

LAND EAST OF TYE LANE,

WALBERTON

AUDIT RESPONSE REPORT – STAGE 1 ROAD SAFETY AUDIT

REPORT REF NO. 183248-10

PROJECT NO. 183248

JULY 2021

HEAD OFFICE: 3rd Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE T [REDACTED]

ESSEX: 1 - 2 Crescent Court, Billericay, Essex, CM12 9AQ T [REDACTED]

KENT: Suite 10, Building 40, Churchill Business Centre, Kings Hill, Kent, ME19 4YU T [REDACTED]

MIDLANDS: Office 3, The Garage Studios, 41-43 St Mary's Gate, Nottingham, NG1 1PU T [REDACTED]

SOUTH WEST: City Point, Temple Gate, Bristol, BS1 6PL T [REDACTED]

SUFFOLK: Suite 110, Suffolk Enterprise Centre, 44 Felaw Street, Ipswich, IP2 8SJ T [REDACTED]

Email: enquiries@ardent-ce.co.uk

Contents

	Page
1.0 INTRODUCTION	2
2.0 AUDIT RESPONSE TO STAGE 1 ROAD SAFETY AUDIT	3

APPENDICES

A. Stage 1 Road Safety Audit

Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for HE Approval	DH	DH	KM	22/07/2021
-	Final	DH			30/07/2021

Distribution

This report has been prepared for the exclusive use of Highways England.
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 Vistry Group PLC to advise on the transport aspects of the proposed development of land to the east of Tye Lane, Walberton. The proposals comprise 175 dwellings (C3 use).
- 1.2 This report addresses matters originally raised in the Stage 1 Road Safety Audit (RSA) undertaken by M & S Traffic (M&S), dated July 2021.
- 1.3 The Audit was undertaken on a proposed improved junction at the A27 with Tye Lane and is located to the north of proposed residential development site. The works involve lengthened merge taper to join westbound traffic together with associated island and line marking alterations.
- 1.4 The following drawings have been prepared to incorporate the findings of the RSA1:
 - **ACE Drawing 2005090-183248-005C** – Proposed A27 / Tye Lane Junction

2.0 DESIGNERS RESPONSE TO STAGE 1 ROAD SAFETY AUDIT

Table 2.1 Project Details

Report title:	Stage 1 Designers Response
Date:	July 2021
Document reference and revision:	183248-10
Prepared by:	Ardent Consulting Engineers
On behalf of:	Vistry Group PLC

Table 2.2 Authorisation Sheet

Project:	Tye Lane, Walberton
Report title:	Designers Response to Stage 1 Road Safety Audit
Prepared by	
Name:	David Howson
Position:	Principal Engineer
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	30.07.2021
Approved by	
Name:	Kevin Markey
Position:	Associate Director
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	30.07.2021

Table 2.3 Key Personnel

Overseeing Organisation:	Highways England – Mr D. Bowie
RSA team:	M&S - Mr B. Shawyer & Mr M Morris
Design organisation:	Arden - 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
2.1.1 Carriageway widening and inappropriate crossfalls could lead to ponding/icing at the junction	It is recommended that the horizontal and vertical carriageway profiles should ensure that the carriageway drains and does not pond. In addition, that an appropriate surface water system should be installed to allow for the widened carriageway.	Agreed. Details will be provided for Stage 2 Audit.	Agree with Auditor's identified Problem and Recommendation and accept the Design Team's proposals. Full drainage details will be developed at Detail Design stage and will be submitted as part of the Audit Brief for Stage 2 Road Safety Audit.	Full drainage details will be developed at Detail Design stage and will be submitted as part of the Audit Brief for Stage 2 Road Safety Audit.
2.1.2 Inappropriate tie-ins or significant changes in Polished Stone Values could lead to side swipe collisions and loss of control collisions	It is recommended that PSV details should be checked to ensure they provide adequate grip resistance for the speed of road, further joint lines should not be within a carriageway running lane.	Agreed. Details will be provided for Stage 2 Audit.	Agree with Auditor's identified Problem and Recommendation and accept the Design Team's proposals.	Full carriageway surfacing details will be developed at Detail Design stage and will be submitted as part of the Audit Brief for Stage 2 Road Safety Audit.

2.2.1 An inconspicuous traffic island could lead to kerb strikes and loss of control collisions entering the A27 against the direction of traffic flow, leading to possible head on collisions.	A traffic island is proposed at the realigned junction, where there is absence of signage on the island. This could lead to kerb strikes and loss of control collisions or vehicles inadvertently entering the A27 in opposition to the direction of traffic flow, leading to possible head on collisions.	Agreed. Details confirming illumination specifications and traffic signs will be provided for Stage 2 Audit. The preliminary design has been updated to incorporate "Turn left" carriageway markings as well as associated arrow, as shown on ACE Drawing 183248-005C.	Agree with Auditor's identified Problem and Recommendation and accept the Design Team's proposals. The preliminary design has been updated to incorporate "Turn left" carriageway markings as well as associated arrow, as shown on ACE Drawing 183248-005C.	Outline proposals incorporated into ACE Drawing 183248-005C. Full road marking and signing details will be further developed at Detail Design stage and will be submitted as part of the Audit Brief for Stage 2 Road Safety 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:	Kevin Markey
Signed	
Position:	Associate Director
Organisation:	Ardent Consulting Engineers
Date:	30.07.2021

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:	David Bowie
Signed:	
Position:	Area 4 Spatial Planning Manager (Acting)
Organisation:	Highways England
Date:	30/07/2021

Designers Response

Drawings



NOTES:

1. BASED ON TOPOGRAPHICAL SURVEY PROVIDED BY HIGHWAYS ENGLAND ON 04.06.2021.
2. LAND TITLE BOUNDARIES TRANPOSED FROM H.M. LAND REGISTRY PLANS.
3. ADOPTED HIGHWAY EXTENTS SUPPLIED BY WSCC AND TRANPOSED TO TOPOGRAPHICAL SURVEY
4. JUNCTION DESIGNED IN ACCORDANCE WITH DMRB CD123 STANDARDS.
5. MERGE RADII IN ACCORDANCE WITH CD123 5.5.6.
6. MERGE TAPER IN ACCORDANCE WITH CD123 5.25-26.
7. HIGHWAY DRAINAGE IS CURRENTLY UNKNOWN.

KEY:

- PROPOSED KERB
- ROAD MARKINGS

FOR INFORMATION ONLY

D	TURN LEFT MARKINGS / SIGNAGE NOTE ADDED	DV	DV	OH	21.07.21
C	REMOVED BOUNDARY INFORMATION	MRH	MRH	KM	18.06.21
B	REDRAWN ON TOPO SURVEY	MRH	DV	CH	08.06.21
A	UPDATED NOTES	MRH	MRH	KM	04.06.21
Rev	Description	Drn	Chk	App	Date

ARDENT | CONSULTING ENGINEERS

Third Floor
The Hallmark 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

worksafe
consultant

SSIP
SPECIALIST
INSTRUMENTED
PRACTITIONER

Client				
VISTRY SOUTH EAST				
Project Title:				
LAND EAST OF TYE LANE, WALBERTON				
Drawing Title:				
PROPOSED A27 / TYE LANE JUNCTION				
A1 Scale		Date	Designed by	
1:500		JUNE 2021	MRH	
Drawn by		Checked by	Approved by	
MRH		DV	KM	
Drawing Number			183248-005	Rev D

Designers Response Appendix A
Stage 1 Road Safety Audit



A27 junction with Tye Lane

WALBERTON

West Sussex

FINAL STAGE 1 ROAD SAFETY AUDIT

M & S Traffic

JULY 2021

Report title:	A27 junction with Tye Lane, Walberton, Safety Audit Stage 1
Date:	14 th July 2021
Document reference and revision:	ARD/183248/1/21/MM Version 2
Prepared by:	Martin Morris, M &S Traffic Ltd
On behalf of	Highways England

1. INTRODUCTION

1.1. This report results from a Stage 1 Road Safety Audit carried out on the A27 at Walberton at the junction with Tye Lane, at the request of David Bowie, Spatial Planning Manager (Acting), Highways England, the Highway Authority. The Road Safety Audit was carried out during June/July 2021.

1.2. The Road Safety Audit Team membership approved by David Bowie; the Overseeing Organisation Project Sponsor was as follows:

Martin Morris, PGD, MCIHT, MSoRSA, Team Leader
M & S Traffic Limited
(Certificate of Competency in Road Safety Audit gained in April 2012)

Bryan Shawyer, BEng (Hons), MSc, MCIHT, MSoRSA, Team Member
M & S Traffic Limited
(Certificate of Competency in Road Safety Audit gained in July 2012)

1.3. The Road Safety Audit took place at the Gillingham Office of M & S Traffic during June/July 2021. The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by Kevin Markey, Associate Director of Ardent Consulting Engineers, Third Floor, The Hallmark Building, 52-56 Leadenhall Street, London, EC3M 5JE, as approved by David Bowie, Project Sponsor for Highways England.

The Audit team was satisfied that the brief and subsequent documents provided were sufficient to undertake the Road Safety audit.

The Road Safety Audit comprised an examination of the documents provided, and these are listed in Annex A. The documents consisted of:

- Description of the scheme.
- Design plans including site location plan, and description of the local highway and adjacent land uses.
- Collision data and collision data analysis (based on CrashMap).
- Anticipated trip generation from the proposed development.

The Audit Team visited the site together on the afternoon of 30th June between 13.00 pm and 13.45 pm. During the site visit the weather was fine and the existing road and footway surfaces were dry. Traffic conditions were moderate and free flowing with high speeds. No pedestrian flows and no cyclist movements were observed during the site visit.

1.4. The terms of reference of the Road Safety Audit are as described in GG119. The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

1.5. All comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the A3 plan supplied with the Road Safety Audit Brief in Annex B.

1.6. The proposals comprise of the provision of new merge taper onto the A27 from Tye Lane, to accommodate an increase in traffic associated with a nearby development.

1.7 No Departures from Standards was provided to the Audit Team.

2. ITEMS RAISED AT THE STAGE 1 ROAD SAFETY AUDIT

2.1. GENERAL

2.1.1. PROBLEM

Location: A (Drawing 183248-005B) – At the junction of Tye Lane and the A27.

Summary: Carriageway widening and inappropriate crossfalls could lead to ponding / icing at the junction, which could lead to loss of control collisions.

Carriageway widening is taking place at the realigned junction where longitudinal and crossfalls that do not follow existing carriageway profiles could lead to low spots where surface water could collect and pond. There is concern that ponding may occur, or icing in the winter, which could lead to loss of control collisions.

RECOMMENDATION

It is recommended that the horizontal and vertical carriageway profiles should ensure that the carriageway drains and does not pond. In addition, that an appropriate surface water system should be installed to allow for the widened carriageway.

2.1.2. PROBLEM

Location: B (Drawing 183248-005B) – At the junction of Tye Lane and the A27.

Summary: Inappropriate tie-ins or significant changes in Polished Stone Values could lead to side swipe collisions and loss of control collisions.

The junction is being realigned to include a merge taper, where inappropriate tie-ins or significant changes in Polished Stone Values (PSV) could lead to differential braking, particularly under severe braking conditions, that may result in loss of control collisions or side swipe collisions. Further, the presence of a joint line within a running lane could destabilise powered two-wheel riders leading to loss of control collisions.

RECOMMENDATION

It is recommended that PSV details should be checked to ensure they provide adequate grip resistance for the speed of road, further joint lines should not be within a carriageway running lane.

2.2. ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING.

2.2.1. PROBLEM

Location: C (Drawing 183248-005B) – At the junction of Tye Lane and the A27.

Summary: An inconspicuous traffic island could lead to kerb strikes and loss of control collisions, or vehicles entering the A27 against the direction of traffic flow, leading to possible head on collisions.

A traffic island is proposed at the realigned junction, where there is absence of signage on the island. This could lead to kerb strikes and loss of control collisions or vehicles inadvertently entering the A27 in opposition to the direction of traffic flow, leading to possible head on collisions.

RECOMMENDATION

It is recommended that appropriate bollards with their respective sign faces and illumination specifications together with traffic signs and road markings details should be installed. Further, it is recommended that a “Turn left” carriageway marking, and associated arrow should be installed on the approach to the junction from Tye Lane.

3. AUDIT TEAM STATEMENT

We certify that this Road Safety Audit has been carried out in accordance with GG119.

ROAD SAFETY AUDIT TEAM LEADER

Martin Morris
Managing Director
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency
M & S Traffic Ltd
Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX

Signed:

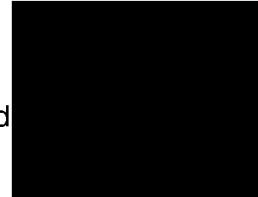


Date: 14/07/2021

ROAD SAFETY AUDIT TEAM MEMBER

Bryan Shawyer
Director
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency
M & S Traffic Ltd
Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX

Signed



Date: 14/07/2021

Annex A - List of Drawings and other information submitted for auditing:

Drawings:

Drawing Number	Title	Date
183248-005 B	Proposed A27/Tye Lane Junction	June 2021

Supporting documentation:

183248-05 Tye Lane	Road Safety Audit Brief, Tye Lane, Warburton (Walberton)	June 2021
--------------------	---	-----------

Annex B - A3 Plan attached showing the locations of the problems identified as part of this audit.

