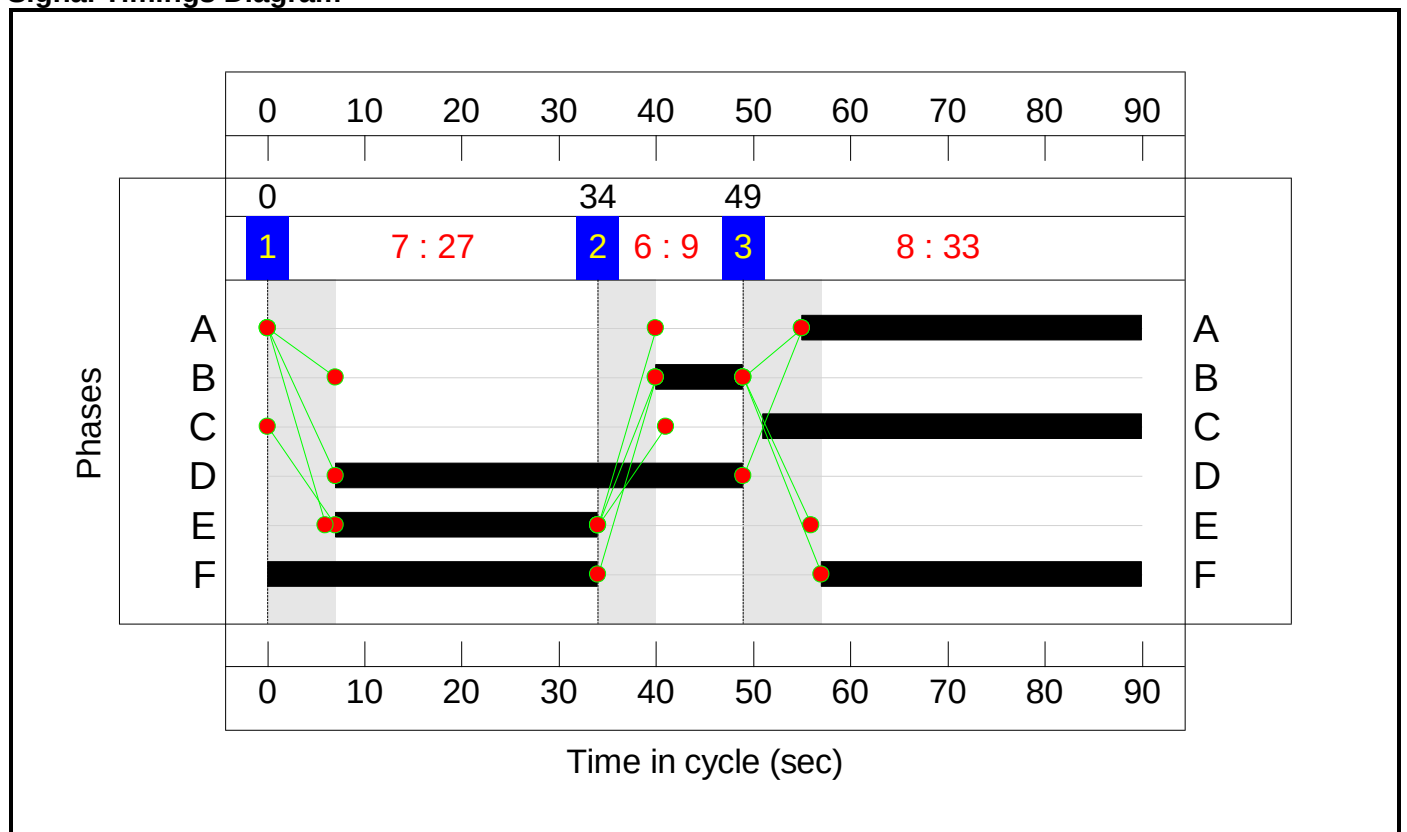
Stage Sequence Diagram



Stage Timings

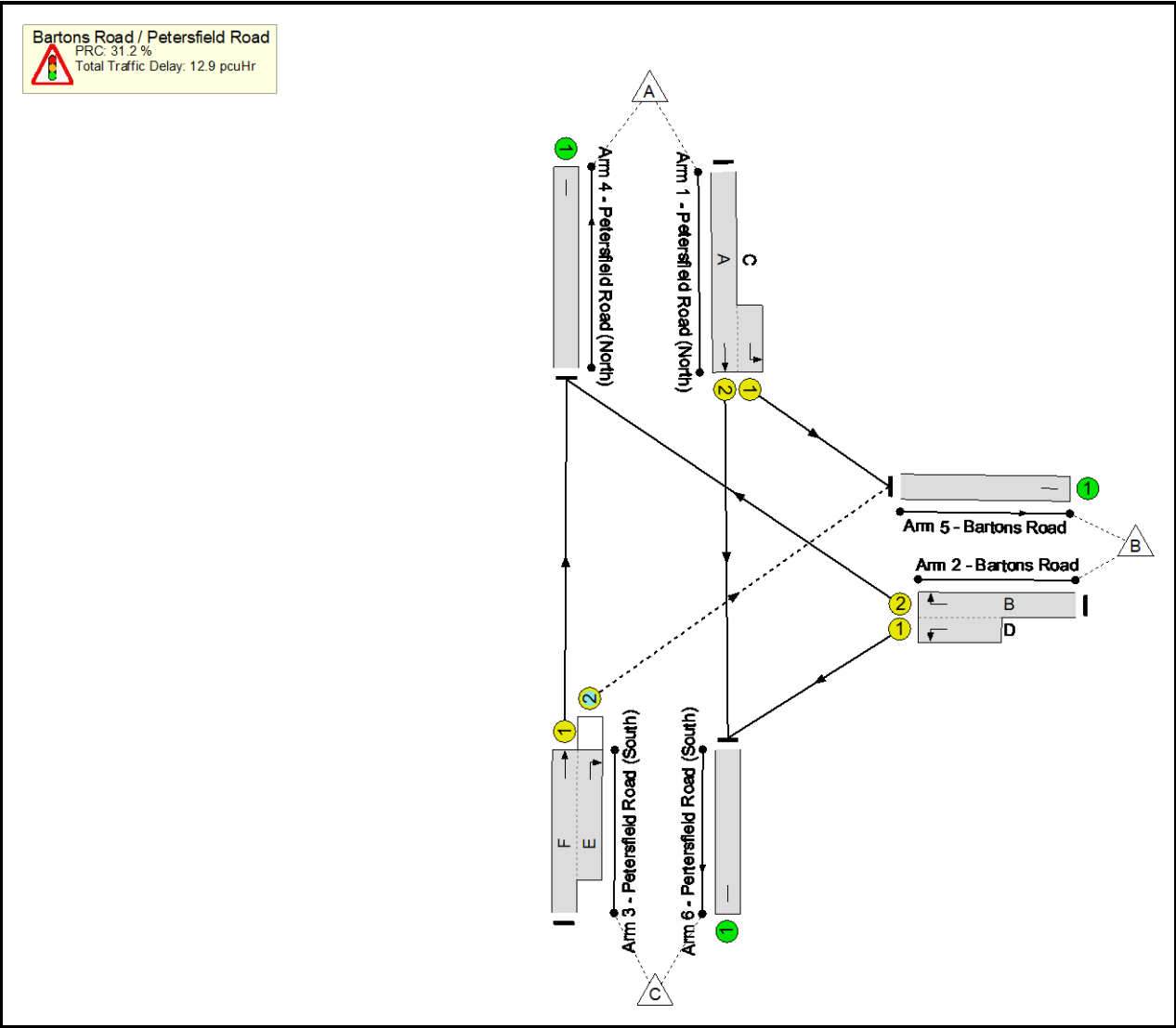
Stage	1	2	3
Duration	27	9	33
Change Point	0	34	49

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

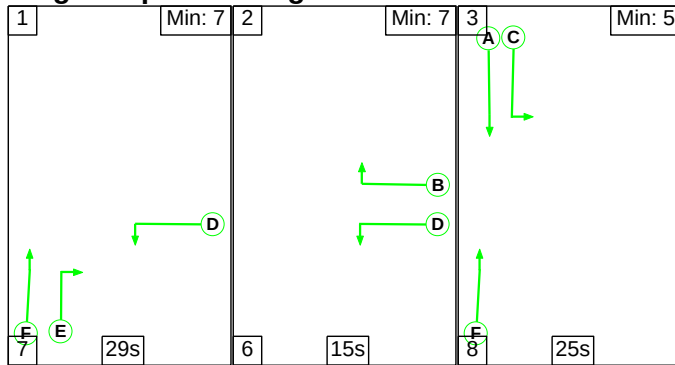


Network Results

Full Input Data And Results

Scenario 10: 'PM 2023 Base + Committed Dev' (FG10: 'PM 2023 Base Traffic + Committed Dev', Plan 1: 'Network Control Plan 1')

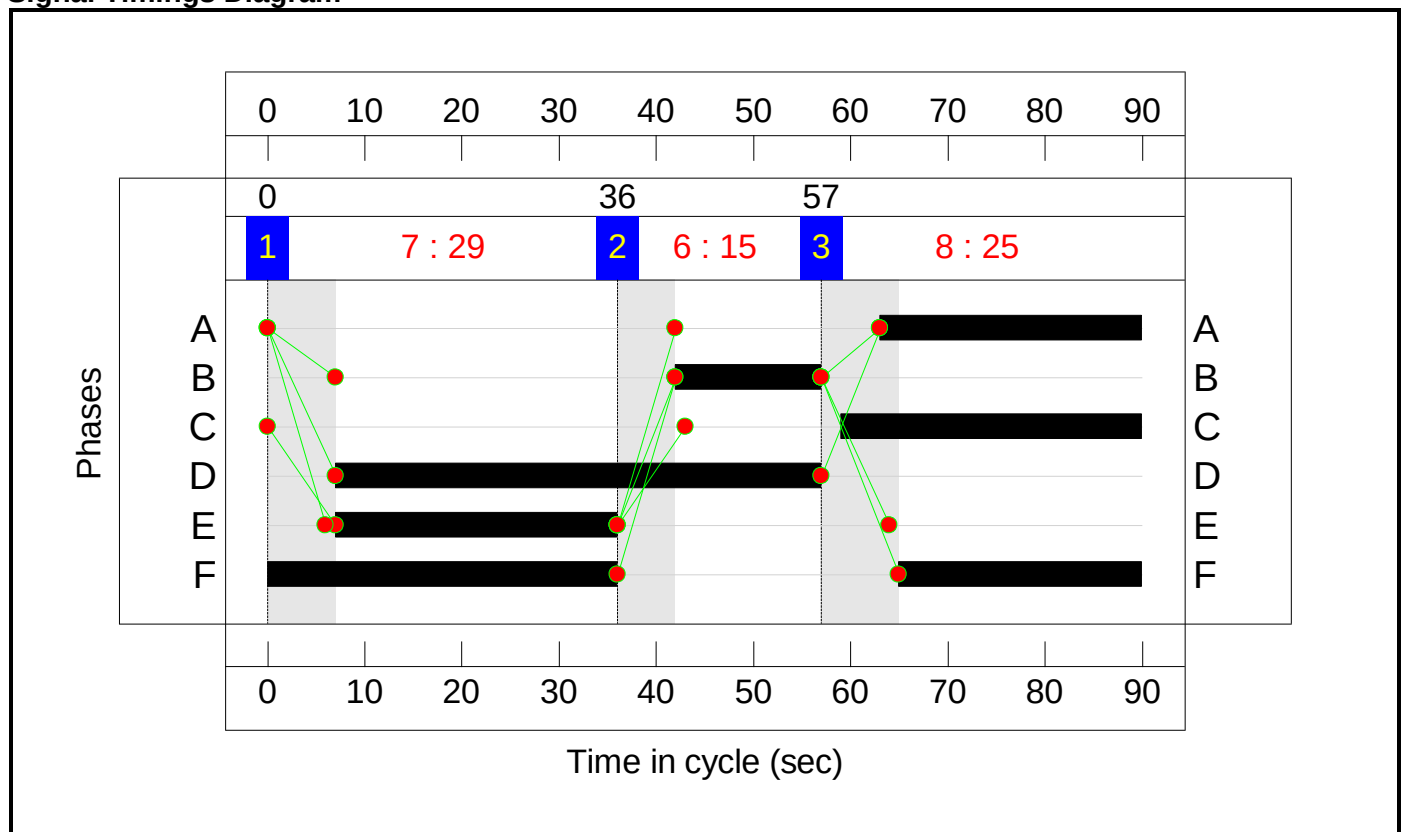
Stage Sequence Diagram



Stage Timings

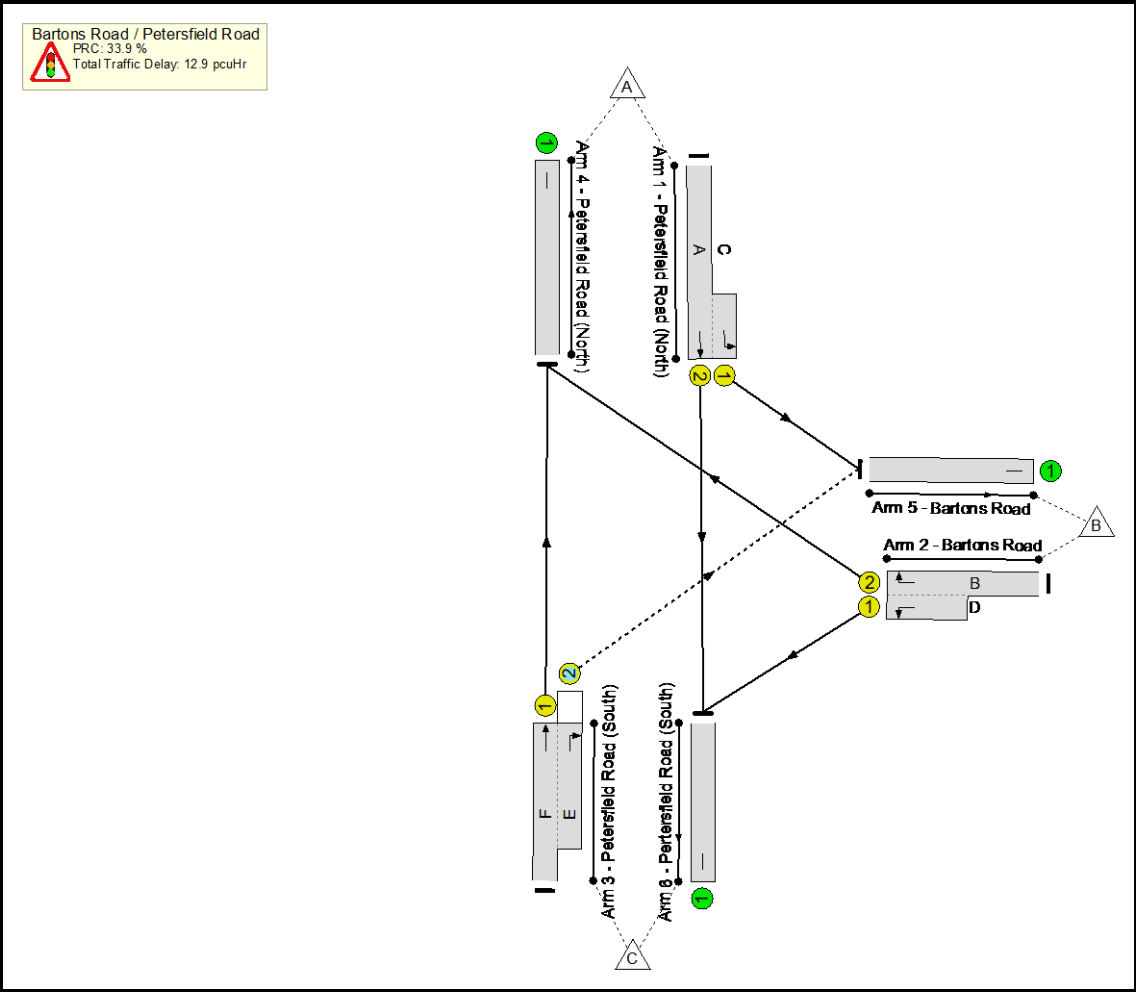
Stage	1	2	3
Duration	29	15	25
Change Point	0	36	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

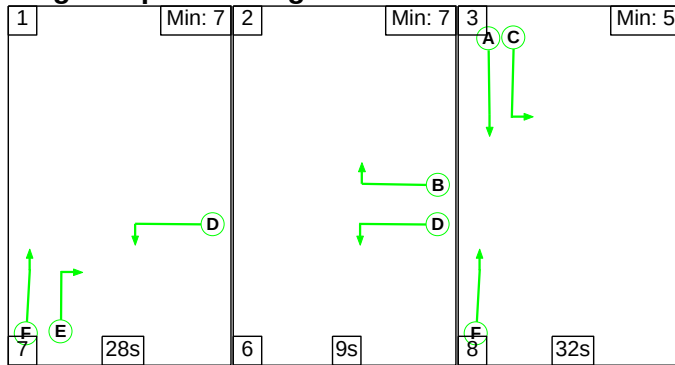


Network Results

Full Input Data And Results

Scenario 11: 'AM 2023 Base + Committed Dev + Proposed Dev' (FG11: 'AM 2023 Base Traffic + Committed Dev + Proposed Dev', Plan 1: 'Network Control Plan 1')

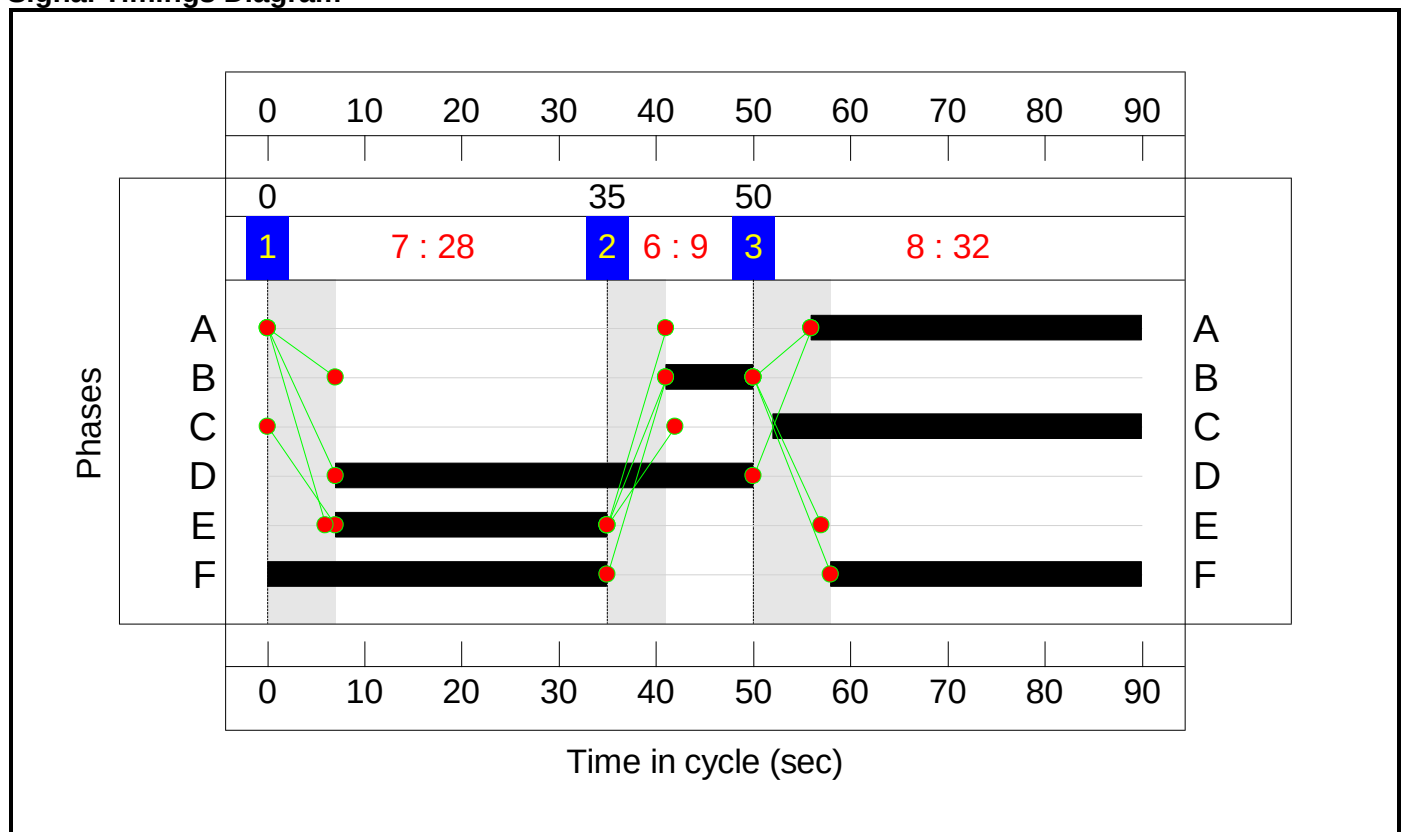
Stage Sequence Diagram



Stage Timings

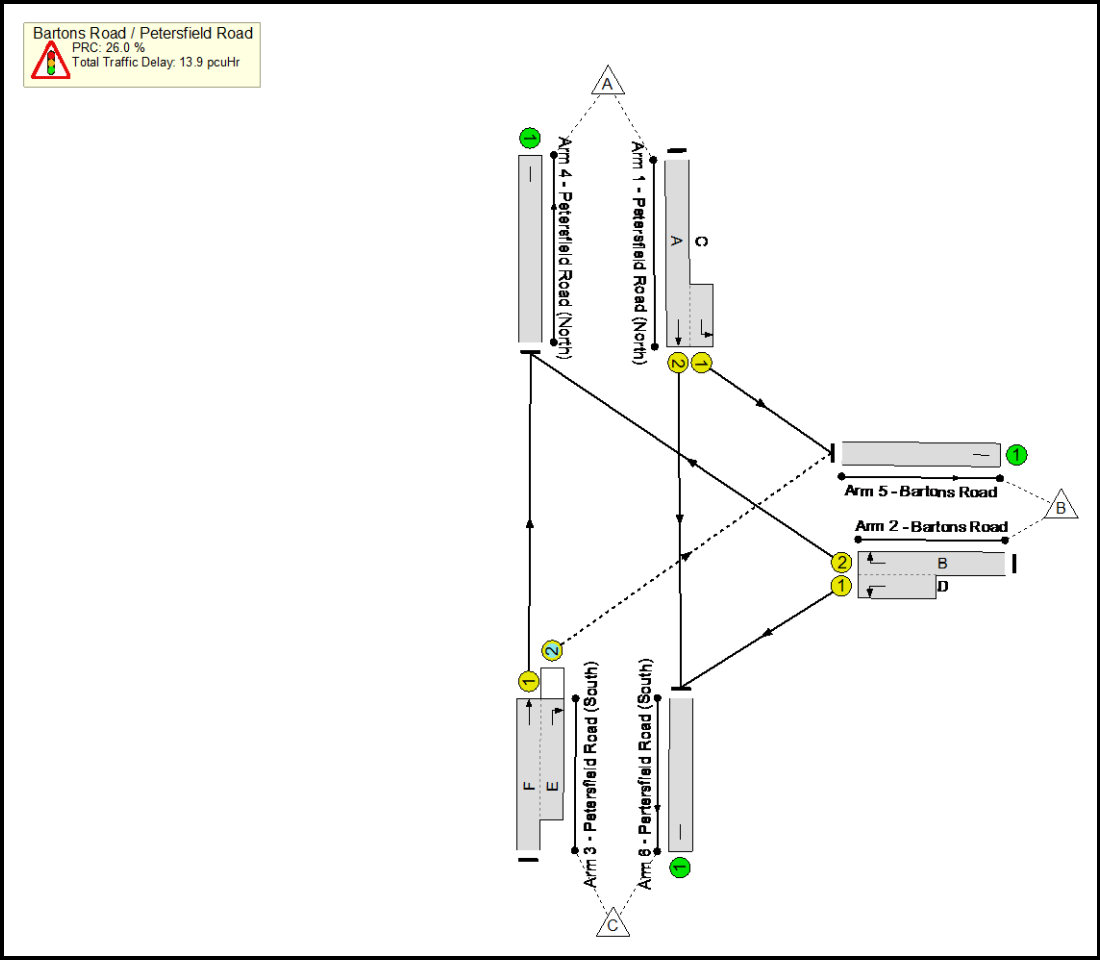
Stage	1	2	3
Duration	28	9	32
Change Point	0	35	50

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

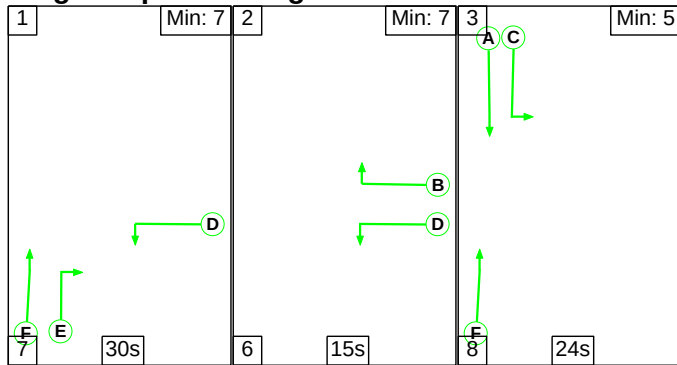


Network Results

Full Input Data And Results

Scenario 12: 'PM 2023 Base + Committed Dev + Proposed Dev' (FG12: 'PM 2023 Base Traffic + Committed Dev + Proposed Dev', Plan 1: 'Network Control Plan 1')

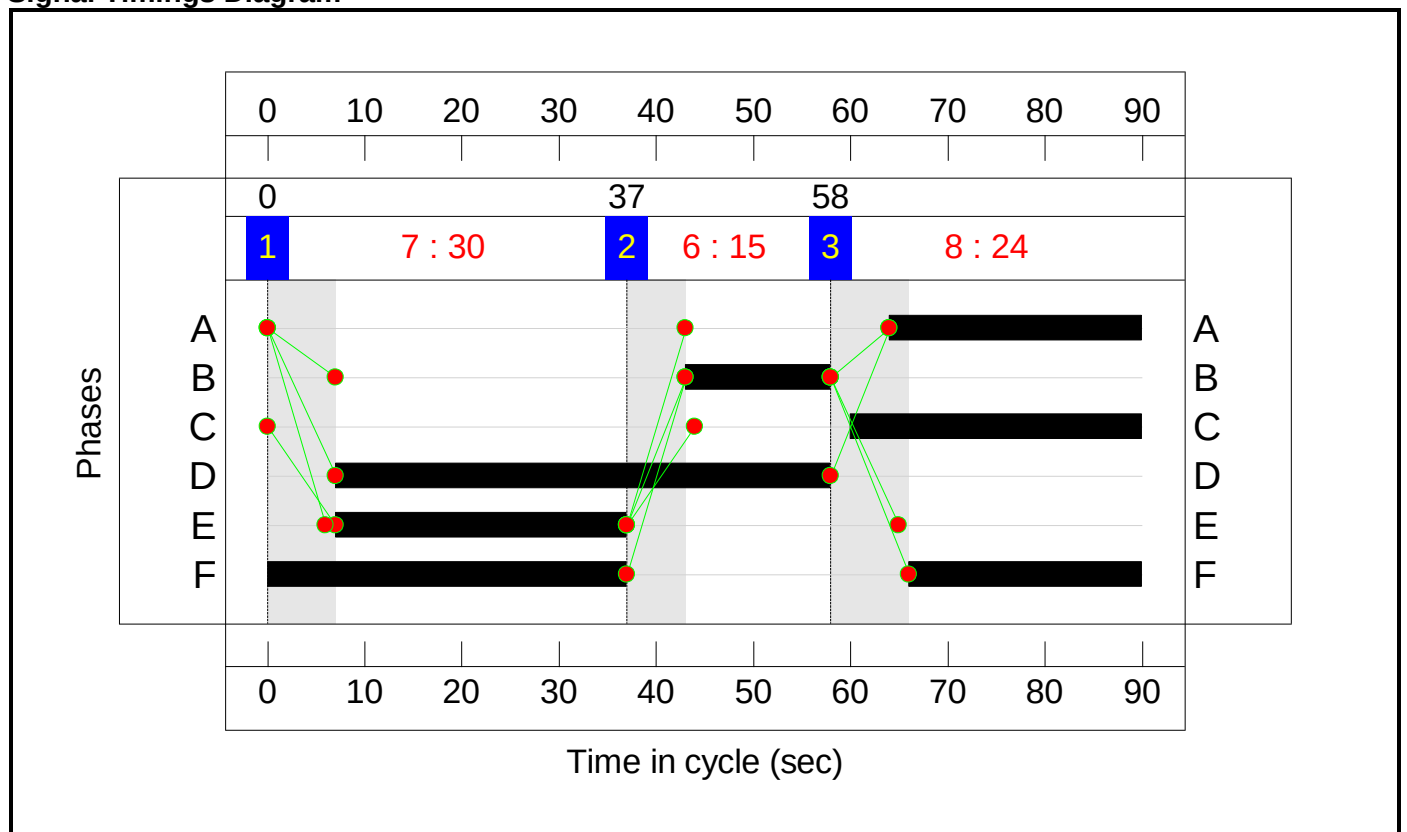
Stage Sequence Diagram



Stage Timings

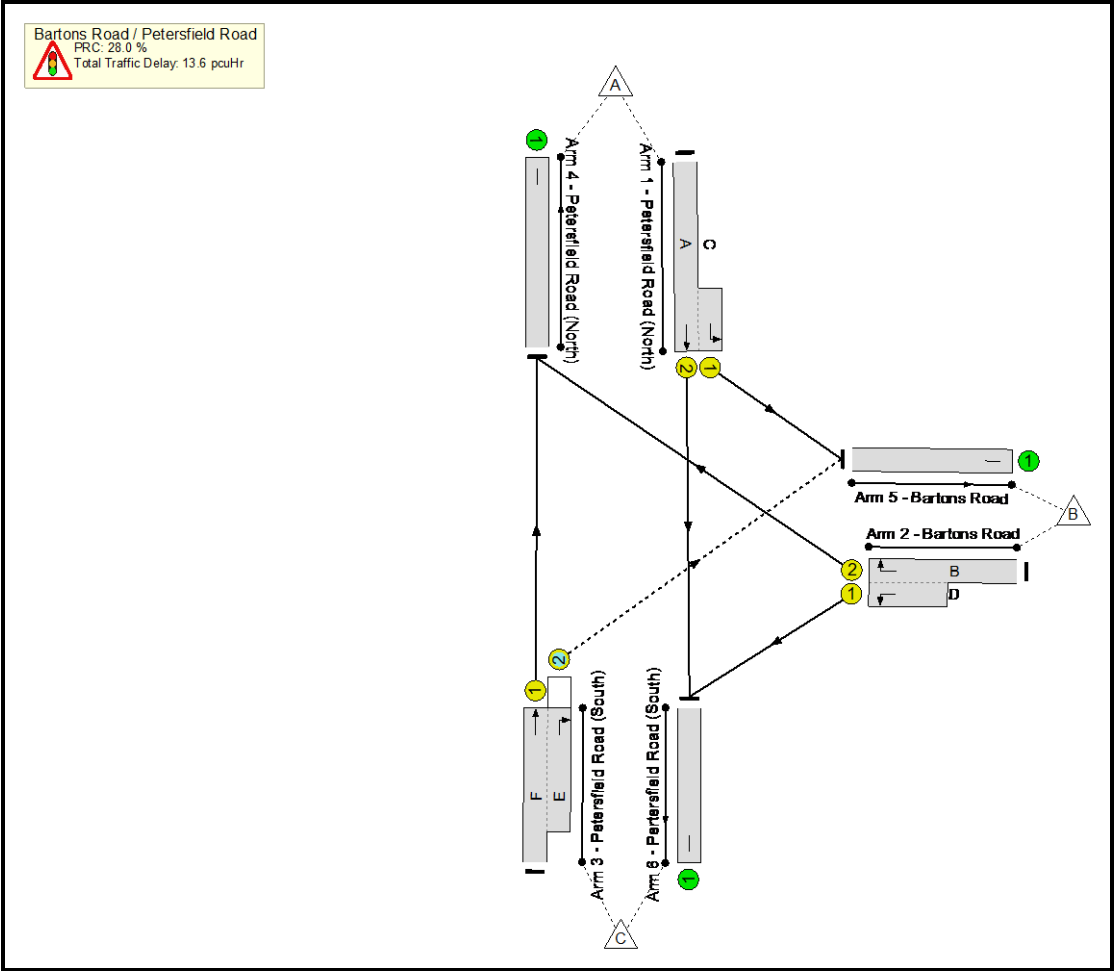
Stage	1	2	3
Duration	30	15	24
Change Point	0	37	58

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Network Results



APPENDIX F

SITE ACCESS – VISIBILITY SPLAYS AND SWEPT PATH ANALYSIS



Notes:

General

1. Do not scale from drawing.
2. All dimensions are in metres, unless stated otherwise.
3. This drawing is to be read & printed in colour.
4. This drawing is for illustrative purposes only.

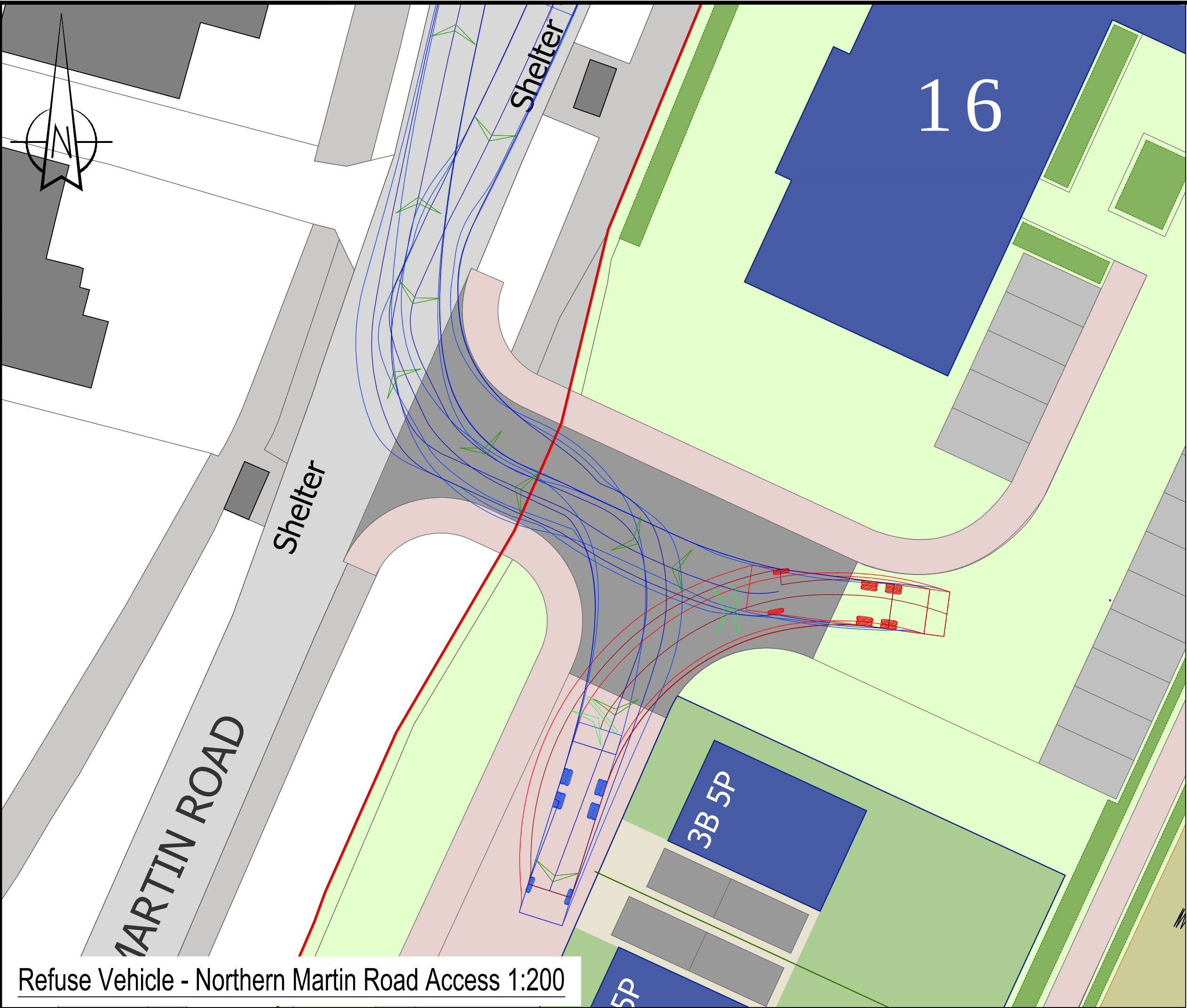
Disclaimer

1. The information contained in this drawing is based on a combination of OS and data provided by others and WYG shall not be liable for any inaccuracies or deficiencies.

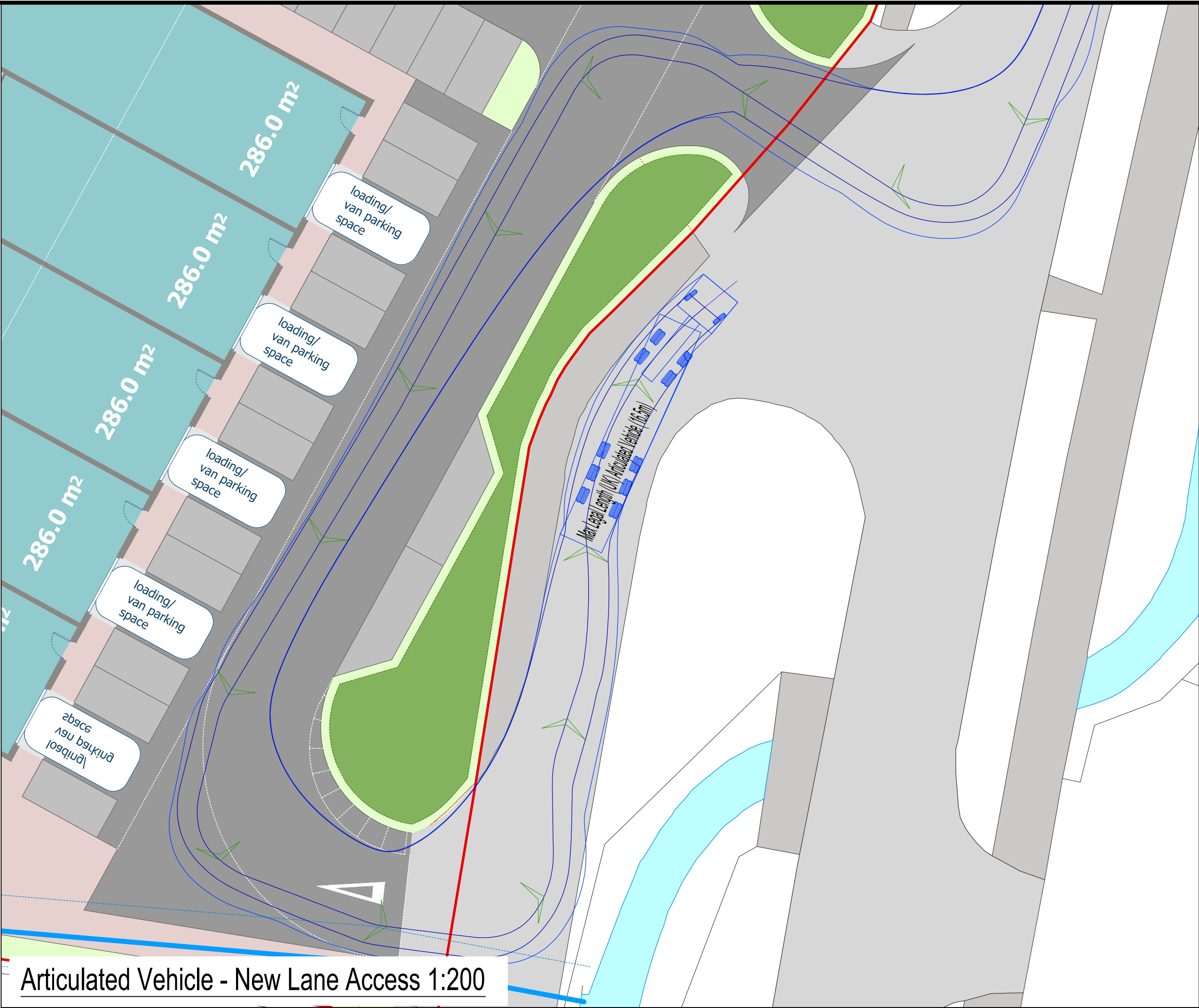
KEY:

2.4m x 43m visibility splay

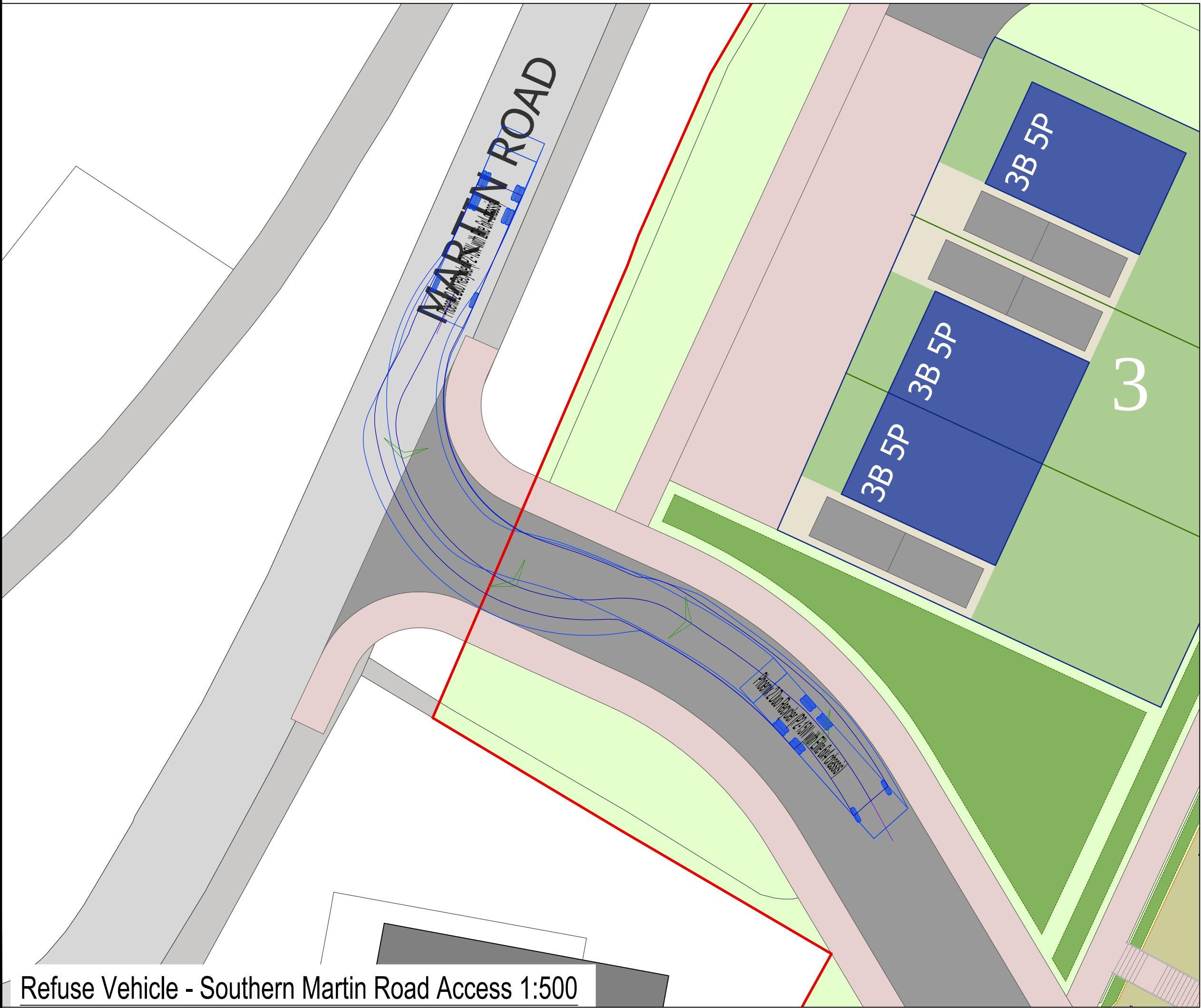
REV	DETAILS	DRAWN BY	CHECKED BY	DATE
CLIENT:	Homes England			
PROJECT:	Colt Industrial, New Lane Havant			
DRAWING TITLE:	Proposed Site Layout & Visibility Splays			
SCALES:	1:500	SHEET SIZE:		A1
DRAWN:	SJR	CHECKED:	GS	DATE: 12.04.2018
WYG Transport part of WYG group 11th Floor 1 Angel Court London EC2R 7HJ t: 0207 250 7500 f: 0207 250 7501 e: transport@wyg.com				
DRAWING NUMBER:				REVISION:
A090070-182-SK02				



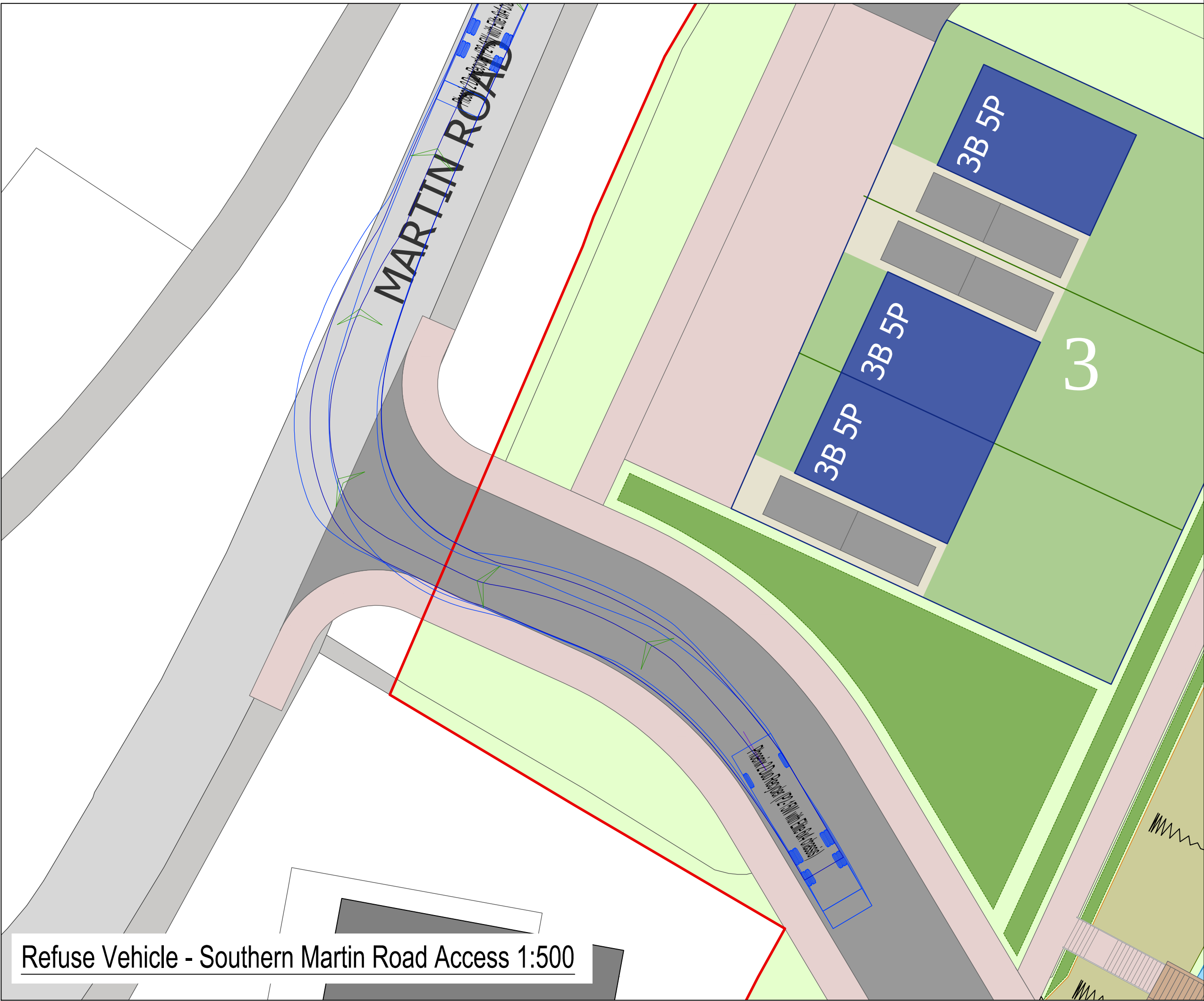
Refuse Vehicle - Northern Martin Road Access 1:200



Articulated Vehicle - New Lane Access 1:200



Refuse Vehicle - Southern Martin Road Access 1:500



Refuse Vehicle - Southern Martin Road Access 1:500

Notes:

General

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Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.220m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	11.550m

Max Legal Length (UK) Articulated Vehicle (16.5m)

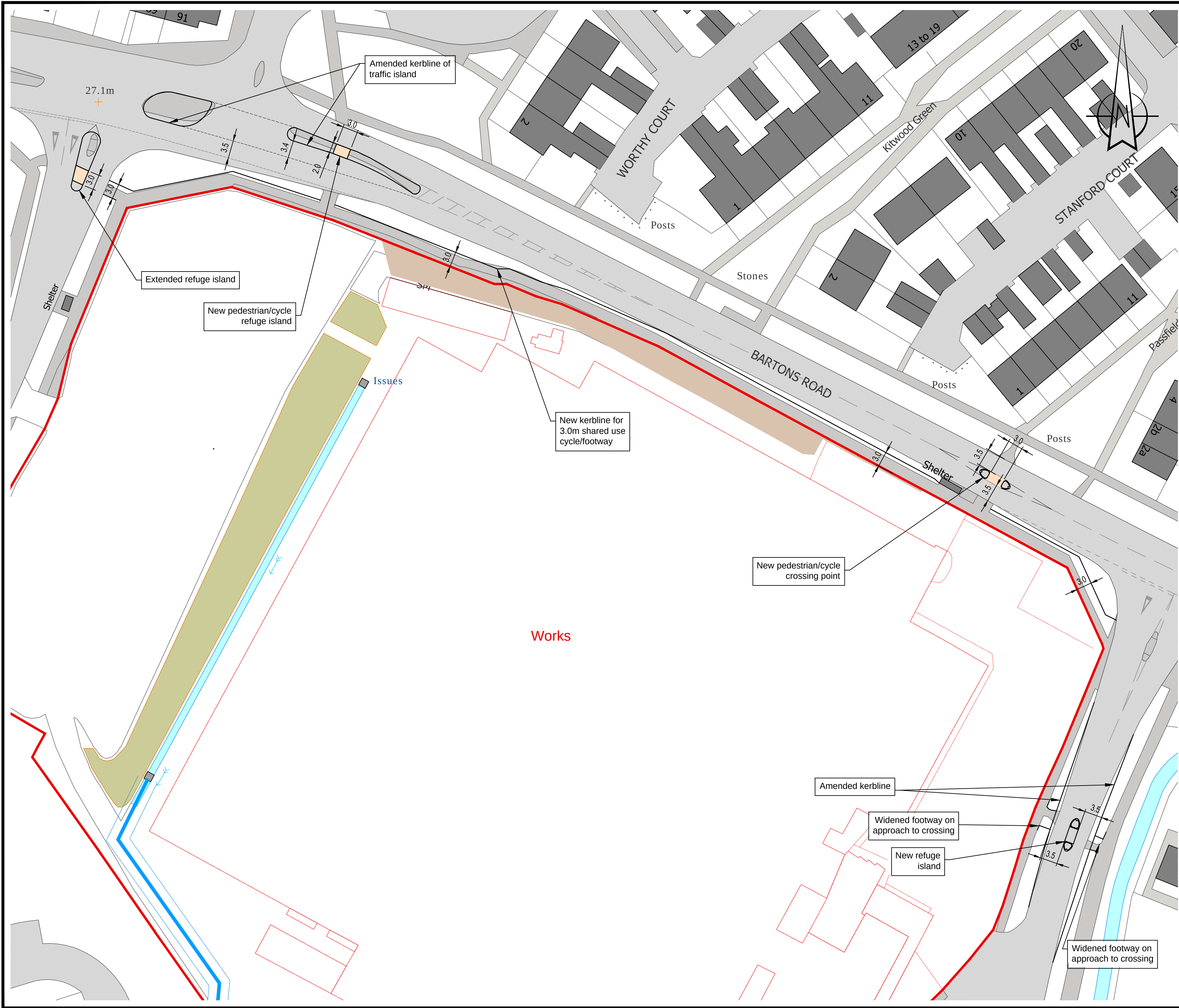
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.530m

REV	DETAILS	DRAWN BY	CHECKED BY	DATE
CLIENT: Homes England				
PROJECT: Colt International, Havant				
DRAWING TITLE: Swept Path Analysis of Site Accesses				
SCALES: As shown		SHEET SIZE: A1		
DRAWN: GS	CHECKED: LC	DATE: 26.07.2018		
WYG Transport part of WYG group 11th Floor 1 Angel Court London EC2R 7HJ t: 0207 250 7500 f: 0207 250 7501 e: transport@wyg.com				
DRAWING NUMBER: A090070-182-SPA01				REVISION: -



APPENDIX G

PROPOSED PEDESTRIAN/CYCLE IMPROVEMENTS



Notes:

General

1. Do not scale from drawing.
2. All dimensions are in metres, unless stated otherwise.
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4. This drawing is for illustrative purposes only.

Disclaimer

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