



KINDERGARTEN SOUTH ROCK STATE SCHOOL TRAFFIC IMPACT ASSESSMENT

7 SEPTEMBER 2026

PREPARED FOR
DEPARTMENT OF EDUCATION

DOCUMENT CONTROL RECORD

DOCUMENT						
Report Title:		Kindergarten – South Rock State School				
Client:		Department of Education (DoE)				
Project Number:		26-664				
REV	PURPOSE	DATE	AUTHOR	REVIEWER	APPROVED	SIGNED
A	FINAL	SEP-26	CJ	JPG	JPG (RPEQ 22233)	

COPYRIGHT

This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part may be produced without prior permission. Requests and inquiries concerning reproduction and rights should be directed to:

The Director

Pekol Traffic and Transport

Level 2, 62 Astor Terrace

Spring Hill QLD 4000

DISCLAIMER

This document is produced solely for the benefit of and use by our client in accordance with the terms and conditions of our appointment. PTT does not accept liability to third parties arising from their use of or reliance upon the contents of this report.

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Aim	1
1.3 Scope of report	1
2.0 EXISTING CONDITIONS	2
2.1 Subject Site	2
2.2 Surrounding Area	2
2.3 Access	2
2.4 Surrounding Road Network	3
2.5 Active Transport	3
2.6 School Parking Facilities	4
3.0 PROPOSED DEVELOPMENT	6
3.1 Site Layout	6
3.2 Vehicular Access	6
3.3 Car Parking	7
3.4 Servicing	8
3.5 Active And Public Transport	8
4.0 TRAFFIC OPERATIONS	10
4.1 Traffic Generation	10
4.2 Traffic impact	10
5.0 CONCLUSIONS AND RECOMMENDATIONS	11
5.1 Conclusions	11
5.2 Recommendations	11

APPENDIX A: DEVELOPMENT PLANS

APPENDIX B: PTT SWEPT PATHS

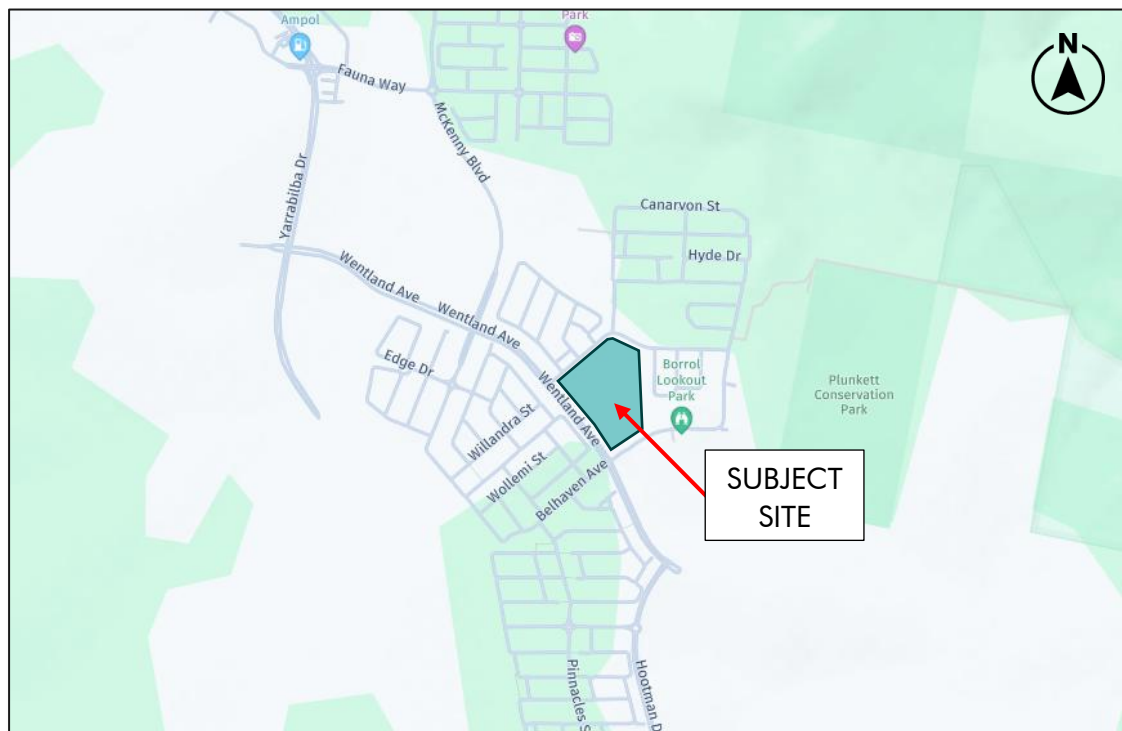
1.0 INTRODUCTION

1.1 BACKGROUND

In July 2026, PTT was commissioned to undertake a traffic impact assessment for a proposed Kindergarten (child care centre) on the existing South Rock State School site located at 185 Grampians Circuit, Yarrabilba. The location of the subject site is indicated in Figure 1.1.

This report has been amended to reflect updated plans in response to Economic Development Queensland (EDQ) information request (Reference Number: DEV-2026-YAR-5185), dated 31 August 2026. The information request related to on-site refuse collection manoeuvring. The updates are reflected in Section 3.4.

Figure 1.1: SITE LOCALITY



1.2 AIM

The aim of this assessment is to review the proposed development in terms of its access, parking and servicing arrangements and impact on the surrounding road network.

1.3 SCOPE OF REPORT

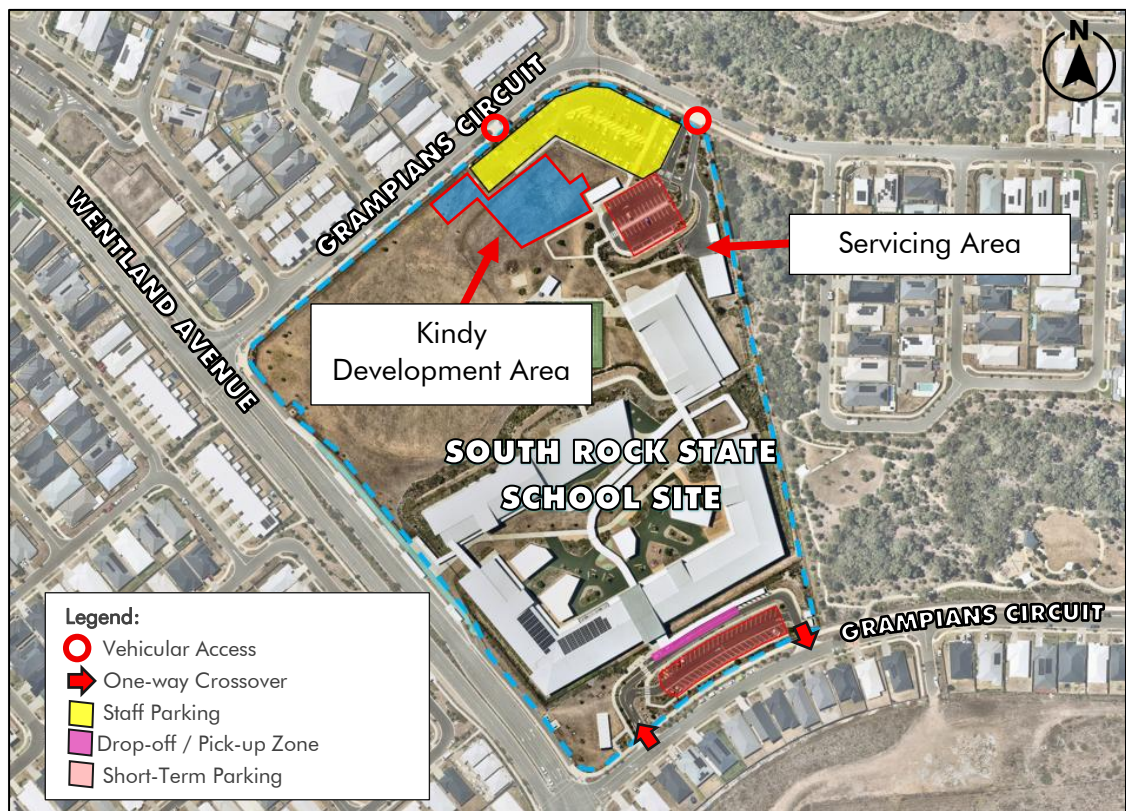
This report begins by summarising the characteristics of the existing site and external road network (Chapter 2), followed by a description of the scope and scale of the proposed development, including a consideration of site access, parking and servicing arrangements (Chapter 3). The predicted peak hour traffic generation of the proposed development is estimated along with a consideration of its likely traffic impact on the surrounding road network (Chapter 4). The report concludes with a summary of key findings (Chapter 5).

2.0 EXISTING CONDITIONS

2.1 SUBJECT SITE

The subject development is located on the South Rock State School site, which is located at 185 Grampians Circuit, Yarrabilba, is formally identified Lot 5080 on SP327799 and is located within the Yarrabilba Priority Development Area (PDA). The ultimate school masterplan (to be delivered in two stages) was approved on 14 December 2021 with an ultimate Student Enrolment Capacity (SEC) of 1,200 students, 110 staff, and a 100 place childcare. The existing site layout is shown in Figure 2.1.

Figure 2.1: SUBJECT SITE



2.2 SURROUNDING AREA

The site is bounded by Grampians Circuit to the north and south, to the east by open space / park land and to the west by Wentland Avenue. The surrounding area consists primarily of residential, education and community use.

2.3 ACCESS

Vehicular access to the school is currently provided as follows:

- separate entry and exit driveways on Grampians Circuit on the southern site frontage, providing access to a drop-off / pick-up facility and short-term parking

- an all-movements driveway on Grampians Circuit on the north eastern site frontage providing access to a drop-off / pick-up facility, short-term parking and long-term (staff) parking area
- an all-movements driveway on Grampians Circuit on the north western site frontage providing access to the long-term (staff) parking area

2.4 SURROUNDING ROAD NETWORK

The key attributes of the surrounding road network are summarised in Table 2.1.

Table 2.1: ROAD NETWORK ATTRIBUTES

ATTRIBUTE	WENTLAND AVENUE	GRAMPIANS CIRCUIT
Road Hierarchy	Arterial Road	Village Road
Cross Section	Divided, with two lanes of traffic in each direction	Undivided with one lane of traffic in each direction
Speed Limit (km/h)	50 (40 school zone)	50 (40 school zone)
Jurisdiction	Council	Council
Predominant Land Use	Residential / Educational	Residential / Educational
On-Street Parking	No	Yes
Footpaths	Yes	Yes
Bicycle Lanes	Yes	No
Bus Route	Yes	No

2.5 ACTIVE TRANSPORT

2.5.1 Pedestrians and Cyclists

There are four dedicated pedestrian access points to the school, as shown in Figure 2.2. There are pedestrian footpaths located on both sides of all fronting roads. There are signalised pedestrian crossings at the Wentland Avenue / Grampians Circuit intersections on the northwestern and southwestern corner of the subject site.

2.5.2 Public Transport

A bus stop pair is located on the western frontage of the school, as shown in Figure 2.2. These stops are served by TransLink bus route 587, which provides connections to as far as Logan Hospital to the north and operates twice per hour during the morning and afternoon peak periods. It has been advised that as the greater Yarrabilba region is developed, further bus services will be provided.

Figure 2.2: PEDESTRIAN AND ACTIVE TRANSPORT FACILITIES



2.6 SCHOOL PARKING FACILITIES

2.6.1 Parking Requirements

The parking demand generated by the existing school has been calculated based on the current student enrolment capacity and associated staff numbers, in accordance with the Department of Transport and Main Roads' (TMR) Planning for Safe Transport Infrastructure at Schools (PSTIS).

As discussed in Section 2.1, Stage 2 of the school comprises a SEC 1,200 and 110 FTE staff. Table 2.2 indicates a requirement of 182 spaces, comprising 77 staff spaces, 91 spaces for short-term parking and 14 pick-up / drop-off bays.

Table 2.2: PSTIS SCHOOL PARKING REQUIREMENT – STAGE 2

USE	SCALE	PARKING RATE	REQUIRED
Long-term (staff/visitor)	110 staff	0.7 space per staff	77 spaces
Years 1 to 6	1,029 students	Pick-up/drop-off– 20% of short-term supply	14 spaces
		1 per 15 students	69 spaces
Preparatory	171 students	1 per 8-10 students in preparatory	22 spaces
Total			182 spaces

2.6.2 *Parking Provision*

The school is currently supported by 218 parking spaces, including:

- 120 long-term parking spaces, inclusive of two persons with disability (PWD) spaces
- 89 short-term parking spaces, inclusive of three PWD spaces
- 9 drop-off / pick-up spaces

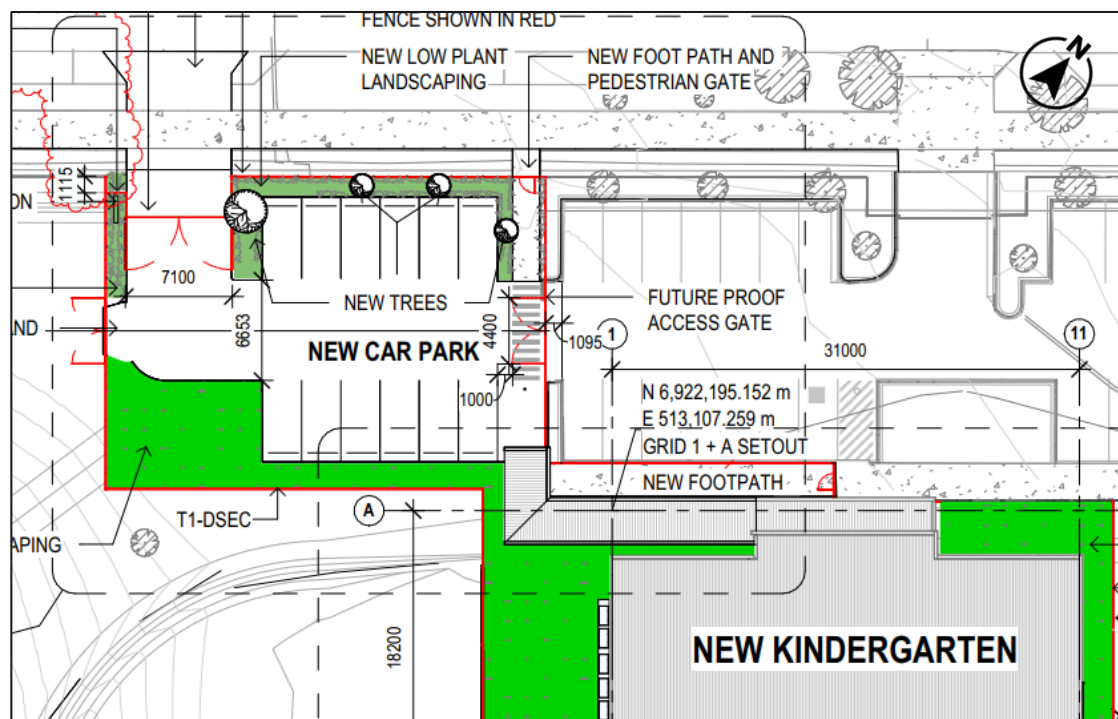
Accordingly, the school parking provision is consistent with the existing and future parking requirements in accordance with TMR's PSTIS.

3.0 PROPOSED DEVELOPMENT

3.1 SITE LAYOUT

The development involves a child care centre with a maximum of 44 children and would be supported by six FTE staff. The development would be supported by 12 on-site parking space. The proposed layout is shown in Figure 3.1, with development plans attached in Appendix A.

Figure 3.1: PROPOSED SITE LAYOUT



3.2 VEHICULAR ACCESS

3.2.1 Location

Vehicular access to the site is proposed via a new crossover on Grampians Circuit, located as shown in Figure 3.1. Council's Planning Scheme requires that driveways be designed and located in accordance with AS2890.1 requirements and is to be located a minimum of 6.0m from the tangent point of adjacent intersections. The proposed access is located in excess (ie 10m) of the required 6.0m from the Grampians Circuit / Yellowstone Circuit intersection, consistent with AS2890.1 requirements.

3.2.2 Crossover Design

Council's planning scheme requires that new access driveways be designed in accordance with Australian Standards AS2890.1 Parking Facilities Part 1: Off-Street Car Parking. A 6.9m wide driveway is proposed which would adequately cater for two-way traffic flow, in accordance with AS2890.1. It is recommended that the driveway be designed in accordance with the Institute of Public Works Engineering Australasia (IPWEA) Standard Drawing RSD-102 for a general wide driveway.

3.2.3 Sight Distance

On a 50km/h road (ie Grampians Circuit), AS2890.1 specifies a desirable sight distance of 69m and a minimum sight distance of 45m, measured 2.5m from the edge of the carriageway. It is estimated that the proposed access location achieves in excess of 100m sight distance to the east and west. Therefore, the proposed access location complies with AS2890.1 requirements for sight distance.

3.2.4 Queuing

Council's Planning Scheme identifies a minimum queue length of 1 car (ie 6.0m) for a parking area with capacity 12 cars. The proposed layout provides ample queue storage (ie approximately 13m) at the proposed access and complies with Council's Planning Scheme requirements.

3.3 CAR PARKING

3.3.1 Requirement

The car parking requirement for the proposed child care centre has been determined in accordance with Council's Parking Code. As shown in Table 3.1, a minimum of 11 parking spaces are required to support the proposal.

Table 3.1: COUNCIL PARKING REQUIREMENT

LAND USE	SCALE	RATE	REQUIRED
Child Care Centre	6 FTE Staff	1 space per FTE Staff member	6 spaces
	44 children	1 space per 10 children	5 spaces
Total			11 spaces

3.3.2 Provision

The proposed layout provides a total of 12 parking spaces. Therefore, the proposed parking provision complies with Council's parking rate requirement. It is recommended that the staff and visitor spaces are allocated accordingly.

3.3.3 Design

The proposed on-site parking facilities have been designed generally in accordance with AS2890.1, in terms of parking space and aisle dimensions, are typified by:

- regular parking spaces dimensioned a minimum 2.6m wide by 5.4m long
- PWD parking space dimensioned a minimum 2.6m wide by 5.4m long with an adjacent shared bay dimensioned 2.6m wide by 5.4m long
- parking aisles dimensioned a minimum of 6.6m wide

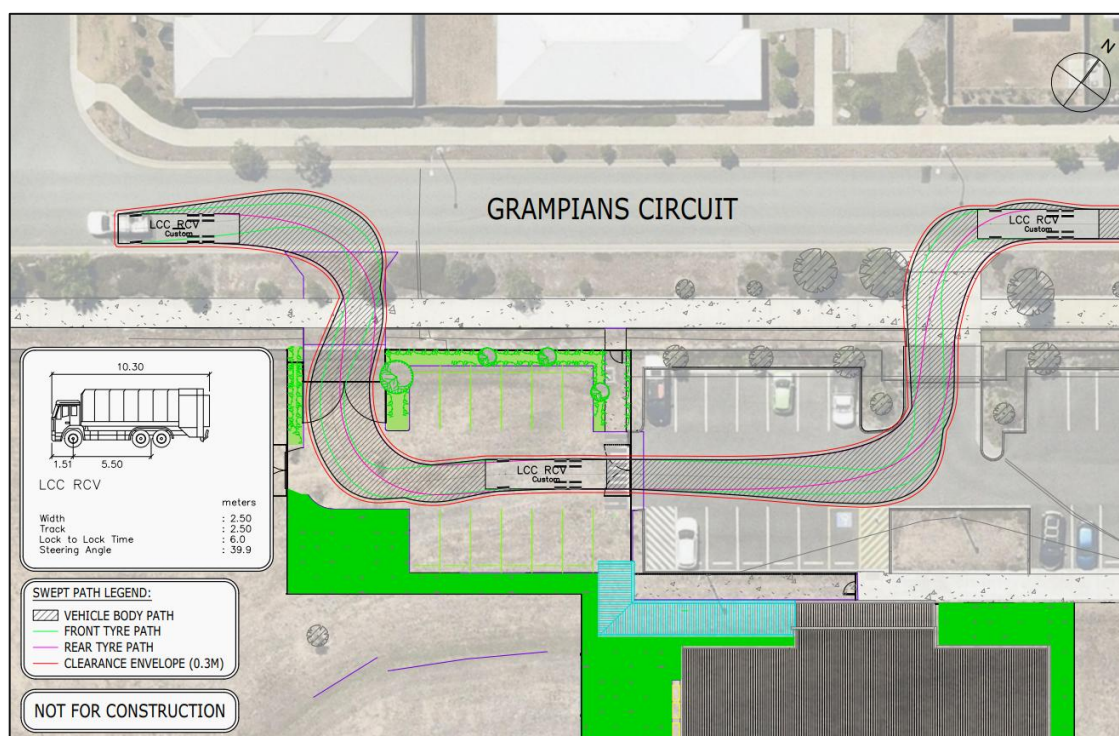
3.4 SERVICING

Refuse collection is proposed to be undertaken on-site within the parking area. It has been advised that the refuse collection operator would have access to both gates (ie gate connecting to Grampians Circuit and the gate connecting to the existing staff parking area).

As shown in Figure 3.2, an RCV can (a) enter the site in a forward gear from Grampians Circuit (b) traverse through the gate from the existing staff parking area (c) sit in the parking aisle to collect the bins (d) exit the site in a forward gear onto Grampians Circuit.

It is recommended that refuse collection be undertaken outside of the peak drop-off / pick-up periods.

Figure 3.2: RCV MANOEUVRING



Other smaller deliveries (ie van deliveries) would be undertaken within the proposed parking area, as vans can access a normal sized car parking space. In addition, deliveries could be managed to occur outside peak period pick-up / drop-off times when most visitor spaces are likely to be vacant.

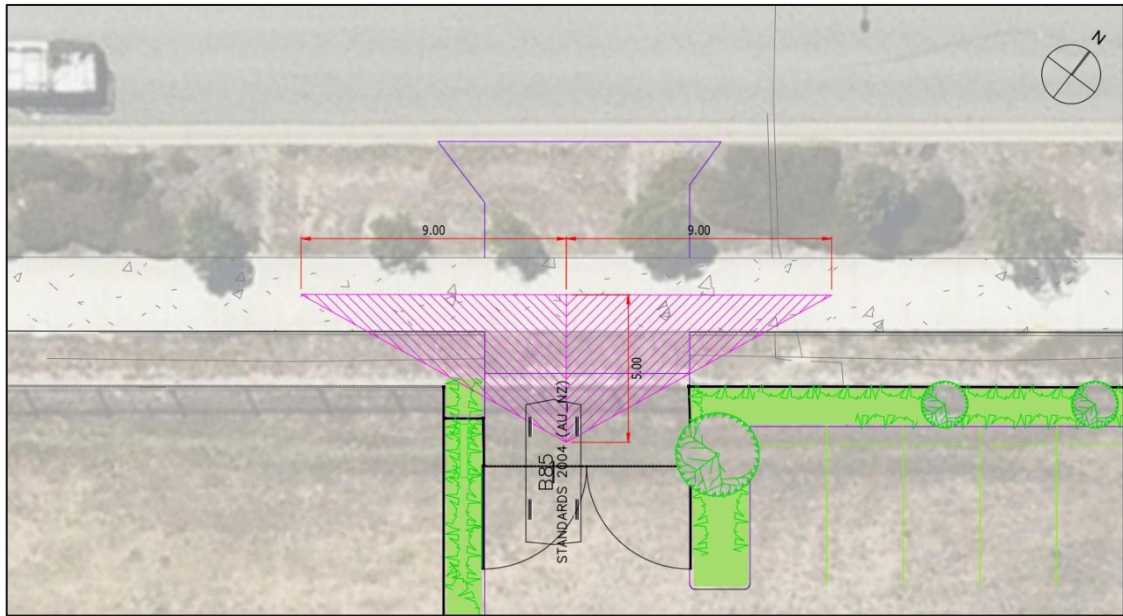
3.5 ACTIVE AND PUBLIC TRANSPORT

3.5.1 Pedestrians and Cyclists

As shown in Figure 3.1, the development provides a dedicated pedestrian access from Grampians Circuit which provides a connection to the main pedestrian building entry. Accordingly, the proposed pedestrian facilities are expected to be adequate to support the proposed development. Given the age of children attending the kindergarten, it is anticipated that the main mode of transport at the kindergarten will be private transport.

Figure 3.3 shows the available pedestrian sightlines to the east and west of the proposed site access. The available sight distance to the east and west achieves TMR's minimum desirable standards for a general use path, in accordance with Table 3.2.2 in TMR's Guideline for Treatment Options to Improve Safety of Pedestrians, Bicycle Riders and Other Path Users at Driveways.

Figure 3.3: PEDESTRIAN SIGHT LINES



3.5.2 Cyclists

Council's Planning Scheme does not specify a minimum bicycle parking requirement for child care centre uses. Accordingly, the development has not provided bicycle parking provision, consistent with Council's requirements. A large bicycle storage area for the state school is located adjacent the proposed kindergarten and could accommodate any bicycle demand that may occur from the kindergarten.

3.5.3 Public Transport

The proposed development is expected to increase the viability of future public transport services and facilities.

4.0 TRAFFIC OPERATIONS

4.1 TRAFFIC GENERATION

The predicted peak hour generation associated with the approved and proposed development has been based on the 85th percentile trip generation rate for child care centres, sourced from Queensland Government traffic generation data (2004-2019) available via the Open Data Portal. This data includes 17 child care centre sites in Queensland. An in:out split of 50:50 has been adopted during the weekday morning and evening peak hours. The following rates have been adopted:

- weekday morning: 0.76 trips per child
- weekday evening: 0.56 trips per child

Table 4.1: PEAK HOUR TRAFFIC GENERATION

USE	SCALE	TRIP GENERATION RATE	TRIP S	IN:OUT SPLIT	IN:OUT VPH
Approved Development					
Morning	100 children	0.76 trips per child	76	50 : 50	38 : 38
Evening	100 children	0.56 trips per child	56	50 : 50	28 : 28
Subtotal	-	-	132		66 : 66
Proposed Development					
Morning	44 children	0.76 trips per child	34	50 : 50	17 : 17
Evening	44 children	0.56 trips per child	25	50 : 50	12 : 13
Subtotal	-	-	59		29 : 30
Net Increase	-56 children	-	-73	-	-37 : -36

4.2 TRAFFIC IMPACT

As shown in Table 4.1, the proposed development is expected to generate 73 less trips, compared to the approved child care centre capacity. Accordingly, it is expected that the proposed development is not expected to have a significant adverse impact on the safety, amenity and capacity of the surrounding road network. Detailed analysis (ie SIDRA) of the traffic impacts of development is not considered required.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

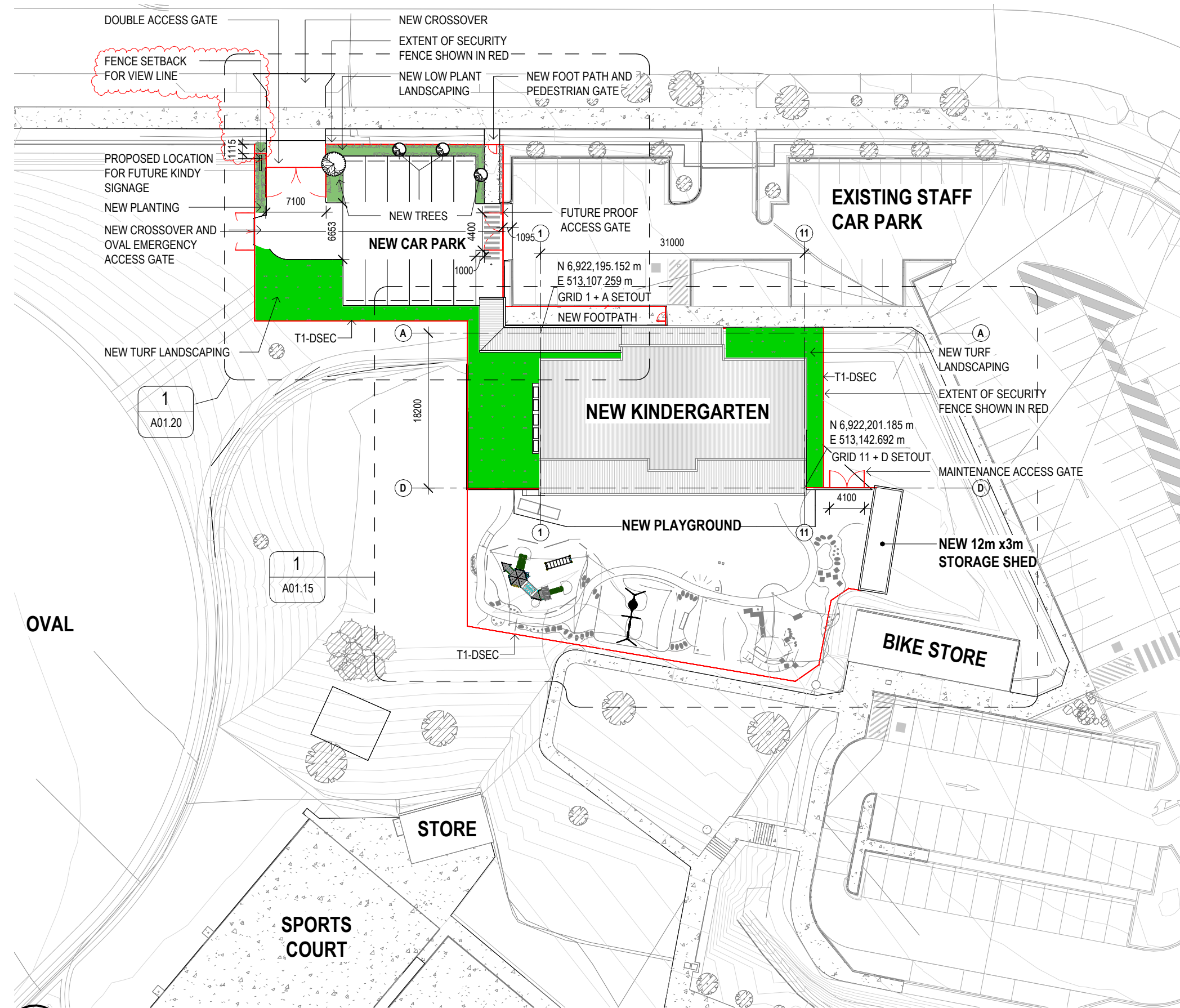
The proposed child care centre development at 185 Grampians Circuit, Yarrabilba has been evaluated in terms of the site access arrangements, parking provision and design, servicing arrangements, pedestrian / cyclist facilities and likely traffic impact:

- the proposed development involves a child care centre with capacity for 44 children and six FTE staff
- a child care centre with capacity for 100 children is approved on-site
- vehicular access is proposed via a 6.9m wide all-movements crossover on Grampians Circuit Street
- the proposed site access complies with AS2890.1 requirements in terms of location
- the available sight distance and on-site queuing provision at the proposed access location is adequate
- the proposed parking provision of 12 spaces complies with the requirements of Council's Planning Scheme and is expected to adequately accommodate the expected demand
- the design of parking facilities is generally consistent with AS2890.1 requirements in terms of minimum parking bay and aisle dimensions
- the development can accommodate forward-in / forward-out movements of an RCV
- a dedicated pedestrian access is proposed from Grampians Circuit
- the pedestrian sight lines at the access are consistent with TMR's Guideline for Treatment Options to Improve Safety of Pedestrians, Bicycle Riders and Other Path Users at Driveways
- the proposed development is expected to generate 73 less trips compared to the previous approval
- the addition of development generated traffic is not expected to have significant adverse impact on the operation of the surrounding road network

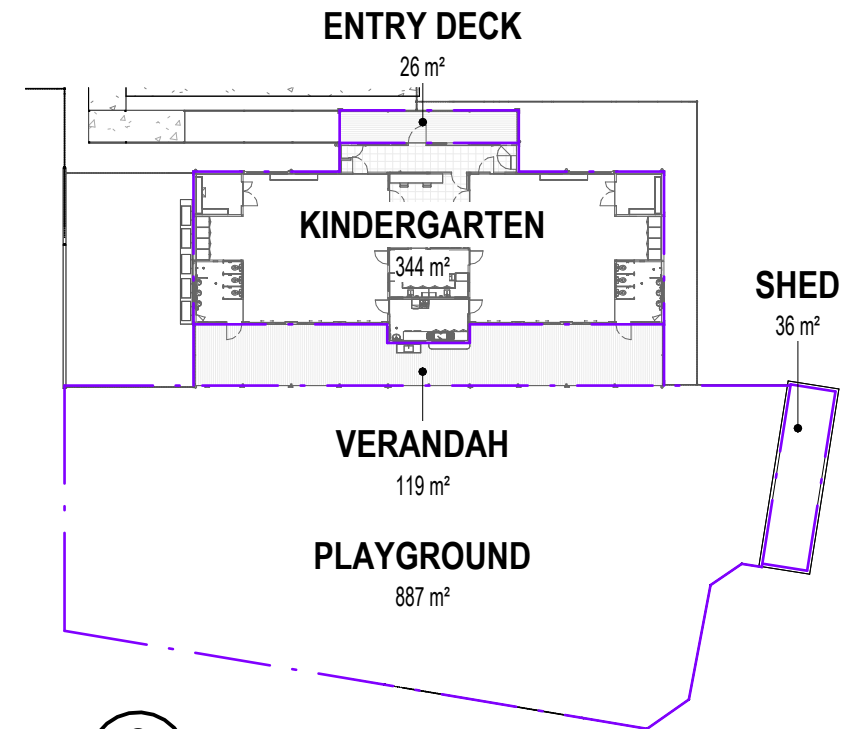
5.2 RECOMMENDATIONS

Based on the above, it is recommended that the driveway be designed in accordance with IPWEA Standard Drawing RSD-102 for a general wide driveway

APPENDIX A DEVELOPMENT PLANS



1 SITE PLAN - PROPOSED
1 : 500



2 AREA PLAN
1 : 500

NO.	DESCRIPTION	DATE	BY	CHK'D
6	FENCE SETBACK REVISED	2026.09.07	FDH	ALL
5	CONSTRUCTION ISSUE	2026.09.03	FDH	ALL
4	FOOTPATH ADDED	2026.07.16	FDH	ALL
3	CARPARK SPACE ADDED	2026.07.16	FDH	ALL
2	REVISED DESIGN DEVELOPMENT ISSUE	2026.07.10	FDH	ALL
1	DESIGN DEVELOPMENT ISSUE	2026.07.08	FDH	ALL

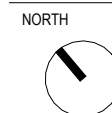
FLEETWOOD
AUSTRALIA

41-55 Platinum Street, Crestmead QLD 4132 | (07 3489 5000)
This document and any of the documents' information, ideas and concepts are the property of Fleetwood Australia and may not be used, copied or reproduced without express written permission. © Copyright Fleetwood Australia. All rights reserved. ABN: 76 114 676 349
GENERAL NOTES
1. ALL DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORKS.
2. USE WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
3. READ IN CONJUNCTION WITH OTHER DRAWINGS, SPECIFICATIONS & CONSULTANTS DOCUMENTATION.
4. REFER ANY DISCREPANCIES IMMEDIATELY TO THE DESIGNER & AWAIT WRITTEN INSTRUCTION.

PROJECT NO.:
J0004124
PROJECT STATUS
DESIGN DEVELOPMENT ISSUE
PROJECT CLIENT
DET

PROJECT:
SOUTH ROCK SS 10 MOD KINDERGARTEN
PROJECT ADDRESS
GRAMPIANS CCT, YARRABILBA QLD

SHEET
SITE PLAN - PROPOSED

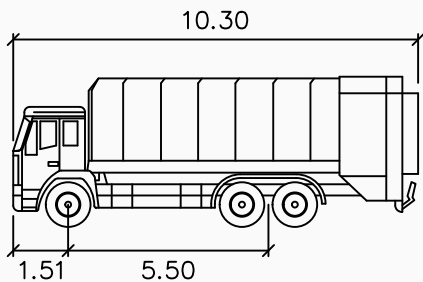
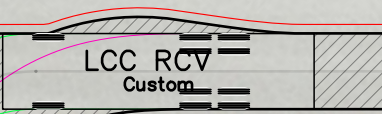
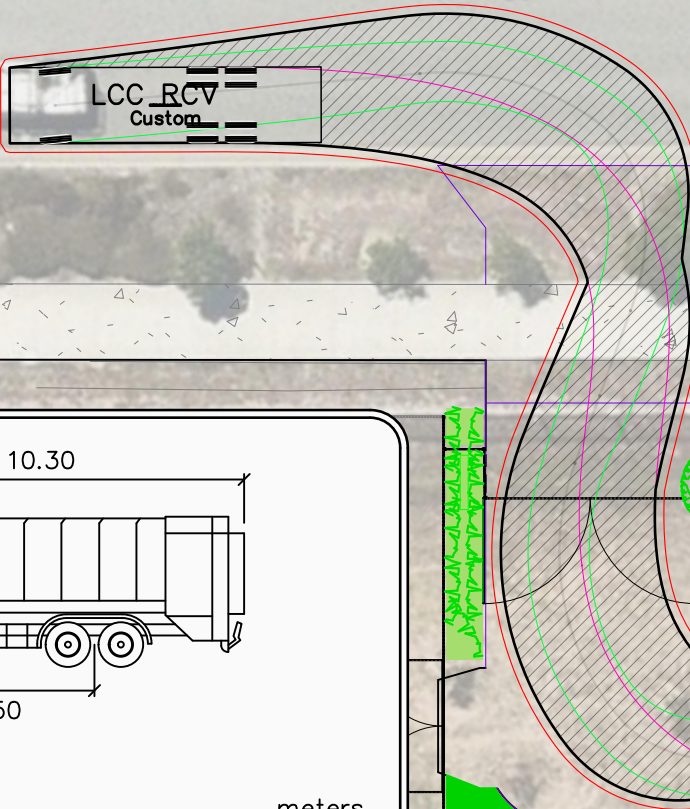


DRAWN
FDH
CHECKED
FDH
SCALE
1 : 500
SIZE
A3
DRAWING NO.
A01.12
REVISION
6
DC SIGN OFF:

APPENDIX B

PTT SWEEP PATHS

GRAMPIANS CIRCUIT



LCC RCV

Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 39.9

SWEPT PATH LEGEND:

- VEHICLE BODY PATH
- FRONT TYRE PATH
- REAR TYRE PATH
- CLEARANCE ENVELOPE (0.3M)

NOT FOR CONSTRUCTION



PTT
ABN 96 067 593 962
P 07 3839 6771 WWW.PTT.COM.AU
Level 2, 62 Astor Tce, Spring Hill QLD 4000

A	IR RESPONSE	CJ	07/09/2026
REV	DESCRIPTION	DRN	DATE

DRAWING TITLE:
RCV MANOEUVRING

PROJECT TITLE:
SOUTH ROCK SS - KINDY

DRAWING NO:
26-664-001

REV:
A

SCALE:
1:250 @ A3

CLIENT:
DEPARTMENT OF EDUCATION

APPROVED BY:
CG
(RPEQ 34450)
C. Glover