



A6097-Kirk Hill East Bridgford

**Road Safety Audit
Stage 1 - Completion of Preliminary Design**

in partnership with



SA2404A
Nov 2020



A6097-Kirk Hill East Bridgford

Stage 1 Road Safety Audit

Prepared for:

Jenny Dames

Major Projects Highway Design

Via East Midlands Ltd
Bilsthorpe Business Park, Eakring Road, Bilsthorpe, Nottinghamshire, NG22 8ST

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1. Introduction

- 1.1 This report results from a Stage 1 Road Safety Audit carried out on the proposed modification to the A6097 Kirk Hill crossroads signal junction and associated carriageway widening.
- 1.2 The Road Safety Audit has been carried out following a request received from Jenny Dames of Major Projects Highway Design on 28.10.20.
- 1.3 The Road Safety Audit Team membership approved by Kendrick Hourd, Service Manager (Safer Highways) at Via East Midlands, consisted of:
 - Jacqui Dudley - Audit Team Leader, Via East Midlands
 - Simon Taylor - Audit Team Member, Via East Midlands
- 1.4 The Audit Team Leader and Audit Team Member personally hold an internationally recognised Certificate of Competency in Road Safety Audit (Highways England Approved).
- 1.5 The Road Safety Audit comprised an examination of the following documents provided:
 - 20949 GEN KH007 SK00001 P01 General Arrangement
- 1.6 The Road Safety Audit took place at private locations away from Trent Bridge House, the Via East Midlands Ltd offices in West Bridgford, Nottingham 05.11.20. The Audit Team visited the site of the signal junction on 5th November 2020 at 9.00a.m. During the site visit the weather was bright & cold and the road surface was slightly damp. The site visit was on the first day of the second national Covid 19 lockdown so traffic flows were free flowing rather than the usual queueing in peak which occurs here.
- 1.7 Site visits were undertaken in accordance with Via Highways Risk Assessment H25 completed for "Safer Highways; Site Visits for Accident Investigations and Road Safety Audits".
- 1.8 The audit has been carried out in accordance with Nottinghamshire County Council's Road Safety Audit Policy, following the principles of DMRB GG 119. The audit has been carried out with the sole purpose of identifying features of the scheme which could, in our view, lead to road safety problems. 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.
- 1.9 Road Safety Audit is only concerned with road safety matters. It does not consider structural safety nor health and safety issues connected with construction, maintenance and operation. At Stage 3, Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.
- 1.10 All comments and recommendations are referenced to the design drawings and the locations are indicated on a plan within this report.

2. Items raised in previous road safety audit(s)

- 2.1** The Audit Team is not aware of any other Road Safety Audits having been carried out on this proposal.

3. Items raised at this Stage 1 Audit

3.1 Problem

Location: Ref 3.1 Junction inter-visibility zone

Summary: Mid junction collisions and vehicle verses pedestrians at crossing point resulting in driver/rider/pedestrian injury.

Vegetation restricts the view left and right along the A6097 when emerging from both side roads. This could lead to collisions between vehicles in the junction in the event of red-light violations by drivers, or if/when failures of the traffic signals occur.

In the event of signal failure/signal violations, adequate inter-visibility at each stop line ensures a level of safety for all road users at a signal-controlled junction. It permits manoeuvres to be completed safely once the driver has entered the junction inter-visibility zone and avoid mid junction collisions or collisions with pedestrians at crossing points (see problem 3.4).

Recommendation

Achieve the required visibility by seeking better sight lines. Bring the stop lines forward and remove vegetation on the inner radius of Kirk Hill.

3.2 Problem

Location: Ref 3.2 A6097 NW & SE approaches to the signals

Summary: Extra lane capacity will increase speeds through the junction increasing the severity of any future shunt/overtaking/right turn/signal violation accidents.

Widening the A6097 carriageway and providing two ahead lanes at this junction will increase speeds through the junction and as a result the risk increases of higher severity shunt/overtaking/right turn signal violation accidents whenever drivers make errors of judgement.

Recommendation

To mitigate, install double height signal heads on both A6097 approaches to make them as conspicuous as possible, and ensure that all the advanced traffic signal warning signs and direction signs are re- located to give clear visibility of the signal heads & extend the existing HFS to provide 1m per kilometre per hour on each approach.

Further to this, a reduced speed limit (50mph) could be considered for this route.

3.3 Problem

Location: Ref 3.3 A6097 NW & SE approaches central hatched area

Summary: Accidents arising from overtaking manoeuvres

The proposed layout permits overtaking on the A6097 through the junction. Head-on collisions could occur when drivers continue to overtake beyond the length of carriageway available to do this safely. This is likely to result in driver/rider/passenger injuries.

Recommendation

Install central refuges on each approach and reduce the length of the 2 lane markings on each exit to encourage drivers to merge sooner.

3.4 Problem

Location: Ref 3.4 Kirk Hill Public Footpath.

Summary: Pedestrians injured in collision with vehicles at junction.

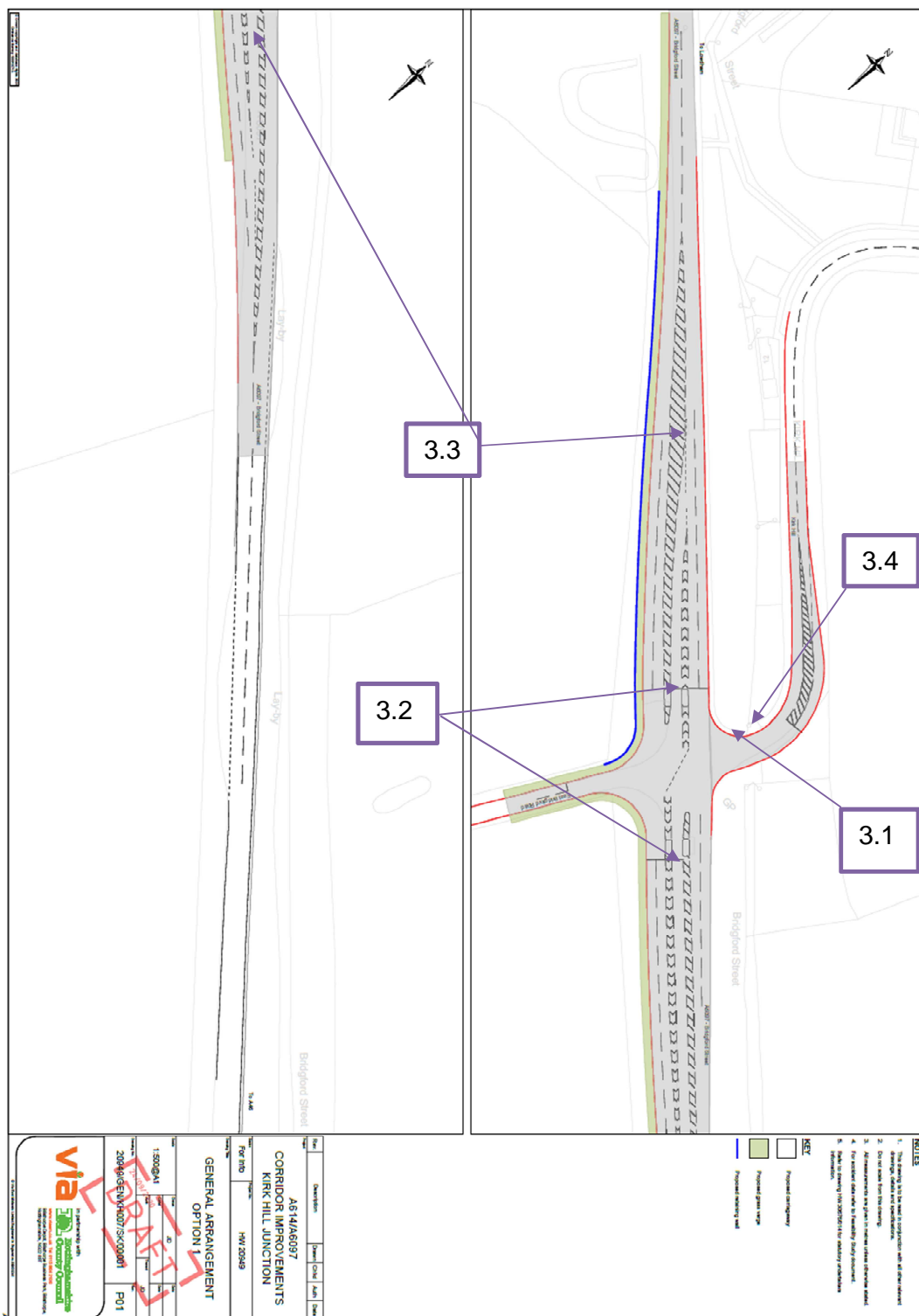


There is an existing footway on the north side of the A6097 from Gunthorpe to the signal junction and then a public footpath that connects to the A46 junction. The footpath looks well used. Pedestrians have no view of a left turning vehicle from the A6097, which could result in pedestrians stepping into the path of vehicles, with the potential for serious injuries to arise from any collisions that occur.

Recommendation

Incorporate a push button- controlled crossing for pedestrians across this arm and improve inter-visibility between vehicles and pedestrians by removing vegetation on this radius (see problem 3.1)

4. Reference Locations



5. Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with Nottinghamshire County Council policy.

Road Safety Audit Team Leader



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