01 November 2024

Simon Vant
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Dear Simon

RE: PPSHCC-253-Singleton-DA 8/2023/502/1 at 109-129 Kelso Street Singleton 2330 - Educational Establishment - School-Supplementary Assessment for Planning Panel

Background

SCT Consulting has been engaged by Christian Education Ministries to undertake a Traffic Impact Assessment (TIA) to support a development application (DA 8/2023/502/1 at 109-129 Kelso Street Singleton 2330) for the proposed expansion of Australian Christian College, Singleton. The site is bounded by Kelso Street to the north, New England Highway to the east and Waddles Lane to the south, adjoining existing low-rise residential dwellings to the west.

Hunter and Central Coast Regional Planning Panel issued the planning panel briefing minutes on 1 February 2024 based on the TfNSW's comments. The key transport-related matters raised by the panel for consideration were addressed in SCT Consulting's Traffic and Transport Assessment Report Version 7.0 and the attached School Transport Plan.

On 24 September 2024, the Planning Panel issued a Record of Deferral for the proposal and requested a supplementary assessment for understanding of the uses and functions on the site and particularly the traffic impact, including:

– The existing and future drop-off/pick-up facilities and bus operations on site and how they are managed. This includes measures required to be in place to ensure that there are adequate facilities to meet the different uses and the proposed increase in student population, to ensure no impacts on the street.

– The function of the car park and having adequate bicycle facilities for a 700-student body. The panel queries whether 20 bicycle spaces are sufficient.

– The panel queries the appropriateness of the proposed bus circulation and the identified location of drop off/pick up – particularly in the event of greater student numbers. The car park area needs to designate particular areas and note that there is limited definition of areas at present. The location of bus parking for school-owned buses is required.

Hence, this letter will form a detailed operational management plan that will address the delineation of drop off/pick up, bus parking, staff, student, and visitor parking and pedestrian paths, and functional requirements of drop-off/pick-up management across the site.

Proposed student and staff population

Australia Christian College Singleton is seeking to redevelop their campus to upgrade its facilities for the expected increase in students over the coming years. **Table 1** outlines population increase by stages.

Table 1 The proposed population growth

Stage	Student population growth	Student number	Staff population growth	Staff number
Existing	-	378	-	37
Stages 1 & 2	+113	491	+8	45
Stage 3	+322 (+209 from Stage 2)	700	+51 (+43 from Stage 2)	88

In addition,

- There are around 55 students and 16 staff for the childcare centre. No change will take place for the childcare centre.
- There are 15 students (Tuesday 1.30-4:30pm) to 20 students (Thursday 1.30-4:30pm) attending the TAFE/trade school with an estimation of one staff at the school campus. No change will take place for TAFE.
- An Out of School Hours care (OOSH) is expected to accommodate 45 students with three staff, which operates from 7:00 to 8:30am (TBC) and 3pm to 6:30pm.

Proposed parking layout

Table 2 outlines the parking requirements which cover multiple components on the school campus. It is noted that the underlined parking spaces are excluded from the total calculation due to staggered timing for drop-off/pick-up. Hence, it is required that 87 spaces and 129 spaces will be provided for Stage 1+2 and Stage 3.

Table 2 Parking requirements

Land use type	Parking requirements	Scale		Required spaces	
		Existing	Expansion	Existing	Expansion
Childcare centre	1 / staff + 1 / 4 enrolled children	– 15 staff – 55 children		– 15 (s) – <u>14 (v)</u>	
TAFE	0.5 / staff + 1 / 10 students.	– 1 staff (from school) – 20 students (max)		– <u>1 (s)</u> – <u>2 (v)</u>	
School	0.5 / staff + 1 / 10 students.	– 37 staff – 378 students	**Stage 1+2** – 45 staff – 491 (400)^ students **Stage 3** – 88 staff – 700 students	– 19 (s) – 38 (v)	**Stage 1+2** – 23 (s) – 49 (v) **Stage 3** – 44 (s) – 70 (v)
Total*	**-**	**-**	**-**	**72 spaces**	**87/ 129 spaces**

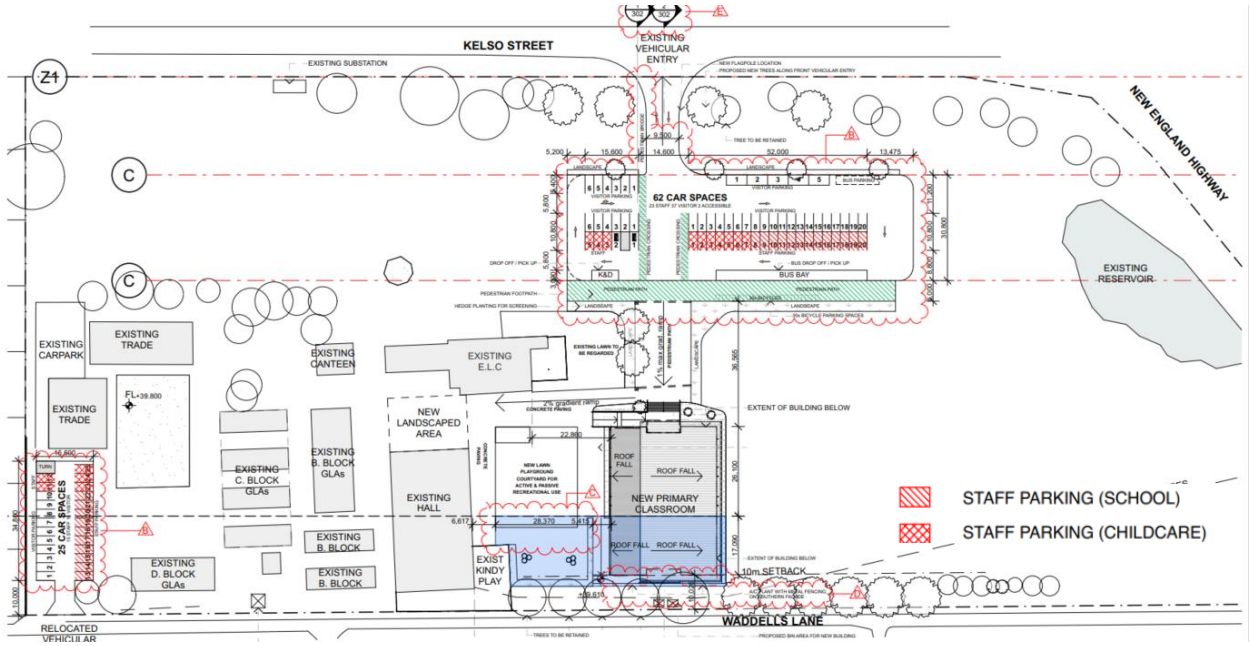
Note: (s) = staff parking, (v) = visitor parking;

*Visitor parking for childcare and TAFE is excluded due to staggered timing and shared parking strategy. TAFE staff comes from the school which does not generate additional parking.

^The parking requirement is calculated based on the actual students that the school will accommodate and the related parking demand, which is different from the student number increase and related traffic increase during peak hours.

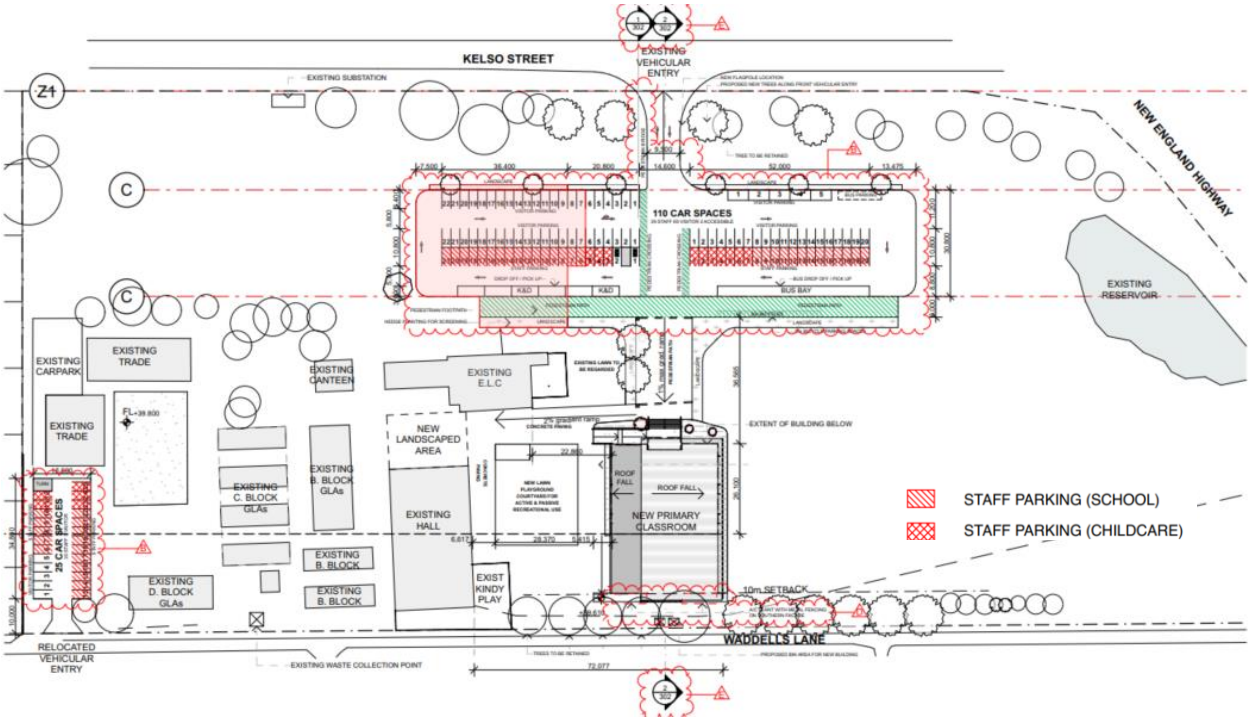
Figure 1 and **Figure 2** show the proposed parking arrangement at different stages. The parking facilities are provided in the north of the site and southwest of the site.

Figure 1 Stage 1+ 2 master plan



Source: CEM, 2024

Figure 2 Stage 3 master plan



Source: CEM, 2024

A total of 87 spaces and 135 spaces are provided in the master plan for Stage 1+2 and Stage 3, respectively, which satisfies the DCP requirements. There is a surplus of six spaces by Stage 3. The parking spaces are further allocated to visitor parking (for drop off/pick up by childcare, TAFE and school), school staff and childcare staff.

Table 3 Parking allocation

Stage	Location	Visitor	School staff	Childcare staff	Total
Stages 1 & 2	North	39 spaces	13 spaces	10 spaces	**62 spaces**
	southwest	10 spaces	10 spaces	5 spaces	**25 spaces**
Stage 3	North	71 spaces	29 spaces	10 spaces	**110 spaces**
	southwest	5 spaces	15 spaces	5 spaces	**25 spaces**

It is anticipated that staff will arrive before and after normal school hours. Staff traffic is not expected to occur during the typical drop-off/pick-up period and its turnover rate is relatively low during the day. Hence, staff parking has been designated close to the kiss-and-drop and bus parking in the northern parking area, which will minimise conflicts during school peak hours. All car parking spaces have been designed to the more conservative requirement of 2.6m wide, so can be used by staff (low turnover rate) or visitors (high turnover rate) per AS2890.1

One bus parking space has been provided in the northeast corner of the northern parking area for school-owned bus.

Drop off / pick up by car

Parents or guardians need to park within the car park provided for drop-off/pick-up. They will escort their children to and from the school. In the afternoon, on-duty teachers will not allow primary students to leave the grounds unless they are personally escorted by their respective parents or guardians.

All visitor parking (49 for Stage 1+2 and 76 for Stage 3) is available for drop off/pick up activity. Given the staggered drop-off/pick-up period among the multiple facilities, the visitors will share the parking for drop-off/pick-up:

– Childcare (typically 7:30-8:30am and 16:00-18:00pm), which is unlikely to affect other uses on-site and does not require further management due to the occurrence outside of the AM/PM school peak hours

– School (typically 8:30-9:00am and 15:00-15:30pm)

– TAFE classes (13:30pm and 16:30pm on Tuesdays and Thursdasy), which are unlikely to affect other uses on-site and do not require further management due to the occurrence outside of the AM/PM school peak hours

– OOSH traffic may overlap with childcare drop-off/pick-up, however, given its relatively small scale, there should be no issue for them to share the parking spaces.

The actual visitor parking demand is calculated based on the below assumptions:

– 5-minute dwelling time for one pick-up activity (without management) and 2-minute dwelling time for one pick-up activity (with management). Pick-up usually takes longer time than drop-off, hence, the pick-up scenario is selected for the analysis.

– 68 per cent of the school students (700 students) use private cars based on the student survey.

– An average of 1.6 students per car based on the student survey

– A 30-minute window in the morning and afternoon which assumes 100 per cent of the students will be dropped off or picked up.

As a result,

– For Stages 1+2, a total of 15 and 34 spaces are required for the drop-off/pick-up area assuming with management and without management.

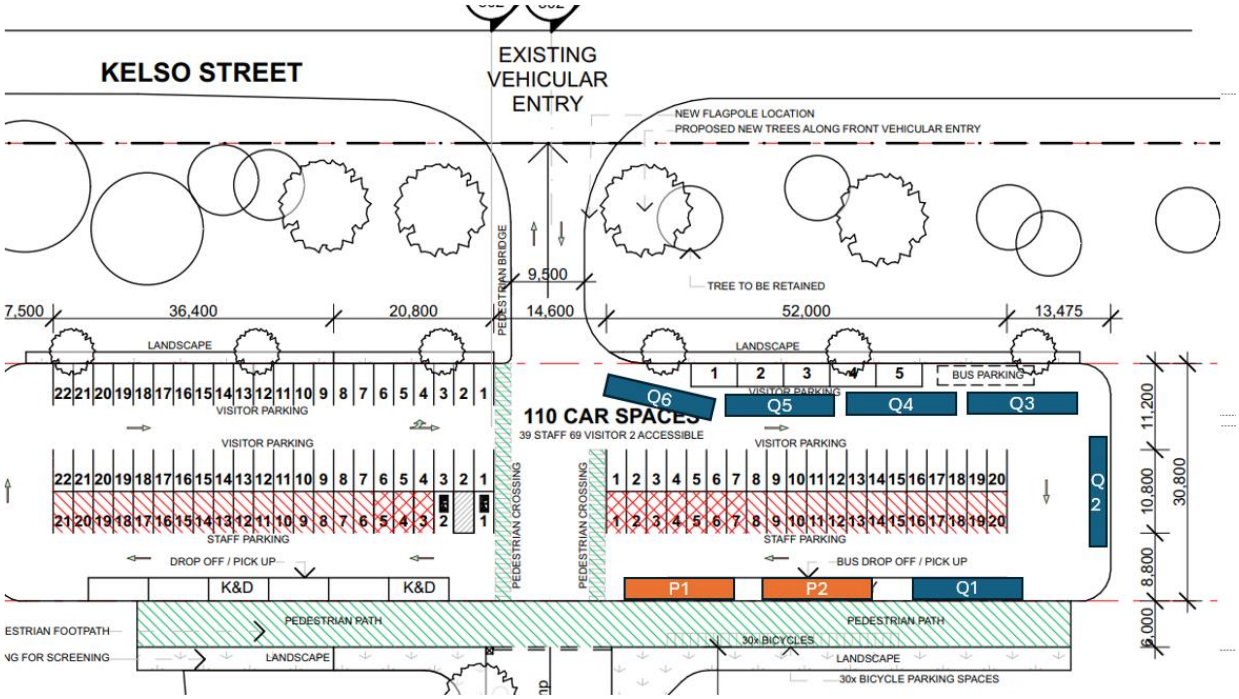
– For Stage 3, a total of 25 and 57 spaces are required for the drop-off/pick-up area assuming with management and without management.

Hence, the provision of 49 (Stages 1+2) and 76 (Stage 3) spaces for visitor parking is sufficient. There is no need for management, though it could be used if there are observed queuing spillback issues observed. There will be no overspilling of the cars on the public road, i.e. Kelso Street.

Drop off / pick up by bus

Two bus parking spaces (P1+P2) have been provided on the southern edge of the parking area, which provides drop-off and pick-up opportunities for school buses. The queuing area within the parking is up to 100 m along the internal road, which allows a total of six school buses (Q1 to Q6) to queue up on the internal road without extending to the driveway entry/egress or overspilling to Kelso Street. Therefore, it will not affect/restrict car entry/egress to the campus. The design complies with the DCP requirement (**Figure 3**).

Figure 3 Indicative bus queuing layout



Note that the bus is 14.5m long indicatively.

12-13 school buses are servicing the existing school with an arrival window of about 20 to 30 minutes. This results in an arrival rate of 1.5 minutes/ bus. The maximum bus dwell time is therefore 3 minutes and 50 seconds per bus assuming 25 minutes of arrival window, which is considered sufficient. In the afternoon, staff management should be presented to direct students to the buses. The area between the car park and the building could be nominated where students wait in groups under the supervision of staff.

CDC NSW is a leading provider of school bus services for the site who should continue to monitor the capacity of services as the school expands. Regardless, it is not expected that the number of bus services will increase in proportion to the student growth. Hence, the provision of two space should be sufficient as school expands.

A private school bus (57 seaters) currently operates between the school and Branxton/ Greta/ Huntlee/ North Rothbury which arrives at school around 8:40am and leaves at 3:05pm. The private school bus is expected to park at the designated bus bay in the northeast corner of the northern parking area. Staff can also walk the students to the bus parking in the afternoon.

Bicycle parking

The provision of a bicycle parking zone (allowance of 30 bicycle racks) to the south of the parking area is reasonable and will satisfy a bicycle mode share of over four per cent, nearly double the current bicycle mode share. Additional bicycle parking can be further supplemented if needed in the future given the nature of the development.

Pedestrian access

A pedestrian path has been provided on the western side of the driveway, which extends to the south of the northern car park and further with the new primary classroom via a dedicated pedestrian ramp. This will facilitate pedestrian

movement from/to Kelso Street. A pedestrian footpath is also provided to the southern side of the parking area to facilitate drop off/pick up. Pedestrian crossings are available in the car park to ensure safe crossing from/to the parking aisles.

Travel speed

10km/h shared zone is recommended within the car park to ensure pedestrian safety. Traffic safety equipment such as speed bumps and signages are required to effectively reduce speed and encourage drivers' giving way to pedestrians.

Yours sincerely

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