IPD-22-580 – SHAW LANE, CARLTON, BARNSLEY.

ROAD SAFETY AUDIT – STAGE ONE DESIGNER'S RESPONSE REPORT.

Client
Network Space Centrix House Crow Lane East Newton-le-Willows WA12 9UY

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Project Information
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Prepared By	BO / SEF
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1 Introduction

1.1 This report is the highway designer's response for the Stage 1 Road Safety Audit (RSA1) in relation to the proposed highway improvements provided as part of the Land of Shaw Lane, Carlton, Barnsley proposals. The scope of the RSA1 included the proposed new priority T-Junction on Shaw Lane and a proposed signalisation of the existing priority junction on Shaw Lane/ Church Street/Fish Dam Lane. The RSA1 was undertaken by Pell Frischmann on Tuesday 14th February 2023.

1.2 The format of this report will be as follows:

In Section 2 of this report, the design team have listed problems and recommendations in the safety audit and followed them with a designers' response. Generally, these actions will either be:

- Accept the recommendation of the auditor and make changes accordingly.
- Accept the issue raised by the auditor but offer an alternative design solution to that of the Auditor's recommendation.
- Disagree with the auditors comments.

1.3 The information and comments contained in this report will also be retained and regularly revisited during the design process.

2 Matters Arising from Previous Audits

2.1 No previous audits have been undertaken to date.

3 Matters Arising from the Stage 1 Road Safety Audit

Location: Junction of Shaw Lane, Church Street and Fish Dam Lane

Problem Summary: The controlled crossing on the north side of the junction conflicts with a private driveway.

3.1 *PROBLEM 1- "*It is proposed to signalise the existing priority junction where Shaw Lane meets Church Street and Fish Dam Lane. The proposal includes controlled pedestrian crossings on Shaw Lane and Church Street to the east and north side of the junction respectively. On the western side of the junction is a private driveway. The western end of the pedestrian crossing on Church Street will result in the red blister tactile paving being laid within the width of the vehicular crossing across the footway. This will result in a risk to waiting or crossing pedestrians being struck by a vehicle emerging from, or turning into, the driveway. The associated signal pole, supporting the push button and pedestrian indicator, will restrict vehicular access to the driveway making access more hazardous, resulting in the manoeuvre to and from the driveway taking longer and increasing the risk of a sideswipe collision with passing vehicles*."*

Recommendation

*"*It is recommended that the location and orientation of the controlled crossing of Church Street is amended to avoid any conflict with the driveway*."*

Designer's Response

Due to the very tight constraints of the junction visibility splay, and the walls at the rear of highway land, inserting a signal junction with two crossings is complex. To enable the design to continue to retain two crossings, (and avoid the drive crossing – not shown on topo) the design would need to deviate away from the design standards and have the crossing positioned not parallel to the stop line. (If this acceptable to Barnsley Council). If not this cross would need to be removed.

Location: Junction of Shaw Lane, Church Street and Fish Dam Lane

Problem Summary: Vehicles emerging from the driveway into the junction not under signal control

3.2 *PROBLEM 2- "*It is proposed to signalise the existing priority junction where Shaw Lane meets Church Street and Fish Dam Lane. On the western side of the junction is a private driveway. The driveway emerges onto the junction with vehicles from the driveway not being under signal control, as a result vehicles may potentially enter the junction at any time. As such, there is a potential conflict with traffic moving through the junction on a green signal or pedestrians crossing on a green signal resulting in a sideswipe collision or a pedestrian being struck on the crossing*."*

Recommendation

*"*Recommendation It is assumed that even if regular users of the driveway may be familiar with the new layout, visitors and deliveries may not be. Use of the driveway is unlikely to require a separate signal. To mitigate risks between an emerging vehicle and others passing through the junction it will be beneficial if the emerging driver can view the signals to choose an appropriate time to enter the junction. It is therefore recommended that far-sided secondary signals are provided which can be also viewed by a driver emerging from the driveway*."*

Designer's Response

Agreed, this will be incorporated in the next iteration of the design.

Location: Junction of Shaw Lane, Church Street and Fish Dam Lane

Problem Summary: Stop Lines appear to close to controlled crossings

3.3 *PROBLEM 3- "*The drawing appears to show the stop lines at the signal-controlled crossing to be too close to the controlled crossing. The proximity of the stop line to the crossing will increase the risk to pedestrians using the crossing of being struck by a vehicle should the driver brake late and over run the stop line on a red signal*."*

Recommendation

*"*The risk of a pedestrian being struck by a late braking vehicle will be reduced if the stop line is moved further in advance of the crossing. The Traffic Signs Manual (Chapter 6, para 18.1.5) states the stop line must be placed a minimum of 1.7m and normally not more than 3m from the studs (refer to the controlled zone layout in Schedule 14, Part 2, Item 51 of the Traffic Signs Regulations and General Directions 2016). In addition, para 4.2.2 (chapter 6) also states that the stop line should be at least 1.5m in advance of the nearside primary signal, although 2.5m is preferable. It is recommended that the stop line is relocated further from the crossing*."*

Designer's Response

The crossing have been shown 1.7m from the stop line, this meets standard.

Location: Junction of Shaw Lane, Church Street and Fish Dam Lane

Problem Summary: HGV's turning left from Shaw Lane may over run the footway to avoid queuing traffic at signals

3.4 *PROBLEM 4- "*There is a risk that left-turning HGVs from Shaw Lane could potentially conflict with queuing traffic along Fish Dam Lane, resulting in them encroaching onto the footway at the south-eastern corner and potentially conflicting with pedestrians. Such a manoeuvre may result in injury to pedestrians or a collision with waiting vehicles*."*

Recommendation

*"*It is recommended that the designer carries out swept path analysis to ensure that the HGV turning manoeuvre can be accommodated within the carriageway and without encroaching into the northbound lane of Fish Dam Lane*."*

Designer's Response

"Swepth path analysis of an Articulated 16.5m vehicle has already been undertaken on this junction. The swepth paths can be found under drawing ref: IPD-22-580-104 which shows the vehicle can manoeuvre around the junction adequately."

Location: Shaw Lane west of development access- proposed toucan crossing

Problem Summary: The use of the southern footway by cyclists may lead to conflict with pedestrians

3.5 *PROBLEM 5- "*A Toucan crossing is being provided to the west of the proposed site access junction. This will provide a crossing for pedestrians and cyclists from the site to cross onto the southern footway along Shaw Lane. To the west of the toucan crossing the footway width reduces to as little as 700mm measured on site. This footway is insufficiently wide enough to accommodate both users without the potential for collisions between them*."*

Recommendation

*"*It is recommended that the designer review the route for cyclists to and from the western side of the proposed development*."*

Designer's Response

"Footway improvements are being proposed along the whole stretch of Shaw Lane, from the new priority T-Junction to the Shaw Lane/Church Street/ Fish Dam Lane Junction to the west. The improvements include widening of the footway to a minimum of 2m along the whole southern side of Shaw Lane. The improvements can be seen on drawing ref: IPD-22-580-105, IPD-22-580-106 and IPD-22-580-107." Cyclists will not be able to ride on the footway and must use the carriageway.

4 General Comments

No general comments have been raised by the Audit Team.

5 Conclusions

5.1 Waterman Aspen has produced a Stage 1 Road Safety Audit for the Proposed Development at Shaw Lane, Carlton, Barnsley.

5.2 Infrastructure Planning and Design, as designers, has subsequently produced this Designer's Response to the RSA findings.

5.3 The RSA notes were split into 2 sections to reflect specific and general comments

5.4 The designer's comments took one of two formats:

- Accept the recommendation of the auditor and make changes accordingly.
- Provide additional information to elaborate on the auditors' comments.