

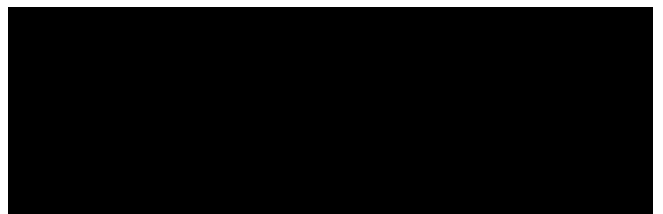


Stage 2 Road Safety Audit Report (Detailed Design)

**West Ashton,
Leap Gate – West Ashton Road
New Residential Development
S278 Highway Access Works**

**Produced for:
Persimmon Wessex**

Date: 30th May 2024



DOCUMENT REGISTER

Project Name: West Ashton Leap Gate -West Ashton Road
S278 Highway Access Works

Report Title: Stage 2 Road Safety Audit

Date: 30th May 2024

Client: Persimmon Wessex

Audit Team	Name	Position	Date
Audit Team Leader:	Peter Ronald	Director	30/05/2024
Audit Team Member:	Tony Schneider	Road Safety Auditor	30/05/2024
Approved By:	Peter Ronald	Director	30/05/2024

Revision History					
Revision	Date	Description	Audit Team Leader	Audit Team Member	Approved
-	30/05/2024	Draft	PR	TS	PR
A	30/05/2024	Final	PR	TS	PR

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1. Executive Summary

- 1.1 This scheme is promoted by Persimmon Wessex. This Traffic Safety Audit is supplied under the provisions of the safety audit request dated 22nd May 2024. The overseeing authority is Wiltshire County Council.

2. Introduction

- 2.1 Traffic Management Consultants Ltd has been commissioned by Persimmon Wessex to produce this Stage 2 (Detailed Design) Road Safety Audit Report. This report is associated with a proposed new residential development on land adjacent to Leap Gate and West Ashton Road in Trowbridge. The works include construction of three new side road T junctions into the new development and new lengths of shared use pedestrian /cycle paths.

2.2 Audit Team Membership

The Audit Team comprised the following individuals:

Peter Ronald I.Eng., AMICE, MCIHT, MSORSA, (HE - RSA Cert of Comp).
(Audit Team Leader)

Tony Schneider BSc., Eng. T, MCIHT
(Audit Team Member)

2.3 Audit Site Visit and Plan Examination

A site visit was carried out on Tuesday 28th May 2024 by the Audit Team between 2.00pm and 3.00pm. The weather conditions were cloudy and dry, the road surface was dry. Traffic flows were low, and minimal pedestrian movements were observed. Vehicle speeds were perceived to be within the posted 50mph speed limit along Leap Gate and West Ashton Road at the proposed works during the site visit.

The Audit also comprised an examination by the team of the drawings produced by Phoenix Design and supporting documents completed by the Audit Team are listed in **Appendix A**. All safety issues are with reference to the specific design details shown on the drawings.

2.4 Strategic Decisions

The Audit Team has not been advised of any Strategic Decisions made by the local Highway Authority or by the local Planning Authority.

2.5 Audit Brief

The Audit Team were not provided with an Audit Brief as approved by the Overseeing Authority

2.6 Terms of Reference

The terms of reference of the audit are based on “Guidelines for the Safety Audit of Highway Schemes” published by the Institution of Highways and Transportation, other guidance references are the Traffic Signs Regulations and General Directions 2016, and GG 119 Design Manual for Roads and Bridges.

The Audit Team has examined and reported only on the road safety implications of the scheme and has not verified the compliance of the designs to any other criteria. However, to clearly

explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard or other guidance documents.

2.7 **Audit Recommendations**

Recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified. They are only to indicate a proportionate and viable means of eliminating or mitigating the identified road safety audit matters, and in no way imply that a formal design process has been undertaken.

There may be alternative measures of addressing a problem which would be equally acceptable or superior in achieving the desired degree of mitigation and these should be considered by the designer when responding to this report.

2.8 **Scope of Road Safety Audits**

Road Safety Audit shall only be concerned with Road Safety Matters, i.e., *an element of the existing road environment or proposed road environment that could potentially contribute to a road traffic collision or features that could present a risk of injuries to road users.*

Road Safety Audit is not a technical check that the design conforms to standards and/or best practice guidance.

Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.

Road Safety Audit does not consider structural safety.

Road Safety Audit does not cover health and safety issues concerning road workers during the construction phase but may cover the future maintenance and operation of the road.

Road safety matters resulting from the operation of facilities for highway maintenance that affect road users shall be included in the scope of Road Safety Audit.

The needs of all road users shall be assessed when undertaking Road Safety Audits.

3. Risk Assessment

- 3.1 Each of the Auditors' responses is classified as either a 'Problem' or a 'Nil Response/Comment'. Items classified as a 'Problem' denote matters likely to result in significant road safety hazards. Items marked as 'Nil Response/Comment' are less serious but worthy of consideration by the Designer and/or by the Overseeing Organisation.
- 3.2 Although all the problems identified are of sufficient importance to require action, the table below shows their relative urgency based on the risk perceived by the Safety Auditors. The level of risk assigned to each problem is largely subjective and is only intended as a guide to assist the client in determining the priority of the road safety matters raised.

Severity / Risk Level	Probability				
	Frequent	Probable	Occasional	Remote	Improbable
Catastrophic	****Problem**** (Urgent)				
Critical		***Problem*** (High Risk)			
Major			**Problem** (Medium Risk)		
Minor				*Problem* (Low Risk)	
Negligible					Comment

4. Historical Summary

- 4.1 Not known.

5. Existing Environment

- 5.1 The new development site lies on vacant land to the east of Leap Gate and north of West Ashton Road
- 5.2 Leap Gate is a single carriageway local distributor road that links through between West Ashton Road and the A361 it has a shared use pedestrian /cycle path along its western side and verge /fields to the east with a system of street lighting . A 50mph speed limit has been introduced along its length at the new junctions.
- 5.3 B3105 West Ashton Road is a classified single carriageway local distributor road that links south from Trowbridge to West Ashton. It has verges along both sides fronting green fields. There is no street lighting present and a 50mph speed limit has been introduced along its length at the new access junction.

6. Collision Data

- 6.1 The Audit Team have not been provided with any recorded injury collision data as part of this road safety audit. However, interrogation of www.crashmap.co.uk indicates that there have been no personal injury collisions recorded within the extent of the scheme during the 2018 to 2022 five-year period.

7. Survey Information

- 7.1 None provided.

8. Audit Assessment

- 8.1 The table below summarises the findings from this audit which are described in detail within the following pages.
- 8.2 Identified locations of Road Safety Audit Matters are indicated on the drawing within **Appendix B** to the rear of this report.

No.	Item	Comments	Notes
B1	General		
B1.1	Departures from Standards		
B1.2	Drainage		
B1.3	Climatic Conditions		
B1.4	Landscaping		
B1.5	Public Utilities/ Services Apparatus		
B1.6	Lay-bys		
B1.7	Access		
B1.8	Skid Resistance		
B1.9	Agriculture		
B1.10	Fences and Road Restraint Systems		
B1.11	Adjacent Developments and Roads		
B1.12	Road alignment		
B1.13	General layout	Problems	(8.1) No vehicle tracking analysis produced for new junctions. (8.2) Existing field access not being retained opposite junction 3
B2	Local Alignment		
B2.1	Visibility	Problem	(8.3) No visibility splays detailed at junctions
B2.2	New/Existing Road Interface		
B3	Junctions		
B3.1	Layout		
B3.2	Visibility	Problems	(8.4) Verge hedge obstructs visibility for vehicles exiting junction 3

			(8.5) ADS sign obstructs visibility for vehicles exiting side road at junction 2
B3.3	Signing	Problems	(8.6) No Right Turn sign required on approach to junction 2 (8.7) No Entry signs required on access into side road at junction 2 from Leap Gate (8.8) Speed limit terminal signs required on side road exit at junction 2 (8.9) No right turn sign required on side road as per design for junction 2
B3.4	Road Markings	Problems	(8.10) Carriageway markings detailed are incorrect as they are for roads with a speed limit of 40mph or less (8.11) TURN LEFT markings and arrow required on approach to give way at junction 2 (8.12) Reduced length of deflection on approach to traffic island at junction 3 needs to be preferred 1 in 45 (TSM Chapter 5)
B3.5	T, X and Y junctions		
B3.6	All roundabouts		
B3.7	Mini Roundabouts		
B3.8	Traffic Signals		
B4	Non-Motorised User Provision		
B4.1	Adjacent Land		
B4.2	Pedestrians	Problems	(8.13) No visibility splays detailed at pedestrian crossing points. (8.14) No tactile paving detailed at pedestrian crossing point across side road at junction 3
B4.3	Cyclists	Problem	(8.15) Existing End Of Cycle Route sign needs to be removed as cycle path extended across road
B4.4	Equestrians		
B5	Road Signs, Carriageway Markings and Lighting		
B5.1	ADS and Local Traffic Signs		
B5.2	Variable Message Signs		
B5.3	Lighting		
B5.4	Road Markings		
B5.5	Poles and Columns		

8.1 *Problem* (Item B1.13)	
Location:	All 3 junctions
Summary:	No vehicle tracking analysis produced for new junctions
There are three new junctions proposed. There has been no vehicle tracking analysis produced to show that the junctions can be used safely by turning vehicles. Produce vehicle tracking analysis to show junctions can be used safely by vehicles	
TYPE OF CONFLICT/COLLISION	
Risk of vehicles unable to turn safely at junctions	
RECOMMENDATION	
Produce vehicle tracking analysis to show vehicles can be used safely by vehicles	

8.2 *Problem* (Item B1.13)	
Location:	West Ashton Road /Junction 3
Summary:	Existing field access not being retained opposite junction 3
	
There is an existing field access that is opposite the new junction that is not being retained. Check if the field access is still required and amend the design accordingly if required.	
TYPE OF CONFLICT/COLLISION	
Risk of vehicles being unable to access existing field access	
RECOMMENDATION	
Check if the field access is still required and amend the design accordingly	

8.3 *Problem* (Item B2.1)	
Location:	All 3 junctions
Summary:	No visibility splays detailed at junctions
There are 3 new junctions detailed without any visibility splays detailed for vehicles exiting the side roads. Ensure required unobstructed visibility splays are provided to enable vehicles exiting side roads to see oncoming vehicles	
TYPE OF CONFLICT/COLLISION	
Risk of vehicle collisions due to reduced visibility splay	
RECOMMENDATION	
Ensure required unobstructed visibility splays are provided to enable vehicles exiting side roads to see oncoming vehicles	

8.4 *Problem* (Item B3.2)

Location:	West Ashton Road /Junction 3
Summary:	Verge hedge obstructs visibility for vehicles exiting junction 3
A new side road junction is detailed. There is verge vegetation that obstructs the visibility of oncoming vehicles for vehicles exiting the side road. Remove vegetation where it is within the required visibility splay for vehicles exiting the side road	
TYPE OF CONFLICT/COLLISION	
Risk of vehicle collisions due to obstructed visibility when exiting side road	
RECOMMENDATION	
Remove vegetation where it is within the required visibility splay for vehicles exiting the side road	

**TYPE OF CONFLICT/COLLISION**

Risk of vehicle collisions due to obstructed visibility when exiting side road

RECOMMENDATION

Remove vegetation where it is within the required visibility splay for vehicles exiting the side road

8.5 *Problem* (Item B3.2)	
Location:	Leap Gate approach to junction 2
Summary:	ADS sign obstructs visibility for vehicles exiting side road at junction 2
	
There is an existing ADS sign that is being relocated to the eastern side of junction 2 that obstructs the visibility of oncoming vehicles for vehicles exiting side road. This sign needs to be relocated away from the required visibility splay where it will not cause an obstruction	
TYPE OF CONFLICT/COLLISION	
Risk of collisions at junction due to obstructed visibility	
RECOMMENDATION	
This sign needs to be relocated away from the required visibility splay where it will not cause an obstruction	

8.6 *Problem* (Item B3.3)	
Location:	Leap Gate approach to junction 2
Summary:	No Right Turn sign required on approach to junction 2
A new junction is detailed with no right turn proposed on the junction. There is no regulatory NO RIGHT TURN sign detailed on the approach to the junction to tell approaching drivers that they cannot turn left. Provide required NO RIGHT TURN sign	
TYPE OF CONFLICT/COLLISION	
Risk of vehicles turning left illegally at junction	
RECOMMENDATION	
Provide required NO RIGHT TURN sign where required	

8.7 *Problem* (Item B3.3)	
Location:	Leap Gate /Junction 2
Summary:	No Entry signs required on access into side road at junction 2 from Leap Gate
There is a new side road junction detailed with one way exiting the development. There are no NO ENTRY signs detailed at the junction as legally required to tell drivers that they cannot enter the side road. Provide required NO ENTRY signs at junction	
TYPE OF CONFLICT/COLLISION	
Risk of vehicles turning into side road due to lack of signage	
RECOMMENDATION	
Provide required NO ENTRY signs at junction	

8.8 *Problem* (Item B3.3)	
Location:	Leap Gate /Junction 2
Summary:	Speed limit terminal signs required on side road exit at junction 2
A new side road junction is detailed with the side road restricted to 20mph forming part of the adjacent development. There are no speed limit terminal signs on the side road informing drivers that they are leaving the 20mph Zone at accessing a 50mph speed limit road. Provide required speed limit signs on side road at junction	
TYPE OF CONFLICT/COLLISION	
Risk of drivers exiting side road unaware of raised speed limit	
RECOMMENDATION	
Provide required speed limit signs on side road at junction	

8.9 *Problem* (Item B3.3)	
Location:	West Ashton Road n/Junction 3
Summary:	No right turn sign required on side road as per design for junction 2
A new side road junction is detailed with a no right turn . A NO RIGHT TURN sign is required on the side road to tell drivers they cannot turn right when exiting side road as per junction 2. Provide required NO RIGHT TURN sign on side road	
TYPE OF CONFLICT/COLLISION	
Risk of vehicle turning right when exiting side road	
RECOMMENDATION	
Provide required NO RIGHT TURN sign on side road	

8.10 *Problem* (Item B3.4)	
Location:	All 3 junctions
Summary:	Carriageway markings detailed are incorrect as they are for roads with a speed limit of 40mph or less
New carriageway markings are detailed along Leap Gate and West Ashton Road that are incorrect as they are for roads with speed limits of 40mph or less. Leap Gate and West Ashton Roads are restricted to 50mph speed limits so the larger markings are required as per TSM Chapter 5 to ensure they can be seen by drivers. Amend design to show correct size markings	
TYPE OF CONFLICT/COLLISION	
Risk of incorrect road markings causing problems for road users	
RECOMMENDATION	
Amend design to show correct size markings	

8.11 *Problem* (Item B3.4)	
Location:	Leap Gate /Junction 2
Summary:	TURN LEFT markings required on approach to give way at junction 2
A new side road junction is detailed with restricted left turn only exit from the side road. TURN LEFT and arrow markings are required on the side road approach to the give way to tell drivers to turn left	
TYPE OF CONFLICT/COLLISION	
Risk of driver turning right at junction	
RECOMMENDATION	
Provide required TRUN LEFT and Arrow markings on side road	

8.12 *Problem* (Item B3.4)	
Location:	West Ashton Road/Junction 3
Summary:	Reduced length of deflection on approach to traffic island at junction 3 needs to be preferred 1 in 45 (TSM Chapter 5)
There is central hatching detailed on the approach to the new traffic island with reduced length of deflection that is not as the preferred 1 in 45 as per TSM Chapter 5. Amend design to provide required deflection on approaches to island.	
TYPE OF CONFLICT/COLLISION	
Risk of vehicle collisions with traffic island	
RECOMMENDATION	
Amend design to provide required deflection on approaches to island.	

8.13 *Problem* (Item B4.2)	
Location:	All 3 junctions
Summary:	No visibility splays detailed at pedestrian crossing points
There are pedestrian crossing points detailed at all three junctions. There are no clear visibility splays detailed at these pedestrian crossing points to ensure adequate intervisibility at the crossing points between pedestrians and vehicles. Provide required clear visibility splays at all pedestrian crossing points	
TYPE OF CONFLICT/COLLISION	
Risk of pedestrian collisions with vehicles due to inadequate visibility at pedestrian crossing points	
RECOMMENDATION	
Provide required clear visibility splays at all pedestrian crossing points	

8.14 *Problem* (Item B4.2)	
Location:	Development access road junction 3
Summary:	No tactile paving detailed at pedestrian crossing point across side road at junction 3
There is a pedestrian crossing point detailed across the development access road without the required tactile paving to enable the crossing to be used safely by visually impaired pedestrians. Provide the required tactile paving at the pedestrian crossing point.	
TYPE OF CONFLICT/COLLISION	
Risk of visually impaired pedestrians unable to cross over road safely between drooped kerbs	
RECOMMENDATION	
Provide the required tactile paving at the pedestrian crossing point.	

8.15 *Problem* (Item B4.2)	
Location:	Leap Gate / Pedestrian /cycle crossing point
Summary:	Existing End of Cycle Route sign needs to be removed as cycle path extended across road
	
The shared use pedestrian/cycle path is now being extended across Leap Gate. The existing end of cycle route sign needs to be removed as this is no longer required. Remove existing sign.	
TYPE OF CONFLICT/COLLISION	
Risk of incorrect information causing confusion for cyclists.	
RECOMMENDATION	
Remove existing sign.	

9. Nil Response/Comments

9.1 No comments

10. Non-Motorised User Report (NMUs)

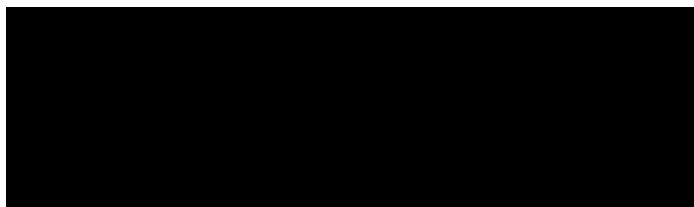
10.1 This report has identified road safety problems affecting NMUs that should be resolved.

11. Audit Team Statement

I certify that we have examined the drawings listed within **Appendix A** and that the site has been inspected. The examination has been carried out with the sole purpose of identifying road safety matters that can be addressed to improve the safety of the scheme.

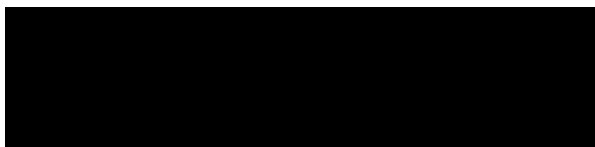
The problems identified have been noted in the report together with associated safety improvement suggestions that we recommend should be studied for implementation.

I can confirm that we have not been involved with the scheme design.



Peter Ronald
(Audit Team Leader)

30th May 2024



Tony Schneider
(Audit Team Member)

30th May 2024

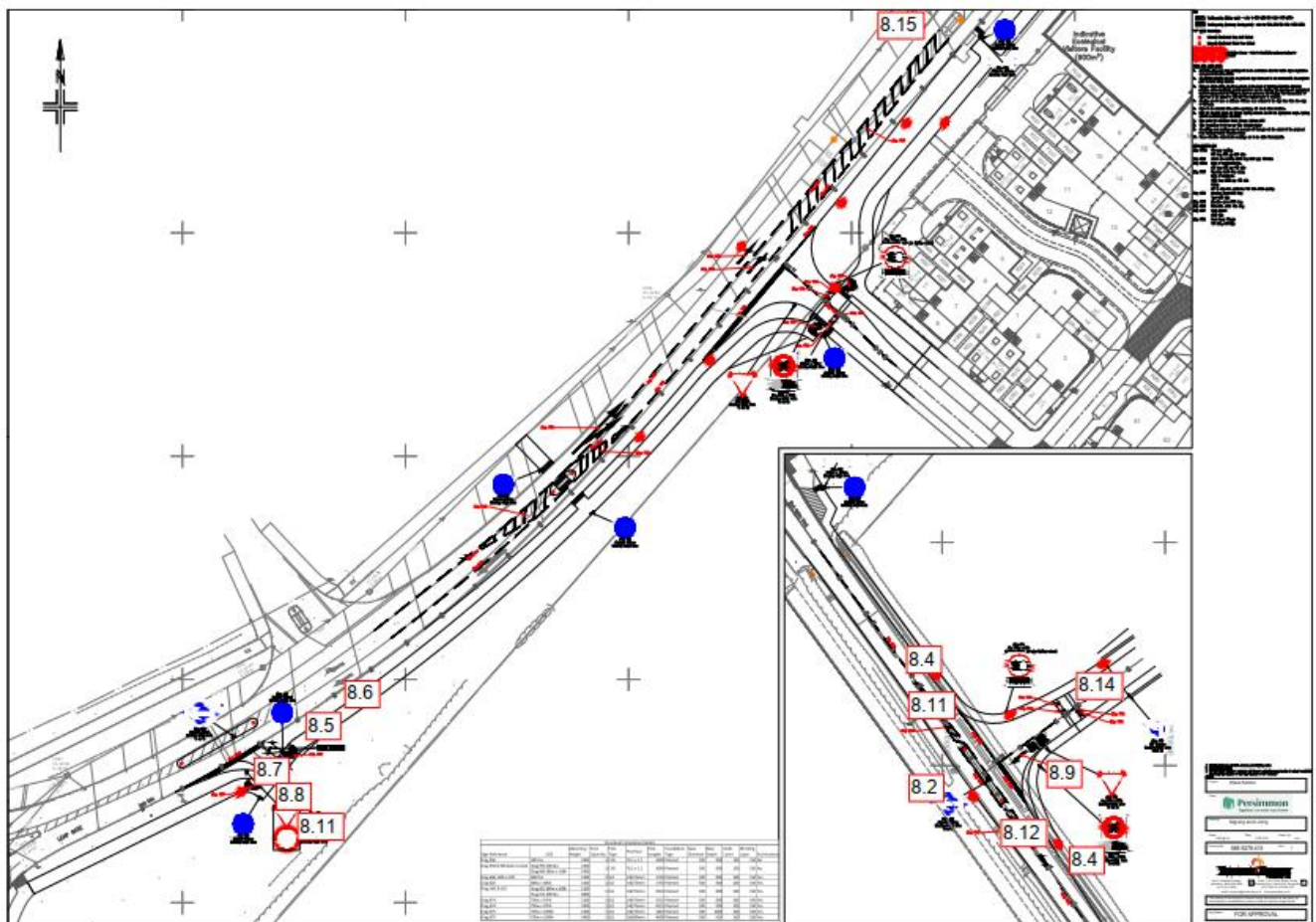
12. Appendix A - List of Documents

Drawings

566-S278-001 Site location
566-S278-100 Engineering-REV D
566-S278-200 Road and Sewer Longsections-REV C
566-S278-250 Kerbing and Surfacing-REV C
566-S278-300 Highway Construction Details REV C
566-S278-402 Section 278-REV C
566-S278-415 Signing and Lining-REV C
566-S278-550 Manhole Schedule-REV C

West Ashton Northern Accesses RSA Stage 1

13. Appendix B - Identified Road Safety Audit Matters Location Plan



14 Appendix C – Designer, Overseeing Authority and Auditor Response to Stage 2 Road Safety Audit

Stage 1/2 Road Safety Audit DESIGNER'S ROAD SAFETY AUDIT RESPONSE Scheme Name: West Ashton , Leap Gate – West Ashton Road S278 Highway Works			
The issues categorised in this road safety audit as 'Problem' matters are those causing serious concern and are summarised below. The purpose of this form is for the scheme Designer or Overseeing Organisation to respond to the 'Problem' matters. Responses should be returned to Traffic Management Consultants. 'Comments' in this report are made for the benefit of the Designer and are not referred to below.			
RSA Matter	Summary of RSA Problem	Designer's Response	Overseeing Organisation Response
8.1	No vehicle tracking analysis produced for new junctions		
8.2	Existing field access not being retained opposite junction 3		
8.3	No visibility splays detailed at junctions		
8.4	Verge hedge obstructs visibility for vehicles exiting junction 3		
8.5	ADS sign obstructs visibility for vehicles exiting side road at junction 2		
8.6	No Left Turn sign required on approach to junction 2		
8.7	No Entry signs required on access into side road at junction 2 from Leap Gate		
8.8	Speed limit terminal signs required on side road exit at junction 2		

8.9	No right turn sign required on side road as per design for junction 2		
8.10	Carriageway markings detailed are incorrect as they are for roads with a speed limit of 40mph or less		
8.11	TURN LEFT markings required on approach to give way at junction 2		
8.12	Reduced length of deflection on approach to traffic island at junction 3 needs to be preferred 1 in 45 (TSM Chapter 5)		
8.13	No visibility splays detailed at pedestrian crossing points		
8.14	No tactile paving detailed at pedestrian crossing point across side road at junction 3		
8.15	Existing End of Cycle Route sign needs to be removed as cycle path extended across road		

AUDIT TEAM RESPONSE TO DESIGNERS' COMMENTS

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Design Organisation Response

The Design Organisation Response has been prepared by:

Name:

Position / Organisation:

Date:

Overseeing Authority Response

The Overseeing Authority Response has been prepared by:

Name:

Position / Organisation:

Date: