Proposed Child Care Centre

Lot 977 Nancarrow Way, Ravenswood

Transport Impact Statement

PREPARED FOR:
IQ Construction

February 2026

Document history and status

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1 Introduction

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of IQ Construction with regard to a proposed child care centre to be located at Lot 977, Nancarrow Way, Ravenswood in the Shire of Murray.

The subject site is located within the north-west corner of the single circulating roundabout intersection of Nancarrow Way and Jolly Rambler Boulevard. Refer **Figure 1** shows the aerial context of the location of the site.

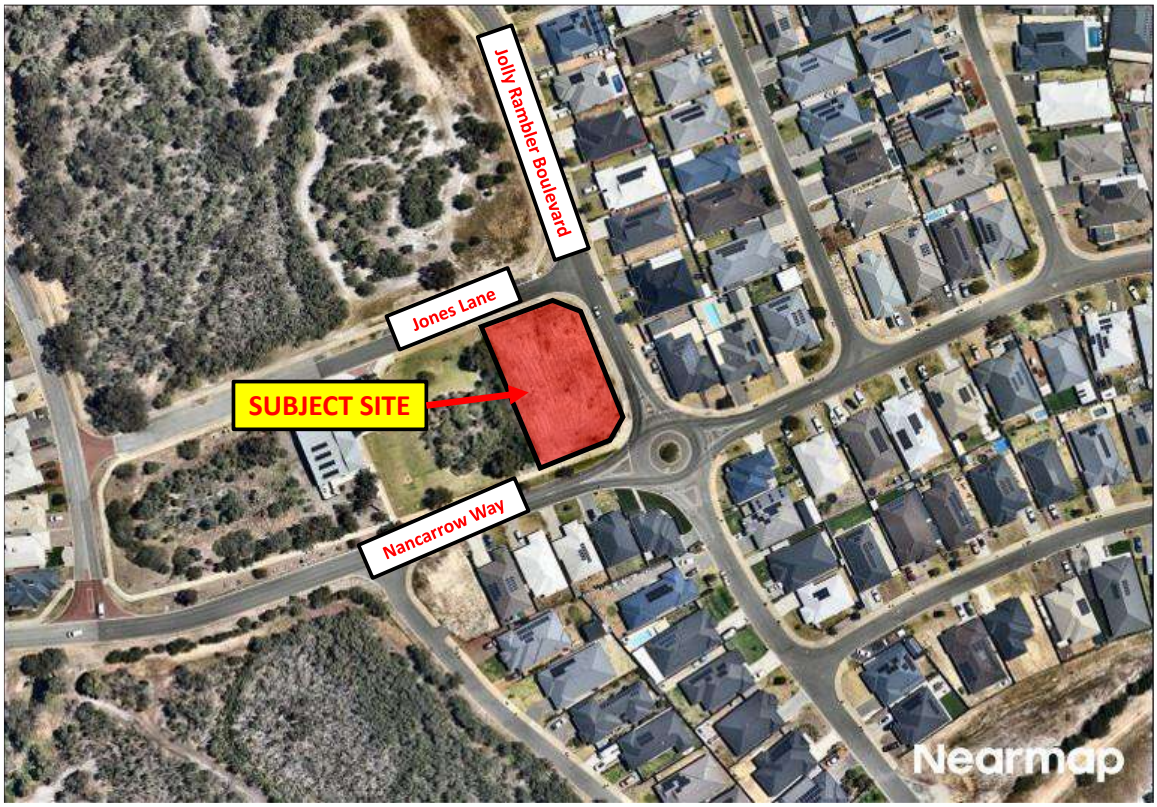


Figure 1: Location of the subject site

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: *"A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic[1] and therefore would have a moderate overall impact on the surrounding land uses and transport networks"*.

Section 6 of Transcore's report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated

[1] *Between 10 and 100 vehicular trips per hour*

to be less than 100 trips, a Transport Impact Statement is deemed appropriate for this development.

Key issues that will be addressed in this report include the traffic generation and distribution associated with the proposed development, circulation and access/egress movement patterns.

2 Proposed Development Site Plan

The Development Application (DA) for the subject site proposes the development of a child care centre with an associated on-site car park. This child care centre is proposed to accommodate up to 72 children and 11 staff members.

According to the development plan provided in Appendix A, a total of 17 on-site parking bays(inclusive of one ACROD bay) and a turnaround bay, are proposed to address the parking demand of the proposed child care centre. Additional on-street public parking is in place along the northern boundary of the site on Jones Lane, inclusive of an on-street ACROD bay located to the north-west of the site.

A bin storage area is located on-site at the south-western corner of the car park with a proposed bin pad to be situated on Jolly Rambler Boulevard, adjacent to the crossover along the eastern boundary of the site.
Proposed vehicular access to the proposed development consists of a full-movement crossover to the east of the site on the west side of Jolly Rambler Boulevard. Pedestrian access is proposed via the existing shared path network adjacent to the southern, eastern and northern boundaries of the site on Nancarrow Way, Jolly Rambler Boulevard and Jones Lane, respectively.

The proposed development plan for the child care centre is provided in **Appendix A**.

3 Vehicle Access and Parking

3.1 Access

Vehicular access to the child care centre will be accommodated via a full-movement crossover to the west side of Jolly Rambler Boulevard, north of Nancarrow Way. Vehicles would enter the site via this proposed crossover and would exit via the same crossover in forward gear. Location of proposed crossover is illustrated in **Figure 2.**

Figure 2: Location of Proposed Development Crossover

3.2 Parking

As outlined in the Shire of Murray's *Local Planning Policy: Child Care Services,* child care centres are required to provide one parking bay for each staff member and a minimum of 9 bays plus 1 bay per 8 children in excess of 54 children to be accommodated on the site.

The proposed development will cater to 72 children and 11 staff with 17 bays, inclusive of one (1) ACROD bay proposed on site. Additional on-street public parallel indented parking is in place on Jones Lane along the northern boundary of the site.
In accordance with the Shire's LPP, the proposed development requires **23** parking bays.

The parking supply and demand is further discussed in the following section of the report to address the actual parking demand associated with the proposed development.

3.3 Estimated Actual Parking Demand

Transcore has undertaken a parking analysis based on the anticipated peak hour traffic generation of the proposed child care centre (CCC), to estimate the actual peak parking demand of the centre. This methodology has been successfully applied by Transcore to many child care centre projects.

Section 6 of this report details the anticipated peak hour traffic generation of the proposed CCC. It was established that the calculated morning peak hour trip generation of the proposed CCC is **36** vehicles in and **27** vehicles out of the car park during this critical AM peak hour. The morning peak hour is estimated to generate more traffic than the afternoon peak hour. This represents a potential **36** vehicles using the child care centre car park during the critical morning peak hour.

The NSW *"Guide to Traffic Generating Developments"* section on child care centres provides commentary on child care centre mode share, parking utilisation and parking length of stay. It should be noted that the commentary provided in the NSW guide is based on surveys of actual parking activity undertaken in New South Wales. The NSW guide indicates highest parking demand of 0.23 cars per child (which represents a parking requirement of 17 bays for the proposed child care) and the average recorded length of stay for all surveyed child care centres of 6.9 minutes.

Conservatively assuming that the average length of stay for pick-up/drop-off parking for the proposed child care centre is 10 minutes, it is calculated that each parking bay can accommodate a turnover of up to 6 vehicles per hour.

It is therefore established that minimum of 6 bays (36/6 = 6) should be reserved for pick-up and drop-off activities during peak hour periods which results in actual parking demand of 17 bays (11 bays for staff + 6 pickup/drop off bays) for the proposed centre. Therefore, the parking provision of 17 bays on site is anticipated to cater for the actual parking demand of the development. For a robust parking management, it is recommended that eight bays should be marked for use of visitors (drop off/pick up) and nine bays should be allocated to staff. It should also be noted that:

- Many patrons of the child care centre are anticipated to come from the local residential catchment and may walk their children to and from the CCC; and
- The operator of the child care centre will encourage local employment and staff car-pooling and use of other means of transport which will reduce the parking demand at the site.

For the reasons outlined above, it is considered that sufficient parking has been provided to meet the anticipated parking demand of the proposed child care centre.

4 Provision for Service Vehicles

A bin storage area is proposed at the south-western corner of the on-site car park with the bin pad for collection purposes situated adjacent to south side of the crossover on Jolly Rambler Boulevard verge as shown in the proposed development plan in **Appendix A**.

A waste collection truck will collect waste bins along the verge of Jolly Rambler Boulevard from the bin pad area on designated collection days.

Other service and delivery activities are proposed via small trucks or vans using the centre car park outside the drop off and pick up periods.

5 Hours of Operation

The proposed child care centre would typically operate from 6:30 AM to 6:30 PM, Monday to Friday.

6 Daily Traffic Volumes and Vehicle Types

In order to establish an accurate traffic generation rate for the proposed child care centre, traffic count surveys undertaken by Transcore at similar centres in the Perth metropolitan area were sourced.

Discussions with the respective centre managers revealed that the peak drop-offs and pick-ups for these centres occur between the hours of 7:30 AM – 9:30 AM and 3:00 PM – 5:00 PM.

From the total number of children at each of the centres on the surveyed days, the following average generation rates were established for the morning and afternoon surveyed periods:

- 7:30AM–9:30AM: 1.25 trips per child (57% in / 43% out); and,
- 3:00PM–5:00PM: 1.10 trips per child (49% in / 51% out).

From this information, the traffic generation rate for the combined period of 07:30AM–09:30AM and 3:00PM–05:00PM was calculated as 2.36 trips per child. To convert this figure to a daily generation rate, this figure was increased to 3.5 trips per child to account for any trips outside of the surveyed times. It was assumed that the daily in and out split for vehicle trips was 50/50.

Furthermore, the following peak hour generation rates were established from the surveys for the child care centres:

- AM peak hour: 8:00AM – 9:00AM: 0.87 trips per child (57% in / 43% out); and,
- PM peak hour: 04:00PM – 05:00PM: 0.71 trips per child (47% in/ 53% out).

A comparison of the four-hour generation rates and the peak-hour generation rates confirms that the distribution of traffic from these centres is spread over the peak periods, and that the full concentration of traffic does not occur in one peak hour.

Accordingly, the following number of trips was estimated for the proposed centre assuming a maximum scenario with 72 children at the centre (i.e., the centre operating at full capacity):

- AM peak hour: 63 trips generated (36 in / 27 out);
- PM peak hour: 51 trips generated (24 in / 27 out); and,
- Daily traffic generation: 252 trips generated (126 in / 126 out).

Table 1 summarises the trip generation of the proposed CCC.

Table 1: Site-Generated Trip Generation

Capacity	Daily (vpd)		AM Peak Hour (vph)		PM Peak Hour (vph)	
	In	Out	In	Out	In	Out
72 children	126	126	36	27	27	24

6.1 Traffic Flow

Figure 3 illustrates the anticipated total peak hour and daily trip generation and traffic distribution associated with the proposed child care centre.

Figure 3: Estimated Traffic Distribution for Child Care Centre

6.2 Impact on Surrounding Roads

The WAPC Transport Impact Assessment Guidelines (2016) provides guidance on the assessment of traffic impacts:

"As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis."

It is clear that the traffic increase from the proposed child care centre would be significantly less than the critical threshold (100vph per lane). As detailed in **Section 6.1**, the proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact of the development traffic on the surrounding road network will not be significant and does not require further assessment.

7 Traffic Management on the Frontage Streets

Nancarrow Way is the primary entry road into the Ravenswood neighbourhood area from Pinjarra Road to the west. It has been constructed as a single undivided carriageway in the vicinity of the site.

Nancarrow Way has been designated as an *Access Road* under the Main Roads WA *Functional Road Hierarchy*; however, it is likely to be redesignated, as per the Ravenswood Outline Development Plan (2013), to a *Local Distributor* or *Neighbourhood Connector B* road as it currently carries in the order of 3,000 to 4,000 vpd. It also provides the only connection to the higher order road network for the central and southern parts of the Ravenswood urban cell. It operates under a posted speed limit of 50kph along the southern frontage of the site and is owned, operated and maintained by the Shire of Murray.

Figure 4 shows the view eastbound on Nancarrow Way along the southern boundary of the site.

Figure 4: View Eastbound along Nancarrow Way Along Southern Frontage of Site

Jolly Rambler Boulevard is a local road providing direct access to the site and to residential cells to the east and north-east of the site. As part of the buildout of Ravenswood Outline Development Plan, the road will be extended to the north-west to connect with the established Jolly Rambler Boulevard alignment which currently connects with Pinjarra Road. It carries in the order of less than 1,000 vpd under existing conditions

This road has been constructed as a single undivided carriageway in the vicinity of the site. It has been designed as an *Access Road* under the Main Roads WA *Functional Road Hierarchy*.

Figure 5 shows the view southbound on Jolly Rambler Boulevard along the eastern boundary of the site.

Figure 5: View Southbound along Jolly Rambler Boulevard Way Along Eastern Frontage of Site

Jones Lane is a local road providing direct access to the northern side of the Ravenswood Community Centre located to the west of the site. It has been constructed as a single undivided carriageway with indented on-street public parallel parking on the north side and an indented ACROD bay on the south side.

It is estimated that Jone Lane carries in the order of 200 vpd under existing conditions. It has been designed as an *Access Road* under the Main Roads WA *Functional Road Hierarchy*.

Figure 6 shows the view eastbound along Jones Lane towards Jolly Rambler Boulevard.

Figure 6: View Eastbound along Jones Lane towards Jolly Rambler Boulevard

8 Public Transport Access

Route 600 (Mandurah Station to Pinjarra via Pinjarra Road and Ravenswood) provides weekday 20-minute peak services, midday hourly services and hourly early evening services in the vicinity of the site. The closest bus stops are situated on Carter Street to the south-west of the site.

9 Pedestrian and Cycle Access

A 2m shared path is in place on both sides of Jolly Rambler Boulevard along the eastern boundary of the site and on both sides of Jones Lane to the north. A shared path is in place only on the north side of Nancarrow Way adjacent to the southern boundary of the site with no pedestrian or cycling infrastructure in place on the south side of Nancarrow Way.

10 Site Specific Issues

Other than theoretical parking shortfall, no other site-specific issues were identified within the scope of this assessment.

11 Safety Issues

A review of the sightlines along Jolly Rambler Boulevard in the vicinity of the site crossover indicate that the relevant requirements for ASD, MGSD and SISD are satisfied in the context of the proposal.

The proximity of the proposed site crossover to the T-intersection of Jolly Rambler Boulevard and Jones Lane will not impact these sightlines as the traffic exiting via a right-turn movement out of Jones Lane (eastbound-southbound) is very low during peak periods.

A review of the crash history for the 5-year reporting period 2020-2024 indicates no documented crashes in the vicinity of the site, including along Jolly Rambler Boulevard in the vicinity of the site crossover, along Jones Lane along the northern boundary of the site or at the Nancarrow Way/Jolly Rambler Boulevard roundabout intersection.

As a result, no safety issues on the adjacent boundary road network have been identified which would impact the proposal.

12 Conclusions

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of IQ Construction with regard to a proposed child care centre to be located at Lot 977, Nancarrow Way, Ravenswood in the Shire of Murray.

The proposal entails the development of a child care centre catering to 72 children and 11 staff with 17 car parking bays to be situated on site. Proposed access to the site consists of a full movement crossover to the west side of Jolly Rambler Bouelvard, north of Nancarrow Way along the eastern boundary of the site.

The traffic analysis undertaken in this report shows that the traffic generation associated with the proposal is relatively low and would not have any significant impact on the surrounding road network.

Waste collection will be accommodated on street from a dedicated bin pad on the western verge of Jolly Rambler Boulevard along the eastern boundary of the site. Other service and delivery activities will be accommodated within the on-site car park outside peak demand periods.

The proposed car parking supply for the site in the form of 17 bays is anticipated to cater to the anticipated demand of the proposal. This car parking supply is further supplemented by existing established on-street intended public parking on Jones Lane to the north of the site, if required.

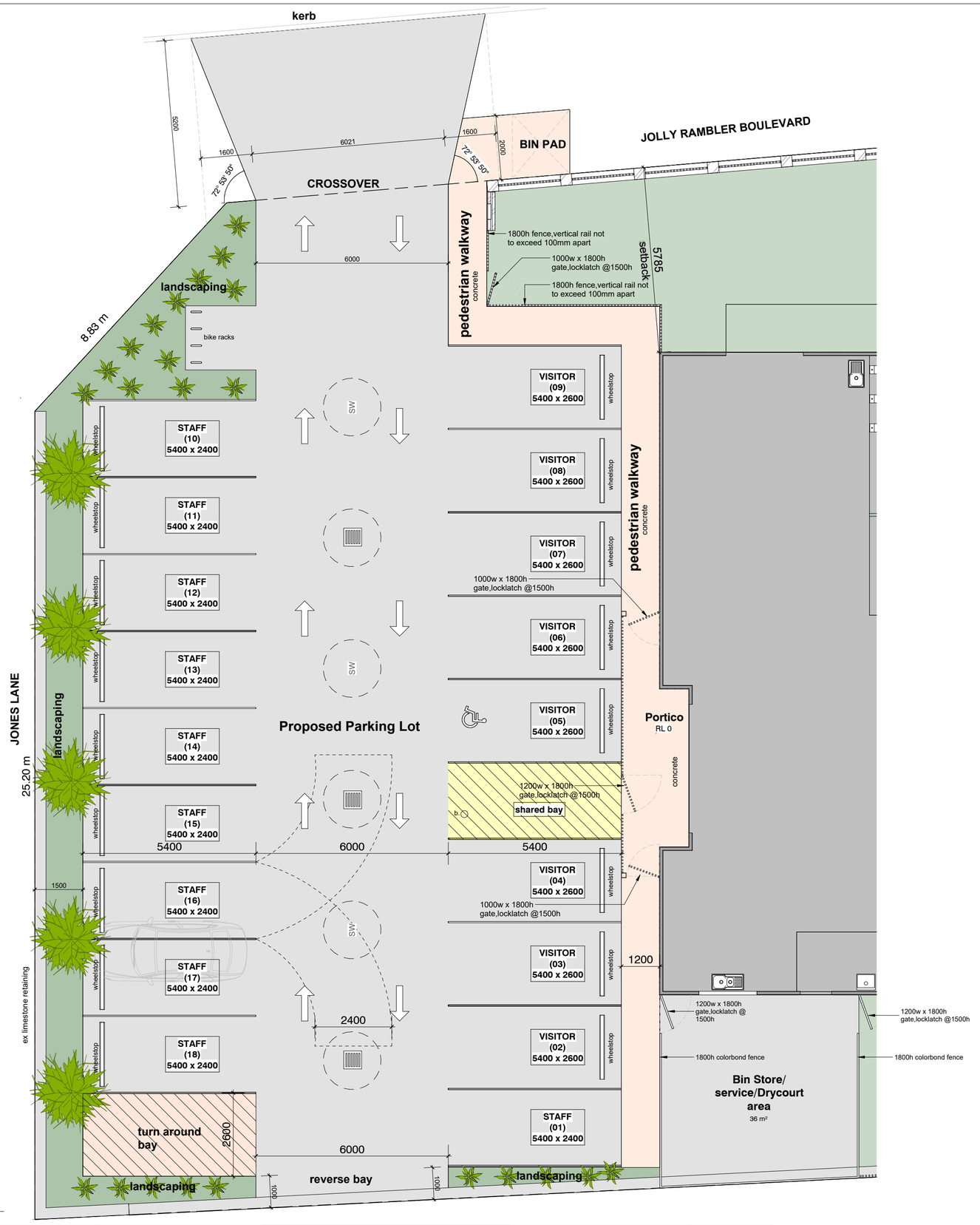
It is concluded that the findings of this Transport Impact Statement are supportive of the proposed child care centre.

Appendix A

PROPOSED DEVELOPMENT PLANS

Parking Schedule

Type	Qty.	Description
5400 x 2400 (WheelStop) Staff Bay	9	Standard Carpark Bay
5400 x 2400 (Without Wheelstop) Staff Bay	1	Standard Carpark Bay
5400 x 2600 (WheelStop) Visitor Bay	8	Standard Carpark Bay
	18	



Proposed Parking Layout

1 : 100

IQ CONSTRUCTION
INTELLIGENT DESIGN QUALITY BUILD

4 Browning Road
Armadale WA 6112
Phone: (08) 9399 6715
Fax: (08) 9399 8564
admin@iqconstruction.com.au

BUILDER _____ DATE _____

CLIENT 1 _____ DATE _____

CLIENT 2 _____ DATE _____

REV	DATE	DESCRIPTION	BY	CHK
3	21 Jan. '26	Planning	WM	SV
2	04 Dec. '25	Concept	WM	
1	02 Dec. '25	Concept	WM	

NOTES
All areas are approximate only. Design is subject to site conditions, location of services, energy efficiency compliance and approval of relevant authorities.

CLIENT: Ravenswood Childcare

ADDRESS: Lot 977 Nancarrow Way,Ravenswood

DRAWING: Proposed Parking Layout

PROJECT NO. 0000 | DRAWN WM | CHECK SV | DATE 02 Dec. '25

PROJECT STAGE: PLANNING | SCALE 1:100 (0m — 5m) | DRAWING NO. rev 3 P102

PAPER SIZE A2

Appendix B

TURN PATH ANALYSIS

transcore

25 years anniversary

External Playscape

JOLLY RAMBLER BOULEVARD

37.93 m

limestone piers and infill
with visually permeable fence

BIN PAD

1600

6021

1600

CROSSOVER

combo m'box

6000

pedestrian walkway
concrete

1800h fence,vertical rail not
to exceed 100mm apart

1000w x 1800h
gate,locklatch @1500h

1800h fence,vertical rail not
to exceed 100mm apart

5785

setback

landscaping

8.83 m

bike racks

(09)
5400 x 2400

(10)
5400 x 2600

(08)
5400 x 2400

(11)
5400 x 2600

(07)
5400 x 2400

pedestrian walkway
concrete

1000w x 1800h
gate,locklatch @1500h

(12)
5400 x 2600

(06)
5400 x 2400

5400

6000

5400

(13)
5400 x 2600

(05)
5400 x 2400

JONES LANE

landscaping

Portico
RL 0

1200w x 1800h
gate,locklatch @1500h

Proposed Childcare
RL 0

Lot 977 Nancarrow Way, Ravenswood

B99 & B85 Passenger Cars

Simultaneous Turns at the Crossover

LEGEND

Vehicle Body

Wheel Path

300mm Clearance

t26.014.sk02

04/02/2026

Scale: 1:150 @ A3

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