
New Primary School in Murrumbateman

Road Safety Audit

Detailed Design Stage

12th August 2021

JN22007_Report01 Rev02 - Hansen Yuncken MPS

On Behalf of

Hansen Yuncken



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NSW RSA Register Details

Final Signoff Date	12/08/2021
Title of Audit	New Primary School in Murrumbateman
Location of Audit	Murrumbateman
Project Description (max 300 char)	The aim of this project is to construct a new primary school in Murrumbateman
Purpose of Audit (max 300 char)	The aim of this Road Safety Audit (RSA) is to assess the detailed design plans in the context of the existing conditions, and the interface between existing and proposed works
State of Audit	NSW
Stage of Audit	Detailed Design Stage
Client Company	Hansen Yuncken
Client Contact	Paul Todhunter
Client Phone	02 9770 7600
Client Email	ptodhunter@hansenyuncken.com.au
Audit Team Lead	Aaron Walton
Audit Team Member	Tracey Norberg

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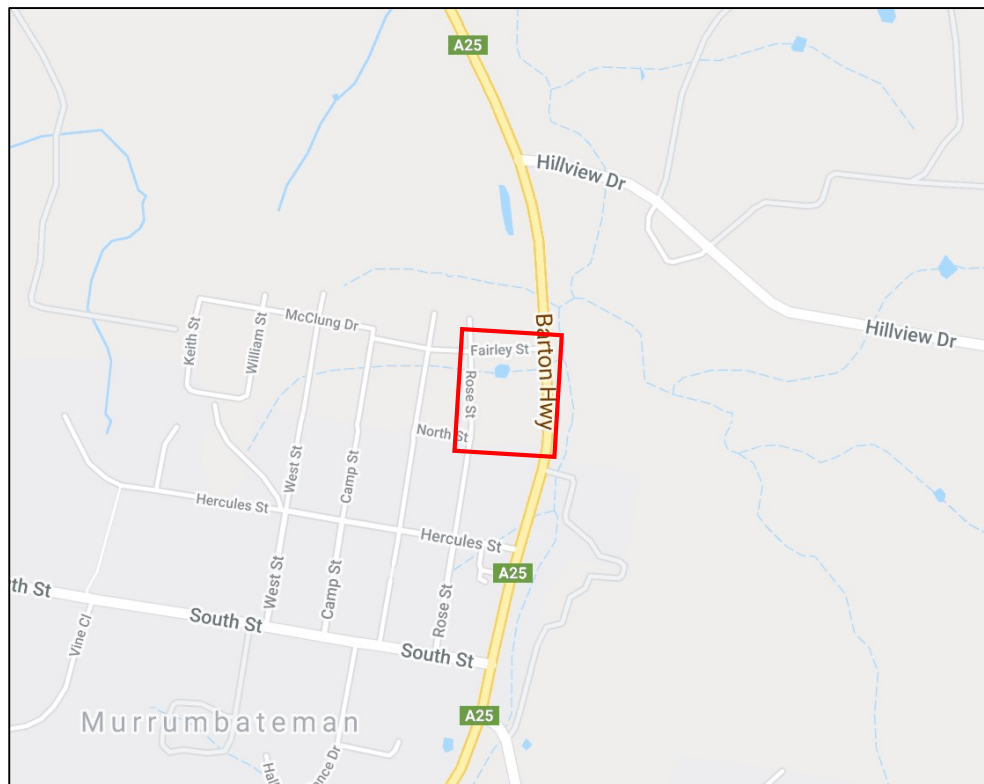
1 Project Description

The aim of this project is to construct a new primary school in Murrumbateman, including buildings, play space, carpark, kiss and drop, pedestrian/cycle facilities, reconfiguration of parking to a bus bay on Fairley Street and reconfiguration of an existing access road.

The aim of this Road Safety Audit (RSA) is to assess the detailed design plans in the context of the existing conditions, and the interface between existing and proposed works.

2 Study Area

The general audit location is shown below.



Source – *snazzymaps.com*

3 Auditable Data

The following data was referenced during the audit:

- > Appendix 1 - Architectural Drawings (09/06/2021)
- > Appendix 4 - Site Survey Plan (07/05/2021)
- > Appendix 5a - Transport Assessment (10/06/2021)
- > Appendix 5b - Preliminary School Travel Plan (10/06/2021)

4 Audit Stage

A Detailed Design Stage Audit was carried out on the 30th of July 2021 including a desktop assessment of the auditable data and a site visit of proposed works during day and night conditions. At the time of the site visit the weather was clear and traffic was light.

The audit was generally undertaken in accordance with 'TfNSW Guidelines for Road Safety Audit Practices (2011)' and 'Austroads: Guide to Road Safety Part 6 and Part 6a (2019)'.

5 Exclusions

At the time of the audit there were no exclusions presented to the audit team.

6 Audit Team

The audit team and client details are shown below.

Table 6-1 Audit Team & Client Details

Role	Name	
Client (Sponsor)	Hansen Yuncken	
Client Contact	Paul Todhunter	Project Manager
Client Email	ptodhunter@hansenyuncken.com.au	
Lead Auditor	Aaron Walton	RSA-02-0501 - Level 3 Auditor
Lead Auditor Email	admin@amwc-rsa.com	
Team member	Tracey Norberg	RSA-02-0964 - Level 2 Auditor

7 Audit Program

The audit program details are shown below.

Table 7-1 Audit Program

Activity	Date	Attendees
Opening Meeting	30/07/2021	Aaron Walton, Paul Todhunter, Dora Choi, Emma Viljoen
Site Inspection	30/07/2021	Aaron Walton, Tracey Norberg
Draft Report Internal Review	03/08/2021	RSA Report (Rev00)
Draft Report External Responses	04/08/2021	RSA Report (Rev01)
Completion Meeting	12/08/2021	Aaron Walton, Paul Todhunter
Final Report	12/08/2021	RSA Report (Rev02)

8 Audit Risk Assessment Technique

For each of the safety issues identified, the level of risk with each has been determined. The tables below are extracted from Austroads: Guide to Road Safety Part 6 and Part 6a (2019) and have been used in the assessment of risk for this audit.

Table 8-1 Incident Frequency

Frequency	Description
Frequent	Once or more per week
Probable	Once or more per year
Occasional	Once every five or ten years
Improbable	Less often than once every ten years

Table 8-2 Incident Severity


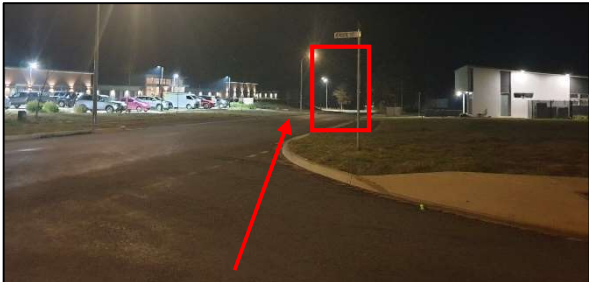
Severity	Description	Examples
Catastrophic	Likely multiple deaths	<ul style="list-style-type: none"> > High-speed, multi-vehicle crash on freeway. > Car runs into crowded bus stop. > Bus and petrol tanker collide. > Collapse of bridge or tunnel.
Serious	Likely death or serious injury	<ul style="list-style-type: none"> > High or medium-speed vehicle/vehicle collision. > High or medium-speed collision with a fixed roadside object. > Pedestrian or cyclist struck by a car.
Minor	Likely minor injury	<ul style="list-style-type: none"> > Some low-speed vehicle collisions. > Cyclist falls from bicycle at low speed. > Left-turn rear-end crash in a slip lane.
Limited	Likely trivial injury or property damage only	<ul style="list-style-type: none"> > Some low-speed vehicle collisions. > Pedestrian walks into object (no head injury). > Car reverses into post.


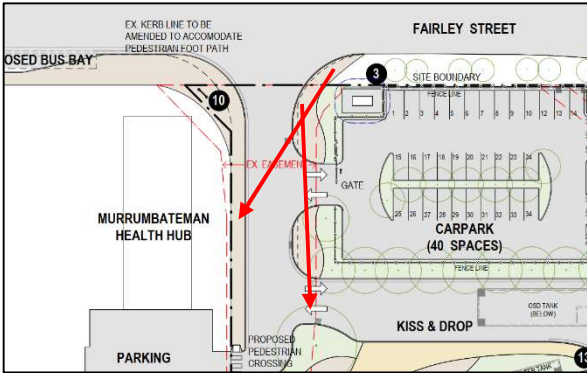
Table 8-3 Resulting Level of Risk Matrix

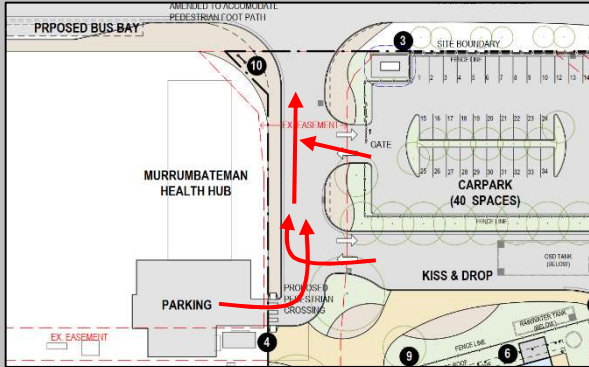
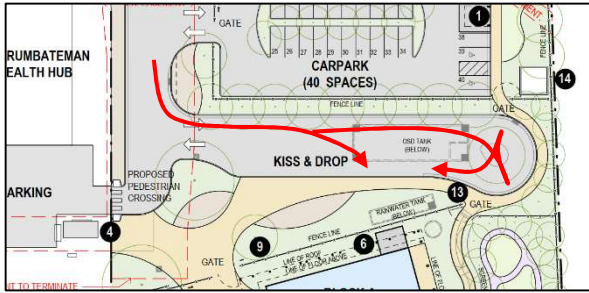
	Frequent	Probable	Occasional	Improbable
Catastrophic	Intolerable	Intolerable	Intolerable	High
Serious	Intolerable	Intolerable	High	Medium
Minor	Intolerable	High	Medium	Low
Limited	High	Medium	Low	Low

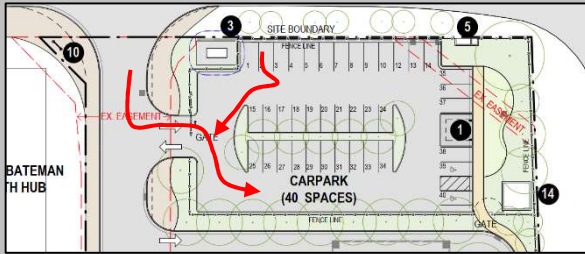
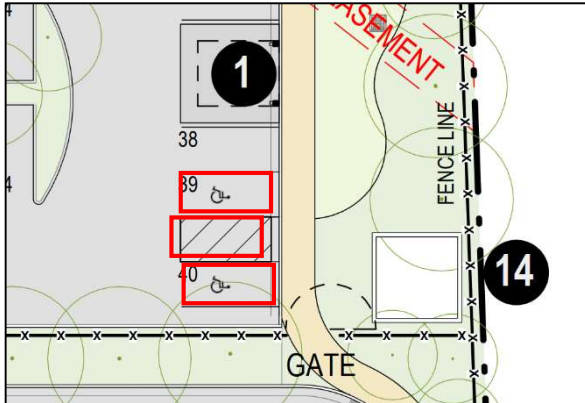
9 Audit Findings

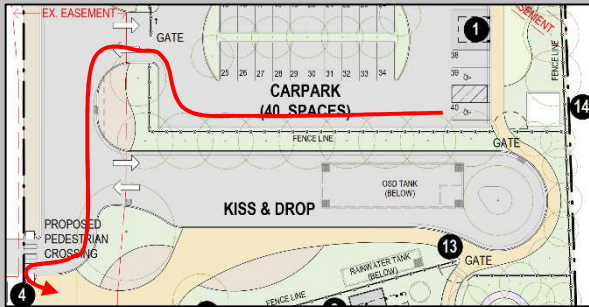
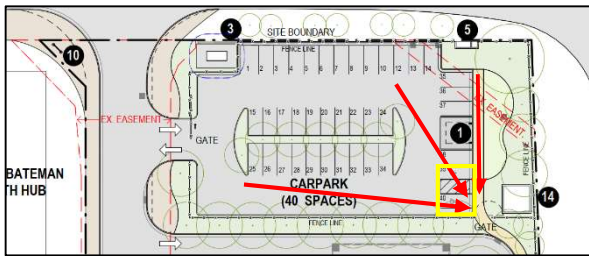
Table 9-1 Audit Findings

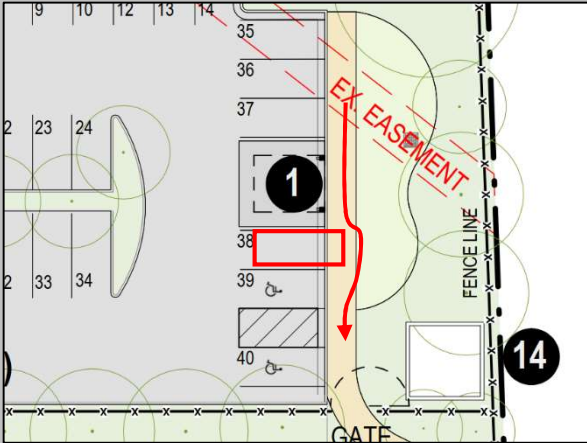
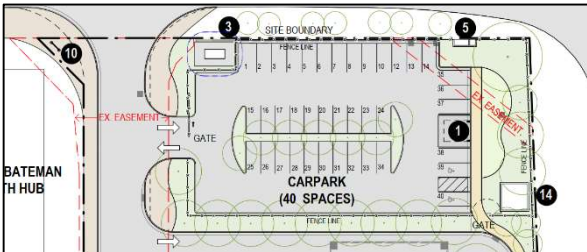
Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
1. Delineation Fairley Street	<p>The existing 'BB' centreline and intersection line marking on Fairley Street is damaged/faded.</p> <p>There is a risk that a motorist may not observe lane discipline and encroach into oncoming/turning traffic resulting in sideswipe or head-on collisions, particularly around conflict points such as intersections, turning vehicles and bus stops.</p> 	Improbable	Minor	Low	<p>Maintenance of BB Line on Fairley Street is the responsibility of Yass Valley Council.</p> <p>SINSW to forward RSA to Council for action.</p>
2. Sight Distance Fairley Street	<p>There is restricted sight distance between a northbound vehicle in Rose Street and a westbound vehicle in Fairley Street when the bus bay is being used.</p> <p>There is a risk that a motorist from Rose Street may enter Fairley Street in front on an oncoming vehicle resulting in side-impact or rear-end collisions.</p> 	Occasional	Minor	Medium	Sightline assessment to be prepared by Ason Group to determine modification required to the design of the bus bay.

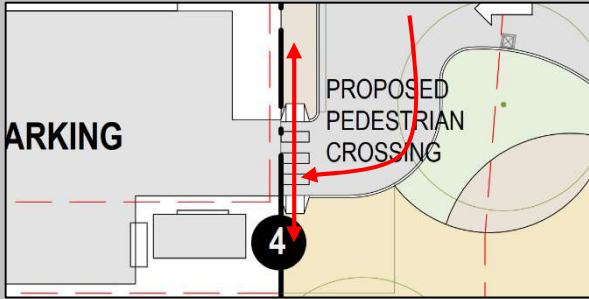

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
3. Delineation Access Intersection	<p>There is white paint line marking on white concrete at the Access Intersection.</p> <p>There is a risk, particularly at night or during adverse weather, that a motorist may not sight the intersection configuration, hold line or lane discipline resulting in sideswipe, head-on or side impact collisions.</p> 	Probable	Minor	High	<p>The line marking issue is an existing condition that should be referred to Council being the local road authority to respond to.</p> <p>The matter can be resolved by repainting the line marking in yellow.</p>
4. Pedestrian Access Access Road East	<p>There is a sealed verge area proposed on the eastern side of the access road with insufficient pedestrian facility such as kerb ramps or intersection priority.</p> <p>There is a risk that a pedestrian may access the eastern side of the road and step out in front of oncoming vehicles or trip/fall on kerbing into travel lanes resulting in pedestrian-vehicle collisions.</p> 	Probable	Minor	High	<p>The sealed verge area is not intended to be a pedestrian pathway.</p> <p>Project team to consider converting the eastern side verge to low lying landscaping to prevent use as pedestrian pathway.</p>

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
5. Intersection Priorities Access Road	<p>There is no intersection priority shown along the Access Road including the car park, kiss and drop and the health hub.</p> <p>There is a risk that a motorist may incorrectly assume right of way and enter the Access Road in front of oncoming vehicles resulting in side-impact or rear-end collisions.</p> 	Occasional	Minor	Medium	Issue raised to be addressed in detailed design stage Signage and Line Marking Plan.
6. Delineation Kiss and Drop	<p>There is limited delineation provided for the Kiss and Drop including circulation, holdpoints, and centreline.</p> <p>There is a risk that a motorist may not comprehend the proposed circulation arrangement and attempt unsafe manoeuvres including U-turns, 3 point turns, long reversing movements, angled parking or stopping in unsafe locations resulting in pedestrian-vehicle collisions, vehicle sideswipe collisions or impacts with roadside infrastructure.</p> 	Occasional	Minor	Medium	Issue raised to be addressed in detailed design stage Signage and Line Marking Plan to improve delineation and provide details of traffic management arrangement.

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
7. Delineation Carpark	<p>There is limited delineation provided for the Carpark including circulation, hold, and centreline.</p> <p>There is a risk that a motorist may not comprehend the proposed circulation arrangement and attempt unsafe manoeuvres including U-turns, 3 point turns, long reversing movements resulting in pedestrian-vehicle collisions, vehicle sideswipe collisions or impacts with roadside infrastructure.</p> 	Improbable	Minor	Low	Issue raised to be addressed in detailed design stage Signage and Line Marking Plan.
8. Shared Area Disabled Parking	<p>There is no bollard proposed within the disabled parking shared area.</p> <p>There is a risk that a vehicle may park within the disabled parking shared area restricting access to the disabled parks and requiring disabled access through the circulating aisle resulting in pedestrian-vehicle collisions.</p> 	Improbable	Minor	Low	To be documented at Detailed Design Stage to ensure compliance with AS2890.6:2009.

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
9. Path Access Disabled Parking	<p>There is no ramp proposed at the kerb near disabled parking.</p> <p>There is a risk that a disabled pedestrian may trip/fall at the kerb or may attempt to access the path at another location and enter the circulating aisle/ access road resulting in pedestrian-vehicle collisions.</p> 	Improbable	Serious	Medium	Updated in Detailed Design drawings.
10. Pedestrian Access Car Park	<p>There are no kerb ramps proposed at the path along the car park. The pedestrian desire line appears to be towards the southern fence and the southeast corner, where the disabled car spaces are located.</p> <p>There is a risk that a pedestrian may trip/fall at the kerb or may attempt to access the path at another location and enter the circulating aisle/ access road resulting in pedestrian-vehicle collisions.</p> <p>There is a risk that pedestrian desire lines and disabled access converging at a single location may increase the risk of trip/fall incidents, collisions between pedestrians, or pedestrian-infrastructure collisions.</p> 	Occasional	Minor	Medium	Issue raised to be addressed in detailed design stage.

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
11. Turn Paths Carpark	<p>There are no wheel stops proposed at carparks adjacent to the pedestrian path.</p> <p>There is a risk that a parking vehicle may overhang the path resulting in pedestrian-vehicle collisions.</p> <p>There is a risk that a parked vehicle may overhang the path requiring pedestrian to step off the path to pass resulting in trip/fall incidents.</p> 	Improbable	Minor	Low	Issue raised to be addressed in detailed design stage.
12. Antisocial Behaviour Carpark	<p>The proposed carpark appears to be significantly enclosed by vegetation.</p> <p>There is a risk, particularly at night, that carpark activity may be obscured from view by the vegetation, reducing the opportunity for passive surveillance and increasing the risk of antisocial behaviour resulting in an increased risk to staff members.</p> 	Improbable	Serious	Medium	To be considered by the Project Team.

Item Location	Safety Hazard Finding	Frequency	Severity	Level Of Risk	Project Manager Response
13. Pedestrian Crossing Health Hub	<p>There is no signage or lighting proposed for the pedestrian crossing.</p> <p>There is a risk, particularly at night, that a motorist may not sight a pedestrian entering the pedestrian crossing resulting in pedestrian-vehicle collisions.</p> 	Improbable	Serious	Medium	<p>Pedestrian crossing is not proposed at this location. This is a drafting error.</p> <p>Lighting subject to detailed design and assessment to ensure compliance with relevant standards.</p>
14. Grades Shared Path	<p>There is a significant level difference between the existing shared path and the existing school ground level.</p> <p>There is a risk that the path may have a steep grade resulting in slip/fall incidents for pedestrians, cyclists or disabled access.</p> 	Occasional	Minor	Medium	<p>The area of concern is outside of the site boundary and form part of Crown Land under the care and management of Council.</p> <p>Matter to be raised with Council separately.</p>
15. Turn Paths Extent of Works	<p>There are limited turn paths provided to the audit team.</p> <p>There is a risk that the largest anticipated vehicle (such as large vehicles during construction or large delivery vehicles during school operation) may not be able to negotiate the proposed travel lanes resulting in damage to roadside infrastructure.</p>	Improbable	Minor	Low	<p>Turn paths have been prepared and circulated to the project team via Aconex.</p>

10 Formal Statement

We, the undersigned, declare that we have reviewed the site and data listed in this report and identified the safety and operational deficiencies above.

It should be noted that while every effort has been made to identify potential safety hazards, no guarantee could be made that every deficiency has been identified.

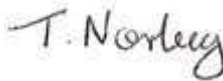
A project sponsor is under no obligation to accept the findings outlined in this audit report. This report simply provides the opportunity to review potential safety issues highlighted by the auditors.

This audit will be recorded on the NSW Register of Road Safety Auditors and the project sponsor should expect email notification from the register to confirm the audit has been carried out.

We recommend that points of concern be investigated, and necessary corrective actions undertaken.



Aaron Walton
Level 3 Road Safety Auditor
Team Leader



Tracey Norberg
Level 2 Road Safety Auditor
Team Member