

MERAKI ALLIANCE

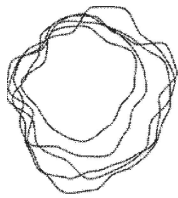
Highways, Transportation & Safety Consulting

Road Safety Audit Stage 1/2

Proposed Housing Development Ashbrow Road, Huddersfield

**Keepmoat Limited
No 1 Bowling Green Terrace
Jack Lane
Leeds
LS11 9SP**

**Jonathan Birkett
Meraki Alliance Ltd
10 Watkin Ave
Old Colwyn
Conwy
LL29 9NN
Tel + 44 (0)7966 296302**



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Highways, Transportation & Safety Consulting

Road Safety Audit Stage 1/2

Proposed Housing Development Ashbrow Road, Huddersfield

Report Produced for; -

Keepmoat Limited

Report Produced by; -

Jonathan Birkett

Report Dated; -

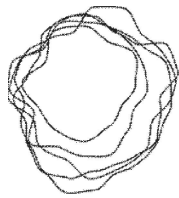
14 January 2020

Report Reference; -

JHB/AKRSA1.2Rev2

Road Safety Audit Team Leader; -

Jonathan Birkett



Proposed Development, Ashbrow Road, Huddersfield - Road Safety Audit – Stage 1/2

Contents Amendment Record

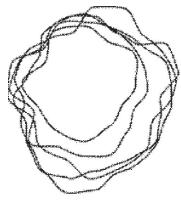
This report has been issued & amended as follows:

Issue	Revision	Description	Date	Signed
1	0	Draft Report	22.10.17	JB
1	1	FINAL REPORT	24.10.17	JB
1	2	FINAL REPORT	06.02.2020	JB/GK

Report Circulation Record

This report has been circulated, as follows:

Person	Organisation	No. of Copies	Date
	Keepmoat Limited	Electronic	06.02.2020
Tony Harrigan	SCP	Electronic	06.02.2020
G Kidd	Meraki Alliance Ltd	Electronic	06.02.2020



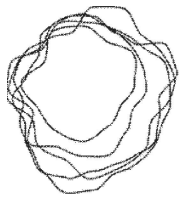
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Appendix A - Documents Forming the Brief

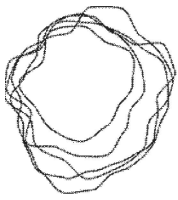
Appendix B – Problem(s) Location Plan(s)



1 Introduction

1.1 Commission and Terms of Reference

- 1.1.1 This report has been prepared in response to a request to undertake a Stage 1 Road Safety Audit (i.e. carried out prior to detailed design) by Keepmoat Limited. The scheme submitted for Audit is the Proposed Housing Development, Ashbrow Road, Huddersfield. The road in the vicinity of the proposed works is 20mph speed limit, is traffic calmed and is street lit.
- 1.1.2 The audit comprised an examination of documents forming the Audit Brief and an examination of the site. The documents were made available to the Road Safety Audit Team by Tony Harrigan (SCP) on the instructions of Keepmoat Limited on behalf of the Highway Authority Kirklees Council. The total documents forming the Audit Brief are listed in **Appendix A**.
- 1.1.3 Generally, the Brief comprised:
- Brief.
 - Construction Drawings.
- 1.1.4 Collision data was not available however the audit team examined "Crashmap" and determined that over the last 5 years one personal injury collisions has taken place close to the development site at the mini roundabout junction with Bradley Boulevard. The Audit Team were not able to determine if the collision predates the implementation of traffic calming or the installation of the mini roundabout.
- 1.1.5 Traffic count data was available from the Transport Assessment.
- 1.1.6 No traffic speed data has been provided.
- 1.1.7 It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit requested.
- 1.1.8 The Road Safety Audit Team membership approved by Keepmoat Limited on behalf of the Highway Authority was:
- JONATHAN BIRKETT IENG MICE FIHE MSORSA
Holder of Certificate of Competency
Road Safety Audit Team Leader
- GILLIAN KIDD BSc (HONS) MIHE
Road Safety Audit Team Member



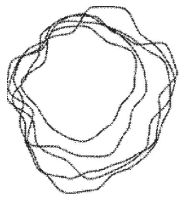
- 1.1.9 The Road Safety Audit comprised an examination of the documents and drawings supplied to the Road Safety Audit Team (referenced in **Appendix A** of this report). No member of the Road Safety Audit Team has had any previous input to the design of the scheme.
- 1.1.10 The site was visited on the morning of 11 January 2020. It was raining and the road surface was wet. The Audit Team spent 25 minutes on site understanding the proposed works and their interaction with the existing road network.
- 1.1.11 The Terms of Reference are as described in the Highways Agency's Design Manual for Roads and Bridges document GG119 'Road Safety Audit '. The scheme has been examined and this report compiled only with regard to safety implications to road users of the scheme as presented. It has not been verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. However, any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.
- 1.1.12 Furthermore, any recommendations included within this report should not be regarded as being prescriptive design solution to the problem raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, as stipulated in GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which should be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.
- 1.1.13 It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration.
- 1.1.14 In the event of a collision and any resulting legal action, Meraki Alliance Ltd would have to defend its actions on the basis that it took such care, as in all circumstances was reasonably required, to ensure that the highway was not dangerous to road users. It is important therefore that recommendations contained in the report are acted upon wherever possible.

1.2 Purpose of the scheme

- 1.2.1 Construction of a new housing development including S278 and S38 works.

1.3 Departures or Relaxations from Standards

- 1.3.1 No Departures or Relaxations from Standard were submitted to the Road Safety Audit Team.



2 Problems Raised at this Stage 1/2 Road Safety Audit

2.0 General

2.0.1 PROBLEM 1

Location: New access.

Summary: Vegetation is located within the visibility splay and along the footway resulting in obstructions to both visibility and NMUs.

The proposed priority access is located close to a number of large trees and bushes within the visibility splay of the access.

The vegetation represents an obstacle to visibility which may result in an increased risk of failure to give way type collisions.

Recommendation: Remove all vegetation and provide clear visibility splays as part of the detailed design

2.0.2 PROBLEM 2

Location: Vehicle tracking.

Summary: Inappropriate vehicle movements can increase the risk of pedestrian/vehicle collisions.

Details of vehicle tracking associated with the site access from Ashbrow Road and the internal road layout are not available. Inappropriate carriageway width and junction radii can increase the risk of vehicles over running the footway and crossing the centreline of the carriageway increasing both the risk of NMU/vehicle and vehicle/vehicle collisions.

RECOMMENDATION: Ensure that all vehicle turning movements can be accommodated within the carriageway

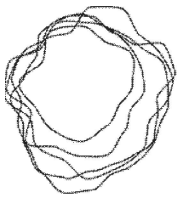
2.1 The Alignment

2.1.1 PROBLEM 3

Location: Residential access road.

Summary: Gradients on access roads and footways can increase the risk of slips and falls as well as vehicles losing control.

Currently the land between Ashbrow Road and the proposed development site is separated by a steep embankment.



The drawings provided show that the access road will take a sharp left-hand bend into the development with gradients shown on the footway of between 1:11 and 1:8.5. The geometry is such that the steepest part of the gradient is where vehicles are entering and exiting the development.

Local standards indicate that a maximum gradient of 1 in 10 is preferred on all access roads and in addition where the access road is a non-priority route on the approach to a junction the access road should be an absolute maximum gradient of 1 in 25 for the initial 10 metre length.

The Audit Team were concerned that in poor weather conditions where the road is wet or possibly covered in snow or ice there is a possibility that vehicles could lose control.

The footway on the nearside is to be treated with some pedestrian anti slip surfacing so issues of the steepness of the footway have already been recognised.

RECOMMENDATION: Where possible meet the standards required. If this is not possible then it may be suitable with the agreement of the Local Authority to lay a high friction surfacing on the first 30-50m of the access road to provide additional traction for vehicles both entering and exiting the development.

2.2 Junctions

No problems identified.

2.3 Walking, Cycling and Horse Riding

No safety related problems identified.

2.4 Traffic Signing, Road Markings & Street-lighting

2.4.1 PROBLEM 4

Location: Development access

Summary: Unclear road marking layouts can lead to increased risk of collisions.

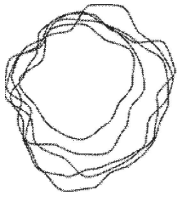
The drawings provided do not show the proposed road markings in sufficient detail at the new access junction. Unclear and confusing road markings can lead to an increased risk of vehicles failing to give way or can cause poor lane discipline resulting in side swipe collisions.

RECOMMENDATION: Provide appropriate road markings.

2.4.2 PROBLEM 5

Location: New priority access and internal roads.

Summary: Inappropriate levels of lighting can lead to an increased collision risk.



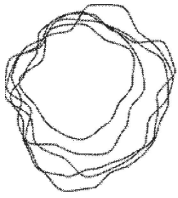
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The drawings provided do not clearly show if changes are proposed to the street lighting in the vicinity of the new arm of the mini roundabout or new lighting within the development. A lack of suitable lighting at the mini roundabout and within the site will result in the new road layout and NMU crossing points being in shadow leading to possible conflicts during the hours of darkness.

RECOMMENDATION: Ensure that suitable lighting provision is provided.

**End of list of Problems identified and Recommendations
offered in this Stage 1/2 Road Safety Audit**



3 Road Safety Audit Team Statement

I certify that this Audit has been carried out in the spirit of GG119.

REDACTED

ROAD SAFETY AUDIT TEAM LEADER

JONATHAN BIRKETT

Sign

Dated 06.02.2020...

ROAD SAFETY AUDIT TEAM MEMBER

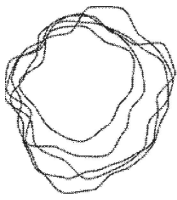
REDACTED

GILLIAN KIDD

Signed: _____

Road Safety Auditor,

Dated 06.02.2020...

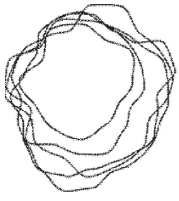


Appendix A

The following Drawings and Documents formed the Road Safety Audit Brief.

Documents

114509-2003-Y
114509-2010-A Section 38, Construction Details, Sheet 1
114509-2011-B Section 38, Construction Details, Sheet 2
114509-2012-J
114509-2012-M
114509-2013-L
114509-2014-K
114509-2014-O
114509-2037-K
114509-2038-L
114509-2039-N



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