

ABBHEY PRIMARY SCHOOL, HEOL PENLAN, NEATH

Stage 3 Road Safety Audit

JUNE 2022

DC-RDW-20-3061C-RSA3

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On behalf of:	Asbri Transport Ltd

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1.0 INTRODUCTION

- 1.1 This report results from a Stage 3 Road Safety Audit (RSA) carried out on proposed new school and child assessment centre. The works involve the demolition of an existing school facility, and the construction of a Junior, Infant Schools, and replacement early years assessment centre. The complex will cater for approx. 540 children. 100 of these will be early years/nursey children, being dropped off collected outside the main school hours. There are 52 full time staff planned, and 11 part time and the parking provision levels provided meet this predicted demand. Access to the main school staff car parks are controlled by a barrier.
- 1.2 The highway proposals include: construction of a new access to the site (close to an existing site access) with the associated internal layout for drop off and pick up, with parking for staff within the site. This audit looks at the external highway works only as agreed on site with NPTBC representatives. The internal layout has not been considered. The school was open. It was not clear if the school was at its full capacity.
- 1.3 The Stage 3 RSA was carried out at the request of Asbri Transport. The Road Safety Audit Brief was supplied by Asbri Transport.
- 1.4 The design organisation is Asbri Transport Ltd. The Overseeing Organisation is Neath Port Talbot Borough Council.
- 1.5 The Audit was carried out between 23rd and 29th June 2022 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:

David Crawford – Team Leader BSc IEng MICE MIHT Cert of Comp

Rob Westhead – Team Member (Qualifications, MSoRSA etc)

On site also during the audit were Justin Griffiths and Delyth Thomas of Neath Port Talbot Borough Council and Patrick O'Conner of Asbri Transportation. A representative from the Police was invited but did not attend.

- 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 site visits. The site visit was carried out on the 23rd June 2022 between 14.15 and 15.45 pm, and again during the hours of

darkness on the 28th June 2022 between 23:00 and 23:30 by all members of the Audit Team together.

This daytime visit coincided with the school pick up times from 3pm. The weather was warm and dry and the road surface was dry. There was little general traffic but vehicles did arrive and park close to the school during pick up time. A large number of pedestrians were also noted approaching the school. There were significant number walking up Heol Esgyn and crossing the road into the school pedestrian entrance. A very small number were seen to enter the school grounds by the vehicular entrance.

The darkness visit was carried out on the 28th June 2022 in the dry but there had been heavy rain previously. The road surface was damp.

- 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.

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- 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.

Drawing No.	Rev	Title
19264-ABBY-JUBB-V3-ZZ-DR-C-0100		HIGHWAY WORKS GENERAL ARRANGEMENT
19264-ABBY-JUBB-V3-DR-C-0500		HIGHWAY WORKS DRAINAGE
19264-ABBY-JUBB-V3-DR-C-1100		HIGHWAY WORKS KERBS AND SURFACING
19264-ABBY-JUBB-V3-DR-C-1200		ROAD MARKINGS
19264-ABBY-JUBB-V3-DR-C-0702		PROPOSED EXTERNAL LEVELS
19264-ABBY-JUBB-V3-DR-C-0710		PROPOSED SETTING OUT DROP OFF AND ENTRY
RSA BRIEF & DC-RDW-20 3061B		RSA BRIEF & RSA S2 REPORT
T.19		DRAFT RESPONSE TO RSA 1

- 2.2 No departure from standards or other information was submitted to the Audit Team
- 2.3 The audit team have not received any design response to the Stage 2 audit report.

3.0 MATTERS ARISING FROM THE PREVIOUS STAGE 1 AUDIT.

3.1 PROBLEM

LOCATION: Approach roads adjacent to the school.

SUMMARY: High peak parking demand at school arrival/departure times.

Carers are likely to arrive prior to the end of the school day so the children to not have to wait to be collected, or maybe the children will have to be met in the playground so the school “hands over” the child. This will place a high demand on short term parking. Pedestrians will be moving in and out of these parked vehicles and may not be clearly seen and more likely to be struck.

RECOMMENDATION

Consider a wider area management plan to manage short term parking. See Problem 2 below also.

DESIGNERS RESPONSE

Additional parking needs to be considered when the existing Early Years school is demolished as discussed informally at planning.

STAGE 2 COMMENT

Item remains outstanding.

Stage 3

Item remains See P5.1 below:

3.2 PROBLEM

LOCATION: Approach roads and adjacent to the school.

SUMMARY: Frustrated drivers caught in congestion.

At the end of the school day (and the start) there will be a peak of vehicles all trying to enter and/or leave the area at the same time. This may lead to congestion and vehicles approaching the school area may take risks. In addition, there are likely to be high numbers of pedestrians walking and crossing the roads, who will be at risk.

RECOMMENDATION

In conjunction with the local highway authority ensure that there is a management plan to enable vehicles to safely enter and leave the area.

DESIGNERS RESPONSE

Additional parking needs to be considered when the existing Early Years school is demolished as discussed informally at planning.

STAGE 2 COMMENT

Outstanding the issue remains a concern.

STAGE 3 COMMENT

See P5.1 below:

3.3 PROBLEM

LOCATION: Proposed access.

SUMMARY: Parking may obscure visibility.

Unless parking is prevented, parking will occur in the visibility splay blocking the views from the access.

RECOMMENDATION

Prevent parking in the visibility splay.

DESIGNERS RESPONSE

TROs are to be introduced

STAGE 2 COMMENT

School Keep clears are proposed and with the TRO – issue appears resolved.

STAGE 3 COMMENT

Issue resolved; lining and school keep clear markings in place which were respected. Enforcement will be required to ensure the parking restrictions are effective.

3.4 PROBLEM

LOCATION: Western side of crossing over proposed access.

SUMMARY: Direct route to school building entrance.

The most direct route for some to the assumed entry point is through the main access, across the smaller staff car park, and up some steps to the play grounds. Some carers may choose to enter via the vehicular entry, and walk across the drop off area, or along the access before joining the path.

RECOMMENDATION

This movement should be accommodated, with a path through the drop off area or not needed/used (eg by keeping the gates on the stepped path closed).

DESIGNERS RESPONSE

This is acceptable through the introduction of a path and gates.

STAGE 2 COMMENT

Not clear from the drawings how this issue will be addressed. Matter remains outstanding.

STAGE 3 COMMENT

It was noted during the site visit that the number of pedestrians crossing the access was very limited, and the traffic leaving the pick-up area was sporadic.

3.5 PROBLEM

LOCATION: Proposed pedestrian access

SUMMARY: Children run into the road.

Children may run/cycle/scoot down the site into the road inadvertently, especially due the gradients.

RECOMMENDATION

Provide a barrier to prevent children entering the carriageway.

DESIGNERS RESPONSE

Pedestrian guardrails as shown on the plans are acceptable.

STAGE 2 COMMENT

A section of barrier is proposed – issue resolved.

STAGE 3 COMMENT

The barrier had not been installed as per the drawings and this should be rectified immediately. See Problem 5.7.

3.6 PROBLEM

LOCATION: Proposed pedestrian access

SUMMARY: Routes to and from the school.

It is likely that large numbers of pedestrians will walk to and from the school via the park/open space into Neath. It would appear that these people need to cross the main access. The pedestrian approaches need to be safe to use and too be able to accommodate the volumes anticipated to prevent people stepping out in traffic, or meeting unexpected traffic on shared lanes.

RECOMMENDATION

Ensure there is a safe route, and conflicts with emerging traffic are control/prevented at peak times.

DESIGNERS RESPONSE

Additional signage/markings should be introduced to highlight vehicular routes only.

STAGE 2 COMMENT

Item not closed, as pedestrians have to cross the vehicular route to continue within the open space area.

STAGE 3 COMMENT

There were few if any pedestrians noted during the site visit using this route.

3.7 PROBLEM

LOCATION: Internal – Use of “Zebra” markings.

SUMMARY: Zebra marking should not be used to denote a crossing point.

These marking have a specific meaning and should only be used on the highway, and confusion may arise with drivers and pedestrians.

RECOMMENDATION

Denote crossing locations with other measures (if required at all).

DESIGNERS RESPONSE

Zebra crossing markings will be replaced with colour surface dressing.

STAGE 2 and 3 COMMENT

No longer within the scope of the audit.

3.8 PROBLEM

LOCATION: Staff car park operation.

SUMMARY: It is not clear how the road to the staff parking will operate, either as a one way or not. Conflict may arise if vehicles turn left at the most southerly end.

RECOMMENDATION

Ensure vehicles can or do not turn in at the southern end.

DESIGNERS RESPONSE

The internal vehicular routes are 6m in width and suitable for two-way traffic. Vehicles exiting the easternmost loop road will have sufficient visibility of traffic that may be using the westernmost access road to the staff car parking.

STAGE 2 and 3 COMMENT

No longer within the scope of the audit.

3.9 PROBLEM

LOCATION: Staff car park.

SUMMARY: Parking obscuring pedestrian visibility.

Parking abuts the crossing points in the staff car park, and a high/tall vehicle parked here could obscure someone waiting to cross resulting in a collision.

RECOMMENDATION

Reduce approach speeds to the crossing point, and set parking back from the crossing point.

DESIGNERS RESPONSE

Kerb build outs will be considered at the crossing points within the staff car park to ensure pedestrians are not obstructed by parked vehicles

STAGE 2 and 3 COMMENT

No longer within the scope of the audit.

3.10 PROBLEM

LOCATION: *Staff Car Park Turning Circle.*

SUMMARY: *Vehicle encroach onto opposite carriageway.*

The swept paths indicate that some vehicles will encroach onto the opposing lane when exiting the turning head, which could result in collisions.

RECOMMENDATION

Provide guidance to drivers to give way to oncoming traffic and ensure speeds are low as the turning circle is used.

DESIGNERS RESPONSE

Give-way markings will be proposed on the approach to the turning circle to instruct vehicles to give-way to oncoming traffic. The turning circle will operate like a mini-roundabout with clock-wise vehicle movement only.

STAGE 2 and 3 COMMENT

No longer within the scope of the audit

4.0 MATTERS ARISING FROM THE STAGE 2 AUDIT.

4.1 PROBLEM

No additional issues were noted.

5.0 MATTERS ARISING FROM THIS STAGE 3 AUDIT.

5.1 PROBLEM

LOCATION: Junction of Hoel Penlan and Hoel Esgyn.

SUMMARY: Parking at the junction of Hoel Penlan and Hoel Esgyn (opposite side to the school) and in the general vicinity.

The on-street parking by some parents encroached onto the waiting restrictions which added to the difficulty for people crossing Hoel Penlan, and made the passage of vehicles arriving and leaving more difficult, blocking visibility causing congestion and frustration. This may result in pedestrian vehicle conflicts due to restricted visibility, and make the passage for buses more difficult leading to possible low speed manoeuvring collisions.

RECOMMENDATION

A school keep clear marking should be installed opposite the pedestrian school gate and wrapping around the junction into Hoel Esgyn.

5.2 PROBLEM

LOCATION: Hoel Penlan.

SUMMARY: Crossing Hoel Penlan at school pick up times.

There was parking noted both within the drop off area, and along Hoel Penlan away from the school gates. This combined with the large numbers of pedestrians crossing Hoel Penlan led to a risk of conflicts between vehicles and parents/carers crossing the road due to obstructed visibility (parked cars) and driver frustration. This crossing demand should be safely catered for to reduce the likelihood of conflicts between vehicles and pedestrians.

RECOMMENDATION

A formal crossing point should be provided to define the route for pedestrians across Hoel Penlan, with consideration of ways to make traffic yield to people leaving the school and crossing the road. Waiting restrictions should be in place to protect visibility to / from pedestrians crossing Hoel Penlan toward Hoel Esgyn.

5.3 PROBLEM

LOCATION: Vehicle access to school.

SUMMARY: Vehicles exiting by the school gate.

The position of the gate posts within the carriageway, and the fact that they swing into the school grounds within the access road carriageway area, results in exiting vehicles coming from the drop off area swinging very wide over the centre line, to exit. Opposing vehicles may collide resulting in minor injury.

RECOMMENDATION

Set the gates behind the kerb to increase the effective width of the access and ensure that the gates are fully clear of the carriageway when open.

5.4 PROBLEM

LOCATION: Vehicle access to school.

SUMMARY: Redundant footway by gate.

The two footways extend to the gate line, and this may encourage people to enter by the vehicle access, rather than cross to the pedestrian access. In addition, it may encourage people to congregate and block visibility for exiting traffic. It was also noted that the tactile paving did not extend far enough back from the drop kerb meaning blind pedestrians could step over the tactile and enter the carriageway unaware.

RECOMMENDATION

Remove footways or make it unattractive for pedestrians to use, and correct the tactile paving to a depth of 1.2m.

5.5 PROBLEM

LOCATION: Pedestrian access to school.

SUMMARY: Trip risk at school pedestrian gate.

There was a difference in level between the footway, the edging kerb and the school footpath that could trip a user.

RECOMMENDATION

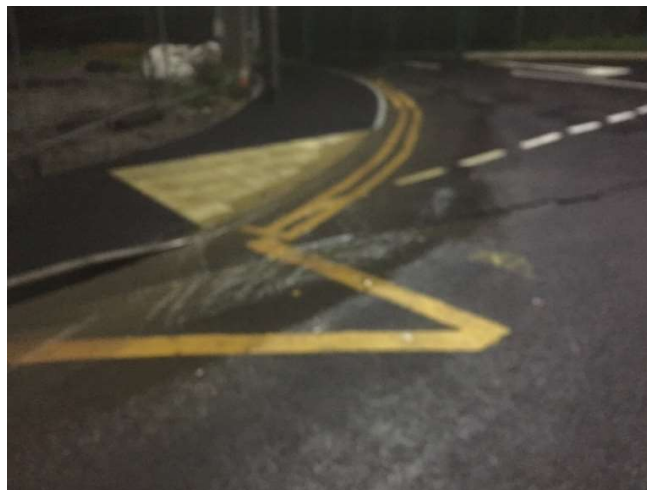
Amend the levels between the footway and path to remove the trip hazard.

5.6 PROBLEM

LOCATION: Vehicle access to school.

SUMMARY: Water discharging across and along the carriageway.

Due to earlier the heavy rain during the night time site visit, there was a lot of water which was escaping from either the twin gullies or from the chamber covers within the bell mouth, which may not be surface water sewers from examination of the drawing. This water could freeze and cause slip hazards or vehicles to lose control.



RECOMMENDATION

Prevent water from discharging from these chambers.

5.7 PROBLEM

LOCATION: School pedestrian access.

SUMMARY: Children run into the road.

During the previous RSAs a problem was raised regarding the pedestrian entrance to the school from Hoel Penlan and the lack of pedestrian guardrail that could result in children who run/cycle/scoot down the site into the road inadvertently. No guardrail has been installed as shown on earlier design drawings.

RECOMMENDATION

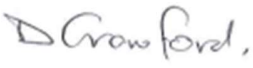
Provide a barrier to prevent children entering the carriageway.

6.0 AUDITOR STATEMENT

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

AUDIT TEAM LEADER

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Signed: 

Date: 30 June 2022

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APPENDIX A: LOCATION PLAN

