Attachment A - Roads and Maritime Design Review (Revision 2)

Transport Roads & Maritime Services Engineering Services Road	Project Title	Proposed Signalised intersection- Catherine McAuley Catholic College – 507 Medowie Rd and South St – Medowie	**DESIGN REVIEW**
	Road No.	Design Organisation	Drawing No.
	MR518	MPC	17-828

ROAD ENGINEERING

This design review by the Roads & Maritime Services (hereafter referred to as "RMS") covers an examination of the provided drawings and report to determine if they conform to RMS policy and practice.The review is not a proof check or a dimensional check and may not be complete.

Review requested by:	Review performed by:	Project Status	Issue No	Review Issue Date
01 – Kylie-Anne Pont, Development Assessment Officer, RMS Hunter 02 – Kylie-Anne Pont, Development Assessment Officer, RMS Hunter	01 – Greg Pollard (GP), Designer, Design Newcastle, Engineering Services, RMS 02 – Greg Pollard (GP), Designer, Design Newcastle, Engineering Services, RMS	1 – Strategic 2 - Strategic	01 – 02-	01 – 11/4/18 02 – 16/08/18

Statement by reviewer:	
	01 –Review of 8 Plans dated 23.03.18 rev 1 – Proposed Signalised intersection- Catherine McAuley Catholic College – 507 Medowie Rd and South St – Medowie 02 –Review of 8 Plans dated 16.05.18 rev 2 – Proposed Signalised intersection- Catherine McAuley Catholic College – 507 Medowie Rd and South St – Medowie

Item	Date (DD/MM/YY)	Reviewer(s) (Initials)	Aspect (D – Design, C –	Design Component / Discipline	Sheet / Section	Review Comment	To be completed by Designers prior to any fur ther assessments being carried out by RMS: Response & Action	Response By (Disciple & Initials)	Response Date (DD/MM/YY)	Status (I–N–O––P–)	Closeout (Initial & DD/MM/YY)
						Issue 01 – Strategic					
1.	11/4/18	GP	D	Design references	all	Also refer to comments on markup. Refer RMS Cadd Manual for all drawings for detail design. Refer to RMS signal design and RMS standard drawings and Specifications including Austroads guides and RMS supplements to Austroads and Australian standards. It is RMS policy to design at posted speed + 10km/hr. Therefore Design speed is 90km/hr	*Noted and included changes on latest plans.*	*Engineer - MS*	*19/11/2018*	P	
2.	11/4/18	GP	D	Right turn Deceleration lane into Road 1	R02, R03	The Right Deceleration Lane should be marked to allow for comfortable deceleration to stop. Refer Austroads Part 4a table 5.2. The internal road network should be based on 10km/hr shared zone. **GP 16/08/18 Right turn lane shown is substandard for design speed and posted speed.**	*Road has been re-aligned to enable this to be achieved*	*Engineer - MS*	*19/11/2018*	O	
3.	11/4/18	GP	D	Left turn Deceleration lanes	R02, R03, R04	The Left Deceleration Lanes should be marked to allow for comfortable deceleration to 20km/hr. Refer Austroads Part 4a table 5.2. The internal road network should be based on 10km/hr shared zone. **GP 16/08/18 left turn lane shown is substandard for design speed and posted speed**	*As part of the re alignment of the road this has been incorporated on the latest plans*	*Engineer - MS*	*19/11/2018*	O	
4.	11/4/18	GP	D	Intersection opposing right turns	R02, R04	Please show turn paths on design set .Need to provide back to back right turns for Single unit trucks at intersection with 1m path offsets refer Austroads part 4 A.16.2 **GP 16/08/18 vehicle turn paths not shown.**	*Not required due to phasing of signals. Refer to attached phasing diagram from SECA Solutions SIDRA modelling*	*Engineer - MS*	*19/11/2018*	O	
5.	11/4/18	GP	D	On road Cyclists location	R02, R03,R04, R05	On road cyclist location should be marked out at back of shoulder on left deceleration lanes at Posted speed of 80km/hr **GP 16/08/18 onroad cyclist shown in incorrect location for design speed**	*Cycle lane is now located at the back of the left shoulder and deceleration lanes. Refuge island between right turn into the school has been provided*	*Engineer - MS*	*19/11/2018*	O	
6.	11/4/18	GP	D	Acceleration to Merge lanes	R02	Merge length for Acceleration lanes are short they should be 90m for 90km/hr Refer Austroads 4a Table 5.5. Minimum desirable length 190m. **GP 16/08/18 Southbound and Northbound acceleration lanes are substandard for design and posted speed.**	*This has been amended on the latest plans*	*Engineer - MS*	*19/11/2018*	O	
7.	11/4/18	GP	D	Left turn Deceleration lane to South St	R02, R05	Deceleration Lanes should be marked to allow for comfortable deceleration to stop. Refer Austroads Part 4a table 5.2 and adjusted for the down grade **GP 16/08/18 left turn lane shown is substandard for design speed and posted speed**	*This has been amended on the latest plans*	*Engineer - MS*	*(19/11/2018*	O	
8.	11/4/18	GP	D	Pedestrian crossing	R02, R04	Pedestrian crossing lines may be required on all legs of the TCS. Standard RMS Policy.	*This has been amended on the latest plans*	*Engineer - MS*	*19/11/2018*	I	**GP 16/08/18**
9.	11/4/18	GP	D	Shared path on South Street	R02, R04	Shared path on South Street should be considered for Children riding to school.	*This is in discussions with PSC with defining the extent of path and responsibility.*	*Engineer - MS*	*19/11/2018*	O	

Resolved by: (to be completed by reviewer)	ACTION "I" = Incorporated into design or documentation (item can be closed-out) ACTION "O" = Issue/Comment remains outstanding ACTION "P" = Pending ACTION "N" – No action required (item can be closed-out)	Response & Action	To be completed by design team	Closeout:	Record date of closeout by Reviewer/Approver. Responsible designer to seek closeout of all comments prior to submission of revised design.

Transport Roads & Maritime Services

Project title: Proposed Signalised intersection- Catherine McAuley Catholic College – 507 Medowie Rd and South St – Medowie

DESIGN REVIEW REPORT

Item	Date (DD/MM/YY)	Reviewer(s) (Initials)	Aspect (D – Design, C –	Design Component / Discipline	Sheet / Section	Review Comment	To be completed by Designers prior to any further assessments being carried out by RMS: Response & Action	Response By (Disciple & Initials)	Response Date (DD/MM/YY)	Status (I–N–O–P–)	Closeout (Initial & DD/MM/YY)
10.	11/4/18	GP	D	40 School zone	R02, R03,R04, R05	flashing 40 School zone may be required on Medowie Rd	*Traffic management to confirm requirement. We understand an application is to be made for this?*	*Engineer - MS*	*19/11/2018*	P	
11.	11/4/18	GP	D	Bus stop location	R02, R04	Bus stop needs to be located outside the road reserve **GP 16/08/18 deceleration lane to bus zone only adequate for posted 40k zone**	*Bus stop is located outside the RR. Bus deceleration lane has been increased to suit the road design speed.*	*Engineer - MS*	*19/11/2018*	O	
12.	11/4/18	GP	D	Hazards	R02, R03,R04, R05	Hazards need to be assessed for design speed of 90km/hr. Lighting may be required and Absorbing poles would be preferred.	*Awaiting Lighting design and Ausgrid Requirements.*	*Engineer - MS*	*19/11/2018*	O	
13.	11/4/18	GP	D	Pedestrian Fence	R02, R04,R05	Pedestrian fence may be required on Medowie Road to make students cross at the Signals and deter parent from dropping children off on Medowie Rd.	*To be resolved during RMS design approvals process.*	*Architect - TH*	*19/11/2018*	O	
14.	11/4/18	GP	D	Road 2 exit lanes	R02, R05	Due to unexpected delays on internal network please consider extra lanes on the exit for Road 2. As we don't want parents to park on Medowie Rd to pick up their children to save time.	*This has been considered but will increase internal traffic lanes and may pose additional risk to pedestrians internally.*	*Engineer - MS*	*19/11/2018*	O	
15.	11/4/18	GP	D	Off-road Cycleway	R02, R05	School students riding on road to school on Medowie Rd would be undesirable as a RMS perspective. Does council propose a off-road facility	*PSC to advise. A shared off-road pathway is identified in Council's S94 contributions plan for the east side of Medowie Road, however this should not be the responsibility of the applicant to construct.*	*Architect - TH*	*19/11/2018*	O	**Council closeout**
16.	11/4/18	GP	D	Southbound approach to Signals	R02, R05	The linemarking needs to be seen from north side of the crest at the design speed to indicate the presence of the intersection and possible long queues	*To be resolved during RMS design approvals process.*	*Architect - TH*	*19/11/2018*	O	
17.	11/4/18	GP	D	Internal road network	R02	Internal road network should encourage slow driver speed of 10km/hr for shared zone.	*Agreed. Traffic calming will be provided internally in the form of raised pedestrian crossings and speed humps*	*Engineer - MS*	*19/11/2018*	O	
18.	11/4/18	GP	D	South St Deceleration lane	R02, R04, R05	South St is posted as 60km/hr Therefore deceleration lane length should be 75m. Austroads 4a Table 5.2	*No increase in traffic volume is proposed from South Street and this intersection has been previously approved by PSC based on a 'full' development within Pacific Dunes.*	*Engineer - MS*	*(DD/MM/YY)*	O	**Council closeout**

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