

ANSTY GARDEN COMMUNITY,

WEST SUSSEX

DESIGNERS RESPONSE

REPORT REF NO. 2207280-R15B

PROJECT NO. 2207280

MAY 2025

Head Office: Third Floor, The Hallmark Building, 52-56 Leadenhall Street, London EC3M 5JE | 020 7680 4088

Edinburgh: Suite 35, 4-5 Lochside Way, Edinburgh EH12 9DT | 0131 516 8111

Essex: 1-2 Crescent Court, High Street, Billericay CM12 9AQ | 01277 657677

Kent: Suite 10, 40 Churchill Business Square, Kings Hill, West Malling, Kent ME19 4YU | 01732 752155

Midlands: Office 3, The Garage Studios, 41-43 St Mary's Gate, The Lace Market, Nottingham NG1 1PU | 0115 697 0940

South West: Temple Studios, Temple Gate, Bristol BS1 6QA | 0117 456 4994

Suffolk: Suffolk Enterprise Centre, Felaw Maltings, 44 Felaw Street, Ipswich IP2 8SJ | 01473 407321

Contents

	Page
1.0 INTRODUCTION	3
2.0 AUDIT RESPONSE TO STAGE 1 ROAD SAFETY AUDIT	4

APPENDICES

- A. Stage 1 Road Safety Audit**
- B. M&S Response to draft Designers Response**
- 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 <i>KM</i>	DH <i>DH</i>	22/05/2025

Distribution

This report has been prepared for the exclusive use of Fairfax Acquisitions Ltd. It should not be reproduced in whole or in part, or relied upon by third parties, without the express written authority of Ardent Consulting Engineers.

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 A272 Southern Access roundabout junction, which is located to the south of the proposed development site. The works involve the construction of a new roundabout and pedestrian/cycle infrastructure improvements to include new crossing facilities.
- 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 2207280-005E** – Proposed Roundabout Southern Access (A272)

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 – Southern Access
Date:	May 2025
Document reference and revision:	2207280-R15B
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 – Southern Access
Prepared by	
Name:	Dan Vallance
Position:	Principal Transport Planner
Signed:	<i>DV</i>
Organisation:	Ardent Consulting Engineers
Date:	22/05/2025
Approved by	
Name:	David Howson
Position:	Associate Director
Signed:	<i>DH</i>
Organisation:	Ardent Consulting Engineers
Date:	22/05/2025

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
<p>3.1.1 Insufficient construction details could lead to overshoot or rear end shunt collisions.</p> <p>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.</p>	<p>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.</p>	<p>Agree. Details of PSV values and surfacing materials will be provided for Stage 2 Audit.</p>	<p>High friction surfacing should be provided and details of PSV values to be provided at detailed design stage.</p>	<p>High friction surfacing will be provided and details of PSV values to be provided at detailed design stage.</p>
<p>3.1.2 Ponding of surface water could lead to loss of control collisions.</p> <p>Kerblines are being amended as part of these proposals, where no details of</p>	<p>It is recommended that drainage details should be provided at Stage 2 Safety Audit.</p>	<p>Agree. Drainage details will be provided for Stage 2 Audit.</p>	<p>Drainage details to be provided at detailed design.</p>	<p>Drainage details to be provided at detailed design.</p>

<p>carriageway drainage have been provided for assessment; ponding on the carriageway or water moving across the carriageway at junctions or bends could lead to loss of control collisions, particularly in wet / icy conditions.</p>				
<p>3.1.3 Insufficient signing could lead to could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.</p> <p>A national speed limit currently applies to this section of Harvest Hill, where the proposed speed limit on the eastern arm is unknown. This could lead to inappropriate vehicle speeds approaching the Parallel crossing, which should not be installed on roads with an 85th percentile speed of 35 mph or above without speed reducing measures to slow traffic.</p> <p>Inappropriate vehicle speeds could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.</p>	<p>It is recommended that a 30mph speed restriction should be applied to the eastern arm of the roundabout.</p>	<p>Agreed, the eastern arm (development access) will be subject to a 20/30mph speed limit as noted on ACE Drawing 2207280-005E.</p> <p>To confirm, 43m visibility has also been shown to the give way line. Signage to be in accordance with TSRGD and LTN1/20 standards and vegetation to be trimmed and cut back to keep visibility splays clear has also been noted on the drawing.</p> <p>Signage details will be provided for Stage 2 Safety Audit.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>

<p>3.1.4 Inappropriate surfacing could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.</p> <p>The proposals do not include the introduction of anti-skid surfacing or a surface with a high polished stone value on the approaches to the Parallel crossing. Surfacing with an inadequate PSV could lead to vehicles not being able to stop, leading to possible rear end shunt or vehicle to pedestrian / cyclist collisions.</p>	<p>It is recommended that antiskid surfacing or surfacing with a high PSV should be used on the approaches to the crossing.</p>	<p>Agree. Details of PSV values and surfacing materials will be provided for Stage 2 Audit</p>	<p>High friction surfacing should be provided and details of PSV values to be provided at detailed design stage.</p>	<p>High friction surfacing will be provided and details of PSV values to be provided at detailed design stage.</p>
<p>3.2.1 Approaches to the proposed roundabout.</p> <p>Stopping Sight Distances (SSD) have been provided for assessment and at 215m are acceptable for the current national speed limit. An insufficient SSD may increase the risk of junction related or shunt type collisions at the roundabout and so the 120m SSD, which is commensurate with a 40mph design speed, should only be incorporated if a reduced speed limit of 40mph is introduced.</p>	<p>It is recommended that the SSD should be commensurate with the design speeds.</p>	<p>Agree. The proposed roundabout will significantly change the nature of speeds approaching the proposed crossing location, resulting in lower than compared to the current speeds</p> <p>Visibility splays for the current posted speed has been shown and noted to be kept clear to be robust at this stage.</p> <p>A change in speed limit is at the discretion of WSCC but agreed, if there is a change, the splays provided will be in accordance with speed limit.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>

		As presented on ACE Drawing 2207280-005E , the design incorporates suitable visibility splays based on the current posted speed limit.		
<p>3.2.2 Insufficient Stopping Sight Distance may increase the risk of junction related or shunt type collisions at the roundabout.</p> <p>On the westbound approach to the roundabout no SSD has been provided for assessment. There is concern that the SSD could pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.</p>	It is recommended that the SSD should be supplied for assessment and that they should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.	Agree. All visibility splays are within highway land or land within the development site and therefore can be kept clear as shown and noted on ACE Drawing 2207280-005E .	All visibility splays to be provided in highway land or within land under the applicants control.	No further action at this stage.
<p>3.2.3 Lack of vertical profile information could lead to side impact collisions and loss of control collisions.</p> <p>The proposed roundabout is located on Harvest Hill, where there is a fall from the northwest to the southeast. At this early stage no vertical alignment details were</p>	It is recommended that vertical alignment details should be provided for assessment at Stage 2 Safety Audit.	Agree. Details of vertical alignments will be provided for Stage 2 Audit.	Vertical alignments to be provided at detailed design.	Vertical alignments to be provided at detailed design.

<p>provided for assessment. There is concern that inappropriate vertical profiles could restrict visibility at the junction, which may lead to side impact collisions and loss of control collisions.</p>				
<p>3.2.4 Restricted Stopping Sight Distance may increase the risk of vehicle to pedestrian / cyclist collisions or rear end shunts.</p> <p>On the westbound approach to the Parallel crossing no SSD has been provided for assessment. There is concern that the SSD could pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where restricted SSD may increase the risk of vehicle to pedestrian / cyclist collisions or rear end shunts.</p>	<p>It is recommended that the SSD should be supplied for assessment and that they should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.</p>	<p>Agree. The proposed parallel crossing is located on the development access arm and will be subject to a 20/30mph speed limit subject to public transport requirements.</p> <p>Suitable visibility splays are proposed of 43m with visibility splays shown on ACE Drawing 2207280-005E.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>	<p>Visibility splays to be provided in line with future posted speed limit.</p>
<p>3.3.1 Insufficient capacity could lead to rear end shunt or side impact collisions.</p> <p>No details of expected flows and the capacity of the roundabout have been provided for assessment.</p>	<p>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..</p>	<p>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.</p>	<p>Junction Modelling has been provided and indicates the junction would work within capacity in a 2039 future year scenario.</p>	<p>No further action at this stage.</p>

<p>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.</p>				
<p>3.5.1 Insufficient street lighting could lead to vehicle to pedestrian / cyclist collisions during the hours of darkness.</p> <p>At this early stage no details of street lighting have been provided for assessment. A lack of lighting could increase the risk of loss of control and side impact collisions at the roundabout and vehicle to pedestrian / cyclist collisions during the hours of darkness.</p>	<p>It is recommended that street lighting should be checked with the Highway Authority’s street lighting team and that a plan showing the light distribution should be provided for assessment at Stage 2 Safety Audit.</p>	<p>Agree. It has been noted on ACE Drawing 2207280-005E that street lighting is to be considered in liaison with WSCC as per the recommendation. Lighting details to be provided for Stage 2 Audit.</p>	<p>Street lighting details to be provided at detailed design.</p>	<p>Street lighting details to be provided at detailed design.</p>

<p>3.5.2 Insufficient road markings could lead to vehicle to pedestrian / cyclist collisions.</p> <p>At this early-stage full details of road markings have not been provided for assessment, including the Controlled Area. A lack of a Controlled Area could lead to inappropriate parking near the crossing that may restrict intervisibility, increasing the risk of vehicle to pedestrian / cyclist collisions.</p>	<p>It is recommended that the Controlled Area should be provided for assessment at Stage 2 Safety Audit.</p>	<p>Agree. The proposed parallel crossing has been updated on ACE Drawing 2207280-005E with appropriate road markings as per TSRGD standards. Further details will be provided at Stage 2 Safety Audit.</p>	<p>Road markings have been included within the drawing and will be included within the stage 2 Audit.</p>	<p>All necessary road markings to be included for RSA2.</p>
--	--	---	---	---

Table 2.6 Design Organisation Statement



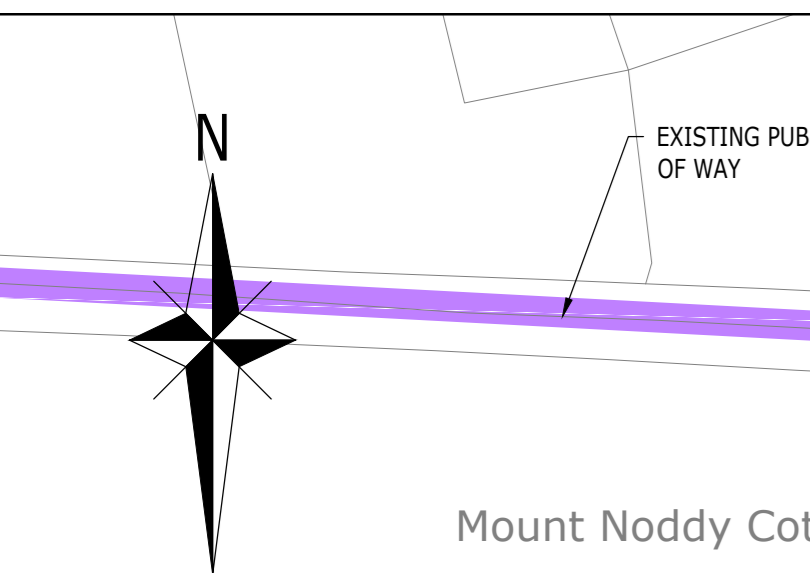
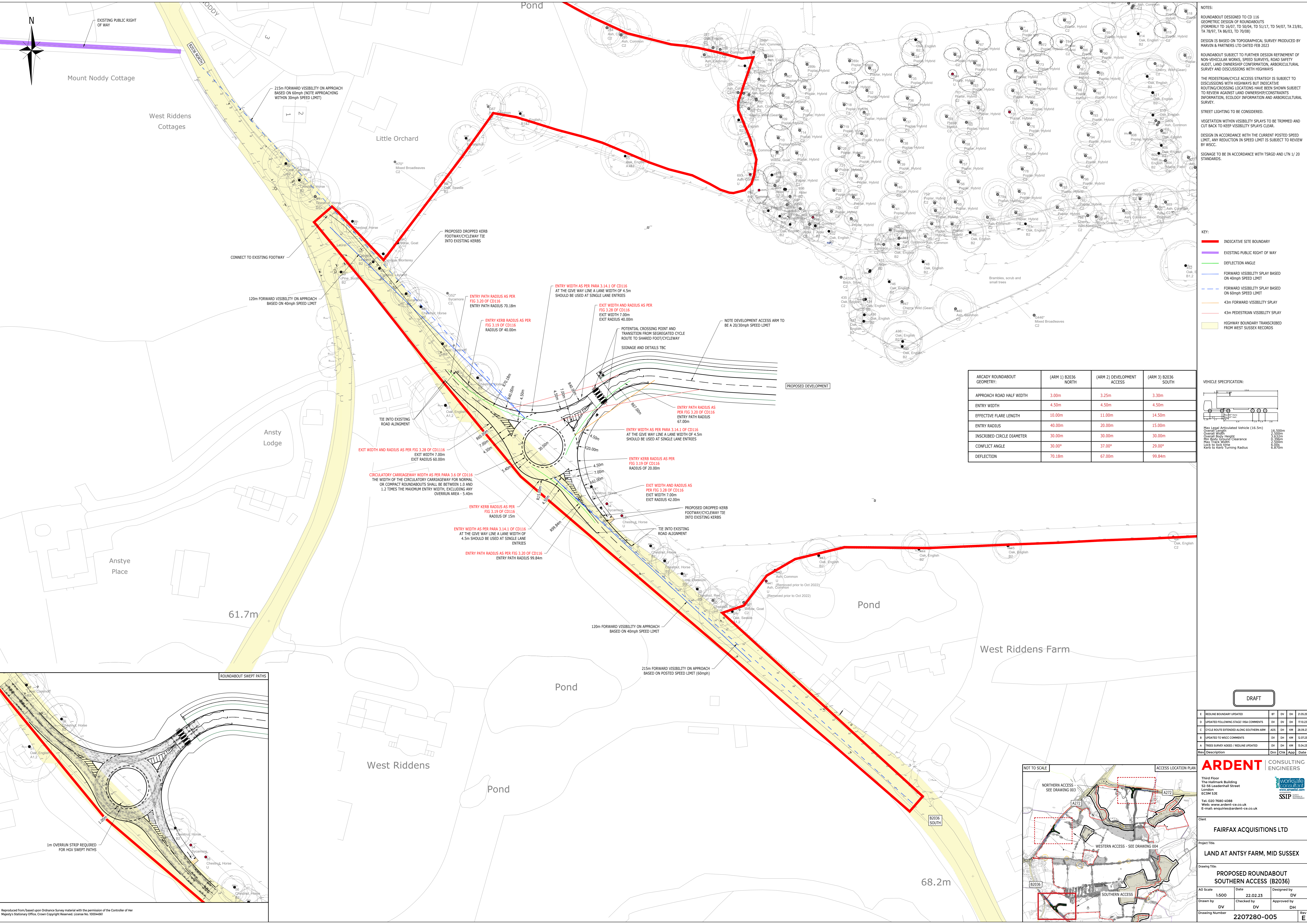
On behalf of the design organisation I certify that:	
1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.	
Name:	David Howson
Signed	
Position:	Associate Director
Organisation:	Ardent Consulting Engineers
Date:	22/05/2025

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:	22/05/2025

Designers Response

Drawings



NOTES:

ROUNDABOUT DESIGNED TO CD 116
 GEOMETRIC DESIGN OF ROUNDABOUTS
 (FORMERLY TO 16/97, TO 50/94, TO 51/17, TO 54/07, TA 23/81,
 TA 78/97, TA 86/03, TO 70/08)

DESIGN IS BASED ON TOPOGRAPHICAL SURVEY PRODUCED BY
 MARVIN & PARTNERS LTD DATED FEB 2023

ROUNDABOUT SUBJECT TO FURTHER DESIGN REFINEMENT OF
 NON-VEHICULAR WORKS, SPEED SURVEYS, ROAD SAFETY
 AUDIT, LAND OWNERSHIP CONFIRMATION, ARBORICULTURAL
 SURVEY AND DISCUSSIONS WITH HIGHWAYS

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.

STREET LIGHTING TO BE CONSIDERED.

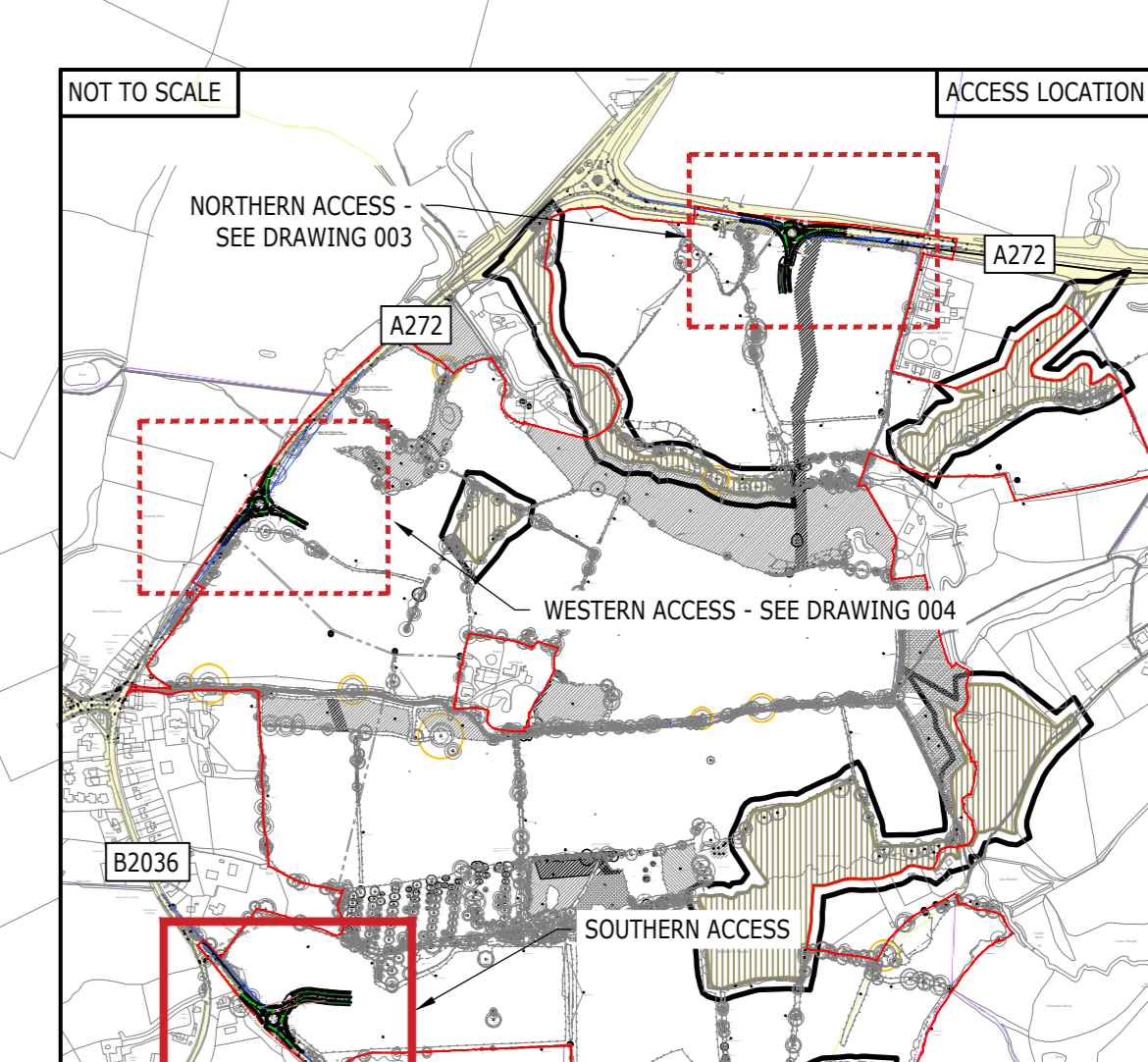
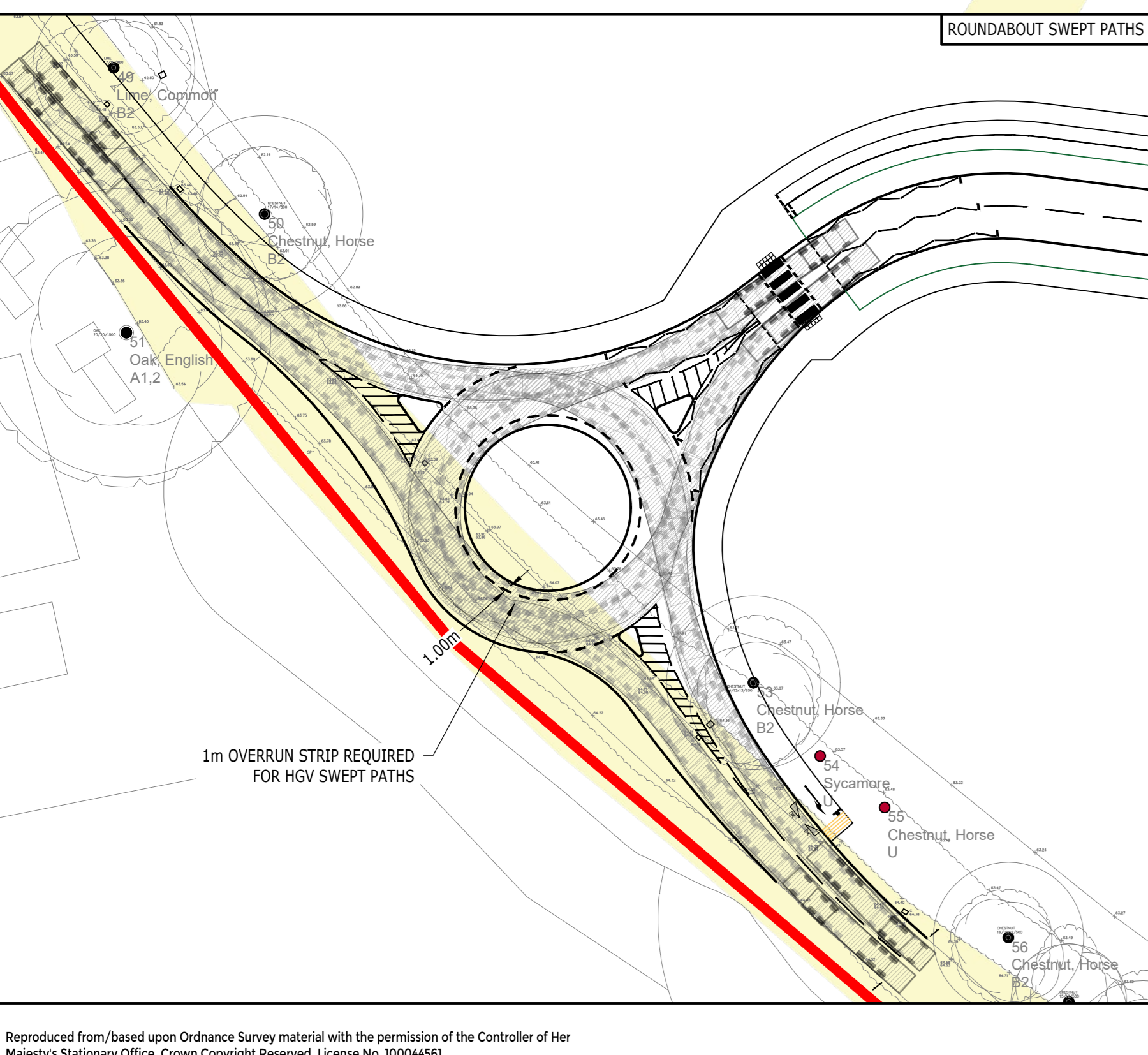
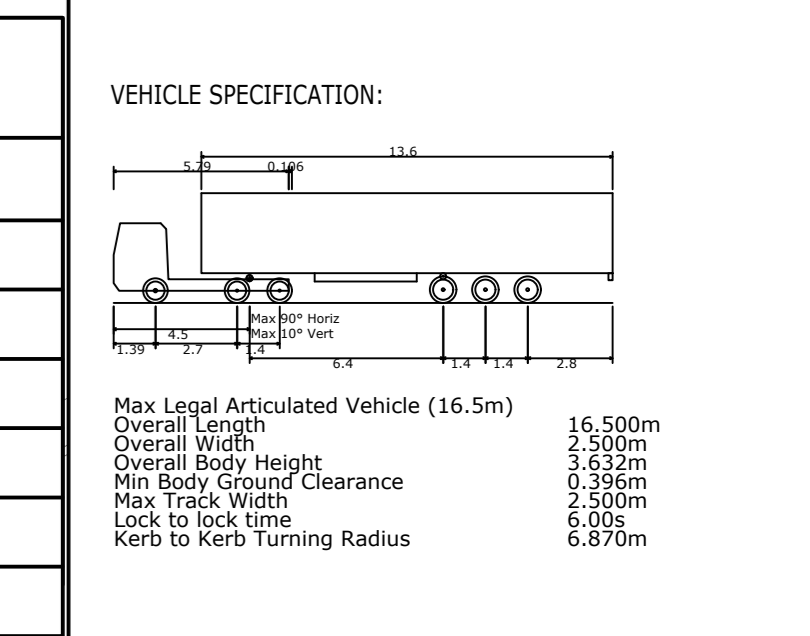
VEGETATION WITHIN VISIBILITY SPLAYS TO BE TRIMMED AND
 CUT BACK TO KEEP VISIBILITY SPLAYS CLEAR.

DESIGN IN ACCORDANCE WITH THE CURRENT POSTED SPEED
 LIMIT. ANY REDUCTION IN SPEED LIMIT IS SUBJECT TO REVIEW
 BY WSCC.

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

- KEY:**
- INDICATIVE SITE BOUNDARY
 - EXISTING PUBLIC RIGHT OF WAY
 - DEFLECTION ANGLE
 - FORWARD VISIBILITY SPYLA BASED ON 40mph SPEED LIMIT
 - FORWARD VISIBILITY SPYLA BASED ON 60mph SPEED LIMIT
 - 43m FORWARD VISIBILITY SPYLA
 - 43m PEDESTRIAN VISIBILITY SPYLA
 - HIGHWAY BOUNDARY TRANSCRIBED FROM WEST SUSSEX RECORDS

ARCADY ROUNDABOUT GEOMETRY:	(ARM 1) B2036 NORTH	(ARM 2) DEVELOPMENT ACCESS	(ARM 3) B2036 SOUTH
APPROACH ROAD HALF WIDTH	3.00m	3.25m	3.30m
ENTRY WIDTH	4.50m	4.50m	4.50m
EFFECTIVE FLARE LENGTH	10.00m	11.00m	14.50m
ENTRY RADIUS	40.00m	20.00m	15.00m
INSCRIBED CIRCLE DIAMETER	30.00m	30.00m	30.00m
CONFLICT ANGLE	30.00°	37.00°	29.00°
DEFLECTION	70.18m	67.00m	99.84m



DRAFT

Rev	Description	Drn	Chk	App	Date
E	REDLINE BOUNDARY UPDATED	BT	DV	DH	21.05.23
D	UPDATED FOLLOWING STAGE 1 ISA COMMENTS	DV	DV	DH	17.10.21
C	CYCLE ROUTE EXTENDED ALONG SOUTHERN ARM	ADS	CH	KM	28.09.23
B	UPDATED TO WSCC COMMENTS	DV	CH	KM	12.07.23
A	FRESH SURVEY ADDED / REDLINE UPDATED	DV	CH	KM	15.04.23

ARDENT CONSULTING ENGINEERS

Third Floor
 The Helix Building
 52-56 Leadenhall Street
 London
 EC3M 5JE
 Tel: 020 7680 4088
 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 ROUNDABOUT SOUTHERN ACCESS (B2036)**

AO Scale	Date	Designed by
1:500	22.02.23	DV

Drawn by	Checked by	Approved by
DV	DV	DH

Drawing Number: **2207280-005** Rev **E**

Reproduced from/based upon Ordnance Survey material with the permission of the Controller of Her Majesty's Stationary Office. Crown Copyright Reserved. License No. 10004561

Designers Response Appendix A

Stage 1 Road Safety Audit



M & S Traffic

Road Safety Audit Stage 1

Land at Ansty Farm

Proposed Roundabout B2036

Southern Access

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 Roundabout Southern Access - B2036) Road Safety Audit Stage 1
Date:	13 th 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		13 th October 2023
Designers Response				
Authority Response				

Distribution

Organisation	Contact	Copies
Ardent Consulting Engineers	David Howson	-

CONTENTS

Document Control Sheet	2
Contents	3
1 Introduction	4
2 Safety issues raised at previous Audits	5
3 Items raised at the Stage 1 Audit	6
4 Issues identified during the Stage 1 Audit that are outside the terms of reference	11
5 Auditors Statement	12
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 associated with a proposed development in Ansty, West Sussex, comprising of:

- The provision of a three-arm roundabout on the B2036 to serve the development.
- A parallel crossing on the eastern arm of the roundabout.

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 flows 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: Approaches to the roundabout.

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 a Stage 2 Safety Audit.

3.1.2 PROBLEM

Location: Proposed roundabout.

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

Kerblines are being amended as part of these proposals, where no details of carriageway drainage have been provided for assessment; ponding on the carriageway or water moving across the carriageway at junctions or bends 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.

3.1.3 PROBLEM

Location: Proposed Parallel crossing.

Summary: Insufficient signing could lead to could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.

A national speed limit currently applies to this section of Harvest Hill, where the proposed speed limit on the eastern arm is unknown. This could lead to inappropriate vehicle speeds approaching the Parallel crossing, which should not be installed on roads with an 85th percentile speed of 35 mph or above without speed reducing measures to slow traffic.

Inappropriate vehicle speeds could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.

RECOMMENDATION

It is recommended that a 30mph speed restriction should be applied to the eastern arm of the roundabout.

3.1.4 PROBLEM

Location: Approaches to the Parallel crossing.

Summary: Inappropriate surfacing could lead to vehicle to pedestrian / cyclist collisions or rear end shunts.

The proposals do not include the introduction of anti-skid surfacing or a surface with a high polished stone value on the approaches to the Parallel crossing. Surfacing with an inadequate PSV could lead to vehicles not being able to stop, leading to possible rear end shunt or vehicle to pedestrian / cyclist collisions.

RECOMMENDATION

It is recommended that antiskid surfacing or surfacing with a high PSV should be used on the approaches to the crossing.

3.2 Local Alignment

3.2.1 PROBLEM

Location. Approaches to the proposed roundabout.

Stopping Sight Distances (SSD) have been provided for assessment and at 215m are acceptable for the current national speed limit. An insufficient SSD may increase the risk of junction related or shunt type collisions at the roundabout and so the 120m SSD, which is commensurate with a 40mph design speed, should only be incorporated if a reduced speed limit of 40mph is introduced.

RECOMMENDATION

It is recommended that the SSD should be commensurate with the design speeds.

3.2.2 PROBLEM

Location. Western approach to proposed roundabout.

Summary: Insufficient Stopping Sight Distance may increase the risk of junction related or shunt type collisions at the roundabout.

On the westbound approach to the roundabout no SSD has been provided for assessment. There is concern that the SSD could pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.

RECOMMENDATION

It is recommended that the SSD should be supplied for assessment and that they should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.

3.2.3 PROBLEM

Location: Proposed roundabout.

Summary: Lack of vertical profile information could lead to side impact collisions and loss of control collisions.

The proposed roundabout is located on Harvest Hill, where there is a fall from the northwest to the southeast. At this early stage no vertical alignment details were provided for assessment. There is concern that inappropriate vertical profiles could restrict visibility at the junction, which may lead to side impact collisions and loss of control collisions.

RECOMMENDATION

It is recommended that vertical alignment details should be provided for assessment at Stage 2 Safety Audit.

3.2.4 PROBLEM

Location. Western approach to proposed Parallel crossing.

Summary: Restricted Stopping Sight Distance may increase the risk of vehicle to pedestrian / cyclist collisions or rear end shunts.

On the westbound approach to the Parallel crossing no SSD has been provided for assessment. There is concern that the SSD could pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where restricted SSD may increase the risk of vehicle to pedestrian / cyclist collisions or rear end shunts.

RECOMMENDATION

It is recommended that the SSD should be supplied for assessment and that they should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.

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 No comment.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 PROBLEM

Location: Proposed roundabout and Parallel crossing.

Summary: Insufficient street lighting could lead to vehicle to pedestrian / cyclist collisions during the hours of darkness.

At this early stage no details of street lighting have been provided for assessment. A lack of lighting could increase the risk of loss of control and side impact collisions at the roundabout and vehicle to pedestrian / cyclist collisions during the hours of darkness.

RECOMMENDATION

It is recommended that street lighting should be checked with the Highway Authority's street lighting team and that a plan showing the light distribution should be provided for assessment at Stage 2 Safety Audit.

3.5.2 **PROBLEM**

Location: Proposed Parallel crossing.

Summary: Insufficient road markings could lead to vehicle to pedestrian / cyclist collisions.

At this early-stage full details of road markings have not been provided for assessment, including the Controlled Area. A lack of a Controlled Area could lead to inappropriate parking near the crossing that may restrict intervisibility, increasing the risk of vehicle to pedestrian / cyclist collisions.

RECOMMENDATION

It is recommended that the Controlled Area should be 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

M & S Traffic

Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX



+44 (0) 1634 307 498



contact@mstraffic.co.uk



www.mstraffic.co.uk

APPENDIX A

List of Drawings and other information submitted for auditing:

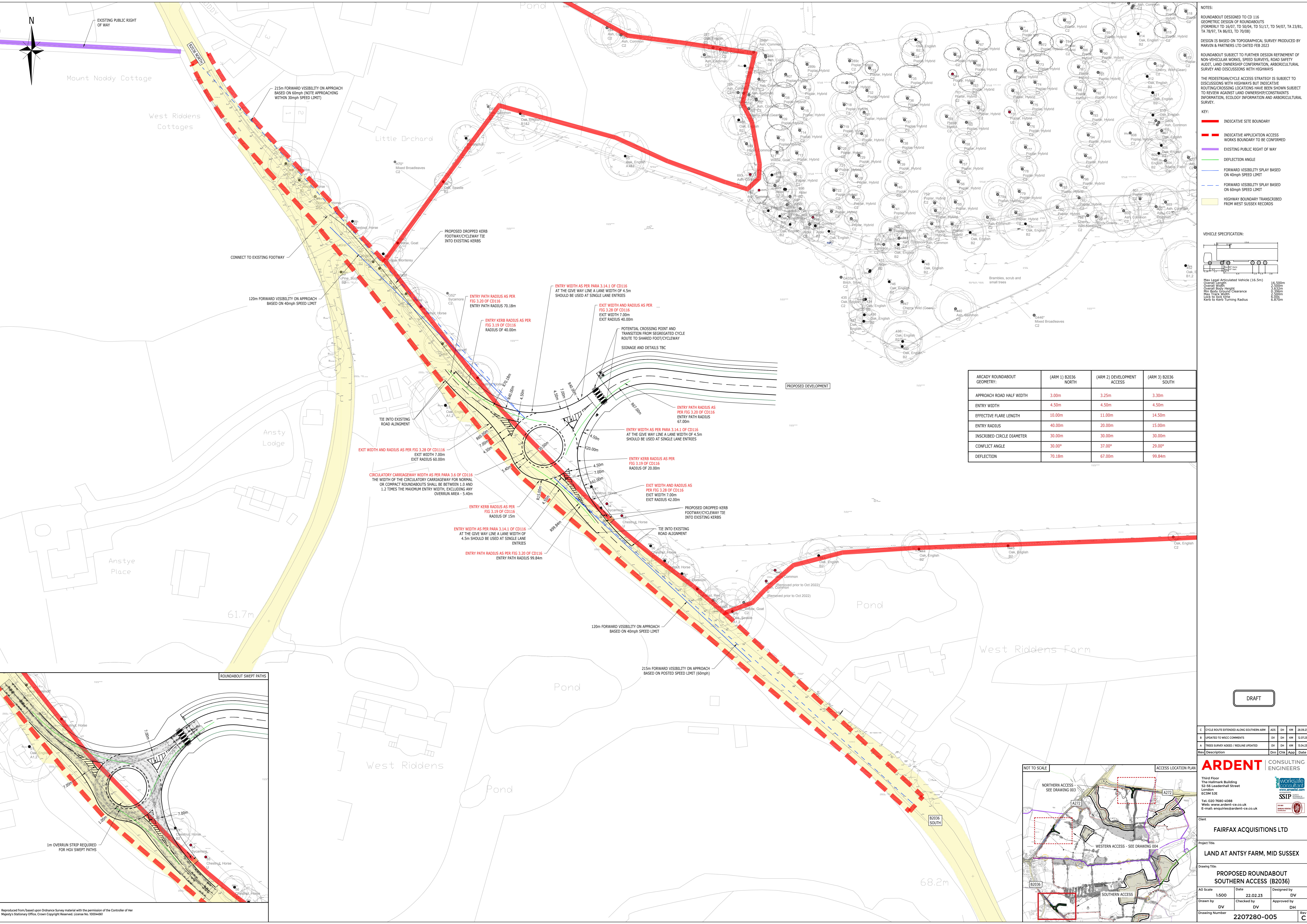
Drawing Number	Title
2207280-003 E	Proposed Roundabout Southern Access B2036

Supporting documentation:

- Covering emails, Ardent Consulting Engineers.

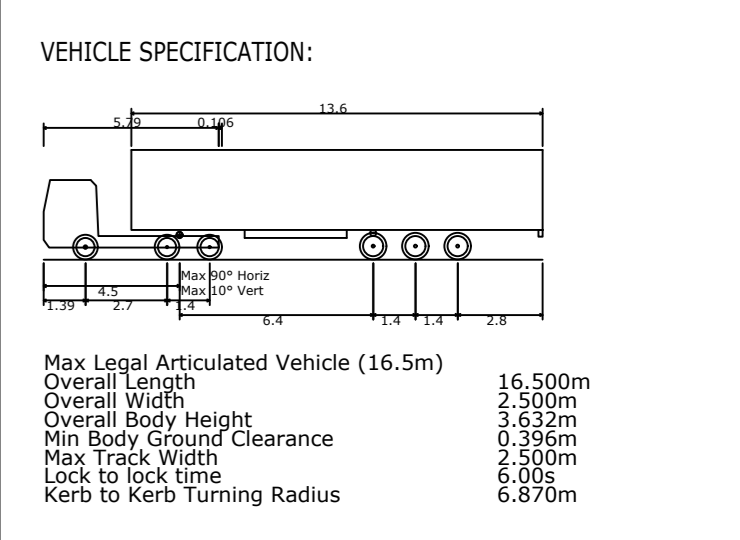
APPENDIX B

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

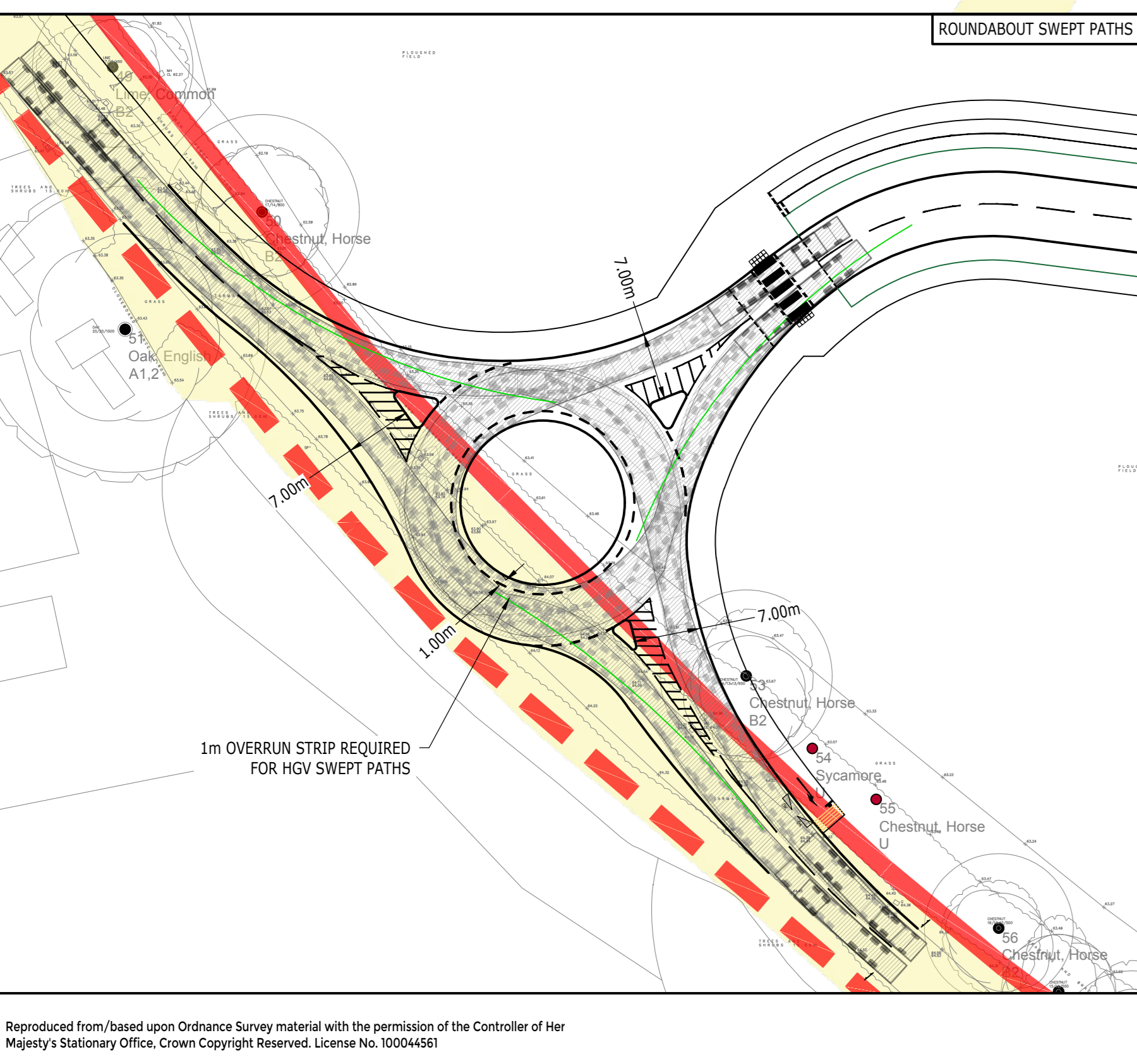


NOTES:
 ROUNDABOUT DESIGNED TO CD 116
 GEOMETRIC DESIGN OF ROUNDABOUTS
 (FORMERLY TO 16/97, TO 50/04, TO 51/17, TO 54/07, TA 23/81,
 TA 78/97, TA 86/03, TO 70/08)
 DESIGN IS BASED ON TOPOGRAPHICAL SURVEY PRODUCED BY
 MARVIN & PARTNERS LTD DATED FEB 2023
 ROUNDABOUT SUBJECT TO FURTHER DESIGN REFINEMENT OF
 NON-VEHICULAR WORKS, SPEED SURVEYS, ROAD SAFETY
 AUDIT, LAND OWNERSHIP CONFIRMATION, ARBORICULTURAL
 SURVEY AND DISCUSSIONS WITH HIGHWAYS
 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.

- KEY:
- INDICATIVE SITE BOUNDARY
 - - - INDICATIVE APPLICATION ACCESS WORKS BOUNDARY TO BE CONFIRMED
 - EXISTING PUBLIC RIGHT OF WAY
 - DEFLECTION ANGLE
 - FORWARD VISIBILITY SPRAY BASED ON 40mph SPEED LIMIT
 - - - FORWARD VISIBILITY SPRAY BASED ON 60mph SPEED LIMIT
 - HIGHWAY BOUNDARY TRANSCRIBED FROM WEST SUSSEX RECORDS



ARCADY ROUNDABOUT GEOMETRY:	(ARM 1) B2036 NORTH	(ARM 2) DEVELOPMENT ACCESS	(ARM 3) B2036 SOUTH
APPROACH ROAD HALF WIDTH	3.00m	3.25m	3.30m
ENTRY WIDTH	4.50m	4.50m	4.50m
EFFECTIVE FLARE LENGTH	10.00m	11.00m	14.50m
ENTRY RADIUS	40.00m	20.00m	15.00m
INSCRIBED CIRCLE DIAMETER	30.00m	30.00m	30.00m
CONFLICT ANGLE	30.00°	37.00°	29.00°
DEFLECTION	70.18m	67.00m	99.84m



DRAFT

Rev	Description	Drn	Chk	App	Date
C	CYCLE ROUTE EXTENDED ALONG SOUTHERN ARM	ADS	DH	KM	28.09.23
B	UPDATED TO WSCC COMMENTS	DV	DH	KM	12.07.23
A	FRESH SURVEY ADDED / REDLINE UPDATED	DV	DH	KM	15.04.23

ARDENT CONSULTING ENGINEERS

Third Floor
 The Helix Building
 52-56 Leadenhall Street
 London
 EC3M 5JE

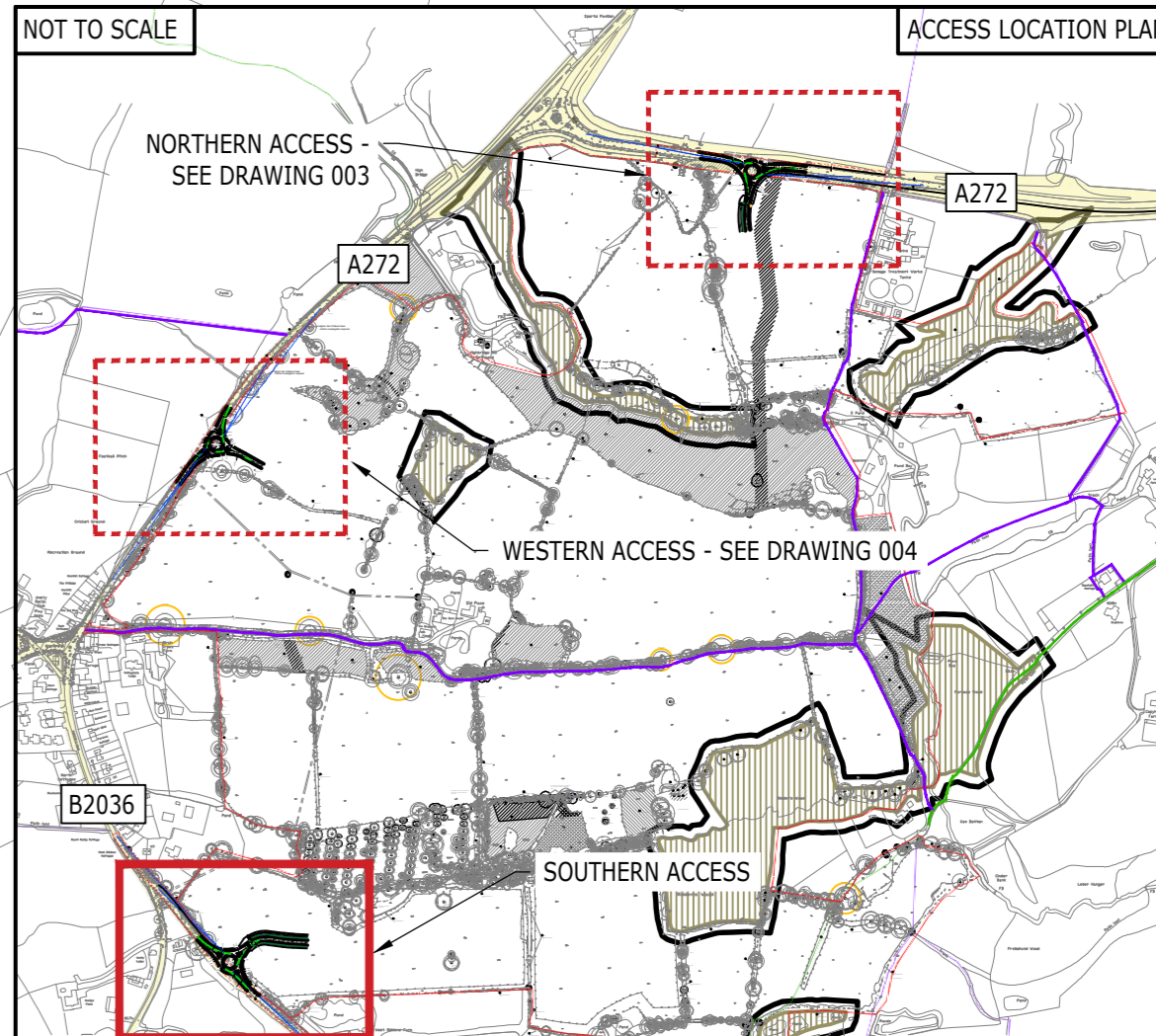
Tel: 020 7680 4088
 Web: www.ardent-ce.co.uk
 E-mail: enquiries@ardent-ce.co.uk

Client: **FAIRFAX ACQUISITIONS LTD**

Project Title: **LAND AT ANSTY FARM, MID SUSSEX**

Drawing Title: **PROPOSED ROUNDABOUT SOUTHERN ACCESS (B2036)**

AO Scale: 1:500 Date: 22.02.23 Designed by: DV
 Drawn by: DV Checked by: DV Approved by: DH
 Drawing Number: 2207280-005 Rev: C



Reproduced from/based upon Ordnance Survey material with the permission of the Controller of Her Majesty's Stationary Office. Crown Copyright Reserved. License No. 10004561

Designers Response Appendix B

M&S Traffic Response

David Howson

From: bryan.shawyer <bryan.shawyer@mstraffic.co.uk>
Sent: 25 October 2023 10:01
To: David Howson; martin.morris
Cc: Jamie Symington; Dan Vallance
Subject: RE: Ansty - Designers Response 2nd draft - Southern Access

EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hi David

Many thanks for these our comments are as follows:

- 3.1.1 Noted and accepted.
- 3.1.2 Noted and accepted.
- 3.1.3 Noted and accepted.
- 3.1.4 Noted and accepted.
- 3.2.1 Noted and accepted.
- 3.2.2 Noted and accepted.
- 3.2.3 Noted and accepted.
- 3.2.4 Noted and accepted.
- 3.3.1 Noted and accepted.
- 3.5.1 Noted and accepted.
- 3.5.2 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

The information, attachments and opinions contained in this message are intended solely for the use of the individual or entity to whom they are addressed. The message may contain privileged and confidential information and you may not copy, distribute or take any action on reliance on it.

From: David Howson <dhowson@ardent-ce.co.uk>
Sent: Tuesday, October 24, 2023 5:39 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 - Southern Access

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 thought 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



An Employee-Owned Company
Infrastructure | Transport Planning | Flood Risk | Acoustics | Air Quality

T | 01473 407321 E | dhowson@ardent-ce.co.uk
Suffolk Enterprise Centre | Felaw Maltings | 44 Felaw Street | Ipswich IP2 8SJ
London | Edinburgh | Essex | Kent | Midlands | South West | **Suffolk**



This e-mail is intended for the addressee(s) only. If, however you have received this e-mail in error, please delete all copies of it and any attachments, and treat the contents as confidential. We apologise for any inconvenience this may cause.
The views and opinions expressed in this e-mail message are those of the author and must not be assumed to be those of the Company.
This e-mail has been checked by anti-virus software. The Company accepts no liability for any damages related to receipt of this e-mail, howsoever caused.
Arden Consulting Engineers Ltd is registered in England, Company Number 05463029. Registered Office: Third Floor, The Hallmark Building, 52-56 Leadenhall Street, London EC3M 5JE. © Arden Consulting Engineers Limited

Designers Response Appendix C

ARCADY Output

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
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: Jct W - South Site Access.j10
Path: Y:\ARDENT PROJECTS\2207280 - Land at Ansty Farm, Mid Sussex\Transport\ARCADY
Report generation date: 27/09/2023 12:30:35

- »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
2039 Do Something Isolated						
1 - B2036 (N)	0.1	3.58	0.12	0.5	4.80	0.34
2 - Site Access 3	0.0	3.26	0.04	0.0	3.71	0.04
3 - B2036 (S)	0.6	4.68	0.37	0.5	4.28	0.33

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

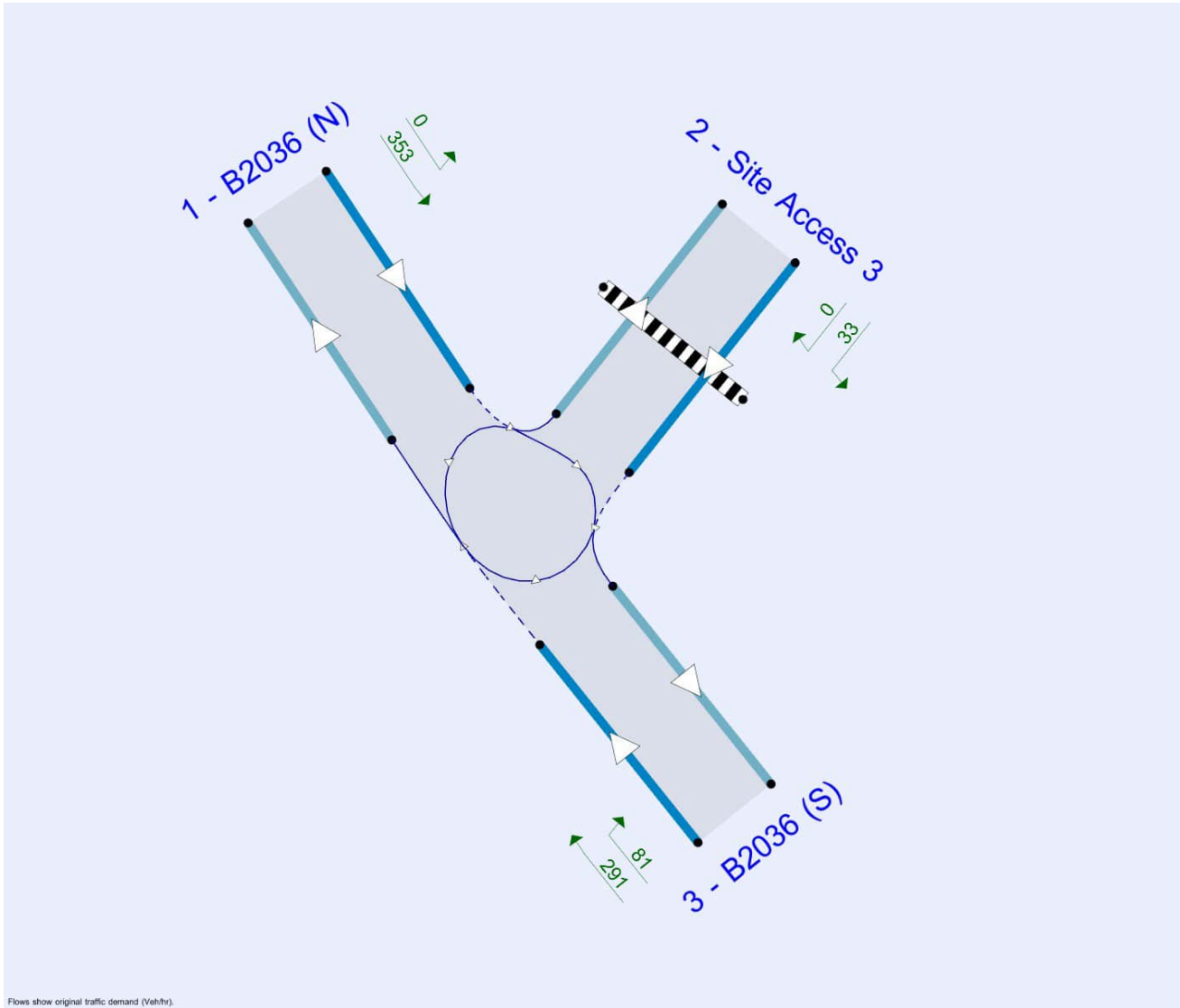
File summary

File Description

Title	B2036 / Site Access 3
Location	
Site number	
Date	28/04/2023
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



Flows show original traffic demand (Veh/hr).

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	2039 Do Something Isolated	AM	ONE HOUR	07:45	09:15	15	✓
D2	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

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	B2036 / Site Access 3	Standard Roundabout		1, 2, 3	4.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.34	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B2036 (N)		
2	Site Access 3		
3	B2036 (S)		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B2036 (N)	3.00	4.50	10.0	40.0	30.0	30.0		
2 - Site Access 3	3.25	4.50	11.0	20.0	30.0	37.0		
3 - B2036 (S)	3.30	4.50	14.5	15.0	30.0	29.0		

Zebra Crossings

Arm	VGAP (PCU)	Vehs queueing on exit (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2 - Site Access 3	3.00	3.00		Distance	6.50	4.64

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B2036 (N)	0.573	1246
2 - Site Access 3	0.555	1232
3 - B2036 (S)	0.566	1271

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	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 - B2036 (N)		ONE HOUR	✓	129	100.000
2 - Site Access 3		ONE HOUR	✓	39	100.000
3 - B2036 (S)		ONE HOUR	✓	415	100.000

Demand overview (Pedestrians)

Arm	Profile type	Av. Ped flow (Ped/hr)
1 - B2036 (N)		
2 - Site Access 3	[ONEHOUR]	100.00
3 - B2036 (S)		

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1 - B2036 (N)	2 - Site Access 3	3 - B2036 (S)	
1 - B2036 (N)	0	0	129	
2 - Site Access 3	0	0	39	
3 - B2036 (S)	385	30	0	

Vehicle Mix

HV %s

From	To			
	1 - B2036 (N)	2 - Site Access 3	3 - B2036 (S)	
1 - B2036 (N)	0	0	7	
2 - Site Access 3	0	0	0	
3 - B2036 (S)	4	0	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 - B2036 (N)	0.12	3.58	0.1	A	118	178
2 - Site Access 3	0.04	3.26	0.0	A	36	54
3 - B2036 (S)	0.37	4.68	0.6	A	381	571

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	97	24	22		1152	0.084	97	289	0.0	0.1	3.410	A
2 - Site Access 3	29	7	97	75.29	1174	0.025	29	22	0.0	0.0	3.143	A
3 - B2036 (S)	312	78	0		1225	0.255	311	126	0.0	0.3	3.932	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	116	29	27		1150	0.101	116	346	0.1	0.1	3.480	A
2 - Site Access 3	35	9	116	89.90	1163	0.030	35	27	0.0	0.0	3.191	A
3 - B2036 (S)	373	93	0		1225	0.304	373	151	0.3	0.4	4.220	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	142	36	33		1147	0.124	142	423	0.1	0.1	3.582	A
2 - Site Access 3	43	11	142	110.10	1147	0.037	43	33	0.0	0.0	3.258	A
3 - B2036 (S)	457	114	0		1225	0.373	456	185	0.4	0.6	4.676	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	142	36	33		1147	0.124	142	424	0.1	0.1	3.582	A
2 - Site Access 3	43	11	142	110.10	1147	0.037	43	33	0.0	0.0	3.258	A
3 - B2036 (S)	457	114	0		1225	0.373	457	185	0.6	0.6	4.684	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	116	29	27		1150	0.101	116	347	0.1	0.1	3.484	A
2 - Site Access 3	35	9	116	89.90	1163	0.030	35	27	0.0	0.0	3.191	A
3 - B2036 (S)	373	93	0		1225	0.304	374	151	0.6	0.4	4.231	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	97	24	23		1152	0.084	97	290	0.1	0.1	3.411	A
2 - Site Access 3	29	7	97	75.29	1174	0.025	29	23	0.0	0.0	3.146	A
3 - B2036 (S)	312	78	0		1225	0.255	313	127	0.4	0.3	3.946	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	B2036 / Site Access 3	Standard Roundabout		1, 2, 3	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	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)	Run automatically
D2	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 - B2036 (N)		ONE HOUR	✓	353	100.000
2 - Site Access 3		ONE HOUR	✓	33	100.000
3 - B2036 (S)		ONE HOUR	✓	372	100.000

Demand overview (Pedestrians)

Arm	Profile type	Av. Ped flow (Ped/hr)
1 - B2036 (N)		
2 - Site Access 3	[ONEHOUR]	100.00
3 - B2036 (S)		

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2036 (N)	2 - Site Access 3	3 - B2036 (S)
From	1 - B2036 (N)	0	0	353
	2 - Site Access 3	0	0	33
	3 - B2036 (S)	291	81	0

Vehicle Mix

HV %s

		To		
From		1 - B2036 (N)	2 - Site Access 3	3 - B2036 (S)
	1 - B2036 (N)	0	0	5
	2 - Site Access 3	0	0	0
	3 - B2036 (S)	2	0	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 - B2036 (N)	0.34	4.80	0.5	A	324	486
2 - Site Access 3	0.04	3.71	0.0	A	30	45
3 - B2036 (S)	0.33	4.28	0.5	A	341	512

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	266	66	61		1153	0.230	265	218	0.0	0.3	4.045	A
2 - Site Access 3	25	6	265	75.29	1078	0.023	25	61	0.0	0.0	3.418	A
3 - B2036 (S)	280	70	0		1251	0.224	279	289	0.0	0.3	3.697	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	317	79	73		1147	0.277	317	261	0.3	0.4	4.336	A
2 - Site Access 3	30	7	317	89.90	1047	0.028	30	73	0.0	0.0	3.537	A
3 - B2036 (S)	334	84	0		1251	0.267	334	347	0.3	0.4	3.924	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	389	97	89		1138	0.342	388	320	0.4	0.5	4.798	A
2 - Site Access 3	36	9	388	110.10	1006	0.036	36	89	0.0	0.0	3.712	A
3 - B2036 (S)	410	102	0		1251	0.327	409	424	0.4	0.5	4.273	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	389	97	89		1138	0.342	389	320	0.5	0.5	4.804	A
2 - Site Access 3	36	9	389	110.10	1005	0.036	36	89	0.0	0.0	3.713	A
3 - B2036 (S)	410	102	0		1251	0.327	410	425	0.5	0.5	4.276	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	317	79	73		1147	0.277	318	262	0.5	0.4	4.347	A
2 - Site Access 3	30	7	318	89.90	1047	0.028	30	73	0.0	0.0	3.539	A
3 - B2036 (S)	334	84	0		1251	0.267	335	348	0.5	0.4	3.931	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Ped demand (Ped/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 - B2036 (N)	266	66	61		1153	0.230	266	219	0.4	0.3	4.060	A
2 - Site Access 3	25	6	266	75.29	1077	0.023	25	61	0.0	0.0	3.424	A
3 - B2036 (S)	280	70	0		1251	0.224	280	291	0.4	0.3	3.708	A