

Brookleigh, Northern Arc

Stage 1 Road Safety Audit - ADDENDUM
Northern Arc Avenue and Diversion of Cuckfield Road
(B2036)

Homes England

Project number: 60610807
60610807-ACM-CS-XX-RP-HW-0008
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Quality information

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
P01	05/12/2025	DRAFT	MRW	Mark Watson	Regional Director
P02	10/12/2025	FINAL	MRW	Mark Watson	Regional Director

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1. Introduction

This report results from a Stage 1 Road Safety Audit (RSA) *Addendum* carried out for a number of amended scheme design elements within the proposed 'Central Section of Northern Arc Avenue and the part realignment of Cuckfield Road (B2036) scheme', part of the Brookleigh, Northern Arc development north of Burgess Hill, West Sussex. This RSA Addendum only covers alterations to the scheme previously audited in January 2025.

The Audit has been carried out at the request of the Design Team; AECOM Limited (Development Infrastructure) St Albans, commissioned on behalf of the client, Homes England.

The Road Safety Audit Team consisted of the following members:

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Audit Team Leader AECOM Limited

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Audit Team Member AECOM Limited

The Road Safety Audit Addendum was undertaken in accordance with the Audit Brief (document reference 60610807-ACM-CS-XX-RP-HW-0007) received on 18th November 2025 from the Design Team: AECOM Limited (Development Infrastructure), on behalf of Homes England. The Audit Brief was prepared by AECOM Limited (Development Infrastructure). The Audit Team confirms that they accept the brief provided.

The Road Safety Audit Addendum took place in November and December 2025 and comprised an examination of the documents provided by the Design Team, which are listed in **Appendix A**, and an examination of the site during daylight hours.

The site visit was carried out on Monday 1st December 2025 between the off-peak hours of 11:30 and 12:30 when traffic was flowing freely on the road network in the vicinity of the study area. The weather during the site visit was wet and windy and the road surface was wet.

The locations of problems shown in conjunction with the proposed scheme are held in **Appendix B** where the reference numbers relate to the problems identified in **Section 4** of this report.

The Terms of Reference of the Audit are as described in GG 119 'Road Safety Audit' of Highways England's (now National Highways) Design Manual for Roads and Bridges (DMRB). The advice issued in the GG119 applies to trunk road and motorway highway improvement schemes, as well as highway schemes on the Trans-European Road Network (TERN) but has been used in this report to define the scope of this Audit.

The scheme has been examined, and this report compiled, only with regards to the safety implications to road users of the scheme as presented. It has not been examined or verified for compliance with any other standards, best practice guidance or criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem, the Road Safety Audit Team may, on occasion, have referred to a design standard without touching on technical audit.

The RSA does not consider structural safety or cover health and safety issues concerning road users during the construction, maintenance and operation of the road.

An absence of comment relating to specific road users/ modes in **Section 4** of this report does not imply that they have not been considered; instead, the Audit Team feels they are not adversely affected by the proposed changes.

This Road Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they are not raised in **Section 4** of this report as they fall outside the remit of Road Safety Audit in general.

Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

All traffic sign and road marking diagram number references are made to the Traffic Signs Regulations and General Directions, 2016 (TSRGD).

2. Scheme Description

Brookleigh, Northern Arc is a proposed new residential development (comprising of 3,500 homes) to the north of Burgess Hill in West Sussex. The site is located approximately 2.5km north of the Burgess Hill train station and is currently predominantly rural in nature.

The scope of this road safety audit covers solely the alterations to the initial scheme (previously audited in January 2025 – report reference 60610807-ACM-CS-XX-RP-HW-0005), namely:

- Relocation of the single build-out along Cuckfield Road south to bring traffic-calming measures closer together, and the addition of a second build-out to create a chicane feature at the vehicular bridge;
- Extension of street lighting along Cuckfield Road up to the 30/40 mph terminal;
- Repositioning of the 20/30 mph terminal outside the Alternative Provision College further north, including speed limit roundels on the carriageway with red-coloured surfacing;
- Addition of speed limit roundels with red-coloured surfacing at the 30/40 mph terminal (southbound only);
- Addition of speed limit roundels with red-coloured surfacing at the 40 mph/National Speed Limit terminal (southbound only);
- New red-coloured surfacing in the centre of the carriageway along Cuckfield Road for the entire section within the 40 mph extents;
- Introduction of a proposed raised table along the Central Section between chainage 1200 and 1300, finished with block paving; and
- Shortening of the Green Super Highway along the Central Section of Northern Arc Avenue near the southern junction between the existing Cuckfield Road and Northern Arc Avenue.

With the exception of the amendments which form the scope of this audit the remainder of the scheme remains as per the scheme audited in January 2025 – report reference 60610807-ACM-CS-XX-RP-HW-0005. The scope of this audit addendum covers the areas/ changes shown in the red boxes on pages 11-16 of the RSA Brief received on 18th November 2025 (document reference - 60610807-ACM-CS-XX-RP-HW-0007) and as shown on the plans referenced in **Appendix A**. The problems identified are set out within **Section 4** of this report, supported by the locations of problems plans held in **Appendix B**.

3. Items Raised at Previous Road Safety Audits

A Stage 1 Road Safety Audit was undertaken on the initial 'Northern Arc: Northern Arc Avenue and Diversion of Cuckfield Road' scheme proposals in January 2024 (report reference 60610807-ACM-CS-XX-RP-HW-0002).

Following this, a revised design was produced which is covered by the scope of the January 2025 Stage 1 Road Safety Audit - report reference 60610807-ACM-CS-XX-RP-HW-0005.

Following the January 2025 Stage 1 Road Safety Audit a number of additional amendments were made to the scheme (as detailed in the RSA Brief for this Road Safety Audit Addendum, and as set out in Section 2 of this report) and it is these which solely form the scope of this Road Safety Audit Addendum.

4. Items Raised at this Road Safety Audit

A GENERAL

No comments.

B LOCAL ALIGNMENT

B1 PROBLEM

Location: Proposed chicane arrangement on Cuckfield Road

Drawing: 60610807-ACM-CS-ZZ-DR-HW-00-3016

Summary: Larger vehicles may collide with infrastructure/ kerb or verge when navigating chicane layout.

A chicane layout is proposed on Cuckfield Road. The swept path analysis provided shows that an articulated vehicle appears to overrun / overhang the verge when navigating the arrangement. In addition, it is understood that the route is regularly used by other large vehicles (e.g. agricultural vehicles) and it is unclear whether all vehicles using the route would be able to do so safely. This may result in larger vehicles colliding with the chicane build-outs, verge and/ or losing control at this location.

RECOMMENDATION

It is recommended that the layout is revised to ensure that the scheme can be safely navigated by all vehicles that will use it.

B2 PROBLEM

Location: Proposed chicane arrangement on Cuckfield Road

Drawing: 60610807-ACM-CS-ZZ-DR-HW-00-1209

Summary: Road users may struggle to safely egress the private driveway opposite the chicane arrangement, potentially resulting in collisions with other road users.

Road users egressing the private (angled) driveway on the western side of Cuckfield Road, located opposite the northern chicane buildout, may struggle to safely manoeuvre out of the access when southbound road users are queuing at the chicane arrangement give-way line. It is unclear whether swept path analysis has been undertaken of this movement, however road users turning at this location may collide with queuing traffic and/ or other vehicles on Cuckfield Road, especially if they are required to undertake slow, point turns for example.

RECOMMENDATION

It is recommended that swept path analysis is undertaken to ensure that road users can safely manoeuvre in and out of the driveway without issue.

C NON-MOTORISED USER PROVISION

C1 PROBLEM

Location: Northern Arc Avenue/ Road 09 Junction (southern footway, west of junction)

Drawing: 60610807-ACM-CS-ZZ-DR-HW-00-1206

Summary: Confusion resulting from unclear messaging regarding the type of provision/ facility at this location may result in footway user/ cyclist collisions.

The north/ south running section (along Road 09) of the Green Super Highway terminates just south of the junction with Northern Arc Avenue. The section of footway (or potential shared cycleway) west from this point, running along the southern side of Northern Arc Avenue as far as the pedestrian crossing, includes/ features the following:

- A 3m wide facility
- Numerous sets of corduroy paving
- Cyclist dismount signage/ Segregated shared use signage
- An angled area of paving with a dropped kerb onto the carriageway (assumed to be for cyclists joining the carriageway)

Some elements of the layout in this area, such as the 3m width and the angled section of paving/ dropped kerb suggests that this is a shared facility, however the presence of the corduroy paving and cyclist dismount signage suggest it is footway only. This may cause confusion to users resulting in collisions between footway users (especially those with visual impairments) and cyclists.

RECOMMENDATION

It is recommended that the design is amended so that the type of provision at this location is clear to all users.

C2 PROBLEM

Location: Cuckfield Road/ Road 5 Junction

Drawing: 60610807-ACM-CS-ZZ-DR-HW-00-1208

Summary: Absence of pedestrian crossing facility and onward pedestrian facilities may result in pedestrians being struck by passing road users.

There does not appear to be a pedestrian crossing facility across Road 05 at its junction with Cuckfield Road despite there being footway provision on both sides at this location. In addition, the footway provision on the northern side of the junction consists of a small spur, which does not appear to connect to anything else (i.e. existing or proposed footway provision running north). The absence of a suitable crossing facility and/ or onward footway provision to the north may result in pedestrians attempting to cross at unsuitable locations and/ or walking in the carriageway where they will be at risk of being struck by passing vehicles.

RECOMMENDATION

It is recommended that a pedestrian crossing is provided across the Road 05 junction and onward pedestrian facilities are provided north of the junction, as required.

D **JUNCTIONS**

D1 **PROBLEM**

Location: Northern Arc Avenue/ Cuckfield Road (North) Junction

Drawing: 60610807-ACM-CS-ZZ-DR-HW-00-1205

Summary: Insufficient differentiation between the footway and carriageway may result in road users overrunning the footway area or footway users inadvertently entering the live carriageway; this could result in collisions between road users and footway users.

A raised table is proposed at the Northern Arc Avenue/ Cuckfield Road (North) junction. It is unclear from the information provided whether there will be any level difference and/ or sufficient colour contrast/ differentiation between the proposed carriageway and footway surfacing through this section. Inadequate differentiation may result in road users mistakenly encroaching/ overrunning the adjacent footway area, especially given the horizontal alignment through the junction. Similarly, footway users (particularly those with visual impairments) may inadvertently enter the live carriageway. Collisions between road users and footway users could occur as a result.

RECOMMENDATION

It is recommended that care is taken at detailed design stage to ensure sufficient contrast/ delineation (colour/ surfacing/ height) is provided between the carriageway and footway areas.

E **ROAD SIGNS, CARRIAGEWAY MARKINGS & LIGHTING**

No comments.

5. Audit Team Statement

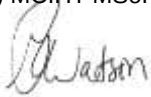
We certify that this road safety audit (addendum) has been carried out in accordance with GG119.

ROAD SAFETY AUDIT TEAM LEADER

Mark Watson

BA (Hons) MCHT MSoRSA CoC

Signed:



Position: Regional Director

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Date: 10/12/2025

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Date: 10/12/2025

Appendix A List of Provided Information

The following documents were provided to the Audit Team as part of the Road Safety Audit:

Table A-1. List of Included Drawings

Drawing Number & Drawing Title	Revision
60610807-ACM-CS-ZZ-DR-HW-00-0105 General Arrangement Sheet 5	P10
60610807-ACM-CS-ZZ-DR-HW-00-0106 General Arrangement Sheet 6	P10
60610807-ACM-CS-ZZ-DR-HW-00-0109 General Arrangement Sheet 9	P07
60610807-ACM-CS-ZZ-DR-HW-00-0110 General Arrangement Sheet 10	P07
60610807-ACM-CS-ZZ-DR-HW-00-0111 General Arrangement Sheet 11	P07
60610807-ACM-CS-ZZ-DR-HW-00-0112 General Arrangement Sheet 12	P07
60610807-ACM-CS-ZZ-DR-HW-00-0114 General Arrangement Sheet 14	P07
60610807-ACM-CS-ZZ-DR-HW-00-0115 General Arrangement Sheet 15	P06
60610807-ACM-CS-ZZ-DR-HW-00-0605 Road Contours Sheet 5	P04
60610807-ACM-CS-ZZ-DR-HW-00-0606 Road Contours Sheet 6	P05
60610807-ACM-CS-ZZ-DR-HW-00-0632 Road Longsections Sheet 2	P04
60610807-ACM-CS-ZZ-DR-HW-00-0635 Road Longsections Sheet 5	P04
60610807-ACM-CS-ZZ-DR-HW-00-0654 Road Cross Sections Sheet 4	P04
60610807-ACM-CS-ZZ-DR-HW-00-0705 Road Kerb and Pavement Plan Sheet 5	P07
60610807-ACM-CS-ZZ-DR-HW-00-0706 Road Kerb and Pavement Plan Sheet 6	P07
60610807-ACM-CS-ZZ-DR-HW-00-0708 Road Kerb and Pavement Plan Sheet 8	P07
60610807-ACM-CS-ZZ-DR-HW-00-0709 Road Kerb and Pavement Plan Sheet 9	P06
60610807-ACM-CS-ZZ-DR-HW-00-0710 Road Kerb and Pavement Plan Sheet 10	P06
60610807-ACM-CS-ZZ-DR-HW-00-1205 Traffic Signs and Road Markings Sheet 5	P07
60610807-ACM-CS-ZZ-DR-HW-00-1206 Traffic Signs and Road Markings Sheet 6	P07
60610807-ACM-CS-ZZ-DR-HW-00-1208 Traffic Signs and Road Markings Sheet 8	P06
60610807-ACM-CS-ZZ-DR-HW-00-1209 Traffic Signs and Road Markings Sheet 9	P06
60610807-ACM-CS-ZZ-DR-HW-00-1210 Traffic Signs and Road Markings Sheet 10	P06
60610807-ACM-CS-ZZ-DR-HW-00-1211 Traffic Signs and Road Markings Sheet 11	P06
60610807-ACM-CS-ZZ-DR-HW-00-1212 Traffic Signs and Road Markings Sheet 12	P06
60610807-ACM-CS-ZZ-DR-HW-00-1213 Traffic Signs and Road Markings Sheet 13	P06
60610807-ACM-CS-ZZ-DR-HW-00-1214 Traffic Signs and Road Markings Sheet 14	P06
60610807-ACM-CS-ZZ-DR-HW-00-1215 Traffic Signs and Road Markings Sheet 15	P06
60610807-ACM-CS-ZZ-DR-HW-00-3001 Full Length CS 16m Artic Veh Tracking Sht 1	P04
60610807-ACM-CS-ZZ-DR-HW-00-3003 Full Length CS 11.2m Single Deck Bus Vehicle Tracking Sht 1	P02
60610807-ACM-CS-ZZ-DR-HW-00-3012 Road 8 and Road 9 16m Articulated Vehicle Tracking	P04
60610807-ACM-CS-ZZ-DR-HW-00-3013 APC Large Car & Refuse Vehicle 2-way Veh Tracking	P03
60610807-ACM-CS-ZZ-DR-HW-00-3014 Road 05 Cuckfield Rd Junction Refuse Vehicle Tracking	P03
60610807-ACM-CS-ZZ-DR-HW-00-3015 Cuckfield Rd Large Car and 16m Artic Veh Tracking Sheet 15	P02
60610807-ACM-CS-ZZ-DR-HW-00-3016 Cuckfield Road Chicane 16m Artic Vehicle Tracking Sheet 16	P01

List of Included Documents

Revised Road Safety Audit Brief – 60610807-ACM-CS-XX-RP-HW-0007

18 November 2025

Departures from Standard

None presented.

Appendix B Locations of Problems

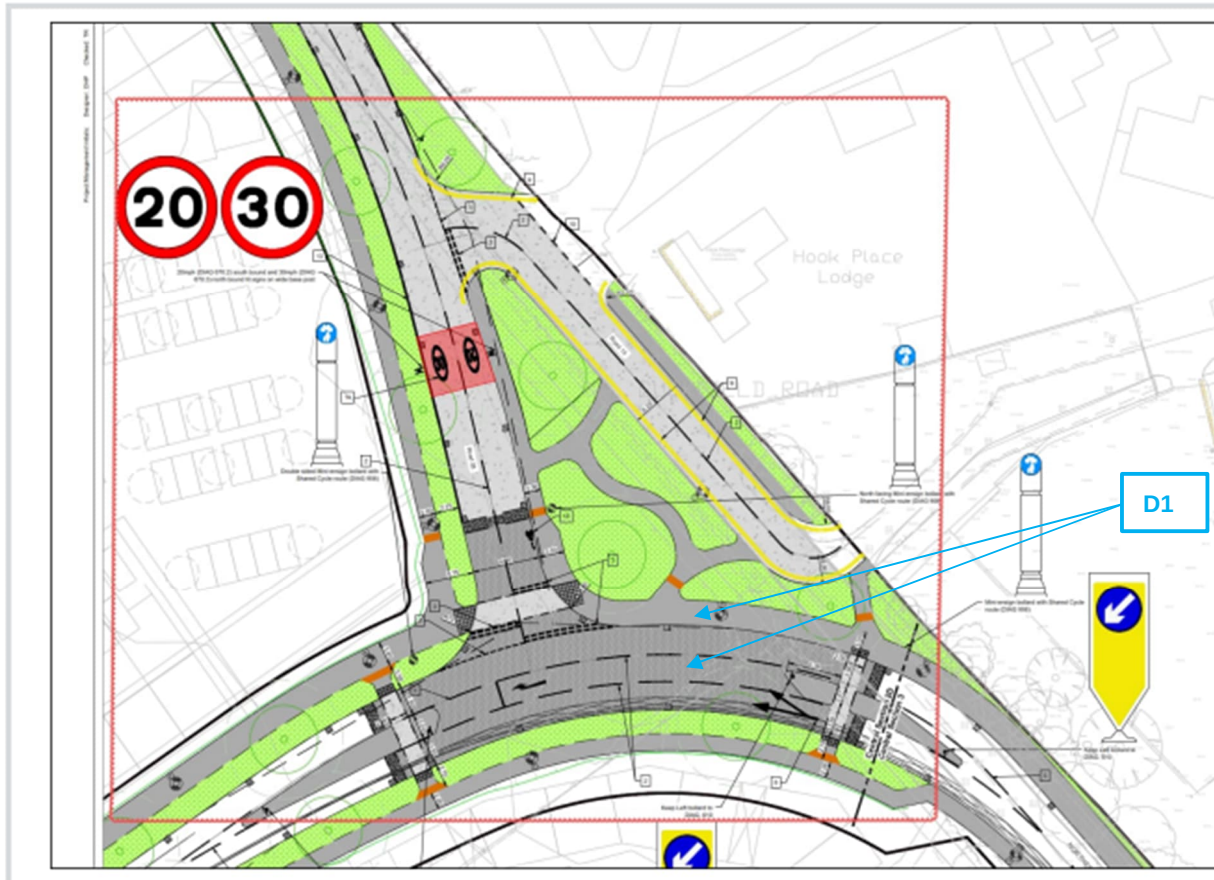


Figure B-1. Locations of Problems (RSA Addendum Brief Page 8)

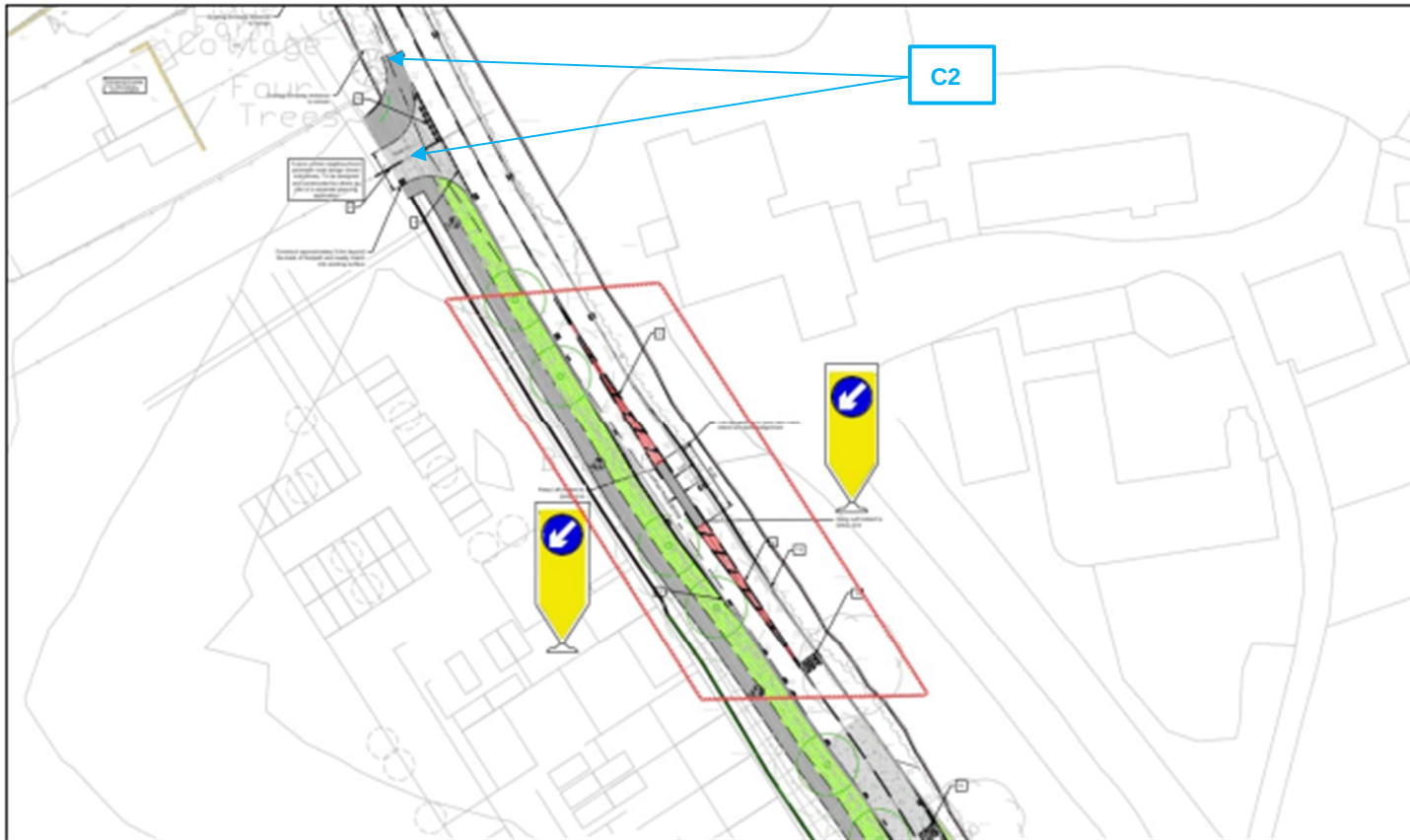


Figure B-2. Locations of Problems (RSA Addendum Brief Page 8)

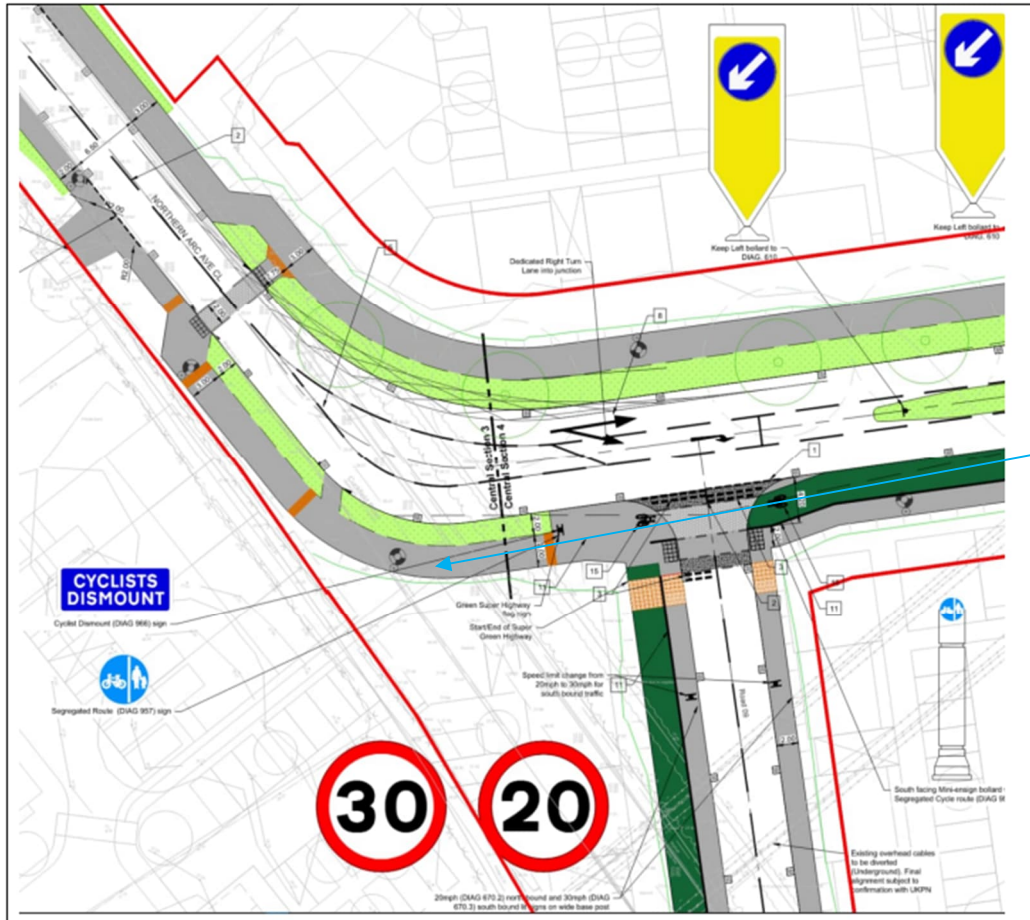


Figure B-3. Locations of Problems (RSA Addendum Brief Page 9)

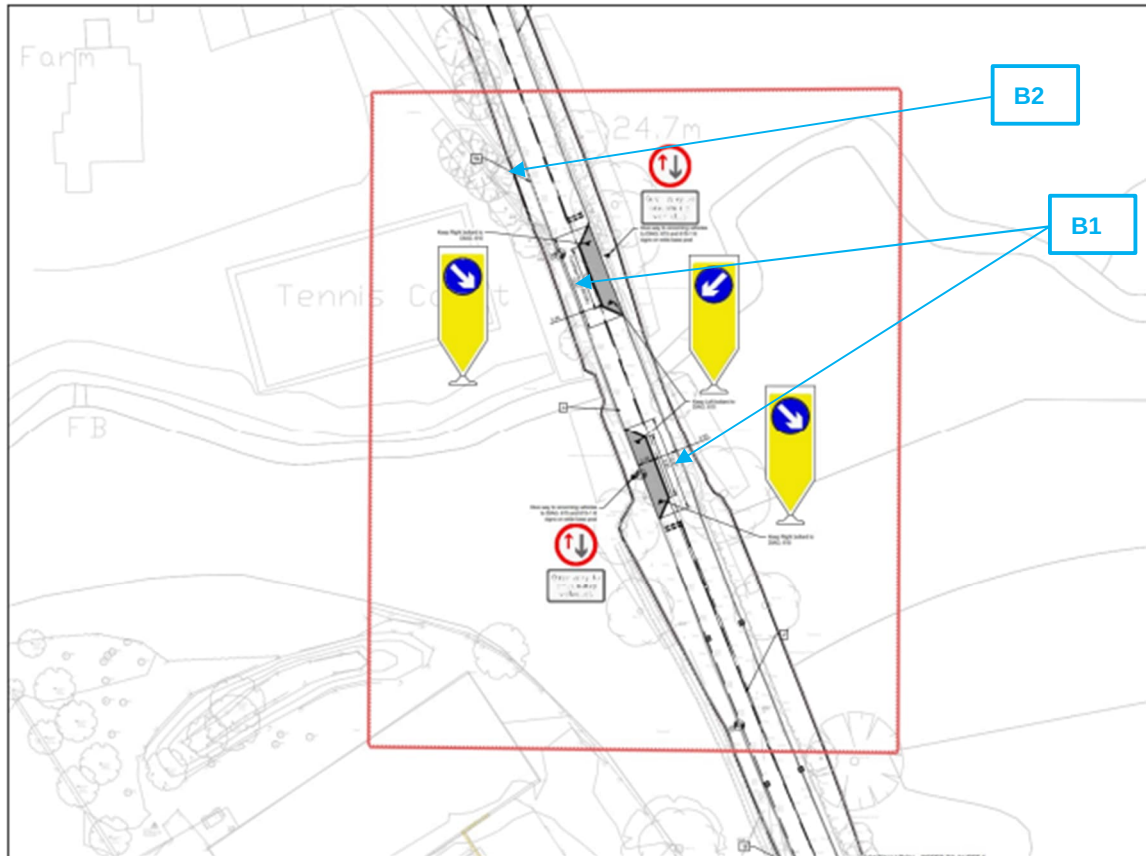


Figure B-4. Locations of Problems (RSA Addendum Brief Page 10)

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