local transport projects

traffic engineering and transport planning

Carl Godley

Proposed Coffee Drive-Thru Development, Mannaberg Way, Scunthorpe

Stage 1/2 Road Safety Audit

November 2020

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Client Commission			
Client:	Carl Godley	Order No:	
Commissioned By:	Carl Godley	Date Commissioned:	October 2020

LTP Quality Control					
Job No:	LTP/20/3973		File Ref:	3973 Mannaberg Way Scunthorpe RSA1-2 ISSUE 1	
Issue	**Revision**	**Description**	**Originated**	**Checked**	**Date**
1		Report	EW	TK	06/11/20
			Authorised for Issue:		TK

LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CV's are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
Tony Kirby	*Director (Project Manager)*	*IEng MSc FIHE MCIHT RegRSA*
Eric Wragg	*Senior Engineer*	*IEng FIHE MCIHT*

PROPOSED COFFEE DRIVE-THRU DEVELOPMENT, MANNABERG WAY, SCUNTHORPE

STAGE 1/2 ROAD SAFETY AUDIT

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1.0 INTRODUCTION

1.1 Carl Godley as the Scheme Promoter, has commissioned Local Transport Projects Ltd (LTP) to carry out a Stage 1/2 Road Safety Audit on a proposed Coffee Drive-Thru on land to the north of Mannaberg Way, Scunthorpe. As the Highway Authority, North Lincolnshire Council (NLC), is the Overseeing Organisation.

1.2 The proposals consist of the following:

- A dedicated right turn lane on Mannaberg Way adjacent to the access to the site;
- A 1.5 metre wide extension to the existing central island on Mannaberg Way up to the end of the proposed right turn lane;
- A vehicular entrance to the site from Mannaberg Way;
- A vehicular exit from the site to Normanby Road, allowing a left turn only onto Normanby Road;
- A 1.5 metre wide central island on Normanby Road opposite the exit from the site to prevent right turn manoeuvres from the site;
- A 'No Exit' and yellow box marking provided adjacent to the entrance from Mannaberg Way.

1.3 The Audit was carried out between the period Tuesday 27th October to 2nd November 2020 and was based on an examination of the drawings supplied as summarised within Table 1.

Table 1 – Drawings Considered by the Road Safety Audit

Drawing Nº	Rev	Drawing Title	Issued By
LTP/3973/P1/01.01	A	Proposed Access Arrangements	Local Transport Projects
LTP/3973/P1/02.01	A	Swept Path Analysis 10m Rigid Delivery HCV	Local Transport Projects

1.4 Mannaberg Way is subject to a 40 mph speed limit within the vicinity of the proposed site entrance; however a speed survey carried out on Thursday 19th December 2019 for both eastbound and westbound approaches indicated that vehicle speeds were much lower than this with a combined 85th %ile speed of 29mph, which is lower than the required speed indicated in Manual for Streets (See Table 2).

Table 2 – MfS SSD Requirements

Category	Eastbound	Westbound
Measured 85%ile Speeds	31mph	26.9mph
Required MfS SSD	40mph	32mph

1.5 An examination of personal injury collisions (PICs) using CRASHMAP for the 5 years 2015 to 2019 has revealed there were no recorded PICs within the roundabout nor within those parts of Mannaberg Way and Normanby Road adjacent to the site area.

1.6 A site visit was carried out during Wednesday 28th October 2020 between the hours of 08:30 and 09:00. At the time of the site visit the weather was fine with some cloud and the road surface was dry. Traffic flows were moderate and pedestrian and cycle flows were light.

1.7 The Audit Team comprised the following people:

- Tony Kirby, IEng MSc FIHE MCIHT RegRSA (Audit Team Leader);
- Eric Wragg, IEng FIHE MCIHT (Audit Team Member).

1.8 The Audit Team was not made aware of any specific departures or relaxations from standard.

1.9 No traffic signing, drainage or street lighting details were made known to the Audit Team and so it has not been possible to comment on these aspects of the design.

1.10 It is understood that a previous Road Safety Audit of the proposals has not been undertaken.

1.11 The Audit was carried out with reference to '*GG 119 Road Safety Audit*' (Highways England, 2020).

1.12 The Audit Team has examined and reported only on the road safety implications of the scheme using the information provided and has not examined or verified the compliance of the design to any other criteria.

1.13 The problems identified in this report are considered by the audit team to require action in order to improve safety and reduce the risk of collisions occurring.

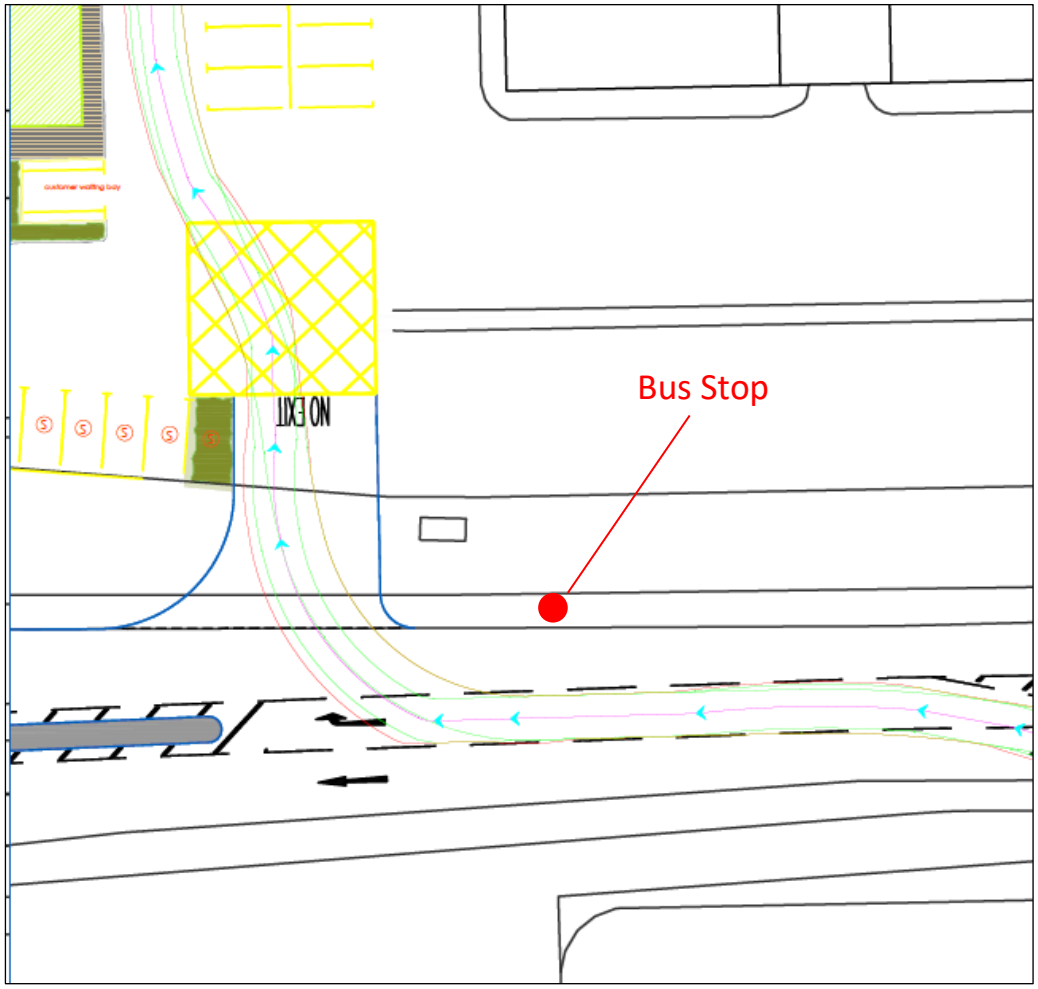
2.0 ITEMS RAISED BY THIS STAGE 1/2 ROAD SAFETY AUDIT

2.1 **Problem**

Location: Mannaberg Way

Summary: Bus stops on Mannaberg Way too close to site entrance and proposed central island

On Mannaberg Way there is an eastbound bus stop which will be very close to the proposed site entrance. There is a possibility that a stationary bus could overhang the site entrance and any vehicles turning into the site, particularly right turners, could come into contact with the bus, risking injury to vehicle occupants. The westbound stop on the southern side is also close to the proposed splitter island, and any overtaking vehicles could come into conflict with the island or be mistaken for a right turn movement into the access, increasing the potential for shunt type collisions.



Recommendation

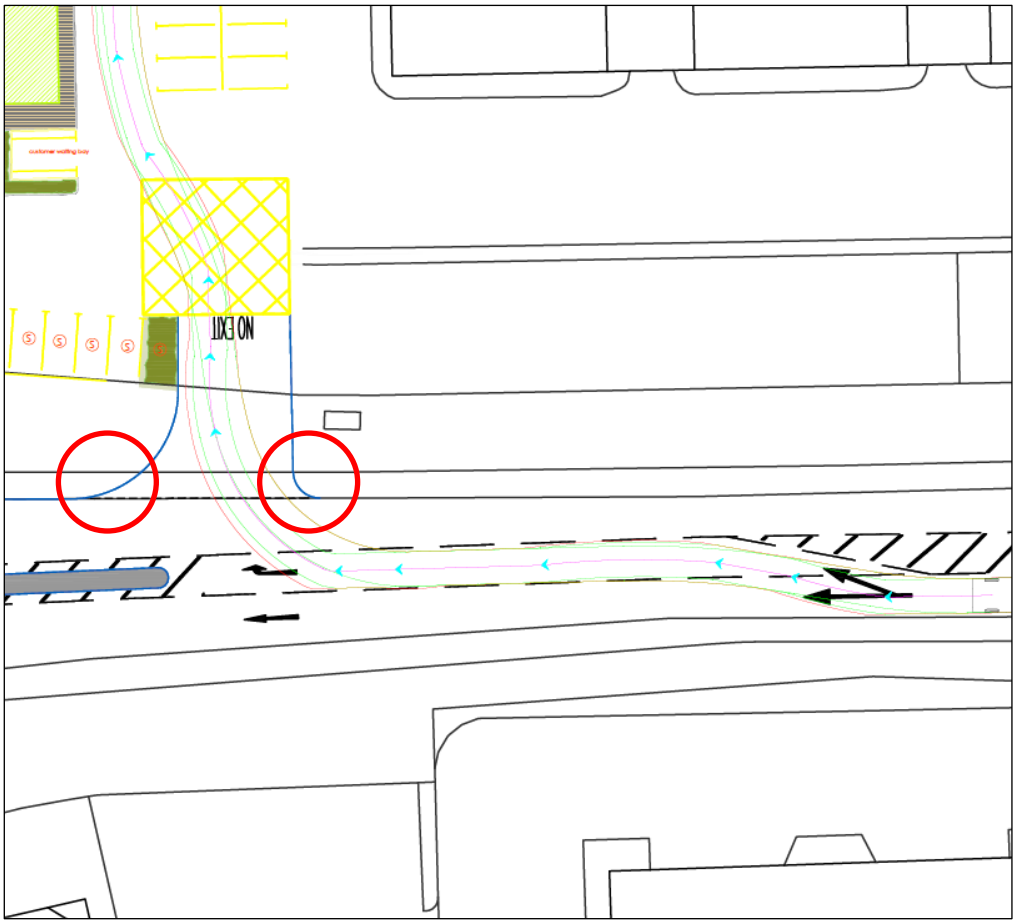
It is recommended that the bus stops are moved further east from the entrance so that it is kept clear when a bus is stationary at the stop.

2.2 **Problem**

Location: Site entrance on Mannaberg Way

Summary: Lack of dropped kerbs and tactile paving

There are no dropped kerbs or tactile paving shown across the site entrance, which crosses a footway. Visually impaired pedestrians could trip and injure themselves over full kerbs when attempting to cross the entrance to the site without any dropped kerbs or tactile paving in place.



Recommendation

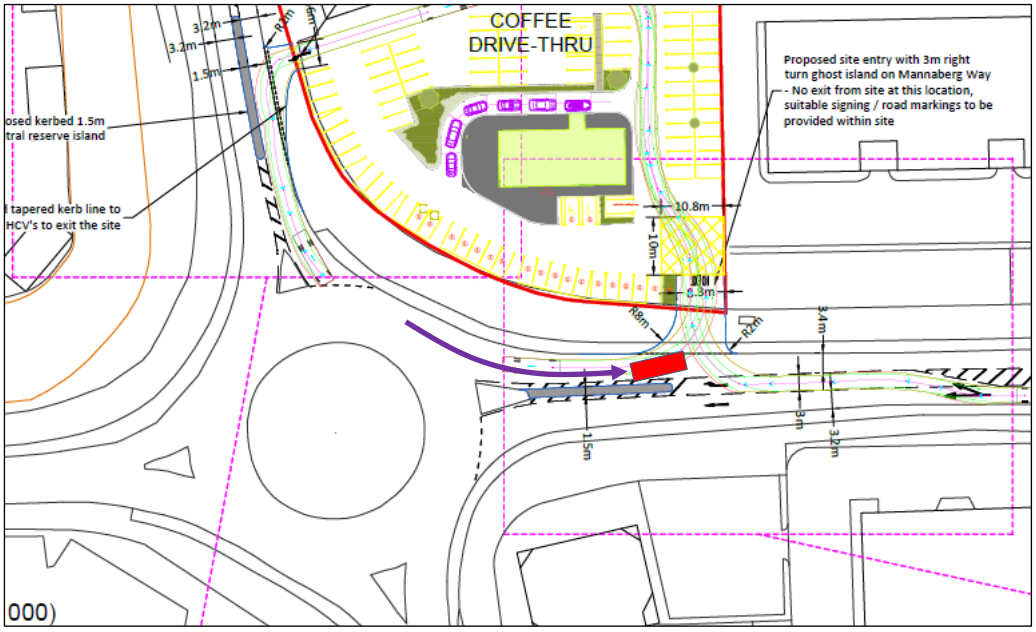
It is recommended that suitable dropped kerbs and tactile paving across the site entrance are provided.

2.3 **Problem**

Location: Site entrance on Mannaberg Way

Summary: Conspicuity of proposed access

The proposed site entrance is located within an existing 40mph speed limit approx. 40m east of the Normanby Road roundabout. Any hesitancy or late braking amongst vehicles turning left into the proposed access could increase the risk of shunt type collisions as vehicles exit the roundabout.



Recommendation

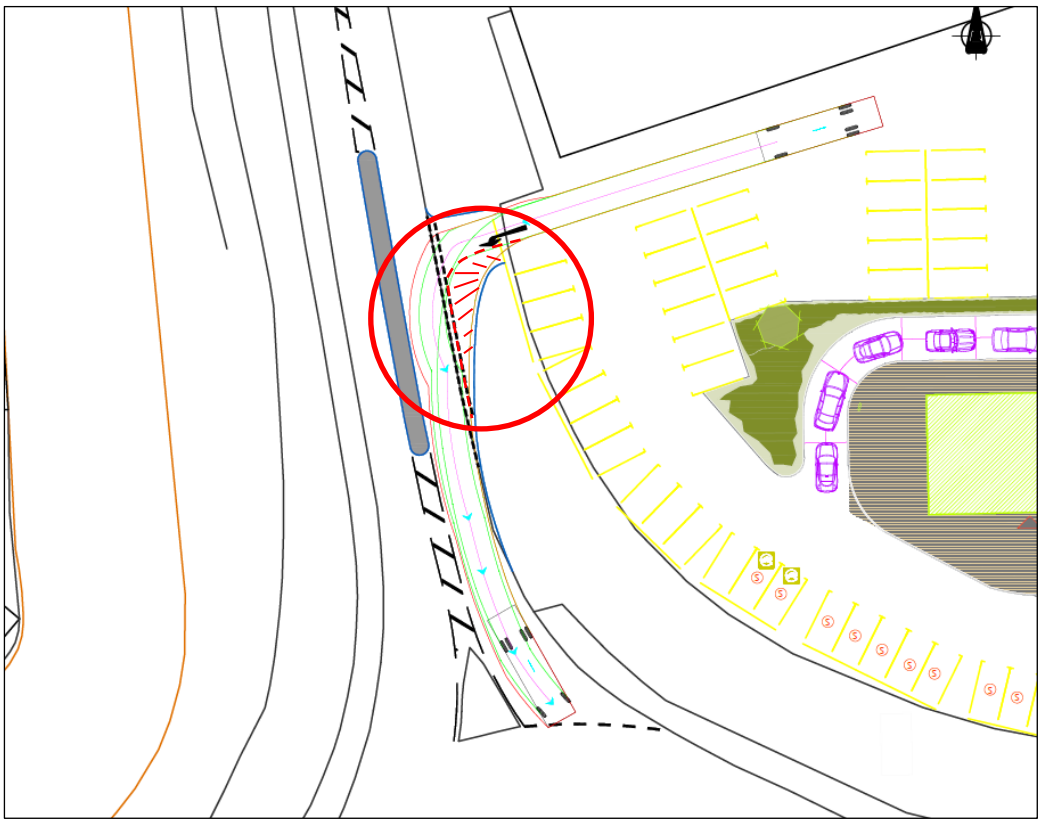
It is recommended that the scheme designer assesses the conspicuity of the access for approaching drivers prior to any S278 application and, if deemed necessary, that further measures are implemented within the highway or within the site to, as far as practicable, reduce the risk of shunt type collisions. Examples of further measures could include warning signing, high performance surfacing, reduced speed limit, marker posts, or appropriate works/signing within the site boundary.

2.4 **Problem**

Location: Site exit on Normanby Road

Summary: Acute angled exit reducing drivers' visibility to the right

The exit from the site onto Normanby Road is indicated as left only and is intended to be enforced by an elongated island in Normanby Road which will prevent drivers turning right from the site. As a consequence the exit is shown with an acutely tapered kerb which will allow large vehicles to exit the site without striking the central island. However this may also encourage drivers of other vehicles to position themselves at an acute angle while waiting to enter Normanby Road; consequently their visibility to the right will be impaired as they will have to look over their shoulders, which may be difficult for some drivers. This could cause drivers to enter Normanby Road without seeing any vehicles approaching from their right, risking contact and possible injury to vehicle occupants.



Recommendation

It is recommended that an area of hatching and/or an overrun area are provided on the southern part of the exit so that drivers are encouraged to present their vehicles more squarely at the give way markings.

2.5 **Problem**

Location: Site exit on Normanby Road

Summary: Restricted visibility along Normanby Road from the site exit

The visibility to the right from the proposed site exit along Normanby Road is severely limited by the presence of overhanging foliage and a large ADS and is exacerbated by the slight bend in the road to the right. It is possible that exiting drivers may not be able to see approaching vehicles and, as Normanby Road has a 40 mph speed limit, vehicles could be passing the exit at the same time as exiting drivers resulting in possible contact and injury to vehicle occupants.

Recommendation

It is recommended that the foliage is cut back and the ADS is raised so as not to impede drivers' visibility to the right from the site exit.

2.6 **Problem**

Location: Site exit on Normanby Road

Summary: Difference in level between the site and Normanby Road

At the location of the proposed exit from the site there is a pronounced difference in level with the site surface significantly lower than the surface of Normanby Road. The resulting gradient of the exit could cause a problem for exiting vehicles as, during wet or icy conditions, they could slide back into following vehicles risking injury to vehicle occupants.

Recommendation

It is recommended that the exit ramp gradient is no greater than 6% (CD 109 Highway Link Design Revision 1).

2.7 **Problem**

Location: Site exit and entrance

Summary: Swept path information is based only on a 10m long vehicle

The swept path information is based only on a 10m long rigid vehicle; however, it is not clear if this is the maximum sized vehicle that will be entering the site. A refuse vehicle or other large commercial vehicle may have reason the enter the site and may not be able to negotiate the entry or exit, risking possible contact with the splitter island, central island, kerbs or other features, possibly losing control and risking injury to vehicle occupants. A refuse vehicle was observed entering the site during the site visit.

The vehicle tracking provided appears to be based on a 5mph design speed and given the existing 40mph speed limit, if larger vehicles need to slow to 5mph to negotiate the turn then this could increase the risk of shunt type collisions.

Recommendation

It is recommended that swept path information is provided for the largest vehicle that may enter the site, at a realistic speed, and the design amended accordingly.

3.0 AUDIT TEAM STATEMENT

3.1 The Audit was carried out with reference to '*GG 119 Road Safety Audit*' (Highways England, 2020). We certify that we have examined the site taking into account the documents provided by the Project Manager (set out in Table 1) and carried out a Road Safety Audit with the sole purpose of identifying any feature of the design which could be removed or modified to improve the safety of the highway environment within the extents of the scheme. The problems that we have identified have been noted in this report together with suggestions for improvement, which we recommend should be studied for implementation.

3.2 No-one on the audit team has been involved with the design of the proposals.

AUDIT TEAM LEADER:

Signed	**T. Kirby**	**Tony Kirby IEng MSc FIHE MCIHT RegRSA** **Director** **Local Transport Projects** **Armstrong House, The Flemingate Centre,** **Beverley, East Riding of Yorkshire.** **HU17 0NW.** [redacted]
Dated	02/11/2020	

AUDIT TEAM MEMBER:

Signed	**E. Wragg**	**Eric Wragg IEng FIHT MCIHT** **Senior Engineer** **Local Transport Projects** **Armstrong House, The Flemingate Centre,** **Beverley, East Riding of Yorkshire.** **HU17 0NW.** [redacted]
Dated	02/11/2020	