

**WYKHAM PARK FARM,
A361 BLOXHAM ROAD, BANBURY**


**PROPOSED RESIDENTIAL DEVELOPMENT
SECTION 38 WORKS**

Stage 1 Road Safety Audit

March 2021

DL-EB-21-3344-RSA1

Report title:	Wykham Park Farm, A361 Bloxham Road, Banbury, Proposed Mixed-use Development Section 38 Works – RSA1
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Prepared by:	The Safety Forum
On behalf of:	Hydrock / Oxfordshire County Council

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Designer's Response				
Authority's Response				
Audit Response				

Client:	
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	26/03/2021

APPENDIX A Location Plan

1.0 INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed mixed-use development by L & Q Estates at Wykham Park Farm, A361 Bloxham Road, Banbury.
- 1.2 The Section 38 highway proposals include:
The provision of infrastructure including a spine road, ancillary roads and associated junctions to service a mixed-use development comprising up to 1,000 new homes, up to 2 ha of employment space, a local centre with commercial and community uses and a community primary school.
- 1.3 The Stage 1 RSA was carried out at the request of Hydrock.
- 1.4 A Road Safety Audit Brief, approved by Oxford CC, was supplied by Jordan Doe of Hydrock.
- 1.5 The Audit was carried out between 22nd and 26th March 2021 by consultants working on behalf of The Safety Forum Limited. The Audit Team, which is established from The Safety Forum Ltd and independent of the project design team, has had no involvement with the project.

The Auditors were:

Duncan Lord – Team Leader (IEng, FIHE, RSA Cert Comp)

Elaine Bingham – Team Member (B Eng (Hons), AMIHE, MCIHT, MSoRSA, RSA Cert Comp)

- 1.6 The report has been prepared in accordance with General Principles and Scheme Governance General Information, GG 119, Road Safety Audit (Formerly HD 19/15).
- 1.7 The Audit consisted of a desktop study and a site visit. The site visit was carried out on 22nd March 2021 between 15:00 and 15:30 hours by all member of the Audit Team together. The weather was fine and the adjacent road surface was dry. Traffic conditions on the A361 were moderate. No pedestrians or cyclists were observed during the site visit.
- 1.8 Issues relating to the health & safety of operatives constructing, operating or maintaining the highway are not covered by Road Safety Audit. Only issues relating to the design and construction of facilities for highway maintenance that may potentially contribute to a Road Safety Matter are considered by the Road Safety Audit process.

Road Safety Audit is not a technical check that the design conforms to Standards and/or best practice guidance. Design Organisations are responsible for ensuring that their designs have been subjected to the appropriate design reviews (including, where applicable, Walking, Cycling & Horse Riding Assessment & Review) prior to Road Safety Audit.

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

Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.

- 1.9 The recommendations in this report are aimed at addressing the road safety problems; however there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.
- 1.10 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit, and would encourage the Designer to consult them on this matter.
- 1.11 The Overseeing Organisation response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the *As Built* design pack to be provided and retained by the Overseeing Organisation on final completion.
- 1.12 All problems identified in this Road Safety Audit Report are indicated on a location plan in Appendix A

2.0 ITEMS CONSIDERED

- 2.1 The Road Safety Audit was undertaken on the scheme detailed in the following documentation provided by Hydrock.

Spine Road		
Drawing No.	Rev	Title
WPF-HYD-XX-XX-DR-C-0003	P02	Spine Road Overview Plan
WPF-HYD-XX-XX-DR-C-0005	P09	Spine Road General Arrangement Sheet 1 of 5
WPF-HYD-XX-XX-DR-C-0006	P10	Spine Road General Arrangement Sheet 2 of 5
WPF-HYD-XX-XX-DR-C-0007	P10	Spine Road General Arrangement Sheet 3 of 5
WPF-HYD-XX-XX-DR-C-0008	P09	Spine Road General Arrangement Sheet 4 of 5
WPF-HYD-XX-XX-DR-C-0009	P08	Spine Road General Arrangement Sheet 5 of 5
WPF-HYD-XX-XX-DR-C-0009.1	P03	Spine Road Roundabout Design Checks
WPF-HYD-XX-XX-DR-C-0009.2	P03	Spine Road Roundabout Visibility Checks
WPF-HYD-XX-XX-DR-C-2300	P04	Spine Road Swept Path Analysis Sheet 1 of 6
WPF-HYD-XX-XX-DR-C-2300.1	P03	Spine Road Swept Path Analysis Sheet 2 of 6
WPF-HYD-XX-XX-DR-C-2301	P04	Spine Road Swept Path Analysis Sheet 3 of 6
WPF-HYD-XX-XX-DR-C-2301.1	P03	Spine Road Swept Path Analysis Sheet 4 of 6
WPF-HYD-XX-XX-DR-C-2301.2	P03	Spine Road Swept Path Analysis Sheet 5 of 6
WPF-HYD-XX-XX-DR-C-2302	P03	Spine Road Swept Path Analysis Sheet 6 of 6

Ancillary Roads		
Drawing No.	Rev	Title
WPF-HYD-XX-XX-DR-C-0004	P02	Ancillary Roads Overview Plan
WPF-HYD-XX-XX-DR-C-0012	P06	Ancillary Roads General Arrangement Sheet 1 of 2
WPF-HYD-XX-XX-DR-C-0013	P06	Ancillary Roads General Arrangement Sheet 2 of 2
WPF-HYD-XX-XX-DR-C-2303	P04	Ancillary Roads Swept Path Analysis Sheet 1 of 4
WPF-HYD-XX-XX-DR-C-2303.1	P03	Ancillary Roads Swept Path Analysis Sheet 2 of 4
WPF-HYD-XX-XX-DR-C-2304	P04	Ancillary Roads Swept Path Analysis Sheet 3 of 4
WPF-HYD-XX-XX-DR-C-2304.1	P03	Ancillary Roads Swept Path Analysis Sheet 4 of 4

Other Documents
WPF-HYD-XX-XX-RP-C-0007 Stage 1 RSA Brief
Jubb, Transport Assessment - W14129-TA01 (Oct 2014)

2.2 No departure from standards or other information was submitted to the Audit Team.

3.0 MATTERS ARISING FROM THIS STAGE 1 AUDIT.

3.1 PROBLEM

LOCATION: General – Tactile paving at side road junctions.

SUMMARY: Risk of pedestrian/vehicle collisions.

The Audit Team noted that the depth of tactile paving across a number of side road junctions on the northern side of the development side road is shown to be below the minimum recommended in current guidance for in-line uncontrolled crossings. This could result in visually impaired pedestrians entering the carriageway inadvertently and being struck by turning vehicles.

RECOMMENDATION

It is recommended that tactile paving is provided across the side roads in accordance with current guidance for in-line uncontrolled crossings.

3.2 PROBLEM

LOCATION: Bus stop – near A361 roundabout.

SUMMARY: Risk of head on collisions.

The Audit Team noted that a bus stop is located very close to the A361 roundabout when entering the development spine road. Drivers entering the spine road may be tempted to overtake buses waiting at the stop and this increases the risk of head on collisions with vehicles turning right out of the first side road on the northern side of the spine road.

RECOMMENDATION

It is recommended that a bus stop layby is provided at this location.

3.3 PROBLEM

LOCATION: All combined uncontrolled pedestrian crossings and cycle on/off-slips.

SUMMARY: Risk of injury to pedestrians and cyclists.

The Audit Team noted that the combined uncontrolled pedestrian crossings and cycle on-slips are narrow and accessed at an acute angle from the carriageway. There does not appear to be any provision provided for cyclists to leave or return to the carriageway at the side roads to/from the shared use route along the Spine Road or from the Ancillary Roads or at the eastern end of the Spine Road on the southern side where the route starts to allow cyclists to use the parallel crossing to access the shared route on the northern side.

This could result in injury to cyclists if they lose control as they leave the carriageway or to pedestrians being struck by cyclists as they wait to use the uncontrolled crossing facility.

RECOMMENDATION

It is recommended that separate lengths of dropped kerbs for cyclists to return and leave the carriageway are provided at start and end points along the route. At least one full height kerb should be provided between the two lengths dropped kerbs (cycle/pedestrians), and the cycle dropped kerb should be clearly marked.

3.4 PROBLEM

LOCATION: Spine road – pedestrian refuges.

SUMMARY: Risk of pedestrian/vehicle collisions.

The Audit Team noted that it is proposed to use “L” shaped tactile paving to guide pedestrians to the uncontrolled pedestrian crossing points associated with pedestrian refuges on the development spine road. This could result in visually impaired pedestrians entering the carriageway believing they have priority at a controlled crossing and being struck by passing vehicles.

RECOMMENDATION

It is recommended that tactile paving is provided in accordance with current guidance for uncontrolled crossings.

3.5 PROBLEM

LOCATION: Parallel crossings.

SUMMARY: Risk of pedestrian/vehicle collisions.

The Audit Team noted that the stem of the “L” shaped tactile paving on the northern side of the spine road adjacent to the ancillary road “T” junction and on the eastern arm of the internal development roundabout does not extend to the back edge of the footway.

The stem of the ‘L’ shaped tactile paving is positioned on the left hand side on the northern and eastern arm crossing point of the internal development roundabout.

The black and white stripes at the parallel crossing on the southern arm crossing point of the internal development roundabout are missing.

This could result in visually impaired pedestrians failing to identify the safe crossing location and being struck by passing vehicles if they attempt to cross elsewhere.

In addition, the Traffic Signs Manual Chapter 6 specifies that tactile paving provision should be provided on the zebra side of the parallel crossing but not on the cycle crossing side.

RECOMMENDATION

It is recommended that the stem of the “L” shaped tactile paving extends to the back edge of the footway and should be on the right hand side of the crossing point.

The tactile paving across the cycle crossing point should be removed in accordance with TSM Chapter 6. It may be appropriate to install road markings to diag. 1057 to highlight the cycle side of the crossing.

The black/white stripes associated with the zebra part of the parallel crossing should be installed.

3.6 PROBLEM

LOCATION: Bus stop – E/B approach to internal roundabout.

SUMMARY: Risk of pedestrian/vehicle collisions.

The Audit Team noted that the bus stop falls within the pedestrian visibility splay to the parallel crossing on the eastbound approach to the internal development roundabout. This reduces visibility for drivers overtaking a stationary bus on the approach to the parallel crossing and increases the risk of them colliding with a pedestrian crossing from north to south on the parallel crossing.

RECOMMENDATION

It is recommended that the bus stop is relocated to a position outside the pedestrian visibility splay at the parallel crossing.

3.7 PROBLEM

LOCATION: Spine road – pedestrian refuges. .

SUMMARY: Carriageway width through pedestrian refuges could potential be a hazard for cyclists

Gaps of 3.1 to 3.9 metres are the least satisfactory from a cyclist's perspective, as a driver may perceive that the carriageway is wide enough to overtake a cyclist, which may result in a cyclist being hit. It is acknowledged that the carriageway needs to be wider than 3m to allow for vehicle tracking.

RECOMMENDATION

It is recommended that the carriageway width through the pedestrian refuge islands is widened to at least 4m or virtual narrowed to 3m by the use of hatching.

3.8 PROBLEM

LOCATION: Ancillary road 2.

SUMMARY: Risk of side swipe collisions.

The Audit Team noted that vehicle swept path analysis for all large vehicles anticipated to use ancillary road 2 showed encroachment into opposing traffic lanes for quite large distances at the spine road junction and on all bends on the ancillary road. Ancillary road 2 serves as access to a proposed school and at school arrival and departure times this road will be heavily trafficked. Failure to provide enough carriageway space for vehicles to manoeuvre without the need to encroach into opposing traffic lanes is likely to increase the risk of side swipe collisions occurring.

RECOMMENDATION

It is recommended that adequate carriageway space is provided so that all anticipated vehicles using ancillary road 2 can manoeuvre without the need to encroach into opposing traffic lanes.

3.9 PROBLEM

LOCATION: Ancillary road 2 by School.

SUMMARY: Risk of collisions between pedestrians/cyclists and bus passengers leading to user injury.

The width of the shared route behind the bus stop area outside the school is narrow and due to the likely number of pedestrian movements, bus passengers waiting at the bus stop and cycle movements in particularly during school pick up and drop off time, the available width may not be sufficient to cater for the volume of use. This may lead to collisions involving cyclists and pedestrians or cyclists and bus passengers waiting at the bus stop, resulting in user injury.

RECOMMENDATION

It is recommended that the shared area is widened to provide adequate space to cater for the volume of use.

3.10 PROBLEM

LOCATION: Ancillary road 1 behind parking layby.

SUMMARY: Risk of collisions between pedestrians/cyclists and car passengers leading to user injury.

The width of the shared route behind the parking layby is narrow. A car door being opened will open out across the shared route and further reduce the available width. This may lead to a passing cyclist being hit by the door or collisions involving cyclists and car passengers exiting the vehicle resulting in user injury.

RECOMMENDATION

It is recommended that the shared route is widened to be consistent with the rest of the route along the Ancillary road.

3.11 PROBLEM

LOCATION: Spine Road eastern end.

SUMMARY: Missing link in cycle route may lead to user injury

There appears to be a missing link between the shared route on the southern side of the Spine Road east of the parallel crossing and the leisure route and between the leisure route and shared route on the northern side of the Spine Road at the eastern end of the development. This may lead to cyclists continuing on the footway leading to collisions with pedestrians resulting in user injury.

RECOMMENDATION

It is recommended that the shared route is extended on the southern side to link the leisure route with the shared route.

4.0 AUDITOR STATEMENT

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

AUDIT TEAM LEADER

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Signed:



Date: 24th March 2021

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APPENDIX A: LOCATION PLAN

