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Transport Assessment State Significant Development 15788005 Jindabyne Education Campus Modification 1 for Hansen Yuncken



# **Document Control**

Project No:	0338
Project:	Jindabyne Education Campus Modification 1
Client:	Hansen Yuncken
File Reference:	P0338r2v2 SSD 15788005 Modification 1 Transport Assessment

# **Revision History**

Revision	Date	Details	Approved by
v1	28/10/2022	Draft 1	A. Reisch
V2	31/10/2022	Final 1	A. Reisch

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# 1 Introduction

# 1.1 Overview

arc traffic + transport has been engaged by Hansen Yuncken to prepare a Transport Assessment (**TA**) relating to **Modification 1** to State Significant Development 15788005 (the **SSD**) for the Jindabyne Education Campus (the **Campus**), 207 Barry Way, Jindabyne (the **Site**).

Full details of Modification 1 are provided in the broader Modification application to be submitted to the Department of Planning & Environment (**DPE**) for assessment; however, of specific relevance to this TA are the following components of Modification 1:

- A minor realignment of the internal access road (termed School Road for ease of reference) providing access from Barry Way to drop-off/pick-up (DOPU) spaces, a new car park west of School Road (the car park) and bus bay infrastructure;
- In turn, the minor relocation of the DOPU spaces and bus bay infrastructure in School Road;
- A regrading of School Road to provide more accessible gradients from the DOPU spaces and car park to the Campus' pedestrian entry points;
- 1 additional DOPU space in School Road (to a total of 54 spaces);
- The relocation of visitor parking spaces (4) from School Road to the car park; and
- The retention of all other parking spaces in accordance with the SSD.

From the outset, it is critical to note that Modification 1 would not result in any substantive changes to the operation and design of the Campus in accordance with the submitted SSD nor the SSD Instrument of Consent dated 10 August 2022 (**SSD Consent**) issued by DPE; in this regard:

- Modification 1 does not provide for any changes to the number of students or staff to be accommodated at the Campus, nor any changes to operating hours, and in turn no change to the traffic characteristics of the Campus as previously assessed and approved; and
- Modification 1 does not provide for any changes to the accessibility of the Campus to the local road network, which will continue to be provided via the Barry Way & School Road roundabout to the north of the Site, and a new roundabout at the intersection of Barry Way and the existing access road to the Jindabyne Sport & Recreation Centre (termed **Recreation Road** for ease of reference).

# 1.2 Transport Assessment Tasks

This TA provides an assessment of the access, traffic and parking characteristics of Modification 1, and moreover whether Modification 1 has any potential to result in poorer (or otherwise significantly different) transport outcomes to those inherently approved in the SSD Consent. In this regard, arc traffic + transport has:



- Reviewed the design of School Road, DOPU spaces, the car park and bus bays as provided for under the SSD Consent;
- Examined the rationale for the proposed changes under Modification 1; and
- Assessed the revised internal infrastructure with reference to Australian Standards and other relevant guidelines.

## 1.3 Reference Documents

### 1.3.1 Planning Documents

Key planning documents referenced in the preparation of this TA include:

- The SSD, with a particular focus on the Jindabyne Education Campus Transport Assessment 2021, Aurecon (**Campus TA**), and the approved Structural and Civil plans dated 22 August 2022, prepared by Cardno (the **Cardno Plans**);
- The SSD Consent;
- General reports prepared on behalf of Hansen Yuncken to accompany the Modification 1 application, with a particular focus on the revised civil plans prepared by Northrop (the Northrop Plans); and
- Snowy Mountains Special Activation Precinct Master Plan 2022, NSW State Government (SM Master Plan).

## 1.3.2 Traffic and Transport Guidelines

This TA also references general traffic and transport guidelines, including:

- Transport for NSW (TfNSW) Bus Infrastructure Guidelines 2011 (Bus Guidelines);
- Australian Standard 2890.1: Parking Facilities Off-Street Car Parking (AS 2890.1);
- Australian Standard 2890.5: Parking Facilities On-Street Parking (AS 2890.5);
- Australian Standard 2890.6: Parking Facilities Off-Street Parking for People With Disabilities (AS 2890.6); and
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.



# 2 The SSD Approval

## 2.1 Site Location

The Site is located at 207 Barry Way, and is bordered by land that will be used for community sport facilities to the north, Recreation Road to the south, land that will be used for open space and additional sports facilities to the east, and Barry Way to the west.

The Site is shown in its local context in Figure 1.

## Figure 1: Site Location



Source: Nearmap



# 2.2 The SSD Consent

The SSD Consent provides for the development of the Site to include:

- A Primary School for 515 students;
- A High School for 410 students;
- Support infrastructure, including administration buildings, after hours facilities and recreational facilities; and
- School Road, providing access to the staff car park, visitor parking, set down spaces facilities and bus bays; and
- Active transport connections to the broader active transport network proposed across the Jindabyne Precinct.

The upgrade of Barry Way adjacent to the Site, including the construction of roundabout intersections at School Road and Recreation Road, will also be undertaken as part of the broader SSD works.

The approved Campus Master Plan is shown in Figure 2.



## Figure 2: The Campus Master Plan

Source: djrd architects



## 2.3 Access

### 2.3.1 Vehicle Access

With reference to Figure 2, vehicle access to the Site will be provided via School Road, which generally runs parallel to, and east of, Barry Way. In the north, School Road will connect directly to a roundabout intersection with Barry Way, while in the south School Road will connect to Recreation Road, and in turn a roundabout intersection of Barry Way & Recreation Road.

## 2.3.2 Active Transport Access

The Campus will provide significant internal active transport infrastructure, which will in turn connect to the broader active transport network proposed across the Sports and Education Precinct (as described in the SM Master Plan). Active transport infrastructure across the Campus is shown in Figure 19 of the Campus TA, which is reproduced below.



## Figure 3: Campus Active Transport Infrastructure

Source: Campus TA

# 2.4 Traffic

## 2.4.1 Campus Trip Generation

The trip generation of the Campus was calculated in Campus TA further to consultation with key authorities and stakeholders, and determined that the Campus will generate approximately 1,368 vehicle trips in the school AM and PM peak hours.



### 2.4.2 Road Network Operations

Campus TA provides SIDRA intersection analysis of the 2 roundabout intersections to Barry Way for both a 2023 and 2033 forecast scenario. The operation of these intersections under each scenario is summarised in Table 5.3 and Table 5.4 of Campus TA (for the 2023 and 2033 scenarios respectively), and concludes that the key intersections to Barry Way will operate at a good Level of Service, with very moderate average delays and queuing on each approach, and retain significant spare capacity.

## 2.5 Additional Transport Infrastructure

### 2.5.1 Drop-Off & Pick-Up Spaces

Under the SSD Consent, the Campus would provide 53 DOPU spaces, which will be provided as parallel spaces on both sides of School Road.

### 2.5.2 Staff Parking

Under the SSD Consent, the Campus would provide 50 staff parking spaces in the car park.

#### 2.5.3 Student Parking

Under the SSD Consent, the Campus would provide 6 student parking spaces in the car park.

#### 2.5.4 Visitor Parking

Under the SSD Consent, the Campus would provide 4 visitor parking spaces in School Road adjacent to the School Administration building.

#### 2.5.5 Bus Bays

Under the SSD Consent, the Campus would provide 4 bus bays in School Road adjacent to the Primary School and High School.



# 3 Modification 1

## 3.1 Overview

As discussed in the Introduction, from a transport perspective Modification 1 provides for:

- A minor realignment of School Road;
- In turn, a minor relocation of the DOPU, parking and bus bay infrastructure in School Road;
- A regrading of School Road to provide more accessible gradients from the DOPU spaces and the car park to the Campus' pedestrian entry points;
- 1 additional DOPU space in School Road (to a total of 54 spaces);
- The relocation of visitor spaces (4) from School Road to the car park; and
- The retention of all other parking spaces, including 50 staff parking spaces and 6 student parking spaces in the car park; and 4 bus bays in School Road.

These key components of Modification 1 are shown in Figure 4.





#### Figure 4: Modification 1 Transport Infrastructure

Source: Northrop and arc traffic + transport

#### 3.2 Access

#### 3.2.1 Access to Barry Way

Modification 1 does not provide for any changes to future vehicular access between the Site and the road network at Barry Way, with roundabouts to be constructed at Barry Way's intersections with School Road and with Recreation Road. The intersection of School Road & Recreation Road east of Barry Way is similarly unchanged.



### 3.2.2 School Road Access

Modification 1 does not provide for any significant changes to the design profile of School Road, which will provide an appropriate width to accommodate both two-traffic and kerbside parking (DOPU spaces and bus bays) in accordance with Australian Standards (see also Section 3.6).

#### 3.2.3 Active Transport Access

Modification 1 retains all of the approved on-site active transport infrastructure, as well as the approved connections to the future shared path in Barry Way. This includes pedestrian crossings in School Road adjacent to the 2 primary Campus pedestrian access points.

## 3.3 Drop-Off and Pick-Up Spaces

### 3.3.1 Additional Drop-Off and Pick Up Space

Modification 1 provides 1 additional DOPU space in School Road, bringing the total number of DOPU spaces in School Road to 54 spaces.

#### 3.3.2 Drop-Off and Puck-Up Spaces Relocation

Modification 1 provides for the relocation of the DOPU spaces further to the south in School Road; this provides a superior outcome when compared to the approved design, as it provides more immediate proximity between the DOPU spaces and the Campus' pedestrian entry points.

### 3.4 Parking Spaces

#### 3.4.1 Staff Parking Spaces

Modification 1 does not change the number of parking spaces allocated to staff, with 50 staff parking spaces in the car park; this includes 2 accessible spaces appropriately located immediately adjacent to the marked pedestrian path within the car park, and then to the path along School Road and the pedestrian crossings adjacent to the Campus' pedestrian entry points.

#### 3.4.2 Student Spaces

Modification 1 does not change the number of parking spaces allocated to students, with 6 student parking spaces in the car park.

#### 3.4.3 Visitor Parking Spaces

Modification 1 does not change the number of visitor spaces (4); however, Modification 1 provides for these 4 visitor parking spaces to be provided in the car park rather than in School Road.

### 3.5 Bus Bays

Modification 1 does not provide for any changes to the provision of bus bays, 4 of which will be provided in School Road immediately adjacent to the Campus's pedestrian access points, i.e. on the eastern side of School Road.



## 3.6 Design

A Design Statement has been prepared by Northrop in regard to the Modification 1 civil design changes, which addresses the compliance of the new and revised infrastructure with Australian Standards and relevant guidelines; this Design Statement will be submitted as part of the broader Modification 1 application, but in summary has determined that:

- The width of School Road provides compliance with Table 3.2 of AS 2890.1;
- The length and width of the [parallel] DOPU spaces provides compliance with Figure 2.5 of AS 2890.1;
- The parking aisle and parking spaces within the car park provide compliance with Figure 2.2 of AS 2890.1;
- The accessible parking spaces in the car park provide compliance with Figure 2.1 of AS 2890.6; and
- The bus bays provide compliance with Section 2 and Section 3 of the Bus Guidelines, including length appropriate to manoeuvre to and from each bus bay, and a 3.0m bus bay width adjacent to a 3.5m carriageway.

## 3.7 Traffic

Finally, and as discussed in the Introduction, Modification 1 does not provide for any changes to the general operational characteristics of the Campus, and specifically no changes to student and staff numbers or operating hours.

As such, further to Modification 1 there would be no change to the operation of the local road network as determined in the SSD and subsequently approved in the SSD Consent.



# 4 Conclusions

Further to our assessment of Modification 1, arc traffic + transport has determined that Modification 1 would result in no material change to the access, traffic and parking characteristics of the Campus as detailed in the SSD and subsequently approved in the SSD Consent. In summary,

- Modification 1 does not provide for any changes in the number of students and staff to be accommodated at the Campus, nor any changes to operating hours, and in turn no change to the traffic characteristics of the Campus as previously assessed and approved.
- Modification 1 does not provide for any changes to the accessibility of the Campus to the local road network, which will continue to be provided via the Barry Way & School Road roundabout to the north of the Site, and a roundabout at the intersection of Barry Way & Recreation Road to the south of the Site;
- Modification 1 provides for revisions to the location of DOPU spaces such that they are provided in closer proximity to the Campus' pedestrian access points;
- Modification 1 provides for the regrading of some sections of School Road to improve accessibility between the DOPU spaces and car park, and the Campus' pedestrian access points;
- Modification 1 will provide 1 additional DOPU space in School road, and the relocation of the 4
  visitor parking spaces to the car park, but this would in no way alter the trip generation or
  distribution of the Campus as previously determined and approved;
- Modification 1 retains 50 staff parking spaces and 6 student parking spaces in the car park (for a total of 60 spaces further to the relocation of the visitor spaces); and
- All new/revised infrastructure has been designed to provide full compliance with Australian Standards and other relevant guidelines.

In summary, arc traffic + transport has determined that the changes to the SSD Consent provided for under Modification 1 are entirely supportable further to access, traffic and parking considerations.