

**KEY**

- TRAFFIC FREE CYCLE ROUTE
- ON ROAD CYCLE ROUTE
- 224 ROUTE 224 RUNS FROM FARNHAM TO MEDSTEAD
- 236 ROUTE 236 RUNS FROM COSHAM TO PORTCHESTER AND SOUTHAMPTON TO LYNDHURST
- 2 A LONG DISTANCE CYCLE ROUTE WHICH, WHEN COMPLETE, WILL LINK DOVER IN KENT WITH ST. AUSTELL IN CORNWALL VIA THE SOUTH COAST OF ENGLAND

**SITE LOCATION**

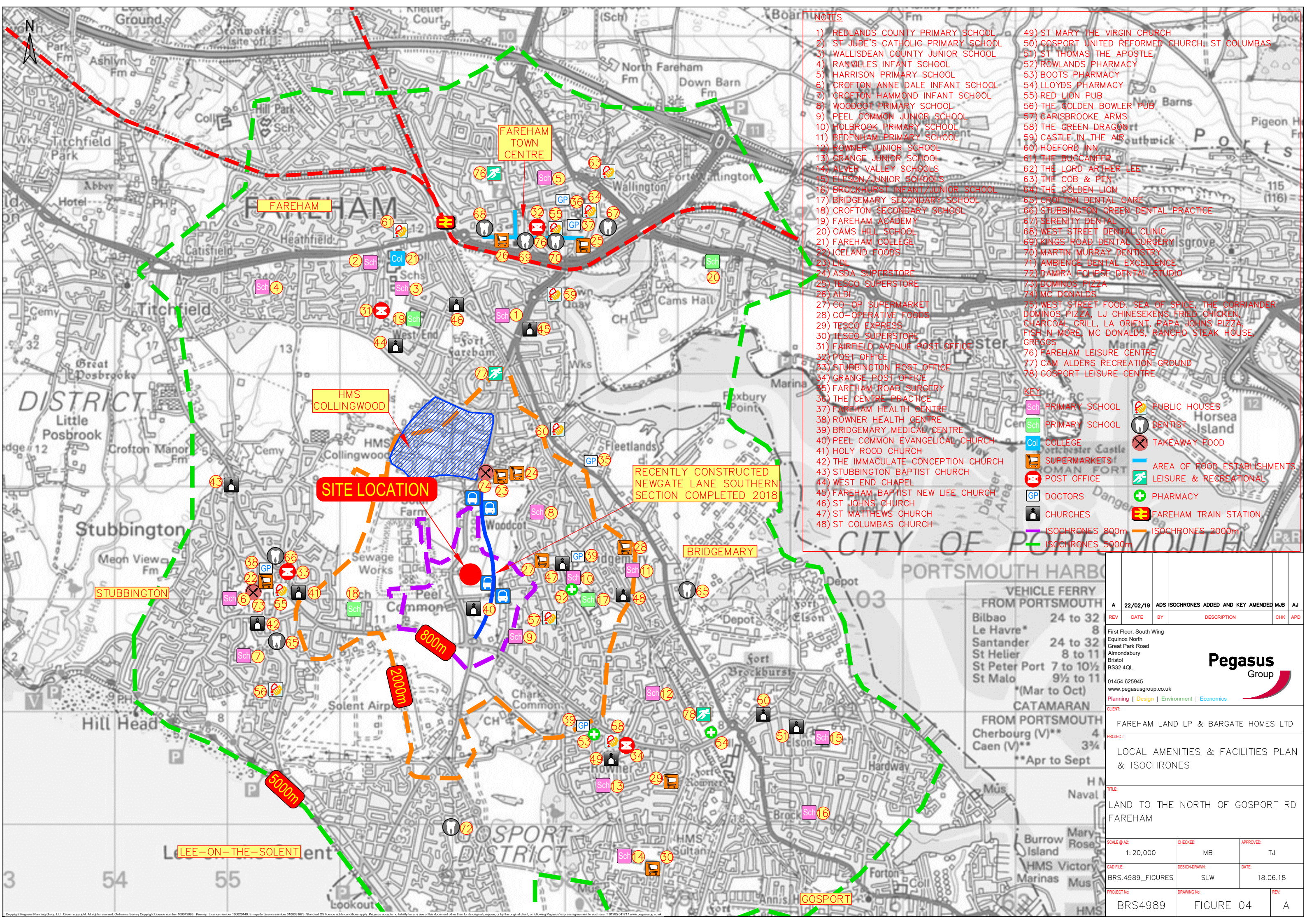
REV	DATE	BY	DESCRIPTION	CHK	APD
<p>First Floor, South Wing Equinox North Great Park Road Almondsbury Bristol BS32 4QL</p> <p><b>Pegasus Group</b></p> <p>01454 625945 www.pegasusgroup.co.uk</p> <p>Planning   Design   Environment   Economics</p>					
<p>CLIENT: SUSTAINABLE LAND PLC</p>					
<p>PROJECT: LAND TO THE NORTH OF GOSPORT RD FAREHAM</p>					
<p>TITLE: LOCAL CYCLE NETWORK</p>					
<p>SCALE @ A3: 1: 25,000</p>			<p>CHECKED:</p>		<p>APPROVED: TJ</p>
<p>CAD FILE: BRS.4989_FIGURES</p>		<p>DESIGN-DRAWN: BMB</p>		<p>DATE: 27.02.2019</p>	
<p>PROJECT No: BRS.4989</p>			<p>DRAWING No: FIGURE 03</p>		<p>REV: —</p>



**FIGURE 4**

**ISOCHRONE AND LOCAL AMENITIES PLAN**





- NOTES**
- 1) REDLANDS COUNTY PRIMARY SCHOOL
  - 2) ST JUDE'S CATHOLIC PRIMARY SCHOOL
  - 3) WALLISDEAN COUNTY JUNIOR SCHOOL
  - 4) RANVILLES INFANT SCHOOL
  - 5) HARRISON PRIMARY SCHOOL
  - 6) CROFTON ANNE DALE INFANT SCHOOL
  - 7) CROFTON HAMMOND INFANT SCHOOL
  - 8) WOODCOT PRIMARY SCHOOL
  - 9) PEEL COMMON JUNIOR SCHOOL
  - 10) HOLBROOK PRIMARY SCHOOL
  - 11) BEDENHAM PRIMARY SCHOOL
  - 12) ROWNER JUNIOR SCHOOL
  - 13) GRANGE JUNIOR SCHOOL
  - 14) ALVER VALLEY SCHOOLS
  - 15) ELESON/JUNIOR SCHOOLS
  - 16) BROCKHURST INFANT/JUNIOR SCHOOL
  - 17) BRIDGEMARY SECONDARY SCHOOL
  - 18) CROFTON SECONDARY SCHOOL
  - 19) FAREHAM ACADEMY
  - 20) CAMS HILL SCHOOL
  - 21) FAREHAM COLLEGE
  - 22) ICELAND FOODS
  - 23) LIDL
  - 24) ASDA SUPERSTORE
  - 25) TESCO SUPERSTORE
  - 26) ALDI
  - 27) CO-OP SUPERMARKET
  - 28) CO-OPERATIVE FOODS
  - 29) TESCO EXPRESS
  - 30) TESCO SUPERSTORE
  - 31) FAIRFIELD AVENUE POST OFFICE
  - 32) POST OFFICE
  - 33) STUBBINGTON POST OFFICE
  - 34) GRANGE POST OFFICE
  - 35) FAREHAM ROAD SURGERY
  - 36) THE CENTRE PRACTICE
  - 37) FAREHAM HEALTH CENTRE
  - 38) ROWNER HEALTH CENTRE
  - 39) BRIDGEMARY MEDICAL CENTRE
  - 40) PEEL COMMON EVANGELICAL CHURCH
  - 41) HOLY ROOD CHURCH
  - 42) THE IMMACULATE CONCEPTION CHURCH
  - 43) STUBBINGTON BAPTIST CHURCH
  - 44) WEST END CHAPEL
  - 45) FAREHAM BAPTIST NEW LIFE CHURCH
  - 46) ST JOHN'S CHURCH
  - 47) ST MATTHEWS CHURCH
  - 48) ST COLUMBAS CHURCH
  - 49) ST MARY THE VIRGIN CHURCH
  - 50) GOSPORT UNITED REFORMED CHURCH, ST COLUMBAS
  - 51) ST THOMAS THE APOSTLE
  - 52) ROWLANDS PHARMACY
  - 53) BOOTS PHARMACY
  - 54) LLOYDS PHARMACY
  - 55) RED LION PUB
  - 56) THE GOLDEN BOWLER PUB
  - 57) CARISBROOKE ARMS
  - 58) THE GREEN DRAGON
  - 59) CASTLE IN THE AIR
  - 60) HOEFORD INN
  - 61) THE BUCCANEER
  - 62) THE LORD ARTHUR LEE
  - 63) THE COB & PEN
  - 64) THE GOLDEN LION
  - 65) CROFTON DENTAL CARE
  - 66) STUBBINGTON GREEN DENTAL PRACTICE
  - 67) SERENITY DENTAL
  - 68) WEST STREET DENTAL CLINIC
  - 69) KINGS ROAD DENTAL SURGERY
  - 70) MARTIN MURRAY DENTISTRY
  - 71) AMBIENCE DENTAL EXCELLENCE
  - 72) DAMIRA ECLIPSE DENTAL STUDIO
  - 73) DOMINOS PIZZA
  - 74) MC DONALDS
  - 75) WEST STREET FOOD, SEA OF SPICE, THE CURRIANDER, DOMINOS PIZZA, LJ CHINESEKENS FRIED CHICKEN, CHARCOAL GRILL, LA ORIENT, PAPA JOHN'S PIZZA, FISH N MORE, MC DONALDS, RANCHO STEAK HOUSE, GREGGS
  - 76) FAREHAM LEISURE CENTRE
  - 77) CAM ALDERS RECREATION GROUND
  - 78) GOSPORT LEISURE CENTRE

- KEY**
- Sch PRIMARY SCHOOL
  - Sch PRIMARY SCHOOL
  - Col COLLEGE
  - GP SUPERMARKETS
  - Post Office POST OFFICE
  - GP DOCTORS
  - Churches CHURCHES
  - Public Houses PUBLIC HOUSES
  - Dentist DENTIST
  - Takeaway Food TAKEAWAY FOOD
  - Area of Food Establishments AREA OF FOOD ESTABLISHMENTS
  - Leisure & Recreational LEISURE & RECREATIONAL
  - Pharmacy PHARMACY
  - Fareham Train Station FAREHAM TRAIN STATION
  - ISOCHRONES 800m
  - ISOCHRONES 2000m
  - ISOCHRONES 5000m

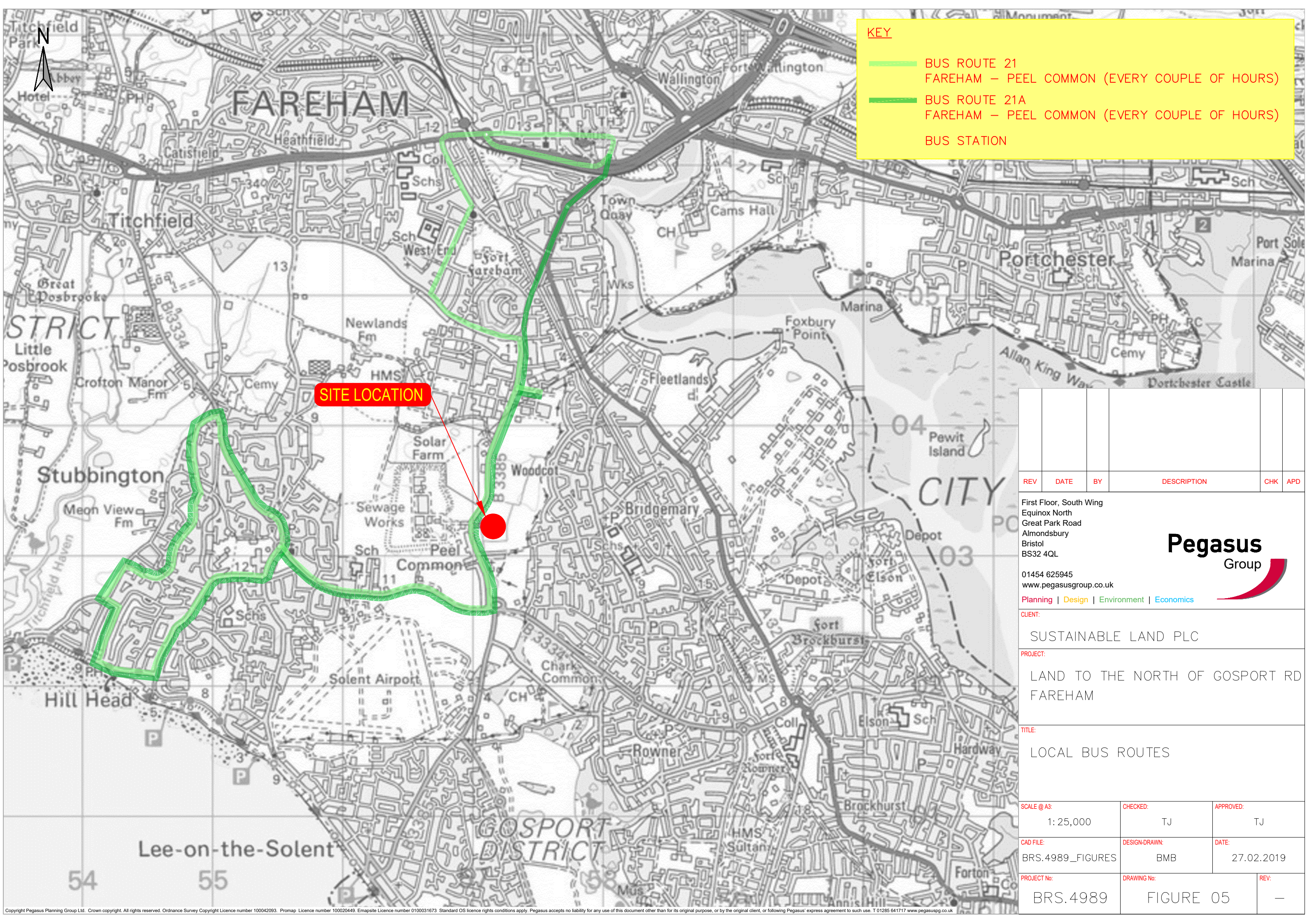
REV	DATE	BY	DESCRIPTION	CHK	APD
A	22/02/19	ADS	ISOCHRONES ADDED AND KEY AMENDED	MJB	AJ

First Floor, South Wing Equinox North Great Park Road Almondsbury Bristol BS32 4QL 01454 625945 www.pegasusgroup.co.uk Planning   Design   Environment   Economics		
CLIENT: FAREHAM LAND LP & BARGATE HOMES LTD		
PROJECT: LOCAL AMENITIES & FACILITIES PLAN & ISOCHRONES		
TITLE: LAND TO THE NORTH OF GOSPORT RD FAREHAM		
SCALE @ A2: 1: 20,000	CHECKED: MB	APPROVED: TJ
CAD FILE: BRS.4989_FIGURES	DESIGN-DRAWN: SLW	DATE: 18.06.18
PROJECT No: BRS4989	DRAWING No: FIGURE 04	REV: A



**FIGURE 5**  
**LOCAL BUS ROUTES**





**KEY**

- BUS ROUTE 21  
FAREHAM – PEEL COMMON (EVERY COUPLE OF HOURS)
- BUS ROUTE 21A  
FAREHAM – PEEL COMMON (EVERY COUPLE OF HOURS)
- BUS STATION

**SITE LOCATION**

REV	DATE	BY	DESCRIPTION	CHK	APD
<p>First Floor, South Wing Equinox North Great Park Road Almondsbury Bristol BS32 4QL</p> <p><b>Pegasus Group</b></p> <p>01454 625945 www.pegasusgroup.co.uk</p> <p>Planning   Design   Environment   Economics</p>					
<p><b>CLIENT:</b> SUSTAINABLE LAND PLC</p>					
<p><b>PROJECT:</b> LAND TO THE NORTH OF GOSPORT RD FAREHAM</p>					
<p><b>TITLE:</b> LOCAL BUS ROUTES</p>					
<p><b>SCALE @ A3:</b> 1: 25,000</p>			<p><b>CHECKED:</b> TJ</p>		<p><b>APPROVED:</b> TJ</p>
<p><b>CAD FILE:</b> BRS.4989_FIGURES</p>		<p><b>DESIGN-DRAWN:</b> BMB</p>		<p><b>DATE:</b> 27.02.2019</p>	
<p><b>PROJECT No:</b> BRS.4989</p>			<p><b>DRAWING No:</b> FIGURE 05</p>		<p><b>REV:</b> —</p>



## **APPENDIX 6**

### **HCC TRICS FROM NLSRR TA**



TRICS 7.1.1

Trip Rate Paramet Number of dwellings

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 03 - RESIDENTIAL  
Category A - HOUSES PRIVATELY OWNED  
VEHICLES

Selected regions and areas:

2 SOUTH EAST  
BD BEDFORDS 2 days  
3 SOUTH WEST  
CW CORNWALL 1 days  
DC DORSET 1 days  
4 EAST ANGLIA  
NF NORFOLK 1 days  
SF SUFFOLK 1 days  
5 EAST MIDLANDS  
LN LINCOLNSH 1 days  
NT NOTTINGH. 1 days  
6 WEST MIDLANDS  
SH SHROPSHIR 1 days  
WO WORCESTE 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings  
Actual Range: 27 to 166 (units: )  
Range Selected by 25 to 200 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 22/10/12

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday 5 days  
Wednesday 3 days  
Thursday 2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 10 days  
Directional ATC Cc0 days

This data displays the total a whilst ATC surveys are undertaking using machines.



Selected Locations:

Town Centre	0
Edge of Town Cen	0
Suburban Area (Pf	7
Edge of Town	3
Neighbourhood C	0
Free Standing (PP	0
Not Known	0

This data displays Edge of To Suburban / Neighbour Edge of To Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	0
Commercial Zone	0
Development Zon	0
Residential Zone	8
Retail Zone	0
Built-Up Zone	0
Village	0
Out of Town	0
High Street	0
No Sub Category	2

Filtering Stage 3 selection:

Use Class:

C3 10 days

This data displays which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	4 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	7 days

This data displays within a radius of 5-miles of selected survey sites.



Travel Plan:

No 10 days

This data displays and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1 BD-03-A-01SEMI DETACHED BEDFORDSHIRE  
NEW BEDFORD ROAD

LUTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 131

Survey date THURSDAY ##### Survey Type MANUAL

2 BD-03-A-02SEMI DETACHED BEDFORDSHIRE  
RIDDY LANE

LUTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 82

Survey date TUESDAY ##### Survey Type MANUAL

3 CW-03-A-03SEMI DETACHED CORNWALL  
BOSVEAN GARDENS

TRURO

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 73

Survey date TUESDAY ##### Survey Type MANUAL

4 DC-03-A-01DETACHED DORSET  
ISAACS CLOSE

POOLE

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 51

Survey date WEDNESDAY ##### Survey Type MANUAL

5 LN-03-A-01MIXED HOLLINCOLNSHIRE  
BRANT ROAD

BRACEBRIDGE

LINCOLN

Edge of Town

Residential Zone

Total Number of dwellings 150

Survey date TUESDAY ##### Survey Type MANUAL

6 NF-03-A-01SEMI DETACHED NORFOLK  
YARMOUTH ROAD

CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 27

Survey date TUESDAY ##### Survey Type MANUAL



7 NT-03-A-03 SEMI DETACHMENT NOTTINGHAMSHIRE  
B6018 SUTTON ROAD

KIRKBY-IN-ASHFIELD

Edge of Town

Residential Zone

Total Number of dwellings 166

Survey date WEDNESDAY ##### Survey Type MANUAL

8 SF-03-A-01 SEMI DETACHMENT SUFFOLK

A1156 FELIXSTOWE ROAD

RACECOURSE

IPSWICH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings 77

Survey date WEDNESDAY ##### Survey Type MANUAL

9 SH-03-A-04 TERRACED SHROPSHIRE

ST MICHAEL'S STREET

SHREWSBURY

Suburban Area (PPS6 Out of Centre)

No Sub Category

Total Number of dwellings 108

Survey date THURSDAY ##### Survey Type MANUAL

10 WO-03-A-0 SEMI DETACHMENT WORCESTERSHIRE

MEADOWHILL ROAD

REDDITCH

Edge of Town

No Sub Category

Total Number of dwellings 48

Survey date TUESDAY ##### Survey Type MANUAL



TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Calculation Factor: 1 DWELLS

Count Type: VEHICLES

Time Range	No. Days	ARRIVALS			No. Days	DEPARTURES			TOTALS	
		Ave. DWELLS	Trip Rate			Ave. DWELLS	Trip Rate		No. Days	Ave. DWELLS
00:00-01:00										
01:00-02:00										
02:00-03:00										
03:00-04:00										
04:00-05:00										
05:00-06:00										
06:00-07:00										
07:00-08:00		10	91	0.068	10	91	0.318	10	91	0.386
08:00-09:00		10	91	0.165	10	91	0.4	10	91	0.565
09:00-10:00		10	91	0.179	10	91	0.251	10	91	0.43
10:00-11:00		10	91	0.157	10	91	0.208	10	91	0.365
11:00-12:00		10	91	0.218	10	91	0.209	10	91	0.427
12:00-13:00		10	91	0.203	10	91	0.206	10	91	0.409
13:00-14:00		10	91	0.186	10	91	0.195	10	91	0.381
14:00-15:00		10	91	0.205	10	91	0.188	10	91	0.393
15:00-16:00		10	91	0.309	10	91	0.218	10	91	0.527
16:00-17:00		10	91	0.308	10	91	0.208	10	91	0.516
17:00-18:00		10	91	0.386	10	91	0.243	10	91	0.629
18:00-19:00		10	91	0.299	10	91	0.232	10	91	0.531
19:00-20:00										
20:00-21:00										
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				2.683			2.876			5.559

Parameter summary

Trip rate parameter: 27 - 166 (units: )  
 Survey date range: 01/01/04 - 22/10/12  
 Number of weekdays: 10  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually: 0

## **APPENDIX 7**

### **HCC CORRESPONDANCE**



## Phil Wragg

---

**From:** Phil Wragg  
**Sent:** 08 June 2018 17:46  
**To:** Phil Wragg  
**Subject:** FW: Land West of Newgate Lane Pre-App Response

**Philip Wragg**  
Senior Transport Planner

### **Pegasus Group**

**PLANNING** | **DESIGN** | **ENVIRONMENT** | **ECONOMICS**

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Birmingham | Bracknell | Bristol | Cambridge | Cirencester | East Midlands | Leeds | Liverpool | London | Manchester | Peterborough



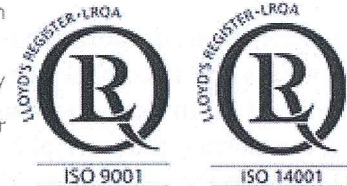
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**From:** Hirst, Chris [<mailto:Chris.Hirst@hants.gov.uk>]  
**Sent:** 18 April 2018 13:31  
**To:** Tony Jones <[Anthony.Jones@pegasusgroup.co.uk](mailto:Anthony.Jones@pegasusgroup.co.uk)>  
**Cc:** Drury, Holly <[holly.drury@hants.gov.uk](mailto:holly.drury@hants.gov.uk)>; Morton, Stuart <[Stuart.Morton@hants.gov.uk](mailto:Stuart.Morton@hants.gov.uk)>  
**Subject:** Land West of Newgate Lane Pre-App Response

Dear Tony,

Thank you for your recent pre-application enquiry with regards to the proposed 250 dwelling development for the Land West of Newgate Lane, Fareham. A Transport Scoping Note and access proposal drawings were submitted and this information has now been reviewed. Following this review, we wish to make the following comments based on our understanding of the information presented to date.

#### **Local Planning Context, Committed Developments and the Newgate Lane Bypass**

The site identified has not been included in Fareham's emerging Local Plan to 2036 and is currently considered a 'strategic gap'.

The development proposal looks to provide access for 250 dwellings from 2 separate priority T-junctions off the old Newgate Lane. Discussions were held regarding the rationale for 2 access points and it is noted that the site is proposed with this arrangement as a result of different land owners coming forward as a consortium. It should be investigated whether a singular access point can be achieved in order to reduce the number of accesses off Newgate Lane and therefore the number of conflict points for cyclists looking to utilise the new cycle path and vehicles accessing the site. If necessary both access options should be submitted as part of the application so they can be fully considered within the application.

There is a 475 dwelling allocation to the east of Newgate Lane which should be considered in any sensitivity works carried out. Other key sites identified in the draft Fareham Local Plan to 2036 should be considered to gain a comprehensive understanding of the evolving traffic situation in Fareham. Sensitivity tests should be carried out for



Stubbington Bypass (which is a committed development) as this will have a bearing on the distribution seen from the site.

It was suggested during discussions that the sensitivity tests will be submitted as an addendum to the Transport Assessment. In order to fully assess the vehicular impact of this site on the local road network, sensitivity tests will be required as part of the main application, especially as Stubbington Bypass is a committed development. Having one comprehensive transport assessment will allow for a full review and response from the Highway Authority, without this information the planning process is likely to become extended.

### **Proposed Access Strategy for Travel Modes**

As previously mentioned, access to the site is proposed via two priority T-junctions off of the old Newgate Lane. The achievable visibility splays for these junctions should be informed by speed surveys carried out on Newgate Lane. If possible, a singular point of access into the site should be reviewed as this is considered the safer option for accessing the site. Tracking for super large refuse vehicles should be provided, along with pantechnicons (to cater for construction phases) and family cars. It should be demonstrated on any drawings that these vehicles can pass through the access safely.

Due to a lack of traffic flow data and turning proportions for Newgate Lane, we are unable to agree the general principle of access. Flow data and turning proportions proposed in the full TA accompanying the planning application will inform whether the principle of access is acceptable.

During discussions, it was proposed that the priority of the old Newgate Lane was changed to reroute traffic through the southern access point and back out again through the northern access, establishing a 'give way' for those wishing to continue north along the lane. Given that the old Newgate Lane has recently been established as a cycle route (linking the existing provision at Peel Common roundabout to the south and the northern section of Newgate Lane), any changes to the priority would likely be unpopular and go against the revised nature of the road. Newgate Lane South has been open for less than a week, any further changes to the local road layout will be a sensitive topic with local residents and those beginning to utilise the new route.

If a planning application was to come forward with a change to existing arrangement of the road, alternative proposals to encourage cyclists to continue to route along this road should be provided (i.e. providing a north-south cycle link at a revised location). The new cycle link is considered an important option for encouraging sustainable travel in Fareham, maintaining this link is therefore important. A segregated traffic free cycle route could be provided through the site, this should be as direct as possible minimising additional journey time and distance for cyclists.

Given the flows on the old Newgate Lane are now low and serve the existing dwellings, any further development will see a significant increase on the vehicular flows currently experienced on the lane. Further discussions as to the strategy of this road may be required to determine whether the potential increase in vehicular improvements will decrease the appeal of Newgate Lane as a cycle route.

### **Accessibility**

The local bus route (21/21A) is impacted upon by the opening of the new Newgate Lane. This bus service will be redirected along the new route, with new bus stops facilities near Tudor Lodge Nursing Home, near Woodcote Lane/Brookers Lane and Gosport Road, near Peel Common. Sustainable access methods to the site and the surrounding area should consider the updated bus route noted above and also examine the potential for rail travel as a sustainable transport method.

### **Trip Generation and Trip Rates**

Trip rates for the site should be derived from the TRICS database to determine the expected vehicular activity from the development.

An alternative method for ascertaining trip rates is via Census Travel to Work Data which can split the anticipated forms of transport and assign the percentage of vehicular trips this way.

### **Traffic Assignment and Distribution**



Trip generation from the site should be distributed at the new Newgate Lane junction to the north to assess how many vehicles will head to the north and south. As discussed, the current layout provides an extended right turn lane and was designed on the basis that no new development would occur off of the old Newgate Lane. Once trip rates and distributions have been researched, this junction will need to be assessed in detail to decide whether any upgrades to the junction will be required to accommodate the additional vehicular flows, taking into consideration the emerging local plan.

During discussions, it was agreed that the following junctions should be modelled: proposed site access(es) off of Newgate Lane, the Newgate Lane/new Newgate Lane junction, Peel Common Roundabout and Longfield Avenue/Newgate Lane roundabout. Following conversation with our survey team, it has been established that there are no recent traffic flow surveys carried out for the Longfield Avenue/Newgate Lane roundabout. Therefore, traffic surveys will need to be carried out at a time that is not impacted upon by the ongoing improvement works to Newgate Lane South. Further information on this point has already been provided. Now Newgate Lane bypass is operational survey data should be collected to determine actual flows at the key junctions and inform the junction assessments. These should be undertaken within a neutral month and outside a time where ongoing completion works may impact the results. Additional junctions may need to be considered for review once the distribution has been agreed.

### **Modelling Scenarios**

The modelling scenarios put forward in the scoping note are considered acceptable but should include a sensitivity test to 2036 to include local plan developments.

Kind Regards,

**Chris Hirst**  
**Assistant Transport Planner**  
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[Chris.Hirst@hants.gov.uk](mailto:Chris.Hirst@hants.gov.uk)

**Highways Development Planning**  
Hampshire County Council  
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The Castle Winchester SO23 8UD



### **Hampshire County Council operates a pre-application highway advice service for developers.**

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

[Pre-Application guidance for developers](#)

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## **APPENDIX 8**

### **PV2 CALCULATIONS**



## APPENDIX 5

### REVIEW OF GUIDANCE FOR PEDESTRIAN CROSSINGS

#### PV<sup>2</sup> Assessment Criteria

1. The current guidance uses a numerical measure to assess the degree of conflict between vehicles and pedestrians, with a reduced numerical measure for special circumstances. The degree of conflict is determined by multiplying the number of vehicles per hour (V) squared by the number of pedestrians crossing per hour (P) over a 100m section. The average of the four highest hours is taken to represent what is called PV<sup>2</sup>. With the introduction of the current national guidance in Local Transport Note 1/95 in 1995, there was a move away, nationally, from the explicit use of PV<sup>2</sup> to a framework approach. However, there was still considered to be a need for some simple, easily understood measure to act as an initial starting point to see if a particular location justifies further investigation and justification for the provision of a controlled crossing. Since PV<sup>2</sup> is a well known and understood measure it is considered appropriate to use the principal of PV<sup>2</sup> but change the starting point to reflect more fully the current national policy guidance, the objectives of the Local Transport Plan and the practices in other local authorities.
2. When assessing a request for a crossing then, if the value of PV<sup>2</sup> is less than 0.2 x 108, no formal crossing facilities are required. If the value of PV<sup>2</sup> is above 0.2 x 108 then there should be a more in-depth framework assessment carried out, in line with the advice in Local Transport Note 1/95. This criterion is equally applicable to pedestrian facilities as combined pedestrian and cycle facilities.
3. However to maintain a consistent approach the framework assessment should also be based upon a PV<sup>2</sup> approach. This can be achieved through adjusting the value of PV<sup>2</sup> to take account of the composition of the pedestrian flow, the width to be crossed, the speed limit and 85<sup>th</sup>ile speed of the road and the difficulty encountered crossing the road in terms of time spent waiting and crossing.
4. However, there are circumstances that the proposed guidance may not fully address the issues of concern such as:
  - close to a proposed new developments ;
  - along a proposed Safer Routes to School route; and
  - along a proposed national cycle network routes.

5. At all the above situations there may be little existing pedestrian or cycle movements. However, as a result of the proposals significant volumes would result. Yet the application of the modified PV2 calculation would not imply the provision of a pedestrian facility because the number of new pedestrians and/or cyclists generated by the above three circumstances would not be known.
6. Therefore, in these circumstances, due consideration should be given to the provision of pedestrian/cycle crossing facilities if the traffic flow for the four busiest hours is above 480 vehicles per hour (two way) or the number of heavy goods vehicles is 300 vehicles per hour (two way) or above. After carrying out a preliminary survey of the proposed site a decision should be reached on whether a crossing is justified or not based upon experience at previously installed sites, judgement and knowledge of local factors.
7. In addition, where an existing location has a high pedestrian accident rate then, if pedestrian facilities are judged to be most effective remedy, these sites would not be subject to PV2 criteria.
8. In adopting this approach the proposal not only gives an indication of the need for a crossing but also allows for the inclusion of costs to incorporate a ranking between different types of crossing and between two different sites if funding is not immediately available to undertake all requests for crossing facilities in a given year.

Further Details of the Suggested Method

9. In order to take account of the various different classifications of pedestrians it is suggested that a series of factors should be applied to the value of PV2, which is still calculated as the average over the highest four hours. as follows:

**EP** Percentage of Elderly pedestrians (EP). If the percentage of elderly pedestrians is less than 10%, a factor of 1 should be used. If more than 10%, then use the following formula:

$$\frac{(100+E)}{P}$$

110

(Elderly defined in terms of visual appearance and is a judgement of the enumeration staff generally taken as over 60)

**UC** Percentage of unaccompanied children. If there are not more than 10% of unaccompanied children, use 1. If there are more than 10%, use the following formula:

$$\frac{(100+U)}{C}$$

**PW** Percentage of pedestrians with prams/pushchairs, wheelchairs or blind (white sticks or guide dogs). If not more than 5% use 1. If more than 5% then use the following formula:

$$\frac{(100 + P)}{W}$$

105

**PB** Percentage of bicycles crossing. If not more than 15%, use 1. If more than 15%, use following formula:

$$\frac{(100 + PB)}{115}$$

**RW** Road width. If not more than 7.3m, use 1. If more than 7.3m, use the following formula:

$$\frac{W}{7.3}$$

**CT** Time to cross (seconds) this reflects the difficulty in crossing in terms of the volume of traffic and complexity of the location (eg presence of junctions or other features). If it takes on average less than 26 seconds cross, use 1. If it takes between 26 and 40 seconds to cross, use 1.2; if it takes between 41 and 60 seconds to cross use 1.4; and If it takes over 60 seconds to cross, use 1.6 (the above crossing times include both waiting time and crossing time).

**VS** Vehicle speeds; if 85th percentile speed is less than 30 use a factor of 1

If between 30 and 35 use 1.1

If between 36 and 40 use 1.2

If between 41 and 45 use 1.3

If between 46 and 50 use 1.4

**NB** before considering the use of surface crossings on roads with 85th percentile speeds greater than 50 mph consider speed reduction measures.



**CS** If proposal is located where a road divides a substantial community or is outside a school, clinic, community centre, home for the elderly or busy shopping centre adjust as follows:

Proposed location is on a road that causes community severance or outside a school or clinic, home for the elderly etc then apply 1.1.

If the proposed site is close to two of the above use a factor of 1.25.

If a proposed site is close to three or more of use a factor of 1.4.

### **Modified Formula for PV<sup>2</sup>**

$$\text{PV}^2 \text{ Adjustment factor } \quad (\text{EP} \times \text{UC} \times \text{PW} \times \text{PB} \times \text{RW} \times \text{CT} \times \text{VS} \times \text{CS})$$

If adjusted PV<sup>2</sup> is greater than 0.6 x 10<sup>8</sup> consider either a zebra crossing or a pelican crossing

Below 0.6 consideration of other measures should be given such as narrowing carriageway to aid crossing, central refuges, traffic calming.

### Priority Number

10.A priority number can be obtained if the adjusted PV<sup>2</sup> value for a location is multiplied by a standard cost for the particular crossing facility divided by cost of providing a particular crossing facility for a site eg:

$$\text{PV}^2 \times \text{adjustment factor} \times \frac{\text{standard cost of crossing}}{\text{Estimated cost}}$$

<b>Type of Crossing</b>	<b>Standard Cost (excluding resurfacing)</b>
Narrowing of carriageway (road markings)	£1,000
Carriageway narrowing	£7,000
Table with associated measures	£6,000
Pedestrian Refuge	£6,000
Zebra crossing	£6,000
Pelican or Puffin	£30,000
Toucan crossing	£30,000

## **Crossing Options**

Where  $PV^2$  is less than  $0.6 \times 10^8$

### Pedestrian Refuges and Road Narrowing

11. Perhaps the simplest form of pedestrian crossing is the pedestrian refuge. This allows both pedestrians and cyclists to cross the road in two halves, reducing the size of gap between vehicles they may require. Although such facilities aid the pedestrian or cyclist crossing the road, they can cause potential problems for cyclist travelling along the road because of the reduced width available for motorised traffic to pass. Refuges are most appropriate where the road is around 10 metres wide.
12. An alternative to the refuge is to use build-outs or road narrowing to assist the pedestrian. Although this does not have the advantage of allowing the pedestrian or cyclist to cross the road in two halves it does reduce the distance the pedestrian would have to cross on the carriageway. It also would allow motorised vehicles the opportunity to pass cycles on the off side because there would not be a central restriction.

Where  $PV^2$  is greater than  $0.6 \times 10^8$

### Zebra Crossings

13. TD 4/79 Pelican Crossings: Pelican Crossing Operations, advised that zebra crossings should be considered where pedestrian flows are 1100 people per hour or less (averaged over the four highest hours) and where vehicle flows are 500 vehicles per hour or less (averaged over the four highest hours). These are still considered reasonable limits in the absence of any other advice or guidance. In addition, LTN1/95 advises that Zebra crossings are usually used where pedestrian flows are relatively low and traffic flows are no more than moderate. The likely effect of a Zebra crossing can be tested by checking the availability of gaps in the traffic. Gaps of around five seconds are needed for an able person to cross a 7 metre carriageway. The school crossing patrol assessment advises that there should be at least four gaps of around 7 seconds in every 5 minute period for there not to be a need for a crossing patrol. This can be considered a reasonable proxy to assess the availability of gaps against for a Zebra crossing.
14. Zebra crossings should not be installed on roads with an 85th percentile speed of 35 mph or above. Zebra crossings should not be considered where there are significant numbers of vulnerable road users such as: unaccompanied children, elderly and people with disabilities. If considering a zebra crossing, it should not be in isolation. It should be in conjunction with additional measures ranging from additional signing/lining to traffic calming.



15. Zebra crossings are also best avoided on busy town centre streets or outside railway stations since this is likely to result in a constant stream of pedestrians claiming priority. Other forms of crossing such as puffin crossings or pedestrianisation should be considered. In addition Zebra crossings should be avoided in unusual locations such as contra flow bus lanes.
  
16. The final type of crossing is the PUFFIN or TOUCAN which is a traffic signal controlled crossing for either pedestrians (PUFFIN) or both pedestrians and cyclists (TOUCAN).

## **APPENDIX 9**

### **2019 & 2024 TRAFFIC FLOW AND DISTRIBUTION DIAGRAMS**

**2019 Base "DS1"**

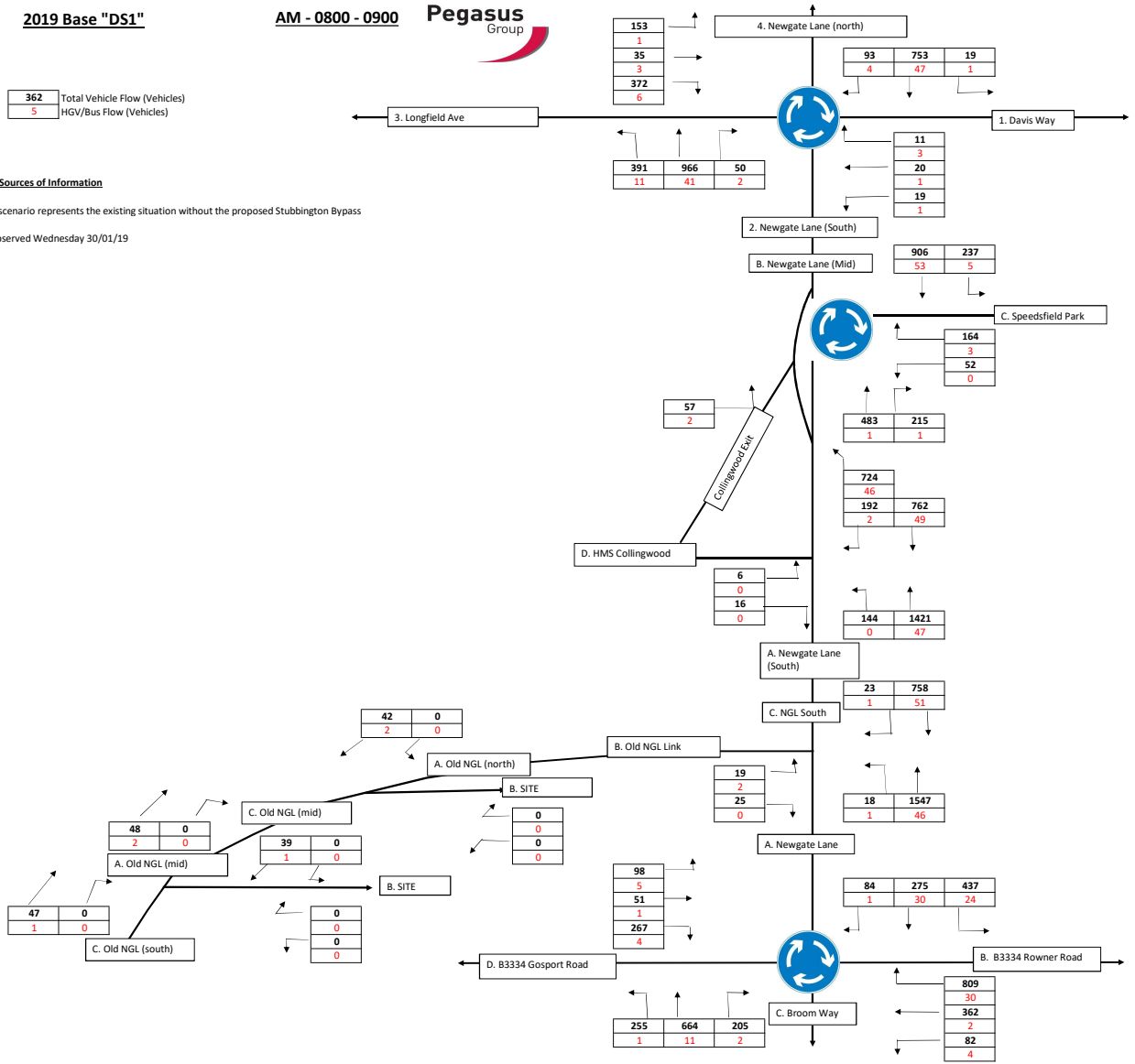
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

Traffic observed Wednesday 30/01/19





**2019 Base "DS1"**

**PM - 1700 - 1800**



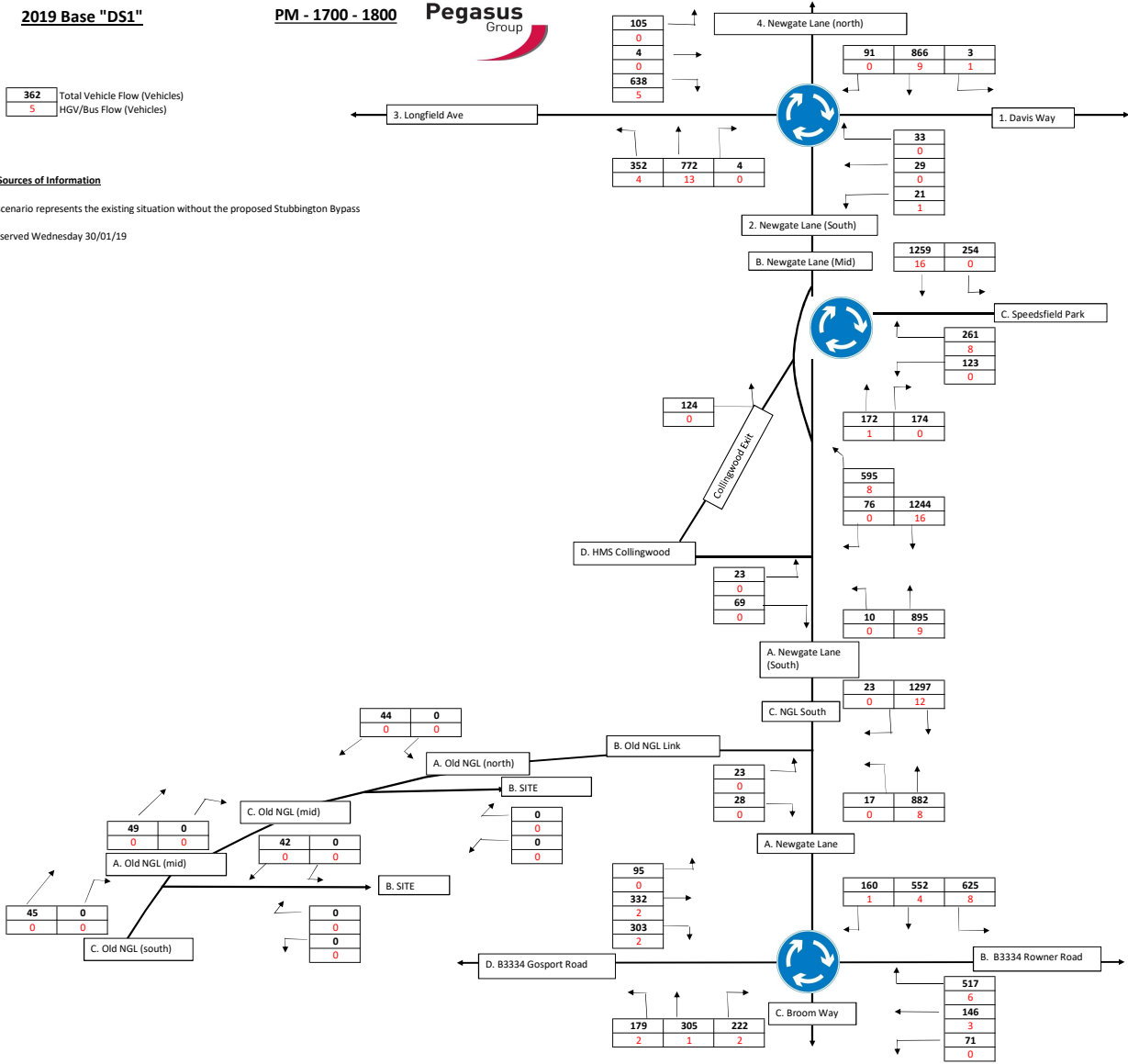
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

Traffic observed Wednesday 30/01/19



**"DS1" to "DS2" Conversion ratios**

AM - 0800 - 0900

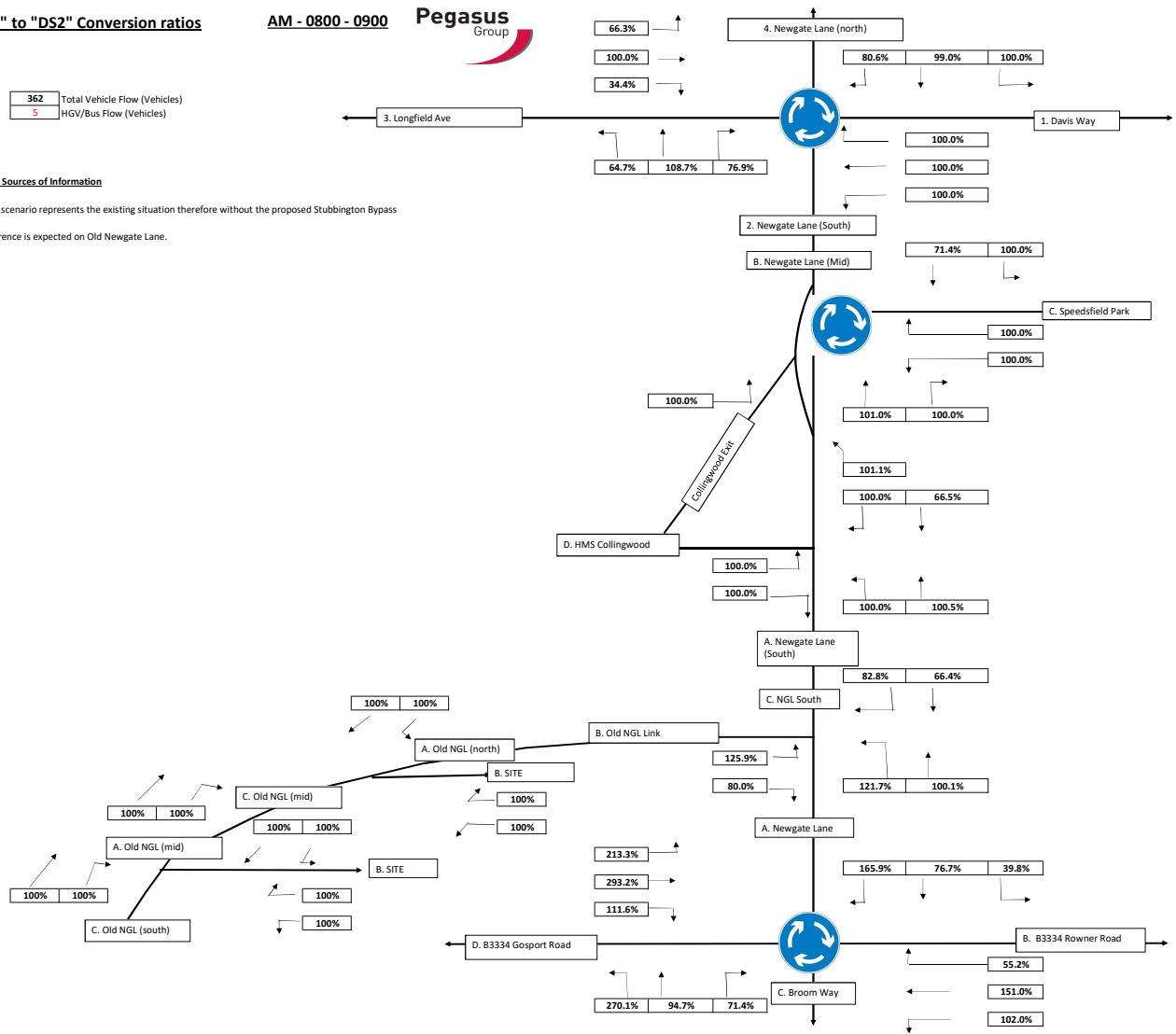


Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation therefore without the proposed Stubbington Bypass  
 No difference is expected on Old Newgate Lane.



**"DS1" to "DS2" Conversion ratios**

**PM - 1700 - 1800**



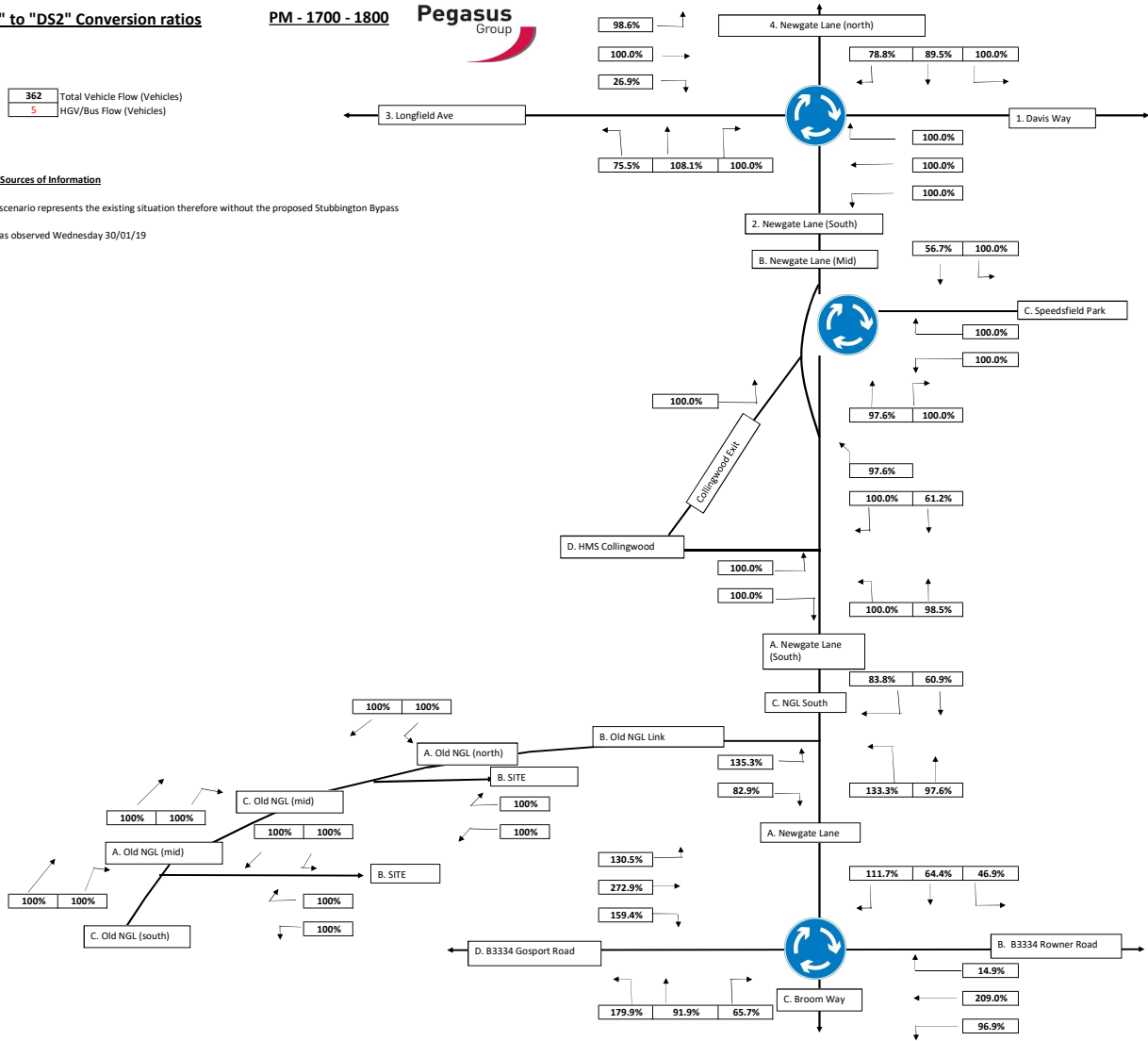
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation therefore without the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19





**2019 Base "DS2"**

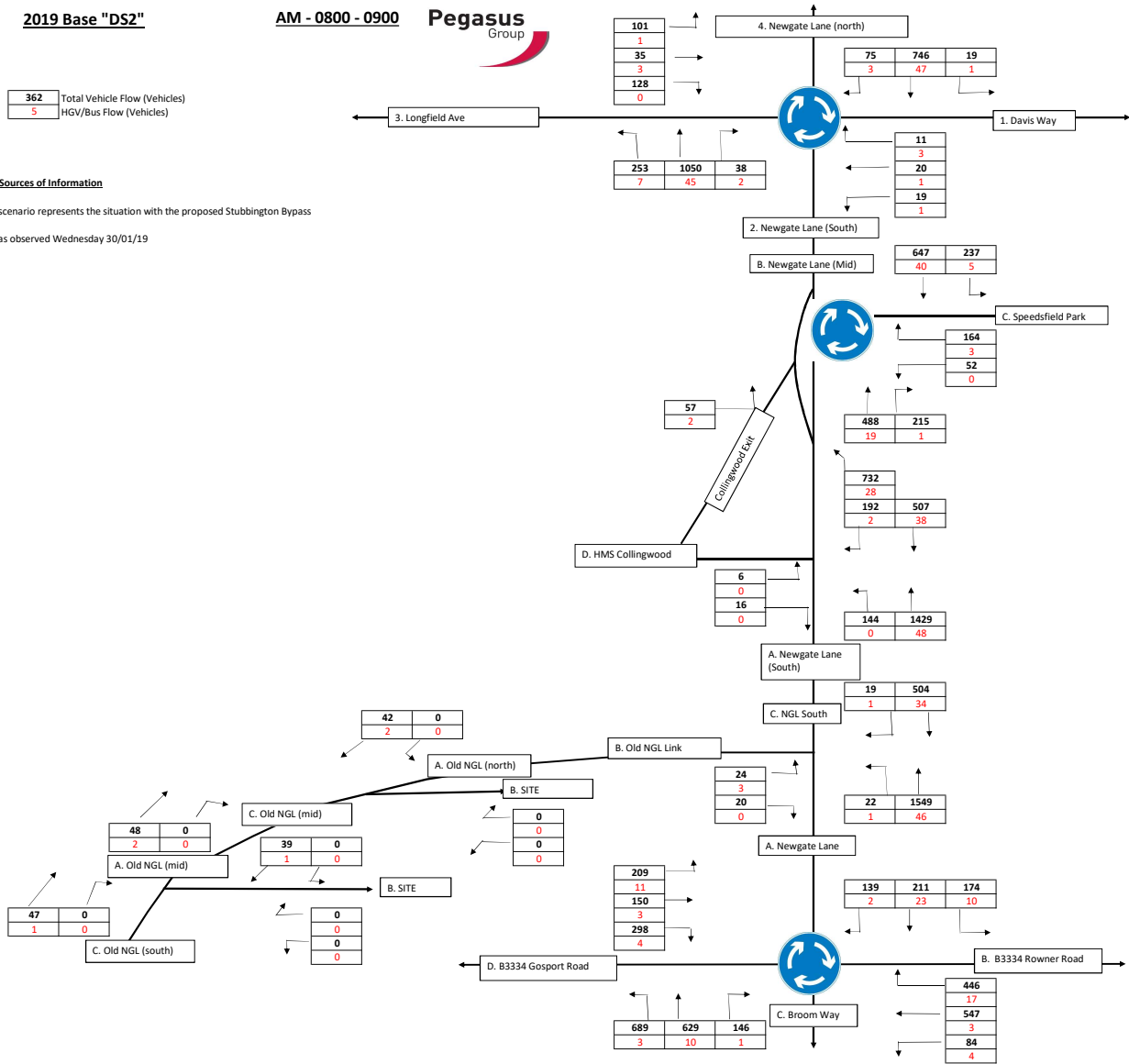
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2019 Base "DS2"**

**PM - 1700 - 1800**



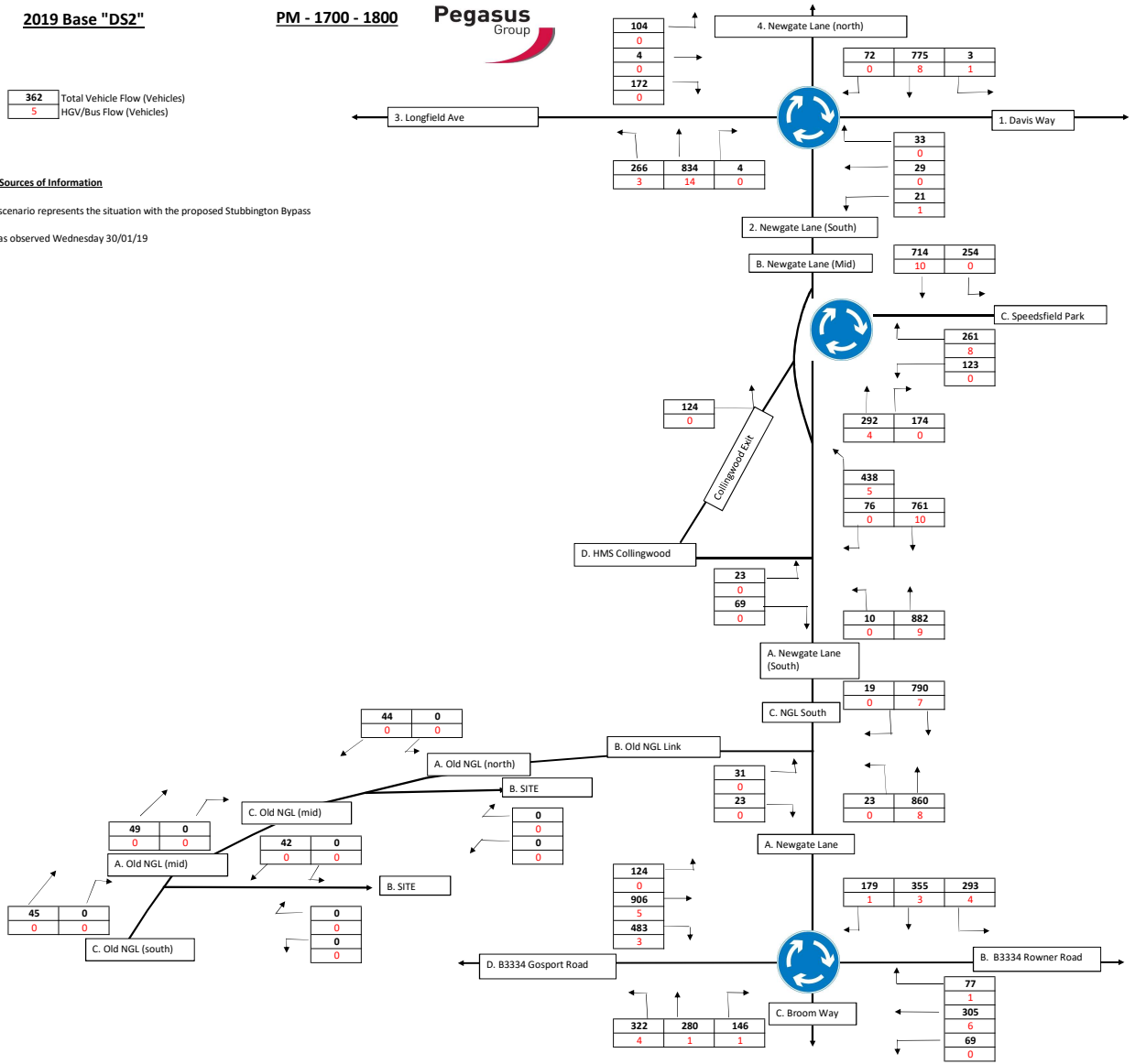
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2024 Base "DS1"**

Growth Rate: 1.0354

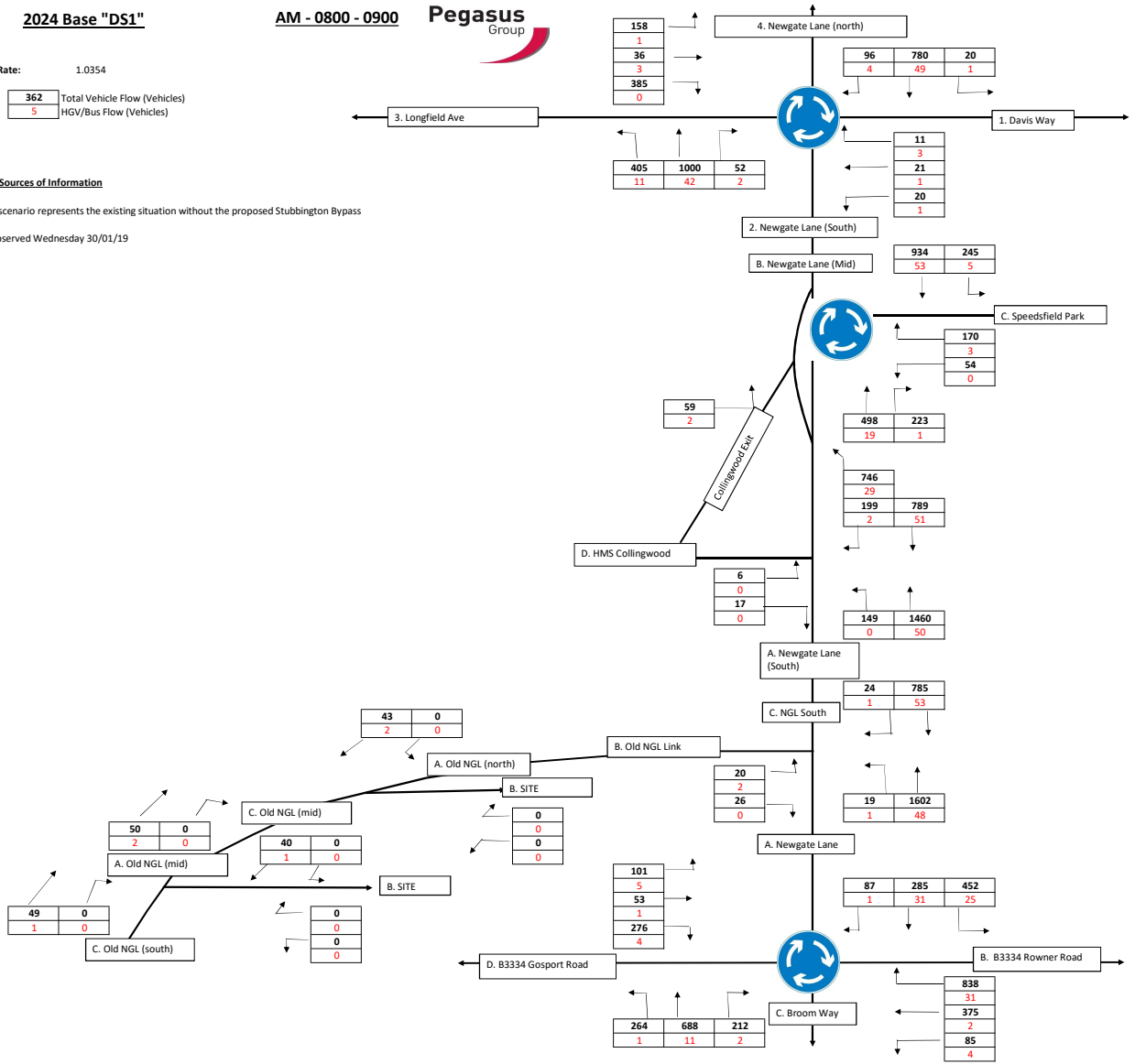
Key: 

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

Traffic observed Wednesday 30/01/19





**2024 Base "DS1"**

PM - 1700 - 1800



Growth Rate: 1.0368

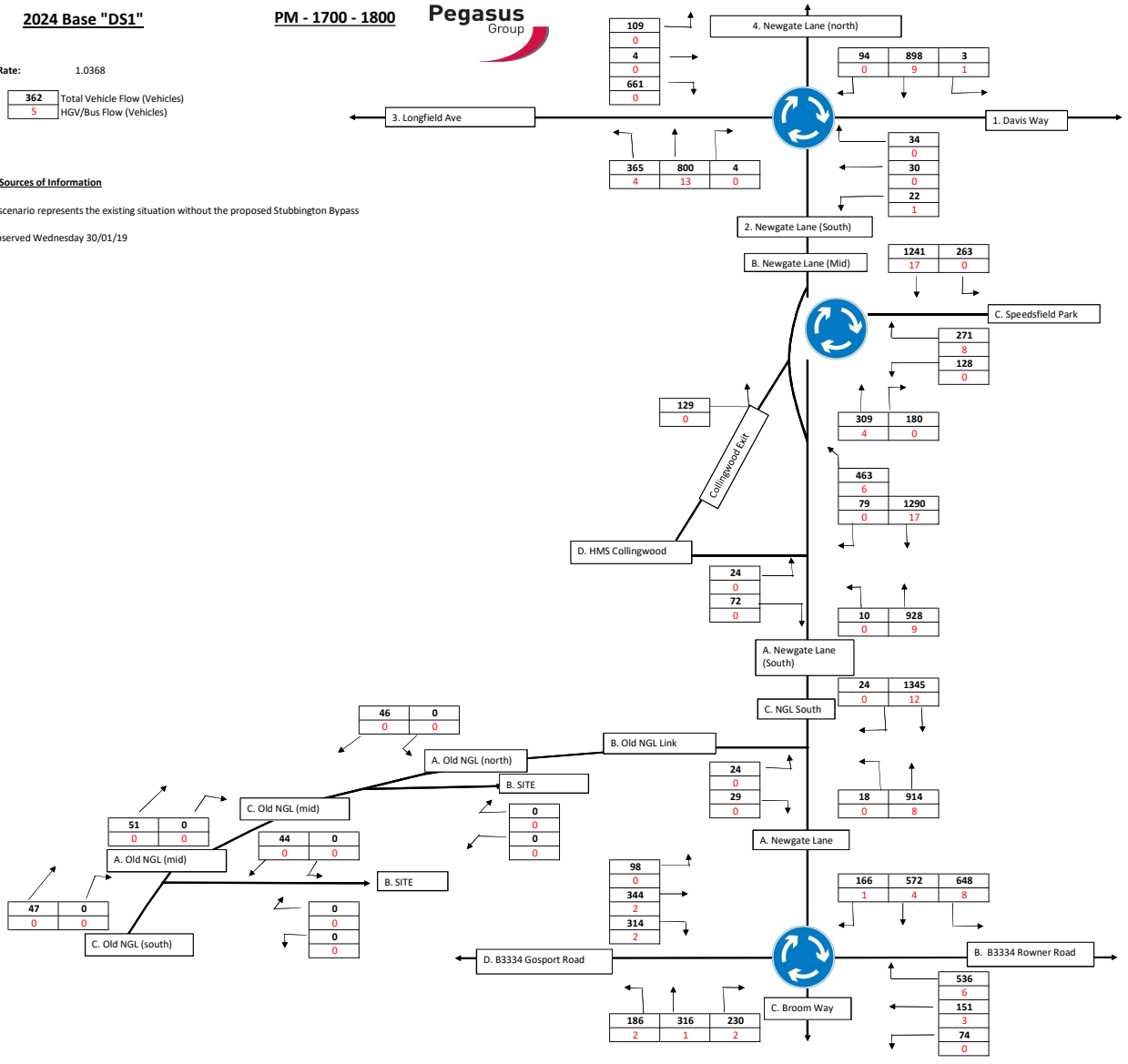
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

Traffic observed Wednesday 30/01/19



**2024 Base "DS2"**

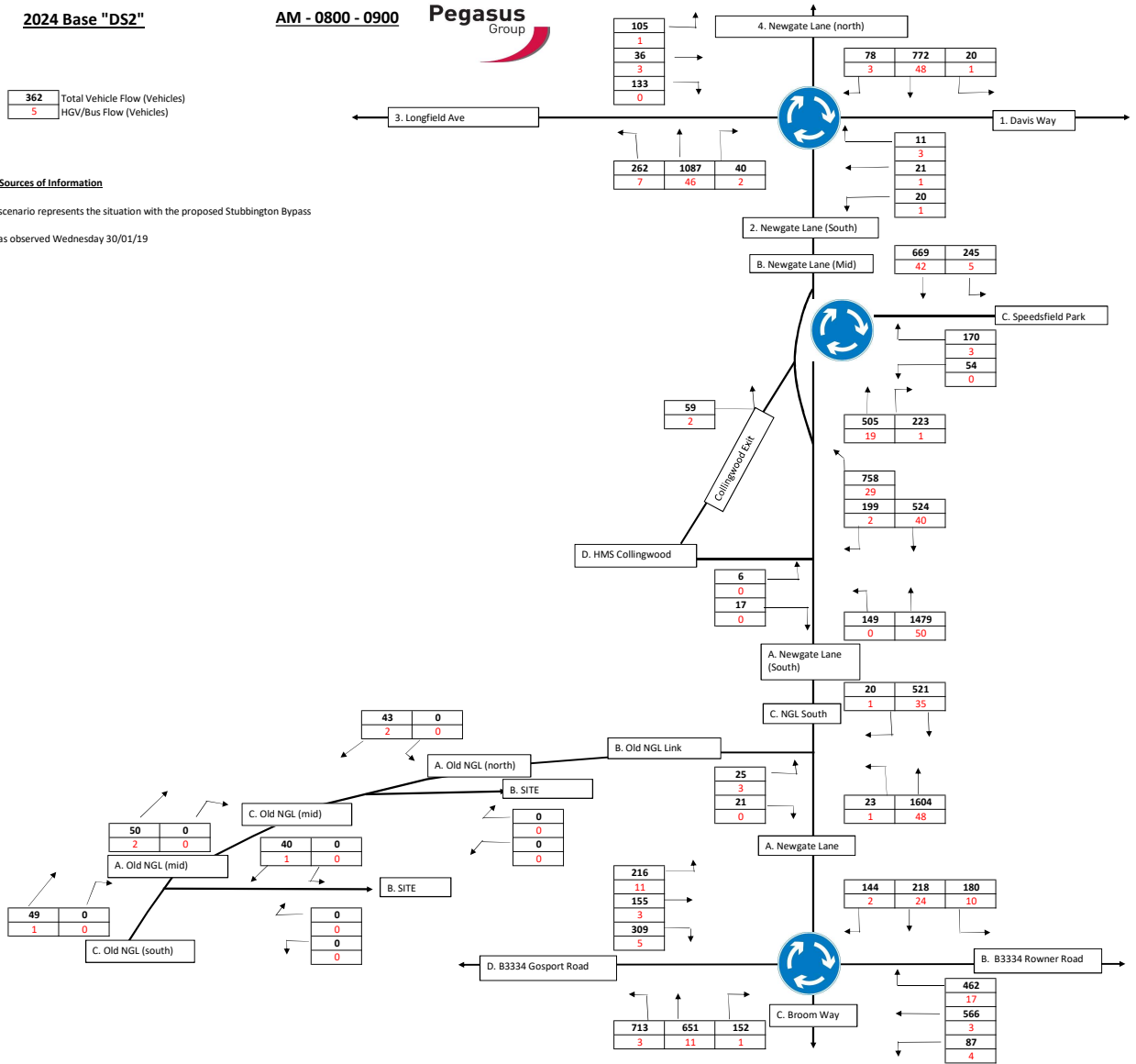
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2024 Base "DS2"**

**PM - 1700 - 1800**



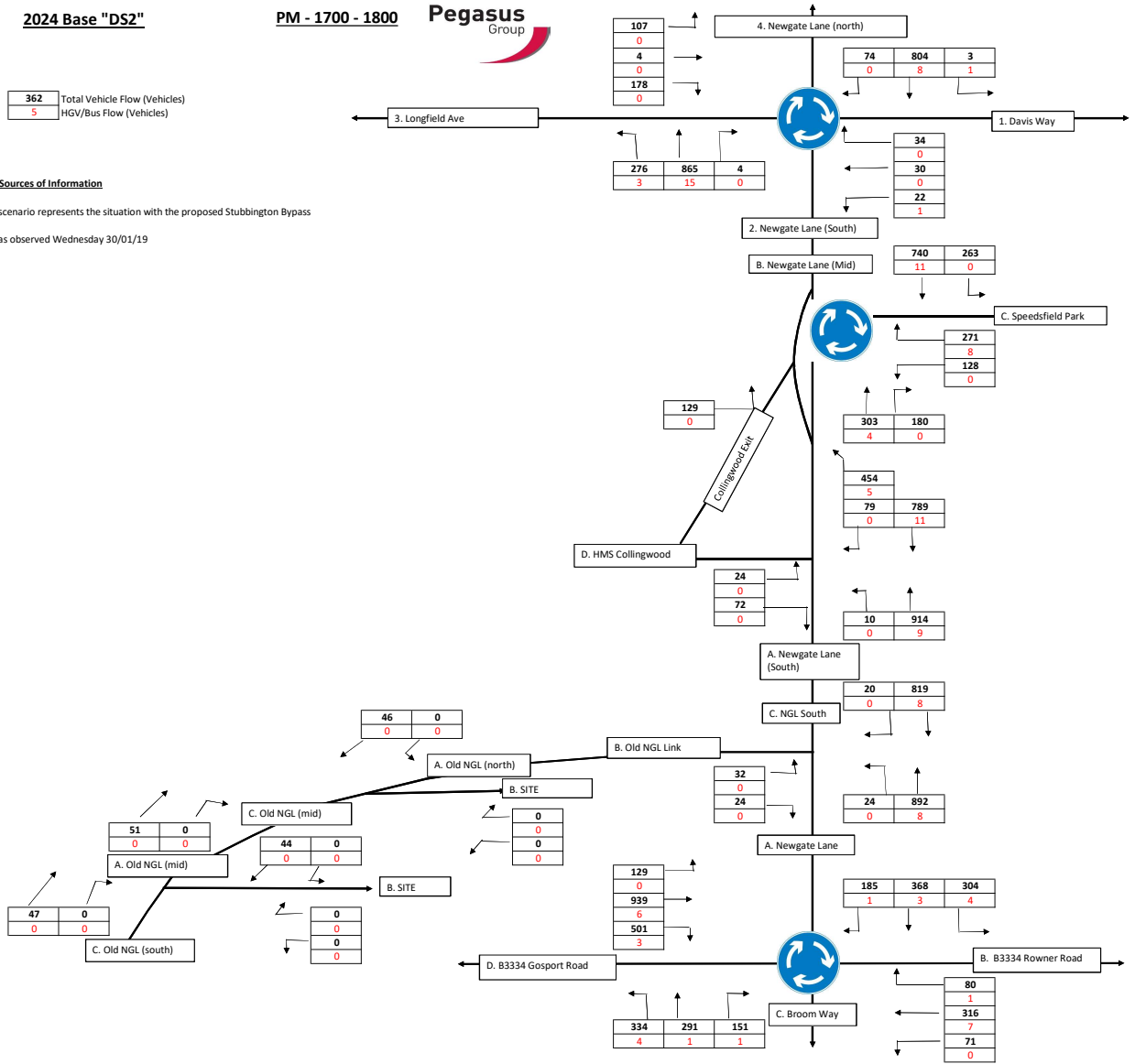
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19





**"DS1" Development Trip Distribution**

AM - 0800 - 0900

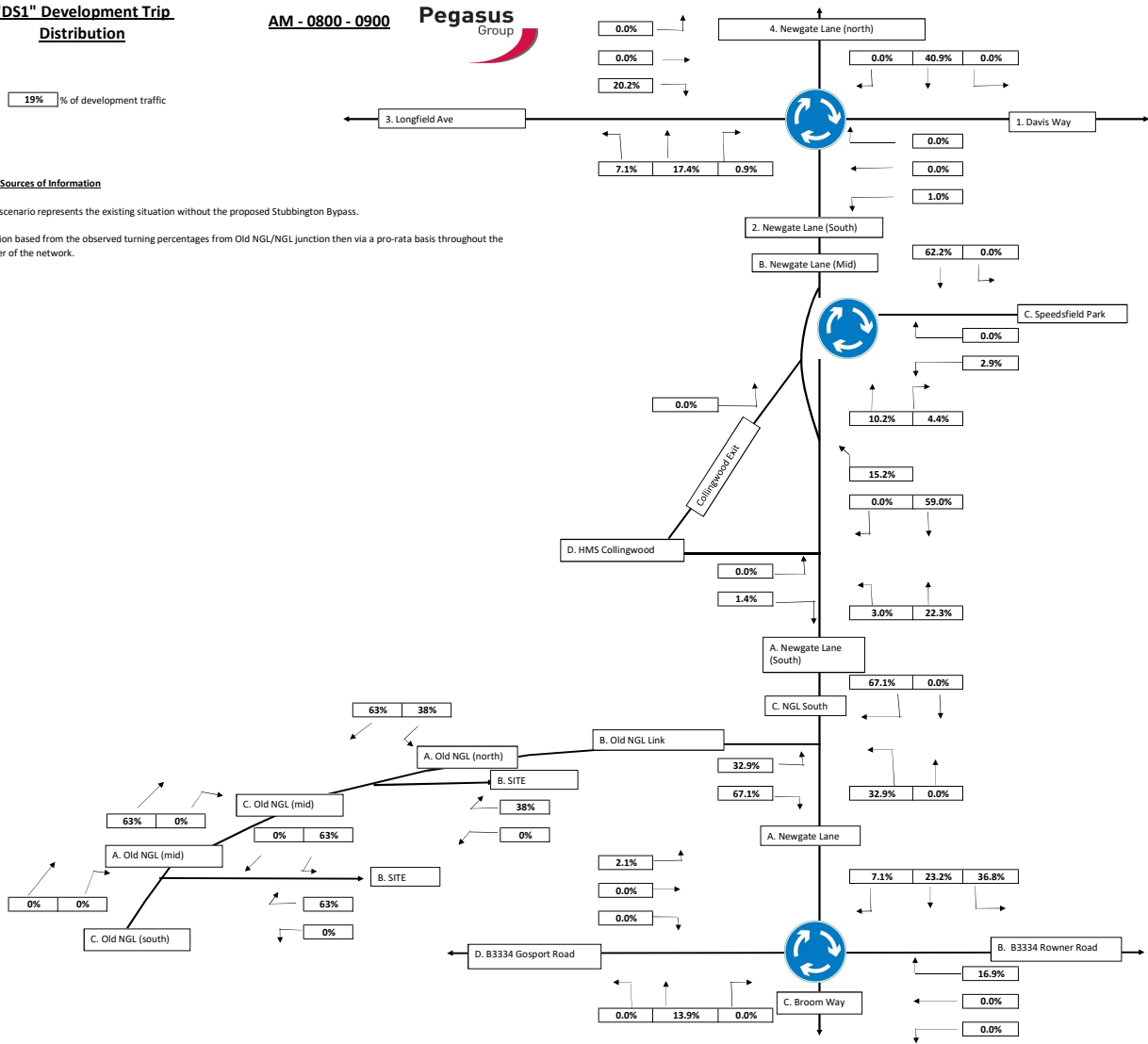


Key: 19% % of development traffic

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass.

Distribution based from the observed turning percentages from Old NGL/NGL junction then via a pro-rata basis throughout the remainder of the network.



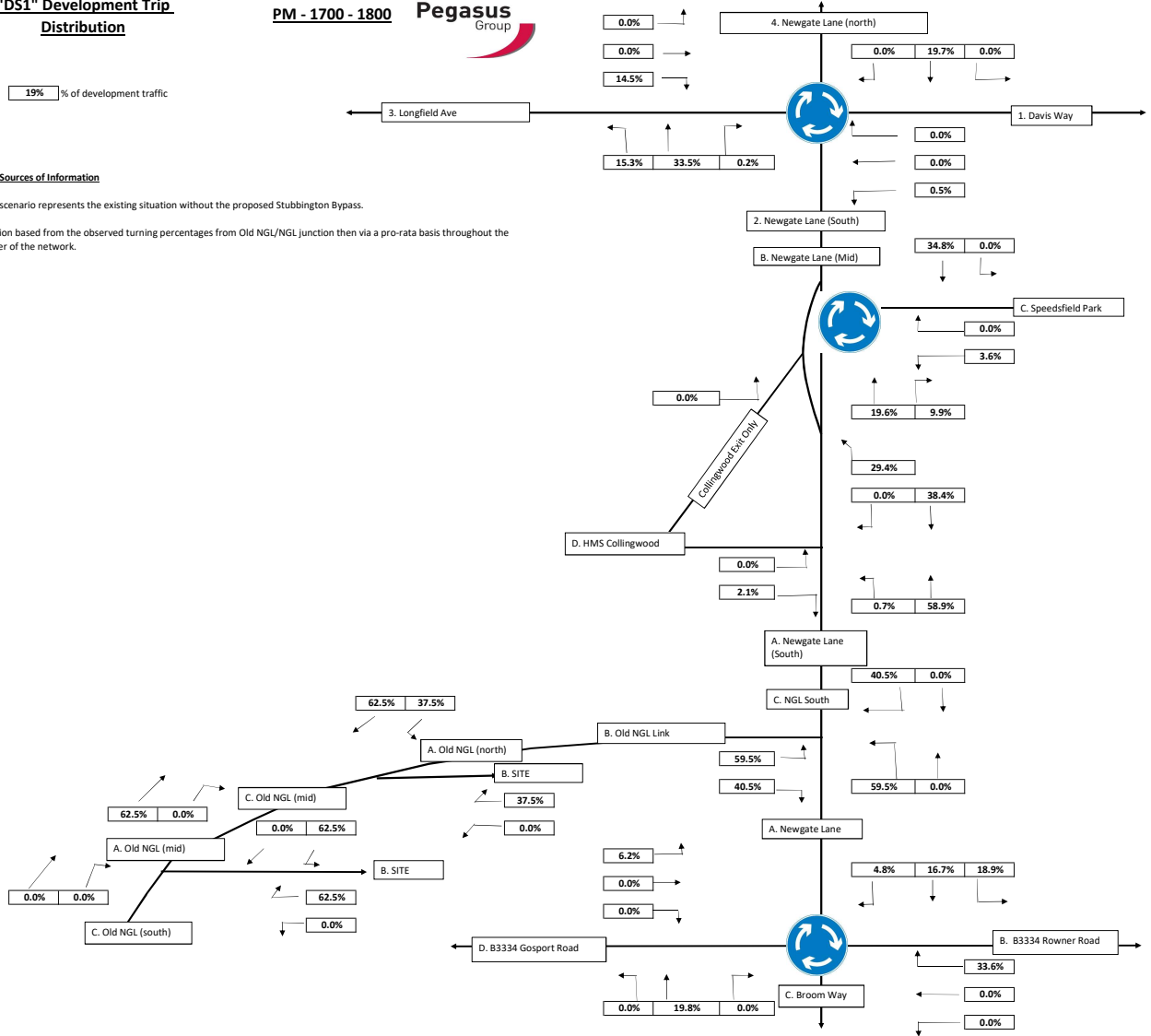
**"DS1" Development Trip Distribution**

Key: 19% % of development traffic

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass.

Distribution based from the observed turning percentages from Old NGL/NGL junction then via a pro-rata basis throughout the remainder of the network.







**"DS1" Development Trips**

PM - 1700 - 1800



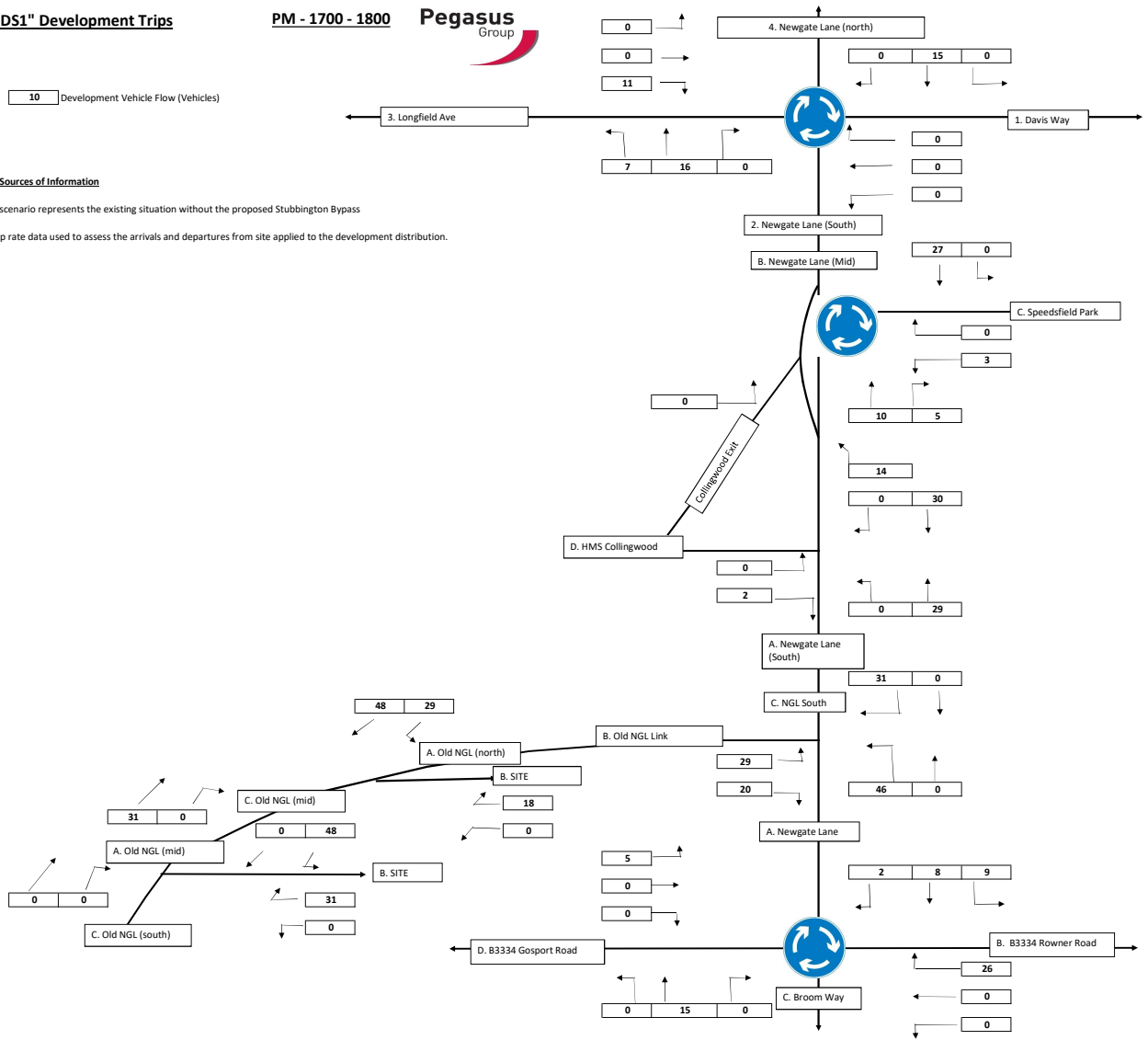
Key:

10 Development Vehicle Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

TRICS Trip rate data used to assess the arrivals and departures from site applied to the development distribution.



**2019 Development Trip  
Distribution "DS2"**

AM - 0800 - 0900



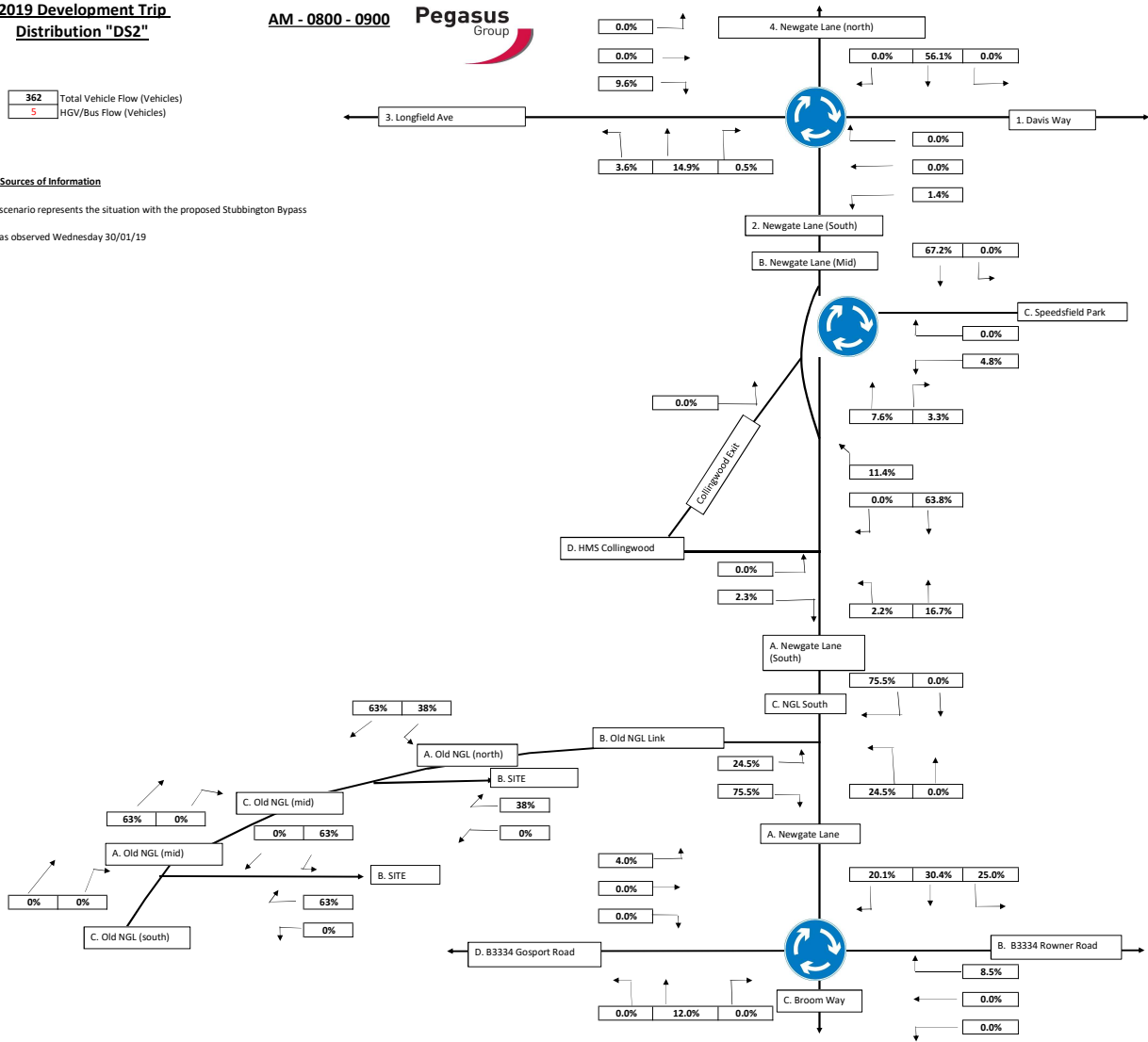
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2019 Development Trip  
Distribution "DS2"**

PM - 1700 - 1800



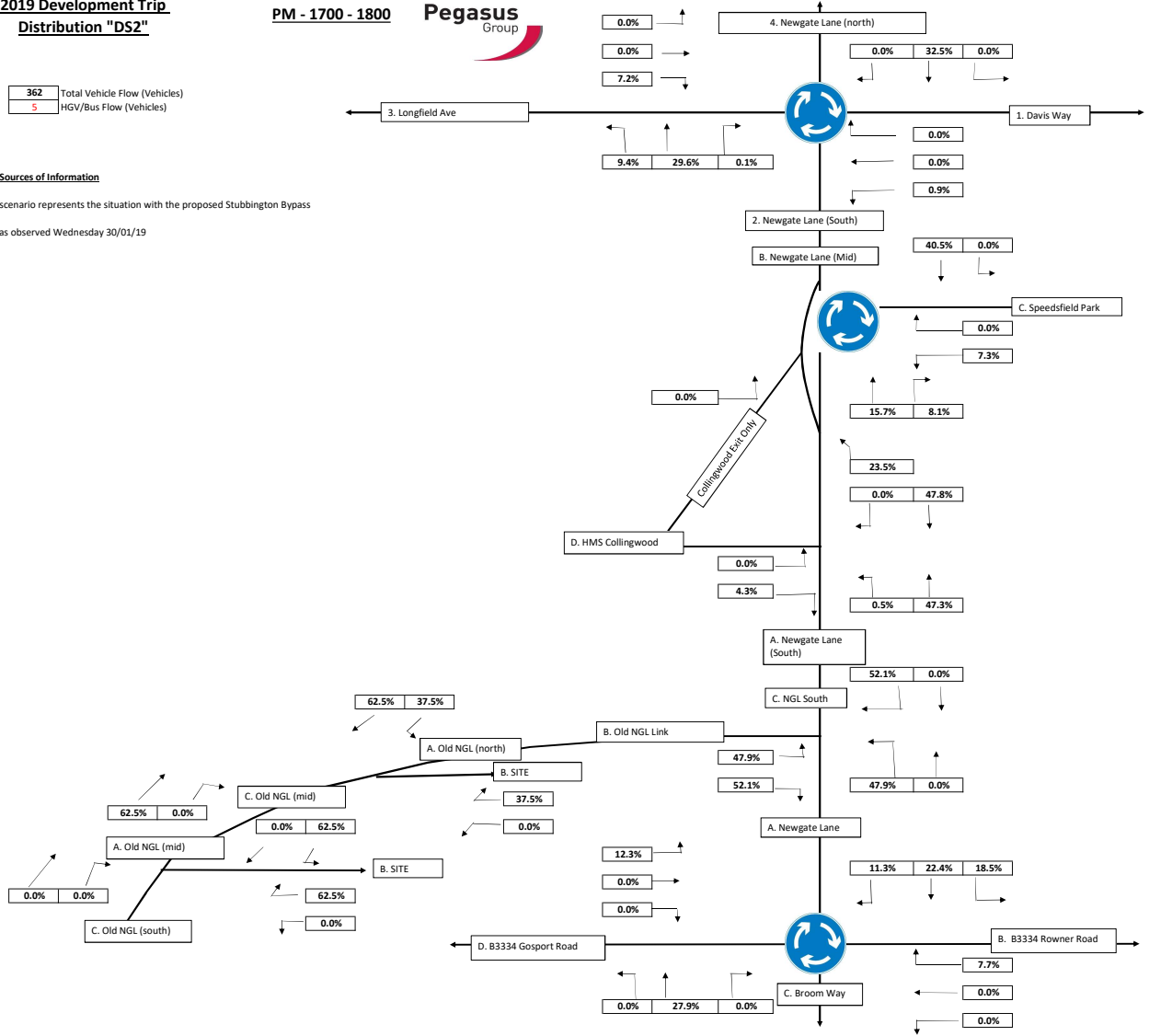
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2019 Development Trips "DS2"**

AM - 0800 - 0900



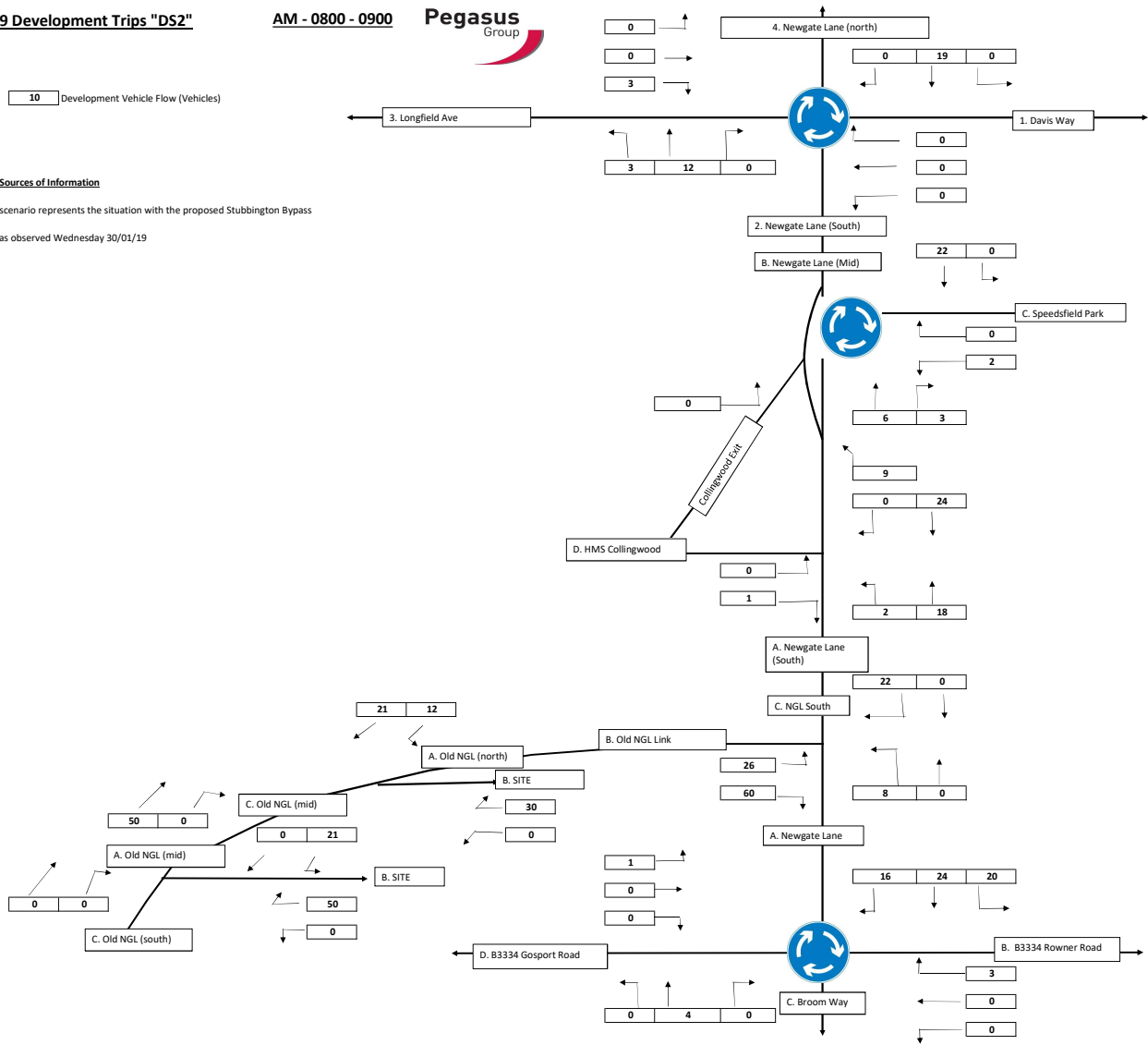
Key:

10 Development Vehicle Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19





**2019 Development Trips "DS2"**

**PM - 1700 - 1800**



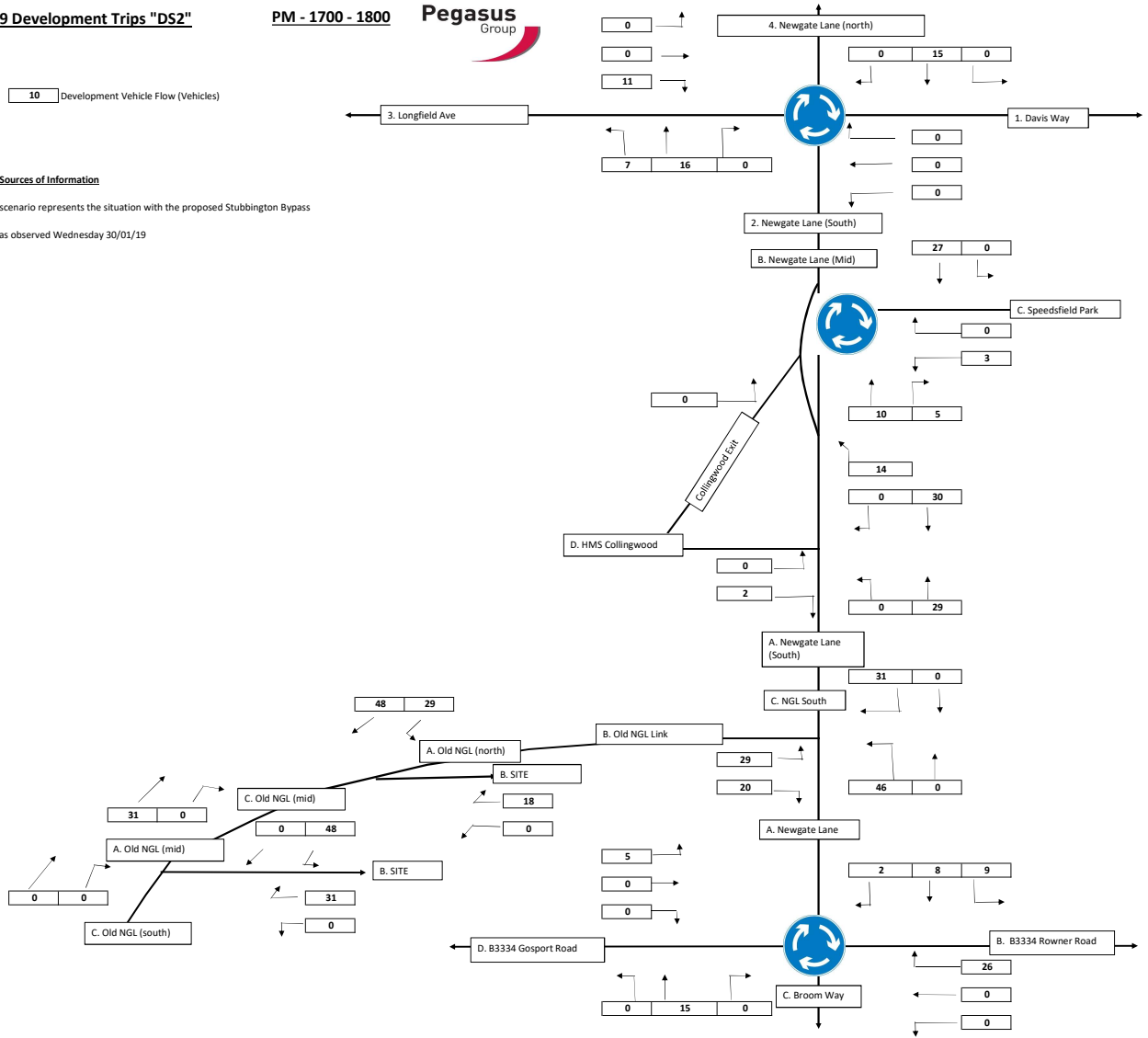
Key:

10 Development Vehicle Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



**2024 Base + Development "DS1"**

AM - 0800 - 0900



Growth Rate: 1.0354

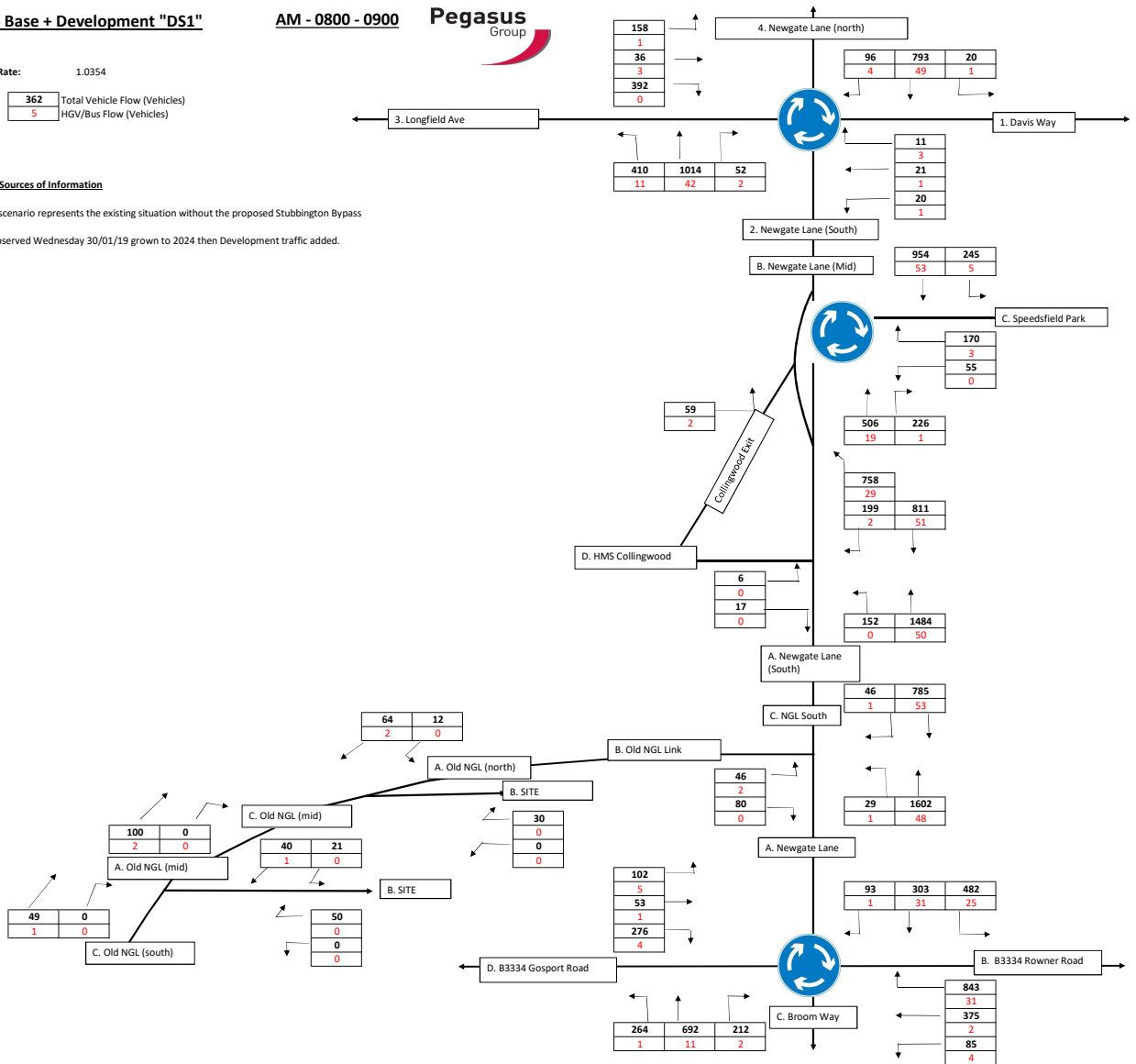
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass

Traffic observed Wednesday 30/01/19 grown to 2024 then Development traffic added.



**2024 Base + Development "DS1"**

PM - 1700 - 1800



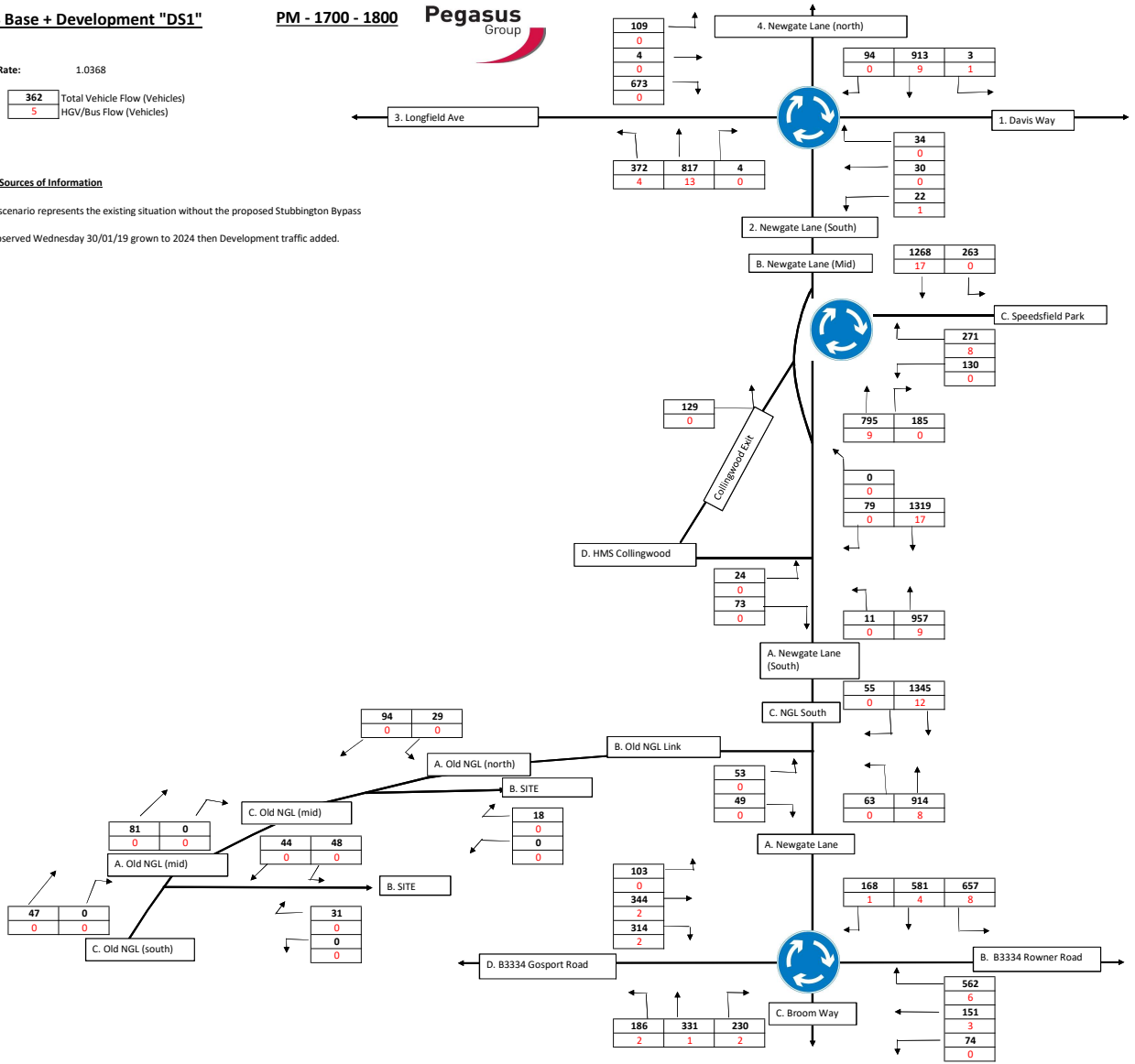
Growth Rate: 1.0368

Key: 

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS1 scenario represents the existing situation without the proposed Stubbington Bypass  
 Traffic observed Wednesday 30/01/19 grown to 2024 then Development traffic added.



**2024 Base + Development "DS2"**

AM - 0800 - 0900



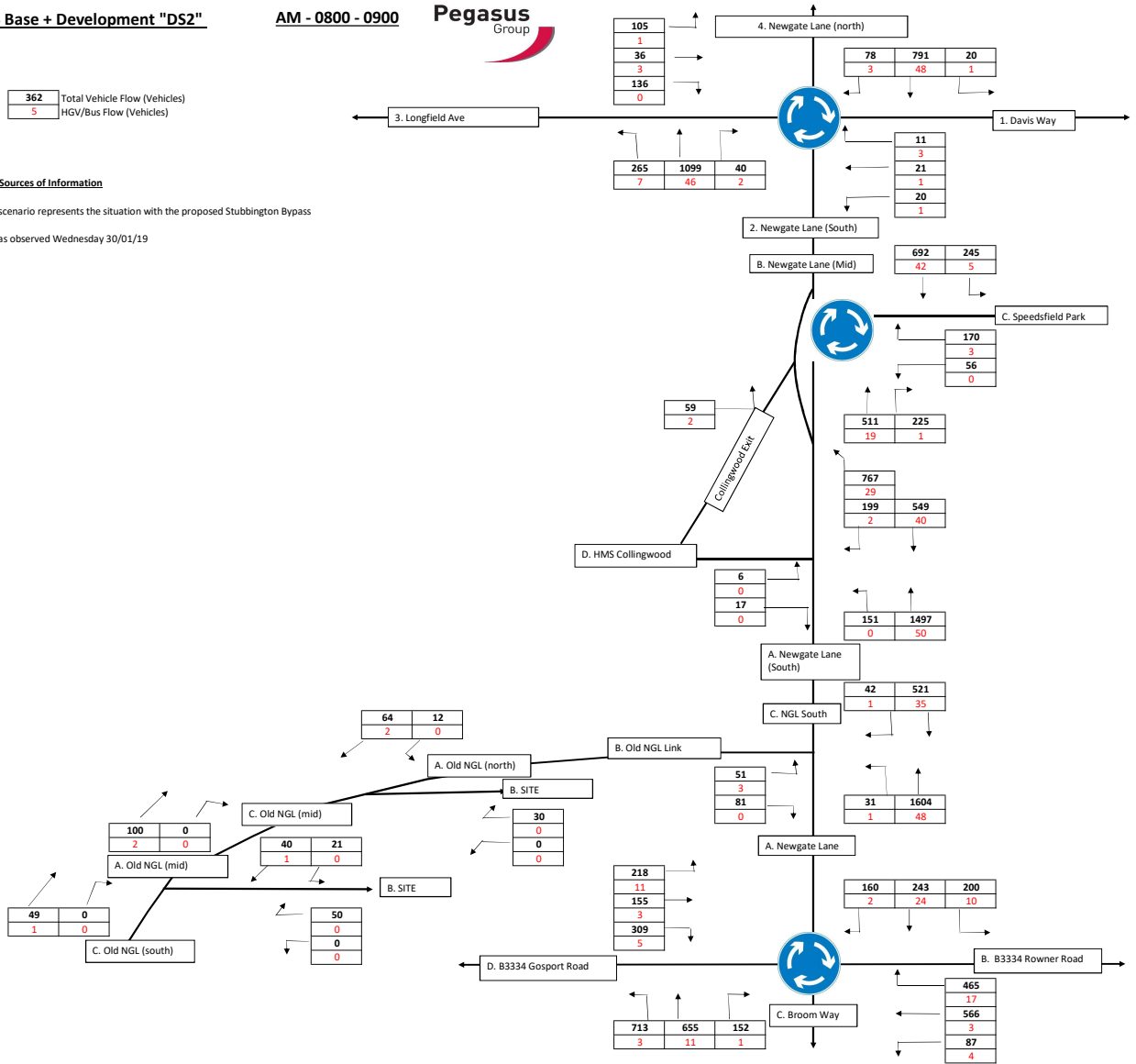
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

**Notes & Sources of Information**

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19





2024 Base + Development "DS2"

PM - 1700 - 1800



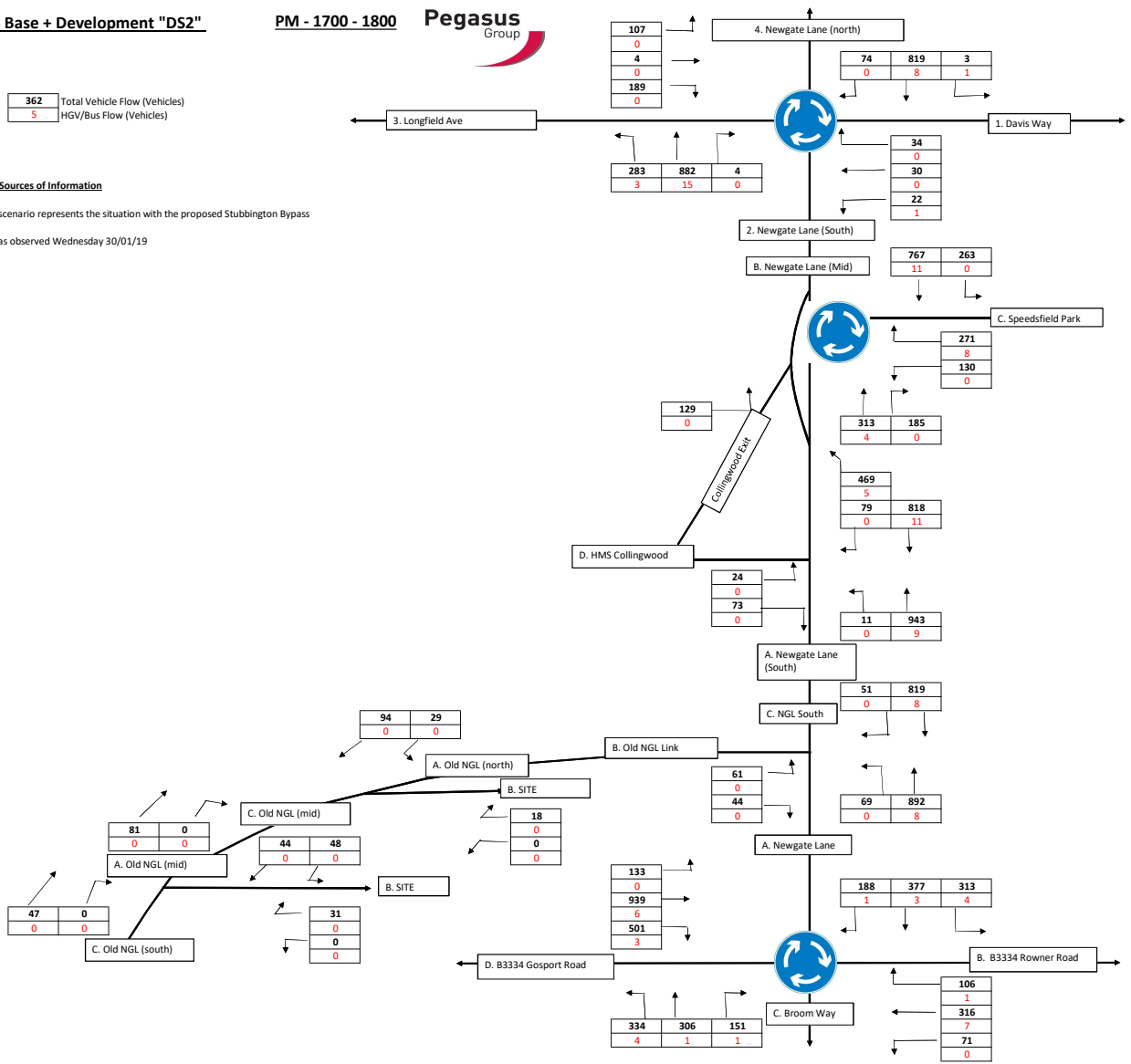
Key:

362	Total Vehicle Flow (Vehicles)
5	HGV/Bus Flow (Vehicles)

Notes & Sources of Information

The DS2 scenario represents the situation with the proposed Stubbington Bypass

Traffic was observed Wednesday 30/01/19



## **APPENDIX 10**

### **2024 MODELLING OUTPUTS**

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
<b>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</b>

**Filename:** Old Newgate Ln NGLS redes.j9

**Path:** \\Pg-brs-dc01\data\Bristol Projects\Bristol - Live Projects\BRS.4901 - BRS.5000\BRS.4989 - SUSTAINABLE LAND PLC - LAND TO THE NORTH OF GOSPORT ROAD, FAREHAM\Transport\7. Junction Modelling\b. PICADY\19

**Report generation date:** 26/02/2019 14:33:50

- 
- »2019 DS1 Base, AM
  - »2019 DS1 Base, PM
  - »2024 DS1 Base, AM
  - »2024 DS1 Base, PM
  - »2024 DS1 Base + Dev, AM
  - »2024 DS1 Base + Dev, PM
  - »2019 DS2 Base, AM
  - »2019 DS2 Base, PM
  - »2024 DS2 Base, AM
  - »2024 DS2 Base, PM
  - »2024 DS2 Base + Dev, AM
  - »2024 DS2 Base + Dev, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2019 DS1 Base</b>								
Stream B-C	0.1	16.07	0.08	C	0.1	8.39	0.05	A
Stream B-A	0.4	52.43	0.27	F	0.2	21.66	0.14	C
Stream C-AB	0.1	10.59	0.06	B	0.0	6.07	0.04	A
<b>2024 DS1 Base</b>								
Stream B-C	0.1	17.68	0.09	C	0.1	8.62	0.05	A
Stream B-A	0.5	74.38	0.35	F	0.2	24.23	0.16	C
Stream C-AB	0.1	11.22	0.07	B	0.0	6.19	0.04	A
<b>2024 DS1 Base + Dev</b>								
Stream B-C	15.0	1360.34	1.20	F	0.1	9.54	0.12	A
Stream B-A	24.3	1302.02	1.21	F	0.4	33.31	0.31	D
Stream C-AB	0.2	11.92	0.13	B	0.1	6.73	0.09	A
<b>2019 DS2 Base</b>								
Stream B-C	0.1	15.06	0.09	C	0.1	7.90	0.06	A
Stream B-A	0.2	32.16	0.15	D	0.1	14.58	0.09	B
Stream C-AB	0.1	10.52	0.05	B	0.0	5.97	0.03	A
<b>2024 DS2 Base</b>								
Stream B-C	0.1	16.16	0.10	C	0.1	8.09	0.07	A
Stream B-A	0.2	38.24	0.18	E	0.1	15.43	0.09	C
Stream C-AB	0.1	11.15	0.06	B	0.0	6.09	0.03	A
<b>2024 DS2 Base + Dev</b>								
Stream B-C	0.5	34.30	0.33	D	0.2	8.96	0.13	A
Stream B-A	2.4	109.52	0.72	F	0.2	18.25	0.18	C
Stream C-AB	0.1	11.77	0.12	B	0.1	6.61	0.09	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.

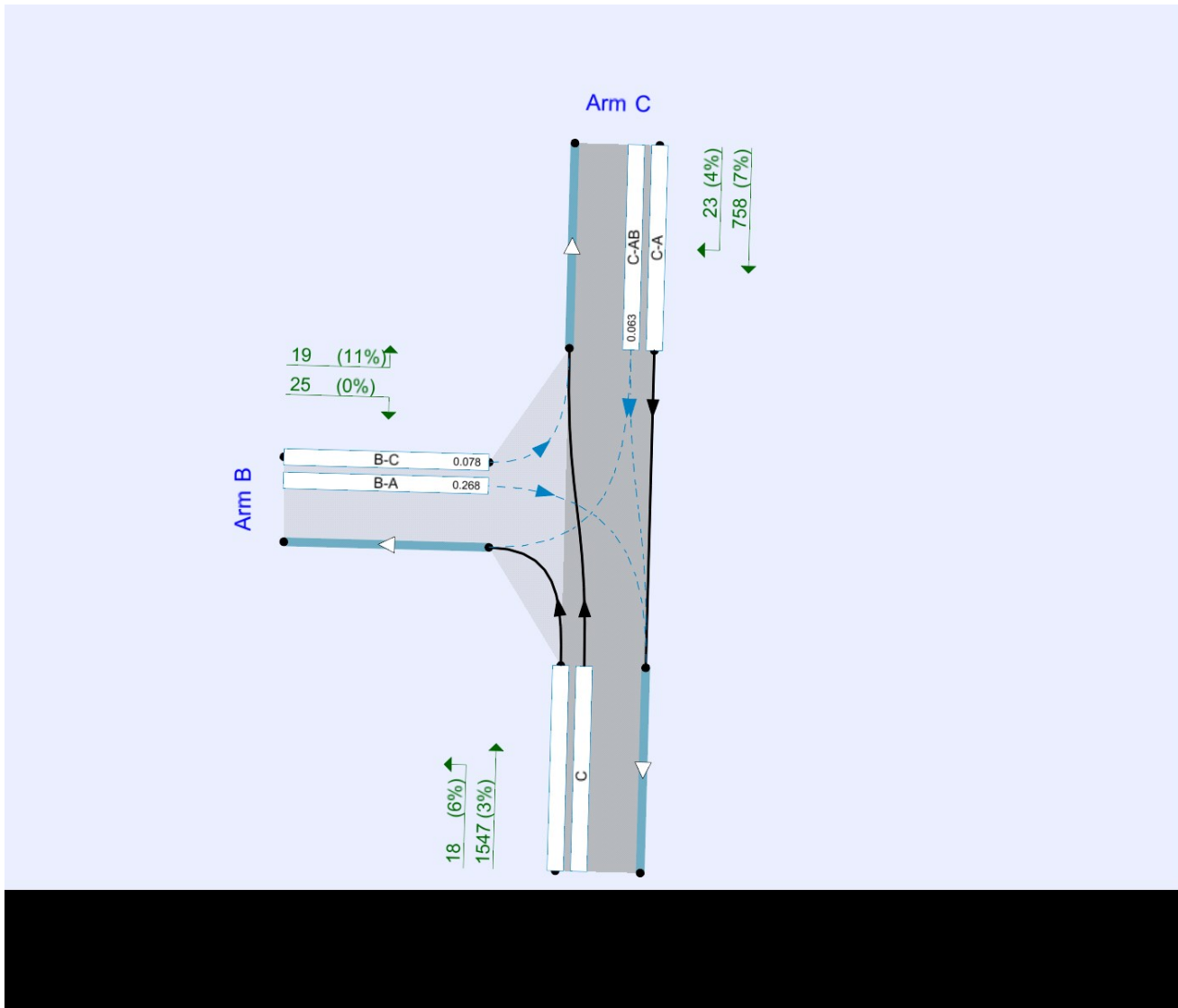
### File summary

#### File Description

Title	(untitled)
Location	
Site number	
Date	19/04/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PEGASUSGROUP\Philip.Wragg
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓
D5	2024 DS1 Base + Dev	AM	Base (no Stubbington bypass) to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D6	2024 DS1 Base + Dev	PM	Base (no Stubbington bypass) growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓
D7	2019 DS2 Base	AM		FLAT	07:45	09:15	90	15	✓
D8	2019 DS2 Base	PM		FLAT	16:45	18:15	90	15	✓
D9	2024 DS2 Base	AM	Base to 2024 growth	FLAT	07:45	09:15	90	15	✓
D10	2024 DS2 Base	PM	Base growth to 2024	FLAT	16:45	18:15	90	15	✓
D11	2024 DS2 Base + Dev	AM	Base to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D12	2024 DS2 Base + Dev	PM	Base growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

### Analysis Set Details

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



# 2019 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.76	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	NGL South (South)		Major
B	Old NGL		Minor
C	NGL South (North)		Major

### 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)
C	7.30	✓	4.00	✓	4.80	250.0	✓	10.00

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	One lane plus flare	10.00	9.50	6.30	5.35	5.10		3.00	94	75

## 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	643	0.102	0.257	0.161	0.367
1	B-C	700	0.101	0.256	-	-
1	C-B	922	0.337	0.337	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1565	100.000
B		FLAT	✓	44	100.000
C		FLAT	✓	781	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	1547
	B	25	0	19
	C	758	23	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.57	0.00	0.43
	C	0.97	0.03	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	3
	B	0	0	11
	C	7	4	0

### Average PCU Per Veh

	To			
	A	B	C	
From	A	1.000	1.056	1.030
	B	1.000	1.000	1.105
	C	1.067	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1565	1612
	B	44	46
	C	781	833
08:00-08:15	A	1565	1612
	B	44	46
	C	781	833
08:15-08:30	A	1565	1612
	B	44	46
	C	781	833
08:30-08:45	A	1565	1612
	B	44	46
	C	781	833
08:45-09:00	A	1565	1612
	B	44	46
	C	781	833
09:00-09:15	A	1565	1612
	B	44	46
	C	781	833

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.08	16.07	0.1	~1	C	21	32
B-A	0.27	52.43	0.4	~1	F	25	38
C-AB	0.06	10.59	0.1	~1	B	24	36
C-A						809	1213
A-B						19	29
A-C						1593	2390

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	271	0.078	21	0.0	0.1	15.893	C
B-A	25	6	93	0.268	24	0.0	0.3	50.713	F
C-AB	24	6	379	0.063	24	0.0	0.1	10.581	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**08:00 - 08:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	269	0.078	21	0.1	0.1	16.060	C
B-A	25	6	94	0.267	25	0.3	0.4	52.338	F
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**08:15 - 08:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	269	0.078	21	0.1	0.1	16.064	C
B-A	25	6	94	0.267	25	0.4	0.4	52.397	F
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**08:30 - 08:45**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	269	0.078	21	0.1	0.1	16.066	C
B-A	25	6	94	0.267	25	0.4	0.4	52.414	F
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	269	0.078	21	0.1	0.1	16.067	C
B-A	25	6	94	0.267	25	0.4	0.4	52.422	F
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	269	0.078	21	0.1	0.1	16.068	C
B-A	25	6	94	0.267	25	0.4	0.4	52.429	F
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	809	202			809				
A-B	19	5			19				
A-C	1593	398			1593				

**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	0.09	~1	~1	~1	~1			N/A	N/A
B-A	0.34	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.35	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.09	~1	~1	~1	~1			N/A	N/A
B-A	0.36	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.09	~1	~1	~1	~1			N/A	N/A
B-A	0.36	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.09	~1	~1	~1	~1			N/A	N/A
B-A	0.36	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.36	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			N/A	N/A

# 2019 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.41	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	899	100.000
B		FLAT	✓	51	100.000
C		FLAT	✓	1320	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	17	882
	B	28	0	23
	C	1297	23	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.55	0.00	0.45
	C	0.98	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	899	907
	B	51	51
	C	1320	1332
17:00-17:15	A	899	907
	B	51	51
	C	1320	1332
17:15-17:30	A	899	907
	B	51	51
	C	1320	1332
17:30-17:45	A	899	907
	B	51	51
	C	1320	1332
17:45-18:00	A	899	907
	B	51	51
	C	1320	1332
18:00-18:15	A	899	907
	B	51	51
	C	1320	1332

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.39	0.1	~1	A	23	35
B-A	0.14	21.66	0.2	~1	C	28	42
C-AB	0.04	6.07	0.0	~1	A	23	35
C-A						1309	1963
A-B						17	26
A-C						890	1335

## Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	453	0.051	23	0.0	0.1	8.370	A
B-A	28	7	194	0.144	27	0.0	0.2	21.518	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.063	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	452	0.051	23	0.1	0.1	8.394	A
B-A	28	7	194	0.144	28	0.2	0.2	21.658	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	452	0.051	23	0.1	0.1	8.394	A
B-A	28	7	194	0.144	28	0.2	0.2	21.661	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	452	0.051	23	0.1	0.1	8.394	A
B-A	28	7	194	0.144	28	0.2	0.2	21.663	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	452	0.051	23	0.1	0.1	8.394	A
B-A	28	7	194	0.144	28	0.2	0.2	21.663	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	452	0.051	23	0.1	0.1	8.394	A
B-A	28	7	194	0.144	28	0.2	0.2	21.663	C
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1309	327			1309				
A-B	17	4			17				
A-C	890	223			890				

**Queue Variation Results for each time segment**

**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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.16	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.05	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		1.00	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1620	100.000
B		FLAT	✓	46	100.000
C		FLAT	✓	809	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	1602
	B	26	0	20
	C	785	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.57	0.00	0.43
	C	0.97	0.03	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	6	3
B	0	0	11
C	7	4	0

### Average PCU Per Veh

From	To		
	A	B	C
A	1.000	1.056	1.030
B	1.000	1.000	1.105
C	1.067	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1620	1669
	B	46	48
	C	809	862
08:00-08:15	A	1620	1669
	B	46	48
	C	809	862
08:15-08:30	A	1620	1669
	B	46	48
	C	809	862
08:30-08:45	A	1620	1669
	B	46	48
	C	809	862
08:45-09:00	A	1620	1669
	B	46	48
	C	809	862
09:00-09:15	A	1620	1669
	B	46	48
	C	809	862

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	17.68	0.1	~1	C	22	33
B-A	0.35	74.38	0.5	~1	F	26	39
C-AB	0.07	11.22	0.1	~1	B	25	37
C-A						838	1256
A-B						20	30
A-C						1649	2474

## Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	250	0.087	21	0.0	0.1	17.339	C
B-A	26	6	74	0.350	24	0.0	0.5	69.802	F
C-AB	25	6	360	0.069	25	0.0	0.1	11.203	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	247	0.088	22	0.1	0.1	17.649	C
B-A	26	6	74	0.349	26	0.5	0.5	74.002	F
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	247	0.088	22	0.1	0.1	17.665	C
B-A	26	6	74	0.349	26	0.5	0.5	74.230	F
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	247	0.088	22	0.1	0.1	17.671	C
B-A	26	6	74	0.349	26	0.5	0.5	74.314	F
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	247	0.088	22	0.1	0.1	17.673	C
B-A	26	6	74	0.349	26	0.5	0.5	74.356	F
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	247	0.088	22	0.1	0.1	17.675	C
B-A	26	6	74	0.349	26	0.5	0.5	74.381	F
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	838	209			838				
A-B	20	5			20				
A-C	1649	412			1649				

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	0.10	~1	~1	~1	~1			N/A	N/A
B-A	0.48	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.51	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.51	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.52	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.52	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.52	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			N/A	N/A



# 2024 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.45	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	932	100.000
B		FLAT	✓	53	100.000
C		FLAT	✓	1369	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	914
	B	29	0	24
	C	1345	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.55	0.00	0.45
	C	0.98	0.02	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
	C	1.009	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	932	940
	B	53	53
	C	1369	1381
17:00-17:15	A	932	940
	B	53	53
	C	1369	1381
17:15-17:30	A	932	940
	B	53	53
	C	1369	1381
17:30-17:45	A	932	940
	B	53	53
	C	1369	1381
17:45-18:00	A	932	940
	B	53	53
	C	1369	1381
18:00-18:15	A	932	940
	B	53	53
	C	1369	1381

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.62	0.1	~1	A	24	36
B-A	0.16	24.23	0.2	~1	C	29	44
C-AB	0.04	6.19	0.0	~1	A	24	36
C-A						1357	2036
A-B						18	26
A-C						923	1384

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	442	0.054	24	0.0	0.1	8.592	A
B-A	29	7	177	0.164	28	0.0	0.2	24.019	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.189	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	441	0.054	24	0.1	0.1	8.622	A
B-A	29	7	178	0.163	29	0.2	0.2	24.222	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.192	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	441	0.054	24	0.1	0.1	8.623	A
B-A	29	7	178	0.163	29	0.2	0.2	24.227	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.192	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	441	0.054	24	0.1	0.1	8.623	A
B-A	29	7	178	0.163	29	0.2	0.2	24.226	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.192	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	441	0.054	24	0.1	0.1	8.623	A
B-A	29	7	178	0.163	29	0.2	0.2	24.229	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.192	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	441	0.054	24	0.1	0.1	8.623	A
B-A	29	7	178	0.163	29	0.2	0.2	24.228	C
C-AB	24	6	605	0.039	24	0.0	0.0	6.192	A
C-A	1357	339			1357				
A-B	18	4			18				
A-C	923	231			923				

**Queue Variation Results for each time segment**

**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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.06	~1	~1	~1	~1			N/A	N/A
B-A	0.19	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base + Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		62.97	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 DS1 Base + Dev	AM	Base (no Stubbington bypass) to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1631	100.000
B		FLAT	✓	126	100.000
C		FLAT	✓	831	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	29	1602
	B	80	0	46
	C	785	46	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.63	0.00	0.37
	C	0.94	0.06	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	4	3
	B	0	0	5
C	7	2	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.035	1.030
	B	1.000	1.000	1.045
C	1.067	1.023	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1631	1680
	B	126	128
	C	831	885
08:00-08:15	A	1631	1680
	B	126	128
	C	831	885
08:15-08:30	A	1631	1680
	B	126	128
	C	831	885
08:30-08:45	A	1631	1680
	B	126	128
	C	831	885
08:45-09:00	A	1631	1680
	B	126	128
	C	831	885
09:00-09:15	A	1631	1680
	B	126	128
	C	831	885

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.20	1360.34	15.0	?	F	48	72
B-A	1.21	1302.02	24.3	?	F	80	119
C-AB	0.13	11.92	0.2	~1	B	47	70
C-A						838	1256
A-B						31	46
A-C						1649	2474

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	40	1.201	32	0.0	4.1	315.322	F
B-A	80	20	66	1.201	56	0.0	5.8	244.948	F
C-AB	47	12	356	0.132	46	0.0	0.2	11.876	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	41	1.165	38	4.1	6.5	590.775	F
B-A	80	20	66	1.208	63	5.8	9.8	511.933	F
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	41	1.172	39	6.5	8.7	792.347	F
B-A	80	20	66	1.208	64	9.8	13.6	719.058	F
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	41	1.179	39	8.7	10.8	985.168	F
B-A	80	20	66	1.207	65	13.6	17.2	916.930	F
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	41	1.185	40	10.8	12.9	1173.162	F
B-A	80	20	66	1.207	65	17.2	20.8	1110.710	F
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				



**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	40	1.189	40	12.9	15.0	1360.342	F
B-A	80	20	66	1.206	65	20.8	24.3	1302.015	F
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	838	209			838				
A-B	31	8			31				
A-C	1649	412			1649				

**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	4.06	?	?	?	?			N/A	N/A
B-A	5.77	?	?	?	?			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	6.47	?	?	?	?			N/A	N/A
B-A	9.83	?	?	?	?			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	8.68	?	?	?	?			N/A	N/A
B-A	13.60	?	?	?	?			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	10.82	?	?	?	?			N/A	N/A
B-A	17.24	?	?	?	?			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	12.93	?	?	?	?			N/A	N/A
B-A	20.81	?	?	?	?			N/A	N/A
C-AB	0.16	~1	~1	~1	~1			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	15.02	?	?	?	?			N/A	N/A
B-A	24.34	?	?	?	?			N/A	N/A
C-AB	0.16	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base + Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		1.00	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 DS1 Base + Dev	PM	Base (no Stubbington bypass) growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	978	100.000
B		FLAT	✓	102	100.000
C		FLAT	✓	1400	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	63	914
B	49	0	53
C	1345	55	0

### Proportions

From	To		
	A	B	C
A	0.00	0.06	0.94
B	0.48	0.00	0.52
C	0.96	0.04	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
	C	1.009	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	978	986
	B	102	102
	C	1400	1412
17:00-17:15	A	978	986
	B	102	102
	C	1400	1412
17:15-17:30	A	978	986
	B	102	102
	C	1400	1412
17:30-17:45	A	978	986
	B	102	102
	C	1400	1412
17:45-18:00	A	978	986
	B	102	102
	C	1400	1412
18:00-18:15	A	978	986
	B	102	102
	C	1400	1412

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	9.54	0.1	~1	A	53	80
B-A	0.31	33.31	0.4	~1	D	49	73
C-AB	0.09	6.73	0.1	~1	A	55	83
C-A						1357	2036
A-B						63	95
A-C						923	1384

## Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	433	0.122	52	0.0	0.1	9.443	A
B-A	49	12	157	0.312	47	0.0	0.4	32.442	D
C-AB	55	14	590	0.093	55	0.0	0.1	6.724	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	431	0.123	53	0.1	0.1	9.535	A
B-A	49	12	157	0.311	49	0.4	0.4	33.283	D
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	430	0.123	53	0.1	0.1	9.537	A
B-A	49	12	157	0.311	49	0.4	0.4	33.302	D
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	430	0.123	53	0.1	0.1	9.538	A
B-A	49	12	157	0.311	49	0.4	0.4	33.308	D
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	430	0.123	53	0.1	0.1	9.538	A
B-A	49	12	157	0.311	49	0.4	0.4	33.305	D
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	430	0.123	53	0.1	0.1	9.538	A
B-A	49	12	157	0.311	49	0.4	0.4	33.313	D
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1357	339			1357				
A-B	63	16			63				
A-C	923	231			923				

**Queue Variation Results for each time segment**

**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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.43	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.44	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.44	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.45	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.45	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.45	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

# 2019 DS2 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2019 DS2 Base	AM	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1571	100.000
B		FLAT	✓	44	100.000
C		FLAT	✓	523	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	22	1549
	B	20	0	24
	C	504	19	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.46	0.00	0.54
	C	0.96	0.04	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

From	To		
	A	B	C
A	0	6	3
B	0	0	11
C	7	4	0

**Average PCU Per Veh**

From	To		
	A	B	C
A	1.000	1.056	1.030
B	1.000	1.000	1.105
C	1.067	1.043	1.000

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1571	1618
	B	44	46
	C	523	557
08:00-08:15	A	1571	1618
	B	44	46
	C	523	557
08:15-08:30	A	1571	1618
	B	44	46
	C	523	557
08:30-08:45	A	1571	1618
	B	44	46
	C	523	557
08:45-09:00	A	1571	1618
	B	44	46
	C	523	557
09:00-09:15	A	1571	1618
	B	44	46
	C	523	557

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	15.06	0.1	~1	C	26	40
B-A	0.15	32.16	0.2	~1	D	20	30
C-AB	0.05	10.52	0.1	~1	B	20	30
C-A						537	806
A-B						23	35
A-C						1595	2392



### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.0	0.1	14.971	B
B-A	20	5	132	0.152	19	0.0	0.2	31.816	D
C-AB	20	5	377	0.053	20	0.0	0.1	10.512	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.1	0.1	15.062	C
B-A	20	5	132	0.152	20	0.2	0.2	32.148	D
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.1	0.1	15.063	C
B-A	20	5	132	0.152	20	0.2	0.2	32.155	D
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.1	0.1	15.064	C
B-A	20	5	132	0.152	20	0.2	0.2	32.156	D
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.1	0.1	15.064	C
B-A	20	5	132	0.152	20	0.2	0.2	32.157	D
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	291	0.091	26	0.1	0.1	15.064	C
B-A	20	5	132	0.152	20	0.2	0.2	32.159	D
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	537	134			537				
A-B	23	6			23				
A-C	1595	399			1595				

**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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.17	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.18	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.18	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.18	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.18	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.18	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			N/A	N/A

# 2019 DS2 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2019 DS2 Base	PM	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	883	100.000
B		FLAT	✓	54	100.000
C		FLAT	✓	809	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	23	860
	B	23	0	31
	C	790	19	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.03	0.97
	B	0.43	0.00	0.57
	C	0.98	0.02	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

**Average PCU Per Veh**

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	883	891
	B	54	54
	C	809	816
17:00-17:15	A	883	891
	B	54	54
	C	809	816
17:15-17:30	A	883	891
	B	54	54
	C	809	816
17:30-17:45	A	883	891
	B	54	54
	C	809	816
17:45-18:00	A	883	891
	B	54	54
	C	809	816
18:00-18:15	A	883	891
	B	54	54
	C	809	816

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	7.90	0.1	~1	A	31	47
B-A	0.09	14.58	0.1	~1	B	23	35
C-AB	0.03	5.97	0.0	~1	A	19	29
C-A						797	1195
A-B						23	34
A-C						868	1302

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.0	0.1	7.883	A
B-A	23	6	270	0.086	23	0.0	0.1	14.549	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.971	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.1	0.1	7.900	A
B-A	23	6	270	0.086	23	0.1	0.1	14.585	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.1	0.1	7.900	A
B-A	23	6	270	0.086	23	0.1	0.1	14.585	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.1	0.1	7.900	A
B-A	23	6	270	0.086	23	0.1	0.1	14.585	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.1	0.1	7.900	A
B-A	23	6	270	0.086	23	0.1	0.1	14.585	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	487	0.064	31	0.1	0.1	7.900	A
B-A	23	6	270	0.086	23	0.1	0.1	14.585	B
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	797	199			797				
A-B	23	6			23				
A-C	868	217			868				

**Queue Variation Results for each time segment**

**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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.09	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2024 DS2 Base	AM	Base to 2024 growth	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1626	100.000
B		FLAT	✓	45	100.000
C		FLAT	✓	541	100.000

## Origin-Destination Data

#### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	23	1604
	B	21	0	25
	C	521	20	0

#### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.46	0.00	0.54
	C	0.96	0.04	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	6	3
B	0	0	11
C	7	4	0

### Average PCU Per Veh

From	To		
	A	B	C
A	1.000	1.056	1.030
B	1.000	1.000	1.105
C	1.067	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1626	1675
	B	45	48
	C	541	577
08:00-08:15	A	1626	1675
	B	45	48
	C	541	577
08:15-08:30	A	1626	1675
	B	45	48
	C	541	577
08:30-08:45	A	1626	1675
	B	45	48
	C	541	577
08:45-09:00	A	1626	1675
	B	45	48
	C	541	577
09:00-09:15	A	1626	1675
	B	45	48
	C	541	577

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	16.16	0.1	~1	C	27	41
B-A	0.18	38.24	0.2	~1	E	21	31
C-AB	0.06	11.15	0.1	~1	B	21	31
C-A						556	835
A-B						24	36
A-C						1651	2477



## Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	275	0.100	27	0.0	0.1	16.032	C
B-A	21	5	115	0.181	20	0.0	0.2	37.652	E
C-AB	21	5	357	0.058	20	0.0	0.1	11.134	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	274	0.100	27	0.1	0.1	16.156	C
B-A	21	5	115	0.180	21	0.2	0.2	38.215	E
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	274	0.100	27	0.1	0.1	16.158	C
B-A	21	5	115	0.180	21	0.2	0.2	38.228	E
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	274	0.100	27	0.1	0.1	16.158	C
B-A	21	5	115	0.180	21	0.2	0.2	38.233	E
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	274	0.100	27	0.1	0.1	16.159	C
B-A	21	5	115	0.180	21	0.2	0.2	38.234	E
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	274	0.100	27	0.1	0.1	16.159	C
B-A	21	5	115	0.180	21	0.2	0.2	38.235	E
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	556	139			556				
A-B	24	6			24				
A-C	1651	413			1651				

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	~1	~1	~1	~1			N/A	N/A
B-A	0.21	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.12	~1	~1	~1	~1			N/A	N/A
B-A	0.21	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.12	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.41	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2024 DS2 Base	PM	Base growth to 2024	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	916	100.000
B		FLAT	✓	56	100.000
C		FLAT	✓	839	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	24	892
	B	24	0	32
	C	819	20	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.03	0.97
	B	0.43	0.00	0.57
	C	0.98	0.02	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	916	924
	B	56	56
	C	839	846
17:00-17:15	A	916	924
	B	56	56
	C	839	846
17:15-17:30	A	916	924
	B	56	56
	C	839	846
17:30-17:45	A	916	924
	B	56	56
	C	839	846
17:45-18:00	A	916	924
	B	56	56
	C	839	846
18:00-18:15	A	916	924
	B	56	56
	C	839	846

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.07	8.09	0.1	~1	A	32	48
B-A	0.09	15.43	0.1	~1	C	24	36
C-AB	0.03	6.09	0.0	~1	A	20	30
C-A						826	1239
A-B						24	35
A-C						900	1350

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	478	0.068	32	0.0	0.1	8.070	A
B-A	24	6	257	0.094	24	0.0	0.1	15.387	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.090	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	477	0.068	32	0.1	0.1	8.088	A
B-A	24	6	257	0.093	24	0.1	0.1	15.431	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	477	0.068	32	0.1	0.1	8.088	A
B-A	24	6	257	0.093	24	0.1	0.1	15.431	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	477	0.068	32	0.1	0.1	8.088	A
B-A	24	6	257	0.093	24	0.1	0.1	15.431	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	477	0.068	32	0.1	0.1	8.088	A
B-A	24	6	257	0.093	24	0.1	0.1	15.431	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	477	0.068	32	0.1	0.1	8.088	A
B-A	24	6	257	0.093	24	0.1	0.1	15.431	C
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	826	207			826				
A-B	24	6			24				
A-C	900	225			900				

**Queue Variation Results for each time segment**

**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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.07	~1	~1	~1	~1			N/A	N/A
B-A	0.10	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base + Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		4.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2024 DS2 Base + Dev	AM	Base to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1634	100.000
B		FLAT	✓	132	100.000
C		FLAT	✓	563	100.000

## Origin-Destination Data

#### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	31	1604
	B	81	0	51
	C	521	42	0

#### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.61	0.00	0.39
	C	0.93	0.07	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

		To		
		A	B	C
From	A	0	4	3
	B	0	0	5
	C	7	2	0

**Average PCU Per Veh**

		To		
		A	B	C
From	A	1.000	1.041	1.030
	B	1.000	1.000	1.051
	C	1.067	1.020	1.000

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1634	1683
	B	132	135
	C	563	599
08:00-08:15	A	1634	1683
	B	132	135
	C	563	599
08:15-08:30	A	1634	1683
	B	132	135
	C	563	599
08:30-08:45	A	1634	1683
	B	132	135
	C	563	599
08:45-09:00	A	1634	1683
	B	132	135
	C	563	599
09:00-09:15	A	1634	1683
	B	132	135
	C	563	599

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.33	34.30	0.5	~1	D	54	81
B-A	0.72	109.52	2.4	?	F	81	122
C-AB	0.12	11.77	0.1	~1	B	43	64
C-A						556	835
A-B						32	48
A-C						1651	2477



### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	190	0.282	52	0.0	0.4	27.156	D
B-A	81	20	113	0.718	74	0.0	1.9	81.453	F
C-AB	43	11	355	0.120	42	0.0	0.1	11.734	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	170	0.316	53	0.4	0.5	32.451	D
B-A	81	20	113	0.717	80	1.9	2.1	103.178	F
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	167	0.322	54	0.5	0.5	33.441	D
B-A	81	20	113	0.717	81	2.1	2.2	106.573	F
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	165	0.325	54	0.5	0.5	33.876	D
B-A	81	20	113	0.717	81	2.2	2.3	108.090	F
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	164	0.327	54	0.5	0.5	34.132	D
B-A	81	20	113	0.717	81	2.3	2.3	108.959	F
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	164	0.328	54	0.5	0.5	34.297	D
B-A	81	20	113	0.717	81	2.3	2.4	109.523	F
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	556	139			556				
A-B	32	8			32				
A-C	1651	413			1651				

**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	0.40	~1	~1	~1	~1			N/A	N/A
B-A	1.87	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.47	~1	~1	~1	~1			N/A	N/A
B-A	2.12	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.48	~1	~1	~1	~1			N/A	N/A
B-A	2.24	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.49	~1	~1	~1	~1			N/A	N/A
B-A	2.30	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.50	~1	~1	~1	~1			N/A	N/A
B-A	2.34	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.50	~1	~1	~1	~1			N/A	N/A
B-A	2.37	?	?	?	?			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base + Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2024 DS2 Base + Dev	PM	Base growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	961	100.000
B		FLAT	✓	105	100.000
C		FLAT	✓	870	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	69	892
	B	44	0	61
	C	819	51	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.07	0.93
	B	0.42	0.00	0.58
	C	0.94	0.06	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
	C	1.009	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	961	970
	B	105	105
	C	870	877
17:00-17:15	A	961	970
	B	105	105
	C	870	877
17:15-17:30	A	961	970
	B	105	105
	C	870	877
17:30-17:45	A	961	970
	B	105	105
	C	870	877
17:45-18:00	A	961	970
	B	105	105
	C	870	877
18:00-18:15	A	961	970
	B	105	105
	C	870	877

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	8.96	0.2	~1	A	61	92
B-A	0.18	18.25	0.2	~1	C	44	66
C-AB	0.09	6.61	0.1	~1	A	51	77
C-A						826	1239
A-B						69	104
A-C						900	1350

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	464	0.132	61	0.0	0.2	8.921	A
B-A	44	11	241	0.182	43	0.0	0.2	18.103	C
C-AB	51	13	595	0.086	51	0.0	0.1	6.607	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	463	0.133	61	0.2	0.2	8.964	A
B-A	44	11	241	0.182	44	0.2	0.2	18.248	C
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	463	0.133	61	0.2	0.2	8.964	A
B-A	44	11	241	0.182	44	0.2	0.2	18.251	C
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	463	0.133	61	0.2	0.2	8.964	A
B-A	44	11	241	0.182	44	0.2	0.2	18.252	C
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	463	0.133	61	0.2	0.2	8.965	A
B-A	44	11	241	0.182	44	0.2	0.2	18.252	C
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	463	0.133	61	0.2	0.2	8.965	A
B-A	44	11	241	0.182	44	0.2	0.2	18.252	C
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	826	207			826				
A-B	69	17			69				
A-C	900	225			900				

**Queue Variation Results for each time segment**

**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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.22	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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**Filename:** Old Newgate Ln NGLS rall left.j9

**Path:** \\Pg-brs-dc01\data\Bristol Projects\Bristol - Live Projects\BRS.4901 - BRS.5000\BRS.4989 - SUSTAINABLE LAND PLC - LAND TO THE NORTH OF GOSPORT ROAD, FAREHAM\Transport\7. Junction Modelling\b. PICADY\19

**Report generation date:** 26/02/2019 14:04:08

- 
- »2019 DS1 Base, AM
  - »2019 DS1 Base, PM
  - »2024 DS1 Base, AM
  - »2024 DS1 Base, PM
  - »2024 DS1 Base + Dev, AM
  - »2024 DS1 Base + Dev, PM
  - »2019 DS2 Base, AM
  - »2019 DS2 Base, PM
  - »2024 DS2 Base, AM
  - »2024 DS2 Base, PM
  - »2024 DS2 Base + Dev, AM
  - »2024 DS2 Base + Dev, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2019 DS1 Base</b>								
Stream B-C	0.2	13.06	0.14	B	0.1	7.34	0.09	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.1	10.59	0.06	B	0.0	6.07	0.04	A
<b>2024 DS1 Base</b>								
Stream B-C	0.2	13.94	0.15	B	0.1	7.51	0.10	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.1	11.22	0.07	B	0.0	6.19	0.04	A
<b>2024 DS1 Base + Dev</b>								
Stream B-C	0.7	19.39	0.40	C	0.2	8.48	0.19	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.2	11.92	0.13	B	0.1	6.73	0.09	A
<b>2019 DS2 Base</b>								
Stream B-C	0.2	13.67	0.17	B	0.1	7.53	0.13	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.1	10.52	0.05	B	0.0	5.97	0.03	A
<b>2024 DS2 Base</b>								
Stream B-C	0.2	14.67	0.19	B	0.2	7.72	0.13	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.1	11.15	0.06	B	0.0	6.09	0.03	A
<b>2024 DS2 Base + Dev</b>								
Stream B-C	0.8	20.89	0.44	C	0.3	8.74	0.23	A
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.1	11.77	0.12	B	0.1	6.61	0.09	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.

### File summary

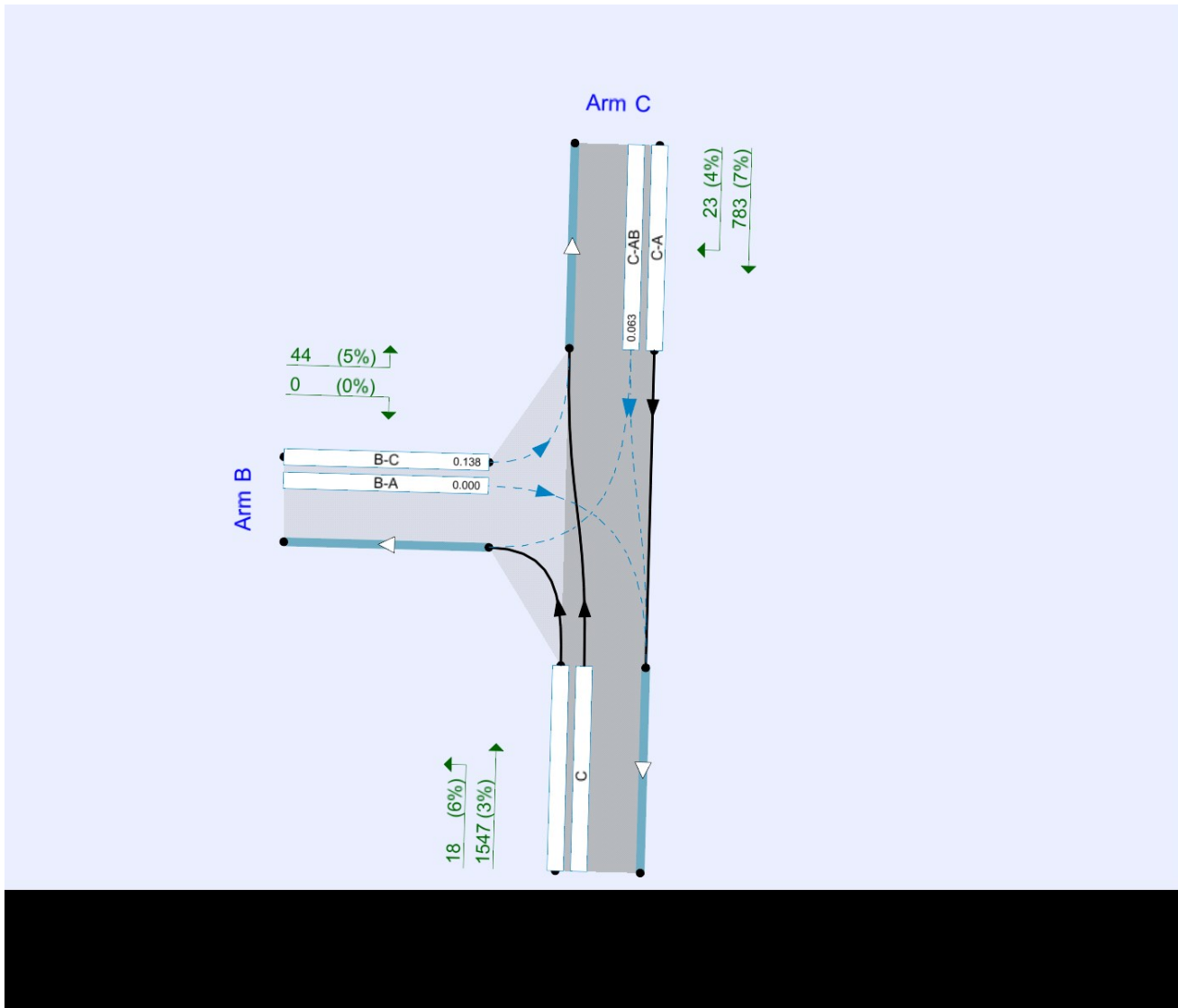
#### File Description

Title	(untitled)
Location	
Site number	
Date	19/04/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PEGASUSGROUP\Philip.Wragg
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	Veh	PCU	perHour	s	-Min	perMin





The junction diagram reflects the last run of Junctions.

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓
D5	2024 DS1 Base + Dev	AM	Base (no Stubbington bypass) to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D6	2024 DS1 Base + Dev	PM	Base (no Stubbington bypass) growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓
D7	2019 DS2 Base	AM		FLAT	07:45	09:15	90	15	✓
D8	2019 DS2 Base	PM		FLAT	16:45	18:15	90	15	✓
D9	2024 DS2 Base	AM	Base to 2024 growth	FLAT	07:45	09:15	90	15	✓
D10	2024 DS2 Base	PM	Base growth to 2024	FLAT	16:45	18:15	90	15	✓
D11	2024 DS2 Base + Dev	AM	Base to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D12	2024 DS2 Base + Dev	PM	Base growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

### Analysis Set Details

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

# 2019 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.34	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	NGL South (South)		Major
B	Old NGL		Minor
C	NGL South (North)		Major

### 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)
C	7.30	✓	4.00	✓	4.80	250.0	✓	10.00

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	One lane plus flare	10.00	9.50	6.30	5.35	5.10		3.00	94	75

## 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	550	0.087	0.219	0.138	0.313
1	B-C	806	0.116	0.294	-	-
1	C-B	922	0.337	0.337	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1565	100.000
B		FLAT	✓	44	100.000
C		FLAT	✓	806	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	1547
	B	0	0	44
	C	783	23	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.97	0.03	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	3
	B	0	0	5
	C	7	4	0

### Average PCU Per Veh

	To			
	A	B	C	
From	A	1.000	1.056	1.030
	B	1.000	1.000	1.045
	C	1.065	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1565	1612
	B	44	46
	C	806	858
08:00-08:15	A	1565	1612
	B	44	46
	C	806	858
08:15-08:30	A	1565	1612
	B	44	46
	C	806	858
08:30-08:45	A	1565	1612
	B	44	46
	C	806	858
08:45-09:00	A	1565	1612
	B	44	46
	C	806	858
09:00-09:15	A	1565	1612
	B	44	46
	C	806	858

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.14	13.06	0.2	~1	B	46	69
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.06	10.59	0.1	~1	B	24	36
C-A						834	1251
A-B						19	29
A-C						1593	2390

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	45	0.0	0.2	12.999	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.0	0.1	10.581	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**08:00 - 08:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	46	0.2	0.2	13.055	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**08:15 - 08:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	46	0.2	0.2	13.055	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**08:30 - 08:45**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	46	0.2	0.2	13.055	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	46	0.2	0.2	13.055	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	334	0.138	46	0.2	0.2	13.055	B
B-A	0	0	76	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	379	0.063	24	0.1	0.1	10.588	B
C-A	834	209			834				
A-B	19	5			19				
A-C	1593	398			1593				

**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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.17	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.17	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			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	0.17	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.07	~1	~1	~1	~1			N/A	N/A

# 2019 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.22	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	899	100.000
B		FLAT	✓	51	100.000
C		FLAT	✓	1348	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	17	882
B	0	0	51
C	1325	23	0

### Proportions

From	To		
	A	B	C
A	0.00	0.02	0.98
B	0.00	0.00	1.00
C	0.98	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
	C	1.009	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	899	907
	B	51	51
	C	1348	1360
17:00-17:15	A	899	907
	B	51	51
	C	1348	1360
17:15-17:30	A	899	907
	B	51	51
	C	1348	1360
17:30-17:45	A	899	907
	B	51	51
	C	1348	1360
17:45-18:00	A	899	907
	B	51	51
	C	1348	1360
18:00-18:15	A	899	907
	B	51	51
	C	1348	1360

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	7.34	0.1	~1	A	51	77
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.04	6.07	0.0	~1	A	23	35
C-A						1337	2005
A-B						17	26
A-C						890	1335

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.0	0.1	7.327	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.063	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.1	0.1	7.338	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.1	0.1	7.338	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.1	0.1	7.338	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.1	0.1	7.338	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	541	0.094	51	0.1	0.1	7.338	A
B-A	0	0	162	0.000	0	0.0	0.0	0.000	A
C-AB	23	6	616	0.037	23	0.0	0.0	6.066	A
C-A	1337	334			1337				
A-B	17	4			17				
A-C	890	223			890				

**Queue Variation Results for each time segment**

**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	0.10	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.10	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.10	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.36	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1620	100.000
B		FLAT	✓	46	100.000
C		FLAT	✓	835	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	1602
	B	0	0	46
	C	811	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.97	0.03	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	3
	B	0	0	5
	C	7	4	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.056	1.030
	B	1.000	1.000	1.045
	C	1.065	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1620	1669
	B	46	48
	C	835	888
08:00-08:15	A	1620	1669
	B	46	48
	C	835	888
08:15-08:30	A	1620	1669
	B	46	48
	C	835	888
08:30-08:45	A	1620	1669
	B	46	48
	C	835	888
08:45-09:00	A	1620	1669
	B	46	48
	C	835	888
09:00-09:15	A	1620	1669
	B	46	48
	C	835	888

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	13.94	0.2	~1	B	48	71
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.07	11.22	0.1	~1	B	25	37
C-A						864	1295
A-B						20	30
A-C						1649	2474

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	47	0.0	0.2	13.870	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.0	0.1	11.203	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	48	0.2	0.2	13.941	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	48	0.2	0.2	13.941	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	48	0.2	0.2	13.941	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	48	0.2	0.2	13.941	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	318	0.150	48	0.2	0.2	13.941	B
B-A	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	360	0.069	25	0.1	0.1	11.223	B
C-A	864	216			864				
A-B	20	5			20				
A-C	1649	412			1649				

**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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			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	0.18	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.08	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.23	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	932	100.000
B		FLAT	✓	53	100.000
C		FLAT	✓	1398	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	914
	B	0	0	53
	C	1374	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.00	0.00	1.00
	C	0.98	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	932	940
	B	53	53
	C	1398	1410
17:00-17:15	A	932	940
	B	53	53
	C	1398	1410
17:15-17:30	A	932	940
	B	53	53
	C	1398	1410
17:30-17:45	A	932	940
	B	53	53
	C	1398	1410
17:45-18:00	A	932	940
	B	53	53
	C	1398	1410
18:00-18:15	A	932	940
	B	53	53
	C	1398	1410

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	7.51	0.1	~1	A	53	79
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.04	6.19	0.0	~1	A	24	36
C-A						1386	2079
A-B						18	26
A-C						922	1384

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	52	0.0	0.1	7.503	A
B-A	0	0	148	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.188	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	53	0.1	0.1	7.514	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.191	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	53	0.1	0.1	7.514	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.191	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	53	0.1	0.1	7.514	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.191	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	53	0.1	0.1	7.514	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.191	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	532	0.099	53	0.1	0.1	7.514	A
B-A	0	0	147	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	605	0.039	24	0.0	0.0	6.191	A
C-A	1386	346			1386				
A-B	18	4			18				
A-C	922	231			922				

**Queue Variation Results for each time segment**

**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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.11	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.04	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base + Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		1.09	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 DS1 Base + Dev	AM	Base (no Stubbington bypass) to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1631	100.000
B		FLAT	✓	126	100.000
C		FLAT	✓	910	100.000

## Origin-Destination Data

#### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	29	1602
	B	0	0	126
	C	864	46	0

#### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.00	0.00	1.00
	C	0.95	0.05	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	3
	B	0	0	2
	C	6	2	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.035	1.030
	B	1.000	1.000	1.016
	C	1.061	1.023	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1631	1680
	B	126	128
	C	910	964
08:00-08:15	A	1631	1680
	B	126	128
	C	910	964
08:15-08:30	A	1631	1680
	B	126	128
	C	910	964
08:30-08:45	A	1631	1680
	B	126	128
	C	910	964
08:45-09:00	A	1631	1680
	B	126	128
	C	910	964
09:00-09:15	A	1631	1680
	B	126	128
	C	910	964

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.40	19.39	0.7	~1	C	128	191
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.13	11.92	0.2	~1	B	47	70
C-A						917	1376
A-B						31	46
A-C						1649	2474

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	125	0.0	0.7	18.880	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	46	0.0	0.2	11.876	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	128	0.7	0.7	19.376	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	128	0.7	0.7	19.386	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	128	0.7	0.7	19.388	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	128	0.7	0.7	19.390	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	128	32	316	0.403	128	0.7	0.7	19.389	C
B-A	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	47	12	356	0.132	47	0.2	0.2	11.917	B
C-A	917	229			917				
A-B	31	8			31				
A-C	1649	412			1649				

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	0.66	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	0.68	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	0.68	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	0.68	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.15	~1	~1	~1	~1			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	0.68	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.16	~1	~1	~1	~1			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	0.68	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.16	~1	~1	~1	~1			N/A	N/A

# 2024 DS1 Base + Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.48	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 DS1 Base + Dev	PM	Base (no Stubbington bypass) growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	978	100.000
B		FLAT	✓	102	100.000
C		FLAT	✓	1449	100.000

## Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A	B	C
A	0	63	914
B	0	0	102
C	1394	55	0

#### Proportions

From	To		
	A	B	C
A	0.00	0.06	0.94
B	0.00	0.00	1.00
C	0.96	0.04	0.00

## Vehicle Mix



**Heavy Vehicle Percentages**

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

**Average PCU Per Veh**

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	978	986
	B	102	102
	C	1449	1461
17:00-17:15	A	978	986
	B	102	102
	C	1449	1461
17:15-17:30	A	978	986
	B	102	102
	C	1449	1461
17:30-17:45	A	978	986
	B	102	102
	C	1449	1461
17:45-18:00	A	978	986
	B	102	102
	C	1449	1461
18:00-18:15	A	978	986
	B	102	102
	C	1449	1461

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.19	8.48	0.2	~1	A	102	153
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.09	6.73	0.1	~1	A	55	83
C-A						1406	2109
A-B						63	95
A-C						923	1384

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	101	0.0	0.2	8.442	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.0	0.1	6.724	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	102	0.2	0.2	8.479	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	102	0.2	0.2	8.479	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	102	0.2	0.2	8.479	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	102	0.2	0.2	8.479	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	25	526	0.194	102	0.2	0.2	8.479	A
B-A	0	0	131	0.000	0	0.0	0.0	0.000	A
C-AB	55	14	590	0.093	55	0.1	0.1	6.732	A
C-A	1406	352			1406				
A-B	63	16			63				
A-C	923	231			923				

**Queue Variation Results for each time segment**

**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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.10	~1	~1	~1	~1			N/A	N/A

# 2019 DS2 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2019 DS2 Base	AM	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1571	100.000
B		FLAT	✓	55	100.000
C		FLAT	✓	539	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To		
	A	B	C
A	0	22	1549
B	0	0	55
C	520	19	0

### Proportions

From	To		
	A	B	C
A	0.00	0.01	0.99
B	0.00	0.00	1.00
C	0.96	0.04	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

		To		
		A	B	C
From	A	0	6	3
	B	0	0	5
	C	7	4	0

**Average PCU Per Veh**

		To		
		A	B	C
From	A	1.000	1.056	1.030
	B	1.000	1.000	1.045
	C	1.065	1.043	1.000

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1571	1618
	B	55	58
	C	539	574
08:00-08:15	A	1571	1618
	B	55	58
	C	539	574
08:15-08:30	A	1571	1618
	B	55	58
	C	539	574
08:30-08:45	A	1571	1618
	B	55	58
	C	539	574
08:45-09:00	A	1571	1618
	B	55	58
	C	539	574
09:00-09:15	A	1571	1618
	B	55	58
	C	539	574

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	13.67	0.2	~1	B	58	87
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.05	10.52	0.1	~1	B	20	30
C-A						554	831
A-B						23	35
A-C						1595	2392

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	57	0.0	0.2	13.586	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.0	0.1	10.512	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	58	0.2	0.2	13.669	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	58	0.2	0.2	13.669	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	58	0.2	0.2	13.669	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	58	0.2	0.2	13.669	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	14	333	0.174	58	0.2	0.2	13.669	B
B-A	0	0	116	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	377	0.053	20	0.1	0.1	10.525	B
C-A	554	138			554				
A-B	23	6			23				
A-C	1595	399			1595				

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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.22	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			N/A	N/A

# 2019 DS2 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2019 DS2 Base	PM	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	883	100.000
B		FLAT	✓	69	100.000
C		FLAT	✓	826	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	23	860
	B	0	0	69
	C	807	19	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.03	0.97
	B	0.00	0.00	1.00
	C	0.98	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	883	891
	B	69	69
	C	826	833
17:00-17:15	A	883	891
	B	69	69
	C	826	833
17:15-17:30	A	883	891
	B	69	69
	C	826	833
17:30-17:45	A	883	891
	B	69	69
	C	826	833
17:45-18:00	A	883	891
	B	69	69
	C	826	833
18:00-18:15	A	883	891
	B	69	69
	C	826	833

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	7.53	0.1	~1	A	69	104
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.03	5.97	0.0	~1	A	19	29
C-A						814	1221
A-B						23	34
A-C						868	1302

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	68	0.0	0.1	7.507	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.971	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	69	0.1	0.1	7.526	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	69	0.1	0.1	7.526	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	69	0.1	0.1	7.526	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	69	0.1	0.1	7.526	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	17	547	0.126	69	0.1	0.1	7.526	A
B-A	0	0	239	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	622	0.031	19	0.0	0.0	5.973	A
C-A	814	203			814				
A-B	23	6			23				
A-C	868	217			868				

**Queue Variation Results for each time segment**

**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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.14	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.48	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2024 DS2 Base	AM	Base to 2024 growth	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1626	100.000
B		FLAT	✓	57	100.000
C		FLAT	✓	558	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	23	1604
	B	0	0	57
	C	539	20	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.96	0.04	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	6	3
	B	0	0	5
C	7	4	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.056	1.030
	B	1.000	1.000	1.045
C	1.065	1.043	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1626	1675
	B	57	60
	C	558	594
08:00-08:15	A	1626	1675
	B	57	60
	C	558	594
08:15-08:30	A	1626	1675
	B	57	60
	C	558	594
08:30-08:45	A	1626	1675
	B	57	60
	C	558	594
08:45-09:00	A	1626	1675
	B	57	60
	C	558	594
09:00-09:15	A	1626	1675
	B	57	60
	C	558	594

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.19	14.67	0.2	~1	B	60	90
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.06	11.15	0.1	~1	B	21	31
C-A						574	860
A-B						24	36
A-C						1651	2477

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	59	0.0	0.2	14.563	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	20	0.0	0.1	11.134	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	60	0.2	0.2	14.669	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	60	0.2	0.2	14.669	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	60	0.2	0.2	14.669	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	60	0.2	0.2	14.669	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	15	317	0.189	60	0.2	0.2	14.669	B
B-A	0	0	100	0.000	0	0.0	0.0	0.000	A
C-AB	21	5	357	0.058	21	0.1	0.1	11.150	B
C-A	574	143			574				
A-B	24	6			24				
A-C	1651	413			1651				

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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			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	0.24	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.06	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.36	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2024 DS2 Base	PM	Base growth to 2024	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	916	100.000
B		FLAT	✓	72	100.000
C		FLAT	✓	856	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	24	892
	B	0	0	72
	C	836	20	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.03	0.97
	B	0.00	0.00	1.00
	C	0.98	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

### Average PCU Per Veh

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	916	924
	B	72	72
	C	856	864
17:00-17:15	A	916	924
	B	72	72
	C	856	864
17:15-17:30	A	916	924
	B	72	72
	C	856	864
17:30-17:45	A	916	924
	B	72	72
	C	856	864
17:45-18:00	A	916	924
	B	72	72
	C	856	864
18:00-18:15	A	916	924
	B	72	72
	C	856	864

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	7.72	0.2	~1	A	72	107
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.03	6.09	0.0	~1	A	20	30
C-A						844	1266
A-B						24	35
A-C						900	1350

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	71	0.0	0.2	7.702	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.090	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	72	0.2	0.2	7.721	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	72	0.2	0.2	7.721	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	72	0.2	0.2	7.721	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	72	0.2	0.2	7.721	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	18	538	0.133	72	0.2	0.2	7.721	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	611	0.033	20	0.0	0.0	6.092	A
C-A	844	211			844				
A-B	24	6			24				
A-C	900	225			900				

**Queue Variation Results for each time segment**

**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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	0.15	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.03	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base + Dev, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		1.37	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2024 DS2 Base + Dev	AM	Base to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1634	100.000
B		FLAT	✓	137	100.000
C		FLAT	✓	641	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To			
	A	B	C	
A	0	31	1604	
B	0	0	137	
C	599	42	0	

### Proportions

From	To			
	A	B	C	
A	0.00	0.02	0.98	
B	0.00	0.00	1.00	
C	0.93	0.07	0.00	

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	3
	B	0	0	2
	C	6	2	0

### Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.041	1.030
	B	1.000	1.000	1.019
	C	1.059	1.020	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1634	1683
	B	137	140
	C	641	677
08:00-08:15	A	1634	1683
	B	137	140
	C	641	677
08:15-08:30	A	1634	1683
	B	137	140
	C	641	677
08:30-08:45	A	1634	1683
	B	137	140
	C	641	677
08:45-09:00	A	1634	1683
	B	137	140
	C	641	677
09:00-09:15	A	1634	1683
	B	137	140
	C	641	677

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.44	20.89	0.8	~1	C	140	210
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.12	11.77	0.1	~1	B	43	64
C-A						634	951
A-B						32	48
A-C						1651	2477

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	137	0.0	0.8	20.198	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	42	0.0	0.1	11.734	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	140	0.8	0.8	20.863	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	140	0.8	0.8	20.875	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	140	0.8	0.8	20.881	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	140	0.8	0.8	20.883	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	140	35	316	0.444	140	0.8	0.8	20.885	C
B-A	0	0	84	0.000	0	0.0	0.0	0.000	A
C-AB	43	11	355	0.120	43	0.1	0.1	11.773	B
C-A	634	158			634				
A-B	32	8			32				
A-C	1651	413			1651				

**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	0.78	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.80	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.80	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.80	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.81	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			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	0.81	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.14	~1	~1	~1	~1			N/A	N/A

# 2024 DS2 Base + Dev, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	T-Junction	Two-way		0.69	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2024 DS2 Base + Dev	PM	Base growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	961	100.000
B		FLAT	✓	121	100.000
C		FLAT	✓	907	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	69	892
	B	0	0	121
	C	856	51	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.07	0.93
	B	0.00	0.00	1.00
	C	0.94	0.06	0.00

## Vehicle Mix



**Heavy Vehicle Percentages**

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

**Average PCU Per Veh**

		To		
		A	B	C
From	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
	C	1.009	1.000	1.000

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	961	970
	B	121	121
	C	907	915
17:00-17:15	A	961	970
	B	121	121
	C	907	915
17:15-17:30	A	961	970
	B	121	121
	C	907	915
17:30-17:45	A	961	970
	B	121	121
	C	907	915
17:45-18:00	A	961	970
	B	121	121
	C	907	915
18:00-18:15	A	961	970
	B	121	121
	C	907	915

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	8.74	0.3	~1	A	121	181
B-A	0.00	0.00	0.0	~1	A	0	0
C-AB	0.09	6.61	0.1	~1	A	51	77
C-A						864	1296
A-B						69	104
A-C						900	1350

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	119	0.0	0.3	8.692	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.0	0.1	6.607	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	121	0.3	0.3	8.740	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	121	0.3	0.3	8.740	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	121	0.3	0.3	8.740	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	121	0.3	0.3	8.740	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	30	532	0.226	121	0.3	0.3	8.740	A
B-A	0	0	211	0.000	0	0.0	0.0	0.000	A
C-AB	51	13	595	0.086	51	0.1	0.1	6.614	A
C-A	864	216			864				
A-B	69	17			69				
A-C	900	225			900				

**Queue Variation Results for each time segment**

**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	0.29	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			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	0.29	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:15 - 17:30**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:30 - 17:45**

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	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**17:45 - 18:00**

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	0.29	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

**18:00 - 18:15**

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	0.29	~1	~1	~1	~1			N/A	N/A
B-A	0.00	~1	~1	~1	~1			N/A	N/A
C-AB	0.09	~1	~1	~1	~1			N/A	N/A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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**Filename:** Old Newgate Ln NGLS RBT.j9

**Path:** \\Pg-brs-dc01\data\Bristol Projects\Bristol - Live Projects\BRS.4901 - BRS.5000\BRS.4989 - SUSTAINABLE LAND PLC - LAND TO THE NORTH OF GOSPORT ROAD, FAREHAM\Transport\7. Junction Modelling\b. PICADY\19

**Report generation date:** 26/02/2019 14:02:05

- 
- »2019 DS1 Base, AM
  - »2019 DS1 Base, PM
  - »2024 DS1 Base, AM
  - »2024 DS1 Base, PM
  - »2024 DS1 Base + Dev, AM
  - »2024 DS1 Base + Dev, PM
  - »2019 DS2 Base, AM
  - »2019 DS2 Base, PM
  - »2024 DS2 Base, AM
  - »2024 DS2 Base, PM
  - »2024 DS2 Base + Dev, AM
  - »2024 DS2 Base + Dev, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2019 DS1 Base</b>								
Arm A	574.1	1543.10	1.31	F	2.8	11.17	0.74	B
Arm B	0.1	6.59	0.07	A	0.1	4.87	0.06	A
Arm C	1.7	7.17	0.61	A	25.5	71.76	0.97	F
<b>2024 DS1 Base</b>								
Arm A	659.9	1773.55	1.36	F	3.2	12.45	0.76	B
Arm B	0.1	6.61	0.08	A	0.1	5.00	0.07	A
Arm C	1.8	7.59	0.63	A	57.3	150.21	1.01	F
<b>2024 DS1 Base + Dev</b>								
Arm A	693.6	1881.53	1.38	F	4.3	15.74	0.81	C
Arm B	0.3	7.32	0.20	A	0.2	5.37	0.13	A
Arm C	2.1	8.45	0.66	A	104.6	264.64	1.04	F
<b>2019 DS2 Base</b>								
Arm A	579.7	1555.44	1.31	F	2.6	10.58	0.72	B
Arm B	0.1	6.66	0.08	A	0.1	4.82	0.07	A
Arm C	0.7	4.71	0.41	A	1.5	6.56	0.60	A
<b>2024 DS2 Base</b>								
Arm A	665.8	1785.95	1.36	F	3.0	11.71	0.75	B
Arm B	0.1	6.68	0.08	A	0.1	4.94	0.07	A
Arm C	0.8	4.83	0.42	A	1.6	6.94	0.62	A
<b>2024 DS2 Base + Dev</b>								
Arm A	695.3	1882.76	1.38	F	3.9	14.64	0.80	B
Arm B	0.3	7.46	0.21	A	0.2	5.30	0.13	A
Arm C	0.9	5.19	0.45	A	1.8	7.55	0.65	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.

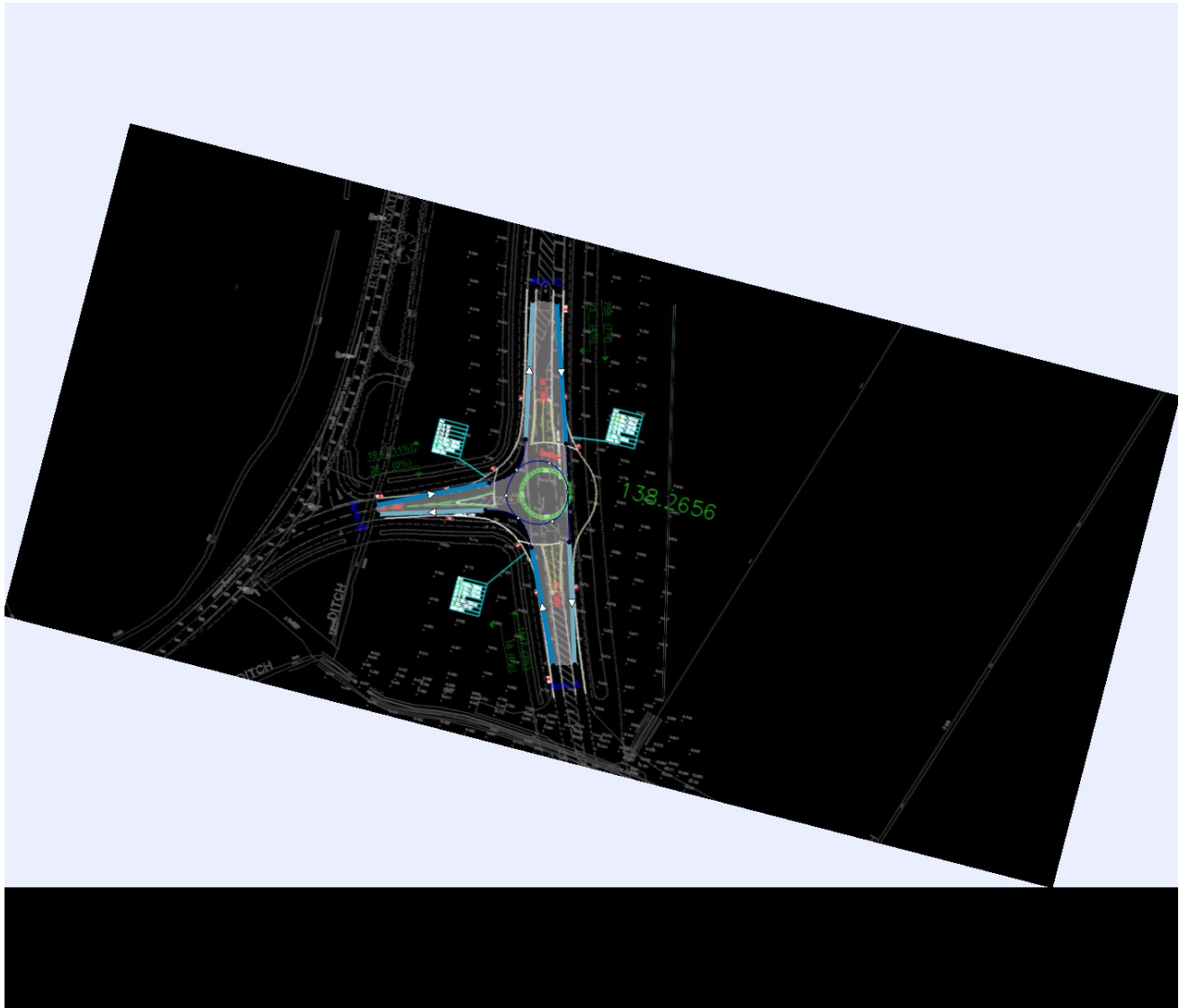
### File summary

#### File Description

Title	(untitled)
Location	
Site number	
Date	19/04/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PEGASUSGROUP\Philip.Wragg
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	Veh	PCU	perHour	s	-Min	perMin



*The junction diagram reflects the last run of Junctions.*

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓
D5	2024 DS1 Base + Dev	AM	Base (no Stubbington bypass) to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D6	2024 DS1 Base + Dev	PM	Base (no Stubbington bypass) growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓
D7	2019 DS2 Base	AM		FLAT	07:45	09:15	90	15	✓
D8	2019 DS2 Base	PM		FLAT	16:45	18:15	90	15	✓
D9	2024 DS2 Base	AM	Base to 2024 growth	FLAT	07:45	09:15	90	15	✓
D10	2024 DS2 Base	PM	Base growth to 2024	FLAT	16:45	18:15	90	15	✓
D11	2024 DS2 Base + Dev	AM	Base to 2024 growth with Development	FLAT	07:45	09:15	90	15	✓
D12	2024 DS2 Base + Dev	PM	Base growth to 2024 + Development	FLAT	16:45	18:15	90	15	✓

### Analysis Set Details

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

# 2019 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	Standard Roundabout		A, B, C	1001.11	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
A	NGL South (South)	
B	Old NGL	
C	NGL South (North)	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.64	6.04	4.7	5.6	35.3	22.6	
B	3.68	5.81	5.9	5.6	35.3	25.8	
C	3.79	6.23	7.5	5.6	35.2	18.7	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.528	1244
B	0.528	1260
C	0.561	1383

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 DS1 Base	AM	Flows from DS1 scenarios in Bypass TA	FLAT	07:45	09:15	90	15	✓



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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1565	100.000
B		FLAT	✓	44	100.000
C		FLAT	✓	781	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	1547
	B	25	0	19
	C	758	23	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.57	0.00	0.43
	C	0.97	0.03	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	3
	B	0	0	11
	C	7	4	0

### Average PCU Per Veh

	To			
	A	B	C	
From	A	1.000	1.056	1.030
	B	1.000	1.000	1.105
	C	1.067	1.043	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1565	1612
	B	44	46
	C	781	833
08:00-08:15	A	1565	1612
	B	44	46
	C	781	833
08:15-08:30	A	1565	1612
	B	44	46
	C	781	833
08:30-08:45	A	1565	1612
	B	44	46
	C	781	833
08:45-09:00	A	1565	1612
	B	44	46
	C	781	833
09:00-09:15	A	1565	1612
	B	44	46
	C	781	833

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.31	1543.10	574.1	?	F	1612	2418
B	0.07	6.59	0.1	~1	A	46	69
C	0.61	7.17	1.7	?	A	833	1249

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1232	1.309	1219	828	0.0	98.3	150.997	F
B	46	12	1204	624	0.074	46	38	0.0	0.1	6.509	A
C	833	208	25	1369	0.609	826	1225	0.0	1.6	6.999	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1231	1.309	1231	834	98.3	193.5	432.576	F
B	46	12	1217	617	0.075	46	39	0.1	0.1	6.587	A
C	833	208	25	1369	0.609	833	1238	1.6	1.6	7.163	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1231	1.309	1231	834	193.5	288.7	709.666	F
B	46	12	1217	617	0.075	46	39	0.1	0.1	6.589	A
C	833	208	25	1369	0.609	833	1238	1.6	1.6	7.165	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1231	1.309	1231	834	288.7	383.8	987.312	F
B	46	12	1217	617	0.075	46	39	0.1	0.1	6.589	A
C	833	208	25	1369	0.609	833	1238	1.6	1.6	7.165	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1231	1.309	1231	834	383.8	479.0	1265.160	F
B	46	12	1217	617	0.075	46	39	0.1	0.1	6.589	A
C	833	208	25	1369	0.609	833	1238	1.6	1.7	7.165	A

**09:00 - 09:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1612	403	24	1231	1.309	1231	834	479.0	574.1	1543.103	F
B	46	12	1217	617	0.075	46	39	0.1	0.1	6.589	A
C	833	208	25	1369	0.609	833	1238	1.7	1.7	7.165	A

**Queue Variation Results for each time segment**

**07:45 - 08:00**

Arm	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
A	98.30	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.63	?	?	?	?			N/A	N/A

**08:00 - 08:15**

Arm	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
A	193.51	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.64	?	?	?	?			N/A	N/A

**08:15 - 08:30**

Arm	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
A	288.66	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.65	?	?	?	?			N/A	N/A

**08:30 - 08:45**

Arm	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
A	383.81	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.65	?	?	?	?			N/A	N/A

**08:45 - 09:00**

Arm	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
A	478.95	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.65	?	?	?	?			N/A	N/A

**09:00 - 09:15**

Arm	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
A	574.09	?	?	?	?			N/A	N/A
B	0.08	~1	~1	~1	~1			N/A	N/A
C	1.65	?	?	?	?			N/A	N/A

# 2019 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	Standard Roundabout		A, B, C	46.27	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 DS1 Base	PM	Flows from DS1 scenarios in Bypass TA	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	899	100.000
B		FLAT	✓	51	100.000
C		FLAT	✓	1320	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	17	882
	B	28	0	23
	C	1297	23	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.55	0.00	0.45
	C	0.98	0.02	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

**Average PCU Per Veh**

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	899	907
	B	51	51
	C	1320	1332
17:00-17:15	A	899	907
	B	51	51
	C	1320	1332
17:15-17:30	A	899	907
	B	51	51
	C	1320	1332
17:30-17:45	A	899	907
	B	51	51
	C	1320	1332
17:45-18:00	A	899	907
	B	51	51
	C	1320	1332
18:00-18:15	A	899	907
	B	51	51
	C	1320	1332

## Results

**Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.74	11.17	2.8	?	B	907	1361
B	0.06	4.87	0.1	~1	A	51	77
C	0.97	71.76	25.5	?	F	1332	1998

**Main Results for each time segment**
**16:45 - 17:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	22	1233	0.736	896	1282	0.0	2.7	10.492	B
B	51	13	879	795	0.064	51	39	0.0	0.1	4.833	A
C	1332	333	28	1367	0.974	1276	902	0.0	14.1	30.408	D

**17:00 - 17:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	23	1232	0.736	907	1321	2.7	2.8	11.139	B
B	51	13	890	790	0.065	51	40	0.1	0.1	4.871	A
C	1332	333	28	1367	0.974	1315	913	14.1	18.3	51.427	F

**17:15 - 17:30**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	23	1232	0.736	907	1327	2.8	2.8	11.156	B
B	51	13	890	790	0.065	51	40	0.1	0.1	4.872	A
C	1332	333	28	1367	0.974	1321	913	18.3	20.9	59.337	F

**17:30 - 17:45**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	23	1232	0.736	907	1329	2.8	2.8	11.161	B
B	51	13	890	790	0.065	51	40	0.1	0.1	4.872	A
C	1332	333	28	1367	0.974	1324	913	20.9	22.8	64.652	F

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	23	1232	0.736	907	1331	2.8	2.8	11.166	B
B	51	13	890	790	0.065	51	40	0.1	0.1	4.872	A
C	1332	333	28	1367	0.974	1326	913	22.8	24.3	68.622	F

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	907	227	23	1232	0.736	907	1332	2.8	2.8	11.167	B
B	51	13	890	790	0.065	51	40	0.1	0.1	4.872	A
C	1332	333	28	1367	0.974	1327	913	24.3	25.5	71.756	F

**Queue Variation Results for each time segment**
**16:45 - 17:00**

Arm	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
A	2.69	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	14.08	?	?	?	?			N/A	N/A

**17:00 - 17:15**

Arm	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
A	2.75	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	18.25	?	?	?	?			N/A	N/A

**17:15 - 17:30**

Arm	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
A	2.77	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	20.90	?	?	?	?			N/A	N/A

**17:30 - 17:45**

Arm	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
A	2.78	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	22.82	?	?	?	?			N/A	N/A

**17:45 - 18:00**

Arm	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
A	2.79	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	24.30	?	?	?	?			N/A	N/A

**18:00 - 18:15**

Arm	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
A	2.79	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	25.48	?	?	?	?			N/A	N/A

# 2024 DS1 Base, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	Standard Roundabout		A, B, C	1150.38	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 DS1 Base	AM	Base (no Stubbington bypass) to 2024 growth	FLAT	07:45	09:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1620	100.000
B		FLAT	✓	46	100.000
C		FLAT	✓	809	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	1602
	B	26	0	20
	C	785	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.01	0.99
	B	0.57	0.00	0.43
	C	0.97	0.03	0.00

## Vehicle Mix



**Heavy Vehicle Percentages**

From	To		
	A	B	C
A	0	6	3
B	0	0	11
C	7	4	0

**Average PCU Per Veh**

From	To		
	A	B	C
A	1.000	1.056	1.030
B	1.000	1.000	1.105
C	1.067	1.043	1.000

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	1620	1669
	B	46	48
	C	809	862
08:00-08:15	A	1620	1669
	B	46	48
	C	809	862
08:15-08:30	A	1620	1669
	B	46	48
	C	809	862
08:30-08:45	A	1620	1669
	B	46	48
	C	809	862
08:45-09:00	A	1620	1669
	B	46	48
	C	809	862
09:00-09:15	A	1620	1669
	B	46	48
	C	809	862

## Results

**Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.36	1773.55	659.9	?	F	1669	2504
B	0.08	6.61	0.1	~1	A	48	71
C	0.63	7.59	1.8	?	A	862	1294

**Main Results for each time segment**
**07:45 - 08:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1220	856	0.0	112.3	171.019	F
B	48	12	1206	623	0.076	47	39	0.0	0.1	6.531	A
C	862	216	26	1368	0.630	855	1227	0.0	1.8	7.387	A

**08:00 - 08:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1231	863	112.3	221.8	494.253	F
B	48	12	1216	617	0.077	48	39	0.1	0.1	6.604	A
C	862	216	26	1368	0.630	862	1238	1.8	1.8	7.587	A

**08:15 - 08:30**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1231	863	221.8	331.4	813.580	F
B	48	12	1216	617	0.077	48	39	0.1	0.1	6.605	A
C	862	216	26	1368	0.630	862	1238	1.8	1.8	7.590	A

**08:30 - 08:45**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1231	864	331.4	440.9	1133.421	F
B	48	12	1216	617	0.077	48	39	0.1	0.1	6.605	A
C	862	216	26	1368	0.630	862	1238	1.8	1.8	7.590	A

**08:45 - 09:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1231	864	440.9	550.4	1453.446	F
B	48	12	1216	617	0.077	48	39	0.1	0.1	6.605	A
C	862	216	26	1368	0.630	862	1238	1.8	1.8	7.590	A

**09:00 - 09:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1669	417	25	1231	1.356	1231	864	550.4	659.9	1773.554	F
B	48	12	1216	617	0.077	48	39	0.1	0.1	6.605	A
C	862	216	26	1368	0.630	862	1238	1.8	1.8	7.590	A

**Queue Variation Results for each time segment**
**07:45 - 08:00**

Arm	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
A	112.28	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.78	?	?	?	?			N/A	N/A

**08:00 - 08:15**

Arm	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
A	221.84	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.80	?	?	?	?			N/A	N/A

**08:15 - 08:30**

Arm	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
A	331.37	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.81	?	?	?	?			N/A	N/A

**08:30 - 08:45**

Arm	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
A	440.90	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.81	?	?	?	?			N/A	N/A

**08:45 - 09:00**

Arm	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
A	550.41	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.81	?	?	?	?			N/A	N/A

**09:00 - 09:15**

Arm	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
A	659.93	?	?	?	?			N/A	N/A
B	0.09	~1	~1	~1	~1			N/A	N/A
C	1.81	?	?	?	?			N/A	N/A

# 2024 DS1 Base, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
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	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Newgate Lane BP / Old Newgate Ln	Standard Roundabout		A, B, C	92.42	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 DS1 Base	PM	Base (no Stubbington bypass) growth to 2024	FLAT	16:45	18:15	90	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	932	100.000
B		FLAT	✓	53	100.000
C		FLAT	✓	1369	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	18	914
	B	29	0	24
	C	1345	24	0

### Proportions

	To			
	A	B	C	
From	A	0.00	0.02	0.98
	B	0.55	0.00	0.45
	C	0.98	0.02	0.00

## Vehicle Mix

**Heavy Vehicle Percentages**

From	To			
	A	B	C	
	A	0	0	1
	B	0	0	0
C	1	0	0	

**Average PCU Per Veh**

From	To			
	A	B	C	
	A	1.000	1.000	1.009
	B	1.000	1.000	1.000
C	1.009	1.000	1.000	

## Detailed Demand Data

**Demand for each time segment**

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	932	940
	B	53	53
	C	1369	1381
17:00-17:15	A	932	940
	B	53	53
	C	1369	1381
17:15-17:30	A	932	940
	B	53	53
	C	1369	1381
17:30-17:45	A	932	940
	B	53	53
	C	1369	1381
17:45-18:00	A	932	940
	B	53	53
	C	1369	1381
18:00-18:15	A	932	940
	B	53	53
	C	1369	1381

## Results

**Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.76	12.45	3.2	?	B	940	1411
B	0.07	5.00	0.1	~1	A	53	79
C	1.01	150.21	57.3	?	F	1381	2072

**Main Results for each time segment**
**16:45 - 17:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	22	1232	0.763	928	1307	0.0	3.1	11.518	B
B	53	13	911	779	0.068	53	40	0.0	0.1	4.953	A
C	1381	345	29	1367	1.011	1301	934	0.0	20.0	38.490	E

**17:00 - 17:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	23	1232	0.763	940	1348	3.1	3.2	12.404	B
B	53	13	922	773	0.068	53	41	0.1	0.1	5.000	A
C	1381	345	29	1366	1.011	1342	946	20.0	29.7	75.915	F

**17:15 - 17:30**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	23	1232	0.763	940	1355	3.2	3.2	12.434	B
B	53	13	923	773	0.068	53	41	0.1	0.1	5.001	A
C	1381	345	29	1366	1.011	1349	946	29.7	37.6	97.899	F

**17:30 - 17:45**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	23	1232	0.763	940	1358	3.2	3.2	12.445	B
B	53	13	923	773	0.068	53	41	0.1	0.1	5.001	A
C	1381	345	29	1366	1.011	1353	947	37.6	44.7	116.836	F

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	23	1232	0.763	940	1361	3.2	3.2	12.451	B
B	53	13	923	773	0.068	53	41	0.1	0.1	5.002	A
C	1381	345	29	1366	1.011	1355	947	44.7	51.2	134.086	F

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	235	23	1232	0.763	940	1362	3.2	3.2	12.454	B
B	53	13	923	773	0.068	53	41	0.1	0.1	5.002	A
C	1381	345	29	1366	1.011	1357	947	51.2	57.3	150.215	F

**Queue Variation Results for each time segment**
**16:45 - 17:00**

Arm	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
A	3.08	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	20.01	?	?	?	?			N/A	N/A

**17:00 - 17:15**

Arm	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
A	3.16	?	?	?	?			N/A	N/A
B	0.07	~1	~1	~1	~1			N/A	N/A
C	29.70	?	?	?	?			N/A	N/A