



Road Safety Audit Stage 1 & 2

Proposed Section 38 Works

Imberhorne Farm

Imberhorne Lane

East Grinstead

West Sussex

Date: 23rd July 2025

Report produced for: Ardent Consulting Engineers

Report produced by: M & S Traffic

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DOCUMENT CONTROL SHEET

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Report Title:	Imberhorne Lane, East Grinstead (S38 Works) Road Safety Audit Stage 1/2
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Prepared by:	M & S Traffic
On behalf of:	West Sussex County Council

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Appendix B..... Comment Location Drawing

1 INTRODUCTION

- 1.1 This report describes a Stage 1/2 Road Safety Audit carried out on proposed Section 38 works associated with a mixed use development comprising up to 550 dwellings, a care village of up to 150 dwellings, land for a primary school, a mixed use neighbourhood centre, allotments, playing fields, new sports pavilion, and running track associated with Imberhorne Secondary School, a Suitable Alternative Natural Greenspace (SANG) with associated car park, access from Imberhorne Lane, internal road to the SANG, pedestrian/cycle link from Imberhorne Lane and associated landscaping and infrastructure.

The Audit was requested by the design organisation, Ardent Consulting Engineers, Third Floor, The Hallmark Building, 52-56 Leadenhall Street, London EC3M 5JE on behalf of West Sussex County Council as the Overseeing Organisation.

- 1.2 The Audit Team membership was as follows:

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

Alex Allen, AMIHE – Audit Team Member
RoSPA Cert. of Professional Competency

- 1.3 The audit was undertaken following the principles of GG119, 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 July 2025 and comprised an examination of the documents provided as listed in Appendix A. A joint site visit and inspection was undertaken on the 10th July 2025 between 10:45 and 11:45 hours. Weather conditions at the time were fine where the site was closed to traffic.
- 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 The auditors have not been informed of any Departures from Standards in this scheme construction.
- 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 safety audits were submitted for assessment.

3 ITEMS RAISED AT THE STAGE 1/2 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Proposed head walls as shown on Appendix B.

Summary: Lack of appropriate protection could lead to severity increase to collisions with headwalls.

The proposals indicate the construction of a headwall at chainage 200.000m and 620.000m. There is concern that any incident involving the headwalls could lead to an increased severity of any collision with these items.

RECOMMENDATION

It is recommended that a Local Road Assessment be undertaken and provided for comment to assess the potential protection requirements of the proposed head walls, should the assessment show that protection is need then appropriate measures should be implemented.

3.1.2 PROBLEM

Location: Turning heads with development, as shown on Appendix B.

Summary: Inappropriate parking could lead to collisions with parked vehicles, or vehicle to pedestrian collisions.

There are two turning heads proposed as part of the development; however, without parking controls these may be subject to parking and obstruction, particularly in the evening periods. Parking in the turning heads could restrict movements and lead to large vehicles reversing or shunting. This could lead to collisions with parked vehicles, or vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that parking control measures be the installed in the turning heads.

3.1.3 PROBLEM

Location: Proposed development.

Summary: Lack of restraint system could increase severity of a loss of control collision.

The Auditors were informed that there will be ponds to the north of the spine road that are yet to be designed. As such, no details have been provided of any proposed vehicle restraint systems to prevent vehicles that may exit the carriageway being prevented from going down the embankment

into the ponds. Should vehicles leave the carriageway, the severity of a loss of control collision could be increased, or where the occupants risk drowning. Further, vehicles that lose control and exit the carriageway may impact with a headwall, which could cause rapid deceleration, where injuries may be severe in nature.

RECOMMENDATION

It is recommended that a road restraints risk assessment for local roads be undertaken to determine whether protection is needed, and that protection be installed should the assessment show that it is required.

3.1.4 PROBLEM

Location: Proposed raised tables.

Summary: Insufficient construction detail on raised tables could lead to loss of control collisions.

No details of the ramp profiles or height of humps have been provided for assessment. There is concern that if the height is outside normal ranges, this could lead to loss of control collisions, though it is recognised that vehicle speeds are likely to be very low.

RECOMMENDATION

It is recommended that ramp profiles be within normal accepted ranges.

3.1.5 PROBLEM

Location: Proposed raised table at chainage 845.000m.

Summary: Ponding could lead to loss of control collisions.

A raised table is proposed; however, the eastern ramp may be a barrier to surface water drainage and could lead to the creation of a low spot. A low spot could lead to ponding and possible loss of control of collisions, particularly in wet or icy conditions, though it is recognised that vehicle speeds are likely to be very low.

RECOMMENDATION

It is recommended that suitable drainage be provided at the bottom of the eastern ramp.

3.1.6 PROBLEM

Location: Proposed footway / cycleway link.

Summary: Insufficient construction details could lead to overshoot at junctions or cyclist loss of control collisions.

No construction details for the proposed footway / cycleway link were provided. Surfacing with an insufficient Polished Stone Value (PSV) could lead to overshoot at junctions or cyclist loss of control collisions in the event of sudden braking manoeuvres.

RECOMMENDATION

It is recommended that the PSV of the footway / cycleway link surface material be a minimum of 50PSV.

3.2 Local Alignment

3.2.1 PROBLEM

Location: Bend on Spine Road between chainage 120.000m and 185.000m.

Summary: Lack of forward visibility could lead to collisions with parked vehicles or rear end shunts.

At the bend the forward visibility splay falls outside the highway boundary, where unmaintained landscaping could cause a visibility obstruction. Obstructions to visibility within the visibility splay, should be avoided, as insufficient visibility could lead to collisions with parked vehicles or rear end shunts.

RECOMMENDATION

It is recommended that there should be no physical obstruction of the visibility splays, where the height of landscaping features should be 600mm or less. It is also recommended that a suitable covenant should be arranged to ensure that the splays are not affected by planting or landscaping features.

3.3 Junctions

3.3.1 No Problems were identified in this category at this Stage 1/2 Road Safety Audit.

3.4 Non-Motorised User (NMU) Provision

3.4.1 PROBLEM

Location: Proposed shared use footway / cycleway.

Summary: Lack of connectivity could increase the risk of cyclist loss of control collisions or vehicle to cyclist collisions.

A shared use footway / cycleway; however, it is unclear how the shared use route connects with the spine road at the southern end of the scheme. A lack of suitable cycle facilities may lead to cyclists entering the carriageway at full kerb height, increasing the risk of cyclist loss of control

collisions, or cyclists unexpectedly entering the carriageway, increasing the risk of vehicle to cyclist collisions.

RECOMMENDATION

It is recommended that adequate cycle links be provided.

3.4.2 PROBLEM

Locations: Various pedestrian crossing locations as detailed below:

- a) Spine Road, chainage 270.000m, southern corner of the junction.
- b) Spine Road, chainage 490.000m, southeastern corner of the junction.
- c) Spine Road, chainage 550.000m, western corner of the junction.
- d) Spine Road, chainage 1230.000m, eastern corner of the junction.
- e) Spine Road, chainage 1340.000m, eastern corner of the junction.

Summary: Insufficient pedestrian / traffic intervisibility could lead to vehicle to pedestrian collisions.

Pedestrian / traffic intervisibility splays were not provided for assessment and there is concern that parking bays in the side roads may restrict pedestrian / traffic intervisibility. A parked vehicle in the visitor bays could mask a child pedestrian at the crossings, where restricted intervisibility could lead to vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that parking bays should not impede upon the pedestrian / traffic intervisibility splays at the crossing points.

3.4.3 PROBLEM

Location: Pedestrian crossing point at chainage 845.000m, northern side of the carriageway.

Summary: Gully within crossing area could lead to pedestrian injury.

On the northern side of the carriageway there is a gully in the line of pedestrian crossing movements. The gully cover could provide a hazard to pedestrians using the crossing, particularly the visually and mobility impaired, leading to potential pedestrian trips and falls that may result in pedestrian injury.

RECOMMENDATION

It is recommended that the gully be relocated.

3.4.4 **PROBLEM**

Location: Various locations as listed below:

- Chainage 1070.000m, pedestrian crossing at junction with Spine Road, western corner.
- Chainage 1325.000m, pedestrian crossing at junction with Spine Road, western corner.

Summary: Unsuitable pedestrian facilities could lead to pedestrian trips and falls.

At the above locations the drop kerbs at the crossing points are proposed at a 125mm upstand, which could lead to pedestrian trip and falls, and provide movement difficulty for the mobility impaired.

RECOMMENDATION

It is recommended that the drop kerbs be flush with a 6mm tolerance.

3.5 **Road Signs, Carriageway Markings and Lighting**

3.5.1 **PROBLEM**

Location: Proposed development.

Summary: Insufficient street lighting could increase the risk of vehicle to pedestrian collisions or side impact collisions.

No details of street lighting have been provided for assessment. Insufficient street lighting may reduce the visibility of pedestrians during the hours of darkness, particularly at the junctions or crossing points. This could increase the risk of vehicle to pedestrian collisions or side impact collisions.

RECOMMENDATION

It is recommended that a plan showing the light distribution be provided for assessment.

3.5.2 **PROBLEM**

Location: Proposed shared use footway / cycleway.

Summary: Lack of vertical signage may increase the risk of loss of cyclist collisions with pedestrians.

A shared use footway/ cycleway is proposed; however, no details have been provided on the vertical signage associated with the proposed shared use footway / cycleway. A lack of appropriate vertical signage may increase the risk of cyclist collisions with pedestrians on the route or vehicle to cyclist collisions when cyclists re-join the carriageway.

RECOMMENDATION

It is recommended that details of vertical signage are provided for assessment.

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 has no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

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

Audit Team Leader

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

Signed:  Date: 23/07/2025

Audit Team Member

Alex Allen, AMIE
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Signed:  Date: 23/07/2025

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APPENDIX A

List of Drawings and other information submitted for auditing:

Drawing Number	Title
2206781-ACE-XX-00-DR-C-1001 – P5	GENERAL ARRANGEMENT SHEET 1
2206781-ACE-XX-00-DR-C-1002 – P5	GENERAL ARRANGEMENT SHEET 2
2206781-ACE-XX-00-DR-C-1003 – P4	GENERAL ARRANGEMENT SHEET 3
2206781-ACE-XX-00-DR-C-1004 – P4	GENERAL ARRANGEMENT SHEET 4
2206781-ACE-XX-00-DR-C-1011 – P5	S38 SPINE ROAD GULLEY CATCHMENT PLAN (SHEET 1)
2206781-ACE-XX-00-DR-C-1012 – P4	S38 SPINE ROAD GULLEY CATCHMENT PLAN (SHEET 2)
2206781-ACE-XX-00-DR-C-1013 – P4	S38 SPINE ROAD GULLEY CATCHMENT PLAN (SHEET 3)
2206781-ACE-XX-00-DR-C-1014 – P4	S38 SPINE ROAD GULLEY CATCHMENT PLAN (SHEET 4)
2206781-ACE-XX-00-DR-C-1021 – P5	S38 ADOPTION PLAN SHEET 1
2206781-ACE-XX-00-DR-C-1022 – P4	S38 ADOPTION PLAN SHEET 2
2206781-ACE-XX-00-DR-C-1023 – P4	S38 ADOPTION PLAN SHEET 3
2206781-ACE-XX-00-DR-C-1024 – P4	S38 ADOPTION PLAN SHEET 4
2206781-ACE-XX-00-DR-C-1025 – P5	S38 ADOPTION PLAN SHEET 5
2206781-ACE-XX-00-DR-C-1051 – P4	PAVING CONSTRUCTION PLAN SHEET 1
2206781-ACE-XX-00-DR-C-1052 – P4	PAVING CONSTRUCTION PLAN SHEET 2
2206781-ACE-XX-00-DR-C-1053 – P4	PAVING CONSTRUCTION PLAN SHEET 3
2206781-ACE-XX-00-DR-C-1054 – P4	PAVING CONSTRUCTION PLAN SHEET 4
2206781-ACE-XX-00-DR-C-1061 – P3	S38 SPINE ROAD MARKING & SIGNING (SHEET 1)
2206781-ACE-XX-00-DR-C-1062 – P2	S38 SPINE ROAD MARKING & SIGNING (SHEET 2)

2206781-ACE-XX-00-DR-C-1063 – P2	S38 SPINE ROAD MARKING & SIGNING (SHEET 3)
2206781-ACE-XX-00-DR-C-1064 – P3	S38 SPINE ROAD MARKING & SIGNING (SHEET 4)
2206781-ACE-XX-00-DR-C-1065 – P1	S38 SPINE ROAD MARKING & SIGNING (SHEET 5)
2206781-ACE-XX-00-DR-C-1091 – P3	CBR TEST LOCATION PLAN SHEET 1
2206781-ACE-XX-00-DR-C-1092 – P3	CBR TEST LOCATION PLAN SHEET 2
2206781-ACE-XX-00-DR-C-1093 – P3	CBR TEST LOCATION PLAN SHEET 3
2206781-ACE-XX-00-DR-C-1031 – P4	HIGHWAY CONTOURS & LEVELS SHEET 1
2206781-ACE-XX-00-DR-C-1032 – P4	HIGHWAY CONTOURS & LEVELS SHEET 2
2206781-ACE-XX-00-DR-C-1033 – P4	HIGHWAY CONTOURS & LEVELS SHEET 3
2206781-ACE-XX-00-DR-C-1034 – P4	HIGHWAY CONTOURS & LEVELS SHEET 4
2206781-ACE-XX-00-DR-C-1071 – P1	ORDINARY WATERCOURSE CONSENT SHEET 1
2206781-ACE-XX-00-DR-C-1072 – P1	ORDINARY WATERCOURSE CONSENT SHEET 1
2206781-ACE-XX-00-DR-C-1036 – P5	DRAINAGE LAYOUT PLAN SHEET 1
2206781-ACE-XX-00-DR-C-1037 – P5	DRAINAGE LAYOUT PLAN SHEET 2
2206781-ACE-XX-00-DR-C-1038 – P5	DRAINAGE LAYOUT PLAN SHEET 3
2206781-ACE-XX-00-DR-C-1039 – P6	DRAINAGE LAYOUT PLAN SHEET 4
2206781-ACE-XX-00-DR-C-1201 – P3	PUMP STATION GENERAL ARRANGEMENT PUMP STATION 1
2206781-ACE-XX-00-DR-C-1202 – P2	PUMP STATION GENERAL ARRANGEMENT PUMP STATION 2
2206781-ACE-XX-00-DR-C-1203 – P1	AIR VALVE AND WASHOUT CHAMBER GENERAL ARRANGEMENT
2206781-ACE-XX-00-DR-C-1221 – P5	MANHOLE SCHEDULES SHEET 1
2206781-ACE-XX-00-DR-C-1222 – P4	MANHOLE SCHEDULES SHEET 2
2206781ACE-000-00-DR-C-1262 – P1	CONSTRUCTION DETAILS SHEET 1
2206781ACE-000-00-DR-C-1262 – P1	CONSTRUCTION DETAILS SHEET 2

2206781-ACE-XX-00-DR-C-1400 – P5	DRAINAGE LONGSECTIONS SHEET 1
2206781-ACE-XX-00-DR-C-1401 – P4	DRAINAGE LONGSECTIONS SHEET 2
2206781-ACE-XX-00-DR-C-1410 – P4	SPINE ROAD LONGSECTIONS SHEET 1
2206781-ACE-XX-00-DR-C-1411 – P4	SPINE ROAD LONGSECTIONS SHEET 2
2206781-ACE-XX-00-DR-C-1412 – P2	SPINE ROAD LONGSECTIONS SHEET 3
2206781-ACE-XX-00-DR-C-1420 – P2	RISING MAIN LONGSECTIONS SHEET 1
2206781-ACE-XX-00-DR-C-1421 – P2	RISING MAIN LONGSECTIONS SHEET 2
2206781-ACE-XX-00-DR-C-1501 – P1	S38 REFUSE VEHICLE TRACKING SHEET 1
2206781-ACE-XX-00-DR-C-1502 – P1	S38 REFUSE VEHICLE TRACKING SHEET 2
2206781-ACE-XX-00-DR-C-1503 – P1	S38 REFUSE VEHICLE TRACKING SHEET 3
2206781-ACE-XX-00-DR-C-1504 – P1	S38 REFUSE VEHICLE TRACKING SHEET 4
2206781-ACE-XX-00-DR-C-1505 – P1	S38 REFUSE VEHICLE TRACKING SHEET 5
2206781-ACE-XX-00-DR-C-1506 – P1	S38 REFUSE VEHICLE TRACKING SHEET 6
2206781-ACE-XX-00-DR-C-1507 – P1	S38 REFUSE VEHICLE TRACKING SHEET 7
2206781-ACE-XX-00-DR-C-1508 – P1	S38 REFUSE VEHICLE TRACKING SHEET 8
2206781-ACE-XX-00-DR-C-1509 – P1	S38 REFUSE VEHICLE TRACKING SHEET 9
2206781-ACE-XX-00-DR-C-1510 – P1	S38 REFUSE VEHICLE TRACKING SHEET 10
S278/38/30 – A	CARRIAGEWAY PERMEABLE SPECIFICATION (SHEET 1 OF 2)
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).







