

MERAKI ALLIANCE

Highways, Transportation & Safety Consulting

Interchange 26 North Brierley Section 38 Works

Road Safety Audit: Stage 1/2

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Interchange 26 North Brierley Section 38 Works

Road Safety Audit: Stage 1/2

Report Produced for:	Keyland Developments Ltd
Report Produced by:	Jonathan Birkett
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Road Safety Audit Team Leader:	Jonathan Birkett

Interchange 26 North Brierley Section 38 Works

Road Safety Audit: Stage 1/2

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Executive Summary

This report has been prepared in response to a request to undertake a Stage 1/2 Road Safety Audit (i.e. carried out prior to construction) by Keyland Developments Ltd. The scheme submitted for Audit is the proposed new development Interchange 26 North Brierley Section 38 works.

The scope of the highway works being undertaken in this Stage 1/2 RSA includes:

- Internal road layouts Section 38.

The items raised in the RSA are outlined within Section 2 of this report, together with recommendations for alterations or improvements to the proposals with the aim of improving highway safety and aiding accident prevention.

1 Introduction

1.1 General

This report has been prepared in response to a request to undertake a Stage 1/2 Road Safety Audit (i.e. carried out prior to construction) by Keyland Developments Ltd. The scheme submitted for Audit is the proposed new development Interchange 26 North Brierley Section 38 internal works.

The audit comprised an examination of documents forming the Audit Brief and an examination of the site.

1.2 Documents Forming the Brief

The documents were made available to the Road Safety Audit Team by Adam Watson (FLJ Ltd) on the instructions of Keyland Developments Ltd on behalf of the Highway Authority Bradford City Council. The total documents forming the Audit Brief are listed in Appendix A:

Generally, the Brief comprised:

- Brief.
- Section 38 Drawings

1.3 Collision Traffic and Speed Data

The audit team examined "Crashmap" and determined that over the last 5 years of data (2015-2019 inclusive) no personal injury collisions have taken place within the extents of the scheme Section 38 works.

Traffic count data was not available.

Traffic speed data was not available.

1.4 Details of Site Visit

A site inspection was undertaken on Tuesday 23rd June 2020 between 14:15 and 15:00. The RSA team arrived separately on site to ensure that social distancing was observed as part of the Coronavirus Pandemic and guidance provided by Public Health England. The Audit Team spent 45 minutes on site understanding the proposed works and their interaction with the local road network.

During the daylight visit the weather was fine and sunny and the carriageway was dry. All roads were relatively lightly trafficked. No incidents were noted during the site visit.

1.5 RSA Team and Format

It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit Stage 1/2 requested.

The Road Safety Audit Team membership approved was:

JONATHAN BIRKETT IENG MICE FIHE MSORSA

Holder of Certificate of Competency

Road Safety Audit Team Leader

G KIDD BSc (HONS) MIHE

Road Safety Audit Team Member

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.

The Terms of Reference are as described in the Highways England 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.

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.

It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration.

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.

1.6 Departures or Relaxations from Standards

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

2 Items Raised at Stage 1/2 Road Safety Audit

This section details the findings of this Stage 1/2 Road Safety Audit. All locations of identified problems are illustrated on the plan included at **Appendix 2**.

2.1 RSA Problems Section 38 Internal Works

PROBLEM		1
Location:	Internal roads and junctions	
Summary:	Vehicles over running footway when turning can increase the risk of NMU collisions.	
Tracking has been provided as part of the Road Safety Audit. Drawing 065646 CUR ZZ ZZ DR C 95111 P01 shows that a HGV will over run the footway when manoeuvring in the access to site 1. Vehicles over running the footway can increase the risk of NMU collisions.		
RECOMMENDATION		
Widen the carriageway ensuring that all vehicle turning movements can be safely accommodated within the carriageway.		

PROBLEM		2
Location:	Sites 1 and 2 priority junctions	
Summary:	Inappropriate NMU facilities can increase the risk of NMU/vehicle collisions.	
The standards require a minimum of 1200mm depth of tactile paving across the full width of the crossing for all inline facilities. The drawings do not show this. A lack of suitable uncontrolled crossings can increase the risk of NMU/vehicle collisions.		
RECOMMENDATION		
Ensure that appropriate dropped crossing points are provide in accordance with <i>Guidance on the Use of Tactile Paving Surfaces [DfT]</i>.		

PROBLEM		3
Location:	Phase 2 and 3	
Summary:	A lack of suitable uncontrolled crossings can increase the risk of NMU/vehicle collisions.	
The drawings do not show that any new uncontrolled crossings will be provided across the site access associated with future development to the south of Phase 1. The standards require a minimum of 1200mm depth of tactile paving across the full width of the crossing for all inline facilities and 800mm for all other uncontrolled crossings away from junctions. A lack of suitable uncontrolled crossings can increase the risk of NMU/vehicle collisions.		
RECOMMENDATION		
Ensure that appropriate dropped crossing points are provide in accordance with Guidance on the Use of Tactile Paving Surfaces [DfT].		

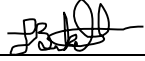
PROBLEM		4
Location:	Development access road.	
Summary:	A lack of suitable uncontrolled crossings can increase the risk of NMU/vehicle collisions.	
The drawings do not show that any new uncontrolled crossings will be provided across the main development access road. The Audit Team considered that it would be likely that there would be pedestrian movements across the main development access road. A lack of suitable uncontrolled crossings can increase the risk of NMU/vehicle collisions		
RECOMMENDATION		
Provide suitable dropped crossings allowing pedestrians to safely cross the development access road from the east to west and visa versa.		

PROBLEM		5
Location:	All proposed uncontrolled crossings.	
Summary:	Inappropriate uncontrolled crossings can increase the risk of trips and falls.	
The standard details shown on the Section 38 drawings indicate that at uncontrolled crossings an upstand between 0 and 25mm is acceptable. Standards require that upstands at uncontrolled crossings are maximum 6mm. Upstands greater than 6mm at uncontrolled crossings can increase the risk of trips and falls.		
RECOMMENDATION		
Ensure that appropriate dropped crossing points are provide in accordance with Guidance on the Use of Tactile Paving Surfaces [DfT].		

PROBLEM		6
Location:	Throughout the site.	
Summary:	Inappropriate levels of lighting can lead to an increased collision risk.	
The drawings provided do not show if street lighting is proposed. The scheme will include a new access arrangements and increase both the night time usage and the number of vehicles/NMUs using the proposed road network once the development is constructed. This may result in the new access roads 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 PROBLEMS IDENTIFIED AND RECOMMENDATIONS PRESENTED IN THIS
STAGE 1/2 ROAD SAFETY AUDIT**

3 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG119	
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	JONATHAN BIRKETT
SIGNED:	
POSITION:	DIRECTOR
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	28.06.2020
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	GILLIAN KIDD
SIGNED:	
POSITION:	AUDIT TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	28.06.2020

Appendix 1 – Audited Drawings

065646-CUR-00-XX-RP-C- FRA01_V00 Flood Risk and Outline Drainage Strategy Study with Appendices
065646-CUR-ZZ-ZZ-DR-C-95100-P03-S38 General Arrangement
065646-CUR-ZZ-ZZ-DR-C-95101-P03-S38 Layout SHEET 1
065646-CUR-ZZ-ZZ-DR-C-95102-P03-S38 Layout SHEET 2
065646-CUR-ZZ-ZZ-DR-C-95103-P03-S38 Layout SHEET 3
065646-CUR-ZZ-ZZ-DR-C-95110-P01-S38 Phasing Plan
065646-CUR-ZZ-ZZ-DR-C-95111-P01-S38 Tracking
065646-CUR-ZZ-ZZ-DR-C-95201-P04-S38 Longsections Sheet 1
065646-CUR-ZZ-ZZ-DR-C-95202-P04-S38 Longsections Sheet 2
065646-CUR-ZZ-ZZ-DR-C-95203-P04-S38 Longsections Sheet 3
065646-CUR-ZZ-ZZ-DR-C-95204-P04-S38 Longsections Sheet 4
065646-CUR-ZZ-ZZ-DR-C-95301-P02-S38 Setting Out Sheet 1
065646-CUR-ZZ-ZZ-DR-C-95302-P02-S38 Setting Out Sheet 2
065646-CUR-ZZ-ZZ-DR-C-95303-P02-S38 Setting Out Sheet 3
065646-CUR-ZZ-ZZ-DR-C-95311-P01-S38 Sections sheet 1
065646-CUR-ZZ-ZZ-DR-C-95312-P01-S38 Sections sheet 2
065646-CUR-ZZ-ZZ-DR-C-95313-P01-S38 Sections sheet 3
065646-CUR-ZZ-ZZ-DR-C-95401-P01-S38 Construction details Sheet 1
065646-CUR-ZZ-ZZ-DR-C-951501-P02-S38 Drainage Layout SHEET 1
065646-CUR-ZZ-ZZ-DR-C-951502-P02-S38 Drainage Layout SHEET 2
065646-CUR-ZZ-ZZ-DR-C-951503-P02-S38 Drainage Layout SHEET 3
065646-CUR-ZZ-ZZ-DR-C-951601-P01-S38 MANOLE SCHEDULES

Appendix 2 – Problem Location Plan

