



Proposed Site Access, Hemingfield Road, Barnsley

Stage 1 Road Safety Audit

July 2024

PROPOSED SITE ACCESS HEMINGFIELD ROAD, BARNSLEY

HARGREAVES LAND LTD

STAGE 1 ROAD SAFETY AUDIT

Report by: Adam Bradley

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Ref: 23-160-005.01

Date: July 2024

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Road Safety Audit Location Plan

1.0 INTRODUCTION

- 1.1 This Report comprises a Stage 1 Road Safety Audit (RSA) as defined in the Department for Transport (DfT) Design Manual for Roads and Bridges (DMRB) Standard GG 119 Road Safety Audit. It is concerned with the proposed vehicular access junction with Hemingfield Road which is intended to serve a proposed residential development associated with Hargreaves Land Ltd.
- 1.2 The development proposals seek to provide a new residential development on the site, with associated infrastructure and open space. The outline application is for the erection of residential dwellings with details for the means of access into the site, however, the details of the layout and access arrangements within the site itself will be considered at reserved matters stage. The access proposals are to serve a residential development with an estimated capacity of 180 dwellings initially, however, there is safeguarded land to the east of the site that could deliver a further estimated 250 dwellings.
- 1.3 The site is located within Hemingfield which forms part the Principal Town of Hoyland as defined in the Barnsley Local Plan Settlement Hierarchy. It is located approximately 6.5 kilometres to the south-east of the centre of Barnsley. At present, the site is mostly undeveloped land which is used for agricultural purposes. At the south-western extents of the site are agricultural buildings associated with Hilltop Farm and the former Billy's Hill Farm Shop. The site is bound to the north by a line of trees and the A6195 Dearne Valley Parkway, to the east by existing undeveloped agricultural land, to the south by Hemingfield Road and Briery Meadows and to the west by Hemingfield Road and a further line of trees.
- 1.4 The proposed access arrangements which is the subject of this RSA is located along the western boundary of the proposed development site. The site access will take the form of a ghost island right turn priority controlled T-junction, with Hemingfield Road forming the major arm and the estate road associated with the development forming the minor arm. In order to accommodate the proposed right turn ghost island, it is proposed to widen Hemingfield Road into the site in the vicinity of the proposed site access junction. The carriageway will be widened from its current width of 7.0 metres to a total of 10.0 metres, to allow the formation of a 3.0 metre wide right turn ghost island, a 3.0 metre wide through lane for southbound vehicle movements on Hemingfield Road and a 4.0 metre wide through lane for northbound vehicle movements on Hemingfield Road.



- 1.5 Hemingfield Road provides frontage access to dwellings on the western side of the carriageway. On street parking associated with these dwellings takes place on the western side of the carriageway. The footway on the eastern site side continues for around 80 metres to the north of the proposed access, where it terminates and is replaced with a verge containing dense vegetation and trees. The footway on the western side of Hemingfield Road is continues both to the north and south of the proposed access.
- 1.6 The Audit took place at the site of the proposed highway works on the morning of Wednesday 10th July 2024 during daylight hours between 10.00am and 11:00am. The RSA team visited the site together with Nathan Copley (Senior Engineer, Traffic Section, Barnsley Council) and during the site visit the weather was dry and the road surface was dry. There was a moderate level of vehicular traffic using Hemingfield Road, no pedestrians were observed, and no cyclists were observed.
- 1.7 The drawings listed below formed part of the Audit.
 - 23-160-SKH-007 Rev C Proposed Access Arrangement RTGI Junction
 - 23-160-ATR-001-Rev B Swept Path Analysis of Refuse Vehicle Using Site Access
- 1.8 The Audit Team comprised:-

Road Safety Audit Team Leader

Adam Bradley BSc (Hons), MCIHT Principal Engineer Bryan G Hall Consulting Civil and Transportation Planning Engineers

Road Safety Audit Team Member

David Bell (MEng, CEng, MCIHT) (Certificate of Competency in Road Safety Audit gained in October 2013) Director Bryan G Hall Consulting Civil and Transportation Planning Engineers

- 1.9The Audit team have been provided with the Stage 1 RSA brief (ref: 23-160-003.02Stage 1 RSA Brief Hemingfield Road, 28th June 2024).
- 1.10 The terms of reference of the Safety Audit are as described in GG 119. The auditor has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance to any other criteria. Only items requiring comment are included in the Safety Audit.



2.0 ITEMS RAISED IN THIS STAGE 1 ROAD SAFETY AUDIT

2.1 All items raised within this RSA are shown on the annotated plan at **Appendix BGH1**.

2.2 Problem A

Parking on western side of Hemingfield Road opposite the proposed site access.

Summary

Vehicles parked on the western side of Hemingfield Road will restrict turning movements into and out of the access and northbound through movements on Hemingfield Road, increasing the risk of rear end shunt type collisions and collisions as vehicles leave the site.

During the RSA site visit vehicles were parked on the western side of Hemingfield Road opposite the proposed access location and to the north and south. Whilst the proposed widening increases the northbound carriageway width to 4.0 metres, the swept path analysis provided demonstrates that parked vehicles would obstruct vehicles leaving the site as they effectively reduce the available carriageway width. This means that vehicles exiting the proposed access will have to make use of the hatched area to turn right from the development and straddle the centreline of the carriageway, leading to an increased risk of collisions between vehicles.

Vehicles parked to the west of Hemingfield Road will also restrict northbound traffic movements, meaning drivers will be forced to use part of the right turn lane in order to pass parked vehicles. This increases the risk of rear end shunt type collisions between drivers slowing to enter the development and drivers continuing eastbound on Hemingfield Road.

The restricted carriageway width on Hemingfield Road caused by parked vehicles will reduce the width available for northbound through traffic to pass vehicles waiting to make the right turn into the development. Hemingfield Road carries a regular bus route and this further increases the risk of collisions as drivers misjudge the space available and loss of control type collisions as drivers travelling northbound attempt to pass between right turning vehicles and parked vehicles on the western side of the carriageway.





Recommendation

It is recommended that measures to ensure that parking does not restrict carriageway width opposite the proposed side road are provided.

2.3 Problem B

Hemingfield Road southbound approach to the proposed site access.

Summary

Available Stopping Sight Distance to the junction for drivers approaching southbound on Hemingfield Road is restricted by existing vegetation

The existing vegetation in the eastern verge outside the proposed side road visibility splay restricts the stopping sight distance for drivers approaching the junction from the north and hence drivers may not be aware of the presence of the



side road and turning vehicles leading to an increased risk of vehicle to vehicle collisions. Drivers will be approaching the junction from non-built up area and may not be expecting there to be a junction present due to the presence of the existing vegetation on the inside of the bend reducing the level of the stopping sight distance on the approach to the junction.

Recommendation

Provide sufficient stopping sight distance on approach to the proposed new junction from the north.

2.4 Problem C

Footway provision on Hemingfield Road to the north of the proposed access.

Summary

There is no pedestrian crossing facility to the north of the proposed access. The lack of dropped kerbs and tactile paving increases the risk of trips and falls as pedestrians attempt to cross the carriageway to travel to and from the north of the site on the western side of Hemingfield Road.

Recommendation

It is recommended that tactile paving and dropped kerbs are provided at a suitable location to the north of the proposed access and that appropriate intervisibility is provided between the crossing location and oncoming vehicles.

2.5 Problem D

Site access pedestrian crossing facilities.

Summary

The site access junction does not include facilities to allow pedestrians to cross the minor arm of the junction. The lack of dropped kerbs and tactile paving increases the risk of trips and falls as pedestrians attempt to cross the carriageway of the minor road to travel north on the eastern side of Hemingfield Road.

Recommendation

It is recommended that tactile paving and dropped kerbs are provided at a suitable location on the desire line across the minor arm of the proposed junction.



2.6 Problem E

Proposed bus stop relocation location on Hemingfield Road.

Summary

Forward visibility to the proposed relocated bus stop to the south of the scheme on Hemingfield Road may be restricted by the proposed development and will increase the risk of rear end shunt type collisions or loss of control type collisions between southbound vehicles and stationary buses at the bus stop.



Recommendation

It is recommended that forward visibility between drivers on the southbound carriageway of Hemingfield Road and the relocated bus stop is reviewed and measures are provided to ensure that the visibility envelope remains clear of obstruction.

2.7 Problem F

Bus stops to the south of the scheme on Hemingfield Road.

Summary

The existing and proposed bus stop locations to the south of the proposed access on Hemingfield Road do not include raised kerbs to assist with access to buses and increases the risk of injury as passengers board and alight from buses.



Recommendation

It is recommended that the existing and proposed bus stops are provided with raised kerbs in line with the Disability Discrimination Act.

2.8 Problem G

Existing bus stop to the south west of the site on the southern side of Hemingfield Road.

Summary

There are no pedestrian crossing facilities between the development site and the existing bus stop to the south west of the proposed development on the southern side of Hemingfield Road. The lack of dropped kerbs and tactile paving increases the risk of trips and falls as pedestrians attempt to cross the carriageway and access the existing bus stop. The carriageway widening to facilitate the right turn lane will also make it more difficult for pedestrians to cross Hemingfield Road.

Recommendation

It is recommended that a crossing facility for pedestrians is provided across Hemingfield Road.

2.9 Problem H

Hemingfield Road southbound through lane width.

Summary

The proposed southbound through lane width is 3.0 metres, this may not be wide enough for buses and HGV's to pass through at 30 mph without encroaching on the right turn lane associated with the proposed access leading to head on collisions.

The swept path analysis of a 2.75 metre wide refuse vehicle shows that a refuse vehicle will encroach on the hatching of the right turn ghost island on the southbound approach to the proposed access. It is likely that a bus or HGV would also encroach on the hatching and right turn pocket whilst traveling southbound through the junction and therefore increases the risk of head on collisions between southbound vehicles and vehicles waiting in the right turn pocket.



Recommendation

It is recommended the southbound movement through the junction is assessed further to ensure that large vehicles including buses can pass through the junction safely without encroaching on the right turn pocket associated with the proposed access.



3.0 AUDIT STATEMENT

3.1 We certify this audit has been carried out in accordance with GG 119.

ROAD SAFETY AUDIT TEAM LEADER

Adam Bradley BSc (Hons), MCIHT

Associate Bryan G Hall Consulting Civil and Transportation Planning Engineers

hes

Signed:

Date: 15.07.2024

ROAD SAFETY AUDIT TEAM MEMBER

David Bell (MEng, CEng, MCIHT) Director Bryan G Hall Consulting Civil and Transportation Planning Engineers

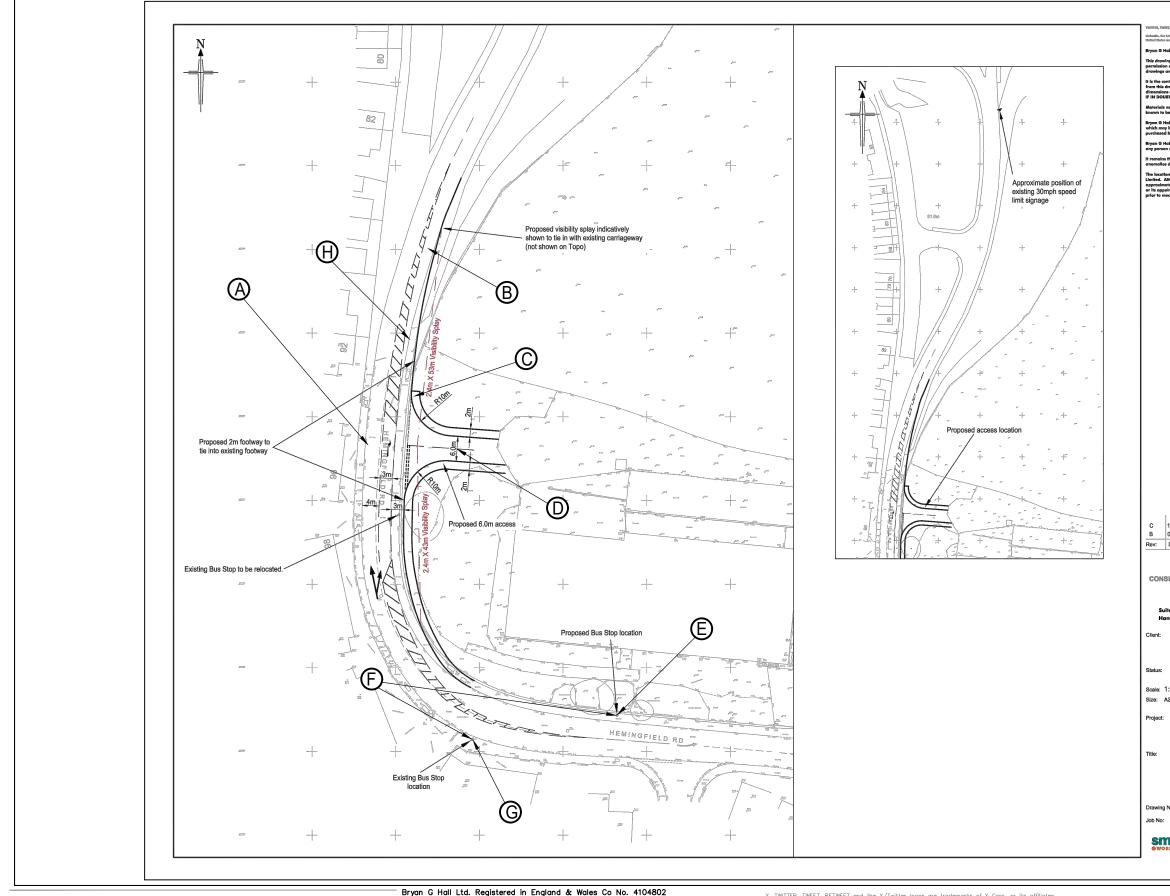
DR

Signed:

Date: 15.07.2024



APPENDIX BGH 1



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Chkd: AB

Drawn: LD

Scale: N.T.S.

Size: A3 - 420 x 297

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Residential Development Hemingfield, Barnsley				
Proposed Access Arrangement				
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STAGE 1 RSA - HEMINGFIELD, BARNSLEY

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