



Stage 1 Road Safety Audit Report (Feasibility)

**Littlehampton Phase 5 Spine Road
Chainages 0-180m & 700 -1020m
Proposed new residential
development**

**Produced for:
Persimmon Homes**

Date: 12th January 2022

DOCUMENT REGISTER

Project Name: Littlehampton Spine Road . Chainages 0-180m & 700 -1020m

Report Title: Stage 1 (Feasibility) Road Safety Audit

Date: 12th January

Client: Persimmon Homes

Audit Team	Name	Position	Date
Audit Team Leader:	Peter Ronald	Director	12/01/2022
Audit Team Member:	Paul Salmon	Road Safety Auditor	12/01/2022
Approved By:	Peter Ronald	Director	12/01/2022

Revision History					
Revision	Date	Description	Audit Team Leader	Audit Team Member	Approved
-	12/01/2022	Draft	PR	PS	PR
A	12/01/2022	Final	PR	PS	PR

Prepared By: **Traffic Management Consultants Ltd**

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1. Executive Summary

- 1.1 This scheme is promoted by Persimmon Homes. This Road Safety Audit is supplied under the provisions of the Safety Audit request dated 21st December 2021.

2. Introduction

- 2.1 This report results from a Stage 1 (Feasibility) Road Safety Audit request along parts of the new spine road at Littlehampton Phase 5. Along chainages 0-180m & 700-1020m

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)

Paul Salmon, MCIHT, MSoRSA

(Audit Team Member)

The Audit also comprised an examination of the drawings provided by Mayer Brown and any additional support documents completed by the Audit Team as listed in the Appendices. All safety issues are with reference to the scheme as implemented.

2.3 Audit Site Visit

A site visit was carried out on Tuesday 11th January 2022 between 4.30pm and 5.30pm by the Audit Team. The weather conditions were cloudy and dry.

2.2 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.

2.3 Audit Brief

The Audit Team were not provided with an Audit Brief

2.4 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.

2.5 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.

2.6 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 of the problems identified are considered to be 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 Unknown.

5. Existing Environment

5.1 The site is currently under construction

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.

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.

Identified locations of Road Safety Audit Matters are indicated on drawings within **Appendix A** to the rear of this report.

	Item	Comments	Notes
A1	General		
A1.1	Departures from Standards		None reported
A1.2	Cross-sections		
A1.3	Cross-sectional Variation		
A1.4	Drainage		
A1.5	Landscaping		
A1.6	Public Utilities/ Services Apparatus		
A1.7	Lay-bys		
A1.8	Access	Problem	(8.1) Buildout /narrowing adjacent to private driveway access. Ensure access maintained Ch 970.00
A1.9	Emergency Vehicles		
A1.10	Future Widening		
A1.11	Adjacent Development		
A1.12	Basic Design Principles	Comments	(9.1) No vehicle tracking analysis produced on layout (9.2) Ensure raised table ramp gradients are acceptable to bus operators
A2	Local Alignment		
A2.1	Visibility		
A2.2	New/Existing Road Interface		
A2.3	Vertical Alignment		
A3	Junctions		
A3.1	Layout	Problem	(8.2) Bus stop located on approach to side road junction resulting in overtaking vehicles on wrong side of road approaching side road Ch 860.00
A3.2	Visibility		
A4	Non-Motorised User Provision		
A4.1	Adjacent land		
A4.2	Pedestrian/cycle routes provided	Problems	(8.3) No pedestrian crossing facilities at side road junction with road 11 (8.4) No facility to enable cyclists to access and exit from shared use path to access side roads 4 on opposite side of road at junction
A4.3	Facilities adequate		
A4.4	Separation from carriageway		
A4.5	Special requirements elderly/young infirm		
A4.6	Tactile paving/guardrails		
A4.7	Junctions		
A4.8	Routes clear of obstruction		
A4.9	Equestrians		

A5	Road Signs, Carriageway Markings And Lighting		
A5.1	Signs		
A5.2	Lighting		
A5.3	Poles and Columns		
A5.4	Road Markings		

8.1 *Problem* (Item A1.8)	
Location:	Private access Chainage 970
Summary:	A carriageway narrowing feature is detailed adjacent to a private vehicle access, check access maintained
There is a carriageway narrowing feature detailed adjacent to a private driveway access. Check vehicle tracking to ensure vehicles can use the access safely	
TYPE OF CONFLICT/COLLISION	
Vehicles unable to use vehicle access safely	
RECOMMENDATION	
Carry out vehicle swept path analysis to ensure access can be used safely	

8.2 *Problem* (Item A3.1)	
Location:	Spine Road, Junction Road 11 Chainage 860.00
Summary:	Bus stop located on approach to side road junction
There is a bus stop located on the approach to the side road junction with Road 11 at Chainage 860.00. This will result on any vehicles overtaking a stationary bus approaching the junction on the wrong side of the road risking a head on collision with a left turning vehicle out of the side road. Relocate bus stop	
TYPE OF CONFLICT/COLLISION	
Head on collisions at junction	
RECOMMENDATION	
Relocate bus stop away from junction	

8.3 *Problem* (Item A4.2)	
Location:	Spine Road junction with Road 11
Summary:	No pedestrian footway facilities at junction
A side road junction is detailed without any pedestrian footway facilities. Check to ensure if any pedestrian facilities are required at junction and provide if required	
TYPE OF CONFLICT/COLLISION	
Pedestrians having to walk over verges at junction	
RECOMMENDATION	
Check if pedestrian facilities are required and provide if necessary	

8.4 *Problem* (Item A4.2)	
Location:	Spine Road junction with Road 4
Summary:	No facility to enable cyclists to access exit from road 4 and join shared use path on opposite side of road
There is a side road junction detailed without any facility to enable cyclists to joint /exit from the shared use path to Road 4. Provide facility to enable cyclists to access exit from shared use path to join side road 4	
TYPE OF CONFLICT/COLLISION	
Cyclists unable to access /exit from path at junction	
RECOMMENDATION	
Provide facility to enable cyclists to access /exit path at junction	

9. Nil Response/Comments

- 9.1 No vehicle tracking produced on road layout
- 9.2 There are raised table ramps detailed along the spine road that will be used by buses, ensure bus operators will accept the proposed gradient on raised table ramps

10. Non-Motorised User Report (NMU's)

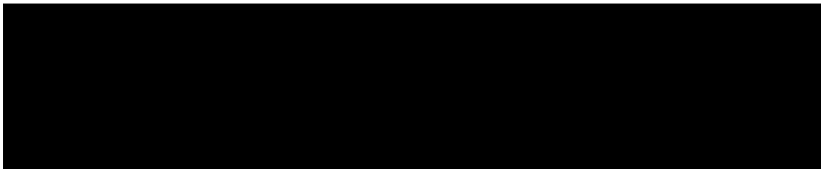
- 10.1 This report has identified road safety matters affecting NMU's that should be resolved.

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 in order to improve the safety of the scheme.

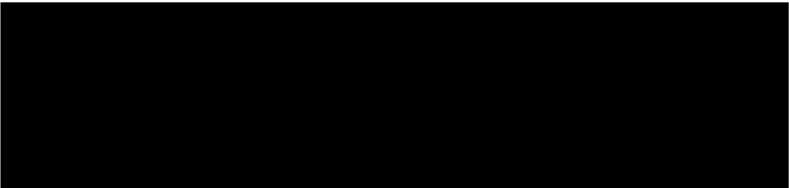
The problems identified have been noted in the report together with associated safety improvement suggestions that we recommend should be studied for implementation.

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



Peter Ronald
(Audit Team Leader)

12th January 2022



Paul Salmon
(Audit Team Member)

12th January 2022

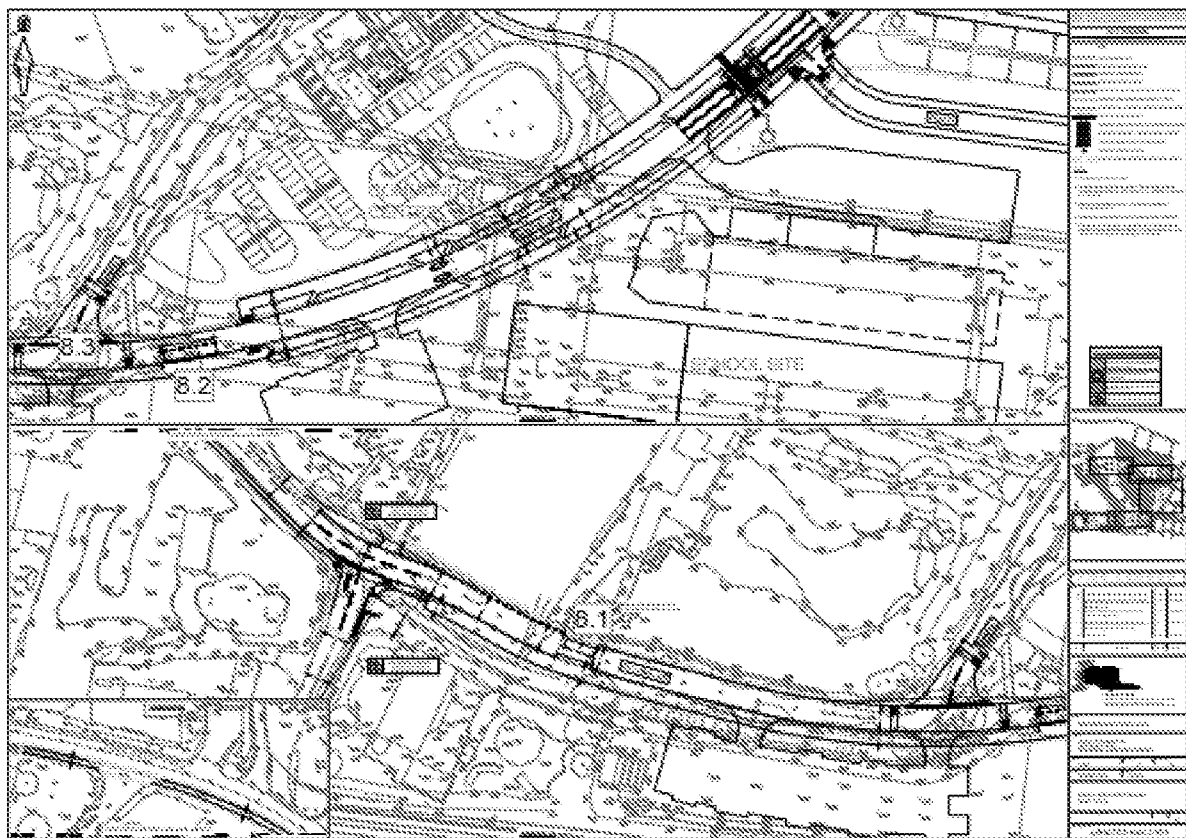
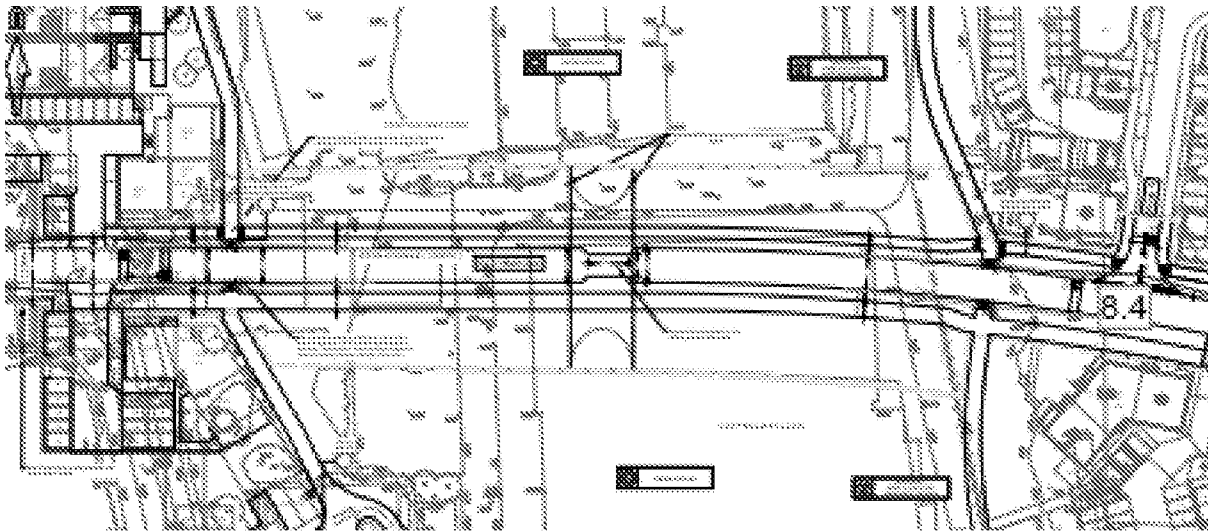
12. Appendix A – List of Documents

Drawings

Title		Drg No	Revision
General Arrangement	Sheet 1 of 3	A/PHLITTLE-MAIN.1/10-1	T5
General Arrangement	Sheet 3 of 3	A/PHLITTLE-MAIN.1/10-3	T5

Other Documents

13. Identified Road Safety Audit Matters location plans



14. Designer's Response to Stage 1 Road Safety Audit

Stage 1 (Feasibility) Road Safety Audit DESIGNER'S ROAD SAFETY AUDIT RESPONSE Scheme Name: Spine Road Chainages 0-180m & 700-1020m		
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
8.1	A carriageway narrowing feature is detailed adjacent to a private vehicle access check access maintained	
8.2	Bus stop located on approach to side road junction	
8.3	No pedestrian footway facilities at junction	
8.4	No facility to enable cyclists to access exit from road 4 and join shared use path on opposite side of road	

AUDIT TEAM RESPONSE

- 8.1
- 8.2
- 8.3
- 8.4

Persimmon Homes Thames Valley

North Littlehampton, Phase 5 Spine Road CH 0-180m & 700-1020m

Stage 1 RSA – Road Safety Audit Response Report



Stage 1 RSA - Road Safety Audit Response Report [Rev. P1]

- 1.1 This report results from receipt of a Stage 1 RSA Report, undertaken by Traffic Management Consultants dated 12th January 2022.
- 1.2 The Designer's Response to the 'Problems' highlighted are indicated in the table below:

Item	Problem	Recommendation	Designer's Response	Overseeing Organisation Response	Agreed RSA Action
8.1	Location: Private access chainage 970 Summary: A carriageway narrowing is detailed adjacent to a private vehicles access. Check access is maintained. There is a carriageway narrowing feature detailed adjacent to a private driveway access. Check vehicle tracking to ensure vehicles can use the access safely. Type of Conflict/Collision: Vehicles unable to use vehicles access safely.	Carry out vehicle swept path analysis to ensure access can be used safely.	Accepted. A vehicles swept path analysis has been carried out for the nearest access to the road narrowing (worst case scenario). The tracking shows cars can still use the access safely with the narrowing. The narrowing restricts the road width locally to 4.1m, which allows two cars to pass each other. Giveaway marking has also been added to give priority to buses and cars travelling westbound.		

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North Littlehampton, Phase 5 Spine Road CH 0-180m & 700-1020m

Stage 1 RSA – Road Safety Audit Response Report



Item	Problem	Recommendation	Designer's Response	Overseeing Organisation Response	Agreed RSA Action
8.2	Location: Spine Road, Junction Road 11 Chainage 860.00 Summary: Bus stop located on approach to side road junction. There is a bus stop located on the approach to the side road junction with Road 11 at Chainage 860.00. This will result on any vehicles overtaking a stationary bus approaching the junction on the wrong side of the road risking a head on collision with a left turning vehicle out of the side road. Relocate bus stop. Type of Conflict/Collision: Head on collisions at junction.	Relocate bus stop away from junction.	Accepted. The bus stop has been relocated further north, approximately in the middle of the proposed school access and parking area to the south of the community centre.		
8.3	Location: Spine Road junction with Road 11 Summary: No pedestrian footway facilities at junction. A side road junction is detailed without any pedestrian footway facilities. Check to ensure if any pedestrian facilities are required at junction and provide if required. Type of Conflict/Collision: Pedestrians having to walk over verges at junction.	Check if pedestrian facilities are required and provide if necessary.	Not accepted. No pedestrian facilities are required along Road 11, and therefore no footways have been added.		

Persimmon Homes Thames Valley

North Littlehampton, Phase 5 Spine Road CH 0-180m & 700-1020m

Stage 1 RSA – Road Safety Audit Response Report



Item	Problem	Recommendation	Designer's Response	Overseeing Organisation Response	Agreed RSA Action
8.4	Location: Spine Road junction with Road 4 Summary: No facility to enable cyclists to access exit from Road 4 and join shared use path on opposite side of road. There is a side road junction detailed without any facility to enable cyclists to join/exit from the shared use path to Road 4. Provide facility to enable cyclists to access exit from shared use path to join side Road 4. Type of Conflict/Collision: Cyclists unable to access / exit path at junction.	Provide facility to enable cyclists to access / exit path at junction.	Accepted. A 3m wide cycle facility has been added opposite the junction to aid cyclists movements between Road 4 and the shared-use footpath on the other side.		

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North Littlehampton, Phase 5 Spine Road CH 0-180m & 700-1020m

Stage 1 RSA – Road Safety Audit Response Report



On behalf of the Design Organisation I certify that:

- 1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.

Name:

Signed:

Position:

Organisation:

Date:

On behalf of the Overseeing Organisation I certify that:

- 1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Design Organisation; and
- 2) The agreed RSA actions will be progressed.

Name:

Signed:

Position:

Organisation:

Date:

Persimmon Homes Thames Valley

North Littlehampton, Phase 5 Spine Road CH 0-180m & 700-1020m

Stage 1 RSA – Road Safety Audit Response Report



Prepared by:

Name: Ivan Cosmai

Signed:



Position: Engineer

Organisation: Mayer Brown Limited

Date: 22/02/2022

Revision: P1