

18 June 2021

File No: NTH20/00201/02

Your Ref: SSD-8744305

The Director
Energy, Industry and Compliance
Planning and Assessment
Department of Planning, Industry and Environment

Attn: Tuong Vi Doan – Planning Officer

Dear Sir / Madam,

**RE: Major Projects – EIS – Upgrade and expansion of Kingscliff High School
Lot 57 DP 803814 and Lot 3 DP 803772 – 33 Oxford Street, Kingscliff**

I refer to the Department's referral via the NSW Major Projects Portal of 20 May 2021 requesting advice from Transport for NSW (TfNSW) in response to the Environmental Impact Statement (EIS) for the above mentioned State Significant Development.

Our key interests are the safety and efficiency of the transport network, the needs of our customers and the integration of land use and transport in accordance with *Future Transport Strategy 2056*.

TfNSW can confirm the following statements of fact relevant to our areas of expertise and regulatory powers.

- Oxford Street, McPhail Avenue and Cudgen Road are public (Local) roads. Tweed Shire Council is the Road Authority for all public roads in the local government area. TfNSW has an interest in road user safety around schools and the safe operation of the road network generally.
- The application seeks consent to increase the number of students attending Kingscliff High School from 1104 to 1400 students over a 10 year period, which is an increase of 296 students and is defined as a traffic generating development under Clause 57 of the *State Environmental Planning Policy (Education and Child Care Facilities) 2017 (ESEPP)*.
- In accordance with Clause 57 of the *State Environmental Planning Policy (Education and Child Care Facilities) 2017*, TfNSW is given the opportunity to review and provide comments on traffic generating developments that will result in an education establishment being able to accommodate 50 or more additional students and involves an enlargement or extension of an existing premises or a new premises.

TfNSW considers that in our technical assessment of the EIS, specifically the *Attachment 15 – Traffic and Transport Impact Assessment (TTIA)* and associated annexures, that the 'baseline' for the assessment and the predictions of impact are incomplete and require further investigations. TfNSW notes that the development is proposed to directly access a number of key intersections near the high school and has demonstrated, but not acknowledged, the potential for queues to

develop at these intersections when additional traffic is added to the background traffic volumes. It is further identified that due to the close proximity of the key intersections to one another, there is potential that these queues may have a cumulative impact on adjacent intersections.

The assessment does not consider the benefits of traffic facilities at these locations as mitigation measures to either prevent any turn movements or improve the intersections. Given the close proximity of intersections and scope of development in the surrounding precinct, further consideration of the interaction between intersections is needed.

In addition to the above, TfNSW provides additional comments in regards to the following topics:

- On-street parking arrangements.
- Impacts of the misuse of the Kiss 'n' Drop facility.
- Proposed pedestrian and cyclist crossing upgrade/s.
- Parking and traffic impacts of construction staff.

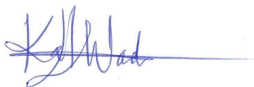
Technical comments are provided in **Appendix A** of this response to assist the Applicant identifying appropriate measures to enable this development to proceed.

Importantly, TfNSW require further detail demonstrating comprehensive assessment of the key intersections addressing TfNSW concerns about the safety and efficiency of these intersections and ensuring the transport network will not be adversely impacted by the proposed development both during construction and operational stages.

TfNSW highlights that in determining the application under the *Environmental Planning and Assessment Act 1979*, it is the Consent Authority's responsibility to consider the environmental impacts of any roadworks which are ancillary to the development. This includes any works which form part of the proposal and/or any works which are deemed necessary to include as requirements in the conditions of project approval.

Upon determination of the application it would be appreciated if Department of Planning and Environment could forward a copy of the approval for our records. If you have any further enquiries regarding the above comments please do not hesitate to contact Katrina Wade, Development Services Case Officer or the undersigned on (02) 6640 1362 or via email at: development.northern@transport.nsw.gov.au

Yours faithfully,



for Matt Adams
Team Leader, Development Services
Community and Place | Region North
Regional & Outer Metropolitan
Transport for NSW

Enc: Attachment A – Technical Comments

Attachment A - Technical Comments

For context, this attachment must be read with TfNSW response of **18 June 2021** to SSD-8744305.

TfNSW has reviewed the Environmental Impact Statement (EIS) and the Traffic and Transport Impact Assessment (TTIA) including all relevant annexures and provides the following comments to assist the Department and the Applicant in progressing the application:

EIS, TTIA and supporting documents – General Comments

1. Throughout the *TTIA*, *EIS* and their supporting documents the values applicable to the proposed and existing staff / student numbers (numeric data or percentages), vary widely. This leads to uncertainty in regards to their true values and the base case for the development's trip generation.
 - Volumes vary from 84, 91 up to 117 for existing staff, however, given the proposal is to increase the overall number of staff to 106, it would appear that the 117 reference is incorrect.
 - The percentage of the increase in student numbers is often referred to as 27%. However, the proposed increase of 296 additional students up to a maximum of 1400, will result in an increase of only 21.1%. It appears 27% has been used to generate a number of calculations throughout the report and may be leading to incorrect data. The Yearly Student Enrolment Increase demonstrated in *Table 4.1* in the *TTIA*, proposes (approximately) 27 additional students each year over a 10 year period.
 - The number of existing car parking spaces available onsite varies in the documents from 98 to 108 spaces.
2. The *TTIA* provides a copy of the *Traffic Network Diagrams (Appendix E)*. Sheets 8 and 9 present the Background Traffic Volumes for the commencement design year of 2022 and the 10 year horizon design year 2032. Sheets 10 and 11 present the data "With Development Volumes" for both design years 2022 and 2032. The data in these diagrams appears to be incomplete:
 - The "background volumes" sheets do not show any background data for the local streets, Oxford, Yale and Cambridge Streets. These streets are already in use and accessed by traffic which is generated by both existing residential lots and the existing high school.
 - There is no explanation in this document to inform where the data has been sourced from and the volumes do not match those in the *SIDRA Outputs (Appendix F)*.
 - It is unclear if the "with development" volumes for the local streets are demonstrating the additional traffic generated by the increase in new students only, or is intended to also include the existing traffic.

TfNSW recommends the Consent Authority seek clarification from the proponent in regards to the background traffic volumes, growth rates, generated traffic volumes, student and staff numbers, car parking spaces, percentages and calculations for both the existing and the proposed development.

Existing Background Traffic, School Traffic (Survey)

3. *Section 6.2* of the *TTIA* refers to background traffic and a survey undertaken on 19 November 2019, which captured this information, further assessments of the existing trips generated by the existing school have been demonstrated in *Tables 6.1* and *6.2*.
 - The survey was undertaken at three key intersections surrounding the approach to the high school, but does not appear to have been taken closer to the school site itself on Oxford Street. Assumptions appear to have been made in regards to the number of senior students

driving to school although this has been stated to be consistent with the travel mode share survey.

- It is noted that the PM peak hour traffic shows a vast difference in volume to the AM peak hour, in both the survey traffic volumes and the Existing Trip Generation totals shown in *Tables 6.1* and *6.2*. The change appears to occur for the KHS Non-staff traffic volumes only, dropping from 242 in the AM peak hour to only 61 in the PM peak hour, although no clear explanation is provided for this, TfNSW this may be due to the Kiss 'n' Drop facility being misused in the afternoons (refer to *Section 9.1* of the *TTIA*).
- As indicated above, it appears *Section 9.1* of the *TTIA* observes that the Kiss 'n' Drop facility, "...is heavily utilised in the afternoon peak with parents / carers arriving for pick-up approximately 45 minute before school concluded". However, *Section 7.7* states that, "...the drop-off / pick-up zone operated efficiently with spare capacity and did not cause any safety or traffic impacts to the external road network." These observations appear to have occurred on separate occasions.

TfNSW recommends that further investigations be undertaken to determine if the misuse of the Kiss 'n' Drop facility is the potential cause for the vast difference in traffic generated by the KHS Non-Staff during the AM and PM peak hours for the background traffic data as a result of parents arriving earlier than the designated PM peak hour period.

TfNSW further recommends that the Kiss 'n' Drop facility be addressed further in the School Travel Plan (STP), to include communications to parents informing on the appropriate use of the facility. TfNSW notes that this is a behavioural issue that is not uncommon, however, in order to implement the STP appropriately, this should to be addressed and mitigation measures proposed to prevent future misuse of the facility.

When managed under an implemented STP, the Kiss 'n' Drop facility has the potential to influence a change in the PM peak hour volumes. These changes in the future, may have an impact on the safety and efficiency of the key intersections and could generate similar queuing impacts in the future PM peak hour as the AM peak hour has demonstrated (addressed below).

Key Intersections - Queuing

4. *Section 6.6* of the *TTIA* demonstrates an intersection assessment for three (3) key intersections. These include diagrams, data analysis (*Tables 6.9, 6.10* and *6.11*) and summaries of the *SIDRA Outputs (Appendix F)*. The assessments appear to address the each of the intersections as a single entity only and do not address the impacts the traffic has on the individual roads / legs which for each of the intersection/s.

- In particular, *Table 6.10* for the *Cudgen Road / Oxford Street intersection SIDRA results* refers to a queue length of 51m for the AM of 2032 with the (future) Design traffic volumes. Neither the table nor summary raise concern with these queue lengths, nor do they identify which street / leg of that intersection, the queuing is occurring on.

The *SIDRA Outputs (Appendix F)*, clearly identify the 50+ metre long queuing occurring on Cudgen Road (W) lane. This section of road is located approximately 50m from the roundabout of an adjacent intersection (Cudgen Road / Turnock Street / Tweed Valley Hospital). This queuing has the potential to heavily impact both the through and right turning traffic on Cudgen Road (W), and further encroach into the roundabout of the adjacent intersection during the future forecasted years.

- All *SIDRA Outputs (Appendix F)* for the key intersections are assessed individually, without any impacts or connections being identified between the adjacent intersections. As a result of this separation in data and assessment, the cumulative impacts of the future 2032 AM Design traffic volumes flowing from one intersection to the next are not identified.

Similar queueing of traffic encroaching on the adjacent intersection is also appears to be occurring for the Cudgen Road / Turnock Street / Tweed Valley Hospital roundabout intersection, particularly on Cudgen Road (E).

- The application and associated documents do not consider these concerns. Austroads turn warrant assessments have not been demonstrated for the key intersections, and no turn treatments or any other associated roadworks have been proposed as mitigation measures to either prevent any turn movements or improve the safety or efficiency of the intersections.

TfNSW notes that with the future traffic impacts of the proposal, the above observations would indicate that the potential for the Oxford Street / Cudgen Street intersection to fail is high.

TfNSW recommends the Consent Authority consider requesting the proponent further assess all of the key intersections, with particular regard to right turns into and out of Oxford Street. Austroads turn warrant assessments should be undertaken for all intersections. The Consent Authority should be satisfied that warrant assessments reflect expected demand (individual and cumulative), and may wish to obtain a further sensitivity analysis to consider the merit for any turn treatments and / or central medians to prevent turning movements at key locations.

Proposed Footpath and Crossing Upgrades

5. TfNSW supports the observations made in the application that there are numerous gaps in the active transport network surrounding the school, including a lack of continuity in footpath links, narrow footpaths, minimal shared paths being available and insufficient safe crossing locations, in particular on Cudgen Road / McPhail Street.

Sections 3.4.1 and 3.5.1 of the *TTIA* refer to observations of pedestrians crossing the road at informal locations along Cudgen Road and the paths fronting the school are not wide enough for shared use". *Section 3.4.1* further states that deficiencies identified in *Figure 3.8* are planned to be rectified as part of the proposed upgrade and will be done in consultation with Council.

- Item 'D6' refers to upgrading an existing crossing on Cudgen Road, however it is shown in *Figure 3.8* as being located further along in McPhail Avenue. TfNSW notes that there does not appear to be an existing crossing at this location, however an existing set of ramps from the pathways onto the road pavement is located at the Cudgen Road location (located between the Oxford Street and Turnock Street separate intersections).
- TfNSW suggests the pathway item identified as 'D1' in *Figure 3.8* be extended from the corner of Oxford Street / McPhail Avenue to connect with the location of the bus stop (shown in *Figure 3.9*), located east of the corner, on the southern side of McPhail Avenue.

TfNSW recommends that further investigations are undertaken in consultation with both Council and TfNSW to identify where the informal crossings are occurring, which directions the active transport users are arriving and departing from, which mode they are travelling by and whether there is a need for both an upgrade to the existing crossing and / or a new crossing to be located away from the existing, which is shown to be at a congested location with vehicles queuing in both directions during the AM peak hour. TfNSW recommends the Consent Authority condition this work as part of the approval.

Parking

6. The redevelopment proposes to increase the number of students by an additional 296 and teachers by an additional 22 (over a 10 year timeframe). However it is noted that the redevelopment does not propose to support this increase by providing any further parking onsite and in fact proposes to reduce the overall onsite car parking spaces.

Although the application is supported with a *School Travel Plan (STP)* which when implemented proposes to encourage both students and staff to use active transport modes. Based on the future proposed staff and student numbers and KHS Mode Share Targets (demonstrated in *Table 3.2* of the *STP*), the required number of car parking spaces (170 in total) as assessed under Council's DCP parking rates (*Section 7.2*) far exceeds those proposed to be provided onsite and it relies heavily utilising on-street parking.

Further to this, *Section 7.3.1* refers to the existing use of the on-street parking as observed by a parking survey dated 19 November 2019. The survey assumes the existing Year 12 students (which were offsite at the time) would make up an additional 77 vehicles requiring the use of the on-street parking. The survey observed and estimated the on-street parking spaces needs of the existing school arrangements, required approximately 131 car parks during the peak PM period. This is a much greater volume than is suggested from DCP parking rate calculations.

Although a STP has been developed with proposals to reduce the percentage of students and staff travelling to and from school via the use of individual private vehicle/s, it should be noted that the demand and demonstrated trend for on-street parking has the potential to remain high with the proposed additional students and staff numbers in the future years.

TfNSW recommends the Consent Authority be satisfied that the local streets can support all future parking needs, both onsite and on-street, for the proposed redevelopment and student number increase.

Construction Traffic Management Plan (CTMP)

7. TfNSW key concerns during the construction process is around the safety and efficiency of the key intersections, and any potential impacts on pedestrians and cyclists coming and going from the school. It is noted that the CTMP is of a preliminary nature, as such, a construction contractor and finer detail around the construction methods are not (yet) available.

Notwithstanding this, TfNSW notes that it is unclear what impacts the traffic generated by construction staff will have on the surrounding road network. The CTMP states that construction staff will not be parking within the school grounds during the construction stages and will be encouraged to utilise existing on-street parking in the local streets near the school and via an existing public car park located within 500 metres of the development site, with a public footpath proposed to connect it to the high school.

As referred to above, SIDRA Outputs have demonstrated that the key intersection of Oxford Street / Cudgen Road will be under strain during the AM peak hours with additional traffic applied, as the construction staff's traffic generation volumes and movements are not yet known, TfNSW are unable to provide any comments in regards to the impacts these may have on the key intersections, greater road network and the local on-street parking arrangements

TfNSW recommend the Consent Authority request the applicant provide further information prior to determination, in regards to the traffic generated by the construction staff (and their associated traffic movements) as they arrive and depart the vicinity of the designated parking locations. The start and finish times for the construction staff should be included in this updated information and further include any mitigation measures to prevent conflicts between construction vehicles, other vehicles, pedestrians and / or cyclists during drop-off and pick-up times.

This information may also be required as an additional element in the intersection analysis and summary sections of the TTIA and SIDRA Outputs, should it be identified to cause any potential impacts at the key intersections during the construction timeframe/s.

Notwithstanding the above requested additional information, TfNSW recommends that a final updated CTMP should be consistent with the Consent Authorities typical format for SSD and be a requirement of any project approval. The final document should to include a Driver Code of Conduct (DCoC), be prepared in consultation with the relevant Road Authorities and approved by the Consent Authority prior to the commencement of vehicle movements associated with the major project.

Buses

8. TfNSW notes that the current school bus operator is Surfside Bus Lines and notes consultation was undertaken as part of the *TTIA* development.

The bus services are addressed throughout the *TTIA*, in particular in *Section 3.4.2* which addresses public transport servicing both public and school bus services, *Section 3.6* which addresses the current breakdown of both students and staff utilising the bus services and states that “*the public transport facilities servicing the site are sufficient for the current enrolments and operated efficiently.*” and in the assessment summary *Section 9.1* where it states that the existing bus services generally experience high occupancy rates.

This information appears to be addressing the bus services based on the existing student and staff numbers only and does not appear to address the future needs of the school with the proposed student number increase or the implementation of the STP, encouraging students to utilise active transport options.

TfNSW support the implementation of the STP to encourage an increase in students taking up active transport options, however given a review of the existing Surfside services had not been undertaken for some time, TfNSW recommend the Consent Authority request the proponent to further consult with TfNSW and the bus operator to understand the impacts both the increase in student numbers will have on the current bus services, in addition to the increase in overall students taking up the bus services on implementation of the STP.

Bicycle and end of trip facilities

9. The *TTIA* states the school currently has provision for approximately 90 bicycle parking spaces located against the northern wall of the home economics building, fronting the Oxford Street cul-de-sac, and will provide additional bicycle parking spaces as the population of the school increases.

TfNSW Recommend prior to the issue of the Construction Certificate, the Consent Authority condition bicycle parking and end of trip facilities be provided for staff and students in accordance with Australian Standard AS1742.9:2018 *Manual of Uniform Traffic Control Devices - Bicycle Facilities*, and *Cycling Aspects of Austroads Guides* including, locate bicycle parking and storage facilities in secure, convenient, accessible areas close to the main entries incorporating adequate lighting and passive surveillance and in accordance with Austroads guidelines.

Implementation of the School Travel Plan (STP)

10. Notwithstanding comments already provided above with regard to the STP, TfNSW notes further improvements which could be made to the STP and the proposed initiatives to encourage sustainable transport to the site.

TfNSW Recommends prior to occupation or commencement of use, the Consent Authority condition the STP be updated for TNSW's consideration. It is recommended that the update should include:

- Includes maps with the school catchment area, cycling infrastructure, isochrone lines for walking and cycling distances, staff suburb/location data;
- Includes aspirational mode share targets for students;
- Provides details and maps of end of trip facilities, including number and location of all secure bike parking, casual bike parking, showers and lockers;
- Considers if additional end of trip facilities are needed;

- Considers more incentives for staff to use active and public transport such as:
 - School subsidised panniers or backpacks for staff committed to active travel;
 - Salary sacrifice options for purchases of bikes or other micro-mobility options;
 - Time in staff meetings to share tips and support for staff wanting to start cycling;
 - An active travel champion;
- Considers more incentives for students to use active and public transport such as:
 - Bike buses (which are similar to walking school buses but for cycling);
 - Gamification for students using and promoting active and public transport;
 - Activities for students to create and share transport photos/videos/stories/art/maps from their trips to school;
 - Regular events, such as breakfasts and active transport trips after school;
 - Cycling and bike maintenance courses;
- Considers innovative, site-specific interventions that address local challenges, such as conducting workshops on how to take your surfboard on your bike, and spaces for students and staff to safely keep boards;
- Considers how educational material that explores the benefits and potential of sustainable transport can be incorporated into classes for different stages in the curriculum;
- Includes an enhanced Travel Access Guide (TAG) with:
 - Recommended cycling and walking routes to key destinations (such as beaches and shops) with indicative times and from different directions within the school catchment area;
 - Information on all buses (there appears to be bus stops missing from the map);
- Explores different channels to communicate transport information and advice such as:
 - Transport noticeboard at key location within the site in the form of a travel access guide;
 - School assembly;
- Includes a comprehensive communication strategy which includes communications activities related to all the initiatives, the channels that will be used and who will be responsible; and
- Includes details regarding the methodology and monitoring / review program to measure the effectiveness of the objectives and mode share targets of the STP, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours of staff and students.