ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

ANSTY GARDEN COMMUNITY,

WEST SUSSEX

DESIGNERS RESPONSE

REPORT REF NO. 2207280-R19B

PROJECT NO. 2207280

MAY 2025

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Ardent Consulting Engineers Limited | Registered in England | Company No 05463029

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C. ARCADY Output

Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for M&S Approval	DV	DH/KK	Draft	19/10/2023
-	Draft for M&S Approval	DV	DH/KK	Draft	24/10/2023
-	Final for Submission to WSCC	DV	JS/KK	DH	26/10/2023
A	Draft for WSCC Agreement	DH	KM	DH	29/04/2025
A	Final	DH	KM	DH	16/05/2025
B	Final	DH	KM	DH	23/05/2025

Distribution

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1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) has been appointed by Fairfax Acquisitions Ltd to advise on the transport aspects of the proposed development at Land Adjoining Ansty, West Sussex.

1.2 The proposed development comprises a residential-led, mixed-use development comprising up to 1,450 homes, a local centre, two schools and other community uses such as sports pitches.

1.3 This report addresses matters originally raised in the Stage 1 Road Safety Audit (RSA) undertaken by M & S Traffic (M&S), dated October 2023. The Audit is attached at **Appendix A**.

1.4 The Audit was undertaken on the proposed foot/cycle improvements to the existing mini-roundabout junction at Bolney Road / A272 / B2036, which is located to the south west of the proposed development site. The works involve pedestrian/cycle infrastructure improvements to include new crossing facilities, plus junction capacity improvements.

1.5 In advance of submission of this Designers' Response to WSCC as the overseeing organisation, a draft was issued to M&S in order to seek their feedback on the proposed responses and obtain their in-principle approval. The responses incorporated within this Designers Response incorporate M&S recommendations/acceptance as attached at **Appendix B**.

1.6 The following drawing have been prepared to incorporate the findings of the RSA:

- **ACE Drawing 2207280-007D** – Proposed Cycle Connections A272 / Bolney Road / B2036

2.0 DESIGNERS RESPONSE TO STAGE 1 ROAD SAFETY AUDIT

Table 2.1 Project Details

Report title:	Designers Response to Stage 1 Road Safety Audit – Bolney Mini scheme
Date:	May 2025
Document reference and revision:	2207280-R19B
Prepared by:	Ardent Consulting Engineers
On behalf of:	Fairfax Acquisitions Ltd

Table 2.2 Authorisation Sheet

Project:	Ansty Garden Community
Report title:	Designers Response to Stage 1 Road Safety Audit – Bolney Mini scheme
Prepared by	
Name:	Dan Vallance
Position:	Principal Transport Planner
Signed:	DV
Organisation:	Ardent Consulting Engineers
Date:	23/05/2025
Approved by	
Name:	David Howson
Position:	Associate Director
Signed:	DH
Organisation:	Ardent Consulting Engineers
Date:	23/05/2025

Table 2.3 Key Personnel

Overseeing Organisation:	WSCC Highways– Mr S Gee
RSA team:	M&S - Mr B. Shawyer & Mr M. Morris
Design organisation:	Ardent – Mr D. Vallance, Mr D. Howson & Mr K. Markey

Table 2.4 Road Safety Audit Decision Log

RSA problem	RSA recommendation	Design Organisation response	Overseeing Organisation response	Agreed RSA action
3.1.1 Insufficient construction details could lead to overshoot or rear end shunt collisions. The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout and surfacing as part of the scheme. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions.	It is recommended that high friction surfacing should be provided on all the approaches to the roundabout and that the PSV of all surfacing should be provided for assessment at Stage 2 Safety Audit.	Agree. Details of PSV values and surfacing materials will be provided for Stage 2 Audit.	High friction surfacing should be provided and details of PSV values to be provided at detailed design stage.	High friction surfacing to be provided and details of PSV values to be provided at detailed design stage.

3.1.2 Ponding of surface water could lead to loss of control collisions. Kerblines are being amended as part of these proposals, where at this early stage no details of carriageway drainage have been provided for assessment; ponding on the carriageway or water moving across the carriageway at the junction could lead to loss of control collisions, particularly in wet / icy conditions.	It is recommended that drainage details should be provided at Stage 2 Safety Audit.	Agree. Drainage details will be provided for Stage 2 Audit.	Drainage Details to be provided at detailed design.	Drainage Details to be provided at detailed design.
3.2.1 Vehicles entering the opposing carriageway at bend may lead to collisions with parked vehicles, side swipe collisions or vehicle to pedestrian collisions. Kerblines are being amended to accommodate the proposed scheme; however, no swept paths have been provided assessment. There is concern that larger vehicles such a refuse vehicle may not be able to undertake turning manoeuvres without entering the adjacent running lane or opposing carriageway or colliding with street furniture. Insufficient carriageway space could lead	It is recommended that the carriageway widths should be sufficient to ensure that all expected movements can be safely accommodated, where swept paths should be supplied for assessment.	Agree. Swept paths of a 12m rigid vehicle turning left from Bolney Road has been shown on **ACE Drawing 2207280-007D**. A box van sized vehicle has also been shown in either direction with no encroachment to opposing lanes etc. A 16.5m artic sized vehicle has also been shown where it is confirmed that overrunning of the footway(s) is not required and collision with street furniture would not occur. The swept path of an artic reflects that of the current junction layout where the full junction area is required to turn.	Tracking has been provided for 16.5m artic at the roundabout and indicates that the movements potentially impacted by the proposals can be accommodated. At the side road a 7.5m box van has been used for tracking as the largest regular vehicle and can undertake the left out movement without overrunning the centerline.	No further action at this stage.

to sideswipe collisions, or footway overrun and potential vehicle to pedestrian collisions, or collisions with the pedestrian refuge, and possible loss of control collisions.				
3.3.1 Insufficient capacity could lead to rear end shunt or side impact collisions. No details of expected flows and the capacity of the roundabout have been provided for assessment. Insufficient capacity could lead to congestion, where excessive queuing at the roundabout could lead to driver frustration and the use of inappropriate gaps, further unbalanced flows could lead to entry problems on to the roundabout. This may lead to rear end shunt or side impact collisions.	It is recommended that the roundabout should operate without excessive queuing and with balanced flows and that an ARCADY or similar model should be provided for assessment.	Agree. An ARCADY assessment has been undertaken and demonstrates that the junction operates with spare capacity in the Development Case scenario. The results are attached at **Appendix C**.	Junction Modelling has been provided and is acceptable	No further action at this stage.
3.4.1 Restricted visibility could lead to vehicle to cyclist collisions. No details relating to the cyclist / traffic intervisibility splays at the cycle street junction with Bolney Road have been provided for assessment. There is concern that the hedgerow in the eastern splay on the	It is recommended that the hedgerow should be cut back and periodically maintained to retain visibility.	Agree. The street in question is to be kept as per the existing arrangements. The concern is an existing situation that is not being amended as part of the proposals. This has been made clear on **ACE Drawing 2207280-007D**.	Vegetation in the existing visibility splay and within the highway boundary would be subject to routine maintenance.	Visibility splays to be suitably maintained and kept clear.

southern side of the carriageway may restrict intervisibility. Restricted intervisibility could lead to vehicle to cyclist collisions.				
3.4.2 Absence of tactile paving could lead to cyclist to pedestrian collisions. Shared footway / cycleways are proposed; however, at this early stage, no details have been provided on the tactile paving. Pedestrians may be unaware that the footway is a shared use route, which may lead to cyclist to pedestrian collisions.	It is recommended that paving details are provided are provided for assessment at Stage 2 Safety Audit.	Agree. Tactile and corduroy paving is shown on **ACE Drawing 2207280-007D.** Further details will be provided for Stage 2 Safety Audit.	Tactile and corduroy paving and shown on the updated drawing and will be subject to the stage 2 RSA.	Suitable tactile paving to be retained within the design and presented for RSA2.
3.5.1 Absence of vertical cyclist signage could lead to cyclist to pedestrian collisions. Shared footway / cycleways are proposed; however, at this early stage, no details have been provided on the vertical signage. Pedestrians may be unaware that the footway is a shared use route, which may lead to cyclist to pedestrian collisions.	It is recommended that signing details are provided are provided for assessment at Stage 2 Safety Audit.	Agree. Signage to be in accordance with TSRGD and LTN1/20 standards noted on **ACE Drawing 2207280-007D.** Signage details will be provided for Stage 2 Safety Audit.	Signage details are shown on the updated drawing and will be subject to the stage 2 RSA.	Signage details will be provided for Stage 2 Audit.

Table 2.6 Design Organisation Statement

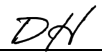
On behalf of the design organisation I certify that: **1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.**	
Name:	David Howson
Signed	
Position:	Associate Director
Organisation:	Ardent Consulting Engineers
Date:	23/05/2025

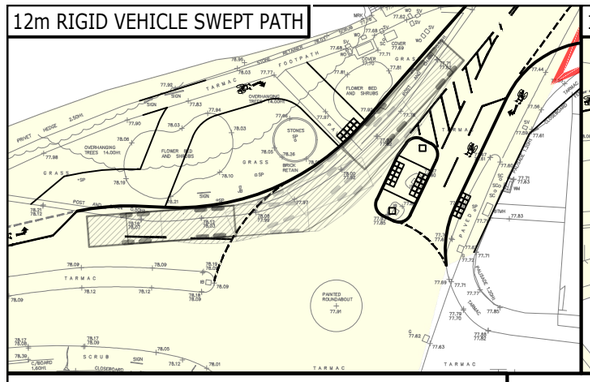
Table 2.6 Overseeing Organisation Statement

On behalf of the Overseeing Organisation I certify that: **1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and** **2) the agreed RSA actions will be progressed.**	
Name:	Stephen Gee
Signed:	
Position:	Principal Transport Planner
Organisation:	West Sussex County Council Highways
Date:	23/05/2025

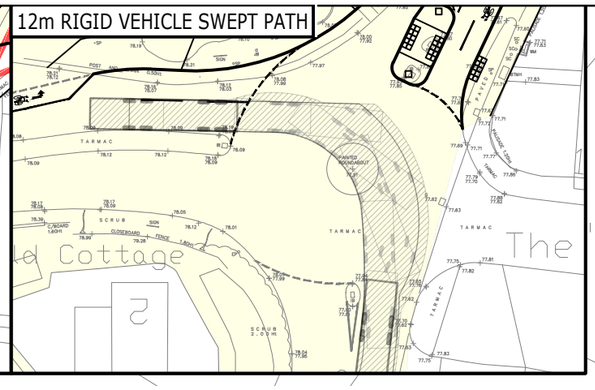
Designers Response

Drawings

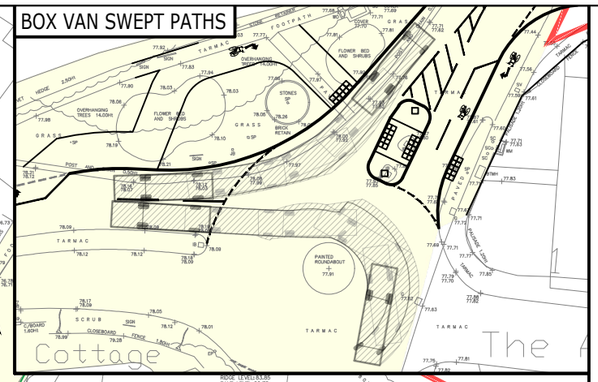
12m RIGID VEHICLE SWEPT PATH



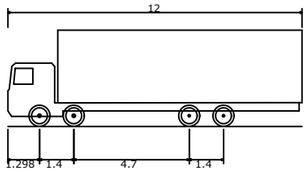
12m RIGID VEHICLE SWEPT PATH



BOX VAN SWEPT PATHS

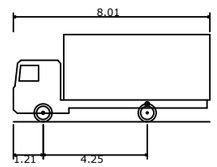


VEHICLE SPECIFICATIONS:

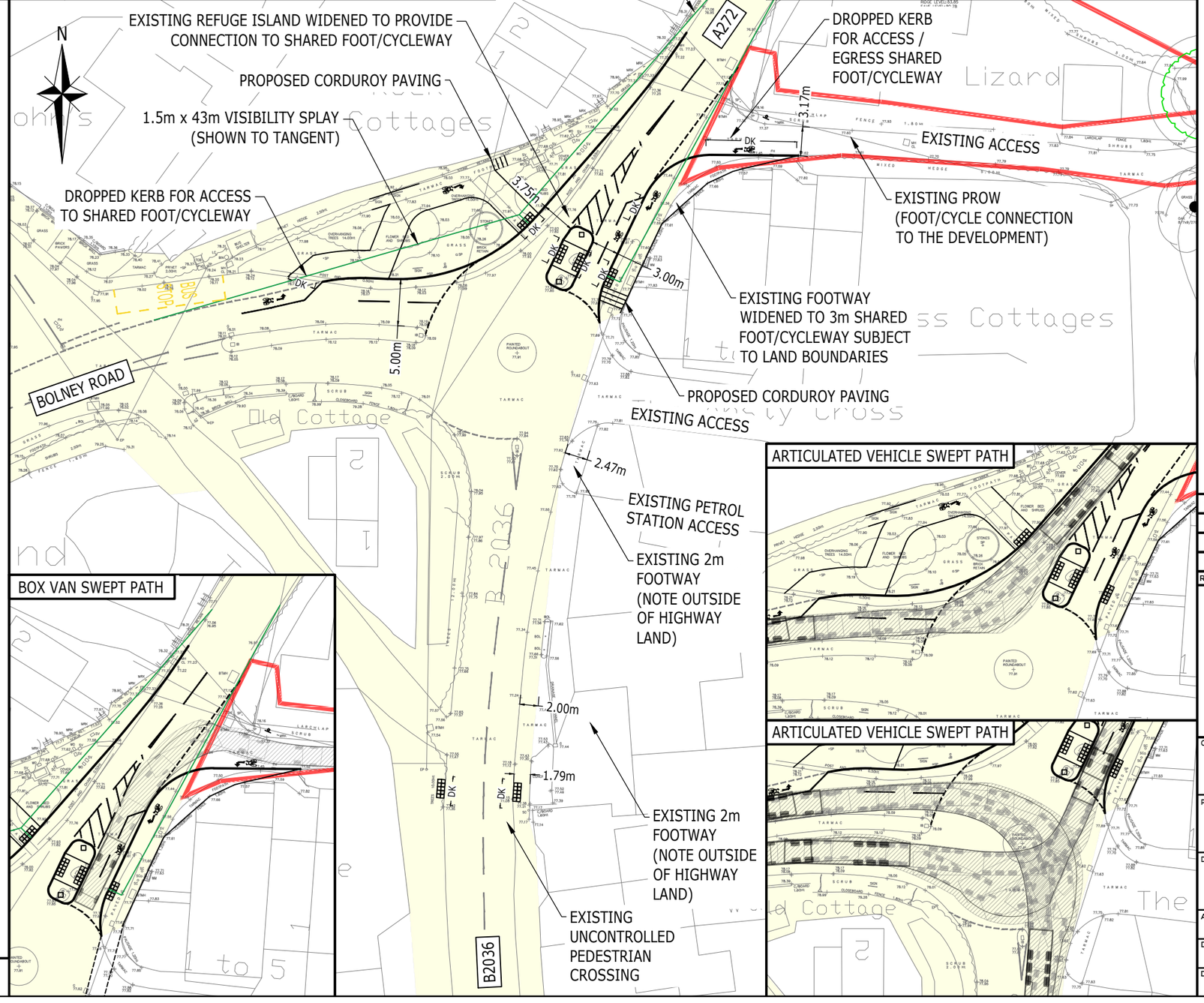


Rigid Truck	
Overall Length	12.000m
Overall Width	2.500m
Overall Body Height	3.928m
Min Body Ground Clearance	0.412m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.900m

16.5m Articulated Vehicle	
Overall Length	16.500m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.396m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.870m



7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m



NOTES:

THE PEDESTRIAN/CYCLE ACCESS STRATEGY IS SUBJECT TO DISCUSSIONS WITH HIGHWAYS BUT INDICATIVE ROUTING/CROSSING LOCATIONS HAVE BEEN SHOWN SUBJECT TO REVIEW AGAINST LAND OWNERSHIP/CONSTRAINTS INFORMATION, ECOLOGY INFORMATION AND ARBORICULTURAL SURVEY.

VISIBILITY SPLAYS SUBJECT TO SPEED LIMIT CHANGE AND DISCUSSIONS WITH HIGHWAYS.

SIGNAGE TO BE IN ACCORDANCE WITH TSRGD AND LTN/1 20 STANDARDS.

KEY:

INDICATIVE SITE BOUNDARY TO BE CONFIRMED

HIGHWAY BOUNDARY TRANSCRIBED FROM MID SUSSEX RECORDS

DRAFT

Rev	Description	Drn	Chk	App	Date
D	ADDITIONAL ARTICULATED VEHICLE TRACKS ADDED	BT	BT	DH	15.05.25
C	ARTICULATED VEHICLE TRACKS ADDED	DV	DV	DH	29.04.25
B	UPDATED FOLLOWING STAGE 1 RSA COMMENTS	DV	DV	DH	17.10.23
A	UPDATED TO ALLOW 5m ENTRY WIDTH	DV	DV	DH	22.09.23

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Client

FAIRFAX ACQUISITIONS LTD

Project Title:

LAND AT ANTSY FARM, MID SUSSEX

Drawing Title:

PROPOSED CYCLE CONNECTIONS
A272 / BOLNEY ROAD / B2036

A3 Scale	Date	Designed by
1:500	03.08.23	DV
Drawn by	**Checked by**	**Approved by**
DV	DV	KM

Drawing Number: 2207280-007 Rev D

Designers Response Appendix A

Stage 1 Road Safety Audit

M & S Traffic

Road Safety Audit Stage 1

Land at Ansty Farm

Proposed Cycle Connections

A272 Bolney Road / B2036 Harvest Hill

Ansty

West Sussex

Date: 13th October 2023

Report produced for: Ardent Consulting Engineers

Report produced by: M & S Traffic Ltd

DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from Ardent Consulting Engineers. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Report Title:	Land at Antsy Farm, Mid Sussex (Proposed Cycle Connections A272 / Bolney Road / B2036) Road Safety Audit Stage 1
Date:	13th October 2023
Document reference and revision:	ARD/23//2207280/1/MM
Prepared by:	M & S Traffic
On behalf of:	West Sussex County Council

	Prepared by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
Revision	Martin Morris	Bryan Shawyer		13th October 2023
Designers Response				
Authority Response				

Distribution

Organisation	Contact	Copies
Ardent Consulting Engineers	David Howson	-

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Appendix A……. List of drawings

Appendix B……. Comment Location Drawing

1 INTRODUCTION

1.1 This report describes a Stage 1 Road Safety Audit carried out on proposed Section 278 works at A272 Bolney Road / B2036 Harvest Hill, Ansty associated with a proposed development in Ansty, West Sussex, comprising of:

- The provision of improved cycle connections at the A272 / Bolney Road / B2036 junction.
- Two-lane approach on the Bolney Road arm of the mini-roundabout junction.
- A shared footway / cycleway from then northern side of the carriageway of Bolney Road to an existing access of the northern of the A272 via refuge island which is proposed to be widened.

The Audit was requested by the design organisation, Ardent Consulting Engineers, Crescent Court, High St, Billericay, CM12 9AQ on behalf of West Sussex County Council as the Highway Authority.

1.2 The Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Leader
Highways England Approved RSA Certificate of Competency

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA– Audit Team Member
Highways England Approved RSA Certificate of Competency

1.3 The audit was undertaken following the principles of GG 119, The Design Manual for Roads and Bridges. The documents available at the time of the report are detailed in Appendix A.

1.4 The Audit took place at the Gillingham offices of M&S Traffic during October 2023 and comprised an examination of the documents provided as listed in Appendix A. A joint site visit and inspection was undertaken on the 10th of October 2023 between 11:30 and 17:30 hours. Weather conditions at the time were fine and the road surfaces were dry. Traffic flows and free flow speeds were moderate. There were low pedestrian and no cyclist movements observed during the site visit.

1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check function on these proposals. It is assumed that the Project Sponsor is satisfied that such a Technical Check” has been successfully completed prior to requesting this safety audit.

1.6 No Departures from Standard, traffic flow or personal injury collision data was provided to the Audit Team.

1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 ITEMS RAISED BY PREVIOUS AUDITS

2.1 No previous Road Safety Audits were supplied for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Proposed scheme.

Summary: Insufficient construction details could lead to overshoot or rear end shunt collisions.

The proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout and surfacing as part of the scheme. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions.

RECOMMENDATION

It is recommended that high friction surfacing should be provided on all the approaches to the roundabout and that the PSV of all surfacing should be provided for assessment at Stage 2 Safety Audit.

3.1.2 PROBLEM

Location: Proposed scheme.

Summary: Ponding of surface water could lead to loss of control collisions.

Kerblines are being amended as part of these proposals, where at this early stage no details of carriageway drainage have been provided for assessment; ponding on the carriageway or water moving across the carriageway at the junction could lead to loss of control collisions, particularly in wet / icy conditions.

RECOMMENDATION

It is recommended that drainage details should be provided at Stage 2 Safety Audit.

3.2 Local Alignment

3.2.1 PROBLEM

Location: Proposed scheme.

Summary: Vehicles entering the opposing carriageway at bend may lead to collisions with parked vehicles, side swipe collisions or vehicle to pedestrian collisions.

Kerblines are being amended to accommodate the proposed scheme; however, no swept paths have been provided assessment. There is concern that larger vehicles such a refuse vehicle may

not be able to undertake turning manoeuvres without entering the adjacent running lane or opposing carriageway or colliding with street furniture. Insufficient carriageway space could lead to sideswipe collisions, or footway overrun and potential vehicle to pedestrian collisions, or collisions with the pedestrian refuge, and possible loss of control collisions.

RECOMMENDATION

It is recommended that the carriageway widths should be sufficient to ensure that all expected movements can be safely accommodated, where swept paths should be supplied for assessment.

3.3 Junctions

3.3.1 PROBLEM

Location: Proposed roundabout.

Summary: Insufficient capacity could lead to rear end shunt or side impact collisions.

No details of expected flows and the capacity of the roundabout have been provided for assessment. Insufficient capacity could lead to congestion, where excessive queuing at the roundabout could lead to driver frustration and the use of inappropriate gaps, further unbalanced flows could lead to entry problems on to the roundabout. This may lead to rear end shunt or side impact collisions.

RECOMMENDATION

It is recommended that the roundabout should operate without excessive queuing and with balanced flows and that an ARCADY or similar model should be provided for assessment.

3.4 Non-Motorised User (NMU) Provision

3.4.1 PROBLEM

Location. Potential cycle street junction with Bolney Road.

Summary: Restricted visibility could lead to vehicle to cyclist collisions.

No details relating to the cyclist / traffic intervisibility splays at the cycle street junction with Bolney Road have been provided for assessment. There is concern that the hedgerow in the eastern splay on the southern side of the carriageway may restrict intervisibility. Restricted intervisibility could lead to vehicle to cyclist collisions.

RECOMMENDATION

It is recommended that the hedgerow should be cut back and periodically maintained to retain visibility.

3.4.2 **PROBLEM**

Location: Proposed shared footway / cycleways.

Summary: Absence of tactile paving could lead to cyclist to pedestrian collisions.

Shared footway / cycleways are proposed; however, at this early stage, no details have been provided on the tactile paving. Pedestrians may be unaware that the footway is a shared use route, which may lead to cyclist to pedestrian collisions.

RECOMMENDATION

It is recommended that paving details are provided are provided for assessment at Stage 2 Safety Audit.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 **PROBLEM**

Location: Proposed shared footway / cycleways.

Summary: Absence of vertical cyclist signage could lead to cyclist to pedestrian collisions.

Shared footway / cycleways are proposed; however, at this early stage, no details have been provided on the vertical signage. Pedestrians may be unaware that the footway is a shared use route, which may lead to cyclist to pedestrian collisions.

RECOMMENDATION

It is recommended that signing details are provided are provided for assessment at Stage 2 Safety Audit.

4 ISSUES IDENTIFIED DURING THE ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

4.1 Safety issues identified during the audit and site inspection that are outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrant that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

4.2 The Audit Team had no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 13/10/2023

Audit Team Member

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 13/10/2023

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APPENDIX A

List of Drawings and other information submitted for auditing:

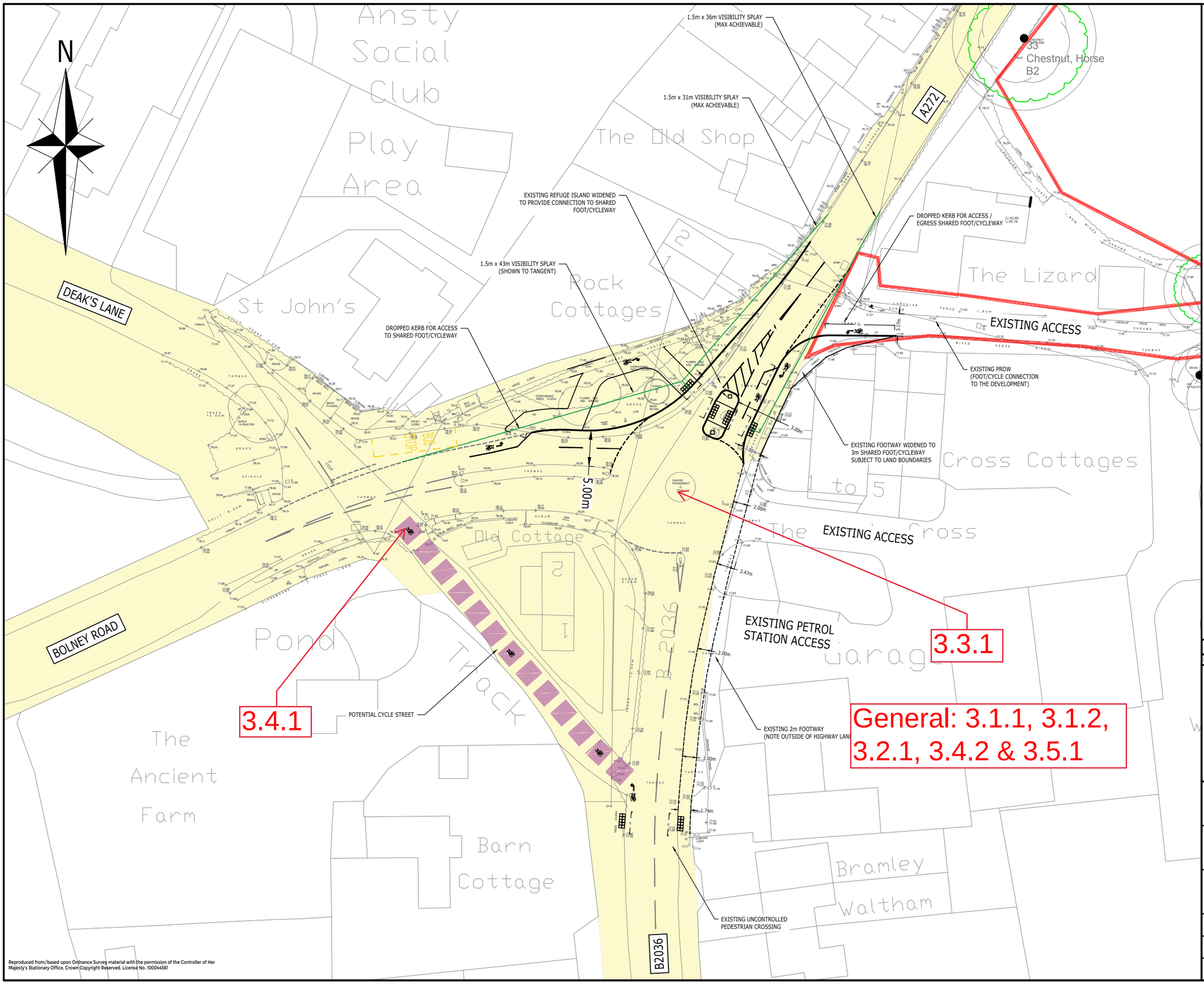
Drawing Number	Title
2207280-007 A	Proposed Cycle Connections A272 / Bolney Road / B2036

Supporting documentation:

- Covering email Ardent Consulting Engineers.

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).



NOTES:

THE PEDESTRIAN/CYCLE ACCESS STRATEGY IS SUBJECT TO DISCUSSIONS WITH HIGHWAYS BUT INDICATIVE ROUTING/CROSSING LOCATIONS HAVE BEEN SHOWN SUBJECT TO REVIEW AGAINST LAND OWNERSHIP/CONSTRAINTS INFORMATION, ECOLOGY INFORMATION AND ARBORICULTURAL SURVEY.

VISIBILITY SPLAYS SUBJECT TO SPEED LIMIT CHANGE AND DISCUSSIONS WITH HIGHWAYS.

KEY:

- INDICATIVE SITE BOUNDARY TO BE CONFIRMED
- HIGHWAY BOUNDARY TRANSCRIBED FROM MID SUSSEX RECORDS

DRAFT

Rev	Description	Drn	Chk	App	Date
A	UPDATED TO ALLOW 5m ENTRY WIDTH	DV	DV	DH	22.09.23

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Web: www.ardent-ce.co.uk
E-mail: enquiries@ardent-ce.co.uk

Client: FAIRFAX ACQUISITIONS LTD

Project Title: LAND AT ANTSY FARM, MID SUSSEX

Drawing Title: PROPOSED CYCLE CONNECTIONS A272 / BOLNEY ROAD / B2036

A3 Scale	Date	Designed by
1:500	03.08.23	DV
Drawn by	**Checked by**	**Approved by**
DV	DV	KM

Drawing Number: 2207280-007 Rev A

Designers Response Appendix B

M&S Traffic Response

David Howson

From: bryan.shawyer <bryan.shawyer@mstraffic.co.uk>
Sent: 25 October 2023 10:07
To: David Howson; martin.morris
Cc: Jamie Symington; Dan Vallance
Subject: RE: Ansty - Designers Response 2nd draft - Bolney Rd mini scheme

Hi David

Many thanks for these our comments are as follows:

3.1.1 Noted and accepted.
3.1.2 Noted and accepted.
3.2.1 Noted and accepted.
3.3.1 Noted and accepted.
3.4.1 Noted.
3.4.2 Noted and accepted.
3.5.1 Noted and accepted.

Kind regards

Bryan

Bryan Shawyer
Director

M&S Traffic Ltd
Aeolus House, 32 Hamelin Road, Gillingham, Kent ME7 3EX

M: 07891 596289 T: 01634 307498

From: David Howson <dhowson@ardent-ce.co.uk>
Sent: Tuesday, October 24, 2023 5:38 PM
To: martin.morris <martin.morris@mstraffic.co.uk>; bryan.shawyer <bryan.shawyer@mstraffic.co.uk>
Cc: Jamie Symington <jsymington@ardent-ce.co.uk>; Dan Vallance <dvallance@ardent-ce.co.uk>
Subject: Ansty - Designers Response 2nd draft - Bolney Rd mini scheme

Dear Martin,
Further to receipt of the Stage 1 RSA prepared by M&S Traffic, we have collated a Designers Response (DR) and in accordance with GG119 will be sending to WSCC Highways as the Overseeing Organisation in due course.

However, in the interim we though it appropriate to send our draft DR for M&S feedback and comment that we have suitably addressed the points raised for RSA1.

Kind regards
David

David Howson
Associate

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Designers Response Appendix C

ARCADY Output

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

Filename: Jct R - A272.B2036 Ansty Mini-Roundabout (Stnd Rnd, Improvements).j10
Path: Y:\ARDENT PROJECTS\2207280 - Land at Ansty Farm, Mid Sussex\Transport\ARCADY
Report generation date: 19/10/2023 13:15:23

»2019 Baseline, AM
»2019 Baseline, PM
»2039 Do Nothing, AM
»2039 Do Nothing, PM
»2039 Do Something Isolated, AM
»2039 Do Something Isolated, PM

Summary of junction performance

	AM			PM		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
	2019 Baseline					
1 - A272 (N)	9.1	48.59	0.92	51.0	198.95	1.11
2 - B2036 (S)	2.6	14.61	0.73	0.6	6.82	0.39
3 - A272 Bolney Rd (W)	2.2	10.79	0.69	1.8	8.39	0.65
	2039 Do Nothing					
1 - A272 (N)	13.6	70.33	0.97	276.3	1125.18	1.47
2 - B2036 (S)	2.2	10.03	0.69	0.8	7.62	0.44
3 - A272 Bolney Rd (W)	10.9	48.71	0.94	2.8	11.48	0.74
	2039 Do Something Isolated					
1 - A272 (N)	14.1	60.66	0.96	206.6	825.01	1.38
2 - B2036 (S)	17.8	85.35	1.00	0.8	8.01	0.45
3 - A272 Bolney Rd (W)	2.9	13.72	0.75	3.8	14.51	0.80

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

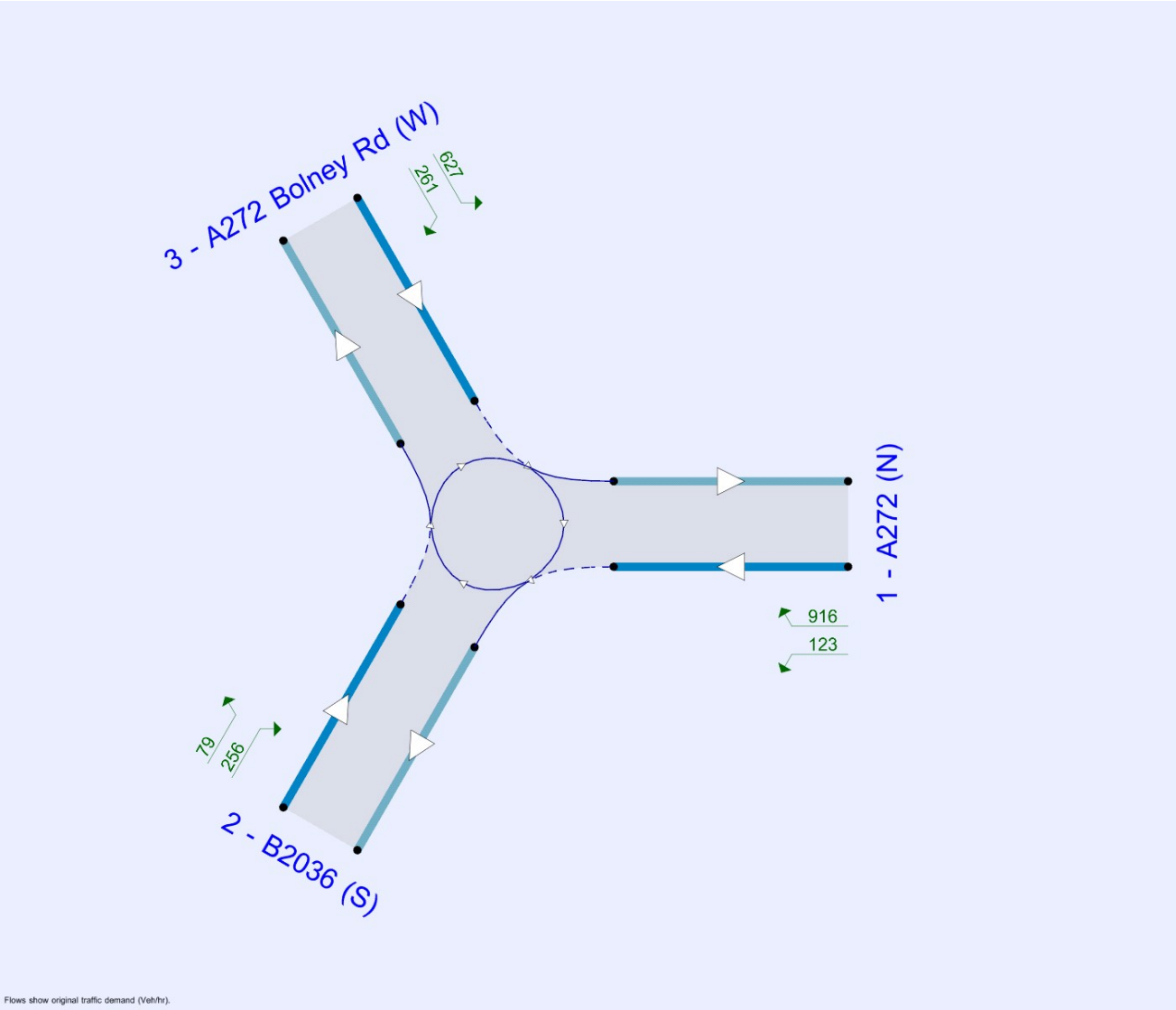
File summary

File Description

Title	A272 Bolney Rd / B2036 Mini Roundabout (J6)
Location	
Site number	
Date	01/05/2023
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Hour	perHour



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D3	2039 Do Nothing	AM	ONE HOUR	07:45	09:15	15	✓
D4	2039 Do Nothing	PM	ONE HOUR	16:45	18:15	15	✓
D5	2039 Do Something Isolated	AM	ONE HOUR	07:45	09:15	15	✓
D6	2039 Do Something Isolated	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2019 Baseline, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	24.85	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.85	C

Arms

Arms

Arm	Name	Description	No give-way line
1	A272 (N)		
2	B2036 (S)		
3	A272 Bolney Rd (W)		

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - A272 (N)	3.20	3.20	0.0	8.0	18.0	0.0		
2 - B2036 (S)	3.69	5.43	2.3	12.9	18.0	27.6		
3 - A272 Bolney Rd (W)	3.28	5.29	9.7	20.0	18.0	17.7		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A272 (N)	0.530	999
2 - B2036 (S)	0.566	1249
3 - A272 Bolney Rd (W)	0.620	1418

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	2019 Baseline	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	659	100.000
2 - B2036 (S)		ONE HOUR	✓	605	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	673	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	191	468
	2 - B2036 (S)	414	0	191
	3 - A272 Bolney Rd (W)	376	297	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	6	4
	2 - B2036 (S)	4	0	4
	3 - A272 Bolney Rd (W)	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	0.92	48.59	9.1	E	605	907
2 - B2036 (S)	0.73	14.61	2.6	B	555	833
3 - A272 Bolney Rd (W)	0.69	10.79	2.2	B	618	926

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	496	124	222	840	0.591	491	591	0.0	1.4	10.155	B
2 - B2036 (S)	455	114	348	1003	0.454	452	364	0.0	0.8	6.495	A
3 - A272 Bolney Rd (W)	507	127	309	1164	0.435	504	491	0.0	0.8	5.427	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	592	148	266	817	0.725	588	708	1.4	2.5	15.448	C
2 - B2036 (S)	544	136	418	964	0.564	542	437	0.8	1.3	8.493	A
3 - A272 Bolney Rd (W)	605	151	371	1126	0.537	603	589	0.8	1.1	6.868	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	726	181	325	786	0.923	704	864	2.5	7.8	37.064	E
2 - B2036 (S)	666	167	500	917	0.726	661	529	1.3	2.5	13.780	B
3 - A272 Bolney Rd (W)	741	185	452	1076	0.689	737	709	1.1	2.1	10.502	B

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	726	181	327	785	0.924	720	869	7.8	9.1	48.588	E
2 - B2036 (S)	666	167	511	911	0.731	666	536	2.5	2.6	14.607	B
3 - A272 Bolney Rd (W)	741	185	456	1074	0.690	741	722	2.1	2.2	10.790	B

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	592	148	269	815	0.727	618	716	9.1	2.8	20.176	C
2 - B2036 (S)	544	136	439	952	0.571	549	448	2.6	1.4	9.033	A
3 - A272 Bolney Rd (W)	605	151	376	1123	0.539	609	612	2.2	1.2	7.053	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	496	124	224	839	0.592	501	597	2.8	1.5	10.844	B
2 - B2036 (S)	455	114	356	999	0.456	458	370	1.4	0.8	6.673	A
3 - A272 Bolney Rd (W)	507	127	313	1162	0.436	508	501	1.2	0.8	5.522	A

2019 Baseline, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	90.32	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	90.32	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)	Run automatically
D2	2019 Baseline	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	778	100.000
2 - B2036 (S)		ONE HOUR	✓	308	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	716	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	125	653
	2 - B2036 (S)	265	0	43
	3 - A272 Bolney Rd (W)	354	362	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	3	1
	2 - B2036 (S)	1	0	4
	3 - A272 Bolney Rd (W)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	1.11	198.95	51.0	F	714	1071
2 - B2036 (S)	0.39	6.82	0.6	A	283	424
3 - A272 Bolney Rd (W)	0.65	8.39	1.8	A	657	986

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	586	146	271	842	0.696	577	463	0.0	2.2	13.198	B
2 - B2036 (S)	232	58	484	958	0.242	231	364	0.0	0.3	4.941	A
3 - A272 Bolney Rd (W)	539	135	198	1274	0.423	536	516	0.0	0.7	4.858	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	699	175	325	813	0.860	688	555	2.2	5.1	26.451	D
2 - B2036 (S)	277	69	577	906	0.306	276	435	0.3	0.4	5.717	A
3 - A272 Bolney Rd (W)	644	161	238	1250	0.515	642	616	0.7	1.0	5.911	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	857	214	397	775	1.106	759	679	5.1	29.5	97.517	F
2 - B2036 (S)	339	85	637	872	0.389	338	519	0.4	0.6	6.736	A
3 - A272 Bolney Rd (W)	788	197	291	1217	0.648	785	684	1.0	1.8	8.277	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	857	214	399	774	1.107	770	681	29.5	51.0	198.947	F
2 - B2036 (S)	339	85	647	867	0.391	339	522	0.6	0.6	6.823	A
3 - A272 Bolney Rd (W)	788	197	292	1217	0.648	788	694	1.8	1.8	8.393	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	699	175	327	812	0.861	796	558	51.0	26.8	179.091	F
2 - B2036 (S)	277	69	668	854	0.324	277	455	0.6	0.5	6.249	A
3 - A272 Bolney Rd (W)	644	161	239	1250	0.515	647	707	1.8	1.1	6.001	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	586	146	273	841	0.697	683	467	26.8	2.5	36.027	E
2 - B2036 (S)	232	58	573	908	0.255	232	383	0.5	0.3	5.334	A
3 - A272 Bolney Rd (W)	539	135	200	1274	0.423	540	606	1.1	0.7	4.919	A

2039 Do Nothing, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	42.82	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	42.82	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)	Run automatically
D3	2039 Do Nothing	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	661	100.000
2 - B2036 (S)		ONE HOUR	✓	720	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	778	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	580	81
	2 - B2036 (S)	639	0	81
	3 - A272 Bolney Rd (W)	480	298	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	9	4
	2 - B2036 (S)	4	0	4
	3 - A272 Bolney Rd (W)	5	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	0.97	70.33	13.6	F	607	910
2 - B2036 (S)	0.69	10.03	2.2	B	661	991
3 - A272 Bolney Rd (W)	0.94	48.71	10.9	E	714	1071

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	498	124	222	806	0.618	491	836	0.0	1.6	11.244	B
2 - B2036 (S)	542	136	60	1166	0.465	539	654	0.0	0.9	5.704	A
3 - A272 Bolney Rd (W)	586	146	478	1049	0.558	581	121	0.0	1.2	7.608	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	594	149	266	783	0.759	589	1002	1.6	2.9	18.048	C
2 - B2036 (S)	647	162	72	1160	0.558	646	783	0.9	1.2	6.983	A
3 - A272 Bolney Rd (W)	699	175	573	991	0.706	695	145	1.2	2.3	11.990	B

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	728	182	318	756	0.963	698	1212	2.9	10.3	47.296	E
2 - B2036 (S)	793	198	86	1152	0.688	789	930	1.2	2.1	9.821	A
3 - A272 Bolney Rd (W)	857	214	700	914	0.938	830	174	2.3	9.0	35.247	E

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	728	182	325	752	0.968	715	1227	10.3	13.6	70.328	F
2 - B2036 (S)	793	198	88	1151	0.689	793	952	2.1	2.2	10.033	B
3 - A272 Bolney Rd (W)	857	214	703	912	0.940	849	177	9.0	10.9	48.714	E

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	594	149	281	775	0.766	634	1030	13.6	3.6	30.689	D
2 - B2036 (S)	647	162	78	1157	0.560	651	837	2.2	1.3	7.165	A
3 - A272 Bolney Rd (W)	699	175	578	988	0.708	733	151	10.9	2.5	15.737	C

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	498	124	226	804	0.619	505	847	3.6	1.7	12.361	B
2 - B2036 (S)	542	136	62	1165	0.465	544	670	1.3	0.9	5.807	A
3 - A272 Bolney Rd (W)	586	146	483	1046	0.560	591	123	2.5	1.3	7.983	A

2039 Do Nothing, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	555.08	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	555.08	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)	Run automatically
D4	2039 Do Nothing	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	1102	100.000
2 - B2036 (S)		ONE HOUR	✓	336	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	826	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	180	922
	2 - B2036 (S)	258	0	78
	3 - A272 Bolney Rd (W)	559	267	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	8	1
	2 - B2036 (S)	2	0	0
	3 - A272 Bolney Rd (W)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	1.47	1125.18	276.3	F	1011	1517
2 - B2036 (S)	0.44	7.62	0.8	A	308	462
3 - A272 Bolney Rd (W)	0.74	11.48	2.8	B	758	1137

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	830	207	200	873	0.951	791	611	0.0	9.7	34.979	D
2 - B2036 (S)	253	63	662	857	0.295	251	329	0.0	0.4	5.927	A
3 - A272 Bolney Rd (W)	622	155	193	1279	0.486	618	720	0.0	0.9	5.418	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	991	248	239	852	1.163	845	733	9.7	46.2	133.502	F
2 - B2036 (S)	302	76	707	832	0.363	301	377	0.4	0.6	6.781	A
3 - A272 Bolney Rd (W)	743	186	231	1255	0.592	741	777	0.9	1.4	6.973	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	1213	303	292	824	1.473	823	895	46.2	143.6	423.737	F
2 - B2036 (S)	370	92	689	842	0.439	369	427	0.6	0.8	7.601	A
3 - A272 Bolney Rd (W)	909	227	283	1222	0.744	904	775	1.4	2.8	11.117	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	1213	303	294	823	1.474	823	899	143.6	241.3	834.633	F
2 - B2036 (S)	370	92	688	842	0.439	370	428	0.8	0.8	7.623	A
3 - A272 Bolney Rd (W)	909	227	284	1222	0.744	909	774	2.8	2.8	11.479	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	991	248	242	851	1.165	850	739	241.3	276.3	1096.416	F
2 - B2036 (S)	302	76	712	829	0.364	303	381	0.8	0.6	6.850	A
3 - A272 Bolney Rd (W)	743	186	233	1254	0.592	748	782	2.8	1.5	7.184	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	830	207	202	872	0.952	869	617	276.3	266.6	1125.183	F
2 - B2036 (S)	253	63	727	821	0.308	253	344	0.6	0.5	6.356	A
3 - A272 Bolney Rd (W)	622	155	195	1278	0.487	624	786	1.5	1.0	5.521	A

2039 Do Something Isolated, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	52.87	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	52.87	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)	Run automatically
D5	2039 Do Something Isolated	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	802	100.000
2 - B2036 (S)		ONE HOUR	✓	686	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	721	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	82	720
	2 - B2036 (S)	448	0	238
	3 - A272 Bolney Rd (W)	654	67	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	9	4
	2 - B2036 (S)	4	0	4
	3 - A272 Bolney Rd (W)	5	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	0.96	60.66	14.1	F	736	1104
2 - B2036 (S)	1.00	85.35	17.8	F	629	944
3 - A272 Bolney Rd (W)	0.75	13.72	2.9	B	662	992

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	604	151	50	929	0.650	597	823	0.0	1.8	10.615	B
2 - B2036 (S)	516	129	536	897	0.576	511	111	0.0	1.3	9.200	A
3 - A272 Bolney Rd (W)	543	136	334	1143	0.475	539	713	0.0	0.9	5.925	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	721	180	60	924	0.781	715	985	1.8	3.3	16.762	C
2 - B2036 (S)	617	154	642	837	0.737	611	133	1.3	2.6	15.587	C
3 - A272 Bolney Rd (W)	648	162	399	1103	0.588	646	854	0.9	1.4	7.841	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	883	221	73	917	0.963	851	1183	3.3	11.2	42.241	E
2 - B2036 (S)	755	189	764	768	0.984	717	160	2.6	12.1	51.017	F
3 - A272 Bolney Rd (W)	794	198	469	1061	0.748	788	1013	1.4	2.8	12.937	B

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	883	221	74	916	0.964	871	1198	11.2	14.1	60.661	F
2 - B2036 (S)	755	189	782	758	0.997	733	163	12.1	17.8	85.346	F
3 - A272 Bolney Rd (W)	794	198	478	1055	0.753	793	1036	2.8	2.9	13.718	B

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	721	180	61	923	0.781	762	1033	14.1	3.9	26.517	D
2 - B2036 (S)	617	154	684	813	0.758	674	139	17.8	3.4	33.541	D
3 - A272 Bolney Rd (W)	648	162	440	1078	0.601	654	918	2.9	1.5	8.591	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	604	151	51	929	0.650	612	837	3.9	1.9	11.620	B
2 - B2036 (S)	516	129	549	890	0.580	525	113	3.4	1.4	10.066	B
3 - A272 Bolney Rd (W)	543	136	343	1138	0.477	545	731	1.5	0.9	6.100	A

2039 Do Something Isolated, 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	A272 Bolney Rd / B2036 Mini Rbt	Standard Roundabout		1, 2, 3	386.77	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	386.77	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2039 Do Something Isolated	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - A272 (N)		ONE HOUR	✓	1039	100.000
2 - B2036 (S)		ONE HOUR	✓	335	100.000
3 - A272 Bolney Rd (W)		ONE HOUR	✓	888	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	123	916
	2 - B2036 (S)	256	0	79
	3 - A272 Bolney Rd (W)	627	261	0

Vehicle Mix

HV %s

		To		
		1 - A272 (N)	2 - B2036 (S)	3 - A272 Bolney Rd (W)
From	1 - A272 (N)	0	8	1
	2 - B2036 (S)	2	0	0
	3 - A272 Bolney Rd (W)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 (N)	1.38	825.01	206.6	F	953	1430
2 - B2036 (S)	0.45	8.01	0.8	A	307	461
3 - A272 Bolney Rd (W)	0.80	14.51	3.8	B	815	1222

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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	782	196	195	878	0.891	757	660	0.0	6.3	26.014	D
2 - B2036 (S)	252	63	667	854	0.295	251	285	0.0	0.4	5.951	A
3 - A272 Bolney Rd (W)	669	167	191	1280	0.522	664	727	0.0	1.1	5.803	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	934	234	234	857	1.089	841	792	6.3	29.6	91.763	F
2 - B2036 (S)	301	75	741	812	0.371	300	333	0.4	0.6	7.024	A
3 - A272 Bolney Rd (W)	798	200	230	1256	0.635	796	812	1.1	1.7	7.771	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	1144	286	285	830	1.378	829	966	29.6	108.2	309.072	F
2 - B2036 (S)	369	92	731	818	0.451	368	383	0.6	0.8	7.980	A
3 - A272 Bolney Rd (W)	978	244	281	1224	0.799	970	818	1.7	3.7	13.728	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	1144	286	287	829	1.380	829	972	108.2	187.0	639.822	F
2 - B2036 (S)	369	92	731	818	0.451	369	385	0.8	0.8	8.007	A
3 - A272 Bolney Rd (W)	978	244	282	1224	0.799	977	818	3.7	3.8	14.514	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	934	234	237	856	1.092	855	800	187.0	206.6	825.010	F
2 - B2036 (S)	301	75	754	805	0.374	302	338	0.8	0.6	7.165	A
3 - A272 Bolney Rd (W)	798	200	231	1256	0.636	806	825	3.8	1.8	8.153	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) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 (N)	782	196	197	877	0.892	873	667	206.6	184.1	806.326	F
2 - B2036 (S)	252	63	769	797	0.317	253	301	0.6	0.5	6.624	A
3 - A272 Bolney Rd (W)	669	167	193	1279	0.523	671	829	1.8	1.1	5.949	A