Appendix G – Proposed Layout and Masterplan

ARUN DISTRICT COUNCIL Y/3/22/OUT

Legend

- Hybrid Application Boundary
- Other Land Owned By Applicant
- Detailed Area Boundary
- Phase 1
- Phase 2
- Phase 3

30 Dwellings

50 Dwellings

60 Dwellings

DRAFT

ARUN DISTRICT COUNCIL Y3/22/OUT

10 5 0 10 20 30 40 50 60 70 80 90 100m

BOYLE + SUMMERS
ARCHITECTURE AND MASTERPLANNING

Canute Chambers
Canute Road
Southampton
Hampshire
SO14 3AB

Client	Landlink Estates
Project	Land West of Bilsham Road, Yapton
Title	Illustrative Phasing Strategy

BS1192: LFY - BSL - ZZ - XX - DR - A - 1501 - DF
(Project - Originator - Volume - Level - Type - Role | Series - Number - Suitability - Revision)

B+S Ref.	Date	Scale @ A2	Drawn	Checked
21015	DEC 2021	1:1000	IC	SR

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Other than for the purposes of planning, do not scale these drawings. Use written dimensions only. All dimensions to be checked on site prior to commencement of work.

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Appendix H – Road Safety Audit and Designers Response

ARUN DISTRICT COUNCIL Y/3/22/OUT

Road Safety Audit – B2132 Bilsham Road, Yapton

Stage:	**2**
Location:	**B2132 Bilsham Road, Yapton, West Sussex**
Site:	**Proposed new development accesses**
ATSS Ref:	**210908**
Client Ref:	**A361**
Date:	**5 October 2021**

Avon Traffic & Safety Services
36 Cotswold Road
BRISTOL BS3 4NT
Tel 07485 584592
www.avontss.uk

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Project Details

Report Title:	**Stage 2 road safety audit, B2132 Bilsham Road Yapton**
Date:	**5 October 2021**
Document reference and revision:	**210908 V1**
Prepared by:	**Avon Traffic & Safety Services Ltd**
On behalf of:	**Abley Letchford Partnership Ltd**

Report Control Sheet

	Name	Position	Date
Audit requested by	Thomas Moloney	Abley Letchford Partnership Ltd	22 September 2021
Team leader	Darren Cox	Team Leader	
Team Member	Tasos Papaloucas	Team Member	
Observer			
Draft report issued by	Darren Cox	Team Leader	4 October 2021
Final report issued by	Darren Cox	Team Leader	5 October 2021
Designer's response issued by			

Avon Traffic & Safety Services Ltd disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with the Client taking account of the manpower, resources, investigations and testing devoted to it by agreement with the Client. This report is confidential to the Client and Avon Traffic & Safety Services Ltd accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

ARUN DISTRICT COUNCIL Y/3/22/OUT

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3. Other Issues	18
4. Audit Team Statement	19
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ARUN DISTRICT COUNCIL Y/3/22/OUT

1. Introduction

1.1 Avon Traffic & Safety Services Ltd has been commissioned by Abley Letchford Partnership Ltd, to undertake a Stage 2 Road Safety Audit, with regard to the proposals to create 2 vehicle accesses, off of B2132 Bilsham Road, Yapton. The proposals include 3 informal pedestrian crossings of the B2132 with drop kerbs and tactile slabs, and a similar crossing across the mouth of Taylors Close, to the south of the site.

1.2 The RSA Brief was supplied by Abley Letchford Partnership Ltd and accepted by the Audit Team. The Brief and Audit Team were approved by Thomas Moloney, Abley Letchford Partnership Ltd

1.3 The B2132 is a classified road which is largely residential in character, which becomes semi-rural in the vicinity of the proposed two priority junctions. The carriageway is relatively flat and forward visibility along the link is very good. A footway exists on the north-west side of the carriageway, which terminates approximately 40-metres north-east of the priority junction of the B2132 Bilsham Road and Graham Road. A continuous footway exists on the south-east side of the carriageway which terminates on the south-west side of Taylors Close.

1.4 The B2132 Bilsham Road is lit by a system of street lighting and, in the vicinity of the proposed two priority junctions, is subject to a speed limit of 30mph. Approximately 45 metres south-west of the priority junction of the B2132 and Taylors Close the speed limit changes to 40mph. North-eastbound and south-westbound bus stops existing on the B2132, between Graham Road and Taylors Close, both of which benefit from a shelter, pole, Real Time Information (RTI) display and bus cage and bus stop clearway carriageway markings.

1.5 The audit team members are:

Darren Cox	–	Team Leader
Tasos Papaloucas	–	Team Member

1.6 The audit took place during October 2021 and comprised of an examination of the documents/plans listed in Appendix A. The auditors visited site together between 10:00 and 11:00 hours on Friday 1st October 2021 when the weather conditions were overcast, and the road surface was wet. Vehicle flows were moderate, and speeds appeared commensurate with the speed limit. During the visit to the site, the Audit Team observed five pedestrians and two cyclists.

1.7 Data supplied by Sussex Safer Roads Partnership show that there have been no reported collisions involving injury, in the 5 years 1/8/2016-31/7/2021 inclusive, in the vicinity of the proposals.

ARUN DISTRICT COUNCIL Y/3/22/OUT

1.8 The B2132 at the audit site carries 2-way 12-hour flows of around 4000 vehicles. Speed data shows the average 85%ile speeds to be 39.2 mph (southbound) and 38.5 mph (northbound).

1.9 The audit team have not been made aware of any departures from standards or relaxations in relation to the proposed scheme.

1.10 The audit was carried out under the terms and conditions of DMRB GG 119. The team examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design with any other criteria. However, reference may be made to National/Local Guidance in order to verify a point.

1.11 Documents and drawings examined in this safety audit are listed at Appendix A.

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1.12 General views of site



The proposed priority junction south of Graham Road taken from the B2132 Bilsham Road, looking south-westward. Graham Road is shown on the left-hand side of the photograph. The new access is indicated by the arrow.



The proposed priority junction south of Graham Road, taken from the south-east side of the B2132 Bilsham Road looking north-westward. The site of the new access is circled.

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The proposed priority junction south of Graham Road, taken from the B2132 Bilsham Road, looking north-eastwards. The site of the new access is arrowed.



The proposed priority junction north of Taylors Close, taken from the B2132 Bilsham Road, looking south-westward. The location of the proposed vehicular access is arrowed.

ARUN DISTRICT COUNCIL Y/3/22/OUT



The proposed priority junction north of Taylors Close, taken from the south-east side of the B2132 Bilsham Road looking north-westward. The proposed new vehicular access is arrowed.



The proposed priority junction north of Taylors Close, taken from Taylors Close looking north-eastwards along the B2132 Bilsham Road.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2. Safety Issues Raised in this Stage 2 Road Safety Audit. (see Appendix B for locations)

2.1 Problem

Location – B2132 Bilsham Road north-west side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

No footway construction details have been supplied to the Audit Team. Half-battered kerbs currently exist on the north-west side of the B2132 Bilsham Road increasing the risk of motor vehicles mounting the proposed footway and coming into conflict with vulnerable road users.



Recommendation – Install HB2 type kerbs along the front edge of the proposed footway.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2.2 Problem

Location – B2132 Bilsham Road north-west side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

Lighting columns exist within the highway verge on the north-west side of the B2132 Bilsham Road which will be located within the proposed two-metre footway, reducing the effective width, forcing pedestrians into the live carriageway placing them in conflict with motor vehicles.



Recommendation – Relocate the existing lighting columns to the back edge of the footway or behind the footway.

2.3 Problem

Location – B2132 Bilsham Road north-west side.

Summary – Risk of failure to give way collisions.

Vegetation to the rear of the proposed two-metre-wide footway on the north-west side of the B2132 Bilsham Road will obscure visibility to the left and right for drivers exiting the proposed priority junction onto the B2132 Bilsham Road, increasing the risk of failure to give way collisions.

Recommendation – Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.

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2.4 Problem

Location – B2132 Bilsham Road north-west side.

Summary – Risk of loss of control collisions.

No drainage details have been provided and there is evidence of ponding on the north side of the B2132 increasing the risk of loss of control collisions.



Recommendation – Ensure that the carriageway is adequately drained.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2.5 Problem

Location – Taylors Close

Summary – Pedestrians slips and falls.

There is evidence of ponding on both sides of Taylors Close, in the vicinity of the proposed dropped kerb pedestrian crossing point, increasing the risk of pedestrian slips and falls.



Recommendation – Ensure that the carriageway is adequately drained.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2.6 Problem

Location – Taylors Close south-west side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

An illuminated Diagram Number 602 'Give Way' highway sign and street naming plate exist on the south-west side of Taylors Close which will be located within the proposed two-metre-wide footway to the allotment, reducing the effective width of the footway, forcing pedestrians into the live carriageway placing them in conflict with motor vehicles.



Recommendation – Relocate the highway sign and street naming plate to the back edge of the footway or behind the footway.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2.7 Problem

Location – Taylors Close south-west side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

The proposed dropped kerb pedestrian crossing across the bellmouth of Taylors Close makes the existing dropped kerb crossing point redundant. The existing dropped kerb on the south-west side of Taylors Close is currently being used by motor vehicles to access an off-street parking area to the rear of the footway, increasing the risk of conflict between vulnerable road users and motor vehicles.



Recommendation – Remove the existing tactile paving on both sides of Taylors Close and reinstate the existing dropped kerb crossing point with full height kerbs.

ARUN DISTRICT COUNCIL Y/3/22/OUT

2.8 Problem

Location – B2132 south-east side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

Existing overhanging vegetation and scrub will obstruct the proposed two-metre-wide footway to the allotments forcing pedestrians into the live carriageway placing them in conflict with motor vehicles.



Recommendation – Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.

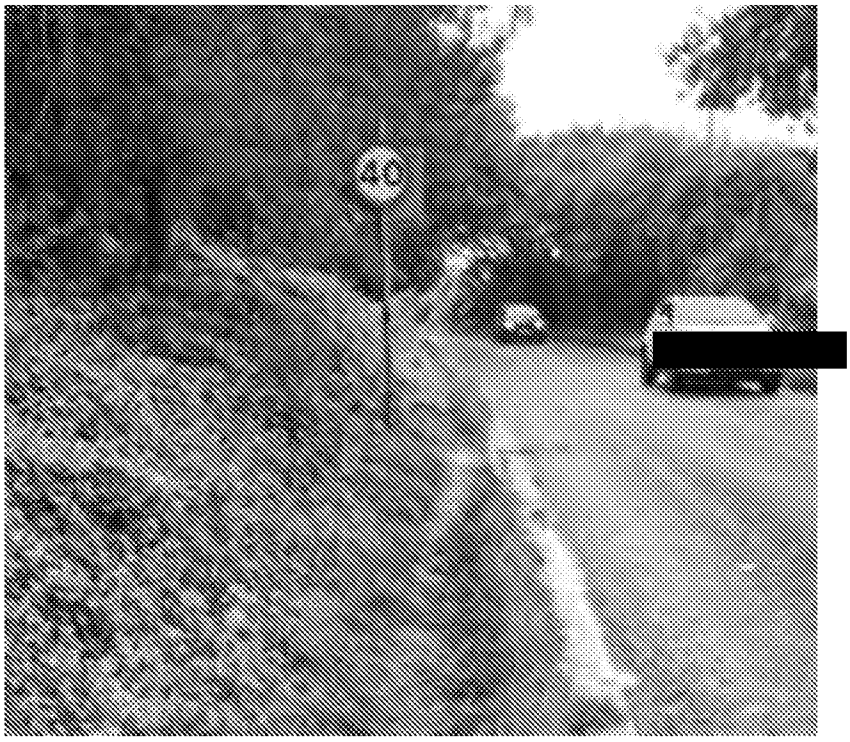
ARUN DISTRICT COUNCIL Y/3/22/OUT

2.9 Problem

Location – B2132 south-east side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

The existing Diagram Number 670 speed limit highway signage will be located within the proposed two-metre-wide footway to the allotments forcing pedestrians into the live carriageway placing them in conflict with motor vehicles.



Recommendation – Relocate the highway sign to the back edge of the footway or behind the footway.

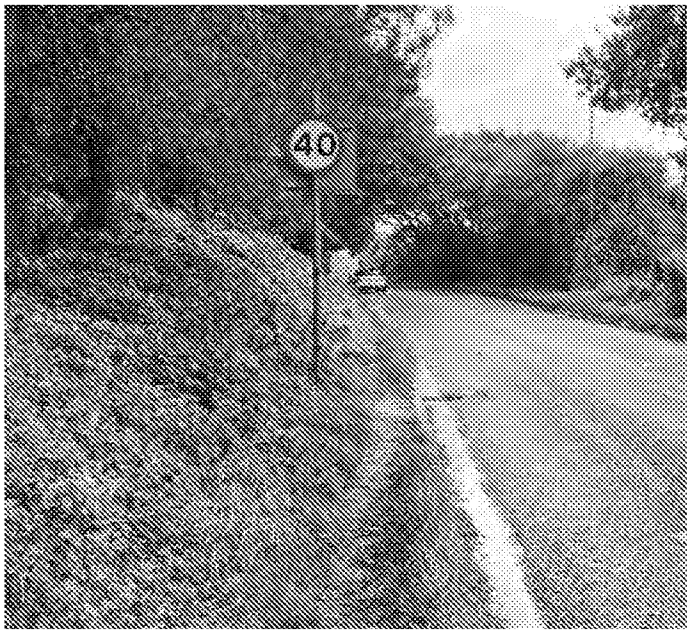
ARUN DISTRICT COUNCIL Y/3/22/OUT

2.10 Problem

Location – B2132 Bilsham Road.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

The vegetation to the left from the dropped kerb pedestrian crossing point proposed to be constructed across the B2132, south-west of its priority junction with Taylors Close, will obstruct inter-visibility between vulnerable road users and drivers, increasing the risk of conflict between the two users.



Recommendation – Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.

2.11 Problem

Location – B2132 Bilsham Road south-east side.

Summary – Risk of conflict between motor vehicles and vulnerable road users.

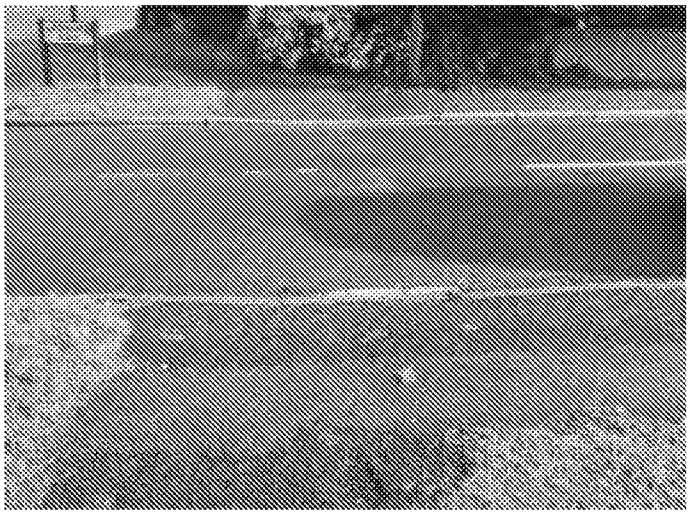
No footway construction details have been supplied to the Audit Team. Half-battered kerbs currently exist on the south-east side of the B2132 Bilsham Road increasing the risk of motor vehicles mounting the proposed footway and coming into conflict with vulnerable road users.

Recommendation – Install HB2 type kerbs along the front edge of the proposed footway.

ARUN DISTRICT COUNCIL Y/3/22/OUT

3. Other Issues

3.1 A dropped kerb pedestrian crossing exists across Graham Road which does not include the provision of tactile paving. The Audit Team recommend that tactile paving is installed to assist visually impaired pedestrians in locating the crossing point.



3.2 The proposed dropped kerb across the B2132 Bilsham Road, between the existing bus stops renders the current dropped kerb on the south-east side of the B2132 redundant. The Audit Team recommend that the tactile paving be removed and the existing dropped and transition kerbs be reinstated with full height kerns.



ARUN DISTRICT COUNCIL Y/3/22/OUT

4. Audit Team Statement

We certify that this audit has been carried out in accordance with DMRB GG 119

Audit Team Leader:

Name: Darren Cox FIHE; MSoRSA; HE Cert. Comp.
Senior Auditor

Signed: [redacted] Date: 5/10/2021

Audit Team Member:

Name: Tasos Papaloucas MCIHT; MSoRSA
Senior Auditor

[redacted]

Signed: Date: 5/10/2021

ARUN DISTRICT COUNCIL Y/3/22/OUT

Appendix A: Information Utilised in this Stage 2 Road Safety Audit

Drawings:

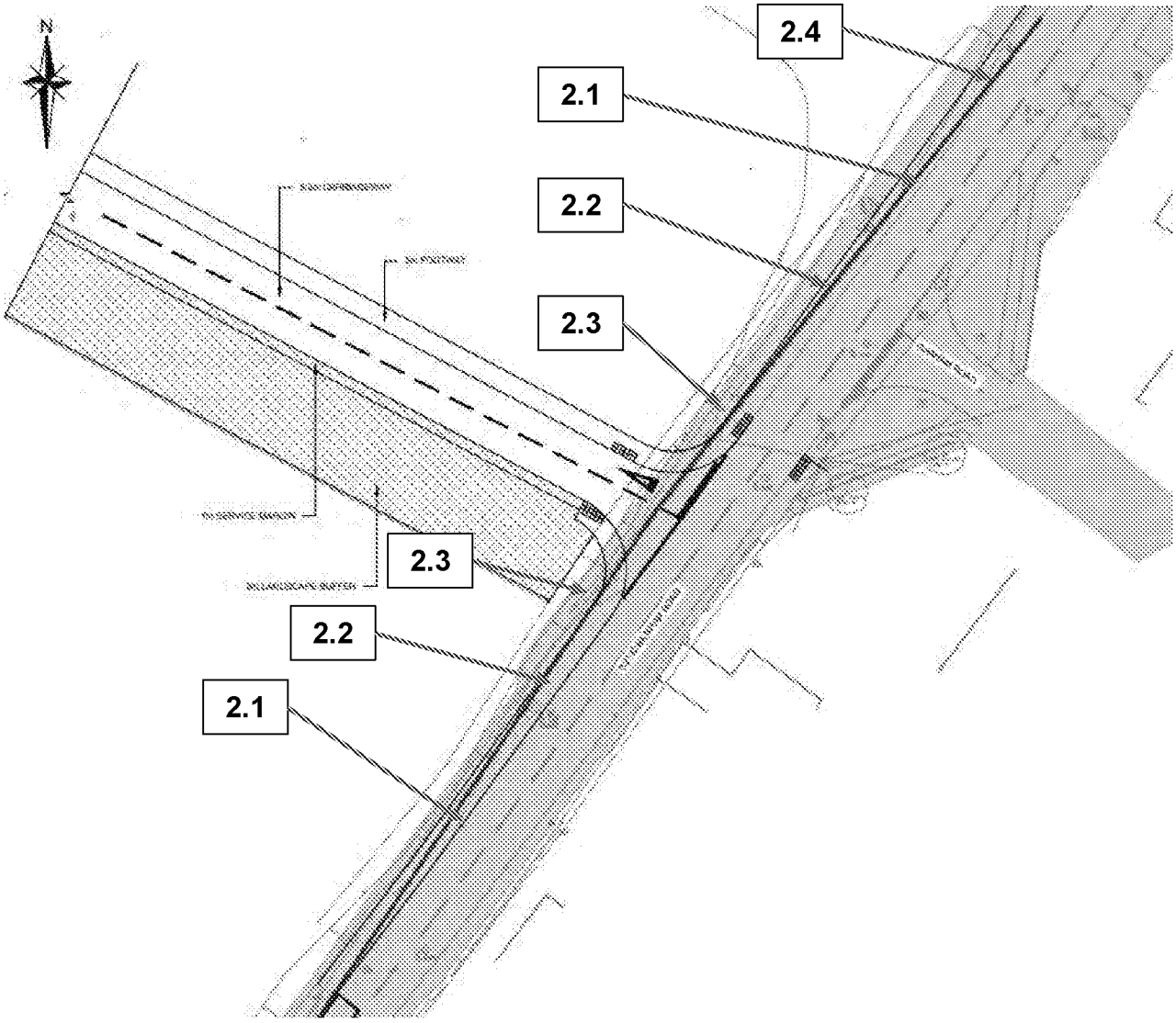
A361-001 P1 - Proposed Access Arrangments
Approved Site Access to North

B2132 ATC data

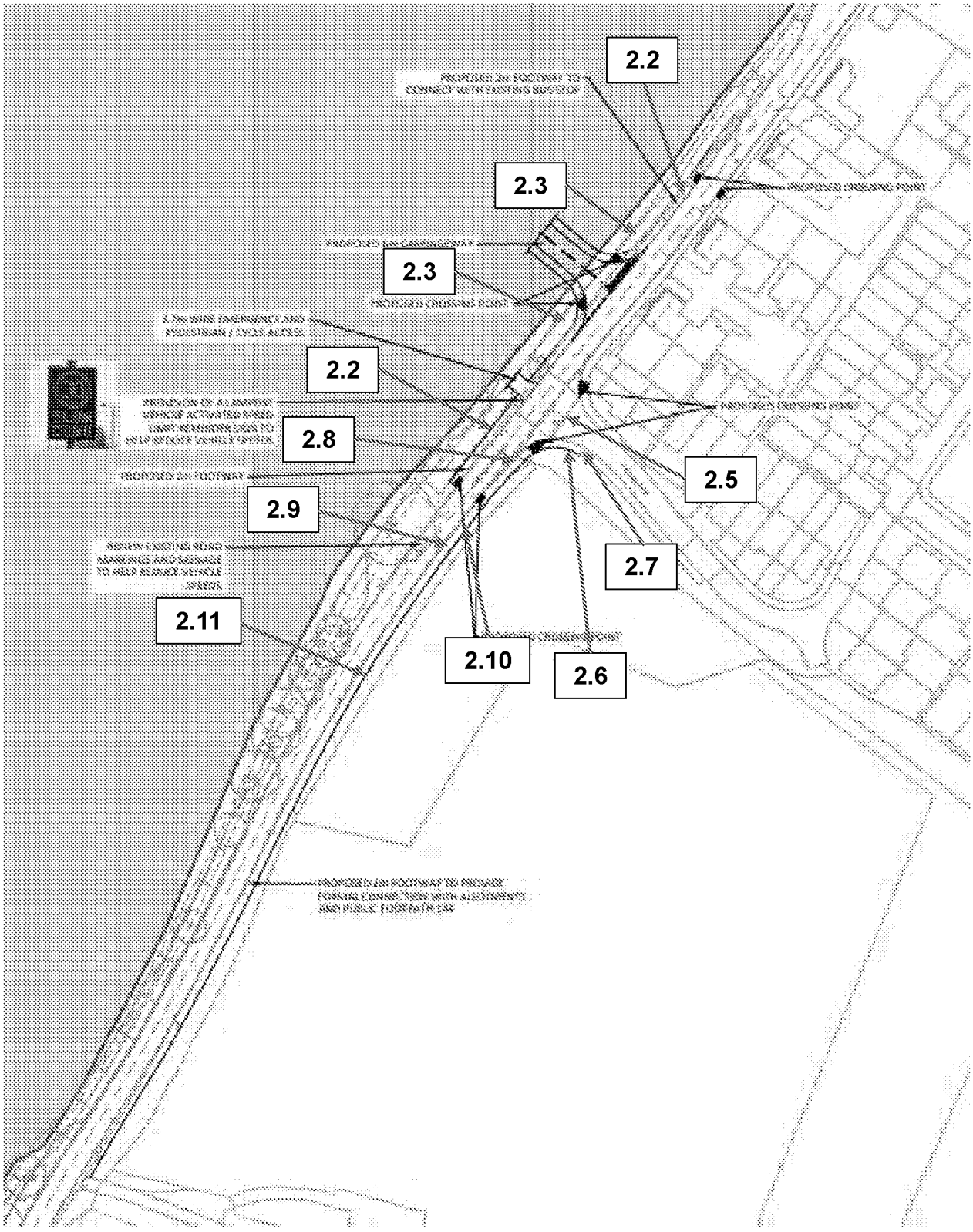
Injury Collision Plot from Sussex Safer Roads Partnership

ARUN DISTRICT COUNCIL Y/3/22/OUT

Appendix B: Key Plan showing Audit Problems



ARUN DISTRICT COUNCIL Y/3/22/OUT



ARUN DISTRICT COUNCIL Y/3/22/OUT

Appendix C – Site location plan



ARUN DISTRICT COUNCIL Y/3/22/OUT

Designers Response to Stage 2 Road Safety Audit

Location: B2132 Bilsham Road, Yapton
Site: Proposed Simple Priority Controlled Access (with accompanying pedestrian provision)
Safety Auditor: Avon Traffic & Safety Services Ltd
Audit Team Leader: Darren Cox
Safety Auditors Report Reference: 210908 V1

Reference	Location	Summary of Issue	Recommendation	Designer's Response
2.1	B2132 Bilsham Road north-west side.	Risk of conflict between motor vehicles and vulnerable road users.	Install HB2 type kerbs along the front edge of the proposed footway.	Material specifications as approved by WSCC Highways will be utilised in the construction of the proposed access arrangements.
2.2	B2132 Bilsham Road north-west side.	Risk of conflict between motor vehicles and vulnerable road users.	Relocate the existing lighting columns to the back edge of the footway or behind the footway.	Where required existing Lighting columns and signage will be relocated to the back of footway to ensure road user conflicts are minimised.
2.3	B2132 Bilsham Road north-west side.	Risk of failure to give way collisions.	Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.	Vegetation will be cut back where required and maintained as part of the highway authority's maintenance schedule.
2.4	B2132 Bilsham Road north-west side.	Risk of loss of control collisions.	Ensure that the carriageway is adequately drained.	Drainage infrastructure will be provided as part of the highway work. A S278 Package of drawings will be provided for approval prior to any works commencing on site.
2.5	Taylors Close	Pedestrians slips and falls.	Ensure that the carriageway is adequately drained.	Drainage infrastructure will be provided as part of the highway work. A S278 Package of drawings will be provided for approval prior to any works commencing on site.
2.6	Taylors Close south-west side.	Risk of conflict between motor vehicles and vulnerable road users.	Relocate the highway sign and street naming plate to the back edge of the footway or behind the footway.	Where required existing Lighting columns and signage will be relocated to the back of footway to ensure road user conflicts are minimised.
2.7	Taylors Close south-west side.	Risk of conflict between motor vehicles and vulnerable road users.	Remove the existing tactile paving on both sides of Taylors Close and reinstate the existing dropped kerb crossing point with full height kerbs. B2132 south-east side.	The exiting tactile paving does not follow the likely pedestrian desire line. As such this existing infrastructure will be relocated to the proposed crossing location and full height kerbs installed to replace the current installation.
2.8	B2132 south-east side.	Risk of conflict between motor vehicles and vulnerable road users.	Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.	Vegetation will be cut back where required and maintained as part of the highway authority's maintenance schedule.

2.9	B2132 south-east side.	Risk of conflict between motor vehicles and vulnerable road users.	Relocate the highway sign to the back edge of the footway or behind the footway.	Where required existing Lighting columns and signage will be relocated to the back of footway to ensure road user conflicts are minimised.
2.10	B2132 Bilsham Road.	Risk of conflict between motor vehicles and vulnerable road users.	Cut back the vegetation as part of an on-going planned maintenance regime or remove the vegetation.	Vegetation will be cut back where required and maintained as part of the highway authority's maintenance schedule.
2.11	B2132 Bilsham Road south-east side.	Risk of conflict between motor vehicles and vulnerable road users.	Install HB2 type kerbs along the front edge of the proposed footway.	Material specifications as approved by WSCC Highways will be utilised in the construction of the proposed access arrangements

Appendix I — Trip Rates

ARUN DISTRICT COUNCIL Y/3/22/OUT

5.0 TRIP GENERATION, TRAFFIC GROWTH & DISTRIBUTION

Trip Generation

5.1 The traffic generation for a residential development of 250 dwellings has been calculated using trip rates derived from comparable sites on the TRICS database. These were agreed with WSCC during the pre-application stage. For robustness, sites consisting of privately owned developments of greater than 100 dwellings were selected. The results are summarised below in **Table 5.1** and the full TRICS output can be found in **Appendix G**.

Table 5.1: Development Trip Rates

Time-Period	Arrival	Departure	Two-Way
AM 08:00 – 09:00	0.141	0.368	0.509
PM 17:00 – 18:00	0.313	0.165	0.478
Daily	2.134	2.242	4.376

5.2 Based on the approved trip rates above, the traffic generation for the proposed development of 250 dwellings is summarised in **Table 5.2**.

Table 5.2: Development Traffic Generation

Time-Period	Arrival	Departure	Two-Way
AM 08:00 – 09:00	35	92	127
PM 17:00 – 18:00	78	41	120
Daily	473	508	1094

5.3 Compared to the two-way vehicle movements observed in the ATC survey (refer **Section 3.0**), this equates to an increase in vehicle flows on the B2132 Bilsham Road of 19.9% in the AM peak and 31.4% in the PM peak. **Table 5.3** summarises.

Table 5.3: Development Traffic Impact on Bilsham Road

Time-Period	Existing Two-Way Traffic	Two-Way Development Traffic	% Increase
AM 08:00 – 09:00	637	127	19.9%
PM 17:00 – 18:00	381	120	31.4%
Daily	5832	1094	18.7%

5.4 While the percentage increase in vehicle trips appears to be high, this is only the case as the existing observed traffic flows are low. The capacity of the B2132 Bilsham Road is more than sufficient to accommodate these additional traffic movements.

ARUN DISTRICT COUNCIL Y/[illegible]/2007

Appendix J – Census Data

ARUN DISTRICT COUNCIL Y/3/22/OUT

WU03EW - Location of usual residence and place of work by method of t

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population	All usual residents aged 16 and over in employment the
units	Persons
date	2011
usual residence	E02006544 : Arun 003 (2011 super output area - middle

place of work	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram
E02006542 : Arun 001	155	0	0
E02006543 : Arun 002	17	0	0
E02006544 : Arun 003	532	0	0
E02006545 : Arun 004	78	0	0
E02006546 : Arun 005	30	0	0
E02006547 : Arun 006	95	0	0
E02006548 : Arun 007	26	0	0
E02006549 : Arun 008	9	0	0
E02006550 : Arun 009	51	0	0
E02006551 : Arun 010	19	0	0
E02006552 : Arun 011	60	0	0
E02006553 : Arun 012	80	0	0
E02006554 : Arun 013	18	0	0
E02006555 : Arun 014	109	0	0
E02006556 : Arun 015	15	0	0
E02006557 : Arun 016	27	0	0
E02006558 : Arun 017	166	0	0
E02006559 : Arun 018	14	0	0
E02006560 : Arun 019	17	0	0
Adur	47	0	0
Brighton and Hove	54	0	0
Chichester	1,299	0	0
Eastbourne	0	0	0
Hastings	2	0	0
Horsham	108	0	0
Lewes	18	0	0
Mid Sussex	12	0	0
Rother	1	0	0
Wealden	4	0	0
Worthing	177	0	0
South East	3,644	0	0

In order to protect against disclosure of personal information, records have been swapped bet

WU03EW - Location of usual residence and place of work by method of t

ONS Crown Copyright Reserved [from Nomis on 9 June 2021]

population	All usual residents aged 16 and over in employment the
units	Persons
date	2011
usual residence	E02006547 : Arun 006 (2011 super output area - middle

place of work	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram
E02006542 : Arun 001	93	0	0
E02006543 : Arun 002	18	0	0
E02006544 : Arun 003	137	0	0
E02006545 : Arun 004	93	0	0
E02006546 : Arun 005	34	0	0
E02006547 : Arun 006	285	0	0
E02006548 : Arun 007	40	0	0
E02006549 : Arun 008	9	0	0
E02006550 : Arun 009	53	0	0
E02006551 : Arun 010	22	0	0
E02006552 : Arun 011	84	0	0
E02006553 : Arun 012	22	0	0
E02006554 : Arun 013	24	0	0
E02006555 : Arun 014	52	0	0
E02006556 : Arun 015	28	0	0
E02006557 : Arun 016	8	0	0
E02006558 : Arun 017	104	0	0
E02006559 : Arun 018	9	0	0
E02006560 : Arun 019	8	0	0
Adur	32	0	0
Brighton and Hove	42	0	0
Chichester	479	0	0
Eastbourne	0	0	0
Hastings	3	0	0
Horsham	60	0	0
Lewes	12	0	0
Mid Sussex	16	0	0
Rother	0	0	0
Wealden	0	0	0
Worthing	170	0	0
South East	2,102	0	1

In order to protect against disclosure of personal information, records have been swapped bet

ravel to work (MSOA level)

week before the census

layer)

Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van
5	1	0	4	120	15
0	0	0	0	15	0
6	2	0	2	287	32
6	0	0	3	60	1
2	0	0	0	23	0
5	0	0	0	82	5
1	0	0	0	23	1
0	0	0	0	8	0
4	0	0	1	43	1
0	1	0	0	14	3
2	1	0	0	49	1
5	0	0	0	64	6
0	0	0	0	17	0
7	1	0	2	94	2
0	0	0	0	14	1
1	0	0	1	23	0
31	5	1	0	107	12
0	0	0	0	11	1
1	1	0	0	13	1
3	0	0	0	40	3
17	1	1	0	30	2
126	8	1	12	1,048	75
0	0	0	0	0	0
1	0	0	0	0	0
7	0	0	2	97	1
1	0	0	0	17	0
1	0	0	0	11	0
0	0	0	0	1	0
0	0	0	0	3	0
16	1	0	1	150	7
289	22	3	31	2,810	181

ween different geographic areas. Some counts will be affected, particularly small counts at the lowest geogra

ravel to work (MSOA level)

week before the census

layer)

Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van
1	3	0	1	68	8
0	0	0	0	18	0
2	0	2	2	96	14
0	7	0	3	69	6
0	2	0	0	30	2
6	0	0	4	141	16
0	0	0	1	35	2
0	0	0	0	9	0
0	1	0	0	45	5
0	1	0	0	19	1
4	3	0	1	63	5
0	3	0	2	16	1
0	0	0	0	23	1
1	2	0	0	44	2
0	3	0	0	19	4
0	0	0	0	8	0
0	8	0	1	83	5
0	0	0	0	7	1
0	0	0	0	7	1
2	0	0	0	29	1
8	4	0	1	20	4
25	7	0	4	409	27
0	0	0	0	0	0
0	0	0	0	3	0
6	1	0	0	49	3
0	0	0	1	11	0
3	0	0	0	13	0
0	0	0	0	0	0
0	0	0	0	0	0
7	6	0	2	134	13
83	51	2	23	1,607	126

ween different geographic areas. Some counts will be affected, particularly small counts at the lowest geogra

Bicycle	On foot	Other method of travel to work
4	5	1
1	1	0
50	152	1
0	8	0
2	3	0
2	1	0
0	1	0
0	1	0
1	1	0
0	1	0
1	6	0
3	2	0
1	0	0
2	1	0
0	0	0
2	0	0
7	3	0
1	1	0
0	1	0
0	1	0
1	2	0
19	10	0
0	0	0
0	1	0
1	0	0
0	0	0
0	0	0
0	0	0
0	1	0
1	1	0
99	207	2

aphies.

Bicycle	On foot	Other method of travel to work
5	7	0
0	0	0
13	6	2
7	1	0
0	0	0
14	101	3
1	0	1
0	0	0
1	1	0
1	0	0
6	2	0
0	0	0
0	0	0
2	1	0
1	1	0
0	0	0
3	4	0
1	0	0
0	0	0
0	0	0
1	4	0
6	0	1
0	0	0
0	0	0
0	1	0
0	0	0
0	0	0
0	0	0
0	0	0
3	5	0
65	137	7

aphies.

ARUN DISTRICT COUNCIL 13/07/2021

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	Arun 003 + 006

place of work	Area	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work
E02006542	Arundal	248	0	0	6	4	0	5	188	23	9	12	1
E02006543	North Angmering	35	0	0	0	0	0	0	33	0	1	1	0
E02006544	Eastergate / Westergate	669	0	0	8	2	2	4	383	46	63	158	3
E02006545	Littlehampton	171	0	0	6	7	0	6	129	7	7	9	0
E02006546	Angmering	64	0	0	2	2	0	0	53	2	2	3	0
E02006547	Yapton / Ford	380	0	0	11	0	0	4	223	21	16	102	3
E02006548	Littlehampton	66	0	0	1	0	0	1	58	3	1	1	1
E02006549	Ferring	18	0	0	0	0	0	0	17	0	0	1	0
E02006550	Littlehampton	104	0	0	4	1	0	1	88	6	2	2	0
E02006551	Littlehampton	41	0	0	0	2	0	0	33	4	1	1	0
E02006552	Littlehampton	144	0	0	6	4	0	1	112	6	7	8	0
E02006553	North Berstead	102	0	0	5	3	0	2	80	7	3	2	0
E02006554	Middleton	42	0	0	0	0	0	0	40	1	1	0	0
E02006555	Bognor Regis	161	0	0	8	3	0	2	138	4	4	2	0
E02006556	Felpham	43	0	0	0	3	0	0	33	5	1	1	0
E02006557	Bognor Regis	35	0	0	1	0	0	1	31	0	2	0	0
E02006558	Bognor Regis	270	0	0	31	13	1	1	190	17	10	7	0
E02006559	Bognor Regis	23	0	0	0	0	0	0	18	2	2	1	0
E02006560	Pagham	25	0	0	1	1	0	0	20	2	0	1	0
Adur	East of Arun	79	0	0	5	0	0	0	69	4	0	1	0
Brighton an	East of Arun	96	0	0	25	5	1	1	50	6	2	6	0
Chichester	West of Arun	1,778	0	0	151	15	1	16	1,457	102	25	10	1
Eastbourne	East of Arun	0	0	0	0	0	0	0	0	0	0	0	0
Hastings	East of Arun	5	0	0	1	0	0	0	3	0	0	1	0
Horsham	Northeast of Arun	168	0	0	13	1	0	2	146	4	1	1	0
Lewes	East of Arun	30	0	0	1	0	0	1	28	0	0	0	0
Mid Susse	East of Arun	28	0	0	4	0	0	0	24	0	0	0	0
Rother	East of Arun	1	0	0	0	0	0	0	1	0	0	0	0
Wealden	East of Arun	4	0	0	0	0	0	0	3	0	0	1	0
Worthing	East of Arun	347	0	0	23	7	0	3	284	20	4	6	0
South Eas	**Rest of The South East**	569	**0**	**1**	**372**	**73**	**5**	**54**	**4,417**	**307**	**164**	**344**	**9**
		5,746	0%	0%	6%	1%	0%	1%	77%	5%	3%	6%	0%

Destination			Total Trips
Arun			2,641
Rest of West Sussex			2,536
South East			569
Total			5,746

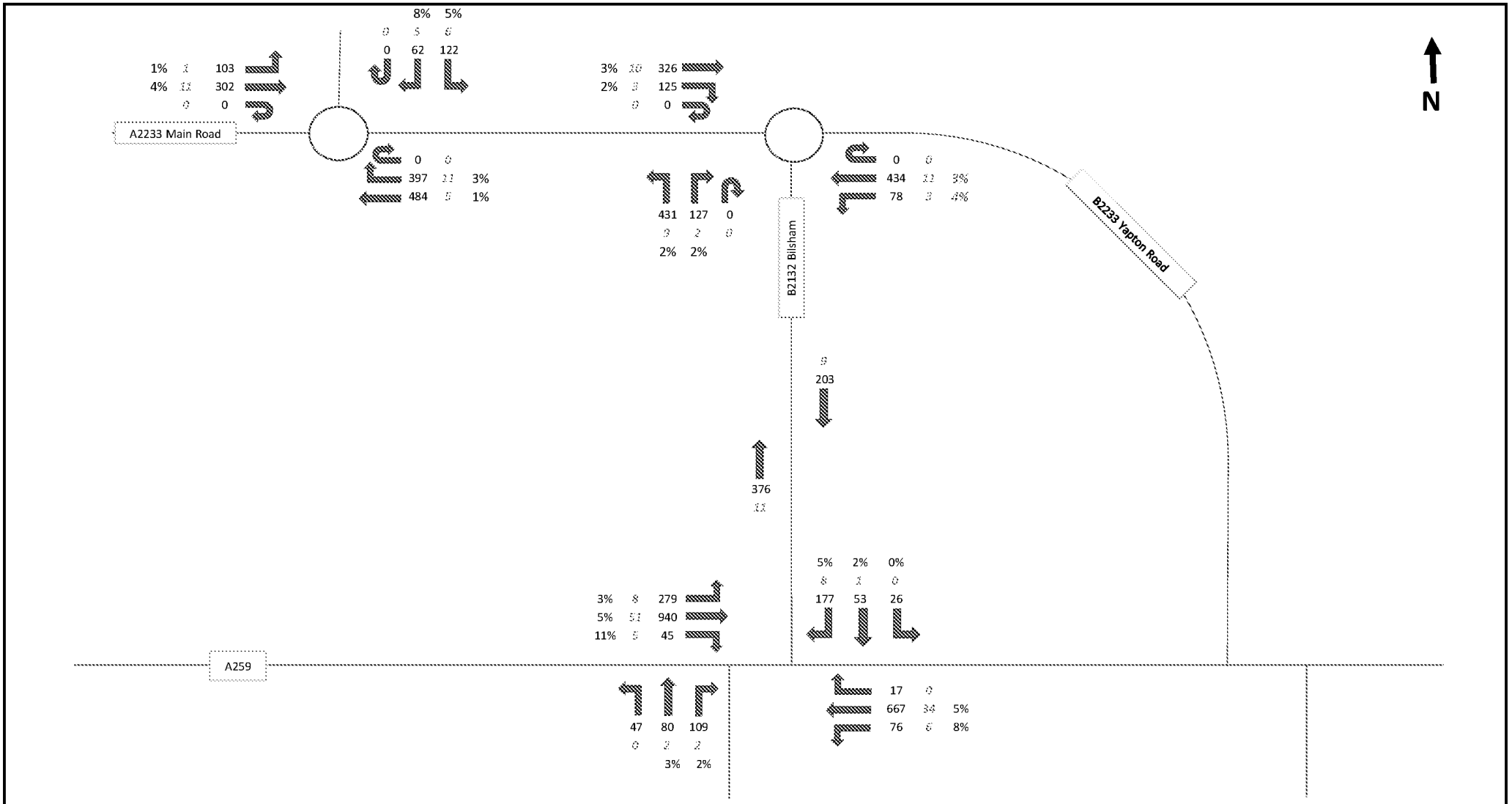
			Total Trips
Trips in Ward			**1,049**
			18%
Rest of Arun			**1,592**
			28%
West Sussex			**2,536**
			44%
South east			**569**
			10%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix K – Traffic Turning Diagrams

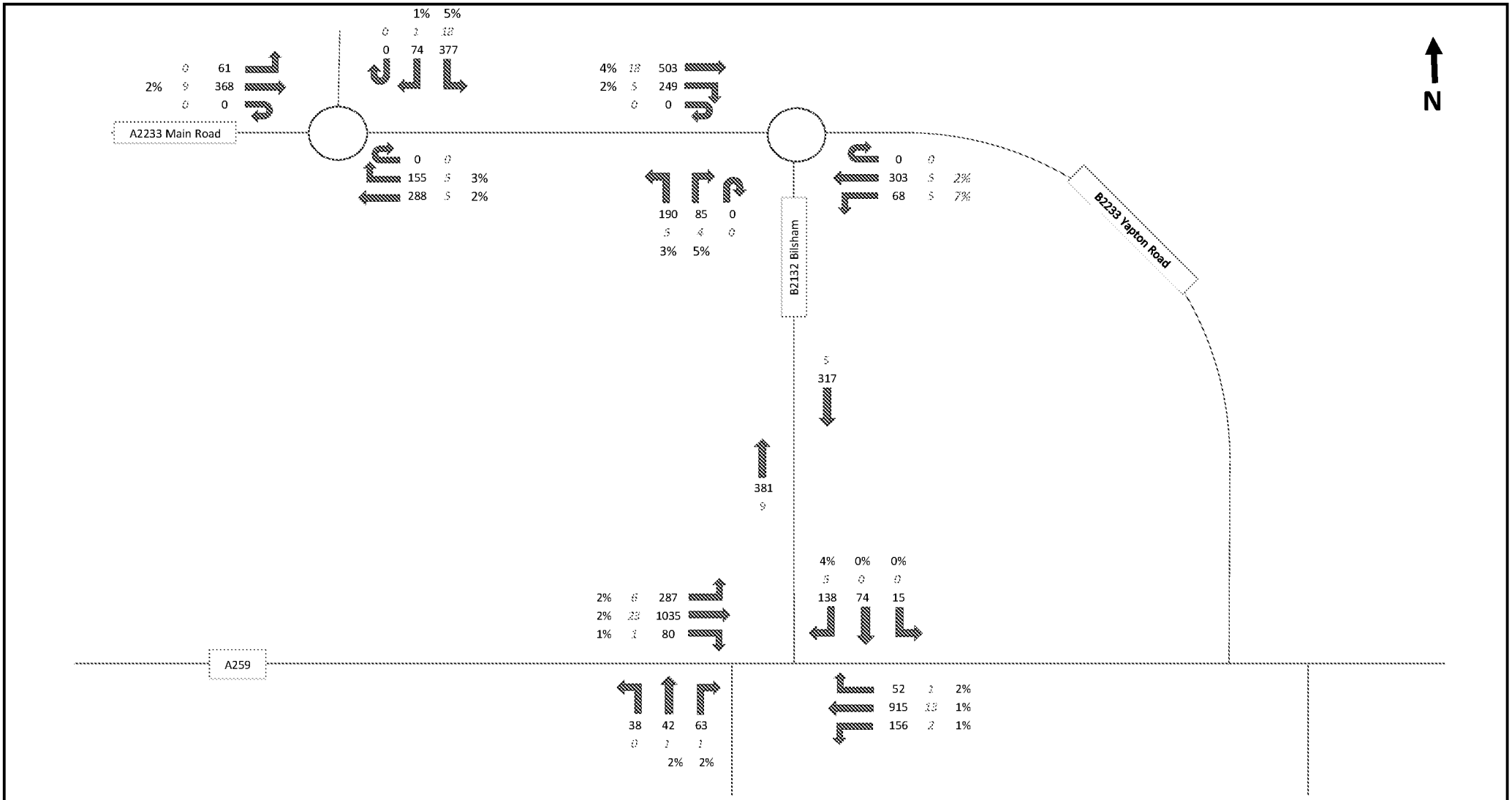
ARUN DISTRICT COUNCIL Y/3/22/OUT

ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

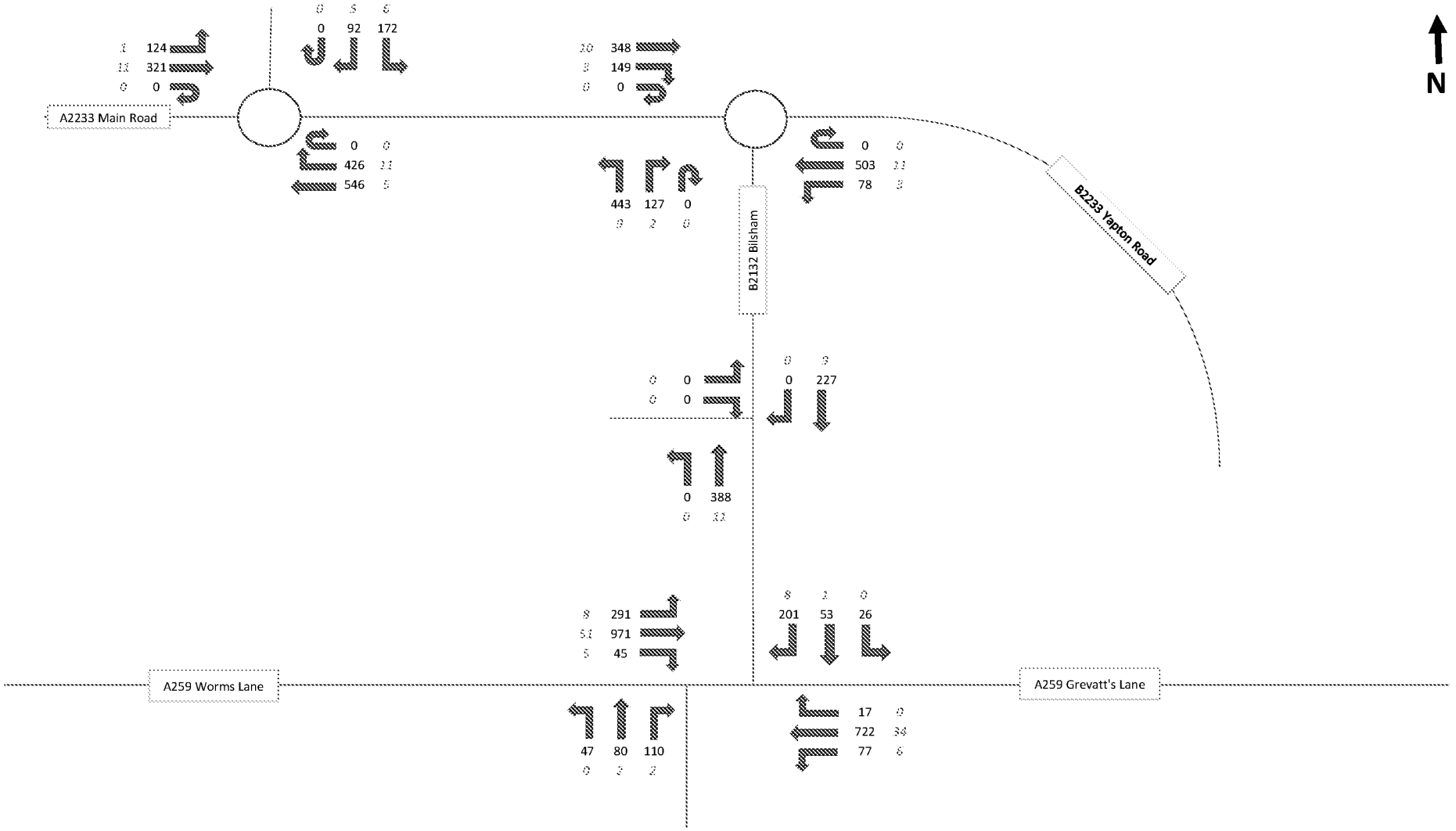
Job No A361	Project : Land West of Bilsham Road, Yapton
Date June 2021	Title : 2021 AM Baseline
Drawn TDM	Figure No :



ABLEY LETCHFORD PARTNERSHIP
Chartered Engineers

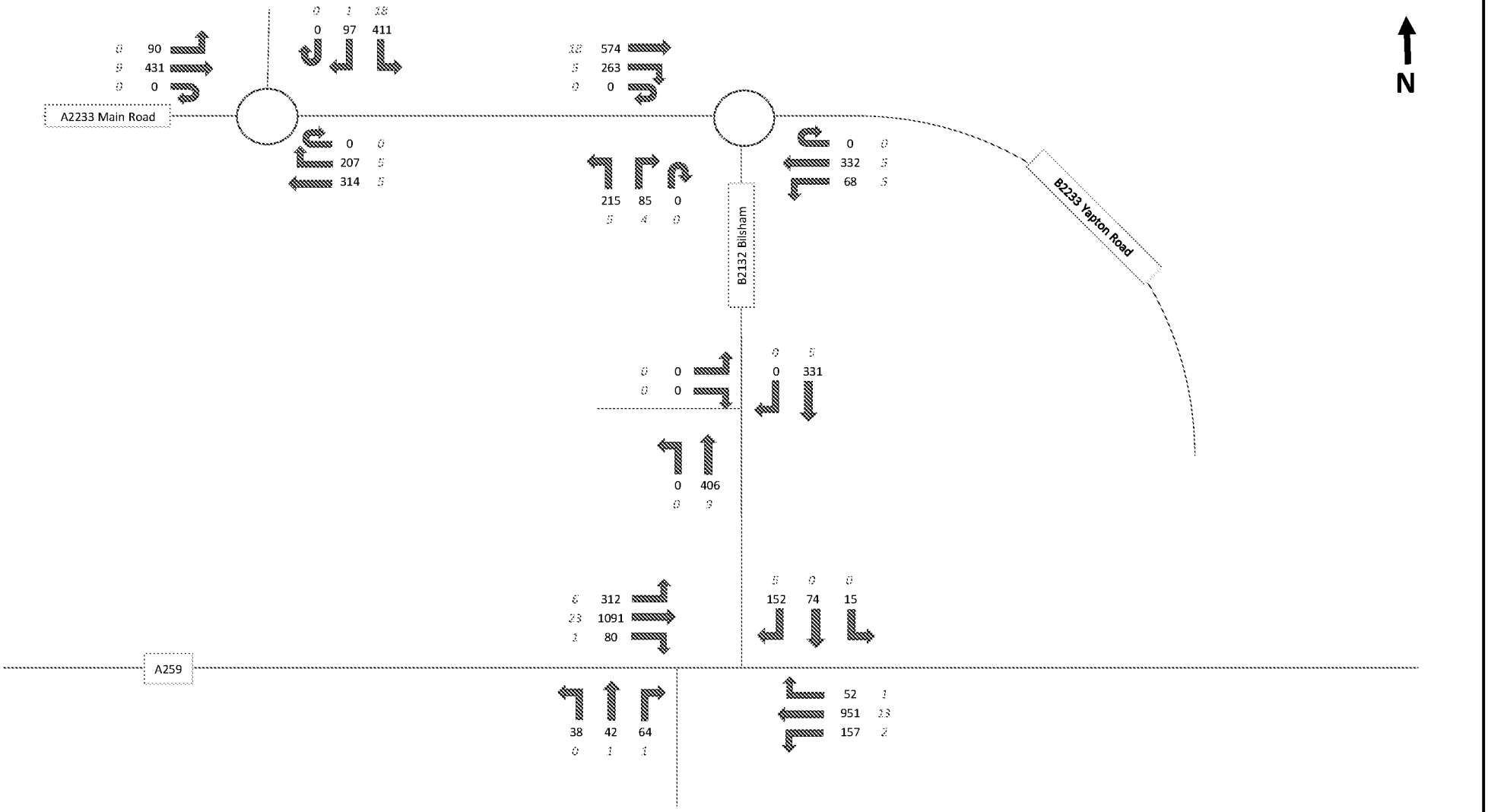
Job No A361	**Project :** Land West of Bilsham Road, Yapton
Date June 2021	**Title :** 2021 PM Baseline
Drawn TDM	**Figure No :**

ARUN DISTRICT COUNCIL Y/3/22/OUT



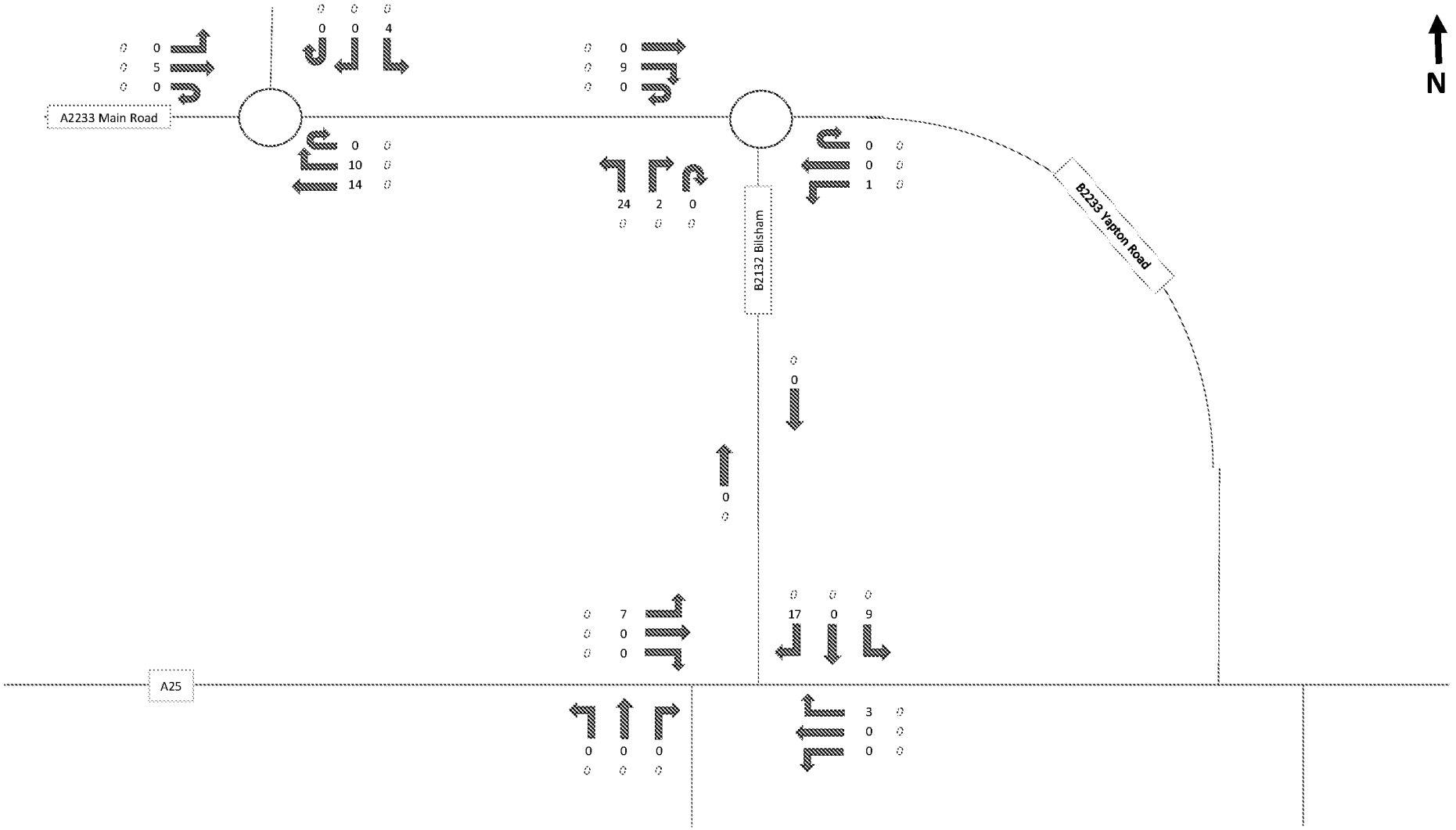
ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2021 AM Base + Ford
	Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y3/22/OUT



ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2021 PM Base + Ford
	Drawn TDM	Figure No :

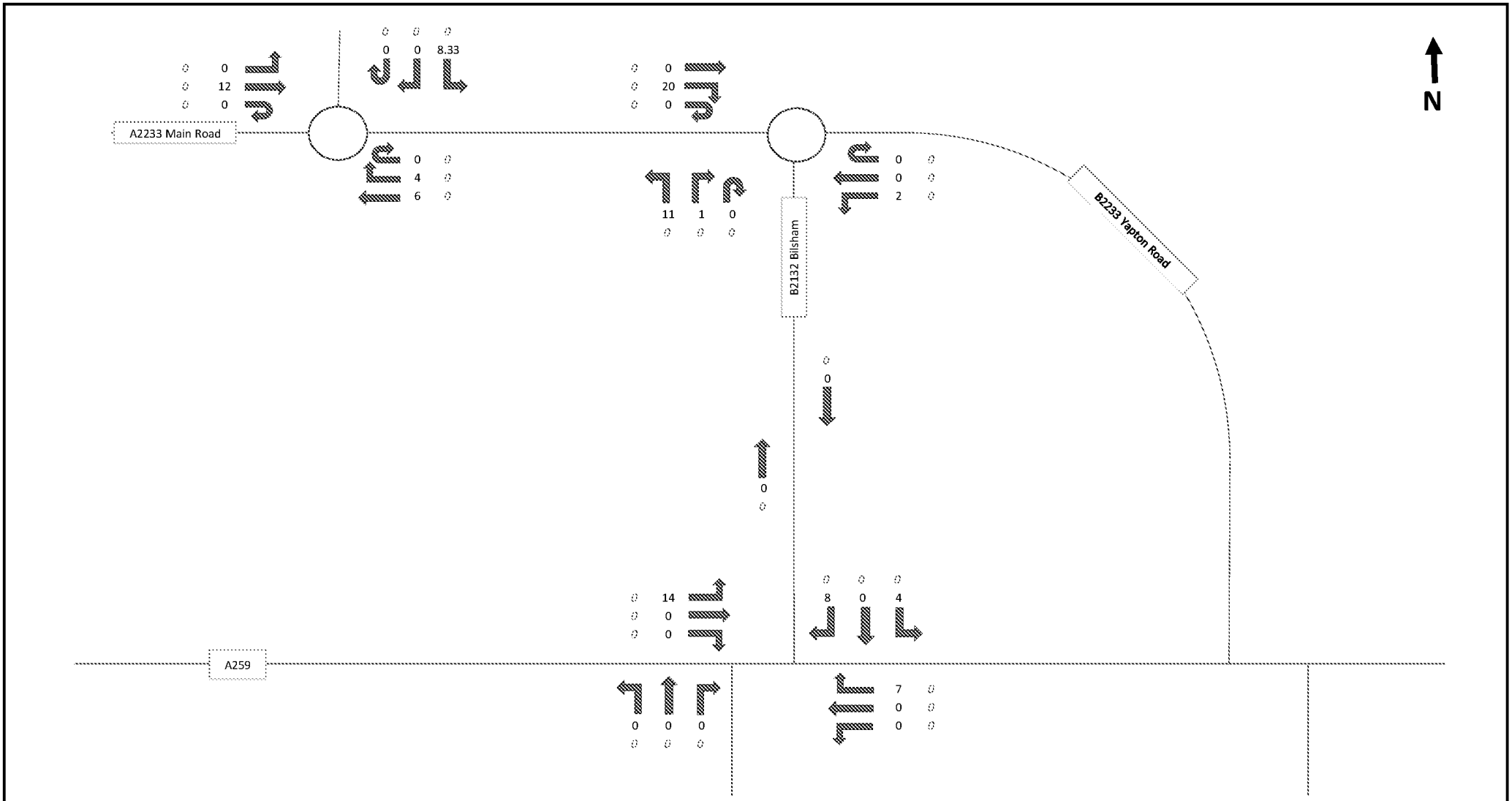
ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

Job No A361	Project : Land West of Bilsham Road, Yapton
Date June 2021	Title : AM Development
Drawn TDM	Figure No :

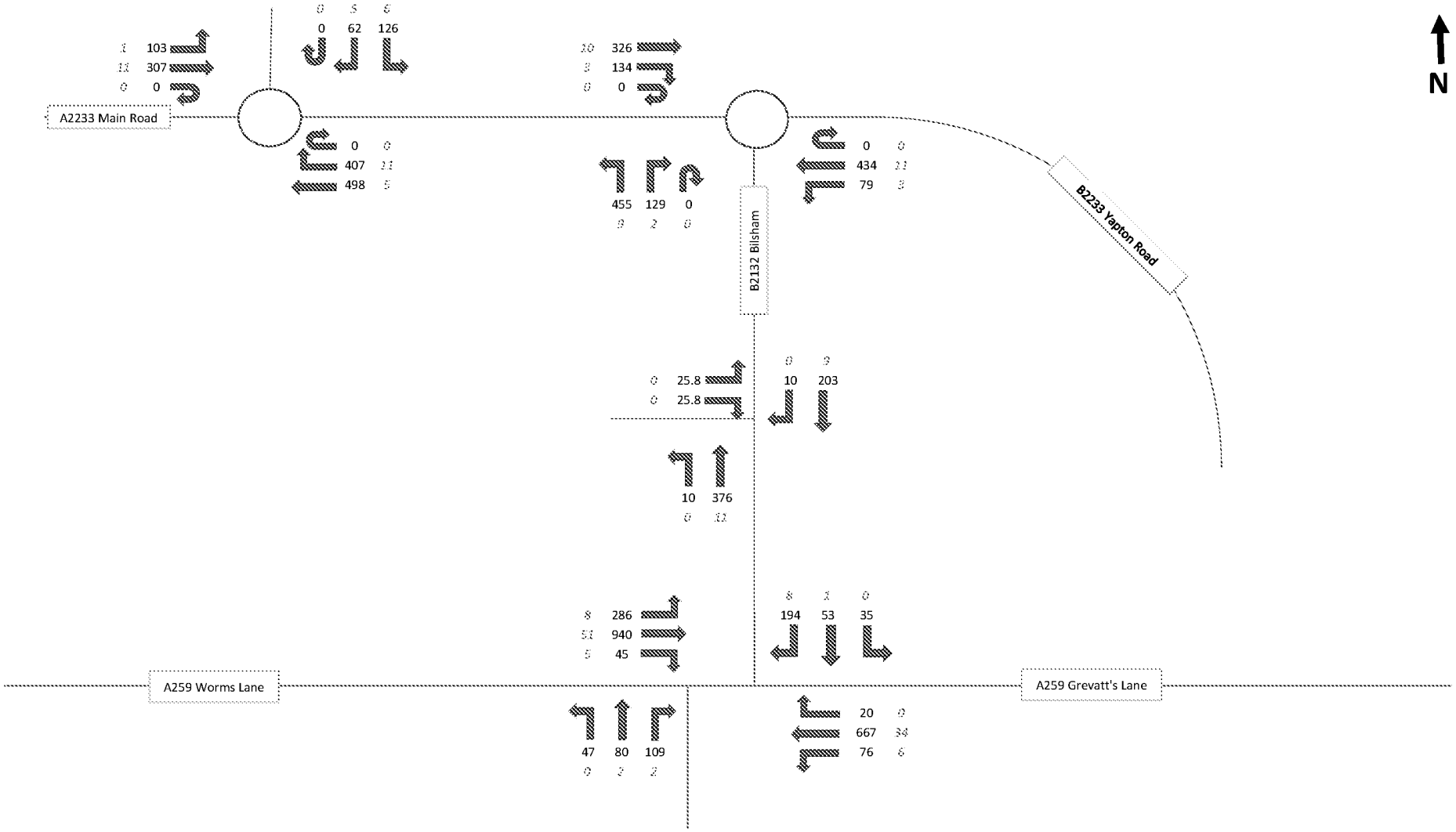
ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

Job No: A361	Project : Land West of Bilsham Road, Yapton
Date: June 2021	Title : PM Development
Drawn: TDM	Figure No :

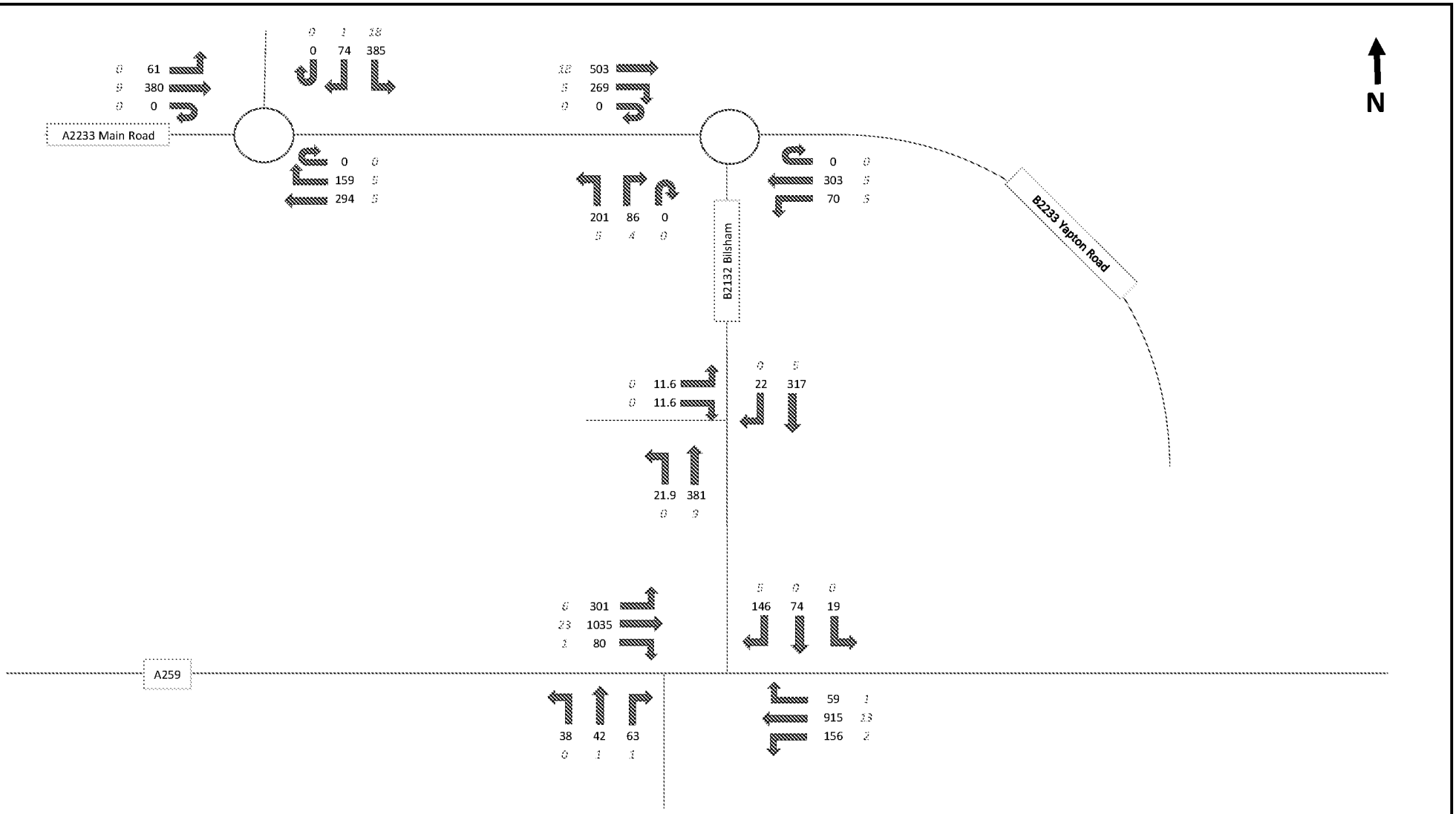
ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

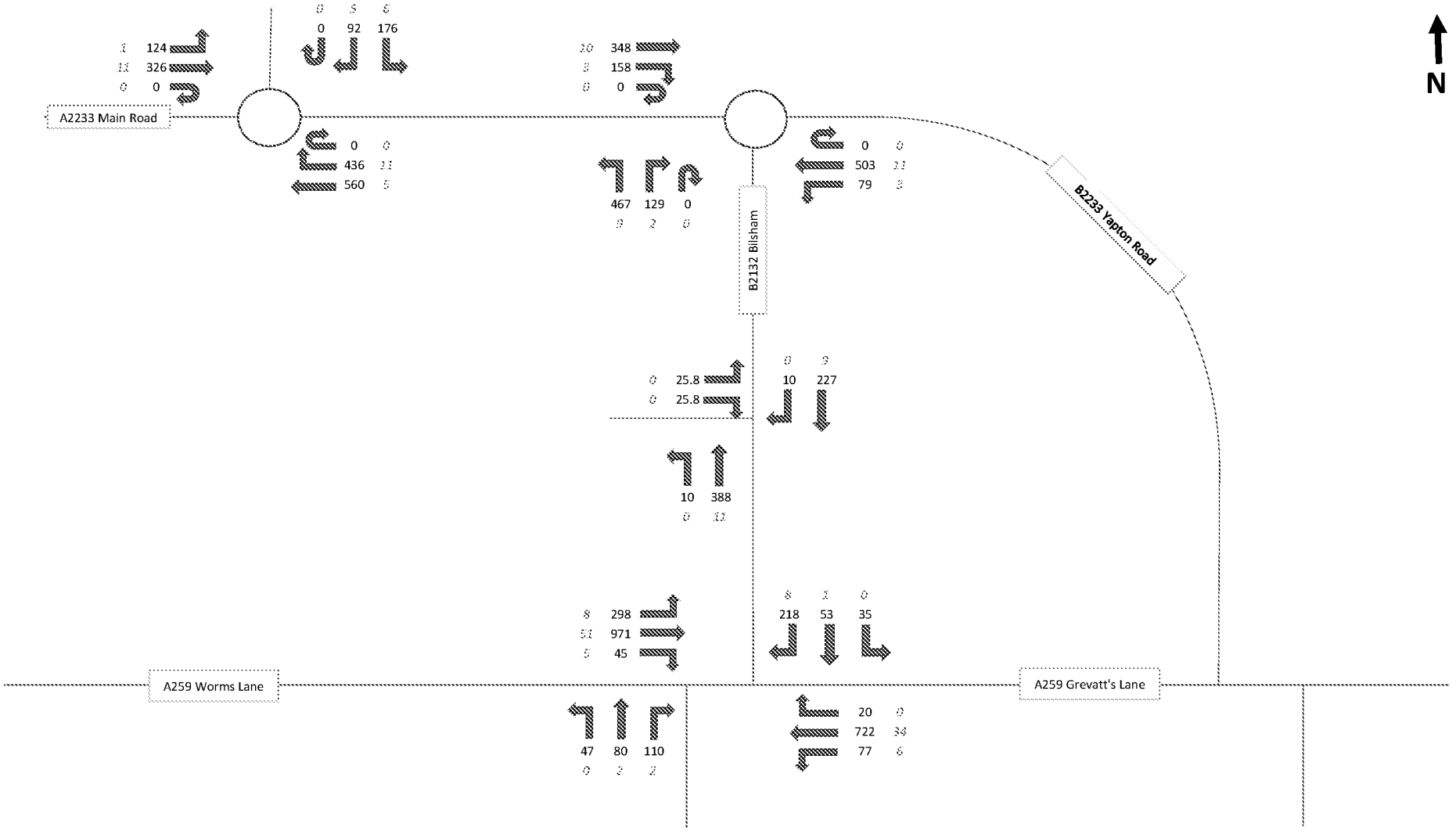
Job No A361	**Project :** Land West of Bilsham Road, Yapton
Date June 2021	**Title :** 2021 AM Base + Development
Drawn TDM	**Figure No :**

ARUN DISTRICT COUNCIL Y3/22/OUT



ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2021 PM Base + Development
	Drawn TDM	Figure No :

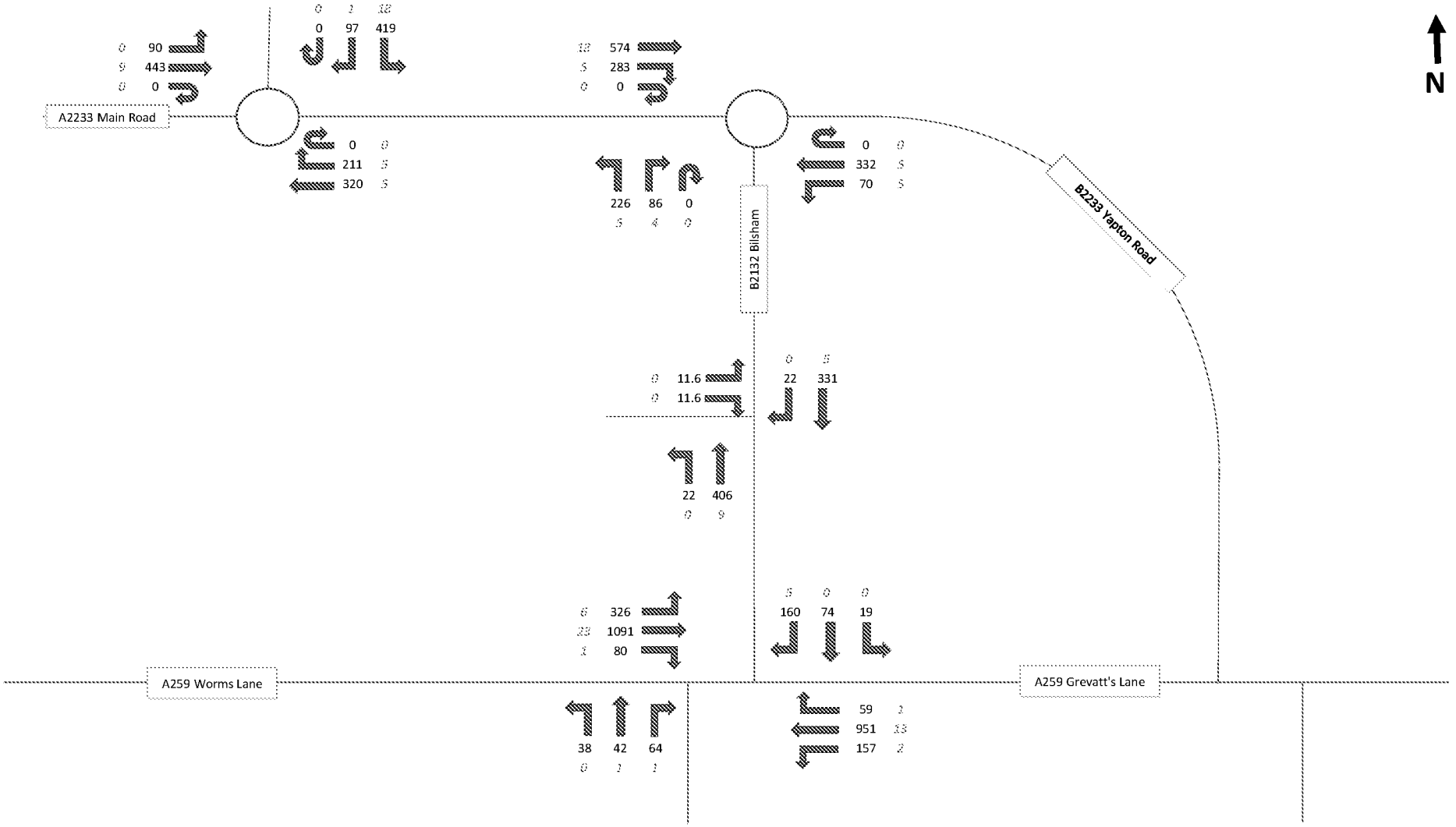
ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

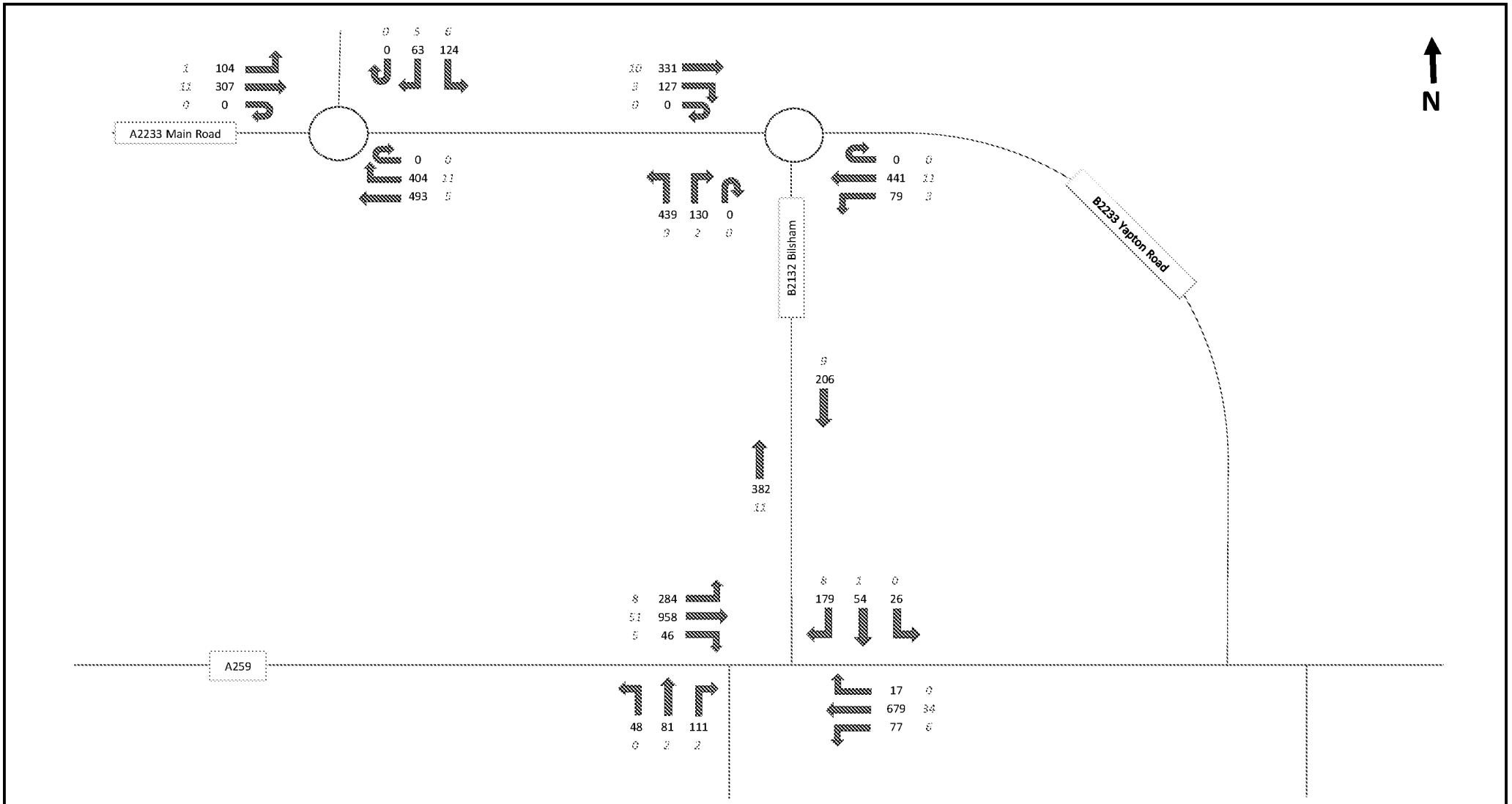
Job No A361	**Project :** Land West of Bilsham Road, Yapton
Date June 2021	**Title :** 2021 AM Base + Ford + Development
Drawn TDM	**Figure No :**

ARUN DISTRICT COUNCIL Y/3/22/OUT



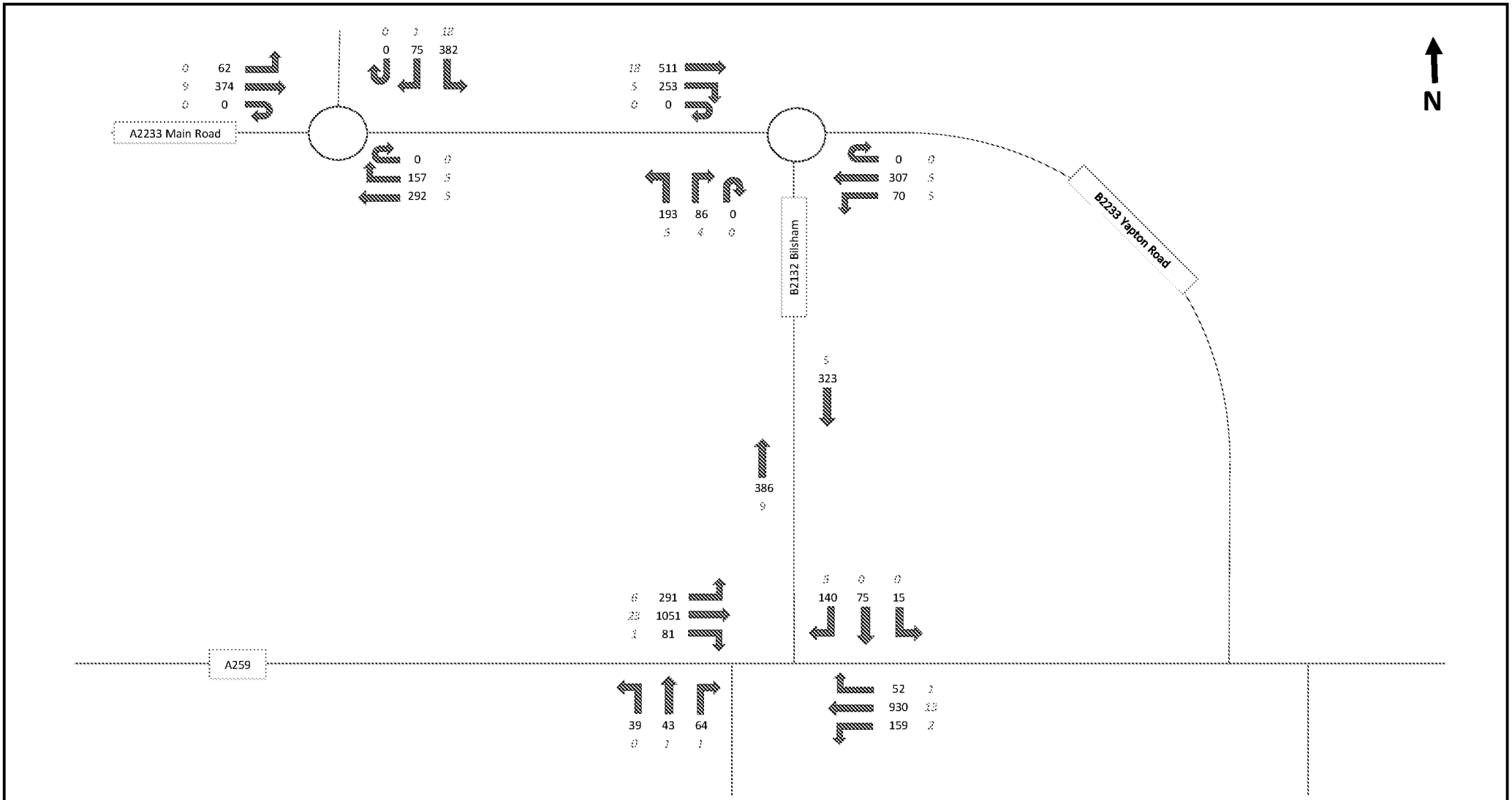
ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2021 PM Base + Ford + Development
	Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y/3/22/OUT



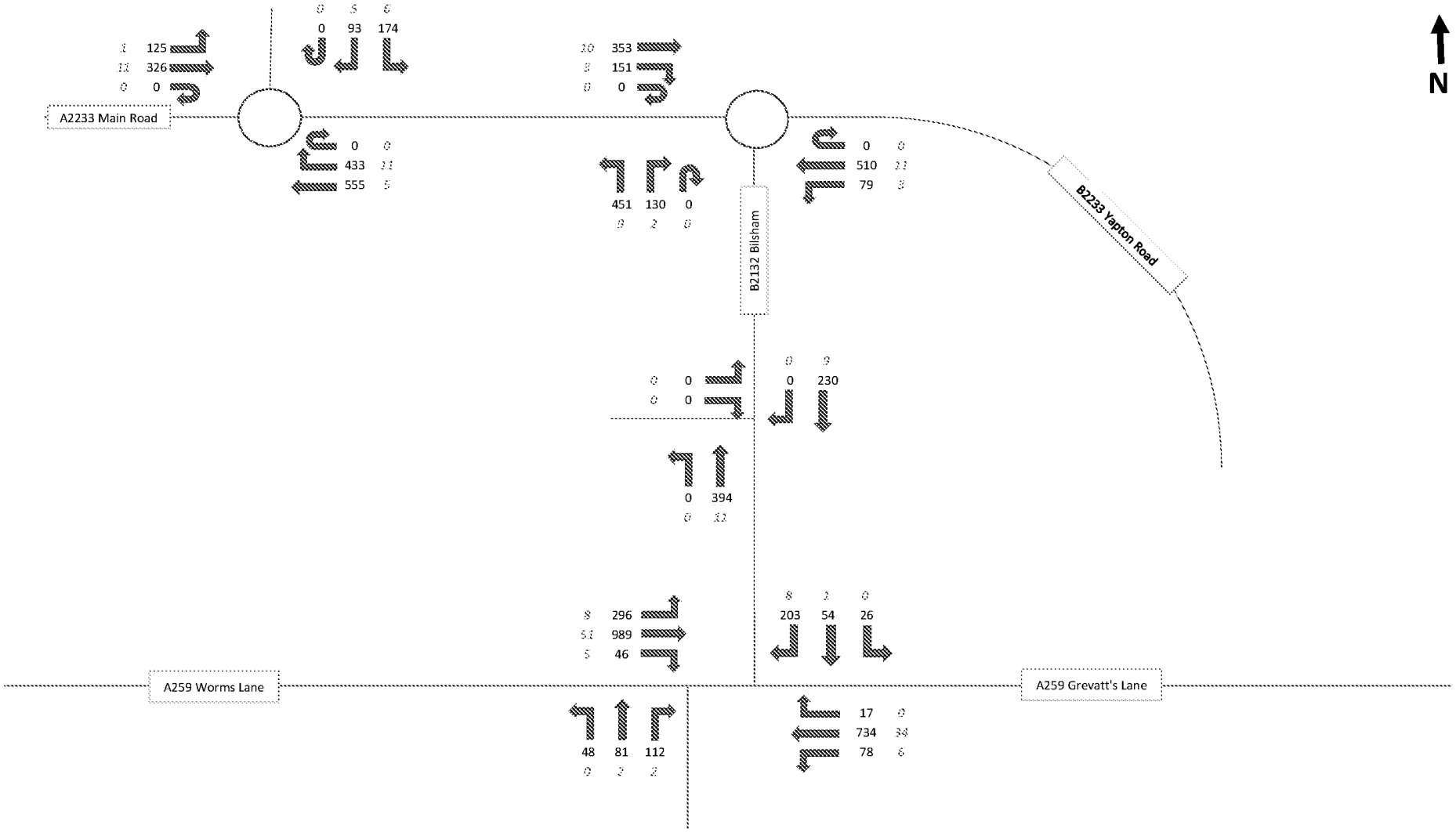
ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2031 AM Base
	Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP Chartered Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2031 PM Base
	Drawn TDM	Figure No :

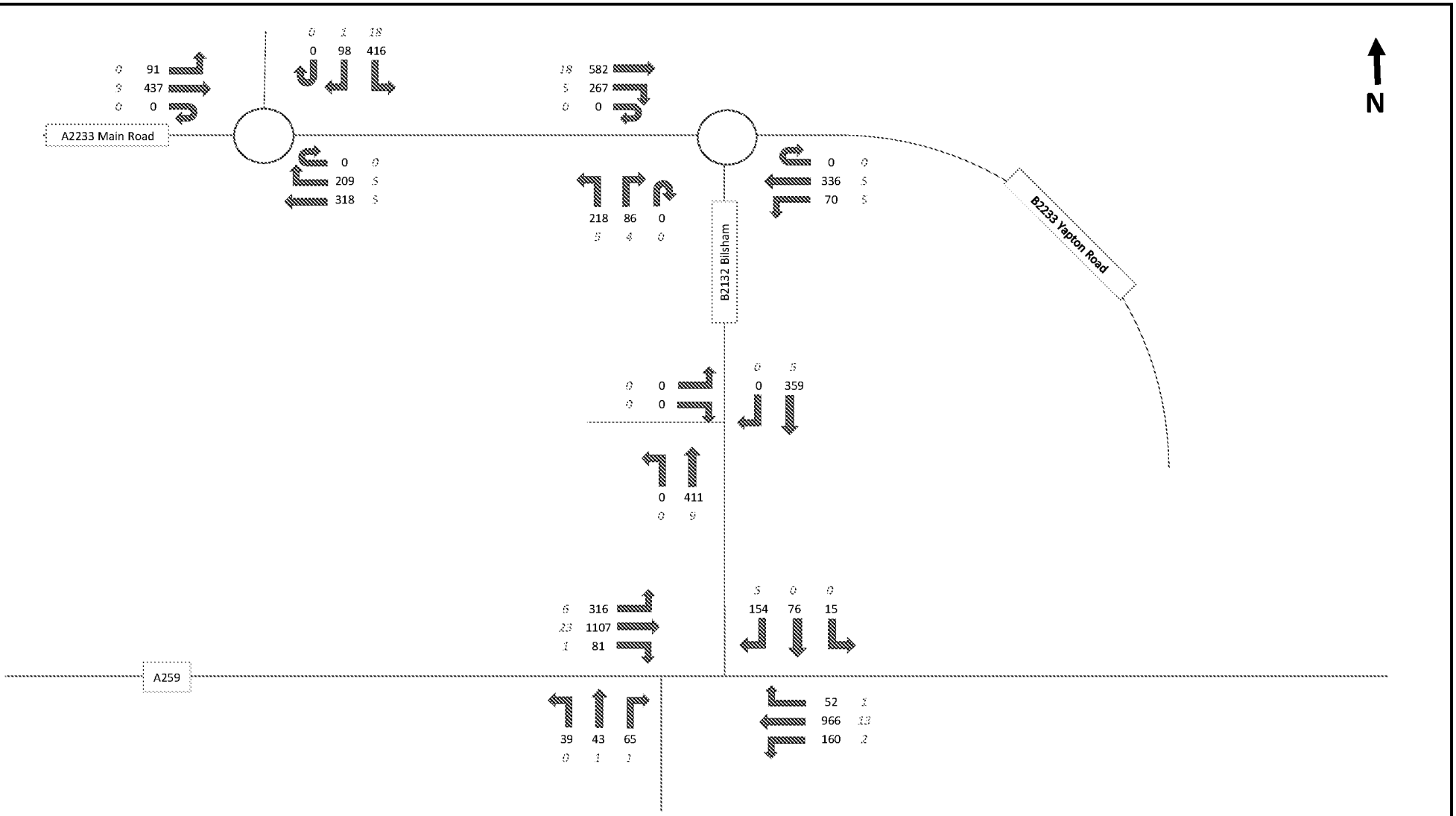
ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

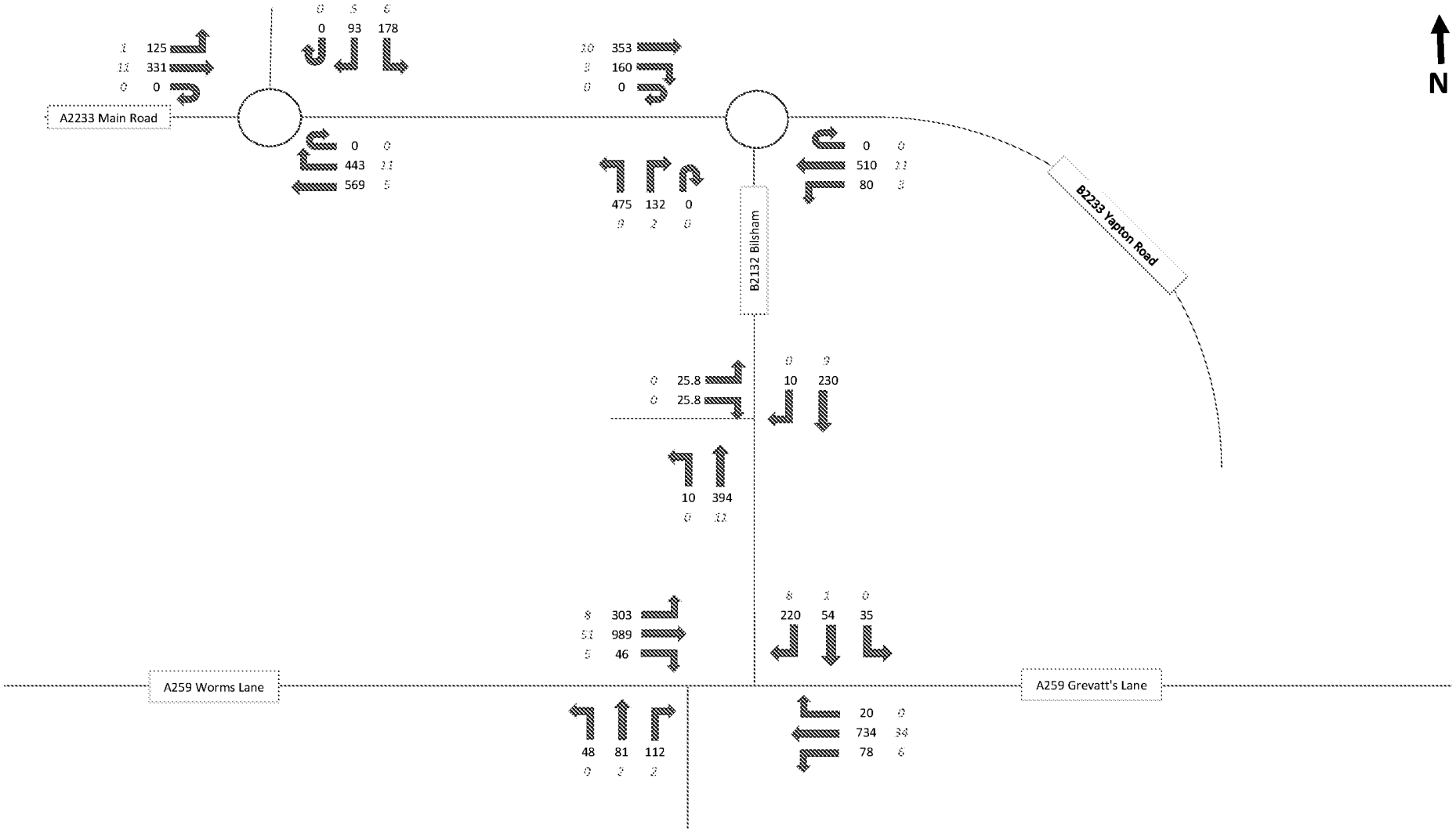
Job No A361	Project : Land West of Bilsham Road, Yapton
Date June 2021	Title : 2031 AM Base + Ford
Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y/3/22/OUT



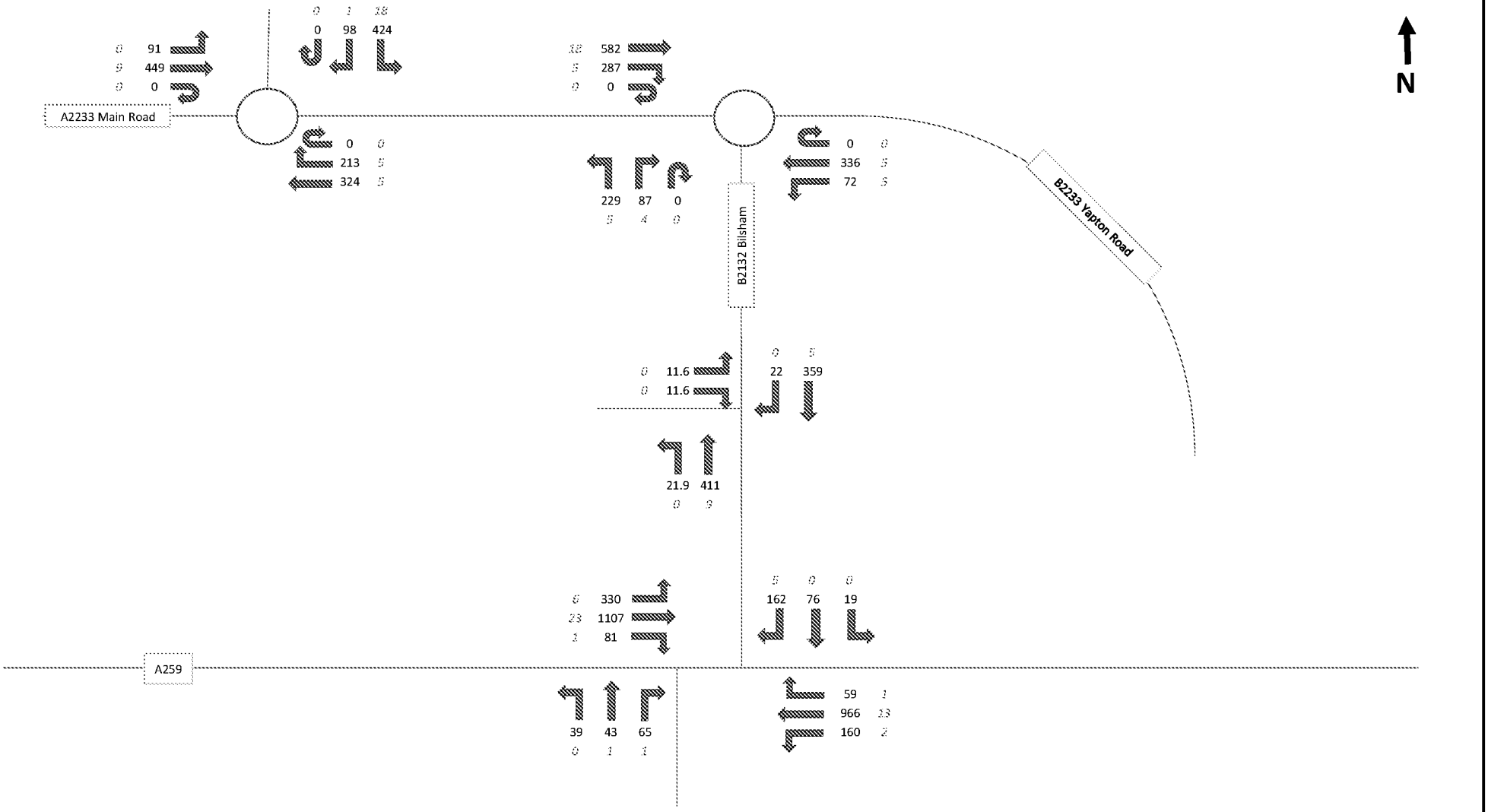
ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2031 PM Base + Ford
	Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2031 AM Base + Ford + Development
	Drawn TDM	Figure No :

ARUN DISTRICT COUNCIL Y/3/22/OUT



ABLEY LETCHFORD PARTNERSHIP Consulting Engineers	Job No A361	Project : Land West of Bilsham Road, Yapton
	Date June 2021	Title : 2031 PM Base + Ford + Development
	Drawn TDM	Figure No :

Appendix L – Ford Airfield Traffic Flow Extracts

ARUN DISTRICT COUNCIL Y/3/22/OUT

SECTION 8 OPERATIONAL ASSESSMENTS

8.1 Introduction

8.1.1 Using the parameters established in Section 7 of this TA, analysis has been undertaken across the highway network to test its ability to accommodate the additional traffic from the proposed development and identify where mitigation is necessary to accommodate the development. The assessments can be defined into three categories:

i Site Accesses;

ii Local Junctions; and

iii Strategic Junctions.

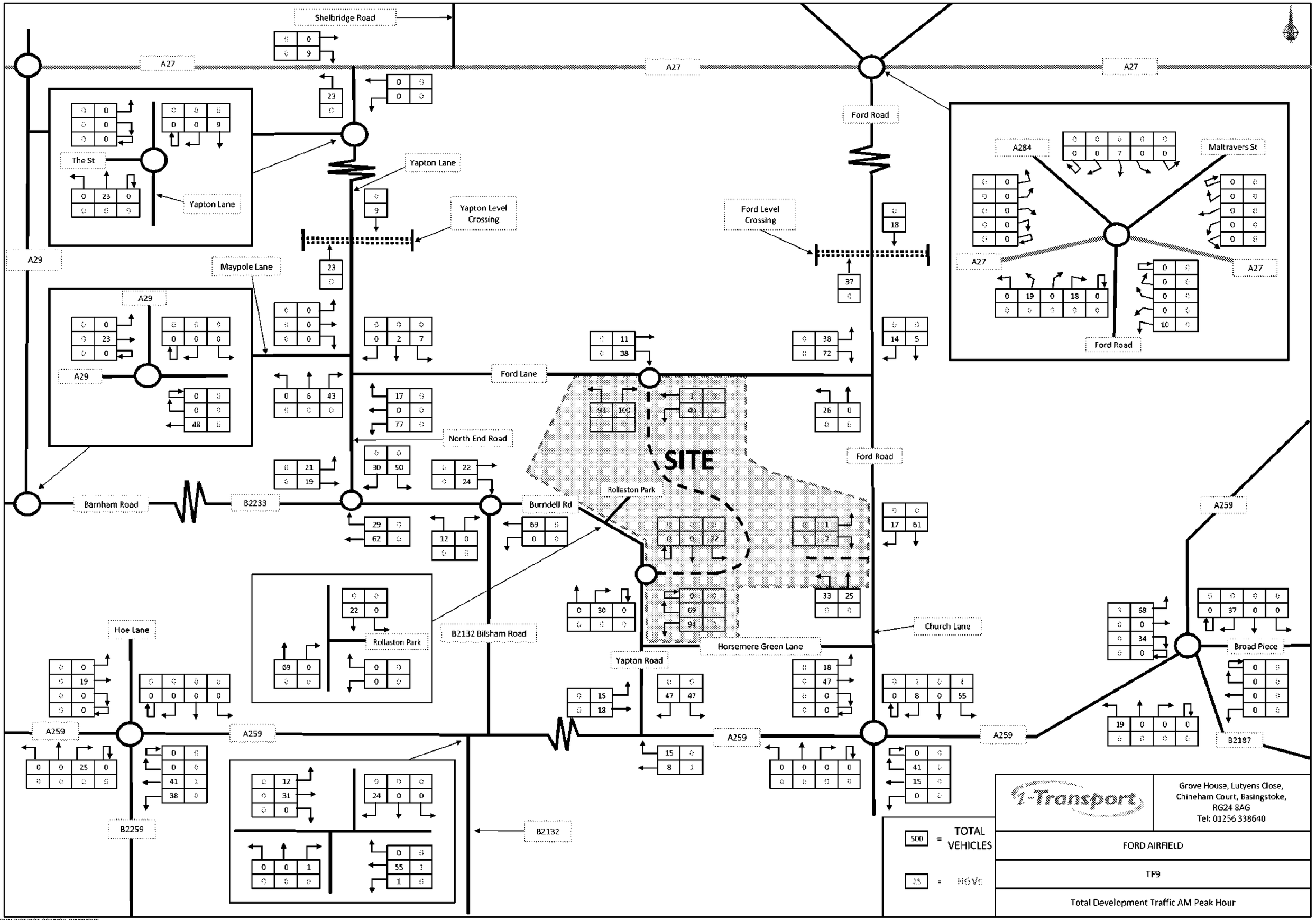
8.1.2 Where appropriate, detailed junction capacity has been undertaken; this uses the weekday morning and evening peak hours of 0800-0900 and 1700-1800 as assessment periods. The assessments have been informed by the following Traffic Flow diagrams.

Table 8.1: Assessment Scenarios

Year	TEMPro	Committed	Development	AM/PM	Diagram No.
2018	✗	✗	✗	AM	TF1
	✗	✗	✗	PM	TF2
2021	✓	✓	✗	AM	TF5
	✓	✓	✗	PM	TF6
	✓	✓	✓	AM	TF11
	✓	✓	✓	PM	TF12
2031	✓	✓	✗	AM	TF7
	✓	✓	✗	PM	TF8
	✓	✓	✓	AM	TF13
	✓	✓	✓	PM	TF14

8.1.3 Priority junctions and roundabouts have been tested using TRL software Junctions 9. The assessments outputs are provided in **Appendix J** of this report.

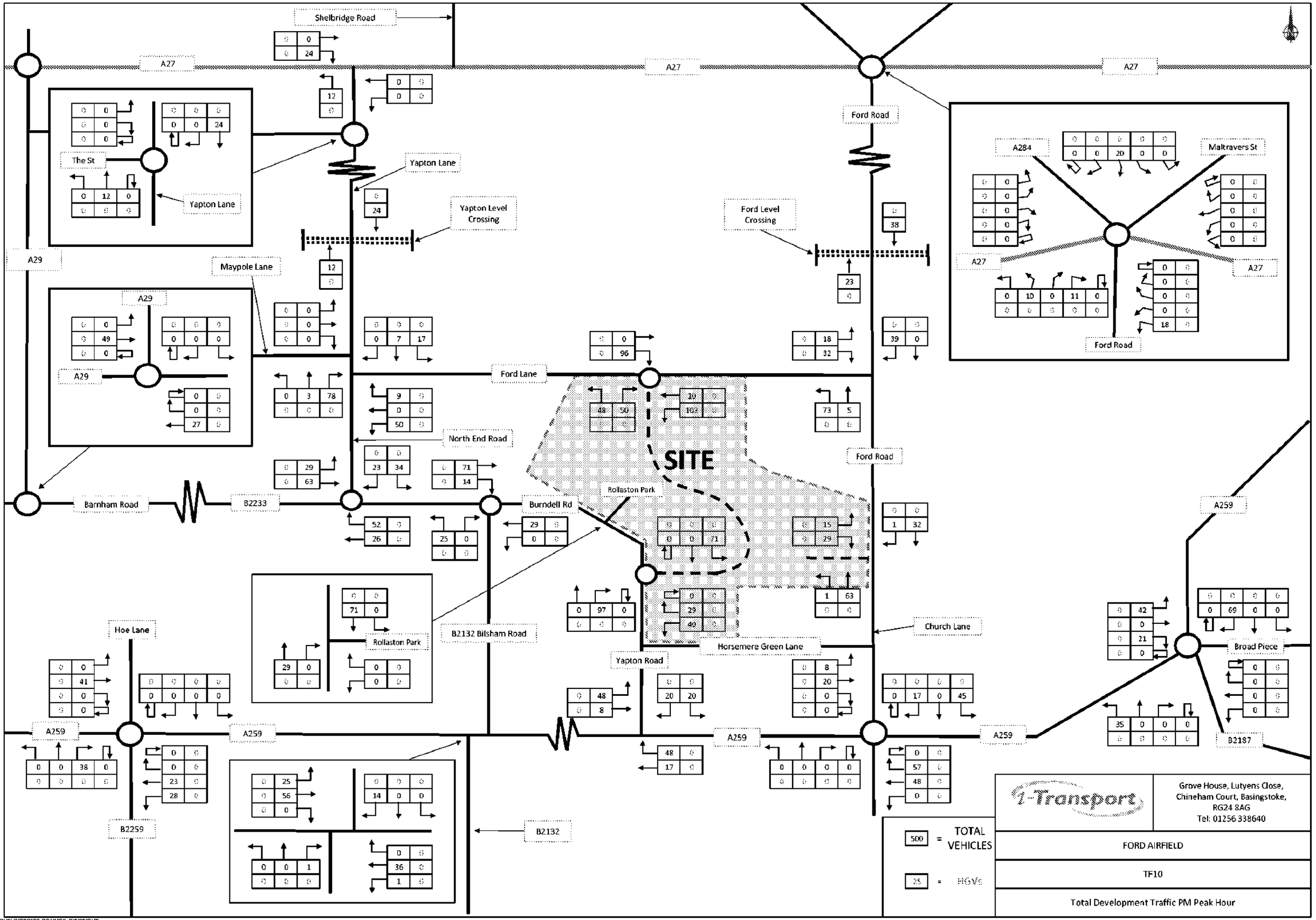
ARUN DISTRICT COUNCIL F/8/20/OUT



500	=	TOTAL VEHICLES
25	=	HGVs

T-Transport	Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG Tel: 01256 338640
FORD AIRFIELD	
TF9	
Total Development Traffic AM Peak Hour	

ARUN DISTRICT COUNCIL 7/9/20/OUT



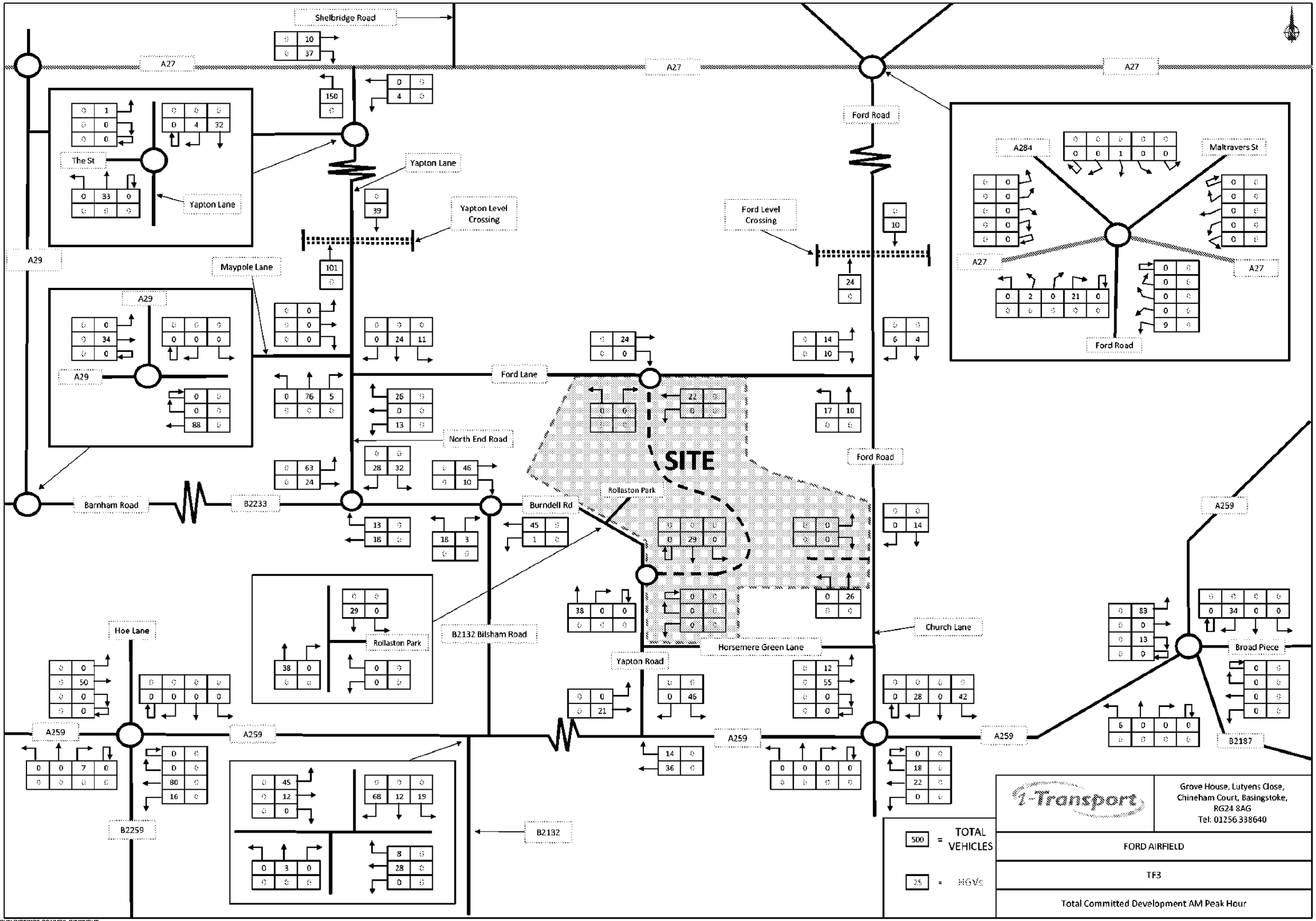
500 =	TOTAL VEHICLES
25 =	HGVs

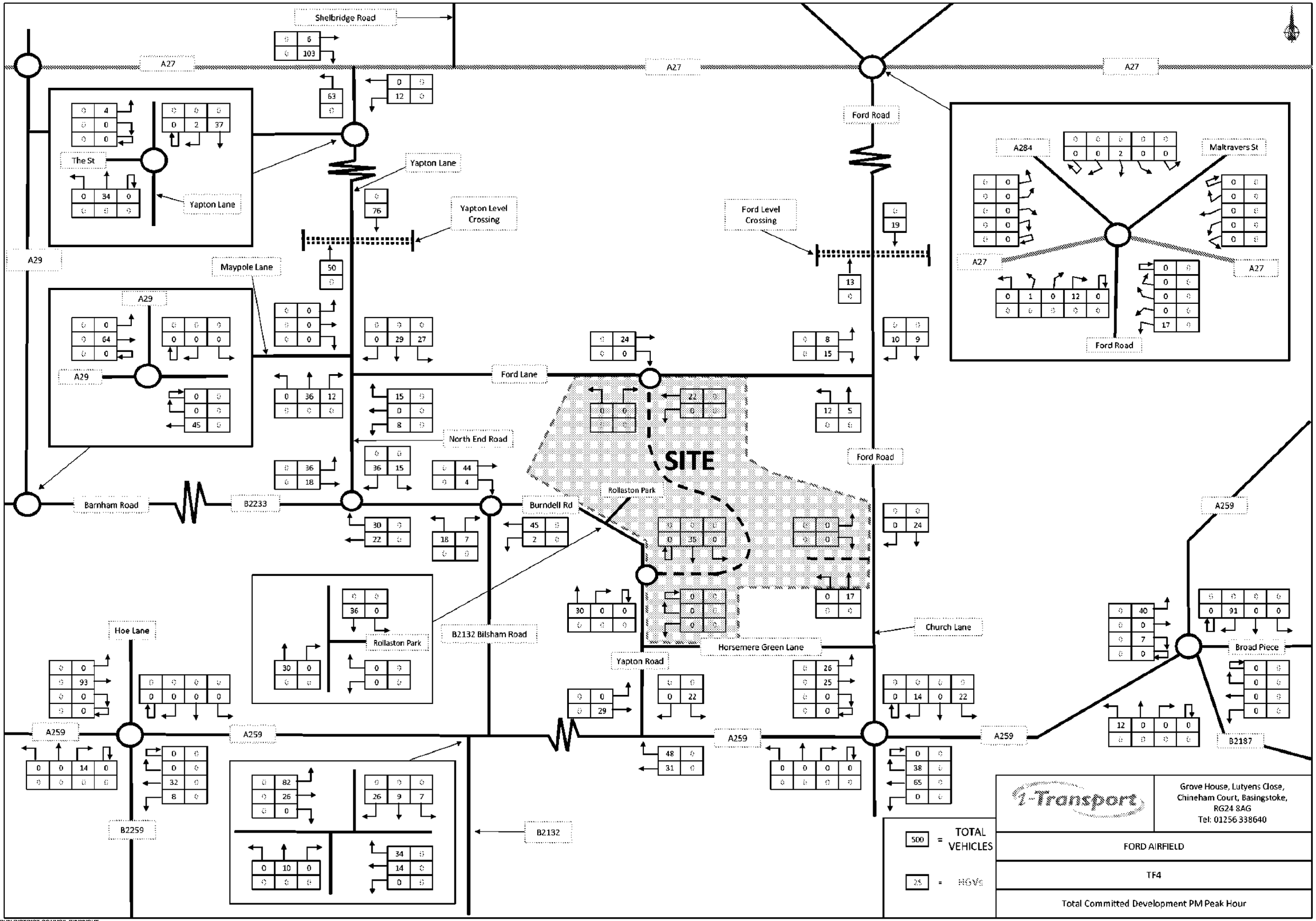
Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG
Tel: 01256 338640

FORD AIRFIELD

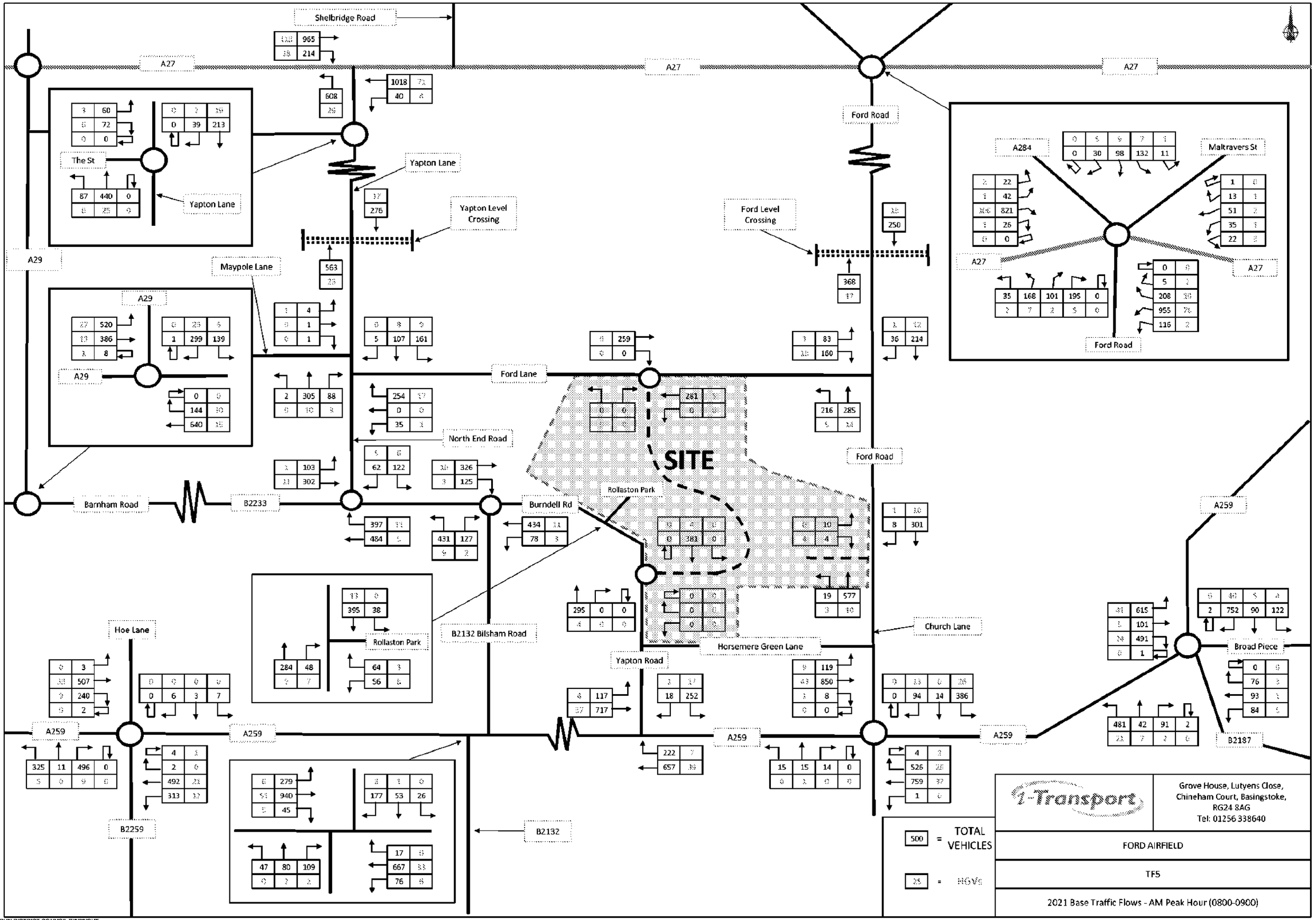
TF10

Total Development Traffic PM Peak Hour


Shelbridge Road
A27
A27
A27
Ford Road
The St
Yapton Lane
Yapton Lane
Yapton Level Crossing
Ford Level Crossing
A284
Maltravers St
A27
A27
A29
Maypole Lane
A29
A29
Ford Lane
Ford Road
Ford Road
North End Road
SITE
Rollaston Park
Barnham Road
B2233
Burndell Rd
A259
Rollaston Park
B2132 Bilsham Road
Church Lane
Horsemere Green Lane
Yapton Road
Hoe Lane
Broad Piece
A259
A259
A259
A259
B2259
B2132
B2187
500 = TOTAL VEHICLES
25 = HGVs
Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG
Tel: 01256 338640
FORD AIRFIELD
TF3
Total Committed Development AM Peak Hour



ARUN DISTRICT COUNCIL F/4/20/OUT



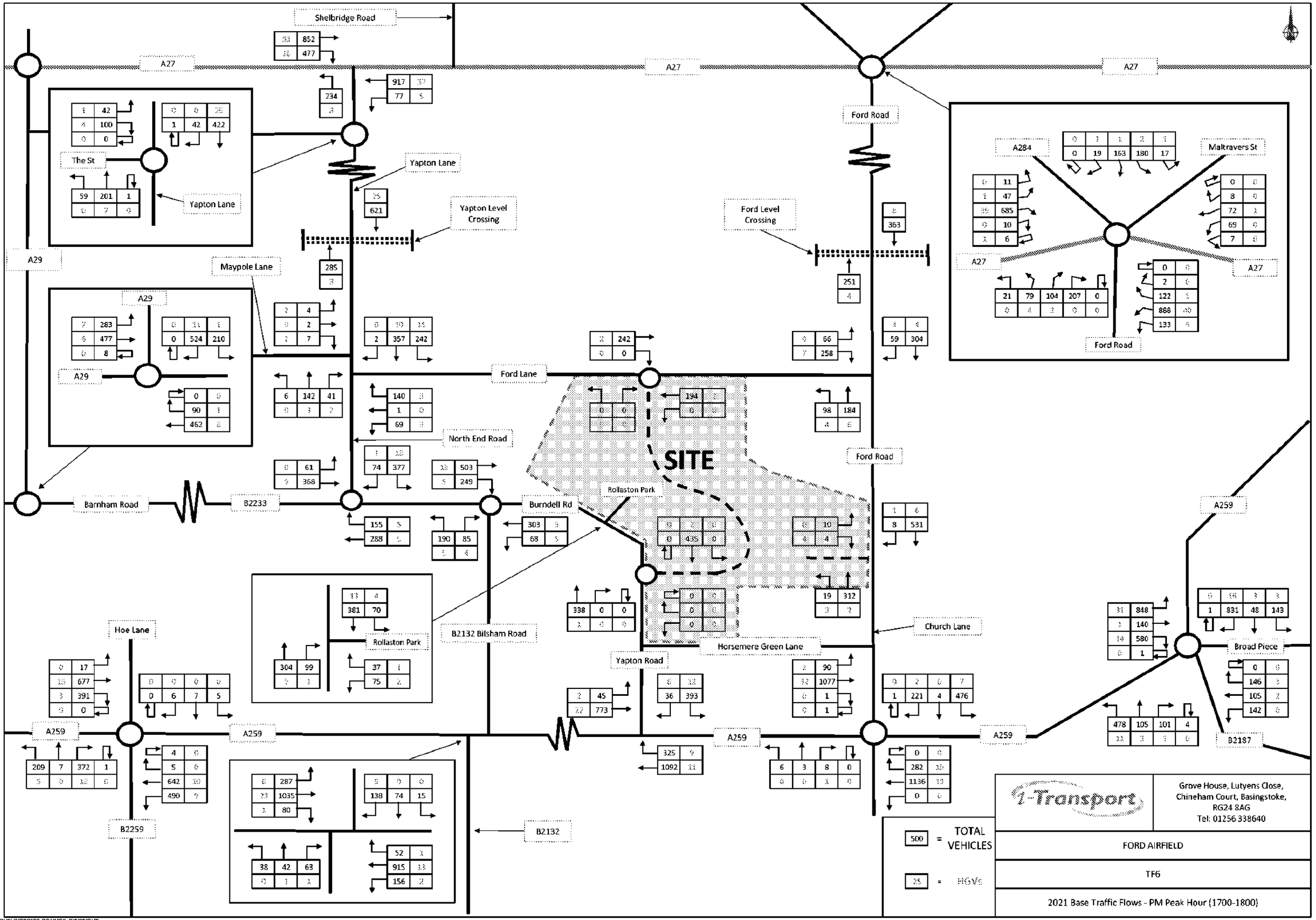
500	=	TOTAL VEHICLES
25	=	HGVs

Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG
Tel: 01256 338640

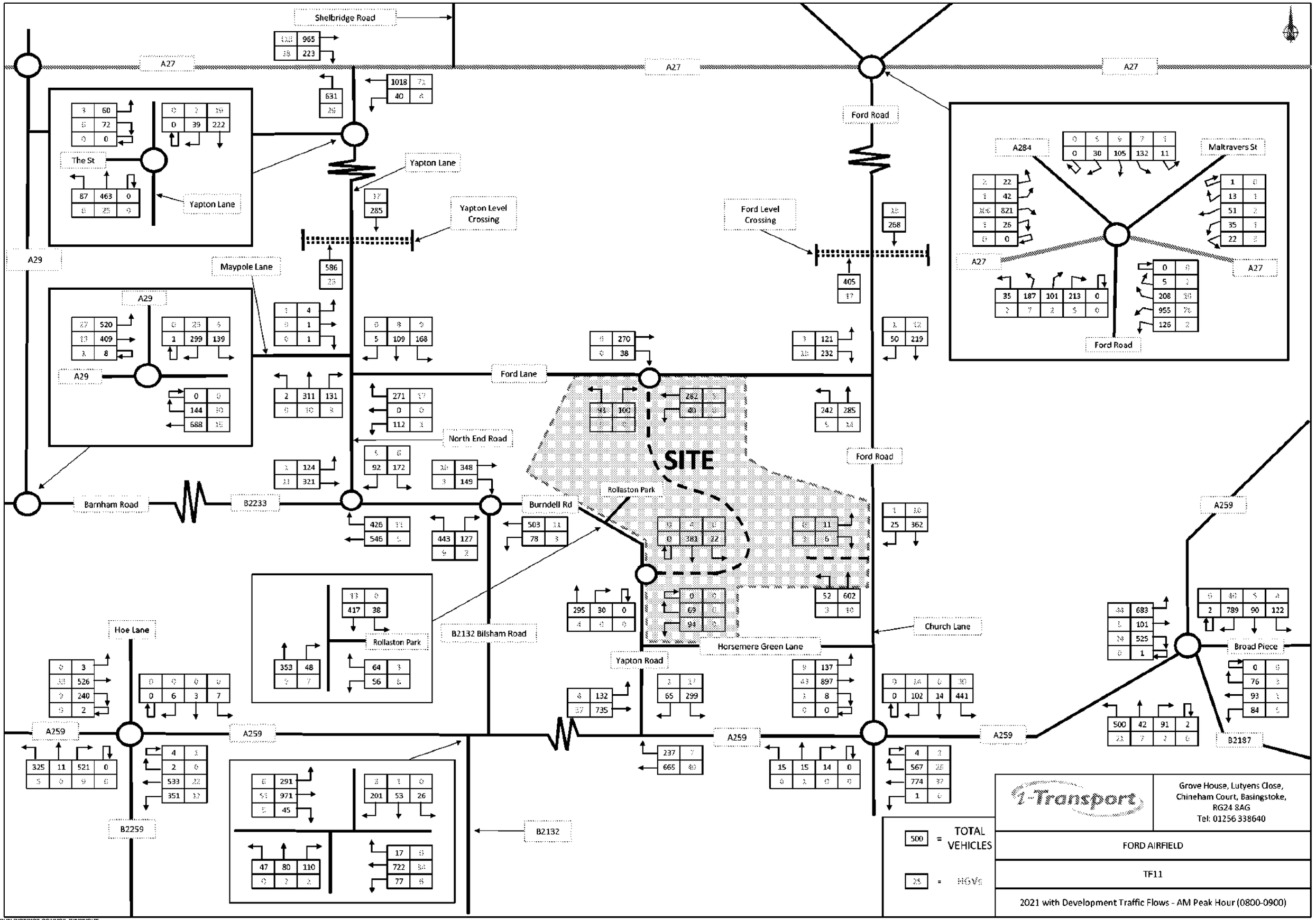
FORD AIRFIELD

TF5

2021 Base Traffic Flows - AM Peak Hour (0800-0900)



ARUN DISTRICT COUNCIL 7/8/20/OUT



500 = TOTAL VEHICLES

25 = HGVs

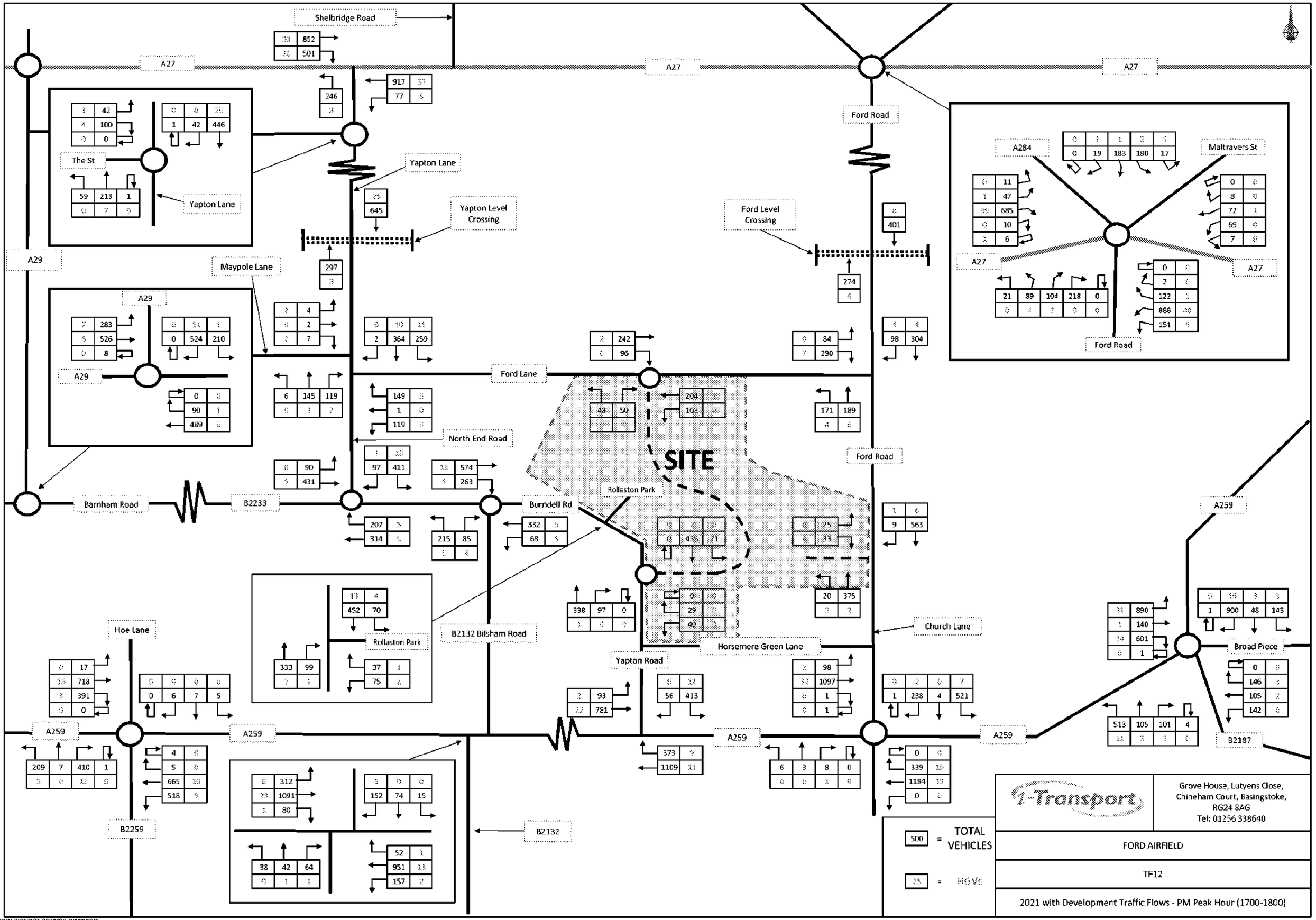
Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

FORD AIRFIELD

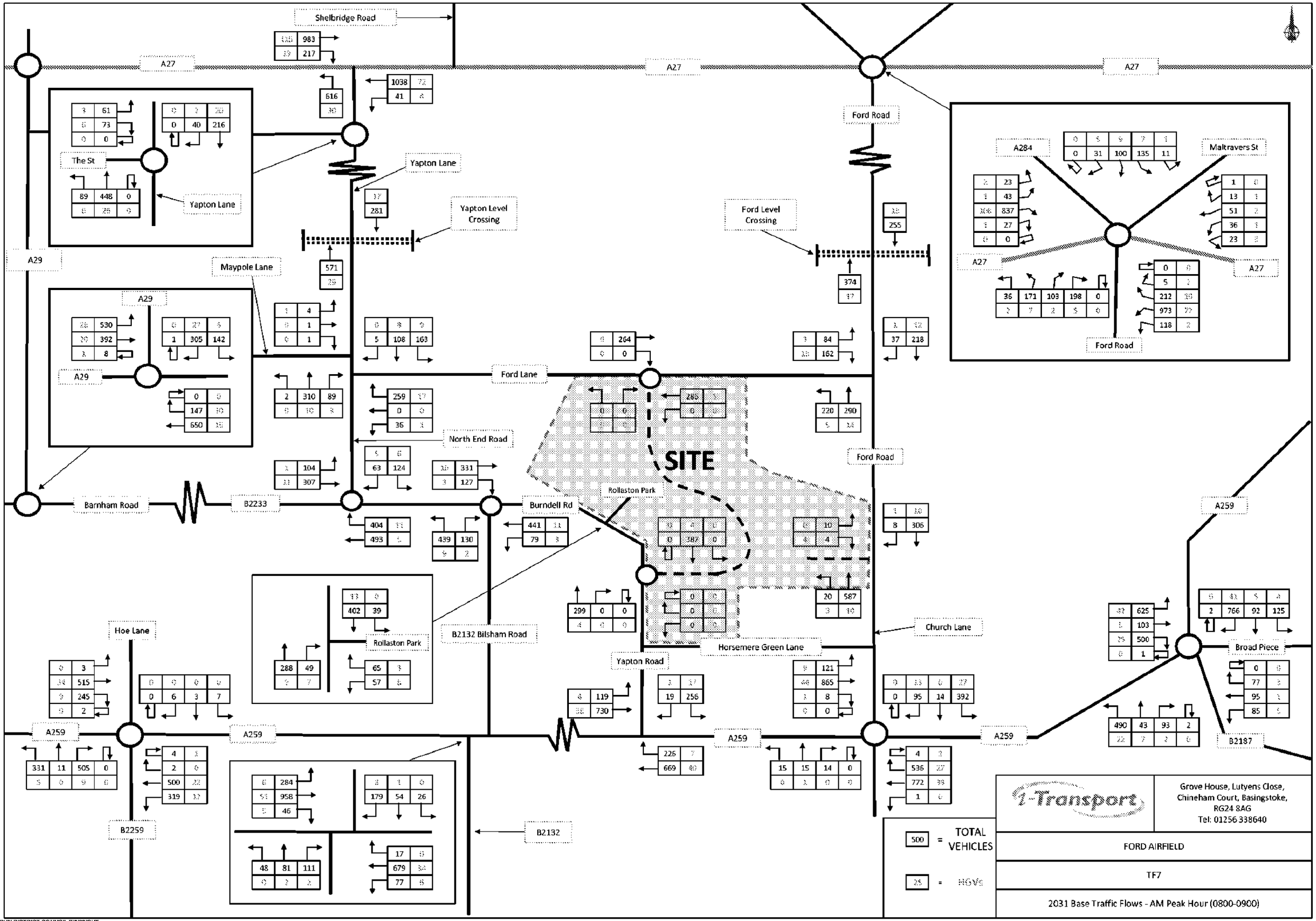
TF11

2021 with Development Traffic Flows - AM Peak Hour (0800-0900)

ARUN DISTRICT COUNCIL 7/8/20/OUT



ARUN DISTRICT COUNCIL 7/8/20/OUT



500 =	TOTAL VEHICLES
25 =	HGVs

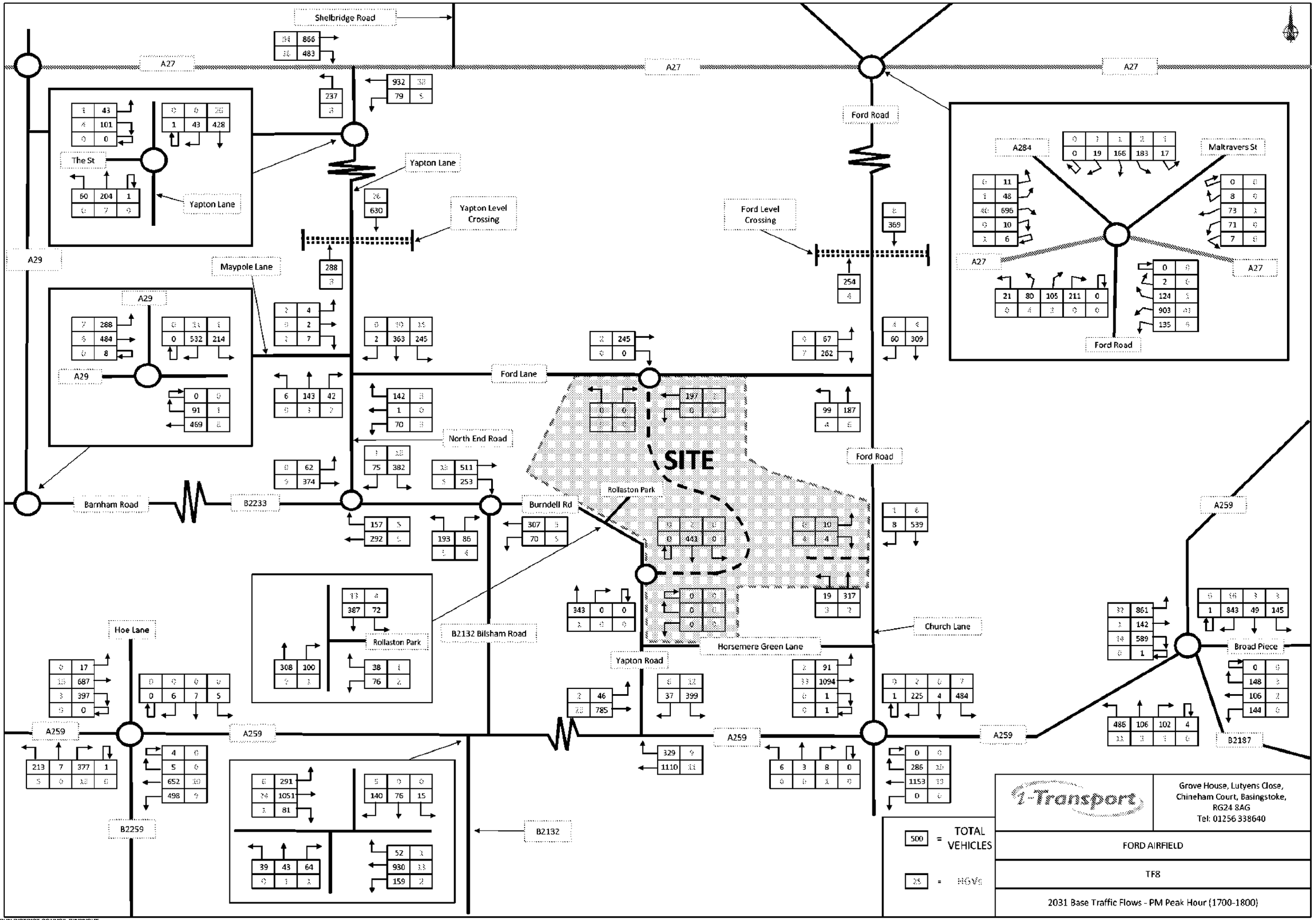
Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG
Tel: 01256 338640

FORD AIRFIELD

TF7

2031 Base Traffic Flows - AM Peak Hour (0800-0900)

ARUN DISTRICT COUNCIL 7/8/20/OUT



500 =	TOTAL VEHICLES
25 =	HGVs

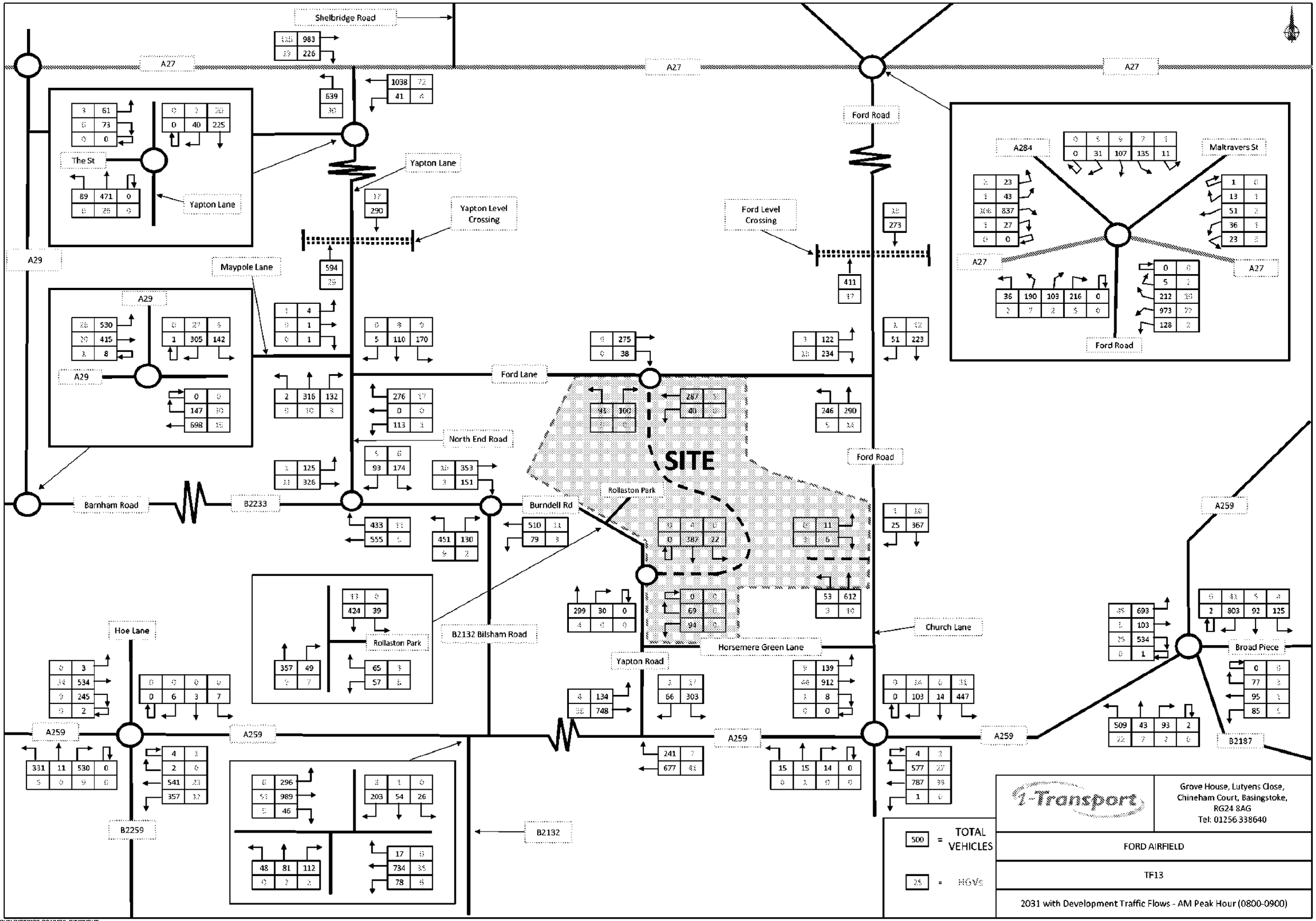
Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG
Tel: 01256 338640

FORD AIRFIELD

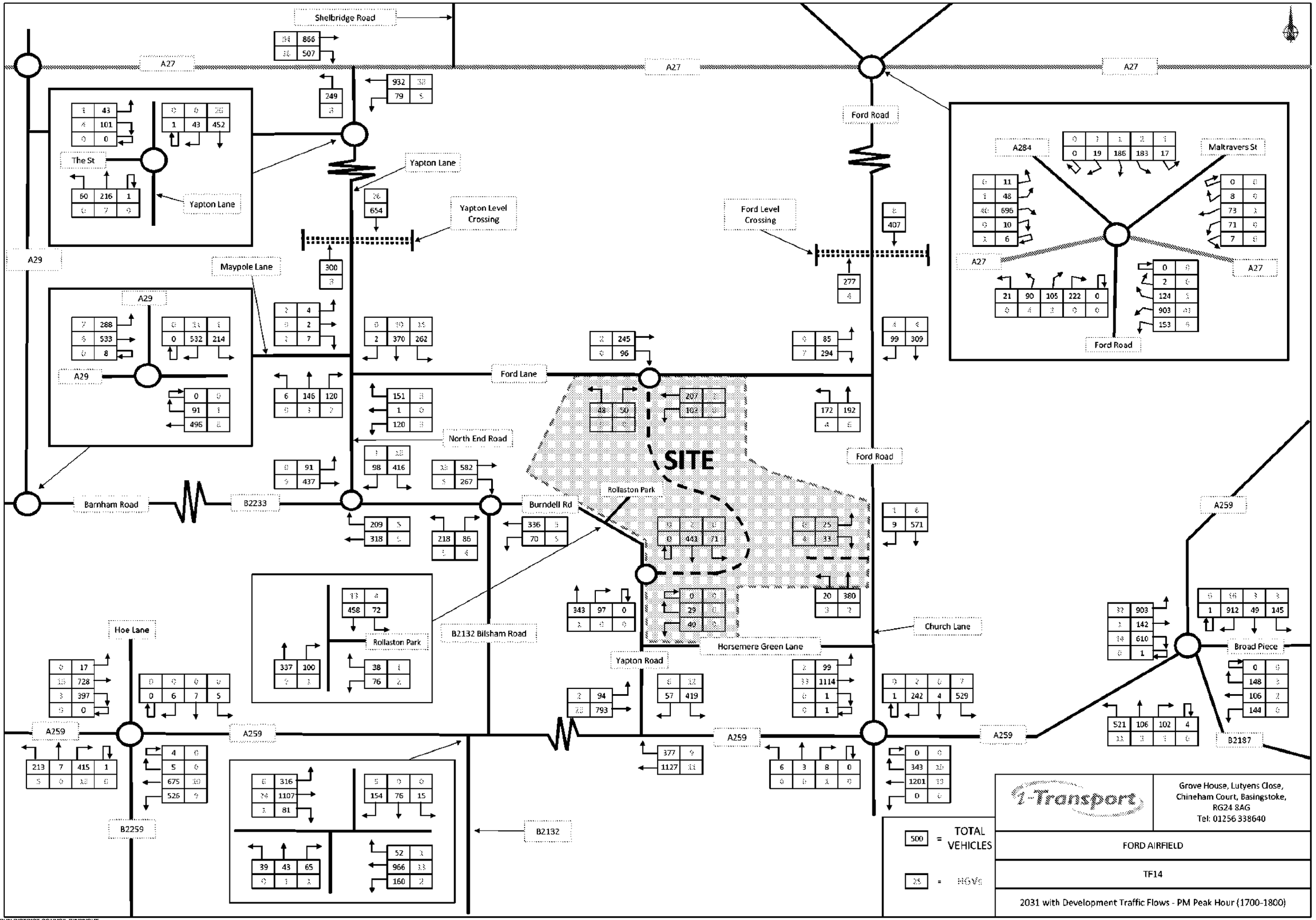
TF8

2031 Base Traffic Flows - PM Peak Hour (1700-1800)

ARUN DISTRICT COUNCIL 7/8/20/OUT



ARUN DISTRICT COUNCIL 7/8/20/OUT



ARUN DISTRICT COUNCIL 7/8/20/OUT

Appendix M – Capacity Assessment Reports

ARUN DISTRICT COUNCIL Y/3/22/OUT

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: A361 - Proposed Site Access.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:08:23

»2031 Base + Ford + Dev, AM
»2031 Base + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	2031 Base + Ford + Dev													
Stream B-AC	D1	0.1	0.5	8.28	0.12	A	0.73	D2	0.1	0.5	9.42	0.06	A	0.50
Stream C-AB		0.0	0.5	7.58	0.02	A			0.1	0.5	8.47	0.06	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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	01/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D2	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Base + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.73	A

Arms

Arms

Arm	Name	Description	Arm type
A	B2132 Bilsham Road South		Major
B	Site Access		Minor
C	B2132 Bilsham Road North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.20			0.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	120	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578	0.100	0.252	0.159	0.360
B-C	699	0.102	0.257	-	-
C-B	574	0.211	0.211	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	404	100.000
B		✓	52	100.000
C		✓	240	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	10	394
	B	26	0	26
	C	230	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.12	8.28	0.1	0.5	A
C-AB	0.02	7.58	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	537	0.073	39	0.1	7.219	A
C-AB	8	512	0.015	8	0.0	7.129	A
C-A	173			173			
A-B	8			8			
A-C	297			297			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	518	0.090	47	0.1	7.634	A
C-AB	9	501	0.018	9	0.0	7.314	A
C-A	207			207			
A-B	9			9			
A-C	354			354			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	492	0.116	57	0.1	8.276	A
C-AB	11	486	0.023	11	0.0	7.580	A
C-A	253			253			
A-B	11			11			
A-C	434			434			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	492	0.116	57	0.1	8.281	A
C-AB	11	486	0.023	11	0.0	7.582	A
C-A	253			253			
A-B	11			11			
A-C	434			434			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	518	0.090	47	0.1	7.638	A
C-AB	9	501	0.018	9	0.0	7.315	A
C-A	207			207			
A-B	9			9			
A-C	354			354			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	537	0.073	39	0.1	7.231	A
C-AB	8	512	0.015	8	0.0	7.133	A
C-A	173			173			
A-B	8			8			
A-C	297			297			

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.25	0.45	0.46			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.46			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.46			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

2031 Base + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	433	100.000
B		✓	24	100.000
C		✓	381	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	22	411
	B	12	0	12
	C	359	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.06	9.42	0.1	0.5	A
C-AB	0.06	8.47	0.1	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	463	0.039	18	0.0	8.090	A
C-AB	17	466	0.037	17	0.0	8.006	A
C-A	270			270			
A-B	17			17			
A-C	309			309			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	440	0.049	22	0.1	8.598	A
C-AB	21	459	0.045	21	0.0	8.212	A
C-A	322			322			
A-B	20			20			
A-C	369			369			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	408	0.065	26	0.1	9.422	A
C-AB	26	451	0.057	26	0.1	8.471	A
C-A	394			394			
A-B	24			24			
A-C	453			453			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	408	0.065	26	0.1	9.424	A
C-AB	26	451	0.057	26	0.1	8.473	A
C-A	394			394			
A-B	24			24			
A-C	453			453			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	440	0.049	22	0.1	8.603	A
C-AB	21	459	0.045	21	0.0	8.216	A
C-A	322			322			
A-B	20			20			
A-C	369			369			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	463	0.039	18	0.0	8.097	A
C-AB	17	466	0.037	17	0.0	8.014	A
C-A	270			270			
A-B	17			17			
A-C	309			309			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.05	0.03	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.06	0.03	0.26	0.47	0.49			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

18:00 - 18:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: A361 - Burndell Road - Bilsham Road Mini Roundabout.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:16:41

»2021 Base, AM
»2021 Base, PM
»2021 Base + Dev, AM
»2021 Base + Dev, PM
»2021 Base + Ford, AM
»2021 Base + Ford, PM
»2021 Base + Ford + Dev, AM
»2021 Base + Ford + Dev, PM
»2031 Base, AM
»2031 Base, PM
»2031 Base + Ford + Dev, AM
»2031 Base + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021 Base														
Arm 1	D1	2.2	8.6	14.41	0.69	B	101.52	D2	1.3	3.0	11.83	0.57	B	18.23
Arm 2		46.7	87.6	355.71	1.14	F			1.0	3.4	12.59	0.51	B	
Arm 3		1.1	1.8	7.70	0.52	A			5.2	28.2	23.56	0.85	C	
2021 Base + Dev														
Arm 1	D3	2.3	9.2	14.81	0.70	B	137.46	D4	1.4	3.3	12.42	0.59	B	20.49
Arm 2		61.1	102.6	349.20	1.20	F			1.1	3.5	13.20	0.54	B	
Arm 3		1.1	1.8	7.83	0.52	A			6.1	32.2	27.24	0.87	D	
2021 Base + Ford														
Arm 1	D5	3.8	13.7	22.44	0.80	C	186.78	D6	1.6	4.4	13.64	0.63	B	26.45
Arm 2		72.3	113.7	454.51	1.26	F			1.3	4.0	14.66	0.58	B	
Arm 3		1.3	1.5	8.49	0.56	A			8.6	47.1	37.28	0.91	E	
2021 Base + Ford + Dev														
Arm 1	D8	4.0	20.6	23.42	0.81	C	212.78	D9	1.7	5.2	14.34	0.64	B	33.33
Arm 2		88.5	138.4	574.23	1.32	F			1.5	4.5	15.72	0.60	C	
Arm 3		1.3	1.6	8.64	0.57	A			15.0	88.5	60.04	0.97	F	
2031 Base														
Arm 1	D10	2.3	9.7	15.01	0.71	C	118.69	D11	1.4	3.2	12.19	0.58	B	19.55
Arm 2		54.8	95.1	304.13	1.18	F			1.1	3.4	12.89	0.52	B	
Arm 3		1.1	1.8	7.83	0.52	A			5.7	29.3	25.74	0.86	D	
2031 Base + Ford + Dev														
Arm 1	D12	4.3	21.8	24.98	0.82	C	239.48	D13	1.6	5.9	14.82	0.65	B	44.17
Arm 2		99.2	163.3	646.58	1.35	F			1.5	4.7	16.19	0.61	C	
Arm 3		1.4	1.7	8.80	0.58	A			17.6	71.3	68.61	0.96	F	

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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	27/08/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15
D3	2021 Base + Dev	AM	ONE HOUR	07:45	09:15	15
D4	2021 Base + Dev	PM	ONE HOUR	16:45	18:15	15
D5	2021 Base + Ford	AM	ONE HOUR	07:45	09:15	15
D6	2021 Base + Ford	PM	ONE HOUR	16:45	18:15	15
D8	2021 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D9	2021 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15
D10	2031 Base	AM	ONE HOUR	07:45	09:15	15
D11	2031 Base	PM	ONE HOUR	16:45	18:15	15
D12	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D13	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	101.52	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		101.52	F

Arms

Arms

Arm	Name	Description
1	B2233 Yapton Road	
2	B2132 Bilsham Road	
3	B2233 Main Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.60	1.0	9.00	5.20	0.0	
2	2.90	2.90	5.20	2.5	9.00	6.00	0.0	
3	3.30	3.30	3.30	0.0	17.50	17.50	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1	✓	0.595	922	0.595	922
2	✓	0.495	791	0.495	791
3	✓	0.685	1075	0.685	1075

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	512	100.000
2		✓	558	100.000
3		✓	451	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	78	434
	2	127	0	431
	3	326	125	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.69	14.41	2.2	6.6	B
2	1.18	258.71	46.7	87.9	F
3	0.52	7.70	1.1	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	94	839	0.460	382	0.8	7.827	A
2	420	324	614	0.685	412	2.0	17.227	C
3	340	94	983	0.346	337	0.5	5.561	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	460	112	828	0.556	459	1.2	9.711	A
2	502	389	581	0.863	490	4.9	35.600	E
3	405	112	971	0.418	405	0.7	6.353	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	564	137	813	0.693	560	2.2	14.013	B
2	514	475	538	1.141	527	28.7	127.114	F
3	497	120	965	0.515	495	1.0	7.643	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	564	138	813	0.694	564	2.2	14.406	B
2	514	476	537	1.145	534	48.7	258.708	F
3	497	122	964	0.515	497	1.1	7.703	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	460	113	828	0.556	464	1.3	10.000	A
2	502	393	579	0.867	567	30.4	248.847	F
3	405	129	959	0.423	407	0.7	6.534	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	94	838	0.460	387	0.9	8.009	A
2	420	328	611	0.687	532	2.5	78.098	F
3	340	121	964	0.352	340	0.5	5.779	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.84	0.55	1.00	1.40	1.45			N/A	N/A
2	2.04	0.21	1.18	3.73	4.73			N/A	N/A
3	0.52	0.52	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.22	0.09	1.02	2.22	2.92			N/A	N/A
2	4.94	0.14	2.32	12.03	16.62			N/A	N/A
3	0.71	0.15	0.90	1.38	1.44			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.16	0.03	0.29	2.16	8.64			N/A	N/A
2	26.72	7.58	23.66	45.65	53.64			N/A	N/A
3	1.04	0.03	0.26	1.04	1.04			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.21	0.03	0.28	2.21	4.94			N/A	N/A
2	46.71	16.95	42.66	75.49	87.00			N/A	N/A
3	1.05	0.03	0.27	1.05	1.84			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.28	0.06	0.79	2.83	3.99			N/A	N/A
2	30.42	9.19	27.19	51.35	60.06			N/A	N/A
3	0.74	0.16	0.91	1.39	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.86	0.04	0.43	1.93	3.01			N/A	N/A
2	2.49	0.03	0.30	2.66	11.48			N/A	N/A
3	0.55	0.05	0.58	1.32	1.41			N/A	N/A

2021 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	18.23	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		18.23	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	371	100.000
2		✓	275	100.000
3		✓	752	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	68	303
	2	85	0	190
	3	503	249	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.57	11.83	1.3	3.0	B
2	0.51	12.59	1.0	3.4	B
3	0.85	23.56	5.2	28.2	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	186	763	0.366	277	0.6	7.377	A
2	207	226	643	0.322	205	0.5	8.188	A
3	566	63	997	0.568	561	1.3	8.164	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	223	742	0.450	333	0.8	8.780	A
2	247	272	620	0.399	246	0.7	9.619	A
3	676	76	988	0.684	673	2.1	11.295	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	271	714	0.572	406	1.3	11.616	B
2	303	332	589	0.514	301	1.0	12.429	B
3	828	93	977	0.848	817	4.6	21.176	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	274	713	0.573	408	1.3	11.828	B
2	303	334	589	0.514	303	1.0	12.586	B
3	828	94	976	0.848	827	5.2	23.559	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	226	739	0.451	335	0.8	8.966	A
2	247	274	619	0.400	249	0.7	9.765	A
3	676	77	988	0.684	686	2.3	12.425	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	189	761	0.367	280	0.6	7.500	A
2	207	229	642	0.323	208	0.5	8.313	A
3	566	64	995	0.568	570	1.3	8.508	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.55	1.00	1.40	1.45			N/A	N/A
2	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3	1.29	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.80	0.14	0.91	1.42	1.46			N/A	N/A
2	0.65	0.17	0.91	1.38	1.44			N/A	N/A
3	2.09	0.06	0.99	5.22	7.68			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.30	0.03	0.27	1.30	1.68			N/A	N/A
2	1.03	0.03	0.27	1.03	1.06			N/A	N/A
3	4.84	0.04	0.38	12.28	26.19			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.32	0.03	0.27	1.32	3.04			N/A	N/A
2	1.04	0.03	0.28	1.04	3.38			N/A	N/A
3	5.16	0.03	0.31	8.59	24.95			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.84	0.08	0.84	1.11	1.61			N/A	N/A
2	0.68	0.08	0.75	1.38	1.45			N/A	N/A
3	2.25	0.04	0.44	6.18	10.53			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.05	0.47	1.38	1.50			N/A	N/A
2	0.48	0.04	0.42	1.26	1.39			N/A	N/A
3	1.34	0.03	0.34	3.15	6.83			N/A	N/A

2021 Base + Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	137.48	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		137.48	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2021 Base + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	513	100.000
2		✓	584	100.000
3		✓	460	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	434
	2	129	0	455
	3	326	134	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.70	14.81	2.3	9.2	B
2	1.20	343.26	81.3	102.8	F
3	0.52	7.83	1.1	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	100	835	0.463	383	0.8	7.906	A
2	440	324	614	0.717	430	2.3	18.792	C
3	346	95	982	0.353	344	0.5	5.625	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	120	823	0.560	460	1.2	9.859	A
2	525	389	581	0.903	509	6.3	42.641	E
3	414	112	970	0.426	413	0.7	6.449	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	147	807	0.700	561	2.2	14.385	B
2	643	475	538	1.195	531	34.3	183.826	F
3	506	117	967	0.524	505	1.1	7.772	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	148	807	0.700	565	2.3	14.814	B
2	643	478	537	1.198	536	81.3	328.438	F
3	506	118	966	0.524	506	1.1	7.829	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	121	823	0.561	465	1.3	10.172	B
2	525	393	579	0.907	570	9.8	349.203	F
3	414	126	961	0.430	415	0.8	6.608	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	101	834	0.463	388	0.9	8.097	A
2	440	326	611	0.719	599	10.0	187.858	F
3	346	132	957	0.362	347	0.5	5.913	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.85	0.55	1.00	1.40	1.45			N/A	N/A
2	2.35	0.12	1.12	4.98	6.70			N/A	N/A
3	0.54	0.54	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.24	0.09	1.02	2.32	2.99			N/A	N/A
2	6.31	0.19	3.32	15.12	20.52			N/A	N/A
3	0.73	0.15	0.90	1.39	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.22	0.03	0.29	2.22	9.22			N/A	N/A
2	34.24	12.81	31.44	54.49	62.56			N/A	N/A
3	1.08	0.03	0.26	1.08	1.08			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.27	0.03	0.28	2.27	5.36			N/A	N/A
2	51.11	28.50	57.81	91.13	102.46			N/A	N/A
3	1.09	0.03	0.27	1.09	1.75			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.31	0.06	0.77	2.91	4.21			N/A	N/A
2	49.98	20.37	46.52	77.88	88.73			N/A	N/A
3	0.76	0.15	0.91	1.39	1.46			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.88	0.04	0.42	1.98	3.17			N/A	N/A
2	10.04	0.15	4.28	26.37	37.36			N/A	N/A
3	0.57	0.06	0.62	1.33	1.42			N/A	N/A

2021 Base + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	20.49	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		20.49	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2021 Base + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	373	100.000
2		✓	287	100.000
3		✓	772	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	303
	2	86	0	201
	3	503	269	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.59	12.42	1.4	3.3	B
2	0.54	13.20	1.1	3.5	B
3	0.87	27.24	5.1	32.2	D

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	281	201	755	0.372	278	0.6	7.527	A
2	216	226	643	0.336	214	0.5	8.358	A
3	581	64	997	0.583	576	1.4	8.445	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	241	732	0.458	334	0.8	9.038	A
2	258	272	620	0.416	257	0.7	9.903	A
3	694	77	988	0.702	690	2.3	11.945	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	292	702	0.585	409	1.4	12.157	B
2	316	332	589	0.536	314	1.1	13.009	B
3	850	94	976	0.871	837	5.6	23.734	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	295	700	0.587	411	1.4	12.416	B
2	316	334	588	0.537	316	1.1	13.199	B
3	850	95	976	0.871	848	6.1	27.240	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	247	726	0.461	337	0.9	9.266	A
2	258	274	619	0.417	260	0.7	10.074	B
3	694	78	987	0.703	708	2.5	13.510	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	281	204	753	0.373	282	0.6	7.667	A
2	216	229	641	0.337	217	0.5	8.496	A
3	581	65	995	0.583	585	1.4	8.848	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.55	1.00	1.40	1.45			N/A	N/A
2	0.50	0.00	0.00	0.50	0.50			N/A	N/A
3	1.37	0.57	1.21	1.66	1.83			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.83	0.13	0.91	1.09	1.09			N/A	N/A
2	0.70	0.17	0.92	1.38	1.44			N/A	N/A
3	2.26	0.06	1.02	5.76	8.52			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.36	0.03	0.27	1.36	2.30			N/A	N/A
2	1.12	0.03	0.27	1.12	1.12			N/A	N/A
3	5.61	0.04	0.43	15.44	29.73			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.39	0.03	0.28	1.39	3.29			N/A	N/A
2	1.14	0.03	0.28	1.14	3.50			N/A	N/A
3	6.08	0.03	0.34	10.92	32.16			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.87	0.08	0.84	1.32	1.75			N/A	N/A
2	0.73	0.08	0.78	1.00	1.00			N/A	N/A
3	2.47	0.04	0.43	6.79	11.87			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.60	0.05	0.47	1.28	1.28			N/A	N/A
2	0.51	0.04	0.44	1.30	1.42			N/A	N/A
3	1.43	0.03	0.33	3.16	7.36			N/A	N/A

2021 Base + Ford, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	188.78	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		188.78	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2021 Base + Ford	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	581	100.000
2		✓	570	100.000
3		✓	497	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	78	503
	2	127	0	443
	3	348	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.80	22.44	3.8	10.7	C
2	1.28	454.51	73.3	113.7	F
3	0.56	8.49	1.3	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	437	111	828	0.528	433	1.1	9.008	A
2	429	375	586	0.730	419	2.5	20.285	C
3	374	93	983	0.381	372	0.5	5.864	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	522	134	815	0.641	520	1.7	12.076	B
2	512	450	551	0.931	493	7.4	80.208	F
3	447	110	972	0.460	446	0.8	6.828	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	640	164	798	0.802	632	3.8	20.792	C
2	628	547	502	1.250	497	40.0	180.118	F
3	547	111	971	0.563	546	1.3	8.419	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	640	164	797	0.802	639	3.8	22.444	C
2	628	553	499	1.258	498	73.3	458.429	F
3	547	111	971	0.563	547	1.3	8.486	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	522	134	815	0.641	530	1.8	12.973	B
2	512	459	546	0.938	539	8.3	454.515	F
3	447	120	965	0.463	448	0.9	6.991	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	437	112	828	0.528	440	1.1	9.356	A
2	429	381	585	0.734	576	33.3	300.138	F
3	374	128	959	0.390	375	0.5	6.172	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.10	0.55	1.00	1.40	1.45			N/A	N/A
2	2.48	0.07	1.08	6.40	9.48			N/A	N/A
3	0.61	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.72	0.07	1.06	3.90	5.52			N/A	N/A
2	7.41	0.19	3.80	18.13	24.79			N/A	N/A
3	0.84	0.13	0.91	1.23	1.23			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.64	0.03	0.35	8.08	19.71			N/A	N/A
2	39.97	16.94	37.30	61.32	69.61			N/A	N/A
3	1.26	0.03	0.26	1.26	1.26			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.82	0.03	0.30	3.82	16.59			N/A	N/A
2	72.30	38.33	69.34	102.68	113.74			N/A	N/A
3	1.28	0.03	0.27	1.28	1.57			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.85	0.05	0.46	4.94	8.08			N/A	N/A
2	65.75	29.56	61.98	99.44	112.23			N/A	N/A
3	0.87	0.13	0.92	1.46	1.46			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.14	0.04	0.35	2.81	5.51			N/A	N/A
2	28.98	7.96	25.58	50.04	58.96			N/A	N/A
3	0.65	0.06	0.55	1.38	1.47			N/A	N/A

2021 Base + Ford, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	26.45	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		26.45	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2021 Base + Ford	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	400	100.000
2		✓	300	100.000
3		✓	810	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	68	332
	2	85	0	215
	3	547	263	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.63	13.64	1.6	4.4	B
2	0.58	14.86	1.3	4.0	B
3	0.91	37.28	8.6	87.1	E

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	301	196	757	0.398	299	0.7	7.817	A
2	226	248	632	0.358	224	0.5	8.777	A
3	510	63	997	0.612	604	1.5	9.022	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	360	235	734	0.490	358	0.9	9.548	A
2	270	296	667	0.445	269	0.8	10.626	B
3	728	76	988	0.737	724	2.7	13.377	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	440	283	707	0.623	438	1.6	13.257	B
2	330	363	573	0.576	328	1.3	14.569	B
3	892	93	977	0.913	872	7.6	29.888	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	440	286	704	0.626	440	1.6	13.638	B
2	330	365	572	0.577	330	1.3	14.864	B
3	892	94	976	0.913	888	8.6	37.287	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	360	244	729	0.493	362	1.0	9.875	A
2	270	301	605	0.446	272	0.8	10.869	B
3	728	77	988	0.737	751	3.0	16.476	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	301	200	754	0.399	302	0.7	7.989	A
2	226	251	630	0.358	227	0.5	8.951	A
3	510	64	995	0.612	615	1.5	9.576	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2	0.55	0.55	1.00	1.40	1.45			N/A	N/A
3	1.54	0.60	1.49	1.84	1.95			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.94	0.12	0.94	1.34	1.73			N/A	N/A
2	0.76	0.15	0.91	1.40	1.45			N/A	N/A
3	2.66	0.07	1.11	6.91	10.30			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.59	0.03	0.28	1.59	4.38			N/A	N/A
2	1.31	0.03	0.27	1.31	2.92			N/A	N/A
3	7.60	0.06	1.18	22.10	36.52			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.64	0.03	0.28	1.64	3.86			N/A	N/A
2	1.34	0.03	0.28	1.34	4.04			N/A	N/A
3	8.63	0.04	0.42	22.93	47.11			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.99	0.07	0.85	1.77	2.33			N/A	N/A
2	0.82	0.07	0.78	1.24	1.71			N/A	N/A
3	2.97	0.04	0.42	8.18	14.92			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.05	0.45	1.22	1.80			N/A	N/A
2	0.57	0.04	0.44	1.21	1.21			N/A	N/A
3	1.62	0.03	0.32	3.15	8.45			N/A	N/A

2021 Base + Ford + Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	212.78	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		212.78	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2021 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	582	100.000
2		✓	596	100.000
3		✓	506	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	503
	2	129	0	467
	3	348	158	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.81	23.42	4.0	20.5	C
2	1.33	874.23	86.5	138.4	F
3	0.57	8.64	1.3	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	438	116	824	0.531	434	1.1	9.115	A
2	449	375	586	0.763	437	2.9	22.403	C
3	381	95	982	0.388	378	0.5	5.937	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	523	142	811	0.645	521	1.8	12.302	B
2	536	450	551	0.973	508	9.6	81.807	F
3	455	110	972	0.468	454	0.9	6.935	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	641	173	792	0.809	633	3.8	21.556	C
2	656	547	502	1.307	499	48.1	230.109	F
3	557	108	973	0.572	555	1.3	8.572	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	641	174	792	0.809	640	4.0	23.417	C
2	656	553	499	1.315	499	86.5	494.007	F
3	557	108	973	0.572	557	1.3	8.643	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	523	143	810	0.646	532	1.9	13.289	B
2	536	459	546	0.982	543	88.3	874.229	F
3	455	117	967	0.470	457	0.9	7.079	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	438	119	824	0.532	441	1.2	9.477	A
2	449	381	585	0.767	578	58.6	481.861	F
3	381	125	962	0.396	382	0.7	6.218	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.11	0.55	1.00	1.40	1.45			N/A	N/A
2	2.89	0.04	0.45	8.04	13.96			N/A	N/A
3	0.63	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.76	0.07	1.07	3.99	5.68			N/A	N/A
2	9.83	0.23	5.15	24.34	33.30			N/A	N/A
3	0.87	0.12	0.92	1.44	1.44			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.78	0.04	0.36	8.76	20.48			N/A	N/A
2	49.07	22.43	46.24	73.44	82.69			N/A	N/A
3	1.31	0.03	0.27	1.31	1.31			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.99	0.03	0.30	3.99	17.97			N/A	N/A
2	88.47	51.25	85.64	121.16	132.75			N/A	N/A
3	1.32	0.03	0.27	1.32	1.54			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.89	0.05	0.45	5.07	8.38			N/A	N/A
2	86.76	44.97	83.12	124.59	136.42			N/A	N/A
3	0.90	0.12	0.93	1.13	1.50			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.15	0.03	0.35	2.82	5.66			N/A	N/A
2	54.36	17.73	49.30	90.78	105.62			N/A	N/A
3	0.66	0.06	0.55	1.40	1.49			N/A	N/A

2021 Base + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	33.33	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		33.33	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2021 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	402	100.000
2		✓	312	100.000
3		✓	857	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	332
	2	86	0	226
	3	574	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.64	14.34	1.7	5.2	B
2	0.60	15.72	1.5	4.5	C
3	0.97	60.04	15.0	88.5	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	303	211	748	0.405	300	0.7	7.986	A
2	235	248	632	0.372	233	0.6	8.969	A
3	545	64	995	0.548	538	1.5	9.862	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	253	724	0.499	360	1.0	9.850	A
2	280	297	606	0.462	279	0.8	10.971	B
3	771	77	988	0.780	764	3.3	15.698	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	443	301	697	0.635	440	1.7	13.850	B
2	344	363	573	0.599	341	1.4	15.357	C
3	944	94	976	0.967	910	11.8	61.228	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	443	308	693	0.639	442	1.7	14.343	B
2	344	365	572	0.601	343	1.5	15.721	C
3	944	95	976	0.967	931	15.0	60.044	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	269	715	0.506	364	1.0	10.343	B
2	280	301	605	0.464	283	0.9	11.259	B
3	771	78	987	0.781	815	3.9	25.078	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	303	216	745	0.406	304	0.7	8.183	A
2	235	251	630	0.373	236	0.6	9.163	A
3	545	65	995	0.548	653	1.9	10.739	B

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.55	1.00	1.40	1.45			N/A	N/A
2	0.58	0.55	1.00	1.40	1.45			N/A	N/A
3	1.78	0.61	1.23	2.43	2.80			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.98	0.11	0.96	1.48	1.81			N/A	N/A
2	0.84	0.14	0.92	1.12	1.12			N/A	N/A
3	3.30	0.07	1.32	8.72	12.90			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.67	0.03	0.28	1.67	5.22			N/A	N/A
2	1.44	0.03	0.28	1.44	4.15			N/A	N/A
3	11.77	0.15	4.73	31.51	45.12			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.73	0.03	0.28	1.73	4.29			N/A	N/A
2	1.47	0.03	0.28	1.47	4.45			N/A	N/A
3	14.99	0.09	3.42	43.21	66.53			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.05	0.07	0.86	1.89	2.61			N/A	N/A
2	0.88	0.07	0.77	1.54	1.93			N/A	N/A
3	3.88	0.04	0.43	10.72	19.90			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.04	0.44	1.36	1.92			N/A	N/A
2	0.60	0.04	0.43	1.47	1.57			N/A	N/A
3	1.90	0.03	0.31	3.02	9.65			N/A	N/A

2031 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	118.60	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		118.60	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	520	100.000
2		✓	569	100.000
3		✓	458	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	441
	2	130	0	439
	3	331	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.71	15.01	2.3	9.7	C
2	1.13	304.13	84.5	85.1	F
3	0.52	7.83	1.1	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	391	95	838	0.467	388	0.9	7.943	A
2	428	329	611	0.701	420	2.2	18.075	C
3	345	96	981	0.351	343	0.5	5.620	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	467	114	827	0.565	466	1.3	9.926	A
2	512	395	578	0.885	498	5.6	33.347	E
3	412	114	969	0.425	411	0.7	6.440	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	573	139	812	0.705	569	2.3	14.555	B
2	626	482	534	1.172	526	30.7	143.351	F
3	504	120	965	0.523	503	1.1	7.769	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	573	140	812	0.705	572	2.3	15.006	C
2	626	485	533	1.175	531	84.5	298.371	F
3	504	121	964	0.523	504	1.1	7.829	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	467	115	826	0.566	471	1.3	10.251	B
2	512	400	576	0.889	565	8.1	304.130	F
3	412	129	959	0.429	413	0.8	6.615	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	391	96	837	0.467	393	0.9	8.136	A
2	428	334	609	0.704	580	3.1	135.283	F
3	345	133	956	0.361	346	0.5	5.901	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.86	0.55	1.00	1.40	1.45			N/A	N/A
2	2.19	0.17	1.21	4.26	5.53			N/A	N/A
3	0.54	0.54	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.27	0.09	1.02	2.42	3.17			N/A	N/A
2	5.62	0.17	2.86	13.49	18.37			N/A	N/A
3	0.73	0.15	0.90	1.39	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.27	0.03	0.29	2.27	9.68			N/A	N/A
2	30.74	10.42	27.87	50.24	58.17			N/A	N/A
3	1.08	0.03	0.26	1.08	1.08			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.33	0.03	0.28	2.33	5.61			N/A	N/A
2	54.54	23.30	51.07	83.84	95.15			N/A	N/A
3	1.09	0.03	0.27	1.09	1.76			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.33	0.06	0.75	3.00	4.42			N/A	N/A
2	41.10	16.39	38.10	64.33	73.45			N/A	N/A
3	0.76	0.15	0.91	1.39	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.89	0.04	0.42	2.04	3.32			N/A	N/A
2	3.13	0.03	0.32	5.15	16.15			N/A	N/A
3	0.57	0.06	0.62	1.33	1.42			N/A	N/A

2031 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	19.55	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		19.55	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2031 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	377	100.000
2		✓	279	100.000
3		✓	764	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	307
	2	86	0	193
	3	511	253	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.58	12.19	1.4	3.2	B
2	0.52	12.89	1.1	3.4	B
3	0.88	25.74	5.7	28.3	D

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	189	761	0.373	281	0.6	7.468	A
2	210	229	641	0.327	208	0.5	8.272	A
3	575	64	995	0.577	570	1.3	8.337	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	226	740	0.458	338	0.8	8.937	A
2	251	275	618	0.406	250	0.7	9.759	A
3	687	77	988	0.695	683	2.2	11.694	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	274	712	0.583	413	1.4	11.945	B
2	307	336	587	0.523	306	1.1	12.712	B
3	841	94	976	0.862	829	5.3	22.715	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	276	710	0.585	415	1.4	12.185	B
2	307	338	586	0.524	307	1.1	12.886	B
3	841	95	976	0.862	840	5.7	25.736	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	232	737	0.460	341	0.9	9.148	A
2	251	278	617	0.407	252	0.7	9.918	A
3	687	78	987	0.696	700	2.4	13.072	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	192	759	0.374	285	0.6	7.603	A
2	210	232	640	0.328	211	0.5	8.403	A
3	575	65	995	0.578	579	1.4	8.717	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.55	1.00	1.40	1.45			N/A	N/A
2	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3	1.34	0.57	1.16	1.59	1.79			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.83	0.13	0.91	1.08	1.08			N/A	N/A
2	0.67	0.17	0.92	1.38	1.44			N/A	N/A
3	2.19	0.08	1.01	5.56	8.17			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.36	0.03	0.27	1.36	2.13			N/A	N/A
2	1.07	0.03	0.27	1.07	1.29			N/A	N/A
3	5.30	0.04	0.41	14.22	28.44			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.38	0.03	0.27	1.38	3.17			N/A	N/A
2	1.08	0.03	0.28	1.08	3.44			N/A	N/A
3	5.70	0.03	0.33	9.08	29.29			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.87	0.08	0.85	1.30	1.73			N/A	N/A
2	0.70	0.08	0.77	1.39	1.47			N/A	N/A
3	2.38	0.04	0.44	6.55	11.33			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.60	0.05	0.47	1.25	1.25			N/A	N/A
2	0.49	0.04	0.42	1.27	1.40			N/A	N/A
3	1.40	0.03	0.34	3.16	7.16			N/A	N/A

2031 Base + Ford + Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	239.48	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		239.48	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	590	100.000
2		✓	607	100.000
3		✓	513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	80	510
	2	132	0	475
	3	353	160	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.62	24.98	4.3	21.8	C
2	1.38	648.58	99.2	153.3	F
3	0.58	8.80	1.4	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	120	824	0.539	440	1.1	8.270	A
2	457	380	586	0.780	444	3.1	23.764	C
3	386	97	981	0.394	384	0.5	6.001	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	530	144	810	0.655	528	1.8	12.645	B
2	546	456	548	0.997	512	11.5	93.183	F
3	461	111	971	0.475	460	0.9	7.031	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	650	176	791	0.822	641	4.1	22.734	C
2	668	554	499	1.340	496	84.5	288.550	F
3	565	108	973	0.580	563	1.4	8.731	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	650	176	790	0.822	649	4.3	24.975	C
2	668	561	495	1.350	495	97.8	547.648	F
3	565	108	974	0.580	565	1.4	8.802	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	530	144	809	0.656	540	2.0	13.791	B
2	546	466	542	1.008	540	99.2	648.578	F
3	461	117	967	0.477	463	0.9	7.170	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	121	823	0.540	447	1.2	9.662	A
2	457	387	582	0.785	576	88.3	527.884	F
3	386	125	962	0.402	387	0.7	6.280	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.14	0.55	1.00	1.40	1.45			N/A	N/A
2	3.15	0.04	0.39	8.37	16.50			N/A	N/A
3	0.64	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.83	0.07	1.07	4.26	6.01			N/A	N/A
2	11.51	0.25	6.05	28.67	39.26			N/A	N/A
3	0.89	0.12	0.93	1.07	1.57			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	4.05	0.04	0.37	9.93	21.83			N/A	N/A
2	54.47	25.37	51.48	81.11	91.16			N/A	N/A
3	1.35	0.03	0.27	1.35	1.35			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	4.30	0.03	0.31	5.06	20.38			N/A	N/A
2	97.82	58.47	94.99	132.18	144.24			N/A	N/A
3	1.37	0.03	0.27	1.37	1.54			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.98	0.04	0.45	5.37	8.96			N/A	N/A
2	99.19	54.61	95.63	139.00	153.29			N/A	N/A
3	0.93	0.11	0.93	1.29	1.70			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.20	0.03	0.34	2.87	5.95			N/A	N/A
2	69.34	26.65	64.23	110.56	126.75			N/A	N/A
3	0.68	0.06	0.65	1.18	1.18			N/A	N/A

2031 Base + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	44.17	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		44.17	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	408	100.000
2		✓	316	100.000
3		✓	869	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	72	336
	2	87	0	229
	3	582	287	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.65	14.82	1.8	5.9	B
2	0.61	16.19	1.5	4.7	C
3	0.88	58.81	17.6	71.2	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	214	747	0.411	304	0.7	8.091	A
2	238	251	630	0.378	236	0.6	9.069	A
3	554	65	995	0.557	547	1.9	10.109	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	256	723	0.508	365	1.0	10.045	B
2	284	301	605	0.470	283	0.9	11.151	B
3	781	78	987	0.791	775	3.5	16.432	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	303	696	0.646	446	1.7	14.269	B
2	348	368	571	0.609	345	1.5	15.782	C
3	957	95	975	0.981	918	13.3	44.393	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	310	691	0.650	449	1.8	14.817	B
2	348	370	570	0.611	348	1.5	16.186	C
3	957	96	975	0.981	939	17.6	58.813	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	275	711	0.516	370	1.1	10.528	B
2	284	304	603	0.471	287	0.9	11.455	B
3	781	79	986	0.792	835	4.2	29.700	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	219	744	0.413	309	0.7	8.307	A
2	238	254	628	0.379	239	0.6	9.273	A
3	554	66	995	0.557	663	2.0	11.111	B

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.69	0.55	1.00	1.40	1.45			N/A	N/A
2	0.60	0.55	1.00	1.40	1.45			N/A	N/A
3	1.85	0.60	1.28	2.63	2.95			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.01	0.11	0.97	1.58	1.89			N/A	N/A
2	0.87	0.14	0.93	1.35	1.35			N/A	N/A
3	3.50	0.07	1.40	9.26	13.67			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.75	0.03	0.28	1.75	5.94			N/A	N/A
2	1.50	0.03	0.28	1.50	4.75			N/A	N/A
3	13.30	0.22	6.52	34.05	47.27			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.81	0.03	0.28	1.81	4.62			N/A	N/A
2	1.53	0.03	0.28	1.53	4.69			N/A	N/A
3	17.64	0.14	6.33	48.73	71.19			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.09	0.07	0.86	2.00	2.82			N/A	N/A
2	0.91	0.07	0.77	1.64	2.06			N/A	N/A
3	4.21	0.04	0.43	11.69	21.61			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.71	0.04	0.44	1.47	2.07			N/A	N/A
2	0.62	0.04	0.43	1.02	1.68			N/A	N/A
3	1.98	0.03	0.31	2.99	9.95			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: A361 - Burndell Road - Bilsham Road Mini Roundabout Minor Improvement.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:52:26

»2021 Base, AM
»2021 Base, PM
»2021 Base + Dev, AM
»2021 Base + Dev, PM
»2021 Base + Ford, AM
»2021 Base + Ford, PM
»2021 Base + Ford + Dev, AM
»2021 Base + Ford + Dev, PM
»2031 Base, AM
»2031 Base, PM
»2031 Base + Ford + Dev, AM
»2031 Base + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021 Base														
Arm 1	D1	2.1	7.8	13.80	0.68	B	72.44	D2	1.3	2.9	11.44	0.57	B	17.27
Arm 2		32.4	73.4	176.57	1.06	F			0.9	3.2	10.78	0.48	B	
Arm 3		1.0	1.9	7.67	0.51	A			5.0	25.3	22.62	0.84	C	
2021 Base + Dev														
Arm 1	D3	2.2	8.3	14.18	0.69	B	95.21	D4	1.3	3.1	12.00	0.58	B	19.33
Arm 2		46.1	98.4	236.54	1.13	F			1.0	3.2	11.23	0.50	B	
Arm 3		1.1	1.8	7.79	0.52	A			5.8	30.2	26.02	0.88	D	
2021 Base + Ford														
Arm 1	D5	3.6	18.5	21.05	0.79	C	123.44	D6	1.6	3.8	13.14	0.62	B	24.79
Arm 2		60.0	100.3	329.93	1.21	F			1.1	3.5	12.59	0.54	B	
Arm 3		1.3	1.5	8.42	0.56	A			8.2	44.7	35.26	0.91	E	
2021 Base + Ford + Dev														
Arm 1	D8	3.7	19.3	21.92	0.80	C	160.26	D9	1.7	4.6	13.80	0.63	B	36.54
Arm 2		75.0	117.0	435.04	1.26	F			1.2	3.7	13.21	0.56	B	
Arm 3		1.3	1.6	8.57	0.57	A			13.9	64.8	38.03	0.95	E	
2031 Base														
Arm 1	D10	2.2	8.8	14.35	0.70	B	86.22	D11	1.3	3.0	11.78	0.58	B	18.48
Arm 2		39.7	80.8	213.77	1.11	F			0.9	3.2	11.02	0.48	B	
Arm 3		1.1	1.8	7.79	0.52	A			5.5	27.8	24.63	0.86	C	
2031 Base + Ford + Dev														
Arm 1	D12	4.0	20.7	23.29	0.81	C	168.66	D13	1.7	5.3	14.25	0.64	B	41.08
Arm 2		84.1	127.1	502.40	1.30	F			1.3	3.8	13.57	0.57	B	
Arm 3		1.4	1.7	8.72	0.58	A			16.4	83.2	84.13	0.97	F	

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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	27/08/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15
D3	2021 Base + Dev	AM	ONE HOUR	07:45	09:15	15
D4	2021 Base + Dev	PM	ONE HOUR	16:45	18:15	15
D5	2021 Base + Ford	AM	ONE HOUR	07:45	09:15	15
D6	2021 Base + Ford	PM	ONE HOUR	16:45	18:15	15
D8	2021 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D9	2021 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15
D10	2031 Base	AM	ONE HOUR	07:45	09:15	15
D11	2031 Base	PM	ONE HOUR	16:45	18:15	15
D12	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D13	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	72.44	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		72.44	F

Arms

Arms

Arm	Name	Description
1	B2233 Yapton Road	
2	B2132 Bilsham Road	
3	B2233 Main Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.60	1.0	9.00	5.20	0.0	
2	2.90	2.90	6.00	5.0	9.00	6.00	0.0	
3	3.30	3.30	3.30	0.0	17.50	17.50	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.598	934
2	0.626	888
3	0.689	1082

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	512	100.000
2		✓	558	100.000
3		✓	451	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	78	434
	2	127	0	431
	3	326	125	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.68	13.60	2.1	7.8	B
2	1.08	178.37	32.8	73.4	F
3	0.51	7.67	1.0	1.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	94	850	0.454	382	0.8	7.643	A
2	420	324	666	0.631	414	1.6	13.941	B
3	340	94	989	0.343	337	0.5	5.505	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	460	112	839	0.549	459	1.2	9.433	A
2	502	389	625	0.803	494	3.6	26.069	D
3	405	112	977	0.415	405	0.7	6.285	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	564	137	824	0.684	560	2.1	13.459	B
2	514	475	570	1.077	551	19.5	93.918	F
3	497	125	968	0.513	495	1.0	7.594	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	564	138	824	0.684	564	2.1	13.802	B
2	514	476	569	1.081	563	32.4	179.573	F
3	497	126	966	0.514	497	1.0	7.666	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	460	113	839	0.549	464	1.2	9.691	A
2	502	393	622	0.807	604	6.7	126.336	F
3	405	136	960	0.423	407	0.7	6.524	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	94	849	0.454	387	0.8	7.812	A
2	420	328	663	0.634	440	1.8	17.406	C
3	340	100	985	0.345	340	0.5	5.591	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.82	0.55	1.00	1.40	1.45			N/A	N/A
2	1.64	0.31	1.44	2.62	3.11			N/A	N/A
3	0.52	0.52	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.19	0.09	1.01	2.06	2.80			N/A	N/A
2	3.57	0.09	1.18	9.12	13.09			N/A	N/A
3	0.70	0.15	0.90	1.38	1.44			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.07	0.03	0.29	2.07	7.78			N/A	N/A
2	19.49	2.90	15.83	37.56	45.98			N/A	N/A
3	1.04	0.03	0.26	1.04	1.04			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.12	0.03	0.28	2.12	4.43			N/A	N/A
2	32.38	8.18	27.28	60.69	73.43			N/A	N/A
3	1.05	0.03	0.27	1.05	1.90			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.24	0.06	0.82	2.68	3.76			N/A	N/A
2	6.72	0.07	1.23	19.09	29.62			N/A	N/A
3	0.74	0.17	0.92	1.39	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.84	0.04	0.44	1.86	2.85			N/A	N/A
2	1.81	0.03	0.29	1.81	7.34			N/A	N/A
3	0.53	0.05	0.52	1.30	1.40			N/A	N/A

2021 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	17.27	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		17.27	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	371	100.000
2		✓	275	100.000
3		✓	752	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	68	303
	2	85	0	190
	3	503	249	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.57	11.44	1.3	2.9	B
2	0.48	10.78	0.9	3.2	B
3	0.84	22.62	5.0	15.3	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	186	773	0.361	277	0.6	7.222	A
2	207	226	705	0.294	205	0.4	7.177	A
3	566	63	1004	0.564	561	1.3	8.044	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	223	752	0.443	333	0.8	8.563	A
2	247	272	676	0.366	247	0.6	8.365	A
3	676	76	995	0.679	673	2.0	11.065	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	271	725	0.564	407	1.3	11.251	B
2	303	332	638	0.475	302	0.9	10.671	B
3	828	93	983	0.842	817	4.7	20.475	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	274	723	0.565	408	1.3	11.441	B
2	303	334	637	0.476	303	0.9	10.779	B
3	828	94	983	0.842	827	5.0	22.617	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	226	749	0.445	335	0.8	8.733	A
2	247	274	675	0.366	248	0.6	8.467	A
3	676	77	995	0.680	687	2.2	12.093	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	189	772	0.362	280	0.6	7.338	A
2	207	229	704	0.294	208	0.4	7.266	A
3	566	64	1003	0.564	570	1.3	8.369	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.56	0.55	1.00	1.40	1.45			N/A	N/A
2	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3	1.27	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.78	0.14	0.91	1.41	1.47			N/A	N/A
2	0.57	0.55	1.00	1.40	1.45			N/A	N/A
3	2.04	0.06	0.98	5.08	7.50			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.26	0.03	0.27	1.26	1.29			N/A	N/A
2	0.89	0.03	0.26	0.89	0.89			N/A	N/A
3	4.66	0.04	0.37	11.49	25.27			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.28	0.03	0.27	1.28	2.93			N/A	N/A
2	0.90	0.03	0.26	0.90	3.19			N/A	N/A
3	4.96	0.03	0.31	5.70	23.36			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.82	0.09	0.84	1.49	1.49			N/A	N/A
2	0.59	0.07	0.73	1.35	1.42			N/A	N/A
3	2.20	0.04	0.45	6.01	10.18			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.05	0.48	1.36	1.47			N/A	N/A
2	0.42	0.03	0.35	1.14	1.32			N/A	N/A
3	1.32	0.03	0.34	3.13	6.70			N/A	N/A

2021 Base + Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	98.21	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		98.21	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2021 Base + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	513	100.000
2		✓	584	100.000
3		✓	460	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	434
	2	129	0	455
	3	326	134	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.69	14.18	2.2	8.3	B
2	1.13	238.54	45.1	88.4	F
3	0.52	7.79	1.1	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	100	846	0.457	383	0.8	7.721	A
2	440	324	666	0.660	432	1.9	14.984	B
3	346	95	988	0.350	344	0.5	5.570	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	120	834	0.553	460	1.2	9.573	A
2	525	389	625	0.840	515	4.4	30.279	D
3	414	114	976	0.424	413	0.7	6.382	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	147	818	0.690	561	2.1	13.803	B
2	643	475	570	1.127	557	22.8	118.803	F
3	506	123	970	0.522	505	1.1	7.726	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	148	818	0.691	565	2.2	14.177	B
2	643	478	569	1.131	566	45.1	238.535	F
3	506	125	968	0.523	506	1.1	7.792	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	121	834	0.553	465	1.3	9.851	A
2	525	393	622	0.844	608	34.3	398.227	F
3	414	134	962	0.430	415	0.8	6.595	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	101	845	0.457	388	0.9	7.897	A
2	440	328	663	0.663	528	2.1	43.850	E
3	346	117	974	0.356	347	0.5	5.748	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.83	0.55	1.00	1.40	1.45			N/A	N/A
2	1.85	0.20	1.01	3.30	4.15			N/A	N/A
3	0.53	0.53	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.21	0.09	1.01	2.16	2.87			N/A	N/A
2	4.36	0.11	1.73	11.04	15.62			N/A	N/A
3	0.73	0.14	0.90	1.38	1.45			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.13	0.03	0.29	2.13	8.35			N/A	N/A
2	25.78	6.70	22.57	44.95	53.18			N/A	N/A
3	1.07	0.03	0.26	1.07	1.07			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.18	0.03	0.28	2.18	4.77			N/A	N/A
2	45.08	15.15	40.97	74.46	86.39			N/A	N/A
3	1.09	0.03	0.27	1.09	1.80			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.27	0.06	0.80	2.77	3.90			N/A	N/A
2	24.23	5.56	20.86	43.36	51.73			N/A	N/A
3	0.76	0.16	0.91	1.39	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.85	0.04	0.43	1.91	2.95			N/A	N/A
2	2.12	0.03	0.29	2.12	8.61			N/A	N/A
3	0.56	0.05	0.58	1.32	1.41			N/A	N/A

2021 Base + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	19.33	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		19.33	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2021 Base + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	373	100.000
2		✓	287	100.000
3		✓	772	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	303
	2	86	0	201
	3	503	269	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.58	12.00	1.3	3.1	B
2	0.50	11.23	1.0	3.2	B
3	0.88	26.02	5.8	30.2	D

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	281	201	765	0.367	279	0.6	7.367	A
2	216	226	705	0.306	214	0.4	7.308	A
3	581	64	1004	0.579	576	1.3	8.315	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	241	742	0.452	334	0.8	8.809	A
2	258	272	676	0.382	257	0.6	8.579	A
3	694	77	995	0.698	691	2.2	11.695	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	292	713	0.576	409	1.3	11.761	B
2	316	332	637	0.496	315	1.0	11.098	B
3	850	94	983	0.865	837	5.4	22.889	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	295	710	0.578	411	1.3	11.996	B
2	316	334	636	0.496	316	1.0	11.225	B
3	850	95	983	0.865	848	5.8	26.023	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	247	739	0.454	337	0.8	9.017	A
2	258	274	675	0.382	259	0.6	8.697	A
3	694	78	994	0.698	708	2.4	13.102	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	281	204	763	0.368	282	0.6	7.494	A
2	216	229	704	0.307	217	0.4	7.408	A
3	581	65	1003	0.579	585	1.4	8.696	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.55	1.00	1.40	1.45			N/A	N/A
2	0.44	0.00	0.00	0.44	0.44			N/A	N/A
3	1.35	0.57	1.18	1.62	1.81			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.81	0.14	0.91	1.42	1.49			N/A	N/A
2	0.61	0.14	0.89	1.38	1.44			N/A	N/A
3	2.22	0.06	1.00	5.63	8.31			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.32	0.03	0.27	1.32	1.85			N/A	N/A
2	0.96	0.03	0.26	0.96	0.96			N/A	N/A
3	5.40	0.04	0.41	14.61	28.91			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.35	0.03	0.27	1.35	3.14			N/A	N/A
2	0.97	0.03	0.26	0.97	3.24			N/A	N/A
3	5.82	0.03	0.33	9.58	30.15			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.85	0.08	0.84	1.18	1.65			N/A	N/A
2	0.63	0.08	0.75	1.36	1.43			N/A	N/A
3	2.41	0.04	0.44	5.62	11.48			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.05	0.47	1.07	1.07			N/A	N/A
2	0.45	0.04	0.38	1.21	1.36			N/A	N/A
3	1.41	0.03	0.33	3.16	7.22			N/A	N/A

2021 Base + Ford, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	123.44	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		123.44	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2021 Base + Ford	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	581	100.000
2		✓	570	100.000
3		✓	497	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	78	503
	2	127	0	443
	3	348	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

ARUN DISTRICT COUNCIL Y/3/22/OUT

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.79	21.05	3.6	18.5	C
2	1.21	333.83	86.0	180.3	F
3	0.56	8.42	1.3	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	437	111	839	0.521	433	1.1	8.771	A
2	429	375	633	0.677	421	2.0	16.406	C
3	374	94	990	0.378	372	0.5	5.804	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	522	134	826	0.632	520	1.7	11.655	B
2	512	450	586	0.875	499	5.3	38.883	E
3	447	111	978	0.457	446	0.8	6.757	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	640	164	809	0.791	633	3.4	19.667	C
2	628	548	524	1.197	517	33.0	183.239	F
3	547	115	975	0.561	546	1.3	8.346	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	640	164	808	0.791	639	3.6	21.055	C
2	628	553	521	1.205	520	86.0	328.004	F
3	547	116	975	0.561	547	1.3	8.417	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	522	134	826	0.632	530	1.8	12.432	B
2	512	456	581	0.882	571	85.3	333.835	F
3	447	127	967	0.462	448	0.9	6.966	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	437	112	839	0.521	440	1.1	9.086	A
2	429	381	630	0.682	599	2.8	180.063	F
3	374	134	963	0.389	375	0.5	6.139	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.07	0.55	1.00	1.40	1.45			N/A	N/A
2	1.98	0.12	1.43	4.01	5.39			N/A	N/A
3	0.60	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.66	0.07	1.05	3.74	5.23			N/A	N/A
2	5.26	0.14	2.41	13.05	18.13			N/A	N/A
3	0.83	0.13	0.91	1.16	1.16			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.44	0.03	0.34	7.08	18.52			N/A	N/A
2	33.02	12.26	30.29	52.62	60.45			N/A	N/A
3	1.25	0.03	0.26	1.25	1.25			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.60	0.03	0.30	3.60	14.65			N/A	N/A
2	60.03	28.16	56.82	89.30	100.32			N/A	N/A
3	1.27	0.03	0.27	1.27	1.59			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.78	0.05	0.47	4.72	7.59			N/A	N/A
2	45.35	20.71	42.70	67.82	76.36			N/A	N/A
3	0.87	0.13	0.93	1.41	1.41			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.11	0.04	0.36	2.77	5.26			N/A	N/A
2	2.77	0.03	0.30	2.99	12.83			N/A	N/A
3	0.64	0.06	0.55	1.37	1.46			N/A	N/A

2021 Base + Ford, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	24.79	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		24.79	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2021 Base + Ford	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	400	100.000
2		✓	300	100.000
3		✓	810	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	68	332
	2	85	0	215
	3	547	263	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.62	13.14	1.6	3.8	B
2	0.54	12.59	1.1	3.5	B
3	0.91	35.26	8.2	18.7	E

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	301	196	767	0.393	299	0.6	7.845	A
2	226	248	691	0.327	224	0.5	7.673	A
3	510	63	1004	0.508	504	1.5	8.875	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	360	235	745	0.483	358	0.9	9.294	A
2	270	296	659	0.409	269	0.7	9.200	A
3	728	76	995	0.732	724	2.6	13.064	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	440	284	717	0.614	438	1.5	12.794	B
2	330	363	617	0.535	329	1.1	12.400	B
3	892	93	983	0.907	873	7.3	28.695	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	440	288	714	0.617	440	1.6	13.136	B
2	330	365	616	0.536	330	1.1	12.595	B
3	892	94	983	0.907	888	8.2	35.257	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	360	243	740	0.486	362	1.0	9.588	A
2	270	300	657	0.410	271	0.7	9.367	A
3	728	77	994	0.732	749	2.9	15.801	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	301	200	765	0.394	302	0.7	7.804	A
2	226	251	689	0.328	227	0.5	7.797	A
3	510	64	1003	0.508	615	1.5	9.393	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3	1.51	0.59	1.45	1.82	1.93			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.92	0.12	0.94	1.22	1.65			N/A	N/A
2	0.66	0.15	0.90	1.38	1.44			N/A	N/A
3	2.60	0.07	1.08	6.75	10.03			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.54	0.03	0.28	1.54	3.77			N/A	N/A
2	1.12	0.03	0.27	1.12	1.40			N/A	N/A
3	7.26	0.06	0.95	21.08	35.55			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.58	0.03	0.28	1.58	3.63			N/A	N/A
2	1.14	0.03	0.28	1.14	3.54			N/A	N/A
3	8.17	0.04	0.40	20.76	44.66			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.96	0.07	0.85	1.68	2.06			N/A	N/A
2	0.71	0.08	0.77	1.40	1.48			N/A	N/A
3	2.88	0.04	0.42	7.95	14.44			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.65	0.05	0.46	1.09	1.70			N/A	N/A
2	0.49	0.04	0.42	1.27	1.40			N/A	N/A
3	1.59	0.03	0.32	3.16	8.29			N/A	N/A

2021 Base + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variation	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	untitled	Mini-roundabout		1, 2, 3	183.28	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		183.28	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2021 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	582	100.000
2		✓	596	100.000
3		✓	506	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	503
	2	129	0	467
	3	348	158	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.80	21.92	3.7	19.3	C
2	1.28	435.04	75.0	112.8	F
3	0.57	8.57	1.3	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	438	116	835	0.524	434	1.1	8.872	A
2	449	375	633	0.708	440	2.3	17.833	C
3	381	95	989	0.385	378	0.5	5.874	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	523	142	822	0.637	521	1.7	11.867	B
2	536	450	586	0.914	518	6.6	44.148	E
3	455	112	977	0.465	454	0.9	6.865	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	641	173	803	0.798	633	3.6	20.362	C
2	656	547	525	1.251	519	40.8	183.417	F
3	557	112	977	0.570	555	1.3	8.499	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	641	174	803	0.798	640	3.7	21.919	C
2	656	553	521	1.259	520	75.0	461.695	F
3	557	113	977	0.570	557	1.3	8.570	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	523	143	821	0.637	531	1.8	12.718	B
2	536	459	580	0.923	573	65.7	435.043	F
3	455	124	969	0.469	457	0.9	7.044	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	438	119	835	0.525	441	1.1	9.203	A
2	449	381	630	0.713	620	32.9	382.008	F
3	381	134	962	0.396	382	0.7	6.213	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.08	0.55	1.00	1.40	1.45			N/A	N/A
2	2.27	0.07	1.09	5.69	8.29			N/A	N/A
3	0.62	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.70	0.07	1.05	3.83	5.41			N/A	N/A
2	6.75	0.16	3.24	16.83	23.25			N/A	N/A
3	0.86	0.12	0.91	1.40	1.40			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.57	0.03	0.34	7.74	19.31			N/A	N/A
2	40.95	17.77	38.31	62.25	70.46			N/A	N/A
3	1.30	0.03	0.26	1.30	1.30			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.75	0.03	0.30	3.75	15.91			N/A	N/A
2	74.97	40.42	72.04	105.80	115.98			N/A	N/A
3	1.31	0.03	0.27	1.31	1.54			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.82	0.05	0.46	4.85	7.87			N/A	N/A
2	65.72	30.57	62.19	98.18	110.43			N/A	N/A
3	0.90	0.12	0.93	1.08	1.57			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.13	0.04	0.35	2.78	5.40			N/A	N/A
2	22.86	4.00	18.97	43.15	52.43			N/A	N/A
3	0.66	0.06	0.55	1.40	1.49			N/A	N/A

2021 Base + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	38.54	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		38.54	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2021 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	402	100.000
2		✓	312	100.000
3		✓	857	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	332
	2	86	0	226
	3	574	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.63	13.80	1.7	4.6	B
2	0.56	13.21	1.2	3.7	B
3	0.86	38.09	13.9	84.4	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	303	211	759	0.399	300	0.7	7.805	A
2	235	246	691	0.340	233	0.5	7.621	A
3	545	64	1003	0.643	638	1.7	9.685	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	252	735	0.492	360	0.9	9.581	A
2	280	297	659	0.425	280	0.7	9.458	A
3	770	77	994	0.775	765	3.2	15.269	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	443	301	707	0.626	440	1.6	13.355	B
2	344	363	617	0.557	342	1.2	12.971	B
3	944	94	983	0.960	912	11.1	38.387	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	443	308	703	0.630	442	1.7	13.798	B
2	344	365	616	0.558	343	1.2	13.207	B
3	944	95	982	0.961	932	13.9	56.087	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	266	726	0.498	364	1.0	10.019	B
2	280	301	657	0.427	282	0.8	9.653	A
3	770	78	994	0.775	811	3.7	23.174	C

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	303	216	756	0.400	304	0.7	7.989	A
2	235	251	689	0.341	236	0.5	7.960	A
3	545	65	1003	0.643	653	1.9	10.493	B

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.55	0.55	1.00	1.40	1.45			N/A	N/A
2	0.51	0.51	1.00	1.40	1.45			N/A	N/A
3	1.75	0.61	1.21	2.32	2.73			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.95	0.11	0.95	1.38	1.75			N/A	N/A
2	0.73	0.15	0.90	1.39	1.45			N/A	N/A
3	3.21	0.07	1.28	8.48	12.58			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.61	0.03	0.28	1.61	4.57			N/A	N/A
2	1.22	0.03	0.27	1.22	1.67			N/A	N/A
3	11.14	0.12	3.96	30.38	44.19			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.66	0.03	0.28	1.66	3.98			N/A	N/A
2	1.24	0.03	0.28	1.24	3.70			N/A	N/A
3	13.92	0.08	2.36	40.65	64.44			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.01	0.07	0.86	1.80	2.41			N/A	N/A
2	0.76	0.08	0.78	1.33	1.33			N/A	N/A
3	3.73	0.04	0.42	10.29	19.14			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.68	0.05	0.45	1.25	1.83			N/A	N/A
2	0.52	0.04	0.43	1.32	1.45			N/A	N/A
3	1.86	0.03	0.31	3.02	9.49			N/A	N/A

2031 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	83.32	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		83.32	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	520	100.000
2		✓	569	100.000
3		✓	458	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	79	441
	2	130	0	439
	3	331	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.70	14.35	2.2	8.8	B
2	1.11	213.77	39.7	80.8	F
3	0.52	7.79	1.1	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	391	95	849	0.461	388	0.8	7.755	A
2	428	329	662	0.647	421	1.7	14.547	B
3	345	96	985	0.349	343	0.5	5.563	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	467	114	838	0.558	466	1.2	9.637	A
2	512	395	621	0.824	503	4.0	28.464	D
3	412	115	975	0.422	411	0.7	6.371	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	573	139	823	0.696	569	2.2	13.960	B
2	626	482	566	1.106	550	22.0	187.848	F
3	504	126	968	0.521	503	1.1	7.721	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	573	140	823	0.696	572	2.2	14.352	B
2	626	485	564	1.111	560	39.7	213.768	F
3	504	128	968	0.522	504	1.1	7.792	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	467	115	838	0.558	471	1.3	9.926	A
2	512	400	618	0.828	603	16.9	173.961	F
3	412	138	959	0.429	413	0.8	6.602	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	391	96	849	0.461	393	0.9	7.934	A
2	428	333	660	0.649	488	2.0	27.855	D
3	345	111	977	0.353	346	0.5	5.707	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.84	0.55	1.00	1.40	1.45			N/A	N/A
2	1.75	0.23	1.48	2.93	3.73			N/A	N/A
3	0.53	0.53	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.23	0.09	1.01	2.28	2.96			N/A	N/A
2	3.99	0.10	1.47	10.15	14.47			N/A	N/A
3	0.72	0.14	0.90	1.38	1.44			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.18	0.03	0.29	2.18	8.78			N/A	N/A
2	23.04	5.01	19.68	41.66	49.91			N/A	N/A
3	1.07	0.03	0.26	1.07	1.07			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.23	0.03	0.28	2.23	4.97			N/A	N/A
2	39.65	11.18	35.22	68.50	80.63			N/A	N/A
3	1.08	0.03	0.27	1.08	1.83			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.29	0.06	0.79	2.86	4.06			N/A	N/A
2	16.86	1.58	12.93	34.34	42.91			N/A	N/A
3	0.76	0.17	0.92	1.39	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.87	0.04	0.43	1.95	3.05			N/A	N/A
2	1.96	0.03	0.29	1.96	7.84			N/A	N/A
3	0.55	0.05	0.56	1.32	1.41			N/A	N/A

2031 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	18.48	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		18.48	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2031 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	377	100.000
2		✓	279	100.000
3		✓	764	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	70	307
	2	86	0	193
	3	511	253	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.58	11.78	1.3	3.0	B
2	0.48	11.02	0.9	3.2	B
3	0.86	24.63	5.5	27.6	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	189	772	0.368	282	0.6	7.310	A
2	210	229	703	0.299	208	0.4	7.246	A
3	575	64	1003	0.573	570	1.3	8.211	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	226	750	0.452	336	0.8	8.714	A
2	251	275	674	0.372	250	0.6	8.479	A
3	687	77	994	0.691	683	2.1	11.450	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	275	722	0.575	413	1.3	11.560	B
2	307	336	635	0.484	306	0.9	10.901	B
3	841	94	983	0.856	829	5.1	21.928	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	276	720	0.576	415	1.3	11.778	B
2	307	338	634	0.485	307	0.9	11.018	B
3	841	95	982	0.856	840	5.5	24.634	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	232	747	0.454	341	0.8	8.903	A
2	251	278	672	0.373	252	0.6	8.591	A
3	687	78	994	0.691	699	2.3	12.699	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	192	770	0.369	285	0.6	7.436	A
2	210	232	702	0.299	211	0.4	7.343	A
3	575	65	1003	0.574	579	1.4	8.570	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.55	1.00	1.40	1.45			N/A	N/A
2	0.42	0.00	0.00	0.42	0.42			N/A	N/A
3	1.32	0.56	1.13	1.51	1.76			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.81	0.14	0.91	1.42	1.49			N/A	N/A
2	0.56	0.55	1.00	1.40	1.45			N/A	N/A
3	2.15	0.06	0.99	5.43	7.96			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.31	0.03	0.27	1.31	1.73			N/A	N/A
2	0.92	0.03	0.26	0.92	0.92			N/A	N/A
3	5.11	0.04	0.40	13.40	27.55			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.34	0.03	0.27	1.34	3.02			N/A	N/A
2	0.93	0.03	0.26	0.93	3.23			N/A	N/A
3	5.47	0.03	0.32	7.90	27.34			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.84	0.08	0.85	1.15	1.63			N/A	N/A
2	0.60	0.07	0.74	1.35	1.43			N/A	N/A
3	2.33	0.04	0.44	5.40	10.97			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.05	0.48	1.03	1.03			N/A	N/A
2	0.43	0.04	0.36	1.18	1.34			N/A	N/A
3	1.37	0.03	0.34	3.16	7.01			N/A	N/A

2031 Base + Ford + Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	188.00	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		188.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2031 Base + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	590	100.000
2		✓	607	100.000
3		✓	513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	80	510
	2	132	0	475
	3	353	160	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	3
	2	2	0	2
	3	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.61	23.29	4.0	20.7	C
2	1.39	502.46	84.3	137.1	F
3	0.58	8.72	1.4	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	120	835	0.532	440	1.1	8.020	A
2	457	380	630	0.725	447	2.4	18.794	C
3	386	97	987	0.391	384	0.5	5.937	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	530	144	820	0.646	528	1.8	12.185	B
2	546	456	582	0.937	524	7.9	43.443	E
3	461	114	976	0.472	460	0.9	6.962	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	650	176	802	0.810	641	3.8	21.431	C
2	668	554	520	1.285	516	48.8	288.285	F
3	565	112	977	0.578	563	1.3	8.652	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	650	176	801	0.811	649	4.0	23.293	C
2	668	561	516	1.295	515	84.3	469.751	F
3	565	112	977	0.578	565	1.4	8.723	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	530	144	820	0.647	539	1.9	13.166	B
2	546	466	575	0.947	569	78.2	502.402	F
3	461	124	969	0.476	463	0.9	7.132	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	121	834	0.533	447	1.2	9.375	A
2	457	386	626	0.730	618	37.8	341.408	F
3	386	134	962	0.401	387	0.7	6.274	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.11	0.55	1.00	1.40	1.45			N/A	N/A
2	2.44	0.05	0.83	6.63	10.47			N/A	N/A
3	0.64	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.76	0.07	1.06	4.03	5.75			N/A	N/A
2	7.86	0.18	3.82	19.59	27.21			N/A	N/A
3	0.88	0.12	0.92	1.01	1.54			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.82	0.04	0.36	8.84	20.66			N/A	N/A
2	45.90	21.07	43.25	68.60	77.24			N/A	N/A
3	1.34	0.03	0.27	1.34	1.34			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	4.02	0.03	0.30	4.02	18.12			N/A	N/A
2	84.11	48.03	81.29	115.86	127.15			N/A	N/A
3	1.35	0.03	0.27	1.35	1.53			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.90	0.05	0.45	5.09	8.42			N/A	N/A
2	78.21	39.03	74.60	113.91	127.09			N/A	N/A
3	0.92	0.12	0.94	1.25	1.57			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.16	0.03	0.35	2.83	5.69			N/A	N/A
2	37.89	12.26	34.24	63.07	73.41			N/A	N/A
3	0.68	0.06	0.55	1.11	1.11			N/A	N/A

2031 Base + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	41.08	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		41.08	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2031 Base + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	408	100.000
2		✓	316	100.000
3		✓	869	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	72	336
	2	87	0	229
	3	582	287	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	2	7
	2	3	0	5
	3	4	2	0

ARUN DISTRICT COUNCIL Y/3/22/OUT

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.64	14.25	1.7	5.3	B
2	0.57	13.57	1.3	3.8	B
3	0.97	64.13	16.4	88.2	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	214	757	0.406	304	0.7	7.908	A
2	238	251	689	0.345	236	0.5	7.903	A
3	554	65	1003	0.552	547	1.5	9.926	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	256	733	0.500	366	1.0	9.766	A
2	284	301	657	0.432	283	0.7	9.605	A
3	781	78	994	0.786	775	3.4	15.975	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	304	705	0.637	446	1.7	13.753	B
2	348	368	614	0.566	346	1.3	13.304	B
3	957	95	982	0.974	920	12.6	62.982	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	311	701	0.641	449	1.7	14.248	B
2	348	370	613	0.568	348	1.3	13.566	B
3	957	96	982	0.975	942	16.4	64.136	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	274	722	0.508	370	1.1	10.284	B
2	284	304	655	0.434	286	0.8	9.815	A
3	781	79	993	0.787	830	4.0	27.070	D

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	219	754	0.407	309	0.7	8.105	A
2	238	254	687	0.346	239	0.5	8.050	A
3	554	66	1002	0.553	663	1.9	10.850	B

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.55	1.00	1.40	1.45			N/A	N/A
2	0.52	0.52	1.00	1.40	1.45			N/A	N/A
3	1.82	0.60	1.26	2.54	2.89			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.98	0.11	0.96	1.50	1.83			N/A	N/A
2	0.75	0.14	0.90	1.39	1.45			N/A	N/A
3	3.41	0.07	1.35	8.99	13.33			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.69	0.03	0.28	1.69	5.27			N/A	N/A
2	1.26	0.03	0.27	1.26	2.06			N/A	N/A
3	12.58	0.18	5.64	32.95	46.42			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.74	0.03	0.28	1.74	4.28			N/A	N/A
2	1.29	0.03	0.28	1.29	3.81			N/A	N/A
3	16.35	0.12	4.81	46.24	69.23			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.05	0.07	0.86	1.91	2.64			N/A	N/A
2	0.78	0.07	0.78	1.48	1.49			N/A	N/A
3	4.04	0.04	0.43	11.18	20.75			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.70	0.04	0.44	1.38	1.94			N/A	N/A
2	0.54	0.04	0.43	1.34	1.47			N/A	N/A
3	1.94	0.03	0.31	2.99	9.79			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: A361 - B2233 Main Road - North End Road Mini.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:13:10

»2021, AM
»2021, PM
»2021 + Dev, AM
»2021 + Dev, PM
»2021 + Ford, AM
»2021 + Ford, PM
»2021 + Ford + Dev, AM
»2021 + Ford + Dev, PM
»2031 Base, AM
»2031 Base, PM
»2031 + Ford + Dev, AM
»2031 + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
2021														
Arm 1	D1	0.6	2.5	9.66	0.35	A	29.19	D2	5.8	31.4	44.34	0.87	E	20.59
Arm 2		10.3	54.4	40.89	0.93	E			0.9	2.2	6.42	0.47	A	
Arm 3		1.6	3.9	13.27	0.62	B			1.2	2.1	9.19	0.55	A	
2021 + Dev														
Arm 1	D3	0.6	2.6	9.87	0.36	A	35.83	D4	6.9	36.6	52.99	0.90	F	23.46
Arm 2		13.5	84.6	51.64	0.96	F			0.9	2.0	6.55	0.48	A	
Arm 3		1.7	4.7	13.78	0.63	B			1.3	2.1	9.56	0.56	A	
2021 + Ford														
Arm 1	D5	1.0	3.5	13.07	0.51	B	78.48	D6	23.1	62.7	145.39	1.04	F	55.38
Arm 2		38.0	95.0	120.80	1.05	F			1.2	1.5	7.77	0.55	A	
Arm 3		2.1	6.5	16.11	0.69	C			2.2	8.0	13.79	0.69	B	
2021 + Ford + Dev														
Arm 1	D7	1.1	3.5	13.41	0.52	B	92.10	D8	28.7	68.1	174.22	1.07	F	65.07
Arm 2		43.0	105.8	148.69	1.07	F			1.3	1.5	7.94	0.56	A	
Arm 3		2.2	9.3	16.57	0.70	C			2.3	9.5	14.64	0.71	B	
2031 Base														
Arm 1	D9	0.6	2.6	9.81	0.36	A	33.58	D10	6.5	34.3	49.90	0.83	E	22.38
Arm 2		12.4	81.3	47.56	0.95	E			0.9	2.1	6.50	0.47	A	
Arm 3		1.7	4.7	13.76	0.63	B			1.2	2.1	9.40	0.55	A	
2031 + Ford + Dev														
Arm 1	D11	1.1	3.6	13.71	0.53	B	104.59	D12	32.7	72.2	194.45	1.09	F	71.84
Arm 2		57.2	118.0	170.08	1.09	F			1.3	1.5	8.05	0.57	A	
Arm 3		2.3	10.1	17.11	0.71	C			2.4	10.5	15.18	0.72	C	

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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	27/08/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	07:45	09:15	15
D2	2021	PM	ONE HOUR	16:45	18:15	15
D3	2021 + Dev	AM	ONE HOUR	07:45	09:15	15
D4	2021 + Dev	PM	ONE HOUR	16:45	18:15	15
D5	2021 + Ford	AM	ONE HOUR	07:45	09:15	15
D6	2021 + Ford	PM	ONE HOUR	16:45	18:15	15
D7	2021 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D8	2021 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15
D9	2031 Base	AM	ONE HOUR	07:45	09:15	15
D10	2031 Base	PM	ONE HOUR	16:45	18:15	15
D11	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D12	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	29.19	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		29.19	D

Arms

Arms

Arm	Name	Description
1	North End Road	
2	B2233 Main Road East	
3	B2233 Main Road West	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	2.20	2.20	5.30	3.0	9.60	7.00	0.0	
2	3.80	3.80	4.50	8.5	15.00	15.00	0.0	
3	3.50	3.50	3.90	0.5	11.30	9.30	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1	✓	0.476	780	0.476	780
2	✓	0.558	1102	0.558	1102
3	✓	0.503	965	0.503	965

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	07:45	09:15	15

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

ARUN DISTRICT COUNCIL Y/3/22/OUT

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	184	100.000
2		✓	881	100.000
3		✓	405	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	122	62
	2	397	0	484
	3	103	302	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.35	9.66	0.5	2.5	A
2	0.93	40.89	10.3	34.4	E
3	0.62	13.27	1.6	3.9	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	225	625	0.222	137	0.3	7.371	A
2	663	46	1055	0.629	657	1.6	8.902	A
3	305	296	786	0.388	302	0.6	7.406	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	271	604	0.274	165	0.4	8.198	A
2	792	56	1049	0.755	787	2.9	13.451	B
3	364	355	757	0.481	363	0.9	9.113	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	203	331	576	0.352	202	0.5	9.606	A
2	970	66	1042	0.931	946	8.9	31.545	D
3	446	426	721	0.619	443	1.6	12.851	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	203	332	575	0.352	203	0.5	9.657	A
2	970	66	1042	0.931	964	10.3	40.889	E
3	446	435	717	0.622	446	1.6	13.265	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	273	603	0.275	166	0.4	8.260	A
2	792	56	1049	0.755	820	3.3	17.361	C
3	364	370	749	0.486	367	1.0	9.473	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	228	623	0.222	139	0.3	7.438	A
2	663	47	1055	0.629	659	1.7	9.490	A
3	305	302	783	0.389	306	0.6	7.566	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	1.55	0.61	1.14	1.95	2.34			N/A	N/A
3	0.63	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	2.91	0.07	1.14	7.68	11.49			N/A	N/A
3	0.91	0.11	0.93	1.23	1.55			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.53	0.03	0.25	0.53	0.53			N/A	N/A
2	8.86	0.07	1.41	25.61	40.52			N/A	N/A
3	1.57	0.03	0.28	1.57	3.94			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.54	0.03	0.30	1.34	2.52			N/A	N/A
2	10.30	0.05	0.48	29.13	54.41			N/A	N/A
3	1.61	0.03	0.28	1.61	3.86			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	3.27	0.04	0.42	9.01	16.62			N/A	N/A
3	0.96	0.07	0.85	1.67	2.06			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.74	0.03	0.32	3.24	9.05			N/A	N/A
3	0.65	0.05	0.45	1.07	1.70			N/A	N/A

2021, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	20.59	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		20.59	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	451	100.000
2		✓	443	100.000
3		✓	429	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	377	74
	2	155	0	288
	3	61	368	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.67	44.84	5.8	31.4	E
2	0.47	6.42	0.9	2.2	A
3	0.55	9.19	1.2	2.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	340	275	630	0.539	335	1.1	12.033	B
2	334	55	1063	0.314	332	0.5	4.909	A
3	323	116	891	0.362	321	0.5	6.284	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	405	330	604	0.671	402	1.9	17.545	C
2	398	66	1057	0.377	398	0.6	5.455	A
3	386	139	880	0.438	385	0.8	7.261	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	497	404	570	0.872	484	5.2	37.191	E
2	488	79	1049	0.465	487	0.9	6.385	A
3	472	170	864	0.547	471	1.2	9.112	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	497	405	569	0.873	494	5.8	44.837	E
2	488	81	1049	0.465	488	0.9	6.418	A
3	472	171	864	0.547	472	1.2	9.190	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	405	332	603	0.672	420	2.2	20.980	C
2	398	69	1055	0.377	399	0.6	5.496	A
3	386	140	880	0.438	387	0.8	7.338	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	340	278	629	0.540	343	1.2	12.764	B
2	334	56	1062	0.314	334	0.5	4.946	A
3	323	117	891	0.362	324	0.6	6.358	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.14	0.55	1.00	1.40	1.45			N/A	N/A
2	0.45	0.00	0.00	0.45	0.45			N/A	N/A
3	0.56	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.93	0.08	1.18	4.45	6.20			N/A	N/A
2	0.60	0.12	0.87	1.38	1.44			N/A	N/A
3	0.77	0.14	0.90	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	5.16	0.05	0.70	14.81	24.91			N/A	N/A
2	0.86	0.03	0.26	0.86	0.86			N/A	N/A
3	1.18	0.03	0.26	1.18	1.18			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	5.78	0.04	0.39	14.63	31.42			N/A	N/A
2	0.86	0.03	0.27	0.86	2.16			N/A	N/A
3	1.19	0.03	0.27	1.19	2.09			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.17	0.04	0.41	5.89	10.62			N/A	N/A
2	0.61	0.16	0.90	1.38	1.44			N/A	N/A
3	0.79	0.11	0.88	1.43	1.50			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.21	0.03	0.32	2.42	6.18			N/A	N/A
2	0.46	0.04	0.37	1.20	1.35			N/A	N/A
3	0.57	0.05	0.54	1.33	1.43			N/A	N/A

2021 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	35.83	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		35.83	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2021 + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	189	100.000
2		✓	905	100.000
3		✓	410	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	127	62
	2	407	0	498
	3	103	307	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.36	9.87	0.6	2.6	A
2	0.98	51.54	13.5	68.5	F
3	0.63	13.78	1.7	4.7	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	142	229	623	0.228	141	0.3	7.455	A
2	681	46	1055	0.645	674	1.8	9.295	A
3	309	303	783	0.394	306	0.6	7.516	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	275	602	0.282	170	0.4	8.324	A
2	814	56	1049	0.775	808	3.2	14.537	B
3	369	363	752	0.490	367	0.9	9.321	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	208	336	573	0.363	207	0.6	9.815	A
2	996	68	1042	0.956	965	11.0	38.600	E
3	451	434	717	0.630	449	1.6	13.284	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	208	338	573	0.363	208	0.6	9.874	A
2	996	68	1042	0.956	986	13.5	51.543	F
3	451	444	712	0.634	451	1.7	13.775	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	278	600	0.283	171	0.4	8.392	A
2	814	56	1049	0.775	853	3.7	21.254	C
3	369	383	742	0.497	371	1.0	9.775	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	142	232	621	0.229	143	0.3	7.527	A
2	681	47	1055	0.645	689	1.9	10.028	B
3	309	310	779	0.396	310	0.7	7.696	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.77	0.61	1.24	2.37	2.76			N/A	N/A
3	0.64	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	3.23	0.07	1.25	8.57	12.77			N/A	N/A
3	0.94	0.11	0.94	1.38	1.76			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.56	0.03	0.26	0.56	0.56			N/A	N/A
2	10.96	0.11	3.49	30.33	44.75			N/A	N/A
3	1.64	0.03	0.28	1.64	4.68			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.03	0.30	1.32	2.55			N/A	N/A
2	13.48	0.07	1.68	39.59	64.45			N/A	N/A
3	1.69	0.03	0.28	1.69	4.16			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	3.72	0.04	0.42	10.27	19.05			N/A	N/A
3	1.01	0.07	0.86	1.79	2.38			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.88	0.03	0.31	3.18	9.66			N/A	N/A
3	0.66	0.04	0.44	1.22	1.82			N/A	N/A

2021 + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	23.46	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		23.46	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2021 + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	459	100.000
2		✓	453	100.000
3		✓	441	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	385	74
	2	159	0	294
	3	61	380	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.90	32.99	6.9	38.5	F
2	0.48	6.55	0.9	2.0	A
3	0.56	9.56	1.3	2.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	346	284	626	0.552	341	1.2	12.439	B
2	341	55	1063	0.321	339	0.5	4.958	A
3	332	119	890	0.373	330	0.5	6.396	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	341	599	0.689	409	2.1	18.588	C
2	407	66	1057	0.385	407	0.6	5.530	A
3	396	143	878	0.451	396	0.8	7.446	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	505	417	564	0.897	490	6.0	41.880	E
2	499	79	1050	0.475	498	0.9	6.508	A
3	486	175	862	0.563	484	1.3	9.471	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	505	418	563	0.898	502	6.9	32.993	F
2	499	81	1049	0.476	499	0.9	6.546	A
3	486	175	862	0.563	485	1.3	9.562	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	343	598	0.690	431	2.4	23.484	C
2	407	69	1055	0.386	408	0.6	5.576	A
3	396	143	878	0.452	396	0.8	7.532	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	346	287	624	0.553	350	1.3	13.322	B
2	341	56	1062	0.321	342	0.5	4.998	A
3	332	120	890	0.373	333	0.6	6.479	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.20	0.56	1.05	1.48	1.48			N/A	N/A
2	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3	0.59	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.08	0.08	1.21	4.87	6.87			N/A	N/A
2	0.62	0.13	0.88	1.38	1.44			N/A	N/A
3	0.81	0.13	0.90	1.43	1.49			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	5.99	0.06	1.34	17.11	27.11			N/A	N/A
2	0.89	0.03	0.26	0.89	0.89			N/A	N/A
3	1.26	0.03	0.27	1.26	1.26			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	6.92	0.04	0.45	19.30	36.49			N/A	N/A
2	0.90	0.03	0.27	0.90	2.03			N/A	N/A
3	1.28	0.03	0.27	1.28	2.11			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.38	0.04	0.40	6.46	11.85			N/A	N/A
2	0.63	0.17	0.91	1.38	1.44			N/A	N/A
3	0.84	0.10	0.88	1.43	1.43			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.28	0.03	0.31	2.34	6.55			N/A	N/A
2	0.48	0.04	0.41	1.24	1.37			N/A	N/A
3	0.60	0.05	0.54	1.36	1.46			N/A	N/A

2021 + Ford, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 83% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	78.48	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		78.48	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2021 + Ford	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	264	100.000
2		✓	972	100.000
3		✓	445	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	172	92
	2	425	0	546
	3	124	321	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.51	13.07	1.0	3.5	B
2	1.03	120.80	38.0	85.0	F
3	0.69	16.11	2.1	8.6	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	199	240	618	0.321	197	0.5	8.504	A
2	732	69	1042	0.702	723	2.3	10.978	B
3	335	317	776	0.432	332	0.7	8.050	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	287	595	0.398	237	0.6	9.989	A
2	874	82	1034	0.845	864	4.8	19.970	C
3	400	379	745	0.537	399	1.1	10.332	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	291	351	567	0.513	289	1.0	12.890	B
2	1070	101	1024	1.045	994	23.8	83.082	F
3	490	436	717	0.684	486	2.1	15.379	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	291	353	566	0.514	291	1.0	13.073	B
2	1070	101	1023	1.046	1013	38.0	120.797	F
3	490	444	712	0.688	490	2.1	16.111	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	291	595	0.399	239	0.7	10.158	B
2	874	83	1034	0.845	996	7.5	34.333	F
3	400	436	716	0.559	403	1.3	11.629	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	199	243	617	0.322	200	0.5	8.646	A
2	732	70	1042	0.702	752	2.5	13.202	B
3	335	330	770	0.435	337	0.8	8.357	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.00	0.00	0.47	0.47			N/A	N/A
2	2.26	0.52	1.51	3.75	4.60			N/A	N/A
3	0.75	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.65	0.18	0.92	1.38	1.44			N/A	N/A
2	4.79	0.09	1.64	12.57	18.14			N/A	N/A
3	1.13	0.09	1.00	1.90	2.55			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.02	0.03	0.27	1.02	1.14			N/A	N/A
2	23.81	2.50	18.51	48.58	60.63			N/A	N/A
3	2.06	0.03	0.29	2.06	8.56			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.04	0.03	0.28	1.04	3.45			N/A	N/A
2	37.99	4.81	30.28	76.61	94.98			N/A	N/A
3	2.13	0.03	0.28	2.13	5.96			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.07	0.75	1.38	1.45			N/A	N/A
2	7.48	0.06	1.35	21.62	34.94			N/A	N/A
3	1.30	0.07	0.91	2.73	3.77			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.04	0.42	1.26	1.39			N/A	N/A
2	2.46	0.03	0.31	3.04	11.77			N/A	N/A
3	0.78	0.04	0.41	1.76	2.76			N/A	N/A

2021 + Ford, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	53.35	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		53.35	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2021 + Ford	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	508	100.000
2		✓	521	100.000
3		✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	411	97
	2	207	0	314
	3	90	431	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	1.04	148.38	33.1	82.7	F
2	0.55	7.77	1.2	1.5	A
3	0.69	13.79	2.2	8.0	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	382	322	608	0.629	376	1.6	15.114	C
2	392	72	1053	0.373	390	0.6	5.413	A
3	392	155	871	0.450	389	0.8	7.424	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	457	386	578	0.790	450	3.3	26.712	D
2	468	86	1045	0.448	468	0.8	6.227	A
3	468	186	855	0.548	467	1.2	9.232	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	559	471	538	1.039	513	15.0	83.881	F
2	574	98	1038	0.553	572	1.2	7.697	A
3	574	227	834	0.688	570	2.1	13.429	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	559	474	537	1.042	527	33.1	148.382	F
2	574	101	1037	0.553	574	1.2	7.773	A
3	574	228	834	0.688	573	2.2	13.789	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	457	390	576	0.793	530	4.6	88.886	F
2	468	101	1036	0.452	470	0.8	6.376	A
3	468	187	855	0.548	472	1.2	9.495	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	382	326	606	0.631	395	1.6	17.869	C
2	392	75	1051	0.373	393	0.6	5.481	A
3	392	156	870	0.451	394	0.8	7.586	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.62	0.53	1.49	2.32	2.78			N/A	N/A
2	0.59	0.55	1.00	1.40	1.45			N/A	N/A
3	0.81	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.32	0.09	1.21	8.25	11.68			N/A	N/A
2	0.80	0.12	0.89	1.43	1.49			N/A	N/A
3	1.18	0.09	0.99	2.09	2.83			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	14.98	1.43	10.95	31.58	40.03			N/A	N/A
2	1.21	0.03	0.26	1.21	1.21			N/A	N/A
3	2.10	0.03	0.29	2.10	7.97			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	23.11	1.60	17.04	48.37	52.67			N/A	N/A
2	1.23	0.03	0.27	1.23	1.51			N/A	N/A
3	2.15	0.03	0.28	2.15	4.59			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	4.84	0.05	0.49	13.82	23.90			N/A	N/A
2	0.84	0.15	0.92	1.43	1.50			N/A	N/A
3	1.24	0.06	0.82	2.67	3.75			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.79	0.03	0.30	1.83	8.16			N/A	N/A
2	0.60	0.06	0.62	1.34	1.43			N/A	N/A
3	0.83	0.04	0.43	1.85	2.85			N/A	N/A

2021 + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 83% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	92.18	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		92.18	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2021 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	268	100.000
2		✓	996	100.000
3		✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	176	92
	2	436	0	560
	3	124	326	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.52	13.41	1.1	3.5	B
2	1.07	148.89	39.0	103.8	F
3	0.70	16.57	2.2	9.3	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	243	617	0.327	200	0.5	8.599	A
2	750	69	1042	0.719	740	2.4	11.567	B
3	339	324	773	0.438	336	0.8	8.183	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	292	594	0.406	240	0.7	10.149	B
2	895	82	1034	0.866	883	5.5	22.181	C
3	405	387	741	0.546	403	1.2	10.591	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	295	356	564	0.523	293	1.1	13.211	B
2	1097	101	1024	1.071	1002	39.2	78.718	F
3	495	438	715	0.693	492	2.1	15.829	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	295	359	563	0.524	295	1.1	13.413	B
2	1097	101	1023	1.071	1018	39.0	148.889	F
3	495	445	712	0.696	495	2.2	16.570	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	296	592	0.407	242	0.7	10.332	B
2	895	83	1034	0.866	1013	19.5	126.137	F
3	405	444	713	0.568	408	1.4	11.952	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	247	615	0.328	203	0.5	8.749	A
2	750	70	1042	0.720	817	2.7	20.544	C
3	339	358	756	0.448	341	0.8	8.721	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.00	0.00	0.48	0.48			N/A	N/A
2	2.45	0.41	1.60	4.30	5.34			N/A	N/A
3	0.77	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.18	0.92	1.38	1.44			N/A	N/A
2	5.48	0.11	2.13	14.15	20.11			N/A	N/A
3	1.17	0.09	1.01	1.98	2.71			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.06	0.03	0.27	1.06	1.35			N/A	N/A
2	29.22	5.41	24.51	54.92	66.54			N/A	N/A
3	2.14	0.03	0.29	2.14	9.29			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.08	0.03	0.28	1.08	3.54			N/A	N/A
2	48.97	11.52	42.54	88.61	105.81			N/A	N/A
3	2.22	0.03	0.28	2.22	6.35			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.70	0.07	0.75	1.39	1.47			N/A	N/A
2	19.53	1.33	14.41	41.49	52.64			N/A	N/A
3	1.35	0.07	0.89	2.90	4.05			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.50	0.04	0.42	1.28	1.40			N/A	N/A
2	2.72	0.03	0.31	3.36	12.86			N/A	N/A
3	0.83	0.04	0.41	1.88	2.95			N/A	N/A

2021 + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	88.07	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		88.07	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2021 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	516	100.000
2		✓	531	100.000
3		✓	533	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	419	97
	2	211	0	320
	3	90	443	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	1.07	174.22	38.7	68.1	F
2	0.56	7.94	1.3	1.5	A
3	0.71	14.64	2.3	3.5	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	331	604	0.643	382	1.7	15.746	C
2	400	72	1053	0.380	397	0.6	5.473	A
3	401	158	869	0.462	398	0.8	7.582	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	464	397	573	0.809	456	3.7	28.951	D
2	477	86	1045	0.457	476	0.8	6.322	A
3	479	189	854	0.561	478	1.3	9.530	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	568	484	532	1.068	512	17.7	94.382	F
2	585	96	1039	0.563	583	1.3	7.863	A
3	587	232	832	0.705	583	2.3	14.194	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	568	486	531	1.071	524	38.7	174.217	F
2	585	99	1038	0.563	585	1.3	7.943	A
3	587	232	832	0.705	587	2.3	14.637	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	464	402	571	0.813	552	6.7	126.379	F
2	477	104	1035	0.461	479	0.9	6.496	A
3	479	190	853	0.562	483	1.3	9.838	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	335	602	0.645	408	1.9	20.160	C
2	400	77	1050	0.381	401	0.5	5.554	A
3	401	159	869	0.462	403	0.9	7.759	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.72	0.46	1.05	2.66	3.11			N/A	N/A
2	0.61	0.55	1.00	1.40	1.45			N/A	N/A
3	0.84	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.66	0.10	1.43	9.08	12.81			N/A	N/A
2	0.83	0.12	0.90	1.25	1.25			N/A	N/A
3	1.25	0.08	1.00	2.39	3.14			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	17.68	2.18	14.01	34.87	43.08			N/A	N/A
2	1.26	0.03	0.26	1.26	1.26			N/A	N/A
3	2.27	0.03	0.29	2.27	9.52			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	28.69	4.41	23.46	55.66	68.15			N/A	N/A
2	1.28	0.03	0.27	1.28	1.46			N/A	N/A
3	2.33	0.03	0.28	2.33	5.51			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	6.74	0.07	1.21	19.16	29.76			N/A	N/A
2	0.87	0.14	0.93	1.32	1.32			N/A	N/A
3	1.31	0.06	0.77	2.93	4.25			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.92	0.03	0.30	1.92	8.57			N/A	N/A
2	0.62	0.06	0.63	1.36	1.45			N/A	N/A
3	0.87	0.04	0.41	1.98	3.21			N/A	N/A

2031 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	33.58	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		33.58	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	187	100.000
2		✓	897	100.000
3		✓	411	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	124	63
	2	404	0	493
	3	104	307	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

ARUN DISTRICT COUNCIL Y/3/22/OUT

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.36	9.81	0.6	2.6	A
2	0.93	37.58	12.4	61.3	E
3	0.63	13.76	1.7	4.7	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	141	229	623	0.226	140	0.3	7.429	A
2	675	47	1054	0.640	668	1.7	9.171	A
3	309	301	784	0.395	307	0.6	7.510	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	168	275	602	0.279	168	0.4	8.286	A
2	808	57	1049	0.769	801	3.1	14.185	B
3	369	361	754	0.490	368	0.9	9.310	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	336	574	0.359	205	0.6	9.755	A
2	988	69	1042	0.948	959	10.2	35.140	E
3	453	432	718	0.630	450	1.6	13.282	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	338	573	0.360	206	0.6	9.811	A
2	988	69	1042	0.948	979	12.4	47.978	E
3	453	441	713	0.634	452	1.7	13.753	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	168	278	600	0.280	169	0.4	8.352	A
2	806	57	1049	0.769	842	3.6	19.818	C
3	369	379	745	0.496	372	1.0	9.740	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	141	232	622	0.226	141	0.3	7.498	A
2	675	48	1054	0.641	682	1.8	9.853	A
3	309	307	781	0.396	311	0.7	7.687	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.73	0.61	1.20	2.20	2.66			N/A	N/A
3	0.64	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	3.12	0.07	1.21	8.27	12.35			N/A	N/A
3	0.94	0.11	0.94	1.39	1.76			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.55	0.03	0.26	0.55	0.55			N/A	N/A
2	10.25	0.09	2.73	28.84	43.44			N/A	N/A
3	1.64	0.03	0.28	1.64	4.71			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.56	0.03	0.30	1.33	2.61			N/A	N/A
2	12.36	0.06	1.39	36.25	61.32			N/A	N/A
3	1.69	0.03	0.28	1.69	4.15			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	3.57	0.04	0.42	9.84	18.24			N/A	N/A
3	1.01	0.07	0.86	1.79	2.39			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.83	0.03	0.32	3.19	9.47			N/A	N/A
3	0.67	0.04	0.44	1.23	1.82			N/A	N/A

2031 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	22.38	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		22.38	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	457	100.000
2		✓	449	100.000
3		✓	436	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	382	75
	2	157	0	292
	3	62	374	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.55	49.90	6.5	34.9	E
2	0.47	6.50	0.9	2.1	A
3	0.56	9.40	1.2	2.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	280	626	0.548	339	1.2	12.293	B
2	338	56	1063	0.318	336	0.5	4.942	A
3	328	118	891	0.369	326	0.5	6.348	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	335	602	0.683	407	2.0	18.205	C
2	404	67	1057	0.382	403	0.6	5.504	A
3	392	141	879	0.446	391	0.8	7.366	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	503	410	567	0.888	489	5.7	49.105	E
2	494	80	1049	0.471	493	0.9	6.468	A
3	480	172	863	0.556	478	1.2	9.316	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	503	412	566	0.889	500	6.5	49.898	E
2	494	82	1048	0.472	494	0.9	6.501	A
3	480	173	863	0.556	480	1.2	9.401	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	411	336	601	0.684	428	2.3	22.509	C
2	404	70	1055	0.383	405	0.6	5.546	A
3	392	142	879	0.446	394	0.8	7.448	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	282	626	0.549	348	1.3	13.127	B
2	338	57	1062	0.318	339	0.5	4.982	A
3	328	118	890	0.369	329	0.6	6.427	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.18	0.55	1.04	1.25	1.25			N/A	N/A
2	0.46	0.00	0.00	0.46	0.46			N/A	N/A
3	0.58	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.03	0.08	1.20	4.73	6.66			N/A	N/A
2	0.61	0.13	0.88	1.38	1.44			N/A	N/A
3	0.79	0.14	0.90	1.41	1.48			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	5.68	0.06	1.12	16.29	26.30			N/A	N/A
2	0.86	0.03	0.26	0.88	0.86			N/A	N/A
3	1.23	0.03	0.27	1.23	1.23			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	6.49	0.04	0.42	17.66	34.87			N/A	N/A
2	0.89	0.03	0.27	0.89	2.08			N/A	N/A
3	1.24	0.03	0.27	1.24	2.09			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.30	0.04	0.41	6.25	11.43			N/A	N/A
2	0.63	0.16	0.91	1.38	1.44			N/A	N/A
3	0.82	0.11	0.88	1.28	1.28			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.25	0.03	0.32	2.38	6.44			N/A	N/A
2	0.47	0.04	0.40	1.23	1.36			N/A	N/A
3	0.59	0.05	0.54	1.35	1.45			N/A	N/A

2031 + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 83% of the total flow for the roundabout for one or more time segments]
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	untitled	Mini-roundabout		1, 2, 3	104.58	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		104.58	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	271	100.000
2		✓	1012	100.000
3		✓	456	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	178	93
	2	443	0	569
	3	125	331	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	8	5
	2	3	0	1
	3	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.53	13.71	1.1	3.6	B
2	1.03	170.08	57.2	114.0	F
3	0.71	17.11	2.3	10.1	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	247	615	0.332	202	0.5	8.680	A
2	762	69	1042	0.731	752	2.6	12.009	B
3	343	329	770	0.445	340	0.8	8.314	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	296	592	0.412	243	0.7	10.285	B
2	910	83	1034	0.880	896	6.0	23.949	C
3	410	392	738	0.555	408	1.2	10.847	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	361	562	0.531	297	1.1	13.490	B
2	1114	102	1023	1.089	1005	33.3	83.754	F
3	502	440	714	0.703	498	2.2	16.329	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	364	561	0.532	298	1.1	13.712	B
2	1114	102	1023	1.089	1019	57.2	170.089	F
3	502	445	711	0.706	502	2.3	17.106	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	300	590	0.413	245	0.7	10.482	B
2	910	84	1033	0.880	1016	30.7	158.793	F
3	410	445	712	0.576	414	1.4	12.207	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	251	613	0.333	205	0.5	8.837	A
2	762	70	1041	0.732	873	2.9	34.334	D
3	343	382	743	0.462	345	0.9	9.092	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2	2.59	0.35	1.66	4.73	5.90			N/A	N/A
3	0.79	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.69	0.18	0.92	1.38	1.44			N/A	N/A
2	6.04	0.13	2.61	15.38	21.59			N/A	N/A
3	1.22	0.09	1.02	2.15	2.86			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.10	0.03	0.27	1.10	1.12			N/A	N/A
2	33.32	8.01	28.94	59.57	70.93			N/A	N/A
3	2.23	0.03	0.30	2.23	10.10			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.12	0.03	0.28	1.12	3.61			N/A	N/A
2	57.20	17.45	51.45	97.38	113.98			N/A	N/A
3	2.32	0.03	0.28	2.32	6.85			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.72	0.07	0.75	1.41	1.49			N/A	N/A
2	30.75	7.30	28.66	55.02	65.57			N/A	N/A
3	1.40	0.06	0.86	3.10	4.47			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.04	0.43	1.29	1.41			N/A	N/A
2	2.94	0.03	0.31	3.77	14.16			N/A	N/A
3	0.87	0.04	0.41	1.99	3.24			N/A	N/A

2031 + Ford + Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	71.84	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		71.84	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	522	100.000
2		✓	537	100.000
3		✓	540	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	424	98
	2	213	0	324
	3	91	449	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	3	2
	2	2	0	0
	3	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	1.08	194.48	32.7	72.2	F
2	0.57	8.06	1.3	1.5	A
3	0.72	15.18	2.4	10.5	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	335	602	0.653	386	1.8	16.173	C
2	404	72	1052	0.384	402	0.6	5.512	A
3	407	159	869	0.468	403	0.9	7.676	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	402	571	0.822	461	3.9	30.566	D
2	483	86	1044	0.462	482	0.8	6.387	A
3	485	191	853	0.569	484	1.3	9.696	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	491	529	1.088	512	19.8	193.190	F
2	591	96	1039	0.569	589	1.3	7.974	A
3	595	234	831	0.715	590	2.4	14.672	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	494	528	1.089	523	32.7	194.488	F
2	591	98	1038	0.570	591	1.3	8.056	A
3	595	234	831	0.716	594	2.4	15.178	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	407	568	0.826	551	12.1	193.161	F
2	483	104	1035	0.466	484	0.9	6.559	A
3	485	192	852	0.570	490	1.4	10.052	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	340	609	0.655	433	2.0	26.301	D
2	404	81	1047	0.386	405	0.5	5.617	A
3	407	161	868	0.468	408	0.9	7.865	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.79	0.36	1.08	2.84	3.52			N/A	N/A
2	0.62	0.55	1.00	1.40	1.45			N/A	N/A
3	0.87	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.92	0.11	1.60	9.70	13.60			N/A	N/A
2	0.85	0.12	0.90	1.39	1.39			N/A	N/A
3	1.29	0.08	1.00	2.54	3.39			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	19.62	3.23	16.15	37.20	45.31			N/A	N/A
2	1.29	0.03	0.26	1.29	1.29			N/A	N/A
3	2.38	0.03	0.30	2.38	10.45			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	32.65	8.88	27.88	60.03	72.16			N/A	N/A
2	1.31	0.03	0.27	1.31	1.44			N/A	N/A
3	2.45	0.03	0.28	2.45	6.15			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	12.14	0.43	7.42	28.49	37.83			N/A	N/A
2	0.89	0.14	0.94	1.46	1.46			N/A	N/A
3	1.36	0.06	0.73	3.12	4.59			N/A	N/A

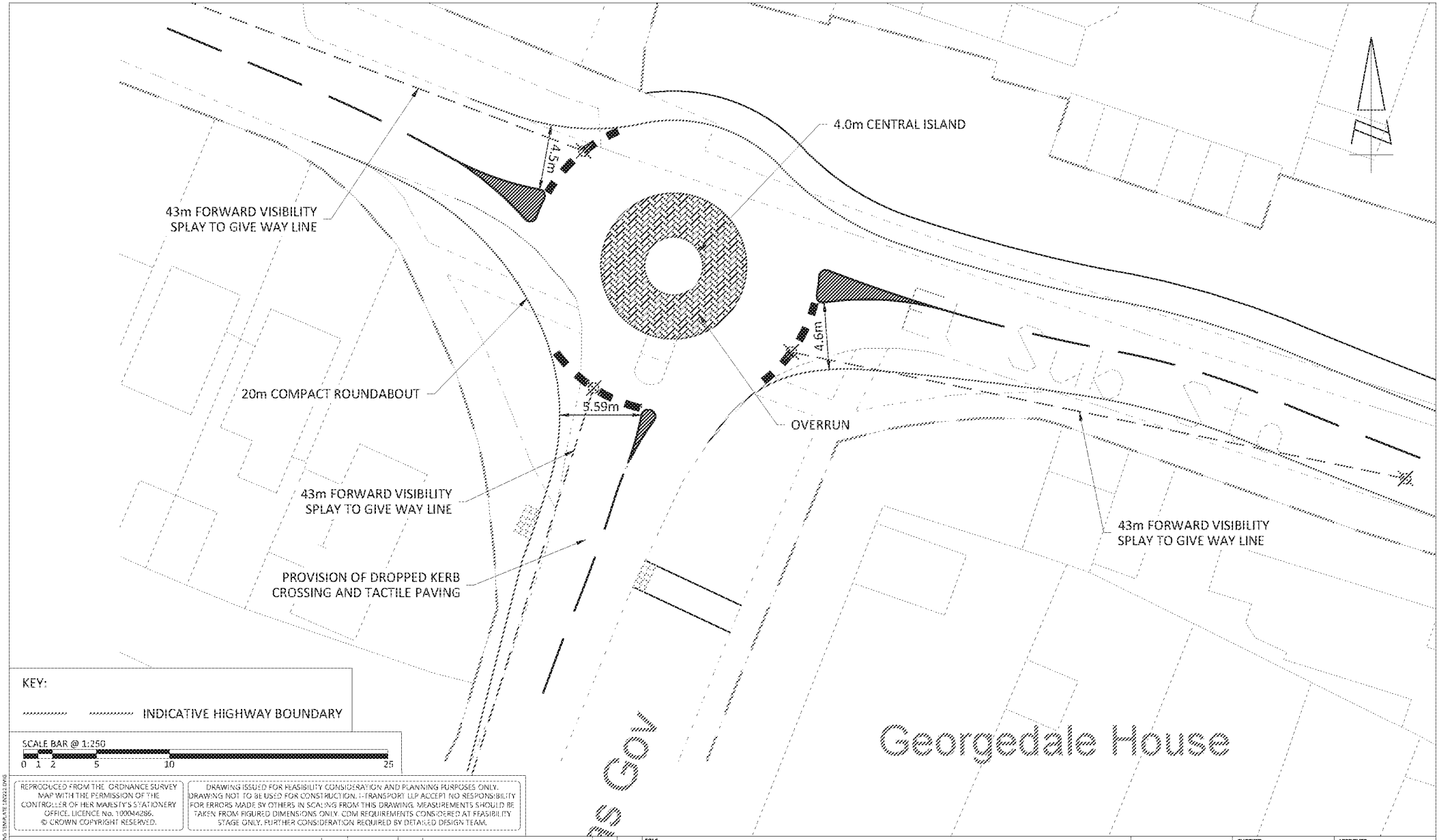
18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	2.02	0.03	0.30	2.02	8.99			N/A	N/A
2	0.63	0.06	0.63	1.37	1.47			N/A	N/A
3	0.89	0.04	0.41	2.09	3.45			N/A	N/A

Appendix N — Ford Airfield Mitigation Scheme

ARUN DISTRICT COUNCIL Y/3/22/OUT

ARUN DISTRICT COUNCIL Y/3/22/OUT



KEY:

INDICATIVE HIGHWAY BOUNDARY

SCALE BAR @ 1:250

0 1 2 5 10 25

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REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION

TITLE: BILSHAM ROAD / BURNDELL ROAD ROUNDABOUT MITIGATION SCHEME

PROJECT: FORD AIFIELD

CLIENT: REDROW HOMES LIMITED & WATES DEVELOPMENTS LIMITED

DRAWN:	CHECKED:	APPROVED:
SH	DS	DS

SCALE @ A3:	DATE:
1:250	21.12.18

PROJECT No: ITB13091

DRAWING No: ITB13091-GA-027 REV:

T:\Technical\Jobs\2021\itb13091\Drawings\T - ALL OFFICES DRAWING TEMPLATE.DRW22.DWG

ARUN DISTRICT COUNCIL F/4/20/OUT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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For sales [redacted]

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Bilsham Road Mini - Mitigation.j9
Path: T:\Projects\13000 Series\13091ITB Ford Airfield\Tech\Junction Assessments\Arcady\Bilsham Road Mini Roundabout
Report generation date: 30/04/2019 16:56:59

»2018, AM
»2018, PM
»2021 Base, AM
»2021 Base, PM
»2021 with Development, AM
»2021 with Development, PM
»2031 Base, AM
»2031 Base, PM
»2031 with Development, AM
»2031 with Development, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2018								
1 - B2233 East	0.8	5.62	0.44	A	0.5	5.03	0.33	A
2 - Bilsham Road	0.9	5.53	0.47	A	0.3	3.48	0.21	A
3 - B2233 West	0.6	4.75	0.36	A	1.7	7.81	0.63	A
2021 Base								
1 - B2233 East	1.0	6.22	0.49	A	0.6	5.45	0.38	A
2 - Bilsham Road	1.0	6.13	0.51	A	0.3	3.70	0.24	A
3 - B2233 West	0.7	5.13	0.41	A	2.1	9.07	0.68	A
2021 with Development								
1 - B2233 East	1.3	7.31	0.56	A	0.7	5.78	0.41	A
2 - Bilsham Road	1.2	6.83	0.54	A	0.4	3.87	0.26	A
3 - B2233 West	0.8	5.51	0.46	A	2.9	11.72	0.75	B
2031 Base								
1 - B2233 East	1.0	6.26	0.50	A	0.6	5.51	0.39	A
2 - Bilsham Road	1.1	6.30	0.52	A	0.3	3.71	0.24	A
3 - B2233 West	0.7	5.19	0.42	A	2.1	9.32	0.69	A
2031 with Development								
1 - B2233 East	1.3	7.40	0.57	A	0.7	5.86	0.42	A
2 - Bilsham Road	1.2	7.03	0.56	A	0.4	3.89	0.27	A
3 - B2233 West	0.9	5.57	0.46	A	3.1	12.15	0.76	B

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

ARUN DISTRICT COUNCIL 17/8/20/OUT

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	03/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
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	Veh	perHour	s	-Min	perMin

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	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2018	PM	ONE HOUR	16:45	18:15	15	✓		
D5	2024 Base	AM	ONE HOUR	07:45	09:15	15			
D6	2024 Base	PM	ONE HOUR	16:45	18:15	15			
D7	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D8	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D9	2024 Base ST	AM	ONE HOUR	07:45	09:15	15			
D10	2024 Base ST	PM	ONE HOUR	16:45	18:15	15			
D11	Development	AM	ONE HOUR	07:45	09:15	15			
D12	Development	PM	ONE HOUR	16:45	18:15	15			
D15	2024 with Development	AM	ONE HOUR	07:45	09:15	15		Simple	D5 +D11
D16	2024 with Development	PM	ONE HOUR	16:45	18:15	15		Simple	D6 + D12
D17	2021 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D7 + D11
D18	2021 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D8 + D12
D19	2024 with Development ST	AM	ONE HOUR	07:45	09:15	15		Simple	D9 + D11
D20	2024 with Development ST	PM	ONE HOUR	16:45	18:15	15		Simple	D10 + D12
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D22	2031 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D23	2031 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D21 + D11
D24	2031 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D22 + D12

Analysis Set Details

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

2018, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	B2233 East	
2	Bilsham Road	
3	B2233 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - B2233 East	3.40	4.60	10.9	9.0	20.0	22.0	
2 - Bilsham Road	3.70	5.60	13.5	15.0	20.0	21.5	
3 - B2233 West	3.30	4.50	8.1	16.0	20.0	10.3	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B2233 East	0.563	1258
2 - Bilsham Road	0.535	1538
3 - B2233 West	0.603	1316

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	461	100.000
2 - Bilsham Road		ONE HOUR	✓	532	100.000
3 - B2233 West		ONE HOUR	✓	391	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	76	385
	2 - Bilsham Road	123	0	409
	3 - B2233 West	277	114	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	4	3
	2 - Bilsham Road	2	0	2
	3 - B2233 West	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.44	5.62	0.8	A	423	635
2 - Bilsham Road	0.47	5.53	0.9	A	488	732
3 - B2233 West	0.36	4.75	0.6	A	359	538

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	347	87	85	1171	0.296	345	300	0.0	0.4	4.351	A
2 - Bilsham Road	401	100	288	1323	0.303	399	142	0.0	0.4	3.888	A
3 - B2233 West	294	74	92	1215	0.242	293	595	0.0	0.3	3.901	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	414	104	102	1161	0.357	414	359	0.4	0.6	4.812	A
2 - Bilsham Road	478	120	346	1286	0.372	478	171	0.4	0.6	4.452	A
3 - B2233 West	352	88	110	1204	0.292	351	713	0.3	0.4	4.220	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	508	127	125	1149	0.442	507	440	0.6	0.8	5.600	A
2 - Bilsham Road	586	146	423	1237	0.474	585	209	0.8	0.9	5.511	A
3 - B2233 West	431	108	135	1189	0.362	430	873	0.4	0.6	4.737	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	508	127	126	1148	0.442	508	440	0.8	0.8	5.616	A
2 - Bilsham Road	586	146	424	1236	0.474	586	209	0.9	0.9	5.535	A
3 - B2233 West	431	108	135	1189	0.362	430	874	0.6	0.6	4.745	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	414	104	103	1161	0.357	415	360	0.8	0.6	4.833	A
2 - Bilsham Road	478	120	347	1285	0.372	479	171	0.9	0.6	4.474	A
3 - B2233 West	352	88	111	1204	0.292	352	715	0.6	0.4	4.232	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	347	87	86	1171	0.296	348	302	0.6	0.4	4.377	A
2 - Bilsham Road	401	100	290	1322	0.303	401	143	0.6	0.4	3.914	A
3 - B2233 West	294	74	93	1214	0.242	295	599	0.4	0.3	3.917	A

2018, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.25	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 segment length (min)	Run automatically
D2	2018	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	322	100.000
2 - Bilsham Road		ONE HOUR	✓	248	100.000
3 - B2233 West		ONE HOUR	✓	599	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	66	256
	2 - Bilsham Road	77	0	171
	3 - B2233 West	456	243	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	8	2
	2 - Bilsham Road	5	0	3
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.33	5.03	0.5	A	285	443
2 - Bilsham Road	0.21	3.48	0.3	A	228	341
3 - B2233 West	0.63	7.81	1.7	A	641	962

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	242	61	182	1117	0.217	241	399	0.0	0.3	4.106	A
2 - Bilsham Road	187	47	192	1364	0.137	186	231	0.0	0.2	3.053	A
3 - B2233 West	526	132	58	1247	0.422	523	320	0.0	0.7	4.957	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	289	72	218	1097	0.264	289	478	0.3	0.4	4.454	A
2 - Bilsham Road	223	56	230	1341	0.166	223	277	0.2	0.2	3.220	A
3 - B2233 West	628	157	69	1240	0.507	627	383	0.7	1.0	5.867	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	355	89	267	1070	0.331	354	585	0.4	0.5	5.025	A
2 - Bilsham Road	273	68	281	1308	0.209	273	339	0.2	0.3	3.476	A
3 - B2233 West	770	192	85	1230	0.626	767	470	1.0	1.6	7.733	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	355	89	268	1069	0.332	355	587	0.5	0.5	5.035	A
2 - Bilsham Road	273	68	282	1308	0.209	273	340	0.3	0.3	3.477	A
3 - B2233 West	770	192	85	1230	0.626	770	470	1.6	1.7	7.813	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	289	72	219	1096	0.264	290	481	0.5	0.4	4.467	A
2 - Bilsham Road	223	56	231	1340	0.166	223	279	0.3	0.2	3.225	A
3 - B2233 West	628	157	69	1240	0.507	631	384	1.7	1.0	5.938	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	242	61	183	1116	0.217	243	402	0.4	0.3	4.124	A
2 - Bilsham Road	187	47	193	1364	0.137	187	233	0.2	0.2	3.058	A
3 - B2233 West	526	132	58	1247	0.422	527	322	1.0	0.7	5.016	A

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.86	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 segment length (min)	Run automatically
D7	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	512	100.000
2 - Bilsham Road		ONE HOUR	✓	558	100.000
3 - B2233 West		ONE HOUR	✓	451	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	78	434
	2 - Bilsham Road	127	0	431
	3 - B2233 West	326	125	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	4	3
	2 - Bilsham Road	2	0	2
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.49	6.22	1.0	A	470	705
2 - Bilsham Road	0.51	6.13	1.0	A	512	768
3 - B2233 West	0.41	5.13	0.7	A	414	621

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	385	96	94	1167	0.330	384	340	0.0	0.5	4.564	A
2 - Bilsham Road	420	105	325	1299	0.323	418	152	0.0	0.5	4.077	A
3 - B2233 West	340	85	95	1224	0.277	338	648	0.0	0.4	4.055	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	460	115	112	1157	0.398	460	407	0.5	0.7	5.160	A
2 - Bilsham Road	502	125	390	1258	0.399	501	182	0.5	0.7	4.749	A
3 - B2233 West	405	101	114	1213	0.334	405	776	0.4	0.5	4.451	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	564	141	137	1143	0.493	562	498	0.7	1.0	6.192	A
2 - Bilsham Road	614	154	477	1202	0.511	613	223	0.7	1.0	6.093	A
3 - B2233 West	497	124	139	1198	0.415	496	950	0.5	0.7	5.123	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	564	141	138	1143	0.493	564	499	1.0	1.0	6.218	A
2 - Bilsham Road	614	154	478	1201	0.511	614	224	1.0	1.0	6.131	A
3 - B2233 West	497	124	140	1198	0.415	497	952	0.7	0.7	5.133	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	460	115	113	1157	0.398	461	408	1.0	0.7	5.190	A
2 - Bilsham Road	502	125	391	1257	0.399	503	183	1.0	0.7	4.783	A
3 - B2233 West	405	101	115	1213	0.334	406	780	0.7	0.5	4.468	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	385	96	94	1167	0.330	386	342	0.7	0.5	4.615	A
2 - Bilsham Road	420	105	327	1298	0.324	421	153	0.7	0.5	4.107	A
3 - B2233 West	340	85	96	1224	0.277	340	652	0.5	0.4	4.073	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.05	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 segment length (min)	Run automatically
D8	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	371	100.000
2 - Bilsham Road		ONE HOUR	✓	275	100.000
3 - B2233 West		ONE HOUR	✓	752	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	68	303
	2 - Bilsham Road	85	0	190
	3 - B2233 West	503	249	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	7	2
	2 - Bilsham Road	5	0	3
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.38	5.45	0.6	A	340	511
2 - Bilsham Road	0.24	3.70	0.3	A	252	379
3 - B2233 West	0.68	9.07	2.1	A	690	1035

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	279	70	186	1116	0.250	278	440	0.0	0.3	4.272	A
2 - Bilsham Road	207	52	227	1342	0.154	206	237	0.0	0.2	3.167	A
3 - B2233 West	566	142	64	1243	0.456	563	370	0.0	0.8	5.259	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	334	83	223	1097	0.304	333	528	0.3	0.4	4.709	A
2 - Bilsham Road	247	62	272	1314	0.188	247	284	0.2	0.2	3.372	A
3 - B2233 West	676	169	76	1235	0.547	675	443	0.8	1.2	6.406	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	408	102	273	1070	0.382	408	645	0.4	0.6	5.433	A
2 - Bilsham Road	303	76	333	1276	0.237	302	348	0.2	0.3	3.697	A
3 - B2233 West	828	207	93	1224	0.676	825	542	1.2	2.0	8.927	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	408	102	274	1069	0.382	408	647	0.6	0.6	5.449	A
2 - Bilsham Road	303	76	334	1276	0.237	303	349	0.3	0.3	3.698	A
3 - B2233 West	828	207	94	1224	0.676	828	543	2.0	2.1	9.071	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	334	83	225	1096	0.304	334	531	0.6	0.4	4.728	A
2 - Bilsham Road	247	62	273	1314	0.188	248	285	0.3	0.2	3.376	A
3 - B2233 West	676	169	77	1235	0.547	679	444	2.1	1.2	6.516	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	279	70	188	1117	0.250	280	444	0.4	0.3	4.302	A
2 - Bilsham Road	207	52	228	1342	0.154	207	239	0.2	0.2	3.176	A
3 - B2233 West	586	142	64	1243	0.456	568	372	1.2	0.8	5.347	A

2021 with Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.60	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 segment length (min)	Run automatically	Relationship type	Relationship
D17	2021 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D7 + D11

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 (%)
1 - B2233 East		ONE HOUR	✓	581	100.000
2 - Bilsham Road		ONE HOUR	✓	570	100.000
3 - B2233 West		ONE HOUR	✓	497	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	78	503
	2 - Bilsham Road	127	0	443
	3 - B2233 West	348	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	4	3
	2 - Bilsham Road	2	0	2
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.56	7.31	1.3	A	533	800
2 - Bilsham Road	0.54	6.83	1.2	A	523	785
3 - B2233 West	0.46	5.51	0.8	A	456	684

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	437	109	112	1161	0.377	436	356	0.0	0.6	4.940	A
2 - Bilsham Road	429	107	377	1268	0.338	427	170	0.0	0.5	4.271	A
3 - B2233 West	374	94	95	1227	0.305	372	709	0.0	0.4	4.201	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	522	131	134	1149	0.455	521	426	0.6	0.8	5.727	A
2 - Bilsham Road	512	128	451	1220	0.420	512	204	0.5	0.7	5.074	A
3 - B2233 West	447	112	114	1216	0.367	446	849	0.4	0.6	4.673	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	640	160	164	1132	0.565	638	522	0.8	1.3	7.253	A
2 - Bilsham Road	628	157	552	1156	0.543	626	249	0.7	1.2	6.771	A
3 - B2233 West	547	137	139	1201	0.456	546	1039	0.6	0.8	5.498	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	640	160	164	1132	0.565	640	523	1.3	1.3	7.307	A
2 - Bilsham Road	628	157	554	1155	0.544	628	250	1.2	1.2	6.829	A
3 - B2233 West	547	137	140	1201	0.456	547	1041	0.8	0.8	5.508	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	522	131	134	1149	0.455	524	426	1.3	0.8	5.777	A
2 - Bilsham Road	512	128	454	1219	0.421	514	205	1.2	0.7	5.125	A
3 - B2233 West	447	112	115	1216	0.367	448	853	0.8	0.6	4.692	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	437	109	112	1161	0.377	438	358	0.8	0.6	4.987	A
2 - Bilsham Road	429	107	379	1265	0.339	430	171	0.7	0.5	4.310	A
3 - B2233 West	374	94	96	1227	0.305	375	714	0.6	0.4	4.227	A

2021 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.63	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 segment length (min)	Run automatically	Relationship type	Relationship
D18	2021 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D8 + D12

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 (%)
1 - B2233 East		ONE HOUR	✓	400	100.000
2 - Bilsham Road		ONE HOUR	✓	300	100.000
3 - B2233 West		ONE HOUR	✓	837	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	68	332
	2 - Bilsham Road	85	0	215
	3 - B2233 West	574	263	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	7	2
	2 - Bilsham Road	5	0	3
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.41	5.78	0.7	A	367	551
2 - Bilsham Road	0.26	3.87	0.4	A	275	413
3 - B2233 West	0.75	11.72	2.9	B	768	1152

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	301	75	197	1115	0.270	300	493	0.0	0.4	4.409	A
2 - Bilsham Road	226	56	249	1333	0.169	225	248	0.0	0.2	3.248	A
3 - B2233 West	630	158	64	1245	0.506	626	410	0.0	1.0	5.770	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	360	90	236	1093	0.329	359	591	0.4	0.5	4.903	A
2 - Bilsham Road	270	67	298	1302	0.207	269	297	0.2	0.3	3.486	A
3 - B2233 West	752	188	76	1236	0.608	750	491	1.0	1.5	7.347	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	440	110	288	1064	0.414	440	722	0.5	0.7	5.759	A
2 - Bilsham Road	330	83	365	1260	0.262	330	363	0.3	0.4	3.867	A
3 - B2233 West	922	230	93	1228	0.751	916	601	1.5	2.9	11.355	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	440	110	289	1063	0.414	440	725	0.7	0.7	5.783	A
2 - Bilsham Road	330	83	366	1260	0.262	330	364	0.4	0.4	3.872	A
3 - B2233 West	922	230	94	1228	0.751	921	602	2.9	2.9	11.720	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	360	90	238	1091	0.329	360	596	0.7	0.5	4.931	A
2 - Bilsham Road	270	67	299	1301	0.207	270	299	0.4	0.3	3.490	A
3 - B2233 West	752	188	77	1238	0.608	758	493	2.9	1.6	7.575	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	301	75	199	1114	0.270	302	498	0.5	0.4	4.436	A
2 - Bilsham Road	226	56	250	1332	0.170	226	250	0.3	0.2	3.255	A
3 - B2233 West	630	158	64	1246	0.506	632	412	1.6	1.0	5.887	A

2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.96	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 segment length (min)	Run automatically
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	520	100.000
2 - Bilsham Road		ONE HOUR	✓	569	100.000
3 - B2233 West		ONE HOUR	✓	458	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	79	441
	2 - Bilsham Road	130	0	439
	3 - B2233 West	331	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	4	3
	2 - Bilsham Road	2	0	2
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.50	6.28	1.0	A	477	716
2 - Bilsham Road	0.52	6.30	1.1	A	522	783
3 - B2233 West	0.42	5.19	0.7	A	420	630

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	391	98	95	1170	0.335	389	345	0.0	0.5	4.600	A
2 - Bilsham Road	428	107	330	1297	0.330	426	154	0.0	0.5	4.124	A
3 - B2233 West	345	86	97	1225	0.281	343	659	0.0	0.4	4.073	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	467	117	114	1160	0.403	467	414	0.5	0.7	5.189	A
2 - Bilsham Road	512	128	396	1256	0.407	511	185	0.5	0.7	4.828	A
3 - B2233 West	412	103	117	1214	0.339	411	790	0.4	0.5	4.460	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	573	143	140	1146	0.500	571	507	0.7	1.0	6.254	A
2 - Bilsham Road	626	157	484	1199	0.523	625	226	0.7	1.1	6.253	A
3 - B2233 West	504	126	143	1199	0.421	503	967	0.5	0.7	5.172	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	573	143	140	1145	0.500	573	508	1.0	1.0	6.263	A
2 - Bilsham Road	626	157	486	1198	0.523	626	227	1.1	1.1	6.295	A
3 - B2233 West	504	126	143	1198	0.421	504	969	0.7	0.7	5.185	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	467	117	114	1160	0.403	469	415	1.0	0.7	5.219	A
2 - Bilsham Road	512	128	398	1254	0.408	513	186	1.1	0.7	4.867	A
3 - B2233 West	412	103	117	1214	0.339	413	793	0.7	0.5	4.496	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	391	98	96	1170	0.335	392	348	0.7	0.5	4.634	A
2 - Bilsham Road	428	107	333	1295	0.331	429	155	0.7	0.5	4.156	A
3 - B2233 West	345	86	98	1225	0.281	345	664	0.5	0.4	4.092	A

2031 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.20	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 segment length (min)	Run automatically
D22	2031 Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B2233 East		ONE HOUR	✓	377	100.000
2 - Bilsham Road		ONE HOUR	✓	279	100.000
3 - B2233 West		ONE HOUR	✓	764	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	70	307
	2 - Bilsham Road	86	0	193
	3 - B2233 West	511	253	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	7	2
	2 - Bilsham Road	5	0	3
	3 - B2233 West	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.39	5.51	0.6	A	348	519
2 - Bilsham Road	0.24	3.71	0.3	A	256	384
3 - B2233 West	0.69	9.32	2.1	A	701	1052

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	284	71	189	1118	0.254	282	447	0.0	0.3	4.302	A
2 - Bilsham Road	210	53	230	1344	0.156	209	242	0.0	0.2	3.171	A
3 - B2233 West	575	144	85	1245	0.462	572	375	0.0	0.8	5.315	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	339	85	227	1097	0.309	338	536	0.3	0.4	4.745	A
2 - Bilsham Road	251	63	276	1315	0.191	251	290	0.2	0.2	3.380	A
3 - B2233 West	687	172	77	1238	0.555	685	449	0.8	1.2	6.496	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	415	104	277	1069	0.388	414	655	0.4	0.6	5.496	A
2 - Bilsham Road	307	77	337	1277	0.241	307	354	0.2	0.3	3.712	A
3 - B2233 West	841	210	95	1227	0.685	838	550	1.2	2.1	9.157	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	415	104	279	1068	0.389	415	657	0.6	0.6	5.512	A
2 - Bilsham Road	307	77	338	1276	0.241	307	356	0.3	0.3	3.713	A
3 - B2233 West	841	210	95	1227	0.686	841	550	2.1	2.1	9.317	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	339	85	229	1096	0.309	340	539	0.6	0.5	4.764	A
2 - Bilsham Road	251	63	277	1315	0.191	251	292	0.3	0.2	3.384	A
3 - B2233 West	687	172	77	1238	0.555	690	450	2.1	1.3	6.616	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	284	71	191	1117	0.254	284	451	0.5	0.3	4.325	A
2 - Bilsham Road	210	53	231	1343	0.156	210	244	0.2	0.2	3.177	A
3 - B2233 West	575	144	65	1246	0.462	577	377	1.3	0.9	5.395	A

2031 with Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.72	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 segment length (min)	Run automatically	Relationship type	Relationship
D23	2031 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D21 + D11

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 (%)
1 - B2233 East		ONE HOUR	✓	589	100.000
2 - Bilsham Road		ONE HOUR	✓	581	100.000
3 - B2233 West		ONE HOUR	✓	504	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	79	510
	2 - Bilsham Road	130	0	451
	3 - B2233 West	353	151	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	4	2
	2 - Bilsham Road	2	0	2
	3 - B2233 West	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.57	7.40	1.3	A	540	811
2 - Bilsham Road	0.56	7.03	1.2	A	533	800
3 - B2233 West	0.46	5.57	0.9	A	462	694

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	443	111	113	1164	0.381	441	362	0.0	0.6	4.961	A
2 - Bilsham Road	437	109	382	1266	0.346	435	172	0.0	0.5	4.324	A
3 - B2233 West	379	95	97	1229	0.309	378	720	0.0	0.4	4.222	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	529	132	136	1152	0.460	529	434	0.6	0.8	5.769	A
2 - Bilsham Road	522	131	458	1218	0.429	521	206	0.5	0.7	5.165	A
3 - B2233 West	453	113	117	1217	0.372	453	862	0.4	0.6	4.706	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	648	162	166	1135	0.571	647	531	0.8	1.3	7.347	A
2 - Bilsham Road	640	160	560	1152	0.555	638	253	0.7	1.2	6.968	A
3 - B2233 West	555	139	143	1201	0.462	554	1055	0.6	0.8	5.551	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	648	162	166	1135	0.572	648	532	1.3	1.3	7.402	A
2 - Bilsham Road	640	160	561	1151	0.556	640	253	1.2	1.2	7.034	A
3 - B2233 West	555	139	143	1201	0.462	555	1058	0.8	0.9	5.570	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	529	132	136	1151	0.460	531	435	1.3	0.9	5.824	A
2 - Bilsham Road	522	131	460	1215	0.430	524	207	1.2	0.8	5.219	A
3 - B2233 West	453	113	117	1217	0.372	454	867	0.9	0.6	4.729	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	443	111	114	1164	0.381	444	364	0.9	0.6	5.012	A
2 - Bilsham Road	437	109	385	1264	0.346	438	173	0.8	0.5	4.366	A
3 - B2233 West	379	95	98	1228	0.309	380	725	0.6	0.5	4.249	A

2031 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.89	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 segment length (min)	Run automatically	Relationship type	Relationship
D24	2031 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D22 + D12

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 (%)
1 - B2233 East		ONE HOUR	✓	406	100.000
2 - Bilsham Road		ONE HOUR	✓	304	100.000
3 - B2233 West		ONE HOUR	✓	849	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	70	336
	2 - Bilsham Road	86	0	218
	3 - B2233 West	582	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - B2233 East	2 - Bilsham Road	3 - B2233 West
From	1 - B2233 East	0	7	2
	2 - Bilsham Road	5	0	2
	3 - B2233 West	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2233 East	0.42	5.86	0.7	A	373	559
2 - Bilsham Road	0.27	3.89	0.4	A	279	418
3 - B2233 West	0.75	12.15	3.1	B	779	1169

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	306	76	200	1114	0.274	304	500	0.0	0.4	4.435	A
2 - Bilsham Road	229	57	252	1334	0.172	228	252	0.0	0.2	3.253	A
3 - B2233 West	639	160	65	1249	0.512	635	415	0.0	1.0	5.829	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	365	91	239	1092	0.334	364	599	0.4	0.5	4.944	A
2 - Bilsham Road	273	68	302	1303	0.210	273	302	0.2	0.3	3.495	A
3 - B2233 West	763	191	77	1241	0.615	761	497	1.0	1.6	7.472	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	447	112	292	1063	0.421	446	731	0.5	0.7	5.830	A
2 - Bilsham Road	335	84	369	1261	0.266	334	369	0.3	0.4	3.884	A
3 - B2233 West	935	234	95	1230	0.760	929	609	1.6	3.0	11.734	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	447	112	294	1062	0.421	447	735	0.7	0.7	5.855	A
2 - Bilsham Road	335	84	370	1260	0.266	335	371	0.4	0.4	3.889	A
3 - B2233 West	935	234	95	1230	0.760	934	610	3.0	3.1	12.149	B

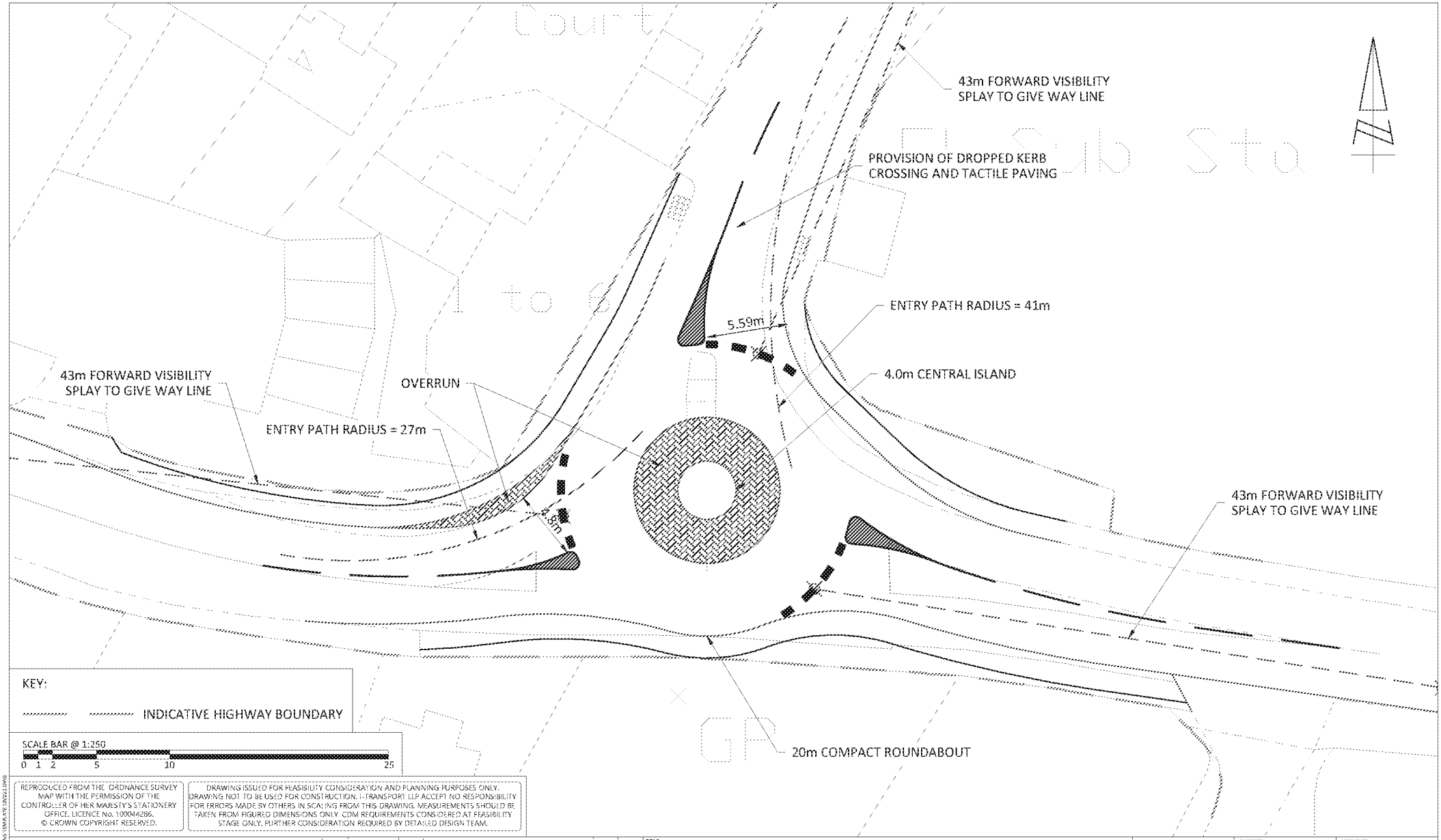
17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	365	91	242	1091	0.335	366	605	0.7	0.5	4.971	A
2 - Bilsham Road	273	68	303	1302	0.210	274	305	0.4	0.3	3.500	A
3 - B2233 West	763	191	77	1241	0.615	769	499	3.1	1.6	7.723	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2233 East	306	76	202	1113	0.275	306	505	0.5	0.4	4.464	A
2 - Bilsham Road	229	57	253	1333	0.172	229	255	0.3	0.2	3.263	A
3 - B2233 West	639	160	65	1248	0.512	641	418	1.6	1.1	5.954	A

ARUN DISTRICT COUNCIL Y/3/22/OUT



KEY:

INDICATIVE HIGHWAY BOUNDARY

SCALE BAR @ 1:250

0 1 2 5 10 25

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REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION

TITLE: NORTH END ROAD / B2233 ROUNDABOUT MITIGATION SCHEME

PROJECT: FORD AIFIELD

CLIENT: REDROW HOMES LIMITED & WATES DEVELOPMENTS LIMITED

DRAWN:	CHECKED:	APPROVED:
SH	DS	DS

SCALE @ A3:	DATE:
1:250	21.12.18

PROJECT No: ITB13091

DRAWING No: ITB13091-GA-026 REV:

T:\Technical\Jobs\2021\itb13091\dwg\ITB13091-GA-026 NORTH END ROAD - B2233 ROUNDABOUT MITIGATION.dwg

ARUN DISTRICT COUNCIL F/4/20/OUT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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For sales and distribution information, program advice and maintenance, contact TRL:

[redacted]

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: North End Road Mini - Mitigation.j9
Path: T:\Projects\13000 Series\13091ITB Ford Airfield\Tech\Junction Assessments\Arcady\North End Road Mini Roundabout
Report generation date: 30/04/2019 17:00:28

»2018, AM
»2018, PM
»2021 Base, AM
»2021 Base, PM
»2021 with Development , AM
»2021 with Development, PM
»2031 Base, AM
»2031 Base, PM
»2031 with Development, AM
»2031 with Development, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2018								
1 - North End Road	0.1	2.88	0.10	A	0.5	3.73	0.31	A
2 - B2233 East	2.1	8.22	0.68	A	0.5	3.88	0.32	A
3 - B2233 West	0.5	5.20	0.33	A	0.5	4.44	0.34	A
2021 Base								
1 - North End Road	0.2	2.99	0.14	A	0.5	3.96	0.35	A
2 - B2233 East	2.5	9.59	0.72	A	0.6	4.26	0.37	A
3 - B2233 West	0.8	5.12	0.43	A	0.6	4.65	0.39	A
2021 with Development								
1 - North End Road	0.3	3.20	0.21	A	0.7	4.48	0.41	A
2 - B2233 East	4.0	13.94	0.81	B	0.8	4.81	0.43	A
3 - B2233 West	0.9	6.82	0.46	A	0.9	5.90	0.48	A
2031 Base								
1 - North End Road	0.2	3.01	0.15	A	0.6	3.99	0.36	A
2 - B2233 East	2.7	10.03	0.73	B	0.6	4.29	0.37	A
3 - B2233 West	0.8	6.22	0.44	A	0.6	4.89	0.39	A
2031 with Development								
1 - North End Road	0.3	3.22	0.21	A	0.7	4.52	0.42	A
2 - B2233 East	4.3	14.86	0.82	B	0.8	4.85	0.44	A
3 - B2233 West	0.9	6.94	0.49	A	1.0	5.97	0.49	A

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

ARUN DISTRICT COUNCIL 17/8/20/OUT

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	03/08/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
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	Veh	perHour	s	-Min	perMin

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	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018	AM	ONE HOUR	07:45	09:15	15	✓		
D2	2018	PM	ONE HOUR	16:45	18:15	15	✓		
D5	2024 Base	AM	ONE HOUR	07:45	09:15	15			
D6	2024 Base	PM	ONE HOUR	16:45	18:15	15			
D7	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D8	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D9	2024 Base ST	AM	ONE HOUR	07:45	09:15	15			
D10	2024 Base ST	PM	ONE HOUR	16:45	18:15	15			
D11	Development	AM	ONE HOUR	07:45	09:15	15			
D12	Development	PM	ONE HOUR	16:45	18:15	15			
D15	2024 + Development	AM	ONE HOUR	07:45	09:15	15		Simple	D5 + D11
D16	2024 + Development	PM	ONE HOUR	16:45	18:15	15		Simple	D6 + D12
D17	2021 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D7 + D11
D18	2021 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D8 + D12
D19	2024 + Development ST	AM	ONE HOUR	07:45	09:15	15		Simple	D9 + D11
D20	2024 + Development ST	PM	ONE HOUR	16:45	18:15	15		Simple	D10 + D12
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓		
D22	2031 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D23	2031 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D21 + D11
D24	2031 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D22 + D12

Analysis Set Details

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

2018, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	North End Road	
2	B2233 East	
3	B2233 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North End Road	4.46	5.59	15.8	41.0	20.0	20.0	
2 - B2233 East	3.38	4.60	11.9	15.0	20.0	0.0	
3 - B2233 West	3.27	4.80	6.4	27.0	20.0	13.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - North End Road	0.689	1727
2 - B2233 East	0.633	1417
3 - B2233 West	0.613	1343

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	123	100.000
2 - B2233 East		ONE HOUR	✓	841	100.000
3 - B2233 West		ONE HOUR	✓	315	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	89	34
	2 - B2233 East	380	0	461
	3 - B2233 West	40	275	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	7	15
	2 - B2233 East	3	0	1
	3 - B2233 West	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.10	2.88	0.1	A	113	169
2 - B2233 East	0.68	8.22	2.1	A	772	1158
3 - B2233 West	0.33	5.20	0.5	A	289	434

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	93	23	206	1447	0.064	92	315	0.0	0.1	2.658	A
2 - B2233 East	633	156	26	1372	0.461	630	273	0.0	0.8	4.827	A
3 - B2233 West	237	59	285	1120	0.212	236	371	0.0	0.3	4.066	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	111	28	247	1420	0.078	111	377	0.1	0.1	2.749	A
2 - B2233 East	756	189	31	1369	0.552	755	327	0.8	1.2	5.849	A
3 - B2233 West	283	71	341	1086	0.261	283	444	0.3	0.4	4.480	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	135	34	302	1383	0.098	135	461	0.1	0.1	2.884	A
2 - B2233 East	926	231	37	1364	0.679	923	400	1.2	2.1	8.099	A
3 - B2233 West	347	87	417	1040	0.334	346	543	0.4	0.5	5.186	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	135	34	303	1383	0.098	135	462	0.1	0.1	2.884	A
2 - B2233 East	926	231	37	1364	0.679	926	401	2.1	2.1	8.218	A
3 - B2233 West	347	87	418	1039	0.334	347	545	0.5	0.5	5.201	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	111	28	248	1419	0.078	111	379	0.1	0.1	2.752	A
2 - B2233 East	756	189	31	1369	0.552	759	328	2.1	1.3	5.941	A
3 - B2233 West	283	71	343	1085	0.261	284	447	0.5	0.4	4.498	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	93	23	207	1446	0.064	93	317	0.1	0.1	2.660	A
2 - B2233 East	633	158	26	1372	0.461	635	274	1.3	0.9	4.893	A
3 - B2233 West	237	59	287	1119	0.212	237	374	0.4	0.3	4.087	A

2018, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.01	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 segment length (min)	Run automatically
D2	2018	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	397	100.000
2 - B2233 East		ONE HOUR	✓	388	100.000
3 - B2233 West		ONE HOUR	✓	373	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	359	38
	2 - B2233 East	124	0	264
	3 - B2233 West	25	348	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	4	3
	2 - B2233 East	4	0	2
	3 - B2233 West	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.31	3.73	0.5	A	364	546
2 - B2233 East	0.32	3.88	0.5	A	356	534
3 - B2233 West	0.34	4.44	0.5	A	342	513

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	299	75	261	1484	0.201	298	112	0.0	0.3	3.031	A
2 - B2233 East	292	73	29	1362	0.214	291	530	0.0	0.3	3.357	A
3 - B2233 West	281	70	93	1249	0.225	280	227	0.0	0.3	3.708	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	357	89	313	1449	0.246	357	134	0.3	0.3	3.295	A
2 - B2233 East	349	87	34	1359	0.257	349	635	0.3	0.3	3.563	A
3 - B2233 West	335	84	111	1238	0.271	335	271	0.3	0.4	3.987	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	437	109	383	1401	0.312	437	164	0.3	0.5	3.730	A
2 - B2233 East	427	107	42	1354	0.316	427	777	0.3	0.5	3.681	A
3 - B2233 West	411	103	136	1222	0.336	410	332	0.4	0.5	4.430	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	437	109	383	1401	0.312	437	164	0.5	0.5	3.734	A
2 - B2233 East	427	107	42	1354	0.316	427	776	0.5	0.5	3.684	A
3 - B2233 West	411	103	137	1222	0.336	411	333	0.5	0.5	4.436	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	357	89	313	1449	0.246	357	134	0.5	0.3	3.302	A
2 - B2233 East	349	87	34	1359	0.257	349	637	0.5	0.3	3.569	A
3 - B2233 West	335	84	112	1237	0.271	336	272	0.5	0.4	3.994	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	299	75	262	1483	0.201	299	112	0.3	0.3	3.042	A
2 - B2233 East	292	73	29	1362	0.214	292	533	0.3	0.3	3.365	A
3 - B2233 West	281	70	93	1249	0.225	281	228	0.4	0.3	3.720	A

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.78	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 segment length (min)	Run automatically
D7	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	184	100.000
2 - B2233 East		ONE HOUR	✓	881	100.000
3 - B2233 West		ONE HOUR	✓	405	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	122	62
	2 - B2233 East	397	0	484
	3 - B2233 West	103	302	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	5	8
	2 - B2233 East	3	0	1
	3 - B2233 West	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.14	2.99	0.2	A	169	253
2 - B2233 East	0.72	9.59	2.5	A	808	1213
3 - B2233 West	0.43	6.12	0.8	A	372	557

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	139	35	226	1477	0.094	138	374	0.0	0.1	2.689	A
2 - B2233 East	663	166	47	1359	0.488	659	318	0.0	0.9	5.118	A
3 - B2233 West	305	76	297	1119	0.272	303	409	0.0	0.4	4.404	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	165	41	271	1446	0.114	165	449	0.1	0.1	2.610	A
2 - B2233 East	792	198	56	1353	0.585	790	381	0.9	1.4	6.376	A
3 - B2233 West	364	91	356	1083	0.336	364	490	0.4	0.5	4.998	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	203	51	332	1405	0.144	202	548	0.1	0.2	2.992	A
2 - B2233 East	970	243	68	1345	0.721	966	466	1.4	2.5	9.386	A
3 - B2233 West	446	111	435	1035	0.431	445	599	0.5	0.7	6.091	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	203	51	332	1405	0.144	203	550	0.2	0.2	2.993	A
2 - B2233 East	970	243	68	1345	0.721	970	467	2.5	2.5	9.593	A
3 - B2233 West	446	111	437	1034	0.431	446	601	0.7	0.8	6.122	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	165	41	272	1445	0.114	166	452	0.2	0.1	2.812	A
2 - B2233 East	792	198	56	1353	0.585	796	382	2.5	1.4	6.518	A
3 - B2233 West	364	91	359	1082	0.337	365	493	0.8	0.5	5.032	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	139	35	226	1476	0.094	139	377	0.1	0.1	2.694	A
2 - B2233 East	663	166	47	1359	0.488	665	320	1.4	1.0	5.201	A
3 - B2233 West	305	76	300	1118	0.273	305	412	0.5	0.4	4.435	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.35	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 segment length (min)	Run automatically
D8	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	451	100.000
2 - B2233 East		ONE HOUR	✓	443	100.000
3 - B2233 West		ONE HOUR	✓	429	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	377	74
	2 - B2233 East	155	0	288
	3 - B2233 West	61	368	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	3	1
	2 - B2233 East	3	0	2
	3 - B2233 West	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.35	3.98	0.5	A	414	621
2 - B2233 East	0.37	4.26	0.6	A	407	610
3 - B2233 West	0.39	4.85	0.6	A	394	590

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	340	85	276	1494	0.227	338	162	0.0	0.3	3.113	A
2 - B2233 East	334	83	56	1350	0.247	332	559	0.0	0.3	3.533	A
3 - B2233 West	323	81	116	1248	0.259	322	271	0.0	0.3	3.878	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	405	101	330	1456	0.278	405	194	0.3	0.4	3.424	A
2 - B2233 East	398	100	66	1343	0.297	398	669	0.3	0.4	3.807	A
3 - B2233 West	386	96	139	1234	0.312	385	325	0.3	0.5	4.238	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	497	124	405	1406	0.353	496	238	0.4	0.5	3.955	A
2 - B2233 East	488	122	81	1333	0.366	487	819	0.4	0.6	4.251	A
3 - B2233 West	472	118	170	1215	0.389	472	398	0.5	0.6	4.840	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	497	124	405	1405	0.353	497	238	0.5	0.5	3.961	A
2 - B2233 East	488	122	81	1333	0.366	488	820	0.6	0.6	4.256	A
3 - B2233 West	472	118	171	1215	0.389	472	399	0.6	0.6	4.849	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	405	101	331	1456	0.279	406	194	0.5	0.4	3.433	A
2 - B2233 East	398	100	67	1343	0.297	399	671	0.6	0.4	3.818	A
3 - B2233 West	386	96	140	1234	0.313	386	326	0.6	0.5	4.252	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	340	85	277	1493	0.227	340	163	0.4	0.3	3.123	A
2 - B2233 East	334	83	56	1349	0.247	334	562	0.4	0.3	3.545	A
3 - B2233 West	323	81	117	1248	0.259	323	273	0.5	0.4	3.894	A

2021 with Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.33	B

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 segment length (min)	Run automatically	Relationship type	Relationship
D17	2021 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D7 + D11

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 (%)
1 - North End Road		ONE HOUR	✓	264	100.000
2 - B2233 East		ONE HOUR	✓	972	100.000
3 - B2233 West		ONE HOUR	✓	445	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	172	92
	2 - B2233 East	426	0	546
	3 - B2233 West	124	321	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	4	5
	2 - B2233 East	3	0	1
	3 - B2233 West	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.21	3.20	0.3	A	242	363
2 - B2233 East	0.61	13.94	4.0	B	892	1336
3 - B2233 West	0.48	6.82	0.9	A	408	613

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	199	50	240	1493	0.133	198	412	0.0	0.2	2.778	A
2 - B2233 East	732	183	69	1348	0.543	727	370	0.0	1.2	5.761	A
3 - B2233 West	335	84	319	1110	0.302	333	477	0.0	0.4	4.626	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	237	59	288	1460	0.163	237	493	0.2	0.2	2.943	A
2 - B2233 East	874	218	83	1339	0.653	871	443	1.2	1.8	7.557	A
3 - B2233 West	400	100	382	1071	0.373	399	572	0.4	0.6	5.355	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	291	73	353	1416	0.205	290	602	0.2	0.3	3.197	A
2 - B2233 East	1070	268	101	1326	0.807	1062	542	1.8	3.9	13.212	B
3 - B2233 West	490	122	465	1020	0.480	489	698	0.6	0.9	6.760	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	291	73	353	1416	0.205	291	605	0.3	0.3	3.199	A
2 - B2233 East	1070	268	101	1326	0.807	1070	543	3.9	4.0	13.945	B
3 - B2233 West	490	122	469	1018	0.481	490	702	0.9	0.9	6.819	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	237	59	289	1459	0.163	238	498	0.3	0.2	2.946	A
2 - B2233 East	874	218	83	1339	0.653	882	444	4.0	1.9	8.028	A
3 - B2233 West	400	100	387	1068	0.375	401	578	0.9	0.6	5.408	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	199	50	242	1492	0.133	199	416	0.2	0.2	2.786	A
2 - B2233 East	732	183	59	1347	0.543	735	372	1.9	1.2	5.904	A
3 - B2233 West	335	84	322	1108	0.302	336	482	0.6	0.4	4.666	A

2021 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.07	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 segment length (min)	Run automatically	Relationship type	Relationship
D18	2021 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D8 + D12

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 (%)
1 - North End Road		ONE HOUR	✓	508	100.000
2 - B2233 East		ONE HOUR	✓	521	100.000
3 - B2233 West		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	411	97
	2 - B2233 East	207	0	314
	3 - B2233 West	90	431	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	3	1
	2 - B2233 East	2	0	2
	3 - B2233 West	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.41	4.48	0.7	A	466	699
2 - B2233 East	0.43	4.81	0.8	A	478	717
3 - B2233 West	0.48	5.90	0.9	A	478	717

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	382	96	323	1466	0.261	381	223	0.0	0.4	3.312	A
2 - B2233 East	392	98	73	1344	0.292	391	631	0.0	0.4	3.771	A
3 - B2233 West	392	98	155	1229	0.319	390	308	0.0	0.5	4.285	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	457	114	387	1423	0.321	456	267	0.4	0.5	3.723	A
2 - B2233 East	468	117	87	1335	0.351	468	756	0.4	0.5	4.150	A
3 - B2233 West	468	117	186	1210	0.387	468	369	0.5	0.6	4.848	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	559	140	474	1363	0.410	558	326	0.5	0.7	4.468	A
2 - B2233 East	574	143	107	1322	0.434	573	925	0.5	0.8	4.796	A
3 - B2233 West	574	143	228	1184	0.485	572	452	0.6	0.9	5.875	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	559	140	475	1363	0.410	559	327	0.7	0.7	4.481	A
2 - B2233 East	574	143	107	1322	0.434	574	927	0.8	0.8	4.808	A
3 - B2233 West	574	143	228	1184	0.485	574	453	0.9	0.9	5.900	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	457	114	386	1422	0.321	458	268	0.7	0.5	3.736	A
2 - B2233 East	468	117	87	1334	0.351	469	759	0.8	0.5	4.166	A
3 - B2233 West	468	117	186	1209	0.387	470	370	0.9	0.6	4.873	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	382	96	325	1465	0.261	383	224	0.5	0.4	3.330	A
2 - B2233 East	392	98	73	1343	0.292	393	635	0.5	0.4	3.788	A
3 - B2233 West	392	98	156	1228	0.319	393	310	0.6	0.5	4.315	A

2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.07	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 segment length (min)	Run automatically
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	187	100.000
2 - B2233 East		ONE HOUR	✓	897	100.000
3 - B2233 West		ONE HOUR	✓	411	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	124	63
	2 - B2233 East	404	0	493
	3 - B2233 West	104	307	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	5	8
	2 - B2233 East	3	0	1
	3 - B2233 West	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.15	3.01	0.2	A	172	257
2 - B2233 East	0.73	10.03	2.7	B	823	1235
3 - B2233 West	0.44	6.22	0.8	A	377	565

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	141	35	230	1474	0.095	140	380	0.0	0.1	2.698	A
2 - B2233 East	675	169	47	1361	0.496	671	323	0.0	1.0	5.194	A
3 - B2233 West	309	77	302	1119	0.277	308	416	0.0	0.4	4.432	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	168	42	276	1444	0.116	168	456	0.1	0.1	2.821	A
2 - B2233 East	806	202	57	1354	0.595	804	387	1.0	1.4	6.524	A
3 - B2233 West	369	92	362	1082	0.341	369	499	0.4	0.5	5.046	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	206	51	337	1402	0.147	206	557	0.1	0.2	3.008	A
2 - B2233 East	988	247	69	1346	0.734	983	474	1.4	2.7	9.785	A
3 - B2233 West	453	113	443	1033	0.438	451	609	0.5	0.8	6.180	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	206	51	338	1402	0.147	205	559	0.2	0.2	3.010	A
2 - B2233 East	988	247	69	1346	0.734	987	475	2.7	2.7	10.027	B
3 - B2233 West	453	113	445	1032	0.439	452	612	0.8	0.8	6.216	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	168	42	277	1443	0.117	168	459	0.2	0.1	2.826	A
2 - B2233 East	806	202	57	1354	0.595	811	388	2.7	1.5	6.684	A
3 - B2233 West	369	92	365	1080	0.342	370	503	0.8	0.5	5.079	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	141	35	232	1473	0.096	141	383	0.1	0.1	2.703	A
2 - B2233 East	575	169	47	1361	0.496	677	325	1.5	1.0	5.286	A
3 - B2233 West	309	77	305	1117	0.277	310	420	0.5	0.4	4.463	A

2031 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.38	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 segment length (min)	Run automatically
D22	2031 Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North End Road		ONE HOUR	✓	457	100.000
2 - B2233 East		ONE HOUR	✓	449	100.000
3 - B2233 West		ONE HOUR	✓	436	100.000

Origin Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	382	75
	2 - B2233 East	157	0	292
	3 - B2233 West	62	374	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	3	1
	2 - B2233 East	3	0	2
	3 - B2233 West	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.36	3.99	0.6	A	419	629
2 - B2233 East	0.37	4.29	0.6	A	412	618
3 - B2233 West	0.39	4.89	0.6	A	400	600

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	344	86	280	1494	0.230	343	164	0.0	0.3	3.123	A
2 - B2233 East	338	85	56	1351	0.250	337	567	0.0	0.3	3.546	A
3 - B2233 West	328	82	118	1251	0.262	327	275	0.0	0.4	3.892	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	411	103	336	1456	0.282	410	197	0.3	0.4	3.441	A
2 - B2233 East	404	101	67	1344	0.300	403	679	0.3	0.4	3.825	A
3 - B2233 West	392	98	141	1236	0.317	392	330	0.4	0.5	4.261	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	503	126	411	1405	0.358	503	241	0.4	0.6	3.986	A
2 - B2233 East	494	124	82	1334	0.371	494	831	0.4	0.6	4.280	A
3 - B2233 West	480	120	173	1216	0.395	479	404	0.5	0.6	4.878	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	503	126	412	1405	0.358	503	241	0.6	0.6	3.993	A
2 - B2233 East	494	124	83	1334	0.371	494	832	0.6	0.6	4.286	A
3 - B2233 West	480	120	173	1216	0.395	480	404	0.6	0.6	4.889	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	411	103	337	1456	0.282	411	197	0.6	0.4	3.451	A
2 - B2233 East	404	101	68	1344	0.300	404	681	0.6	0.4	3.837	A
3 - B2233 West	392	98	141	1236	0.317	393	330	0.6	0.5	4.272	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	344	86	282	1493	0.230	344	165	0.4	0.3	3.133	A
2 - B2233 East	338	85	57	1350	0.250	338	570	0.4	0.3	3.557	A
3 - B2233 West	328	82	118	1250	0.263	329	277	0.5	0.4	3.909	A

2031 with Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.91	B

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 segment length (min)	Run automatically	Relationship type	Relationship
D23	2031 with Development	AM	ONE HOUR	07:45	09:15	15	✓	Simple	D21 + D11

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 (%)
1 - North End Road		ONE HOUR	✓	267	100.000
2 - B2233 East		ONE HOUR	✓	988	100.000
3 - B2233 West		ONE HOUR	✓	451	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	174	93
	2 - B2233 East	433	0	555
	3 - B2233 West	125	326	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	4	5
	2 - B2233 East	3	0	1
	3 - B2233 West	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.21	3.22	0.3	A	245	368
2 - B2233 East	0.62	14.88	4.3	B	907	1360
3 - B2233 West	0.49	6.94	0.9	A	414	621

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	201	50	244	1490	0.135	200	417	0.0	0.2	2.789	A
2 - B2233 East	744	186	70	1349	0.551	739	375	0.0	1.2	5.859	A
3 - B2233 West	340	85	324	1109	0.306	338	485	0.0	0.4	4.659	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	240	60	293	1457	0.165	240	500	0.2	0.2	2.956	A
2 - B2233 East	888	222	84	1340	0.663	885	449	1.2	1.9	7.872	A
3 - B2233 West	405	101	386	1070	0.379	405	581	0.4	0.6	5.409	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	294	73	358	1413	0.208	294	610	0.2	0.3	3.217	A
2 - B2233 East	1086	272	102	1327	0.819	1079	549	1.9	4.2	13.981	B
3 - B2233 West	497	124	473	1018	0.488	495	708	0.6	0.9	6.872	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	294	73	359	1412	0.208	294	614	0.3	0.3	3.219	A
2 - B2233 East	1086	272	102	1327	0.820	1087	550	4.2	4.3	14.879	B
3 - B2233 West	497	124	475	1015	0.489	497	713	0.9	0.9	6.938	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	240	60	294	1456	0.165	240	506	0.3	0.2	2.962	A
2 - B2233 East	888	222	84	1340	0.663	898	451	4.3	2.0	8.306	A
3 - B2233 West	405	101	393	1066	0.380	407	588	0.9	0.6	5.471	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	201	50	246	1489	0.135	201	432	0.2	0.2	2.796	A
2 - B2233 East	744	186	70	1349	0.552	747	377	2.0	1.2	6.012	A
3 - B2233 West	340	85	327	1107	0.307	340	490	0.6	0.4	4.700	A

2031 with Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.12	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 segment length (min)	Run automatically	Relationship type	Relationship
D24	2031 with Development	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D22 + D12

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 (%)
1 - North End Road		ONE HOUR	✓	514	100.000
2 - B2233 East		ONE HOUR	✓	527	100.000
3 - B2233 West		ONE HOUR	✓	528	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	416	98
	2 - B2233 East	209	0	318
	3 - B2233 West	91	437	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North End Road	2 - B2233 East	3 - B2233 West
From	1 - North End Road	0	3	1
	2 - B2233 East	2	0	2
	3 - B2233 West	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North End Road	0.42	4.52	0.7	A	472	707
2 - B2233 East	0.44	4.85	0.8	A	484	725
3 - B2233 West	0.49	5.97	1.0	A	485	727

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	387	97	327	1467	0.264	386	225	0.0	0.4	3.325	A
2 - B2233 East	397	99	74	1344	0.295	395	639	0.0	0.4	3.786	A
3 - B2233 West	398	99	157	1230	0.323	396	312	0.0	0.5	4.304	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	462	116	392	1422	0.325	462	269	0.4	0.5	3.745	A
2 - B2233 East	474	118	88	1335	0.355	473	766	0.4	0.5	4.173	A
3 - B2233 West	475	119	188	1211	0.392	474	374	0.5	0.6	4.881	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	566	141	480	1362	0.415	565	330	0.5	0.7	4.511	A
2 - B2233 East	580	145	108	1323	0.439	579	937	0.5	0.8	4.635	A
3 - B2233 West	581	145	230	1185	0.491	580	457	0.6	1.0	5.940	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	566	141	481	1362	0.416	566	330	0.7	0.7	4.524	A
2 - B2233 East	580	145	108	1323	0.439	580	939	0.8	0.8	4.647	A
3 - B2233 West	581	145	230	1185	0.491	581	458	1.0	1.0	5.966	A

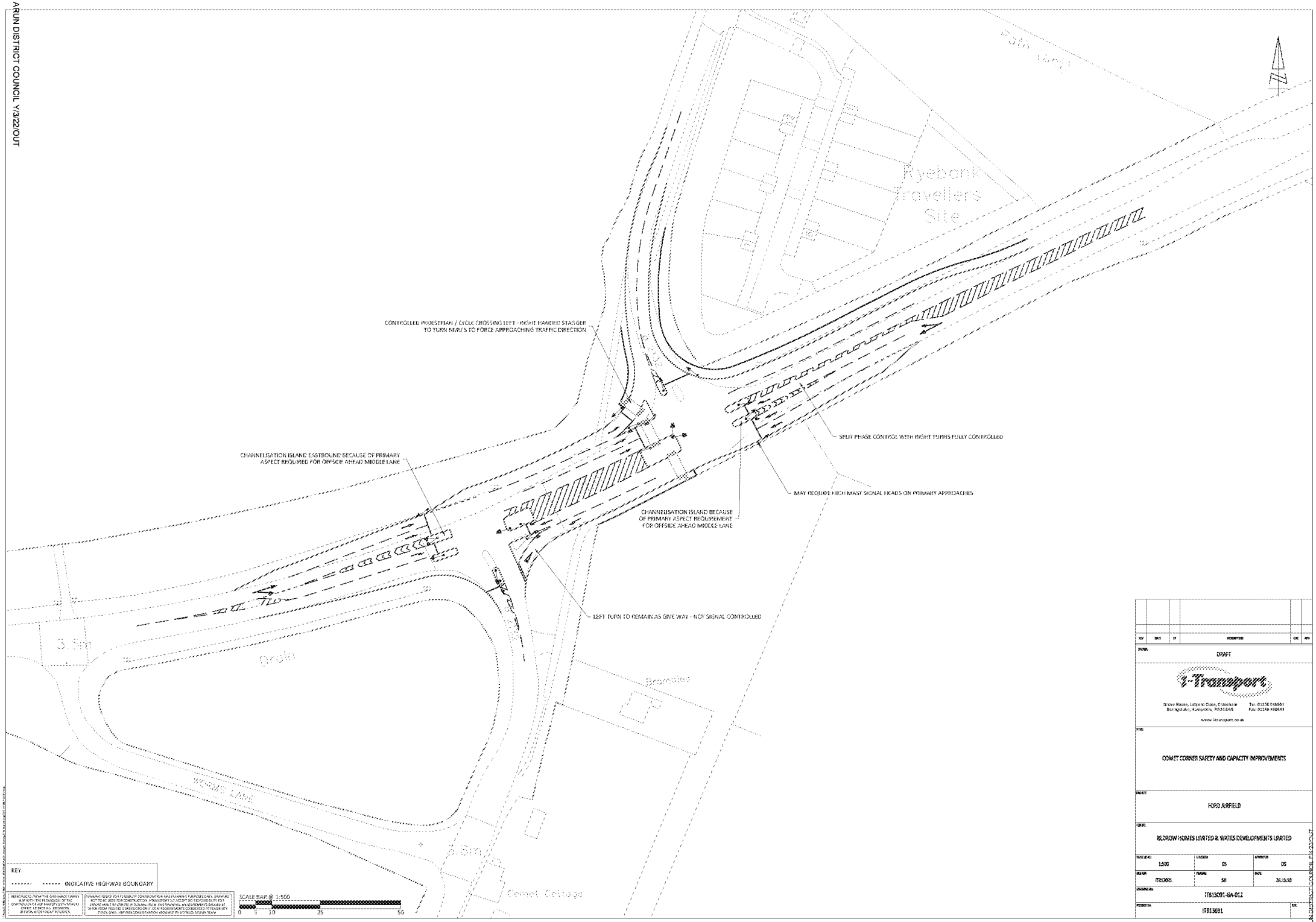
17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	462	116	394	1421	0.325	463	270	0.7	0.5	3.762	A
2 - B2233 East	474	118	88	1335	0.355	475	769	0.8	0.6	4.188	A
3 - B2233 West	475	119	188	1211	0.392	476	375	1.0	0.7	4.909	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - North End Road	387	97	330	1465	0.264	387	226	0.5	0.4	3.341	A
2 - B2233 East	397	99	74	1344	0.295	397	643	0.6	0.4	3.803	A
3 - B2233 West	398	99	158	1230	0.323	398	314	0.7	0.5	4.333	A

ARUN DISTRICT COUNCIL Y/3/22/OUT



KEY.

INDICATIVE HIGHWAY BOUNDARY

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SCALE BAR @ 1:500

0 5 10 25 50

REV	DATE	BY	DESCRIPTION	CHK	APP

STATUS: DRAFT

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Stowe House, Ladyland Close, Chineham Business Park, Basingstoke, Hampshire, RG24 8AG

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Fax: 01256 338644

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TITLE: COMET CORNER SAFETY AND CAPACITY IMPROVEMENTS

PROJECT: FORD AIRFIELD

CLIENT: REDROW HOMES LIMITED & WATES DEVELOPMENTS LIMITED

SCALE @ A3	DESIGNED	APPROVED
1:500	DS	DS
PROJECT NO. ITB13091	DRAWN SH	DATE 26.10.18

DRAWING NO. ITB13091-GA-012

PROJECT NO. ITB13091 REV.

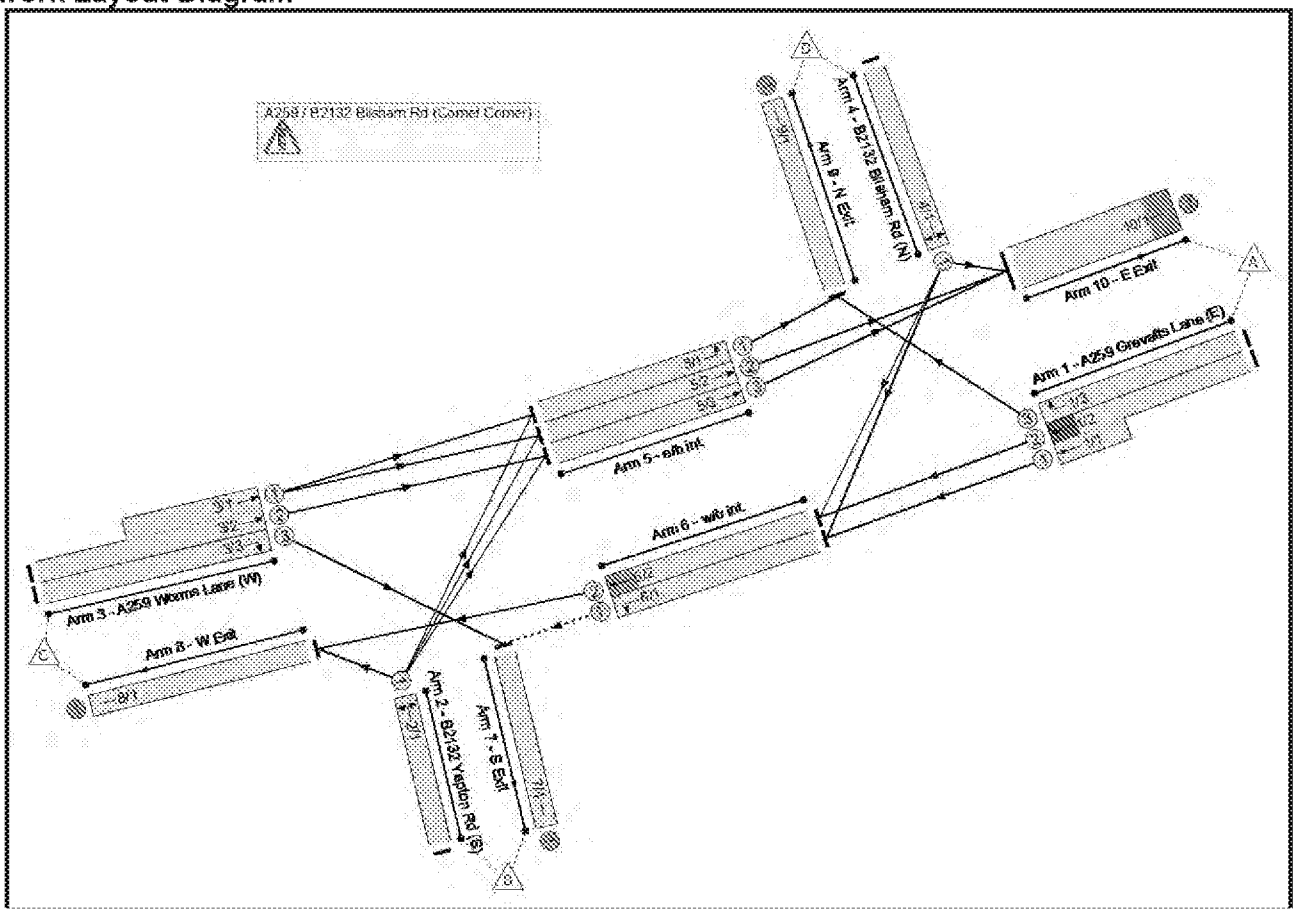
ARUN DISTRICT COUNCIL FEB 2020 IT

Full Input Data And Results

User and Project Details

Project:	ITB13091 Ford
Title:	A259 / B2132 Bilsham Rd (Comet Corner) proposed signals
Location:	
Additional detail:	
File name:	A259_B2132 Bilsham Rd Stagger signals v2.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



ARUN DISTRICT COUNCIL Y/3/22/OUT

Full Input Data And Results

Give-Way Lane Input Data

Junction: A259 / B2132 Bilsham Rd (Comet Corner)											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
6/1 (w/b int.)	7/1 (Left)	648	0	3/3	0.41	All	-	-	-	-	-

ARUN DISTRICT COUNCIL F/4/20/OUT

Full Input Data And Results

Lane Input Data

Junction: A259 / B2132 Bilsham Rd (Comet Corner)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A259 Grevatts Lane (E))	U	D	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
1/2 (A259 Grevatts Lane (E))	U	D	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	Inf
1/3 (A259 Grevatts Lane (E))	U	I	2	3	9.6	Geom	-	3.00	0.00	Y	Arm 9 Right	12.00
2/1 (B2132 Yapton Rd (S))	U	F	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Right	15.00
											Arm 8 Left	15.00
3/1 (A259 Worms Lane (W))	U	A	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
3/2 (A259 Worms Lane (W))	U	A	2	3	60.0	Geom	-	3.50	0.00	N	Arm 5 Ahead	Inf
3/3 (A259 Worms Lane (W))	U	H	2	3	7.8	Geom	-	3.00	0.00	Y	Arm 7 Right	12.00
4/1 (B2132 Bilsham Rd (N))	U	G	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Right	15.00
											Arm 10 Left	15.00
5/1 (e/b int.)	U	C	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 9 Left	15.00
5/2 (e/b int.)	U	B	2	3	9.6	Geom	-	3.50	0.00	Y	Arm 10 Ahead	Inf
5/3 (e/b int.)	U	B	2	3	9.6	Geom	-	3.50	0.00	N	Arm 10 Ahead	Inf
6/1 (w/b int.)	O		2	3	9.6	User	1900	-	-	-	-	-
6/2 (w/b int.)	U	E	2	3	9.6	Geom	-	3.50	0.00	N	Arm 8 Ahead	Inf
7/1 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (W Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (E Exit)	U		2	3	60.0	User	2000	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 AM With Dev'	08:00	09:00	01:00	
2: '2021 PM With Dev'	17:00	18:00	01:00	
3: '2031 AM With Dev'	08:00	09:00	01:00	
4: '2031 PM With Dev'	17:00	18:00	01:00	

Scenario 1: '1' (FG1: '2021 AM With Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	766	17	868
	B	113	0	47	83	243
	C	1037	52	0	299	1388
	D	26	54	211	0	291
	Tot.	1176	191	1024	399	2790

Traffic Lane Flows

Lane	Scenario 1: 1
Junction: A259 / B2132 Bilsham Rd (Comet Corner)	
1/1 (short)	85
1/2 (with short)	851(In) 766(Out)
1/3	17
2/1	243
3/1 (short)	668
3/2 (with short)	1336(In) 668(Out)
3/3	52
4/1	291
5/1	382
5/2	425
5/3	725
6/1	139
6/2	977
7/1	191
8/1	1024
9/1	399
10/1	1176

Full Input Data And Results

Lane Saturation Flows

Junction: A259 / B2132 Bilsham Rd (Comet Corner)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A259 Grevatts Lane (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/2 (A259 Grevatts Lane (E))	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
1/3 (A259 Grevatts Lane (E))	3.00	0.00	Y	Arm 9 Right	12.00	100.0 %	1702	1702
2/1 (B2132 Yapton Rd (S))	3.50	0.00	Y	Arm 5 Right	15.00	80.7 %	1786	1786
				Arm 8 Left	15.00	19.3 %		
3/1 (A259 Worms Lane (W))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
3/2 (A259 Worms Lane (W))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/3 (A259 Worms Lane (W))	3.00	0.00	Y	Arm 7 Right	12.00	100.0 %	1702	1702
4/1 (B2132 Bilsham Rd (N))	3.50	0.00	Y	Arm 6 Right	15.00	91.1 %	1786	1786
				Arm 10 Left	15.00	8.9 %		
5/1 (e/b int.)	3.50	0.00	Y	Arm 9 Left	15.00	100.0 %	1786	1786
5/2 (e/b int.)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
5/3 (e/b int.)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
6/1 (w/b int. Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (w/b int.)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
7/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (W Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (E Exit Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000

Full Input Data And Results

Scenario 2: '2' (FG2: '2021 PM With Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	160	968	53	1181
	B	65	0	38	43	146
	C	1121	81	0	320	1522
	D	15	74	159	0	248
	Tot.	1201	315	1165	416	3097

Traffic Lane Flows

Lane	Scenario 2: 2
Junction: A259 / B2132 Bilsham Rd (Comet Corner)	
1/1 (short)	160
1/2 (with short)	1128(In) 968(Out)
1/3	53
2/1	146
3/1 (short)	720
3/2 (with short)	1441(In) 721(Out)
3/3	81
4/1	248
5/1	363
5/2	432
5/3	754
6/1	234
6/2	1127
7/1	315
8/1	1165
9/1	416
10/1	1201

Full Input Data And Results

Lane Saturation Flows

Junction: A259 / B2132 Bilsham Rd (Comet Corner)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A259 Grevatts Lane (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/2 (A259 Grevatts Lane (E))	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
1/3 (A259 Grevatts Lane (E))	3.00	0.00	Y	Arm 9 Right	12.00	100.0 %	1702	1702
2/1 (B2132 Yapton Rd (S))	3.50	0.00	Y	Arm 5 Right	15.00	74.0 %	1786	1786
				Arm 8 Left	15.00	26.0 %		
3/1 (A259 Worms Lane (W))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
3/2 (A259 Worms Lane (W))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/3 (A259 Worms Lane (W))	3.00	0.00	Y	Arm 7 Right	12.00	100.0 %	1702	1702
4/1 (B2132 Bilsham Rd (N))	3.50	0.00	Y	Arm 6 Right	15.00	94.0 %	1786	1786
				Arm 10 Left	15.00	6.0 %		
5/1 (e/b int.)	3.50	0.00	Y	Arm 9 Left	15.00	100.0 %	1786	1786
5/2 (e/b int.)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
5/3 (e/b int.)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
6/1 (w/b int. Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (w/b int.)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
7/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (W Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (E Exit Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	86	779	17	882
	B	115	0	48	84	247
	C	1056	53	0	304	1413
	D	26	56	214	0	296
	Tot.	1197	195	1041	405	2838

Traffic Lane Flows

Lane	Scenario 3: 3
Junction: A259 / B2132 Bilsham Rd (Comet Corner)	
1/1 (short)	86
1/2 (with short)	865(In) 779(Out)
1/3	17
2/1	247
3/1 (short)	680
3/2 (with short)	1360(In) 680(Out)
3/3	53
4/1	296
5/1	388
5/2	433
5/3	738
6/1	142
6/2	993
7/1	195
8/1	1041
9/1	405
10/1	1197

Full Input Data And Results

Lane Saturation Flows

Junction: A259 / B2132 Bilsham Rd (Comet Corner)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A259 Grevatts Lane (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/2 (A259 Grevatts Lane (E))	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
1/3 (A259 Grevatts Lane (E))	3.00	0.00	Y	Arm 9 Right	12.00	100.0 %	1702	1702
2/1 (B2132 Yapton Rd (S))	3.50	0.00	Y	Arm 5 Right	15.00	80.6 %	1786	1786
				Arm 8 Left	15.00	19.4 %		
3/1 (A259 Worms Lane (W))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
3/2 (A259 Worms Lane (W))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/3 (A259 Worms Lane (W))	3.00	0.00	Y	Arm 7 Right	12.00	100.0 %	1702	1702
4/1 (B2132 Bilsham Rd (N))	3.50	0.00	Y	Arm 6 Right	15.00	91.2 %	1786	1786
				Arm 10 Left	15.00	8.8 %		
5/1 (e/b int.)	3.50	0.00	Y	Arm 9 Left	15.00	100.0 %	1786	1786
5/2 (e/b int.)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
5/3 (e/b int.)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
6/1 (w/b int. Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (w/b int.)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
7/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (W Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (E Exit Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	162	983	54	1199
	B	67	0	39	44	150
	C	1138	82	0	324	1544
	D	15	76	160	0	251
	Tot.	1220	320	1182	422	3144

Traffic Lane Flows

Lane	Scenario 4: 4
Junction: A259 / B2132 Bilsham Rd (Comet Corner)	
1/1 (short)	162
1/2 (with short)	1145(In) 983(Out)
1/3	54
2/1	150
3/1 (short)	731
3/2 (with short)	1462(In) 731(Out)
3/3	82
4/1	251
5/1	368
5/2	440
5/3	765
6/1	238
6/2	1143
7/1	320
8/1	1182
9/1	422
10/1	1220

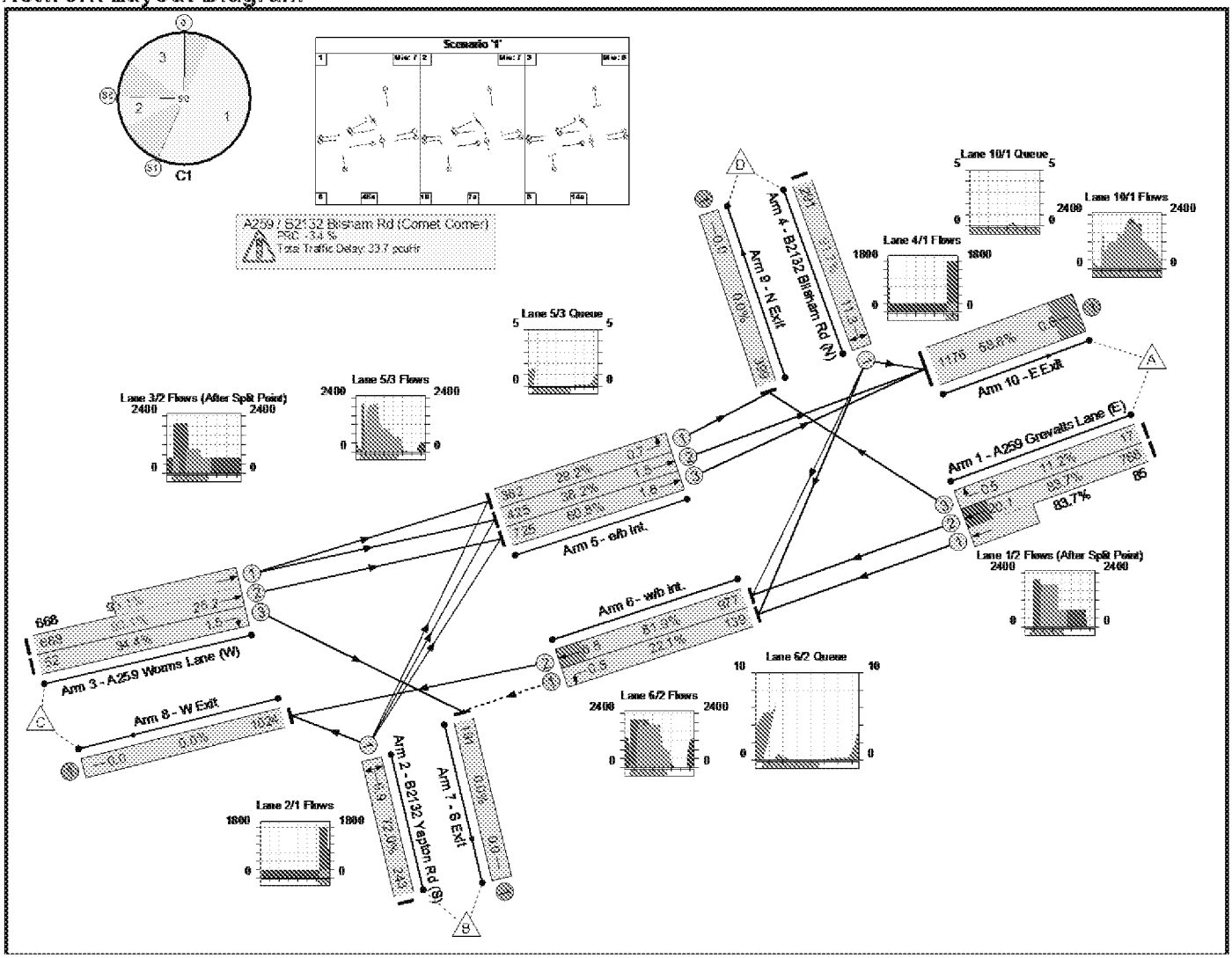
Full Input Data And Results

Lane Saturation Flows

Junction: A259 / B2132 Bilsham Rd (Comet Corner)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A259 Grevatts Lane (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/2 (A259 Grevatts Lane (E))	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
1/3 (A259 Grevatts Lane (E))	3.00	0.00	Y	Arm 9 Right	12.00	100.0 %	1702	1702
2/1 (B2132 Yapton Rd (S))	3.50	0.00	Y	Arm 5 Right	15.00	74.0 %	1786	1786
				Arm 8 Left	15.00	26.0 %		
3/1 (A259 Worms Lane (W))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
3/2 (A259 Worms Lane (W))	3.50	0.00	N	Arm 5 Ahead	Inf	100.0 %	2105	2105
3/3 (A259 Worms Lane (W))	3.00	0.00	Y	Arm 7 Right	12.00	100.0 %	1702	1702
4/1 (B2132 Bilsham Rd (N))	3.50	0.00	Y	Arm 6 Right	15.00	94.0 %	1786	1786
				Arm 10 Left	15.00	6.0 %		
5/1 (e/b int.)	3.50	0.00	Y	Arm 9 Left	15.00	100.0 %	1786	1786
5/2 (e/b int.)	3.50	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1965	1965
5/3 (e/b int.)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
6/1 (w/b int. Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (w/b int.)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
7/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (W Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (E Exit Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000

Scenario 1: '1' (FG1: '2021 AM With Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	N/A	-	-		-	-	-	-	-	-	**93.1%**
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	N/A	-	-		-	-	-	-	-	-	**93.1%**
1/2+1/1	A259 Grevatts Lane (E) Ahead	U	N/A	N/A	D		1	45	-	851	2105:1965	915+102	83.7 : 83.7%
1/3	A259 Grevatts Lane (E) Right	U	N/A	N/A	I		1	7	-	17	1702	151	11.2%
2/1	B2132 Yapton Rd (S) Right Left	U	N/A	N/A	F		1	16	-	243	1786	337	72.0%
3/2+3/1	A259 Worms Lane (W) Ahead	U	N/A	N/A	A		1	45	-	1336	2105:1965	718+718	93.1 : 93.1%
3/3	A259 Worms Lane (W) Right	U	N/A	N/A	H		1	7	-	52	1702	151	34.4%
4/1	B2132 Bilsham Rd (N) Right Left	U	N/A	N/A	G		1	15	-	291	1786	318	91.7%
5/1	e/b int. Left	U	N/A	N/A	C		1	65	-	382	1786	1310	29.2%
5/2	e/b int. Ahead	U	N/A	N/A	B		1	50	-	425	1965	1113	38.2%
5/3	e/b int. Ahead	U	N/A	N/A	B		1	50	-	725	2105	1193	60.8%
6/1	w/b int. Left	O	N/A	N/A	-		-	-	-	139	1900	628	22.1%
6/2	w/b int. Ahead	U	N/A	N/A	E		1	50	-	977	2105	1193	81.9%
7/1	S Exit	U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%
8/1	W Exit	U	N/A	N/A	-		-	-	-	1004	Inf	Inf	0.0%
9/1	N Exit	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
10/1	E Exit	U	N/A	N/A	-		-	-	-	1176	2000	2000	58.8%

Full Input Data And Results

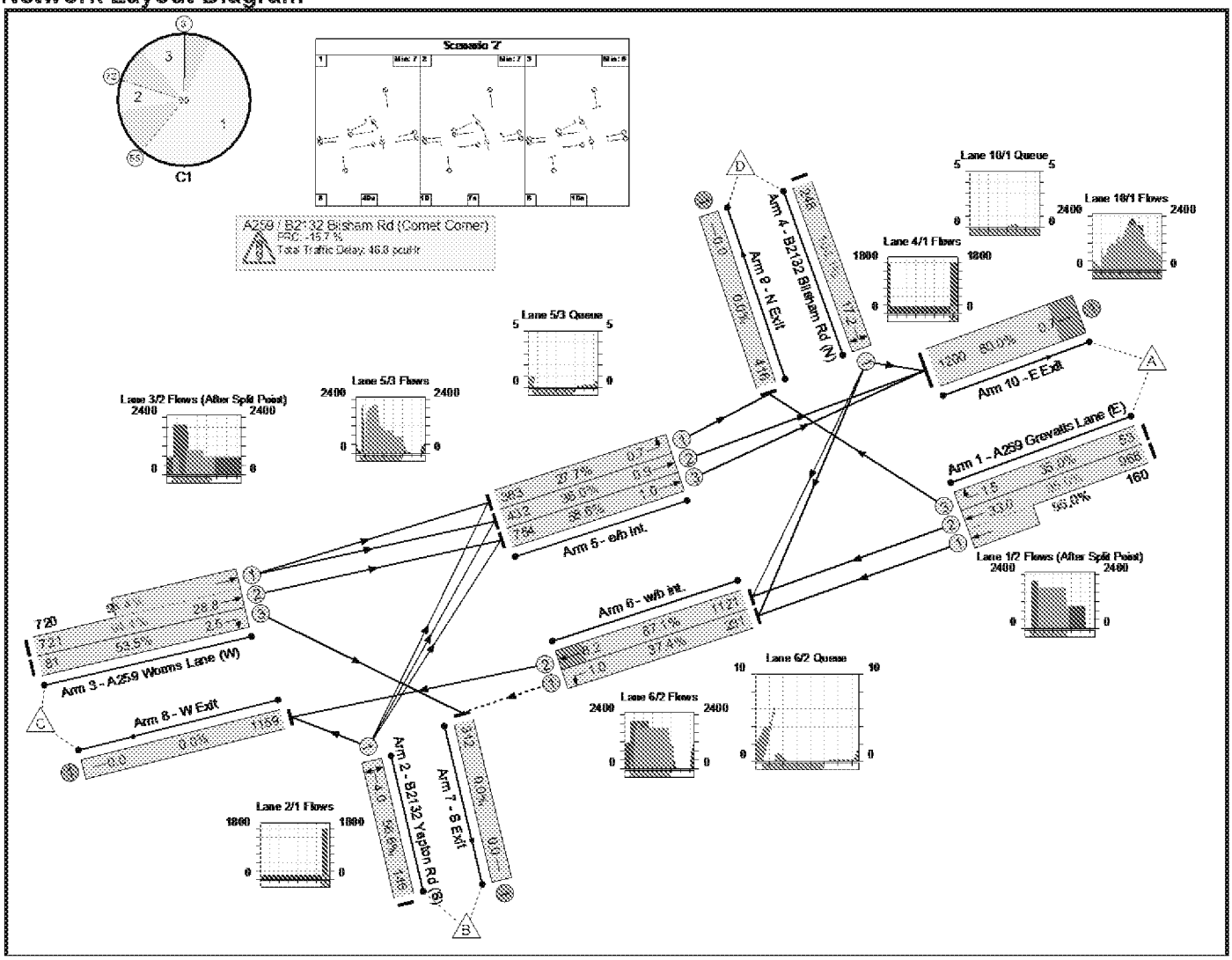
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	**0**	**139**	**0**	**18.4**	**15.3**	**0.0**	**33.7**	-	-	-	-
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	**0**	**139**	**0**	**18.4**	**15.3**	**0.0**	**33.7**	-	-	-	-
1/2+1/1	851	851	-	-	-	4.7	2.5	-	7.2 (6.5+0.7)	30.5 (30.7:28.8)	17.6	2.5	20.1
1/3	17	17	-	-	-	0.2	0.1	-	0.2	51.2	0.4	0.1	0.5
2/1	243	243	-	-	-	2.3	1.3	-	3.6	52.9	5.7	1.3	6.9
3/2+3/1	1336	1336	-	-	-	6.1	6.0	-	12.1 (6.0+6.1)	32.6 (32.4:32.9)	19.2	6.0	25.2
3/3	52	52	-	-	-	0.6	0.3	-	0.8	56.6	1.2	0.3	1.5
4/1	291	291	-	-	-	2.9	4.2	-	7.1	88.0	7.1	4.2	11.3
5/1	382	382	-	-	-	0.1	0.2	-	0.3	2.9	0.4	0.2	0.7
5/2	425	425	-	-	-	0.2	0.0	-	0.2	1.8	1.5	0.0	1.5
5/3	725	725	-	-	-	0.3	0.0	-	0.3	1.2	1.6	0.0	1.6
6/1	139	139	0	139	0	0.0	0.1	-	0.1	3.7	0.4	0.1	0.5
6/2	977	977	-	-	-	0.9	0.0	-	0.9	3.4	6.5	0.0	6.5
7/1	101	101	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1024	1024	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1176	1176	-	-	-	0.1	0.7	-	0.8	2.4	0.2	0.4	0.6

C1 PRC for Signalled Lanes (%): -3.4 Total Delay for Signalled Lanes (pcuHr): 32.74 Cycle Time (s): 90
PRC Over All Lanes (%): -3.4 Total Delay Over All Lanes(pcuHr): 33.66

Full Input Data And Results

Scenario 2: '2' (FG2: '2021 PM With Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



ARUN DISTRICT COUNCIL Y/3/22/OUT

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	N/A	-	-		-	-	-	-	-	-	**104.1%**
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	N/A	-	-		-	-	-	-	-	-	**104.1%**
1/2+1/1	A259 Grevatts Lane (E) Ahead	U	N/A	N/A	D		1	49	-	1128	2105:1965	1019+168	95.0 : 95.0%
1/3	A259 Grevatts Lane (E) Right	U	N/A	N/A	I		1	7	-	53	1702	151	35.0%
2/1	B2132 Yapton Rd (S) Right Left	U	N/A	N/A	F		1	12	-	146	1786	258	56.6%
3/2+3/1	A259 Worms Lane (W) Ahead	U	N/A	N/A	A		1	49	-	1441	2105:1965	764+763	94.4 94.4%
3/3	A259 Worms Lane (W) Right	U	N/A	N/A	H		1	7	-	81	1702	151	53.5%
4/1	B2132 Bilsham Rd (N) Right Left	U	N/A	N/A	G		1	11	-	248	1786	238	104.1%
5/1	e/b int. Left	U	N/A	N/A	C		1	65	-	363	1786	1310	27.7%
5/2	e/b int. Ahead	U	N/A	N/A	B		1	54	-	432	1965	1201	36.0%
5/3	e/b int. Ahead	U	N/A	N/A	B		1	54	-	754	2105	1286	58.6%
6/1	w/b int. Left	O	N/A	N/A	-		-	-	-	234	1900	617	37.4%
6/2	w/b int. Ahead	U	N/A	N/A	E		1	54	-	1127	2105	1286	87.1%
7/1	S Exit	U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
8/1	W Exit	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
9/1	N Exit	U	N/A	N/A	-		-	-	-	418	Inf	Inf	0.0%
10/1	E Exit	U	N/A	N/A	-		-	-	-	1201	2000	2000	60.0%

ARUN DISTRICT COUNCIL F/4/20/OUT

Full Input Data And Results

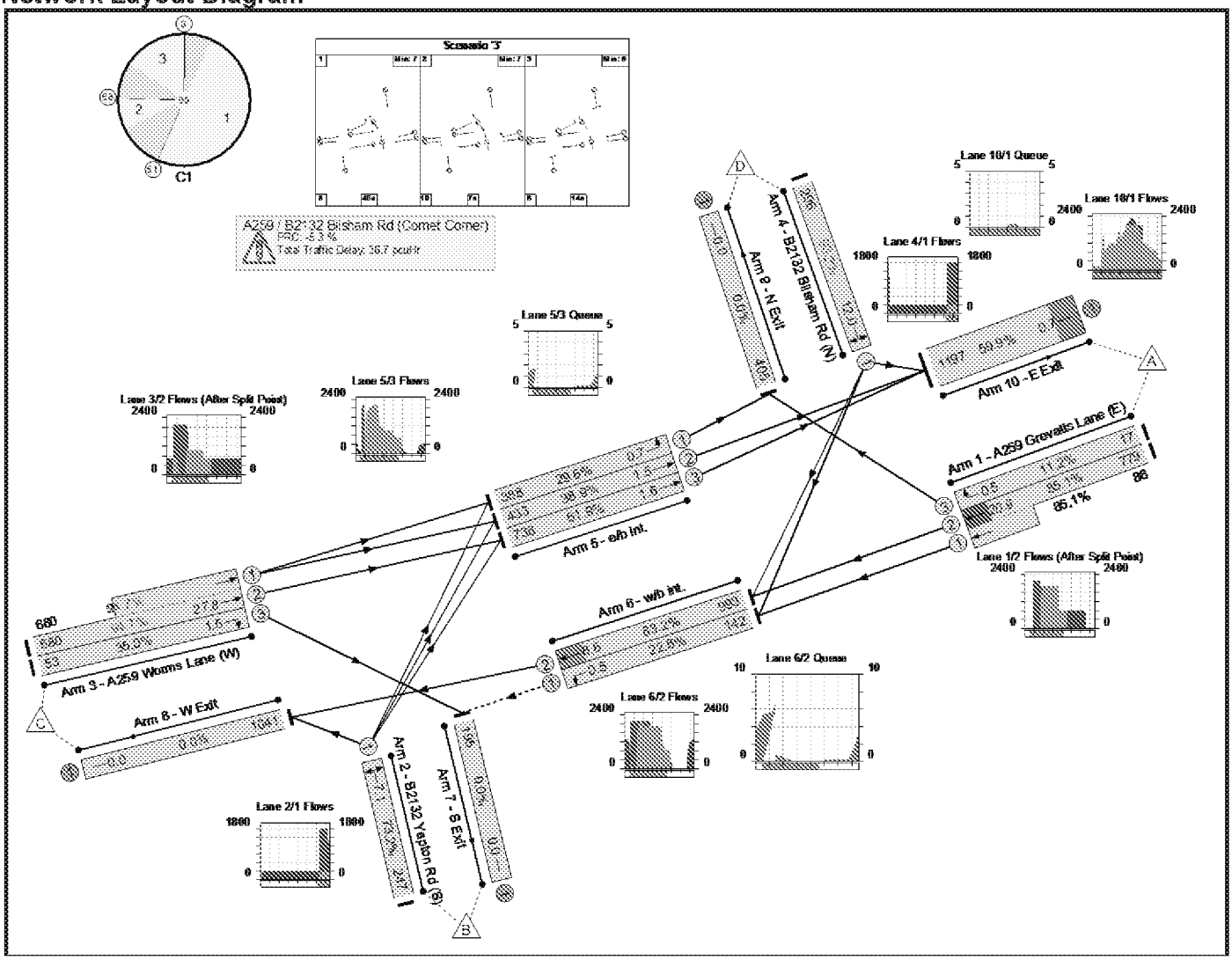
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	**0**	**231**	**0**	**18.6**	**28.2**	**0.0**	**46.8**	-	-	-	-
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	**0**	**231**	**0**	**18.6**	**28.2**	**0.0**	**46.8**	-	-	-	-
1/2+1/1	1128	1128	-	-	-	5.7	7.5	-	13.2 (11.4+1.8)	42.2 (42.3:41.6)	25.5	7.5	33.0
1/3	53	53	-	-	-	0.6	0.3	-	0.8	56.8	1.2	0.3	1.5
2/1	146	146	-	-	-	1.5	0.6	-	2.1	51.8	3.4	0.6	4.0
3/2+3/1	1441	1441	-	-	-	5.8	7.2	-	13.0 (6.4+6.5)	32.4 (32.2:32.6)	21.6	7.2	28.8
3/3	81	81	-	-	-	0.9	0.6	-	1.4	64.4	1.9	0.6	2.5
4/1	248	238	-	-	-	3.2	10.7	-	13.9	201.9	6.5	10.7	17.2
5/1	363	363	-	-	-	0.1	0.2	-	0.3	3.0	0.5	0.2	0.7
5/2	432	432	-	-	-	0.1	0.0	-	0.1	1.0	0.9	0.0	0.9
5/3	754	754	-	-	-	0.2	0.0	-	0.2	0.7	1.0	0.0	1.0
6/1	231	231	0	231	0	0.0	0.3	-	0.3	4.7	0.7	0.3	1.0
6/2	1121	1121	-	-	-	0.6	0.0	-	0.6	1.9	6.2	0.0	6.2
7/1	312	312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1159	1159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1200	1200	-	-	-	0.1	0.7	-	0.8	2.5	0.3	0.4	0.7

C1 PRC for Signalled Lanes (%): -15.7 Total Delay for Signalled Lanes (pcuHr): 45.67 Cycle Time (s): 90
PRC Over All Lanes (%): -15.7 Total Delay Over All Lanes(pcuHr): 46.80

Full Input Data And Results

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

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	N/A	-	-		-	-	-	-	-	-	**94.7%**
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	N/A	-	-		-	-	-	-	-	-	**94.7%**
1/2+1/1	A259 Grevatts Lane (E) Ahead	U	N/A	N/A	D		1	45	-	865	2105:1965	915+101	85.1 : 85.1%
1/3	A259 Grevatts Lane (E) Right	U	N/A	N/A	I		1	7	-	17	1702	151	11.2%
2/1	B2132 Yapton Rd (S) Right Left	U	N/A	N/A	F		1	16	-	247	1786	337	73.2%
3/2+3/1	A259 Worms Lane (W) Ahead	U	N/A	N/A	A		1	45	-	1360	2105:1965	718+718	94.7 : 94.7%
3/3	A259 Worms Lane (W) Right	U	N/A	N/A	H		1	7	-	53	1702	151	35.0%
4/1	B2132 Bilsham Rd (N) Right Left	U	N/A	N/A	G		1	15	-	296	1786	318	93.2%
5/1	e/b int. Left	U	N/A	N/A	C		1	65	-	388	1786	1310	29.6%
5/2	e/b int. Ahead	U	N/A	N/A	B		1	50	-	433	1965	1113	38.9%
5/3	e/b int. Ahead	U	N/A	N/A	B		1	50	-	738	2105	1193	61.9%
6/1	w/b int. Left	O	N/A	N/A	-		-	-	-	142	1900	627	22.6%
6/2	w/b int. Ahead	U	N/A	N/A	E		1	50	-	993	2105	1193	83.2%
7/1	S Exit	U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%
8/1	W Exit	U	N/A	N/A	-		-	-	-	1041	Inf	Inf	0.0%
9/1	N Exit	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
10/1	E Exit	U	N/A	N/A	-		-	-	-	1197	2000	2000	59.9%

Full Input Data And Results

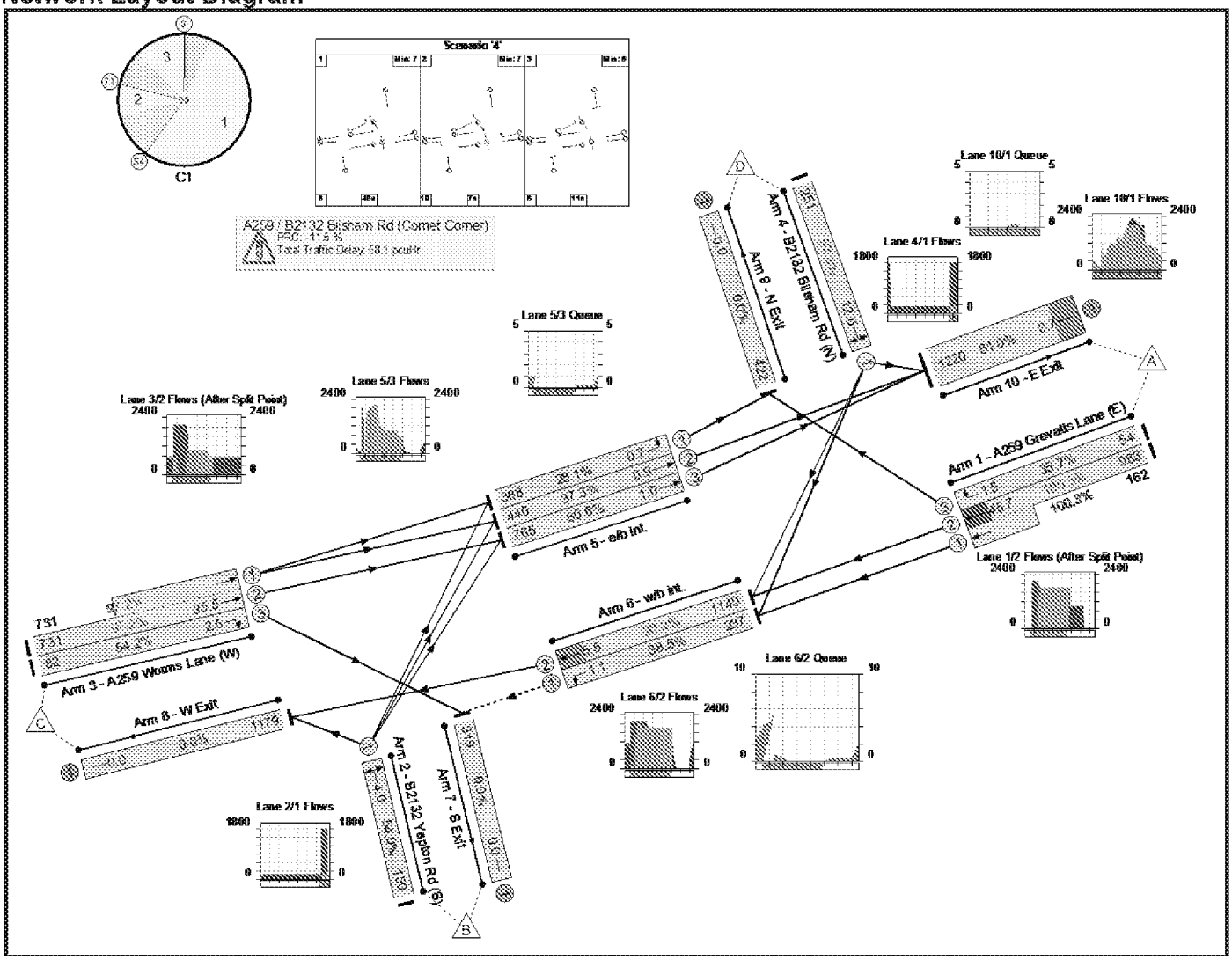
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	**0**	**142**	**0**	**18.9**	**17.8**	**0.0**	**36.7**	-	-	-	-
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	**0**	**142**	**0**	**18.9**	**17.8**	**0.0**	**36.7**	-	-	-	-
1/2+1/1	865	865	-	-	-	4.8	2.8	-	7.6 (6.9+0.7)	31.6 (31.8:30.0)	18.2	2.8	20.9
1/3	17	17	-	-	-	0.2	0.1	-	0.2	51.2	0.4	0.1	0.5
2/1	247	247	-	-	-	2.4	1.3	-	3.7	53.7	5.8	1.3	7.1
3/2+3/1	1360	1360	-	-	-	6.4	7.5	-	13.9 (6.9+7.0)	36.7 (36.4:36.9)	20.3	7.5	27.8
3/3	53	53	-	-	-	0.6	0.3	-	0.8	56.8	1.2	0.3	1.5
4/1	296	296	-	-	-	3.0	4.8	-	7.8	94.5	7.2	4.8	12.0
5/1	388	388	-	-	-	0.1	0.2	-	0.3	3.0	0.5	0.2	0.7
5/2	433	433	-	-	-	0.2	0.0	-	0.2	1.8	1.5	0.0	1.5
5/3	738	738	-	-	-	0.3	0.0	-	0.3	1.2	1.6	0.0	1.6
6/1	142	142	0	142	0	0.0	0.1	-	0.1	3.7	0.4	0.1	0.5
6/2	993	993	-	-	-	0.9	0.0	-	0.9	3.4	6.6	0.0	6.6
7/1	185	185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1041	1041	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1197	1197	-	-	-	0.1	0.7	-	0.8	2.5	0.3	0.4	0.7

C1 PRC for Signalled Lanes (%): -5.3 Total Delay for Signalled Lanes (pcuHr): 35.71 Cycle Time (s): 90
PRC Over All Lanes (%): -5.3 Total Delay Over All Lanes(pcuHr): 36.68

Full Input Data And Results

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

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	N/A	-	-		-	-	-	-	-	-	**100.3%**
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	N/A	-	-		-	-	-	-	-	-	**100.3%**
1/2+1/1	A259 Grevatts Lane (E) Ahead	U	N/A	N/A	D		1	48	-	1145	2105:1965	980+161	100.3 : 100.3%
1/3	A259 Grevatts Lane (E) Right	U	N/A	N/A	I		1	7	-	54	1702	151	35.7%
2/1	B2132 Yapton Rd (S) Right Left	U	N/A	N/A	F		1	13	-	150	1786	278	54.0%
3/2+3/1	A259 Worms Lane (W) Ahead	U	N/A	N/A	A		1	48	-	1462	2105:1965	752+752	97.2 : 97.2%
3/3	A259 Worms Lane (W) Right	U	N/A	N/A	H		1	7	-	82	1702	151	54.2%
4/1	B2132 Bilsham Rd (N) Right Left	U	N/A	N/A	G		1	12	-	251	1786	258	97.3%
5/1	e/b int. Left	U	N/A	N/A	C		1	65	-	368	1786	1310	28.1%
5/2	e/b int. Ahead	U	N/A	N/A	B		1	53	-	440	1965	1179	37.3%
5/3	e/b int. Ahead	U	N/A	N/A	B		1	53	-	765	2105	1263	60.6%
6/1	w/b int. Left	O	N/A	N/A	-		-	-	-	238	1900	617	38.5%
6/2	w/b int. Ahead	U	N/A	N/A	E		1	53	-	1143	2105	1263	90.2%
7/1	S Exit	U	N/A	N/A	-		-	-	-	320	inf	inf	0.0%
8/1	W Exit	U	N/A	N/A	-		-	-	-	1182	inf	inf	0.0%
9/1	N Exit	U	N/A	N/A	-		-	-	-	422	inf	inf	0.0%
10/1	E Exit	U	N/A	N/A	-		-	-	-	1220	2000	2000	61.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A259 / B2132 Bilsham Rd (Comet Corner) proposed signals	-	-	**0**	**237**	**0**	**19.8**	**38.4**	**0.0**	**58.1**	-	-	-	-
A259 / B2132 Bilsham Rd (Comet Corner)	-	-	**0**	**237**	**0**	**19.8**	**38.4**	**0.0**	**58.1**	-	-	-	-
1/2+1/1	1145	1141	-	-	-	6.6	17.9	-	24.5 (21.1+3.4)	77.0 (77.1:76.2)	27.9	17.9	45.7
1/3	54	54	-	-	-	0.6	0.3	-	0.9	57.0	1.3	0.3	1.5
2/1	150	150	-	-	-	1.5	0.6	-	2.0	49.0	3.4	0.6	4.0
3/2+3/1	1462	1462	-	-	-	6.3	11.4	-	17.7 (8.8+8.9)	43.6 (43.4:43.8)	24.2	11.4	35.5
3/3	82	82	-	-	-	0.9	0.6	-	1.5	64.8	2.0	0.6	2.5
4/1	251	251	-	-	-	2.7	6.4	-	9.0	129.7	6.2	6.4	12.6
5/1	368	368	-	-	-	0.1	0.2	-	0.3	3.1	0.5	0.2	0.7
5/2	440	440	-	-	-	0.1	0.0	-	0.1	1.1	0.9	0.0	0.9
5/3	765	765	-	-	-	0.2	0.0	-	0.2	0.8	1.0	0.0	1.0
6/1	237	237	0	237	0	0.0	0.3	-	0.3	4.8	0.7	0.3	1.1
6/2	1140	1140	-	-	-	0.7	0.0	-	0.7	2.2	5.5	0.0	5.5
7/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1179	1179	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1220	1220	-	-	-	0.1	0.8	-	0.9	2.6	0.3	0.4	0.7

C1 PRC for Signalled Lanes (%): -11.5 Total Delay for Signalled Lanes (pcuHr): 56.94 Cycle Time (s): 90
PRC Over All Lanes (%): -11.5 Total Delay Over All Lanes(pcuHr): 58.13

Appendix O – Capacity Assessment Reports Sensitivity

ARUN DISTRICT COUNCIL Y/3/22/OUT

Junctions 10

ARCADY 10 - Roundabout Module

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Filename: A361 - B2233 Main Road - North End Road Ford Mitigation.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 14/12/2021 17:05:40

»2031 + Ford + Dev, AM
»2031 + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	2031 + Ford + Dev													
Arm 1	D1	0.4	1.5	4.77	0.28	A	8.55	D2	1.4	2.1	8.88	0.59	A	6.41
Arm 2		3.1	11.4	10.19	0.76	B			0.7	2.5	4.18	0.41	A	
Arm 3		1.0	2.3	7.17	0.51	A			1.0	1.6	6.29	0.51	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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	01/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D2	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	untitled	Standard Roundabout		1, 2, 3	8.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.55	A

Arms

Arms

Arm	Name	Description	No give-way line
1	North End Road		
2	B2233 Main Road East		
3	B2233 Main Road West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	4.50	5.60	16.0	41.0	20.0	20.0		
2	3.40	4.60	12.0	15.0	20.0	0.0		
3	3.30	4.80	6.4	27.0	20.0	13.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1	✓	0.563	1258	0.563	1258
2	✓	0.635	1538	0.635	1538
3	✓	0.603	1316	0.603	1316

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	271	100.000
2		✓	1018	100.000
3		✓	472	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	178	93
	2	443	0	575
	3	141	331	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.28	4.77	0.4	1.5	A
2	0.76	10.19	3.1	11.4	B
3	0.51	7.17	1.0	2.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	248	1118	0.182	203	0.2	3.930	A
2	766	70	1494	0.513	762	1.0	4.895	A
3	355	332	1116	0.318	353	0.5	4.710	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	297	1091	0.223	243	0.3	4.247	A
2	915	84	1485	0.616	913	1.6	6.270	A
3	424	397	1076	0.394	424	0.6	5.509	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	363	1053	0.283	298	0.4	4.763	A
2	1121	102	1473	0.761	1115	3.0	9.890	A

3	520	485	1023	0.508	518	1.0	7.103	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	364	1053	0.283	298	0.4	4.771	A
2	1121	102	1473	0.761	1121	3.1	10.194	B
3	520	488	1022	0.509	520	1.0	7.166	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	299	1090	0.224	244	0.3	4.257	A
2	915	84	1485	0.616	921	1.6	6.452	A
3	424	401	1074	0.395	426	0.7	5.565	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	250	1117	0.183	204	0.2	3.944	A
2	766	70	1493	0.513	769	1.1	4.983	A
3	355	335	1114	0.319	356	0.5	4.752	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	1.04	0.55	1.00	1.40	1.45			N/A	N/A
3	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.58	0.05	0.68	3.89	5.85			N/A	N/A
3	0.64	0.11	0.85	1.37	1.44			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.25	0.46	0.48			N/A	N/A
2	3.05	0.03	0.29	3.05	11.40			N/A	N/A
3	1.02	0.03	0.26	1.02	1.02			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.32	1.29	1.46			N/A	N/A
2	3.11	0.03	0.27	3.11	3.84			N/A	N/A
3	1.03	0.03	0.27	1.03	2.26			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.64	0.06	0.88	3.87	5.64			N/A	N/A
3	0.66	0.14	0.89	1.38	1.44			N/A	N/A

09:00 - 09:15

	Mean	Q05	Q50	Q90	Q95	Percentile	Marker	Probability of reaching or	Probability of exactly

Arm	(Veh)	(Veh)	(Veh)	(Veh)	(Veh)	message	message	exceeding marker	reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	1.07	0.04	0.42	2.64	4.28			N/A	N/A
3	0.47	0.04	0.41	1.24	1.37			N/A	N/A

2031 + Ford + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	untitled	Standard Roundabout		1, 2, 3	6.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	522	100.000
2		✓	552	100.000
3		✓	547	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	424	98
	2	213	0	339
	3	98	449	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.59	8.88	1.4	2.1	A
2	0.41	4.18	0.7	2.5	A
3	0.51	6.29	1.0	1.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	336	1069	0.368	391	0.6	5.292	A
2	416	73	1491	0.279	414	0.4	3.337	A
3	412	160	1220	0.338	410	0.5	4.435	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	403	1031	0.455	468	0.8	6.384	A
2	496	88	1482	0.335	496	0.5	3.647	A
3	492	191	1201	0.410	491	0.7	5.067	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	493	980	0.586	572	1.4	8.778	A
2	608	107	1470	0.414	607	0.7	4.169	A
3	602	234	1175	0.513	601	1.0	6.257	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	494	980	0.587	575	1.4	8.884	A
2	608	108	1469	0.414	608	0.7	4.177	A
3	602	235	1175	0.513	602	1.0	6.289	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	405	1030	0.456	471	0.8	6.471	A
2	496	89	1482	0.335	497	0.5	3.657	A
3	492	192	1200	0.410	493	0.7	5.099	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	339	1067	0.368	394	0.6	5.354	A
2	416	74	1491	0.279	416	0.4	3.349	A
3	412	161	1219	0.338	413	0.5	4.466	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.55	1.00	1.40	1.45			N/A	N/A
2	0.38	0.00	0.00	0.38	0.38			N/A	N/A
3	0.51	0.51	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.82	0.10	0.87	1.40	1.40			N/A	N/A
2	0.50	0.50	1.00	1.40	1.45			N/A	N/A
3	0.69	0.12	0.86	1.38	1.44			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.39	0.03	0.27	1.39	1.39			N/A	N/A
2	0.70	0.03	0.25	0.70	0.70			N/A	N/A
3	1.04	0.03	0.26	1.04	1.04			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.40	0.03	0.27	1.40	2.08			N/A	N/A
2	0.70	0.03	0.28	0.70	2.53			N/A	N/A
3	1.04	0.03	0.27	1.04	1.64			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.85	0.10	0.89	1.48	1.48			N/A	N/A
2	0.51	0.51	1.00	1.40	1.45			N/A	N/A
3	0.70	0.20	0.93	1.39	1.44			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.05	0.50	1.36	1.47			N/A	N/A
2	0.39	0.00	0.00	0.39	0.39			N/A	N/A
3	0.51	0.05	0.49	1.30	1.40			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: A361 - B2233 Main Road - North End Road Ford Mitigation.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:56:19

»2031 + Ford + Dev, AM
»2031 + Ford + Dev, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	2031 + Ford + Dev													
Arm 1	D1	0.4	1.5	4.77	0.28	A	8.38	D2	1.4	2.1	8.88	0.59	A	6.37
Arm 2		3.0	10.8	10.01	0.76	B			0.7	2.6	4.10	0.40	A	
Arm 3		1.0	2.4	6.92	0.49	A			1.0	1.7	6.21	0.51	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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	01/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15
D2	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 + Ford + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	untitled	Standard Roundabout		1, 2, 3	8.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.38	A

Arms

Arms

Arm	Name	Description	No give-way line
1	North End Road		
2	B2233 Main Road East		
3	B2233 Main Road West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	4.50	5.60	16.0	41.0	20.0	20.0		
2	3.40	4.60	12.0	15.0	20.0	0.0		
3	3.30	4.80	6.4	27.0	20.0	13.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1	✓	0.563	1258	0.563	1258
2	✓	0.635	1538	0.635	1538
3	✓	0.603	1316	0.603	1316

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 + Ford + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	271	100.000
2		✓	1012	100.000
3		✓	456	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	178	93
	2	443	0	569
	3	125	331	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.28	4.77	0.4	1.5	A
2	0.76	10.01	3.0	10.8	B
3	0.49	6.92	1.0	2.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	248	1118	0.182	203	0.2	3.930	A
2	762	70	1494	0.510	758	1.0	4.864	A
3	343	332	1116	0.308	342	0.4	4.638	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	297	1091	0.223	243	0.3	4.247	A
2	910	84	1485	0.613	908	1.6	6.213	A
3	410	397	1076	0.381	409	0.6	5.390	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	363	1053	0.283	298	0.4	4.764	A
2	1114	102	1473	0.756	1109	3.0	9.724	A
3	502	485	1023	0.491	501	0.9	6.869	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	298	364	1053	0.283	298	0.4	4.771	A
2	1114	102	1473	0.756	1114	3.0	10.008	B
3	502	488	1022	0.491	502	1.0	6.923	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	299	1090	0.224	244	0.3	4.259	A
2	910	84	1485	0.613	915	1.6	6.386	A
3	410	401	1074	0.382	411	0.6	5.441	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	250	1117	0.183	204	0.2	3.943	A
2	762	70	1493	0.510	764	1.1	4.950	A
3	343	334	1114	0.308	344	0.4	4.677	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	1.03	0.55	1.00	1.40	1.45			N/A	N/A
3	0.44	0.00	0.00	0.44	0.44			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.55	0.05	0.69	3.81	5.71			N/A	N/A
3	0.61	0.10	0.84	1.37	1.43			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.25	0.46	0.48			N/A	N/A
2	2.98	0.03	0.29	2.98	10.76			N/A	N/A
3	0.95	0.03	0.26	0.95	0.95			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.32	1.29	1.46			N/A	N/A
2	3.04	0.03	0.27	3.04	3.52			N/A	N/A
3	0.96	0.03	0.27	0.96	2.41			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.61	0.06	0.90	3.78	5.46			N/A	N/A
3	0.62	0.13	0.88	1.38	1.44			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	1.05	0.04	0.42	2.60	4.16			N/A	N/A
3	0.45	0.04	0.36	1.18	1.34			N/A	N/A

2031 + Ford + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	untitled	Standard Roundabout		1, 2, 3	6.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	522	100.000
2		✓	537	100.000
3		✓	540	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	424	98
	2	213	0	324
	3	91	449	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.59	8.88	1.4	2.1	A
2	0.40	4.10	0.7	2.6	A
3	0.51	6.21	1.0	1.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	336	1069	0.368	391	0.6	5.292	A
2	404	73	1491	0.271	403	0.4	3.302	A
3	407	160	1220	0.333	405	0.5	4.406	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	403	1031	0.455	468	0.8	6.384	A
2	483	88	1482	0.326	482	0.5	3.598	A
3	485	191	1201	0.404	485	0.7	5.023	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	493	980	0.586	572	1.4	8.778	A
2	591	107	1470	0.402	590	0.7	4.091	A
3	595	234	1175	0.506	593	1.0	6.174	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	575	494	980	0.587	575	1.4	8.884	A
2	591	108	1469	0.402	591	0.7	4.098	A
3	595	235	1175	0.506	595	1.0	6.205	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	405	1030	0.456	471	0.8	6.471	A
2	483	89	1482	0.326	483	0.5	3.610	A
3	485	192	1200	0.404	487	0.7	5.055	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	339	1067	0.368	394	0.6	5.354	A
2	404	74	1491	0.271	405	0.4	3.314	A
3	407	161	1219	0.333	407	0.5	4.439	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.55	1.00	1.40	1.45			N/A	N/A
2	0.37	0.00	0.00	0.37	0.37			N/A	N/A
3	0.50	0.00	0.00	0.50	0.50			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.82	0.10	0.87	1.40	1.40			N/A	N/A
2	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3	0.67	0.12	0.86	1.37	1.44			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.39	0.03	0.27	1.39	1.39			N/A	N/A
2	0.67	0.03	0.25	0.67	0.67			N/A	N/A
3	1.01	0.03	0.26	1.01	1.01			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.40	0.03	0.27	1.40	2.08			N/A	N/A
2	0.67	0.03	0.28	0.82	2.61			N/A	N/A
3	1.02	0.03	0.27	1.02	1.70			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.85	0.10	0.89	1.48	1.48			N/A	N/A
2	0.49	0.00	0.00	0.49	0.49			N/A	N/A
3	0.69	0.20	0.93	1.39	1.44			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.05	0.50	1.36	1.47			N/A	N/A
2	0.37	0.00	0.00	0.37	0.37			N/A	N/A
3	0.50	0.05	0.47	1.29	1.39			N/A	N/A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: A361 - Burndell Road - Bilsham Road Mini Roundabout Ford Mitigation.j10
Path: P:\A361 Lamb Field, B2132 Bilsham Road, Yapton\Deliverables\Transport\Modelling\Junction\Capacity Assessment File
Report generation date: 08/12/2021 17:54:11

«2031 + Ford + Dev, PM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	2031 + Ford + Dev													
Arm 1	D1	1.3	1.5	7.07	0.56	A	6.56	D2	0.7	2.7	5.70	0.42	A	8.70
Arm 2		1.3	1.6	7.01	0.57	A			0.4	1.5	3.77	0.27	A	
Arm 3		0.8	2.1	5.42	0.46	A			3.1	12.7	11.90	0.76	B	

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. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	
Location	
Site number	
Date	01/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
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	Veh	perHour	s	-Min	perMin

Analysis Options

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

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 + Ford + Dev	PM	ONE HOUR	16:45	18:15	15

2031 + Ford + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
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	untitled	Standard Roundabout		1, 2, 3	8.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.70	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B2233 East		
2	B2132 Bilsham Road		
3	B2233 West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.40	4.60	11.0	9.0	20.0	22.0		
2	3.70	5.60	14.0	15.0	20.0	21.5		
3	3.30	4.50	8.0	16.0	20.0	10.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1	✓	0.563	1258	0.563	1258
2	✓	0.635	1538	0.635	1538
3	✓	0.603	1316	0.603	1316

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	408	100.000
2		✓	316	100.000
3		✓	869	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	72	336
	2	87	0	229
	3	582	287	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
1	0.42	5.70	0.7	2.7	A
2	0.27	3.77	0.4	1.5	A
3	0.76	11.90	3.1	12.7	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	215	1137	0.270	306	0.4	4.323	A
2	238	252	1378	0.173	237	0.2	3.154	A
3	654	65	1277	0.512	650	1.0	5.708	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	257	1113	0.330	366	0.5	4.817	A
2	284	302	1346	0.211	284	0.3	3.387	A
3	781	78	1269	0.616	779	1.6	7.317	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	314	1081	0.415	448	0.7	5.680	A
2	348	369	1304	0.267	348	0.4	3.763	A
3	957	96	1258	0.760	951	3.0	11.498	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	316	1080	0.416	449	0.7	5.705	A
2	348	370	1303	0.267	348	0.4	3.767	A
3	957	96	1258	0.760	956	3.1	11.897	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	367	260	1112	0.330	368	0.5	4.845	A
2	284	303	1346	0.211	284	0.3	3.392	A
3	781	78	1269	0.616	787	1.6	7.559	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	217	1136	0.270	308	0.4	4.350	A
2	238	253	1377	0.173	238	0.2	3.160	A
3	654	66	1276	0.513	657	1.1	5.829	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3	1.04	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2	0.27	0.00	0.00	0.27	0.27			N/A	N/A
3	1.57	0.06	0.81	3.75	5.49			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.70	0.03	0.25	0.70	0.70			N/A	N/A
2	0.36	0.03	0.25	0.45	0.48			N/A	N/A
3	3.02	0.03	0.30	3.02	12.73			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.71	0.03	0.28	0.82	2.72			N/A	N/A
2	0.36	0.03	0.32	1.22	1.49			N/A	N/A
3	3.09	0.03	0.28	3.09	5.44			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2	0.27	0.00	0.00	0.27	0.27			N/A	N/A
3	1.64	0.06	0.79	3.96	5.88			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3	1.06	0.04	0.40	2.67	4.44			N/A	N/A