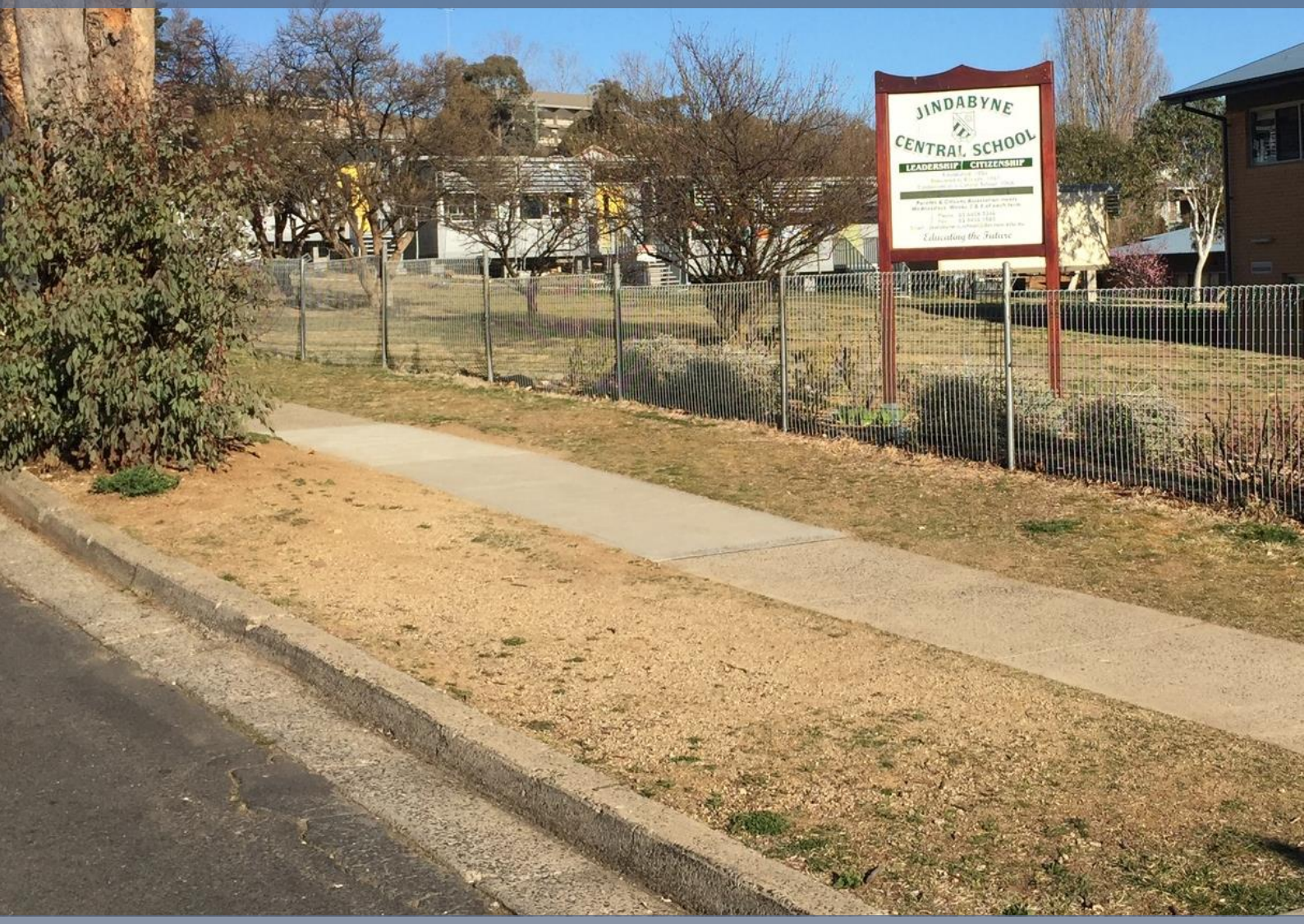
Jindabyne Central School

8-20 Park Road, Jindabyne, NSW
Transport Assessment



Prepared by: GTA Consultants (NSW) Pty Ltd for Gray Puksand
on 2/04/19
Reference: N156770
Issue #: B

GTAconsultants

Jindabyne Central School

8-20 Park Road, Jindabyne, NSW
Transport Assessment

Client: Gray Puksand

on 2/04/19

Reference: N156770

Issue #: B

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	08/03/19	Final	Ashish Modessa	Rhys Hazell	Rhys Hazell	Rhys Hazell
B	02/04/19	Final – addressing additional comments	Ashish Modessa	Rhys Hazell	Rhys Hazell	

GTAconsultants

Melbourne | Sydney | Brisbane
Adelaide | Perth

CONTENTS

1. INTRODUCTION

1.1. Background & Proposal

A Development Application (DA) will be lodged with Snowy Monaro Regional Council (Council) for proposed alterations and additions at Jindabyne Central School, Jindabyne. The school attracts students from a broad regional catchment, having a population of 827 students (468 primary school and 359 secondary school students) and 80 teaching/ administrative staff.

The proposed alterations and additions are shown in Figure 1.1 and include the following:

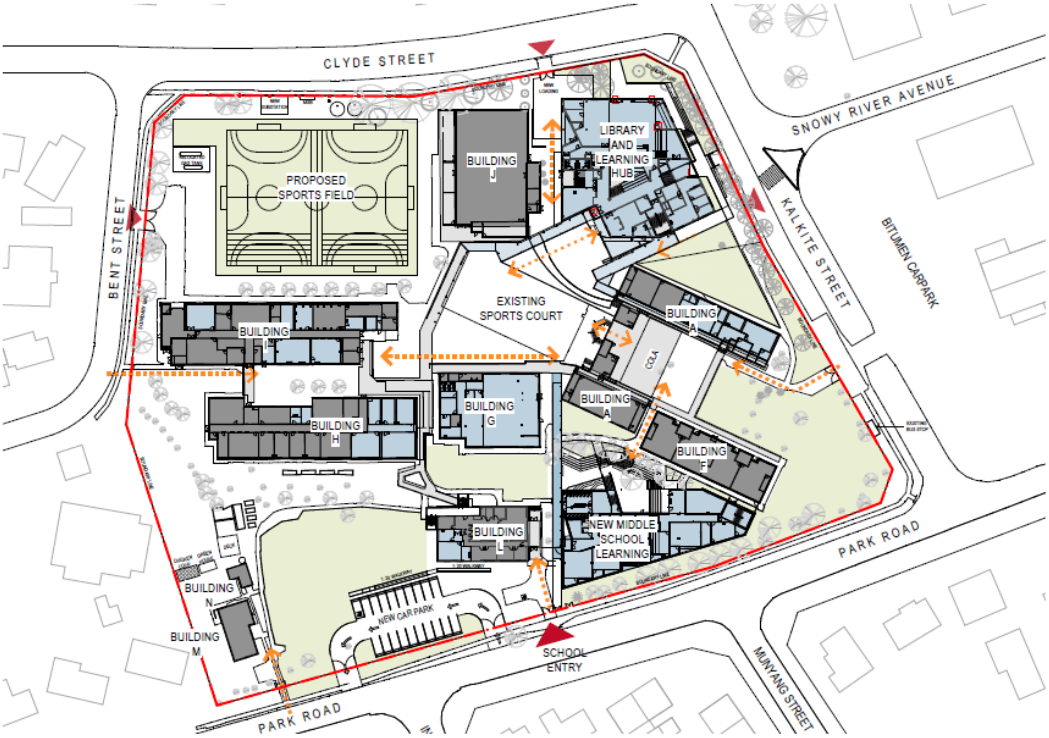
- construction of a new library and classroom hub at the north-east corner of the site
- construction of a new middle school classroom facility along the southern boundary of the site
- construction of a new 20-space staff car park with access via Park Road
- other minor alterations and additions to existing school facilities.

It is understood that the proposed additions and alterations are mainly focused around upgrading existing facilities and consolidating teaching space that currently occurs across several demountable buildings.

The proposal will assist the school accommodate 10 per cent more students (for a total of 913 students) with teaching staff expected to increase accordingly.

Gray Puksand engaged GTA Consultants (GTA) to complete a transport assessment for the proposed alterations and additions of the School.

Figure 1.1: Proposed site layout



Source: Gray Puksand, Jindabyne Central School, Jindabyne, NSW dated 26 February 2019

1.2. Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposal, including consideration of the following:

- existing traffic and parking conditions surrounding the site
- suitability of the proposed parking in terms of supply (quantum) and layout
- service vehicle requirements
- pedestrian and bicycle requirements
- the traffic generating characteristics of the proposed development
- suitability of the proposed access arrangements for the site
- the transport impact of the development proposal on the surrounding road network.

1.3. Reference

Reference has been made to the following in preparing this report:

- an inspection of the site and its surrounds
- Snowy River Development Control Plan (DCP) 2013
- Snowy River Local Environmental Plan (LEP) 2013
- Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- plans for the proposed development prepared by Gray Puksand, Drawing Number 218095 Proposed Site Plan, dated 26 February 2019
- staff and student travel information survey undertaken by GTA as referenced in the context of this report.
- other documents and data as referenced in this report.

2. EXISTING CONDITIONS

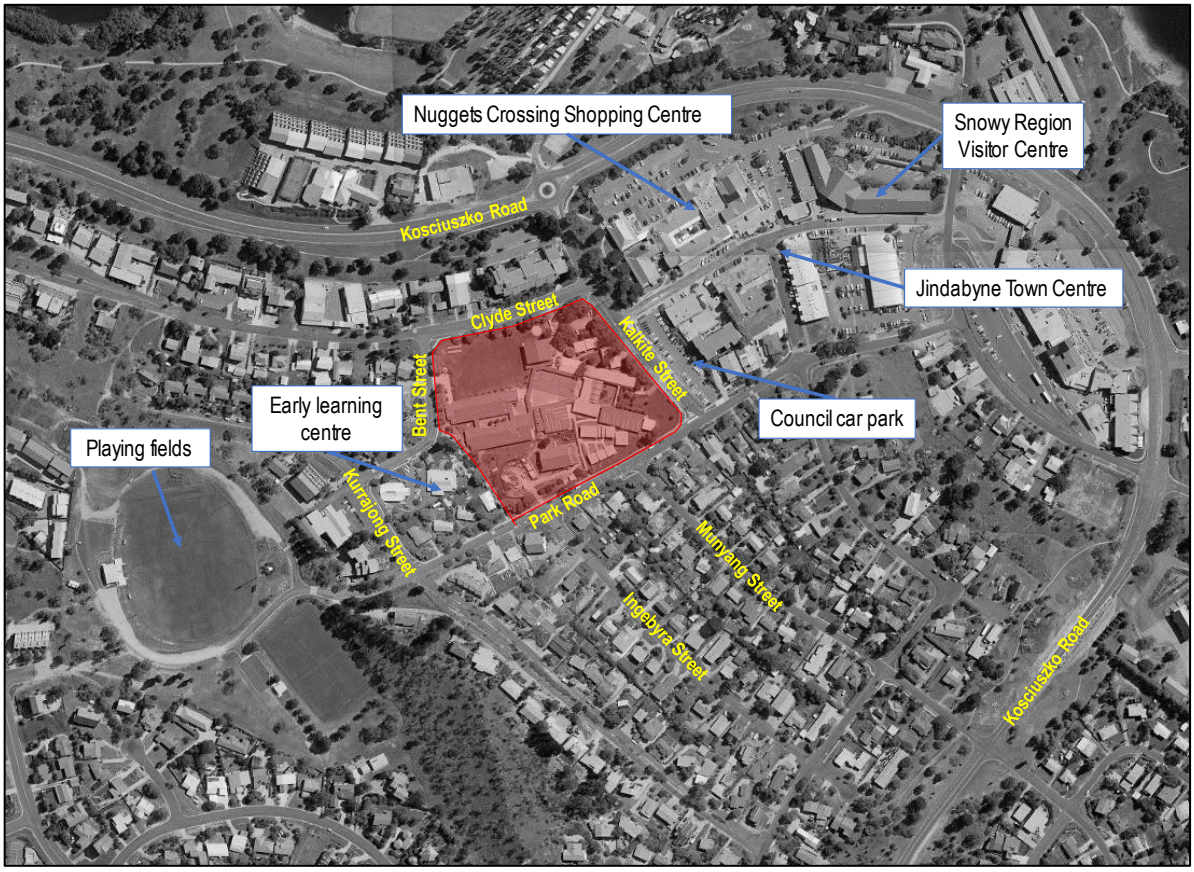
2.1. Location

Jindabyne Central School is at 8-20 Park Road, Jindabyne and has frontages of approximately 140 metres to Clyde Street to the north, 265 metres to Park Road to the south, 135 metres to Kalkite Street to the east and 90 metres to Bent Street to the west. Kosciusko Road is the primary road through Jindabyne that loops around the town centre and connects the area with Cooma to the northeast and Thredbo and Perisher Valley to the west. It provides access to the town centre, tourist and visitor accommodation and commercial areas with several local roads combining to provide access to residential dwellings mostly south and west of the town centre.

The surrounding properties include low density residential dwellings as well as tourist and visitor accommodation. Jindabyne Town Centre and the Snowy Region Visitor Centre are northeast of the school. Snowy Mountains Care and Early Learning Centre is on Bent Street immediately to the west, with playing fields further west. There are various at-grade car parks located across the town centre that combine to adequately cater for the seasonal demands associated with snow season and Jindabyne's function role.

The location of Jindabyne Central School and its surrounding environs is shown in Figure 2.1.

Figure 2.1: Jindabyne Central School and its surrounds



Basemap source: six maps

2.2. Transport Network

Jindabyne Central School is centrally located close to Jindabyne town centre, with several local roads providing for convenient access. The roads near the school have a posted speed limit of 50km/hr outside the typical AM and PM school 40 km/hr periods.

Park Road is a local road generally providing one traffic lane and one parking lane in each direction and is shown in Figure 2.2 and Figure 2.3. A children's crossing is on Park Road west of Munyang Street with no stopping zones on both sides of the road between Munyang Street and Ingebyra Street between 8:30am and 9:30am, and 3:00pm and 4:00pm school days. It provides for unrestricted on-street parking associated with the school and surrounding residential properties in a low speed, low traffic volume environment.

Figure 2.2: Park Road (looking west)

Figure 2.3: Park Road (looking east)

Kalkite Street is a local road aligned in a north-south direction that connects with Snowy River Avenue east of the school to provide an alternate link through the town centre. It provides one traffic lane and one parking lane in each direction north of Snowy River Avenue with the section further south, adjacent to the school being restricted to northbound buses only. This bus only area is accessed via Park Road (right turn only) with a midblock raised pedestrian crossing linking the school with Council's car park to the east.

Council's car park provides unrestricted parking for 69 vehicles with an internal barrier intended to prevent vehicles using it to take a short-cut through the area (given the Kalkite Street limitations). The northern section of the car park is accessed via Snowy River Avenue at its northern end and provides parking for 59 vehicles (including three accessible and two electric car spaces). The southern section is accessed via Park Road at the southern end and provides parking for 10 vehicles (including one accessible space). Demand for parking is generally moderate to high, with most demand associated with the school (during set-down/ pick-up periods) and town centre businesses. The majority of activity is in the northern section, with traffic using Snowy River Avenue and Kalkite Street to/ from the north to access the area generally

Kalkite Street is shown in Figure 2.4 and Figure 2.5.

Other key local roads include Clyde Street to the north and Ingebyra Street and Munyang Street that run south of Park Road. These roads provide access to surrounding residential dwellings with moderate to low parking demand, some attributable to the school.

Figure 2.4: Kalkite Street (looking north from Park Road)

Figure 2.5: Kalkite Street (looking north from Snowy River Avenue)

2.3. Existing Operation and Travel Mode

Detailed site observations were completed in mid-September 2018 during the morning school set-down period to understand existing school operations. GTA observed and were informed during the site visit that 300-350 high school students were going on a school trip to the snow, with coaches departing between 8:00am and 8:30am, much earlier than typical school drop-off period which commences closer to 9:00am when the first school bell rings. Therefore, the observations did not capture operations on a typical school day, which impacts the findings.

Nonetheless, key observations and knowledge of the day-to-day school operations include:

- Students mostly access the school via Clyde Street to the north, Park Road to the south and Kalkite Street to the east.
- The Kalkite Street bus only area and Council's car park are well utilised for set-down/ pick-up purposes.
- Vehicle access is as follows:
    - Clyde Street – one driveway access to an informal on-site car park plus loading/ bin storage area
    - Park Road – two separate driveways for emergency vehicle access (to the east) and special needs education
    - Bent Street – one driveway for access to a purpose-built (and underutilised) loading area.
- The informal staff car park in the north-east corner provides for approximately 20 vehicles.
- Approximately 80 vehicles park on the surrounding streets. This includes 25 vehicles along the site frontages, which has capacity for 40 vehicles. A further 50-60 vehicles park in Council's car park on a typical school day.
- On-street parking mostly occurs to the south on Park Road, with some minor demand on Munyang Street and Ingebyra Street further to the south.
- Seven school buses, of which two buses complete two runs, set-down students in the Kalkite Street bus only section during the set-down period, with staggered arrivals.
- Student set-down primarily occurs on Clyde Street to the north, on the northern side of Park Road close to Kalkite Street, and in Council's car park.
- Use of the Park Road children's crossing is generally low.

- Deliveries typically occur within the loading area with access via Clyde Street. Bins are wheeled to the kerbside for collection on Clyde Street.
- Use of the dedicated loading area (on Bent Street) is infrequent and attributed to its distance from key school facilities.
- Traffic volumes near the school are moderate during the set-down/ pick-up periods, with most activity associated with the school.

Travel mode surveys were also completed in early October 2018 to better understand how students and staff travel to and from the school on a typical school day, and the extent of associated parking demand. The survey captured approximately 65 per cent and 52 per cent of the student and staff populations respectively, with 2018 year 12 students not expected to have been captured having finished classes in September.

Nonetheless, the survey results provide a more accurate reflection of day-to-day operation and building on the site observations and knowledge of school operations with the following data:

- Some 85-90 per cent of the teaching and administrative staff travel to work by car (5 per cent as a passenger).
- Students typically travel to/ from school by the following modes:
    - 35-40 per cent by bus
    - 40-45 per cent by car (3 per cent being in year 12 and driving)
    - 15-20 per cent walk or ride a bike/ kick scooter.
- Majority of student set-down/ pick-up occurs in Council's car park (35-40 per cent), Park Road (25-30 per cent) and Clyde Street (20–25 per cent).

The travel mode surveys indicate that the school generates approximately 280 vehicles in any peak period. This includes approximately 70 staff vehicles and 210[1] vehicles associated with student set-down or pick-up, and year 12 students who drive.

[1] Factoring in an occupancy of 1.6 students per vehicle extrapolated from the travel mode surveys.

3. PARKING ASSESSMENT

3.1. Car Parking

3.1.1. Car Parking Requirements

Car parking requirements of different development types are set out in Council's Development Control Plan (DCP) 2013. DCP 2013 requires one space per staff and one space for every 10 year 12 students (where applicable). One bus parking space per 100 enrolled students is also required.

Based on the 2018 student and staff population (45 year 12 students and 80 staff), this equates to 85 parking spaces and eight to nine bus parking spaces. Assuming a 10 per cent increase in staff (eight additional staff) and year 12 students (five students), which reflects the overall growth in school population to 913 students, the school would be required to provide parking for an additional nine vehicles. One additional bus parking space would also be required.

3.1.2. NSW Government Motor Vehicle Operational Guidelines 2018

Notwithstanding the above, the NSW Government's *Motor Vehicle Operational Guidelines* version 2.0 2018 states the following in relation to personal use vehicles of government employees:

Section 3.4.3 - *"Users of privately owned, novated or 100% agency salary packaged vehicles are not entitled to a parking space on Government leased or owned premises."*

Therefore, the NSW Government does not support on-site parking for staff vehicles (whether owned, novated or salary packaged). That said, the proposal includes a new 20-space staff car park (including one accessible space) to offset current on-site parking that will be displaced by the proposed library and learning hub. The new car park could also be used for any out of school hours events.

3.1.3. Parking Adequacy

The formalised on-site parking not only benefits the school by improving on-site parking amenity for staff and separating parking and loading activities; it benefits surrounding residents and businesses by retaining existing on-site parking supply.

Whilst the on-site parking does not meet DCP 2013 requirements, the on-site parking and on-street parking available near the school will continue to be able to accommodate the small increase parking demand associated with the proposal. This is similar to current conditions which is understood to have minimal effect on surrounding residents and businesses to date.

As discussed in Section 2.3, there are 40 parking spaces along the frontage streets, with minimum 15 spaces typically available during peak periods. With the proposal generating parking demand for an additional nine vehicles (based on DCP 2013), the available parking along the frontage streets would accommodate this demand.

Equitable use of Council's car park for some set-down/ pick-up activity, and for visitors throughout the school day is considered appropriate. With this in mind, any such change to the car park such as the introduction of time restrictions, would not materially alter the car park use or its function. Overall, the minor increase in student population would have a nominal effect on parking demand and hence, surrounding residents and businesses.

The Kalkite Street bus only section is able to accommodate three buses at any one time. Assuming a turnover of three buses for each of these spaces during any set-down/ pick-up period, the area has a theoretical capacity of nine buses, which is consistent with the number of buses currently servicing the school. Based on the survey results, approximately 330 students currently travel to/ from school by bus on a typical school day. This could marginally increase to 365 students assuming a similar proportional travel mode share. With continued staggering of bus arrivals, it is expected that the existing bus only zone would be able to accommodate additional bus services required to service the future student population.

Further to the above, the construction programme requires the proposed on-site car park to be delivered as part of the latter stages due to the need to maintain use of existing demountable classrooms for day to day learning. This also coincides with the need to construct the library and learning hub in the location of the existing informal staff car park. As a result, there will be an approximate 12-month period where on-site parking will not be possible with the typical demand of 20 staff vehicles required to be accommodated on-street. While this will present some level of impact to on-street parking demand in the vicinity, the surrounding frontage streets are expected to be able to readily provide for such minor temporary impacts.

3.2. Bicycle Parking

The school currently provides bicycle racks for up to 18 bicycles located close to the library. While DCP 2013 does not include specific bicycle parking requirements, it does require bicycle parking to be provided in convenient and secure locations.

The Planning Guidelines for Walking and Cycling (Department of Planning, 2004) suggests that long-term (staff) bicycle parking be provided at a rate of 3-5 per cent of staff and 5-10 per cent for short-term users (visitors/ students). Applying this to the future school population results in a potential demand for approximately 50 to 100 bicycle spaces.

The travel mode surveys indicating that 10-15 students ride bicycles to school on a typical school day, with a further 15 students riding kick scooters. As such, it is recommended that additional bicycle parking is provided to increase capacity by around 50 per cent; whilst the School should also consider providing kick scooter parking to support existing demand.

4. TRAFFIC AND ACCESS

4.1. Vehicle Access and Loading

The proposed alterations and additions to Jindabyne Central School includes a new 20-space on-site car park to the south with separate entry/ exit vehicle crossovers on Park Road close to Ingebyra Street.

Delivery and service vehicle access will be retained via Clyde Street close to the proposed library and learning hub. This back of house area will be able to accommodate small rigid vehicles up to 6.4 metres long, with larger vehicles to continue to make use of on-street parking adjacent to the school outside peak periods. The back of house area will also serve as the primary emergency access, with a secondary emergency access on Park Road to remain unchanged.

4.2. Traffic Impact Assessment

The school currently generates approximately 280 vehicles in the morning and afternoon peak periods. This includes 70 vehicles associated with staff and 210 vehicles associated with student set-down or pick-up (and year 12 students that drive). This equates to 0.9 vehicles per staff member plus 0.25 vehicles per student.

Applying this to the potential increase in population of 86 students and eight staff for a total of 913 students and 88 staff, Jindabyne Central School could generate up to 310 vehicles during peak periods following the proposed alterations and additions. This represents an additional 30 vehicles in any peak.

As discussed, traffic volumes surrounding the school are low to moderate during peak school periods and are predominantly associated with the school. Overall, an additional 30 vehicles during these peak periods could not be expected to compromise the safety or function of the surrounding road network.

5. CONCLUSIONS

The following conclusions are made based on the analysis and discussions presented within this report:

1. The proposed alterations and additions at Jindabyne Central School aim to upgrade the existing facilities while consolidating teaching space.
2. The school could accommodate an increase in students from the current 827 students, to 913 students. This represents an approximate 10 per cent increase.
3. A future 913 student population generates a DCP 2013 parking requirement of 94 spaces, or nine additional spaces over existing demand.
4. The proposal maintains existing on-site parking supply by relocating informal on-site parking into a new at-grade 20-space car park with access via Park Road. While this improves on-site parking amenity for staff and visitors, it remains consistent with NSW Government Motor Vehicle Operation Guidelines 2018.
5. On-street parking demand and set-down/ pick-up activities will remain relatively consistent with existing, with the additional parking for nine vehicles generated by the proposal able to be accommodated by minimum 15 on-street spaces available along the frontage streets.
6. During the construction programme when on-site parking will not be possible, the surrounding frontage streets are expected to be able to readily provide for the typical demand for on-site staff parking.
7. Having consideration to the generally moderate to low traffic volumes during peak school periods, the anticipated increase in school population could not be expected to compromise the safety or function of the surrounding road network.

GTAconsultants

www.gta.com.au