

Hunshelf Park, Stocksbridge

*Stage 1 Road Safety
Audit Report*

October 2017



Prepared by:



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Hunshel Park, Stocksbridge - Stage 1 Road Safety Audit Report

Rev No	Comments	Checked by	Approved by	Verified by	Date
	Final Issue to Design Team	RN	AB	AB	24.10.2017
0	Draft Issue to Design Team	RN	AB	AB	10.10.2017

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CONTENTS

1	Introduction	6
2	Items Outstanding from Previous Road Safety Audits	8
3	Items Resulting from this Stage 1 Road Safety Audit	10
4	Audit Team Statement	15
	Appendix A: Documents Submitted to the Audit Team	17
	Appendix B: Location of Problems	19

Introduction

1 Introduction

- 1.1 This report results from a Stage 1 Road Safety Audit carried out on the proposed highway improvement works, to provide access to additional residential properties and associated car park facilities on Hunshelf Park, Stocksbridge.
- 1.2 The proposal comprises of the upgrade of the existing private site access road on to Hunshelf Park, and associated improvement works to the junction of Hunshelf Park with Hunshelf Road, to accommodate access to the proposed development of ten residential dwellings (Use Class C3). The site access road will form a short cul-de-sac and will be built to adoptable standards. The proposed works include widening of the existing access and increasing the junction radii.
- 1.3 This Stage 1 Road Safety Audit has been carried out on the request of Ewan Anderson (FORE Consulting).
- 1.4 The Audit Report indicates each of the problems identified together with recommendations to solve or mitigate the problems, the Audit Team Statement and a schedule of documents reviewed.
- 1.5 The Audit was carried out by experienced Road Safety Engineers who have not been involved with the design process. The members of the Audit Team were:

Rob Norfolk
Principal Consultant, AECOM

Tom Langridge
Associate Director, AECOM
- 1.6 The Audit Team members and Audit Brief have not been approved by Sheffield City Council.
- 1.7 The audit took place at AECOM's Leeds office during October 2017. The audit comprised of an examination of the documents provided by the Designers (see **Appendix A**). Traffic flow data has not been provided.
- 1.8 The Audit Team has been advised that there have been no road traffic collisions on either Hunshelf Road or Hunshelf Park, within the most recent five year period.
- 1.9 In addition to examining the documents supplied, the Audit Team visited the site of the proposed measures on Tuesday, October 3rd, 2017. The site visit was undertaken between the hours of 14:45 and 15:45. Traffic volumes at the time of the site visit were low. Weather conditions were overcast, but with good visibility. The carriageway surface was dry throughout the site visit. Street lighting is present in the vicinity of the site, however due to the stage in the audit process, the site was not observed during the hours of darkness.
- 1.10 The Audit has been produced in accordance with the principals of Road Safety Audit Standard HD 19/15 in The Highways Agency Design Manual for Roads and Bridges (DMRB). The advice issued in the DMRB applies to trunk road and motorway highway improvement schemes; however, it has been used in this report to define the scope of this audit.
- 1.11 The team has examined and reported only on the road safety implications of the measures as presented and has not specifically examined or verified the compliance of the designs to any other criteria.
- 1.12 No departures from standards have been notified to the Audit Team on the proposals.
- 1.13 All traffic sign and road marking diagram number references are made to The Traffic Signs Regulations and General Directions.

*Items Outstanding from
Previous Road Safety Audits*

2 Items Outstanding from Previous Road Safety Audits

The Audit Team has not been made aware of any previous Road Safety Audits which may have been undertaken for this scheme.

*Items Resulting from this
Stage 1 Road Safety Audit*

3 Items Resulting from this Stage 1 Road Safety Audit

The following Problems have been identified from the Stage 1 Road Safety Audit.

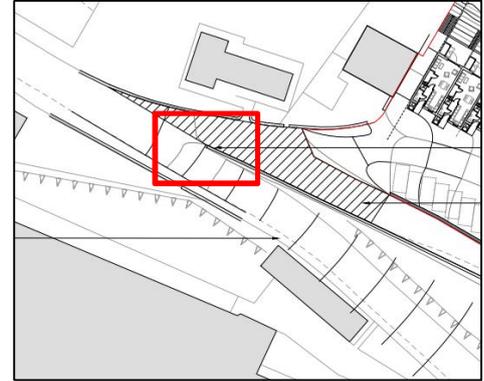
GENERAL:

Problem: 3.1

Location: Hunshelf Park

Drawing: 3286 100 P 001A

Summary: Risk of injury to pedestrians and / or vehicle occupants due to low level retaining wall resulting in an inadequate barrier protection.



Description:

An existing, low height, retaining wall extends from the Hunshelf Park / Hunshelf Road junction, east, along Hunshelf Road. A note on drawing 3286 100 P 001A states that the proposal includes the '*lowering of the retaining wall to the lower side of the entrance*'.

The Audit Team has concerns that lowering the retaining wall to the lower side will result in a substandard provision of barrier between Hunshelf Road and Hunshelf Park. As such, there is a risk that pedestrians, especially children or visually impaired, may walk too close to the edge of the carriageway and fall down the embankment, potentially causing injury.

Furthermore, there is a risk that the resultant height of the retaining wall wouldn't provide suitable vehicle restraint. As such, should a motorist lose control of their vehicle, there is a possibility that an errant vehicle could veer from the road, down the embankment, possibly resulting in injury to all occupants of the vehicle.

Recommendation:

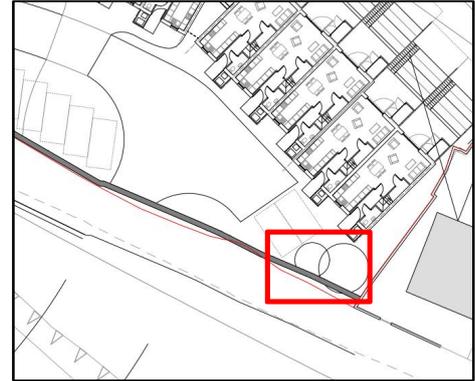
Provide a vehicle / pedestrian restraint system to provide barrier protection in accordance with design standards.

Problem: 3.2

Location: Hunshelf Park

Drawing: PT118-103 PL01

Summary: Loss of parking provision may result in parking activity within unsafe locations, causing obstruction or obscuring forward visibility to oncoming motorists.



Description:

Drawing PT118-103 PL01 shows the extents of the housing development, including the length of retaining wall, located between the parking bays and Hunshelf Park. During the site visit, the Audit Team noted that the area of land, indicated above, is used as a car park by local residents. However, the proposal requires this land.

The Audit Team has concern that the loss of parking provision on Hunshelf Park may cause local residents to park in alternative, unsafe locations, causing obstruction which may result in side swipe collisions or obscuring forward visibility to other motorists. This issue creates a greater risk, should pedestrians on Hunshelf Park, masked by parked vehicles; step out into the path of an oncoming vehicle, as this may result in injury.

Recommendation:

Realign the proposed wall to avoid removal of the existing parking area, or provide safe, alternative parking provision.

LOCAL ALIGNMENT:

Problem: 3.3

Location: Car parking area

Drawing: 3286 100 P 005A

Summary: Risk of collision between parked vehicles and larger vehicles accessing the housing development.



Description:

Drawing 3286 100 P 005A shows the location of the ten residential parking bays and a swept path analysis for a 'Dennis Eagle 6 x 2RS refuse vehicle' accessing the housing development.

The Audit Team has concerns regarding the swept path of the refuse vehicle and its close proximity to 'Bay 1'. There is a risk that a when parked, a vehicle in Bay 1 may overhang the marked area and encroach into the swept path, causing an obstruction to any vehicle passing. This may result in injury to anyone in the moving vehicle and damage to both vehicles involved.

Recommendation:

Realign / reposition the parking bays or realign the access road to avoid potential conflict.

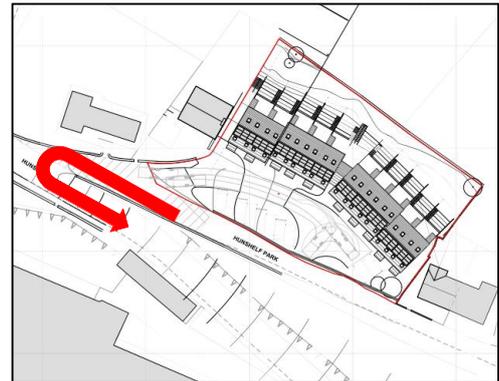
JUNCTIONS:

Problem: 3.4

Location: Hunshelf Park / Hunshelf Road junction

Drawing: 3286 100 P 004A and 3286 100 P 005A

Summary: Risk of head on collisions between motorists turning onto Hunshelf Road and oncoming motorists, resulting in injury to occupants of all vehicles, due to junction radii.



Description:

Drawings 3286 100 P 004A and 3286 100 P 005A both show the swept path analysis for refuse vehicle manoeuvres at the residential site / Hunshelf Park junction. However, there is no evidence to show the swept path analysis for vehicle manoeuvres at the Hunshelf Park / Hunshelf Road junction.

Based on observations made and from personal experience, the Audit Team has concerns with the tight radii for motorists to negotiate the turning manoeuvres at the Hunshelf Park / Hunshelf Road junction, particularly those making the left turn onto Hunshelf Road. As activity / traffic flow to and from Hunshelf Park will increase due to the additional housing, there is an increased risk of a head on vehicle collision between a motorist making the left turn manoeuvre and an oncoming, north-westbound, motorist. This may result in injury to occupants of all vehicles involved.

Recommendation:

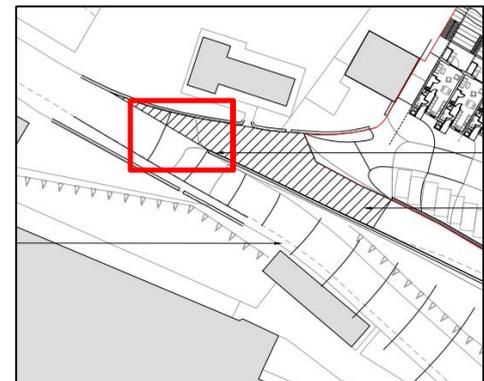
Provide a swept path analysis to demonstrate that all turning movements at the Hunshelf Park / Hunshelf Road junction can be accommodated safely.

Problem: 3.5

Location: Hunshelf Park / Hunshelf Road junction

Drawing: 3286 100 P 001A

Summary: Risk of head on collisions between motorists turning onto Hunshelf Road and oncoming motorists, resulting in injury to occupants of all vehicles, due to limited visibility.

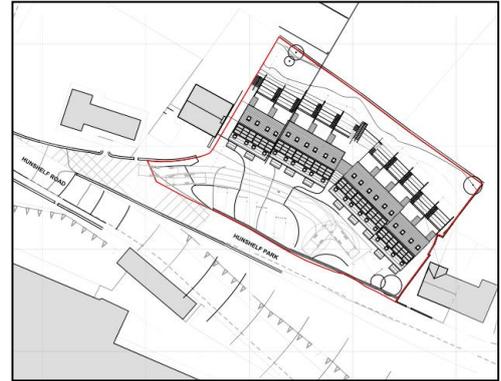


Description:

Based on the information provided and observations made on site, the Audit Team has concerns regarding the forward visibility at the Hunshelf Park / Hunshelf Road junction. The alignment of the junction is such that forward visibility of oncoming vehicles, particularly for motorists turning onto Hunshelf Road, is poor. Motorists were observed to position their vehicle beyond the junction in order to see oncoming traffic. There is a risk that this will cause head on collisions between motorists turning onto Hunshelf Road and those approaching from either direction, possibly resulting in injury to occupants of all vehicles involved.

Recommendation:

Provide evidence to show that the required visibility splays are provided at the Hunshelf Park / Hunshelf Road junction.

NON-MOTORISED USER PROVISION:**Problem:** 3.6*Location:* Car parking area*Drawing:* PT118-104 PL01 and 3286 100 P 001A*Summary:* Risk of pedestrian / vehicle collision due to a lack of pedestrian safe route within the residential area.**Description:**

Drawings PT118-104 PL01 and 3286 100 P 001A show the proposed layout of the new housing development, indicating the proposed location for the ten properties and associated car parking spaces. However, the design does not show the provision of any pedestrian footway or a safe route connecting the car park area to the properties.

The Audit Team has concerns that without a formal designated pedestrian route, residents / visitors or other pedestrians may walk between the residential properties and the car parking spaces, into the path of oncoming vehicles which may result in injury if motorists are unable to stop in time. The concern is greater when considering the presence of larger vehicles such as a refuse collector, using the turning facility provided.

Recommendation:

Provide a designated safe route for pedestrians to cross between the ten properties and associated car parking spaces.

ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING:

No issues identified at this Stage 1 RSA.

Audit Team Statement

4 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with Road Safety Audit standard HD 19/15.

AUDIT TEAM LEADER:

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Organisation: AECOM
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LS11 9AR

Signed: 
Date: 04.10.2017

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Organisation: AECOM
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Leeds
LS11 9AR

Signed: 
Date: 04.10.2017

OTHERS INVOLVED:

None

Enquiries regarding this Road Safety Audit should be made to the Audit Team Leader at the above address or email RoadSafety@AECOM.com

Appendix A

Documents Submitted to the Audit Team

Appendix A: Documents Submitted to the Audit Team

The following documents were submitted as part of the Road Safety Audit:

Document No.	Rev.	Description	Date
Road Safety Audit Brief_Q3EU(UKI-TR)331-FM1	0	S1RSA BRIEF FROM DESIGN TEAM	
3286 100 P 001	A	PROPOSED ACCESS ARRANGEMENT ONTO HUNSHELF ROAD	11.04.2017
3286 100 P 004	A	SWEPT PATH ANALYSIS FOR DENNIS EAGLE 4X2 REFUSE VEHICLE	01.06.2017
3286 100 P 005	A	SWEPT PATH ANALYSIS FOR DENNIS EAGLE 6X2RS REFUSE VEHICLE	01.06.2017
Figure 1 - Site Location	-	SITE LOCATION PLAN	-
PT118-103	PL01	PROPOSED SITE BLOCK PLAN	23.06.2017
PT118-104	PL01	PROPOSED SITE PLAN	23.06.2017

Appendix B

Location of Problems

Appendix B: Location of Problems

