

# Traffic Impact Assessment

## Cronulla High School

**Prepared for School Infrastructure NSW**

08 September 2022

211349

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## Introduction

### 1.1 Background

School Infrastructure NSW (SINSW) is proposing to redevelop the existing Cronulla Hill High School site. The redevelopment includes accommodating 1000 students and 78 staff, and an overall improvement to the site layout, infrastructure, and street presence. The existing operation (2022) includes 1309 students and 100 staff which is higher than the proposed capacity in the future.

Taylor Thomson Whitting (TTW) has been engaged by SINSW to provide traffic engineering consultancy services for the proposed redevelopment. We have been advised by SINSW that this project is assessed under the Review of Environmental Factors (REF).

### 1.2 Scope

This Traffic Impact Assessment (TIA) has been developed to assess and address the traffic and transport impacts of the proposed development. This report covers the following areas:

- Site access
- Public and active transport
- Pick-up and drop-off
- Service vehicles and loading
- Traffic generation
- Travel mode analysis
- Car parking

### 1.3 Authority Consultation

This report has been prepared following consultation between the design team and relevant stakeholders, including the Transport Working Group (TWG) which was assembled for the project. This group included the project team and client representatives, Sutherland Shire Council ('Council'), and Transport for NSW (TfNSW) as relevant. The dates of TWG meetings were as follows.

- |                             |                              |
|-----------------------------|------------------------------|
| • Transport Working Group 1 | 16 <sup>th</sup> June 2021   |
| • Transport Working Group 2 | 07 <sup>th</sup> July 2021   |
| • Transport Working Group 3 | 28 <sup>th</sup> July 2021   |
| • Transport Working Group 4 | 11 <sup>th</sup> August 2021 |
| • Transport Working Group 5 | 05 <sup>th</sup> May 2022    |

The minutes of the TWG meetings are provided in Appendix D.

## 2. Existing Conditions

### 2.1 The Site

Cronulla High School is located on the southern side of Captain Cook Drive in Cronulla, south of Kurnell. The existing site operates as a high school (Year 7-12) comprising 7 two-storey buildings, two car parks and two sports fields.

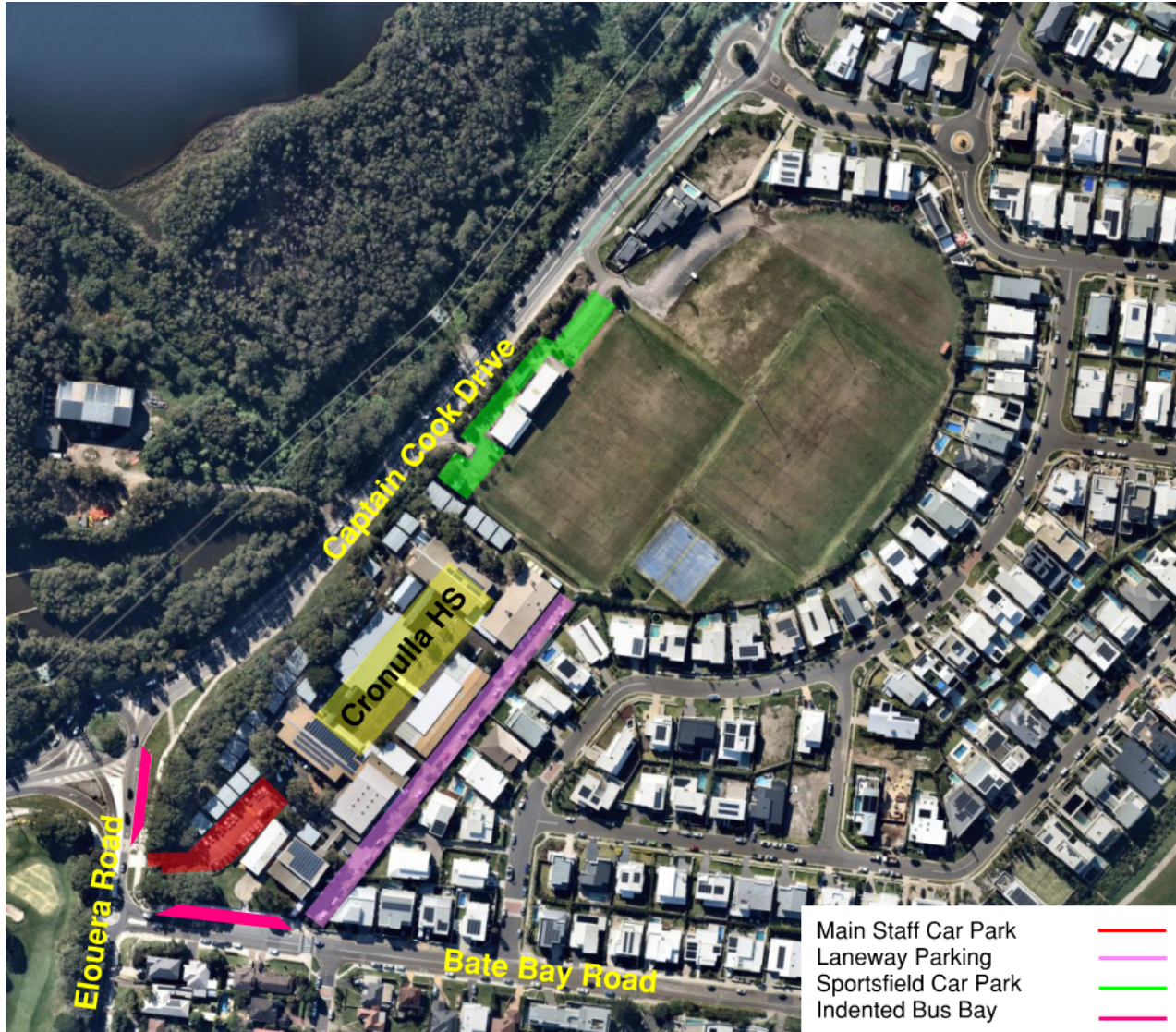


Figure 2.1: Site Locality

The site is bounded by Captain Cook Drive, Elouera Road and Bate Bay Road.

### 2.2 Road Network

Captain Cook Drive is a regional Road adjacent to the site frontage and operating as a 2-lane undivided carriageway immediately adjacent to the site. Captain Cook Drive west beyond Elouera Road is operating as a 4-lane undivided carriageway. Kerbside parking is not permitted on either side of the road. Dedicated Bicycle lanes are located on both sides of the road adjacent to the site. the speed limit outside of school hours is 70km/hr and 40km/hr School Zones apply around Cronulla High School during school zone times.



Elouera Road is a local road operating as a 2-lane divided carriageway near the site. Kerbside parking is generally permitted on both sides of the road. The sign-posted speed limit on this road is 50km/hr outside of school zone period and 40km/hr during school hours.

Bate Bay Road is a local road operating as a 2-lane undivided carriageway. Kerbside parking is generally permitted on both sides of the roadway. The default speed limit of the road is 50km/hr and 40km/hr during school hours.

Figure 2.2 shows the intersection controls and road classifications in a broader area.

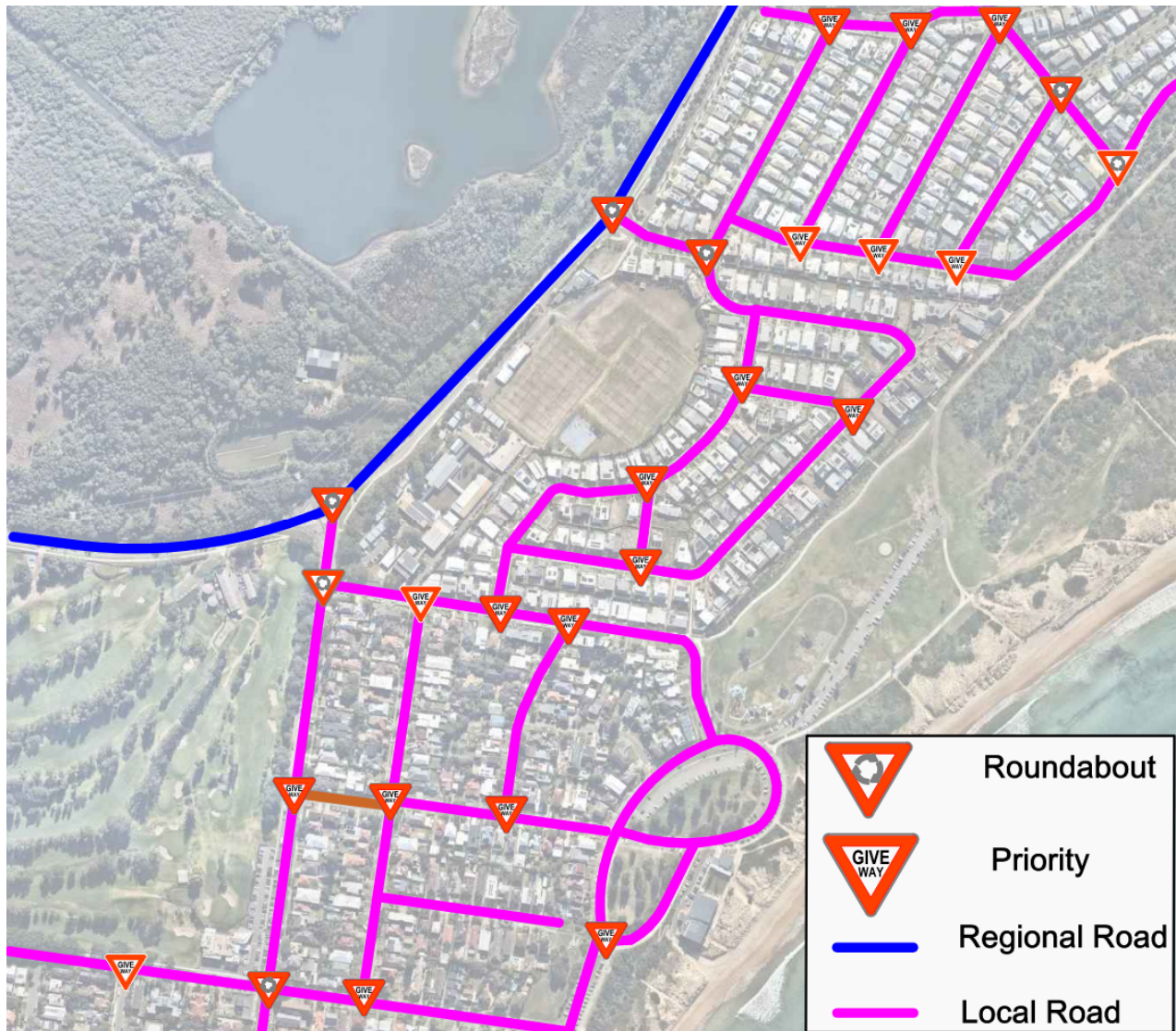


Figure 2.2: Intersection control and road classification

### 2.3 Surrounding Traffic Elements

The following traffic management facilities exist within the immediate vicinity of the Cronulla High School:

- Roundabout intersection of Captain Cook Drive and Elouera Road. This intersection has 6m circulating lane and an approximate width of 2m for dedicated bicycle lanes.
- New roundabout intersection of Elouera Road and Bate Bay Road. This intersection has a 6m

circulating lane. Some of the main impacts of the roundabout intersection are as follows.

- Improve the traffic flow during peak hours by the reduction of conflict points
- Roundabouts can be effectively used for traffic calming in local areas with high pedestrian activity (for example - during School's start and finish bell times)
- A raised pedestrian crossing is provided in Bate Bay Road adjacent to the existing Laneway parking. Additionally, a pedestrian on-grade zebra crossing is located on Elouera Road near the main staff car park entry.
- An indented bus bay is available on Elouera Road site's frontage with an approximate length of 45m. additionally an indented bus bay with an approximate length of 60m is located on Bate ay Road site's frontage and it is separated by a concrete strip from Bate Bay Road.

## 2.4 Public Transport

### 2.4.1 Buses

The Cronulla High School bus zone is located on the school side in front of the school gate on Bate Bay Road. This bus stop is serviced by various routes. Two bus stops are located on the north and south of the Elouera Road/Bate Bay Road intersection. Additionally, there is a bus stop on Captain Cook Drive to the northern side of the site. Detailed information on public buses is outlined in Table 2.1.

**Table 2.1: Public Bus Route**

Bus Route	Coverage/Direction	Morning Times	Afternoon Times
969	Sutherland to Cronulla	8:20	-
971	Hurstville to Cronulla	-	15:15 (M, W, F)
985	Cronulla to Miranda via Woolooware Bay	8:05, 8:35 (7:35, 8:06, 8:35)	15:16, 15:35 (15:06, 15:36)
987	Cronulla to Kurnell (Loop Service) & Cronulla Station to Cronulla HS	8:01, 8:14, 8:20, 8:40	15:35
988	Cronulla to Caringbah via Burraneer	-	15:22 (M, W, F)

The detailed information about the school buses is outlined in Table 2.2.

**Table 2.2: School Bus Route**

Bus Route	Coverage/Direction	Morning Times	Afternoon Times
S363	Cronulla HS to Marton Park, Kurnell	-	14:30 (Tu, Th)
S370	Cronulla HS to Cronulla Station	-	14:30(Tu, Th), 15:15(M, W, F)
S371	Cronulla Station to Woolooware HS	8:15	-
S373	Cronulla HS to Marton Park, Kurnell	-	14:45(Tu, Th), 15:28, 15:33 (M, W, F)
S375	Cronulla HS to Cronulla Station	-	14:30(Tu, Th), 15:15(M, W, F)
S376	Cronulla HS to Cronulla Station	-	14:30(Tu, Th), 15:15(M, W, F)

<b>S377</b>	Cronulla HS to Our Lady of Mercy College via Cronulla Station	-	14:30(Tu, Th), 15:15(M, W, F)
<b>S378</b>	Cronulla HS to Cronulla Station	-	14:30(Tu, Th)
<b>S379</b>	Cronulla HS to Eurabalong Rd after Rutherford Av, Burraneer via Caringbah	-	14:30(Tu, Th)
<b>S384</b>	Cronulla HS to Cronulla Station	-	14:30(Tu, Th), 15:20(M, W, F)

### 2.4.2 Trains

The nearest train stations to Cronulla High School are Cronulla Station and Woollooware Station which are located approximately 2.1km (25 minutes walking) south and west of the site. These stations can be accessed via public buses.

Cronulla is serviced by T4 Eastern Suburbs & Illawarra Line. The stations along the T4 line services the students living outside of the SSTS and also staff. During AM peak the 696 route services a similar catchment area to the train. An overview of the Sydney Trains network is shown in Figure 2.3.



Figure 2.3: Train Routes

## 2.5 Active Transport

### 2.5.1 Pedestrian Infrastructure

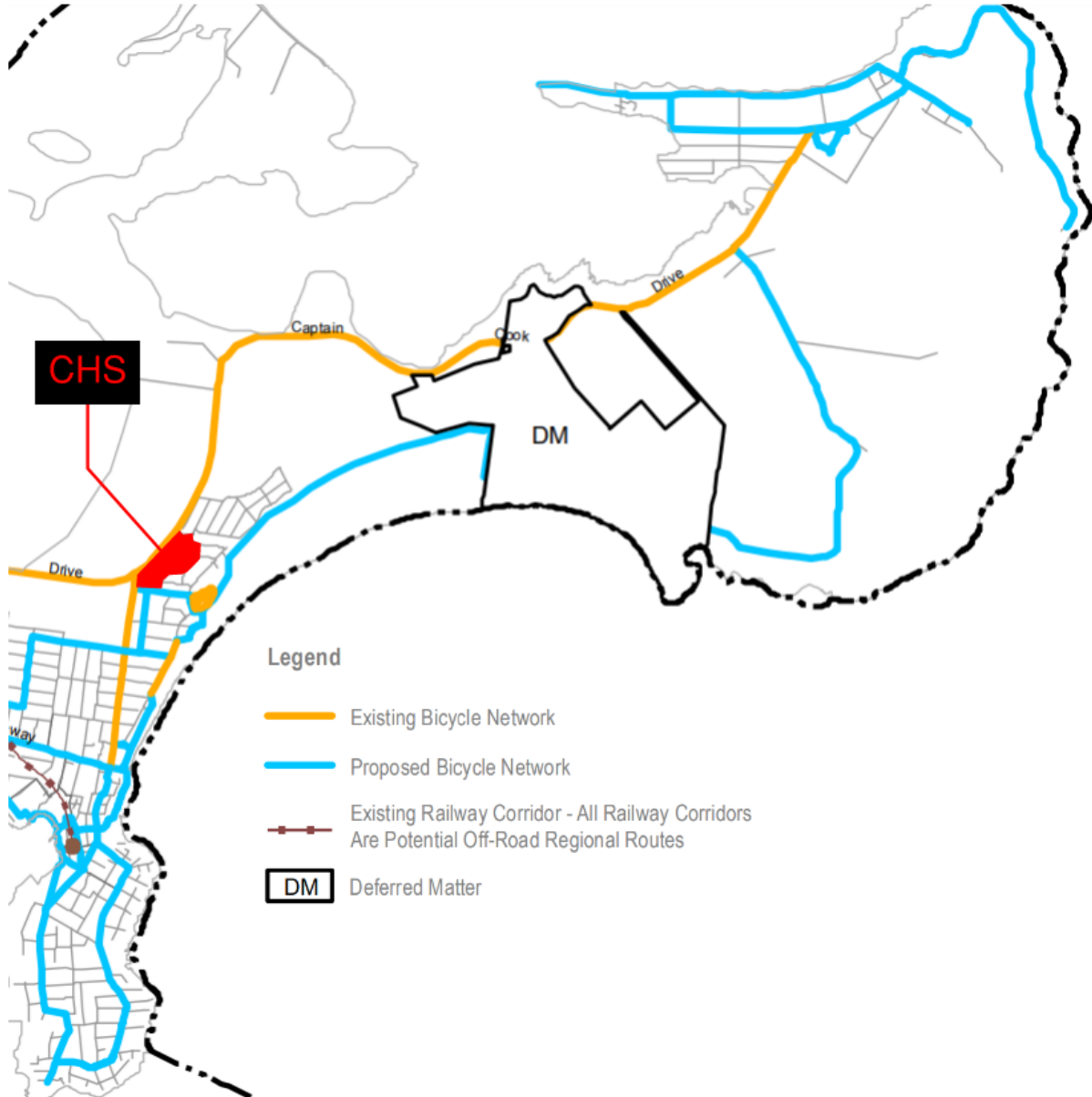
The existing raised zebra crossing located in front of the pedestrian entry gate on Bate Bay Road provides a safe crossing point for pedestrians. The pedestrian crossing is located on the desire line for pedestrians who have alighted the bus on Elouera Road and therefore is an important part of the pedestrian infrastructure adjacent to the site.

The new pedestrian crossing on Elouera Road (north of Bate Bay Road / Elouera Road) was also constructed to facilitate the movements of local people and students while crossing Elouera Road.



### 2.5.2 Cyclist Infrastructure

Figure 2.4 shows the local cycling routes near the site. There is generally good provision of cyclist connections in the region, with a marked on-street bike lane in each direction on Captain Cook Drive and Elouera Road. These paths are rated as a moderate difficulty.



**Figure 2.4: Cyclist Infrastructure**  
Source: Sutherland Shire Development Control Plan

## 2.6 Car Park and Vehicular Access

Currently, the high school site provides two vehicular access driveways from Elouera Road and Bate Bay Road. The main staff car park with a total of 45 spaces is accessed from Elouera Road and Laneway parking is accessed from Bate Bay Road. Additionally, it is proposed to utilise sportsfield car park during school hours to accommodate overflow staff parking. The sportsfield carpark has a total of 36 spaces, and it has a separate entry and exit point from Captain Cook Drive.

The majority of car spaces in the existing Laneway parking are informal and non-compliant. In contrast, only 4 angled spaces are compliant. Figure 2.5 demonstrates the maximum potential number of informal car spaces within Laneway parking. Given that the majority of spaces are informal in this parking area, therefore it is not possible to specify the exact number of car spaces.



Figure 2.5: Laneway Parking

### 2.6.1 Off-site Parking

Parking restrictions in the vicinity of the site are shown in Figure 2.6. It is likely that staff or the parents park their vehicle within 400m radius (5 minutes by walking) from the site. On-street parking is generally unrestricted in the vicinity of the site (green sections). As shown in the figure below, only the red line section has parking restrictions. Parking is not permitted in this section from 8am-9am and 2pm-3:30pm



during school days. While the proposal will not provide any dedicated car spaces for students, the on-street parking could be also utilised by students.

The bus bay in Bate Bay Road is located in front of site’s pedestrian entry gate. Parking is not permitted in this zone from 8am to 4pm on school days.



Figure 2.6: Off-Street Parking

## 2.7 Drop-off and Pick-up (Kiss & Ride)

The current site does not include a designated pick-up and drop-off (PUDO) zone. Students are currently being dropped off and picked up along Bate Bay Road. Although the surrounding roads are not allocated to pick-up and drop-off, however, parents are using them to pick-up or drop-off their children as they have no other option than driving to the school. Parents are using both sides of Bate Bay Road as a pick-up and drop-off zone and additionally, parents use Kirkwood Road for PUDO their child/ren.

The location of these informal PUDO zones is depicted in Figure 2.7.

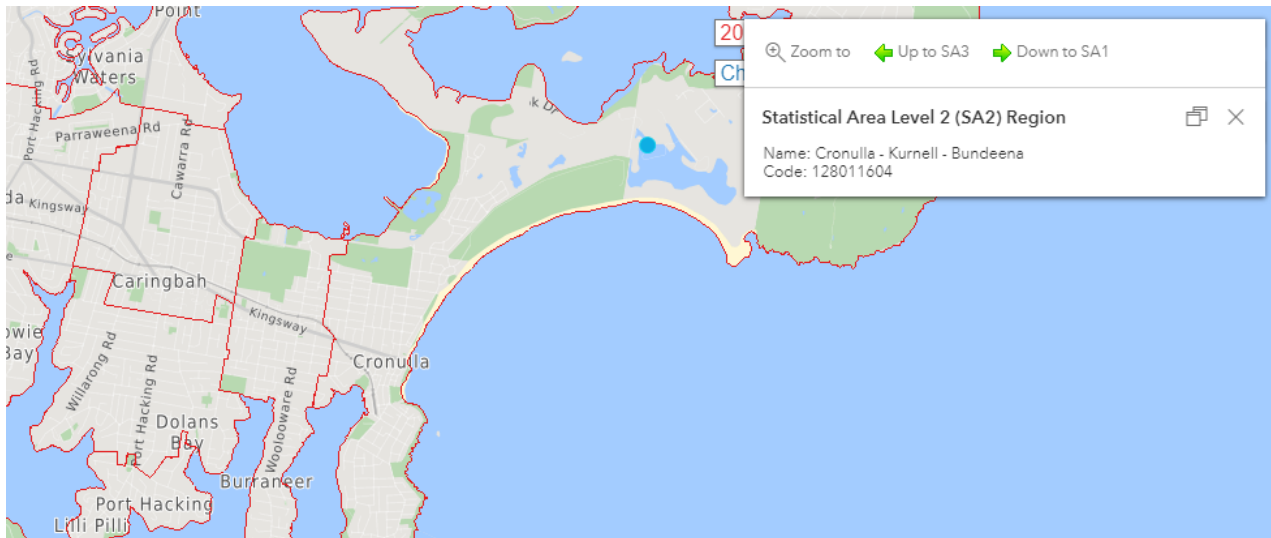


Figure 2.7: PUDO Zone



## 2.8 Journey to Work Data

The 2016 Journey to Work (JTW) data<sup>1</sup> provides an estimate of employee travel modes into and out of the local areas defined by Statistical Area Level 2 (SA2) zones. The site is located within SA2 zone “Cronulla-Kurnell-Bundeena” (refer to Figure 2.8).



**Figure 2.8: SA2 zone extents**  
Source: ABS

An assessment of travel mode share (from ABS Census TableBuilder data set ‘MTW15P Method of Travel to Work’) is shown in Table 2.3 below<sup>2</sup>. MTW15P categorisation of travel modes (as listed in the left column) is used for a clearer and simpler assessment of 15 key travel modes through allocation a primary mode when multiple modes have been used in one trip

A summary of key mode categories is also provided in Table 2.4.

<sup>1</sup> Bureau of transport Statistics public dataset derived from 2011 Census of population and Housing

<sup>3</sup> Mode share table excludes responses for “worked at home”, “did not go to work”, and “mode not stated”, and excludes categories with zero responses.

**Table 2.3: Journey to Work Data**

Travel mode (JTW Mode15)	Mode share (%)	
	Place of Work (persons working in SA2 zone)	Usual Residence (persons living in SA2 zone)
Train	5.94%	8.33%
Bus	0.78%	0.24%
Ferry	0.19%	0.06%
Tram	0.0%	0.01%
Taxi	0.05%	0.1%
Car as driver	60.33%	33.43%
Car as passenger	4.12%	1.54%
Truck	0.84%	0.52%
Motorbike	0.17%	0.29%
Bicycle	0.90%	0.43%
Walked Only	7.35%	2.09%
Other Mode	0.40%	0.20%

**Table 2.4: Journey to Work Summary**

Mode summary <sup>3</sup>	Mode share (%)	
Travel mode (JTW Mode15)	Place of Work (persons working in SA2 zone)	Usual Residence (persons living in SA2 zone)
Private vehicle (car, taxi, truck, motorbike)	65.50%	35.87%
Public transport (train, bus, ferry, Tram)	6.90%	8.65%
Active transport (bicycle, walking)	8.25%	2.51%

<sup>4</sup> Mode summary table excludes “other mode” as unidentified data.

## 2.9 Travel Mode Survey

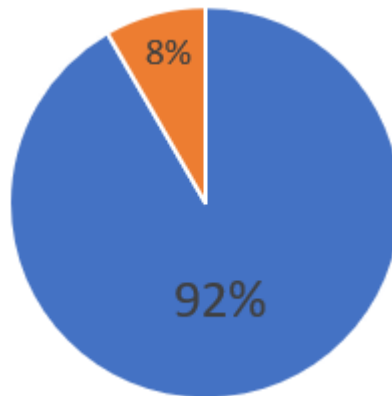
The findings presented in this section are the result of an online travel survey designed by **TTW** that was distributed to students and staff at Cronulla High School in mid-2021. The statistics from this survey are assumed to reflect the current travel habits of the students and staff and can be applied to the expected future school population.

### Response Rate

Figure 2.9 below shows the response dates for those who undertook the survey. Majority of the responses were recorded between 8<sup>th</sup> – 11<sup>th</sup> December 2020.

### Respondent Type

To begin with, the survey respondents were asked to identify whether they were a student or a staff member (part-time or full-time). Figure 2.9 provides a summary of this information.



**Figure 2.9: Breakdown of Respondent Types**

The survey represents a total of 739 students out of a school population of 1338, which is approximately half the student population. This rate is enough to provide a sufficiently accurate indication of student behaviour. Receiving 69 staff responses for a school out of 90 staff produces a very accurate reflection of staff travel habits.

### Student Home Suburb

The home suburb of each student is summarised in Figure 2.10, with the majority of students within a 5-minute driving time to Cronulla High School. This figure clearly shows that majority of students live within the catchment.

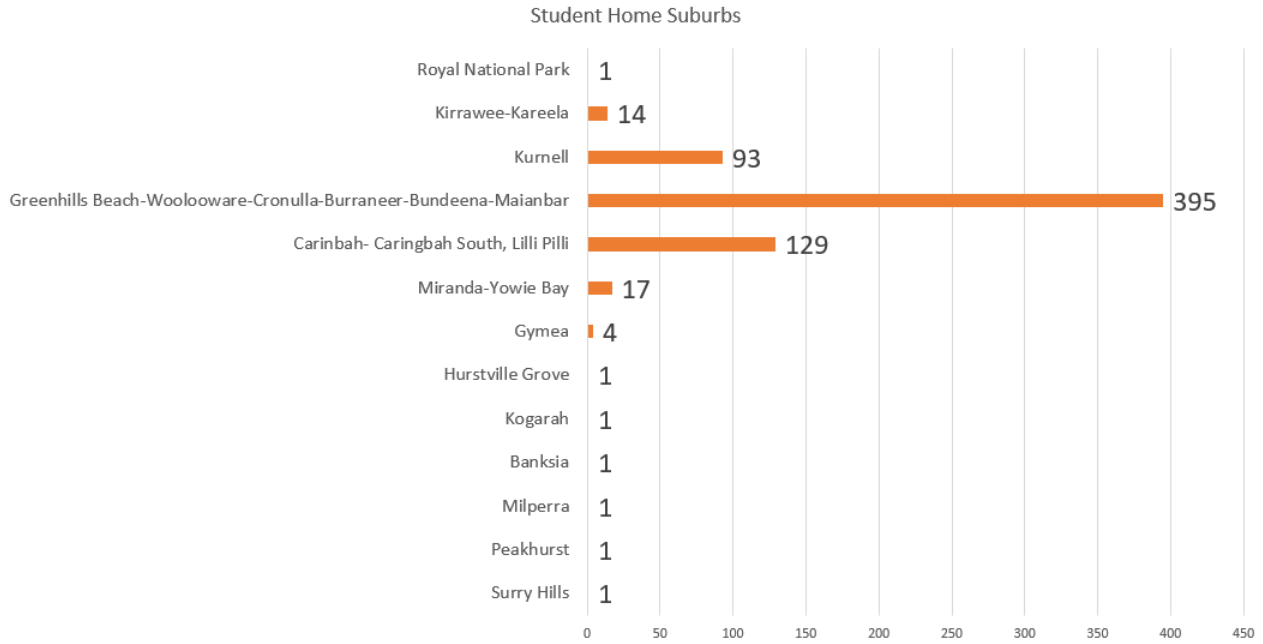


Figure 2.10: Student Home Suburbs

### Student Year Groups

Survey respondents were asked to identify their year group (or the year group of their child), resulting in the distribution shown in Figure 2.11. The most common year group surveyed was year 7 and 8, representing approximately half of all respondents. Meanwhile, an under representation of year 10 was observed, as only 7% of respondents were identified as year 10 students.

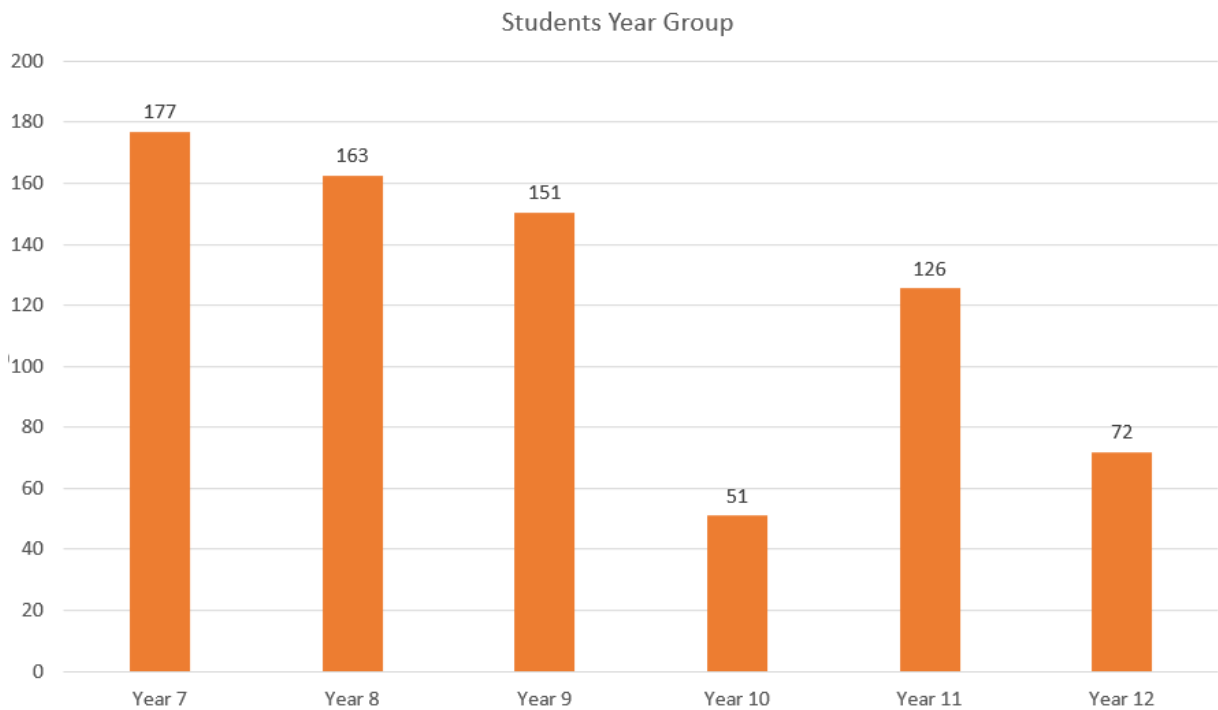


Figure 2.11: Student Year Group



## Student Travel Modes

Table 2.5 outlines the travel mode shares of the current school students. The primary travel mode for students involves the use of a car. This includes being dropped off at or near the school, parking nearby or parking on-site. The percentage of students who currently use a car to travel to school is 23%, with most of these students being dropped off at the school (19%).

Due to the shape of the school catchment, most students are currently using public transport (particularly bus) to reach to the school. Total of 55% of the student are using bus (comprises bus only, train+bus and ferry+bus) followed by private vehicle (23%) and walking to travel to the school(14%).

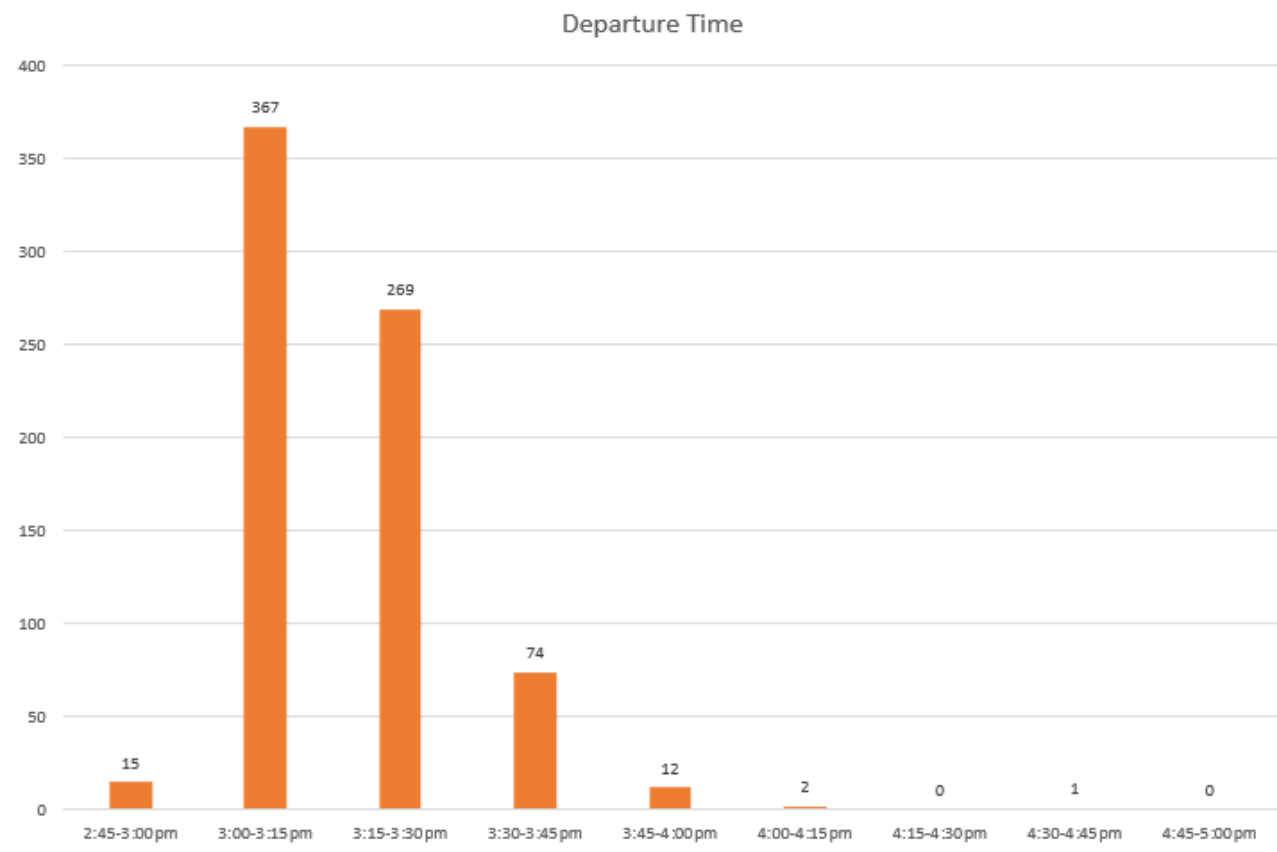
**Table 2.5: Current Student Travel Mode Shares**

Travel Mode	% Of Students
Private Vehicle	23%
Bus Only	33%
Train + Bus	13%
Ferry + Bus	9%
Bicycle	5%
Motorcycle	1%
Walk	14%
Other	3%
<b>Total</b>	<b>100.0%</b>

The data above can also be examined according to different year groups, and this analysis is provided in **Appendix C**. A consistency across year groups 7 to 11 is observed, with approximately 30 of each year group travelling to school by bus. A reduction in bus usage to 18% is recorded for year 12 students. Unlike the other year groups, 37% of year group 12 travelling to the school by private vehicle as driver. This may be due to a greater independence of students in the later stages of high school, who do not rely on parents to be dropped off and picked up.

## Student Arrival and Departure Times

The arrival and departure times of the students was analysed during the online survey and the responses in Figure 2.12 were given.



**Figure 2.12: Student Departure Time**

Figure above indicates that 50% of students leave the school between 3:00pm-3:15pm, followed by 36% of the students leaving the school between 3:15pm-3:30pm.

### Student Bus Usage

The survey asked students to record which bus route they take if any, and the results are shown in Figure 2.13 for AM and Figure 2.14 for PM.

In the morning just 28% of students using route 985 followed by route 987 with 26% and 988 with 20%. School bus route S371 has the highest number among other school bus routes with 12% and instead S372 and S379 have the lowest number with only 2% and 1%, respectively.

In the afternoon just 30% of students use route 987, connecting Cronulla to Kurnell (loop service) and Cronulla train station to Cronulla High School. Route 988 is the second most used route with 26% followed by route 985. Among school buses S371 and S379 are the busiest route with 9%.

Although the bus coverage in the morning and afternoon is not consistent particularly for school buses, however, public bus routes 987, 988 and 985 are the busiest bus routes during the morning and afternoon.

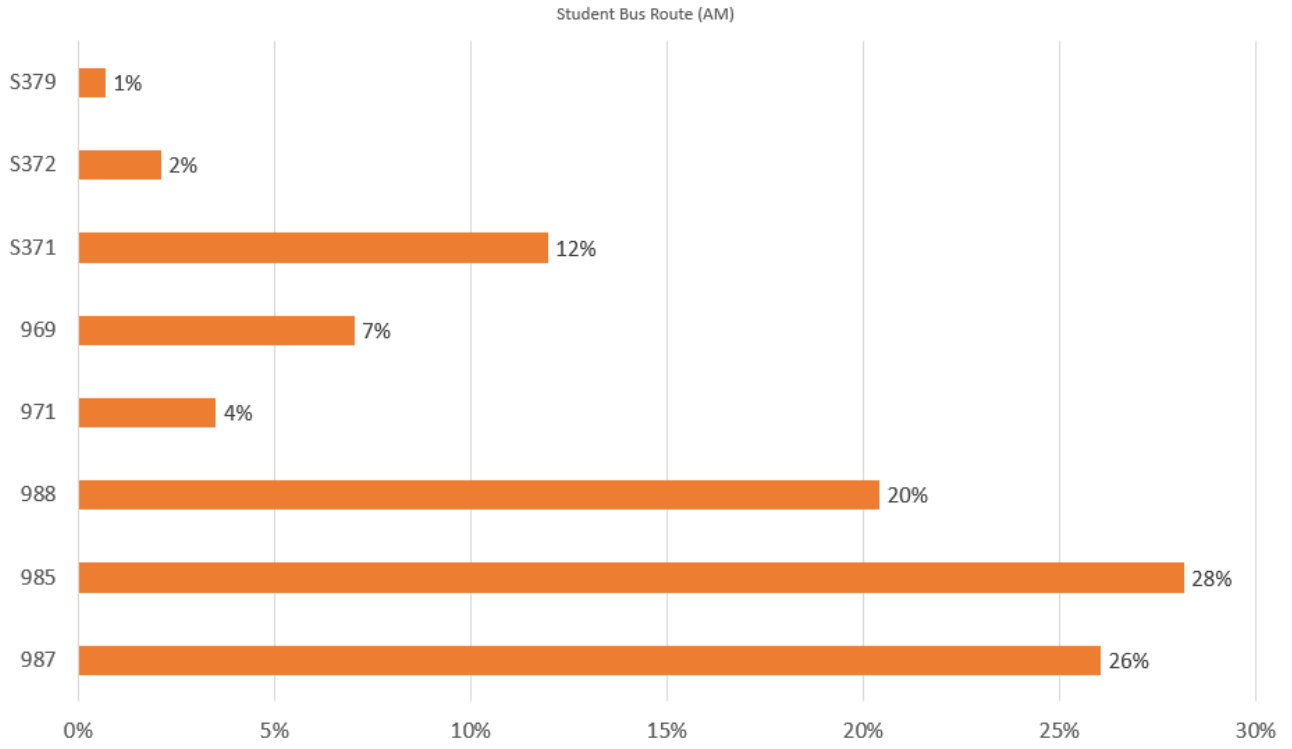


Figure 2.13: Student Bus Usage (AM)

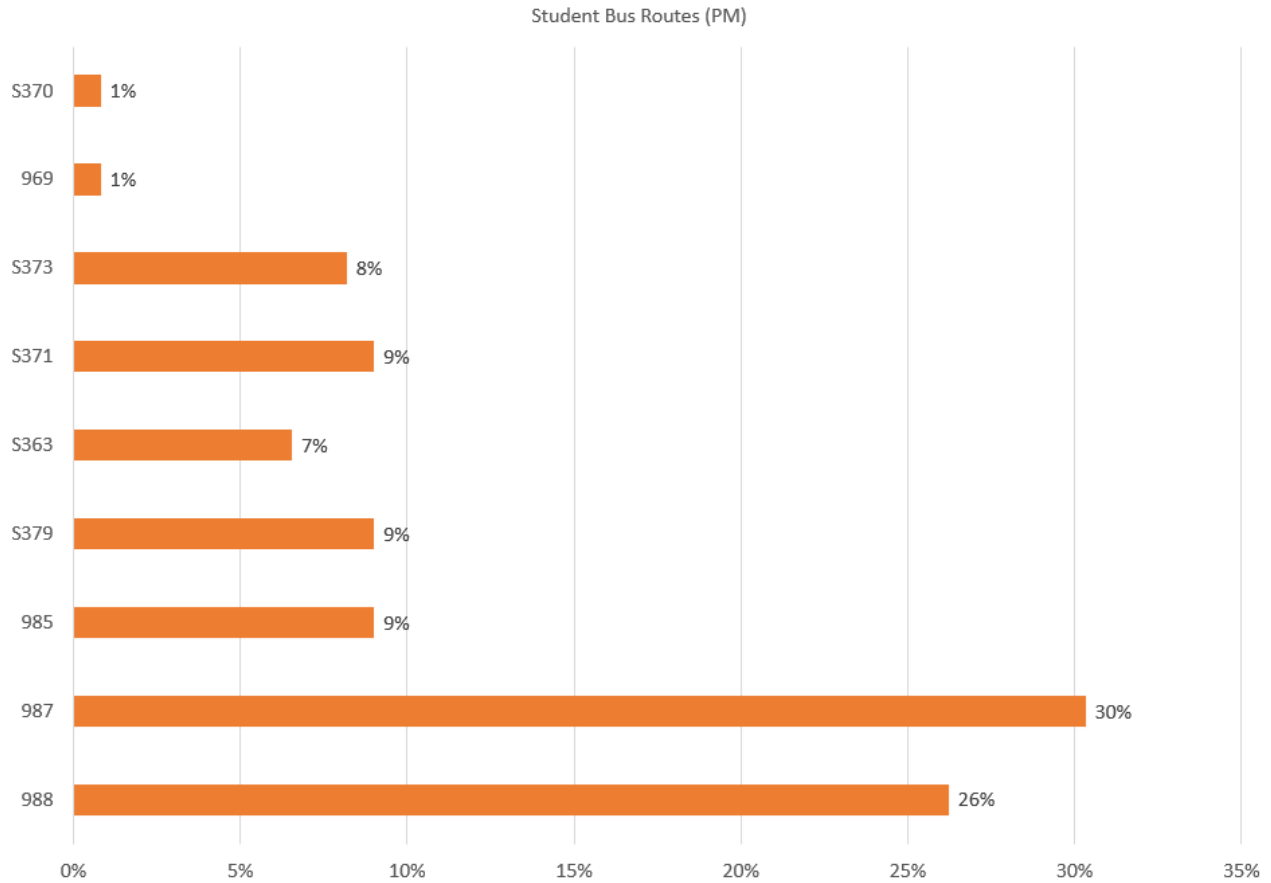
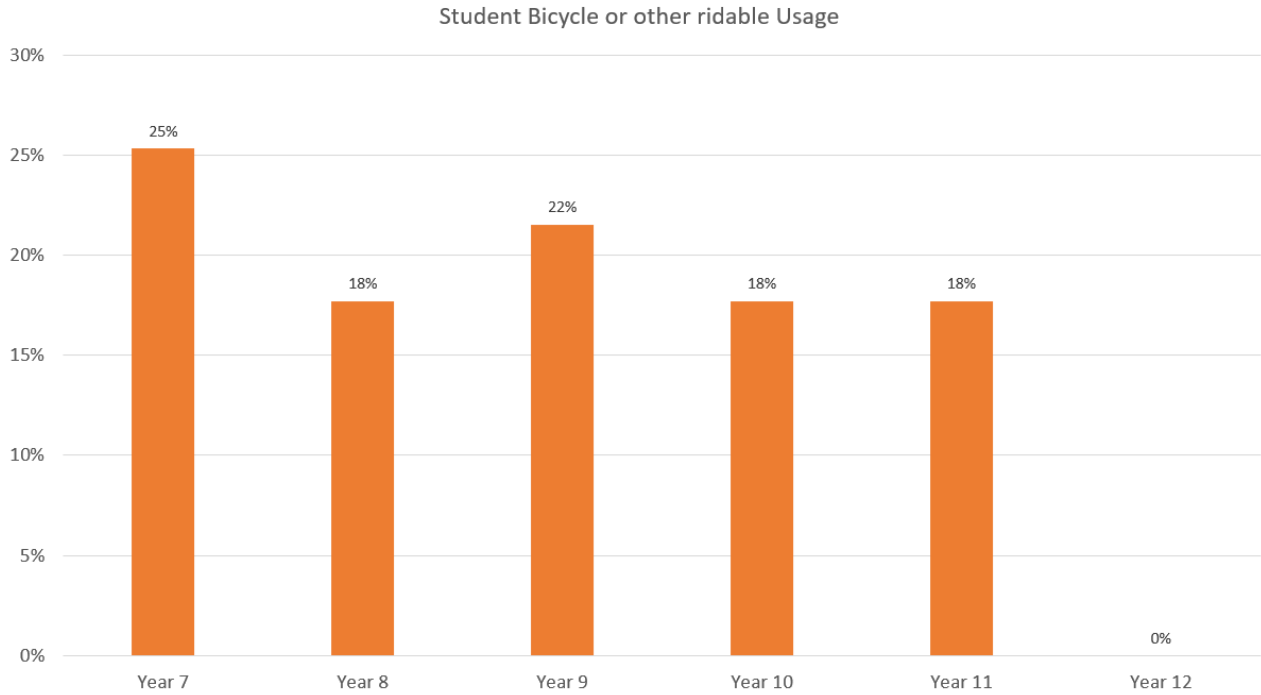


Figure 2.14: Student Bus Usage (PM)

### Student Bicycle or other Ridable Usage

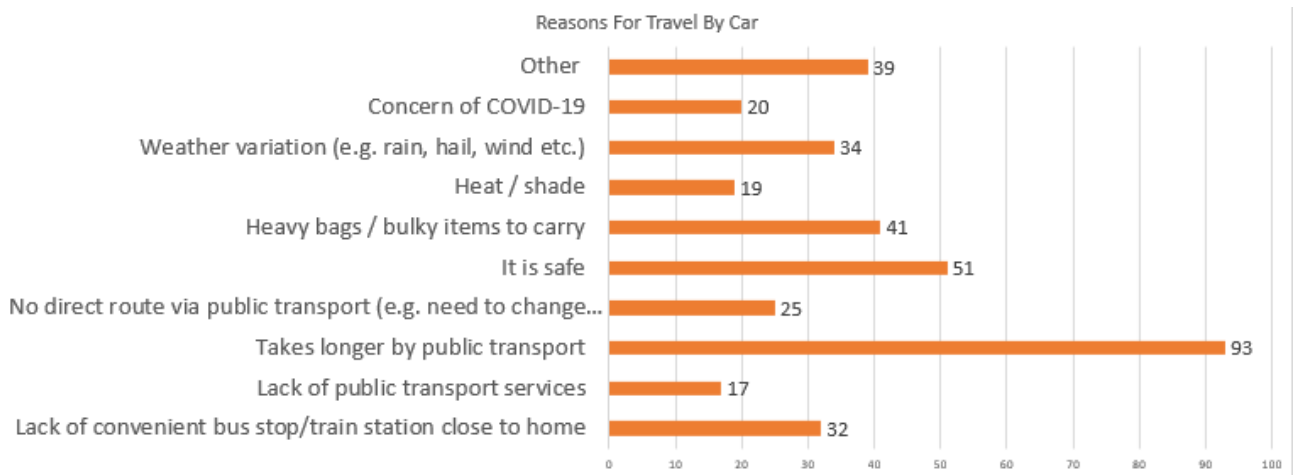
Figure 2.15 demonstrates the percentage of the student in each year group using bicycle (or any ridable) as a desirable transport mode to travel to the school. Bicycle usage among all year groups is approximately consistent except year 12 students which would not prefer to travel to the school by bicycle. year 7 and year 9 have the highest number among the year groups with 25% and 22%, respectively.



**Figure 2.15: Student Bicycle or other Ridable Usage**

**Active Transport Measures**

Students were asked to why car is the preferred method of transport to school. The responses can be shown in Figure 2.16 below.



**Figure 2.16: Active Transport Measures**

The results indicate that the main concerns from the students’ perspective are the duration of travel and the safety issue in case of travelling by public transport.

### Active Transport Encouragement Measures

Students were asked to select which measures would encourage them to use active travel modes such as walking or cycling. The responses are shown in Figure 2.17.

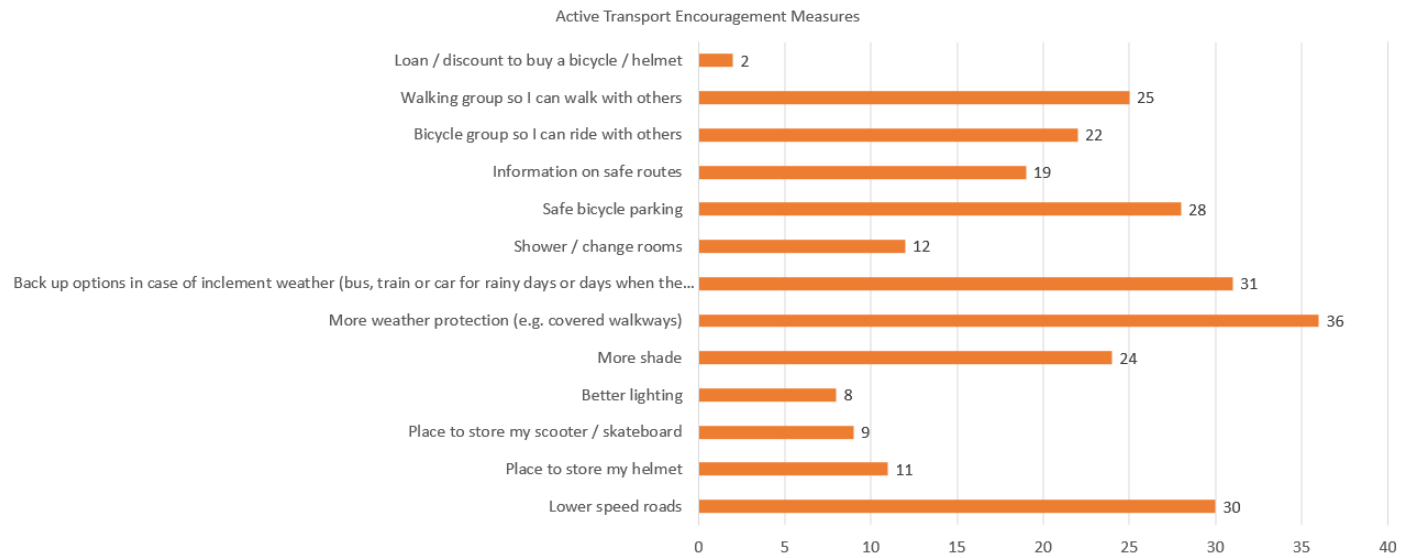
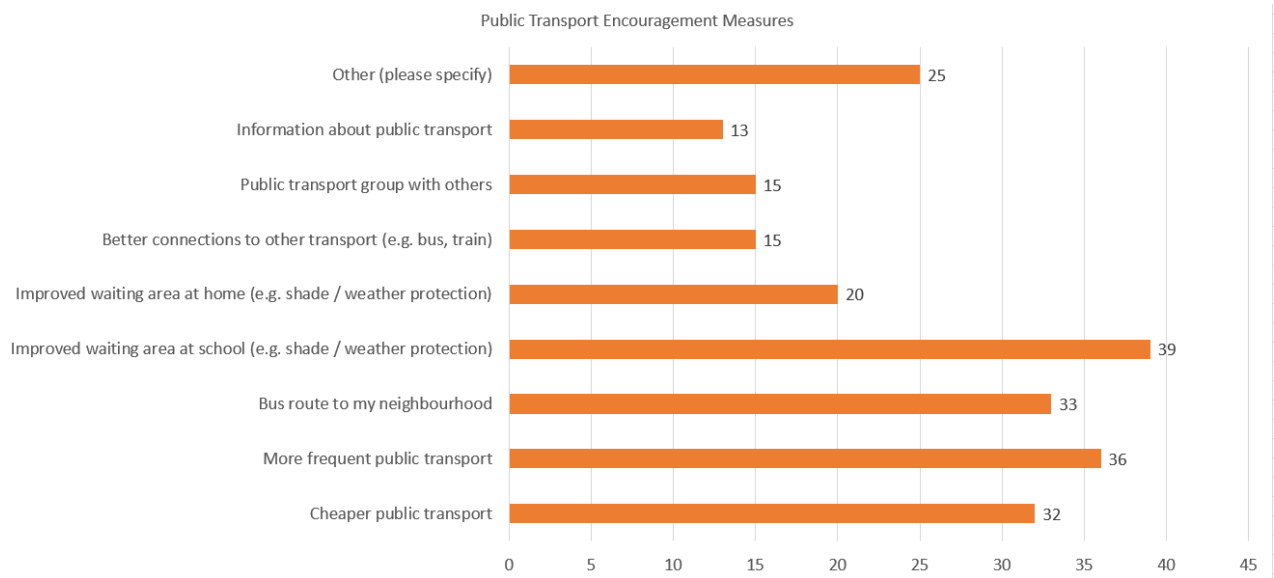


Figure 2.17: Active Transport Encouragement Measures

## Public Transport Encouragement Measures

Students were asked to select which measures would encourage them to use public transport to travel to and from school. The responses can be seen in Figure 2.18.



**Figure 2.18: Public Transport Encouragement Measures**

The responses are clearly showing that the waiting area at school (more shade and weather protection) for the students and frequency of public transport need to be improved.

### Staff Home Suburb

Staff were asked to provide their home suburb, with the results shown in Figure 2.19. A large spread of responses was observed, with 30 different suburbs recorded for a total of 67 responses.

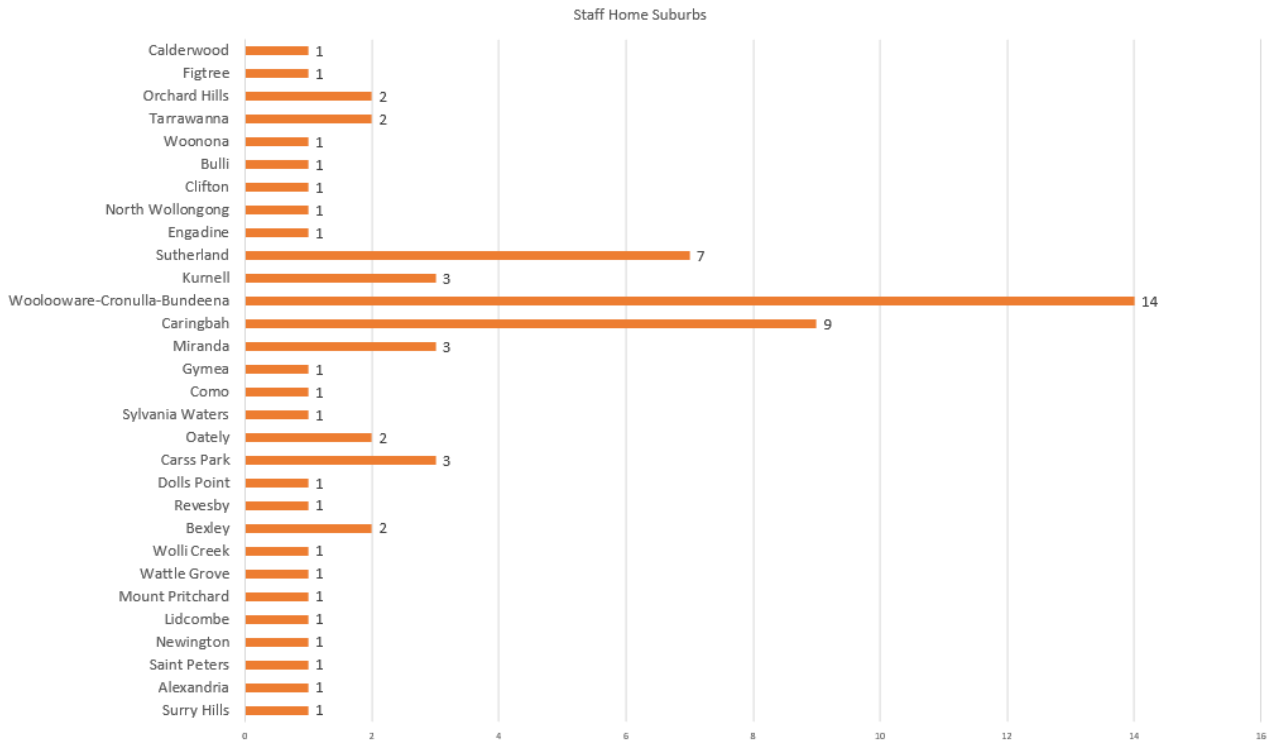
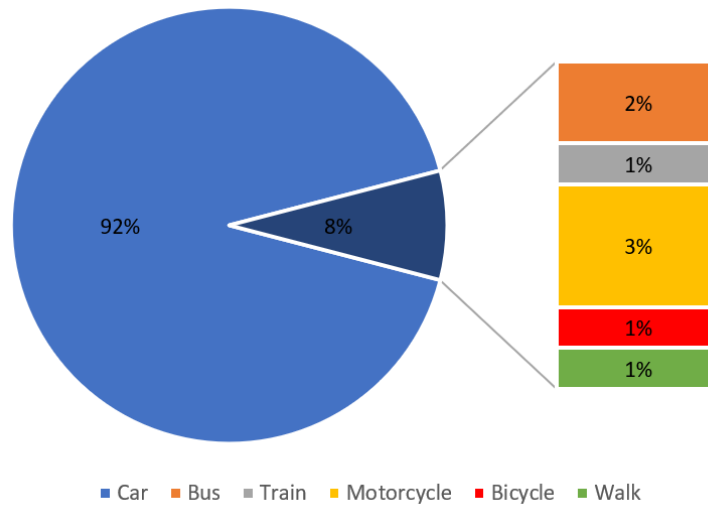


Figure 2.19: Staff Home Suburbs

### Staff Travel Modes

The travel mode shares for the staff at Cronulla High School are summarised in Figure 2.20. It is apparent that the primary mode choice for staff is driving a car and parking on-site. With 90% of staff selecting this travel mode, and 1% of staff being dropped off at the school, private vehicle usage is the predominant method of travel. The survey indicates the reasons for selecting this travel mode are because driving is the fastest way to travel, it is convenient, and it serves as a means for transporting teaching equipment and materials. The survey implies that staff who do not live within walking distance of Cronulla High School use a car to travel to work.

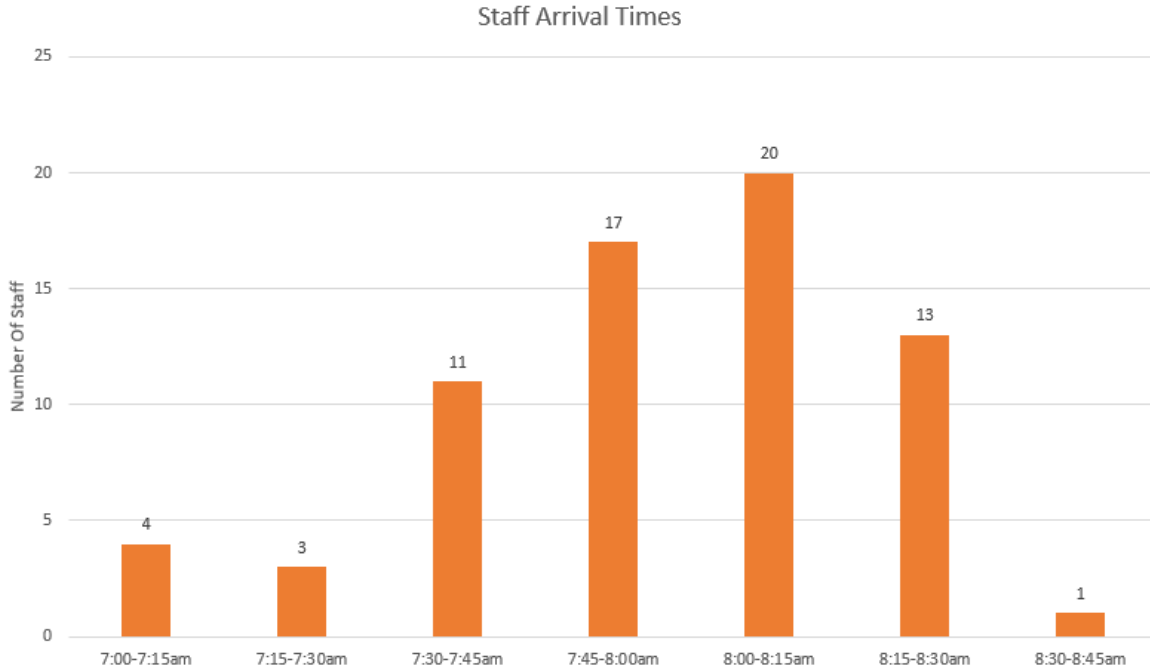




**Figure 2.20: Current Staff Travel Mode Share**

**Staff Arrival and Departure Times**

In relation to staff parking activity, arrival and departure times were also analysed in the survey. The results identified that around 49% of arrivals occur at or after 8:00am, and 53% of departures occur at or before 4:00pm. Figure 2.21 and Figure 2.22 illustrate the distribution of staff arrivals and departures across the morning and afternoon periods.



**Figure 2.21: Staff Arrival Times**

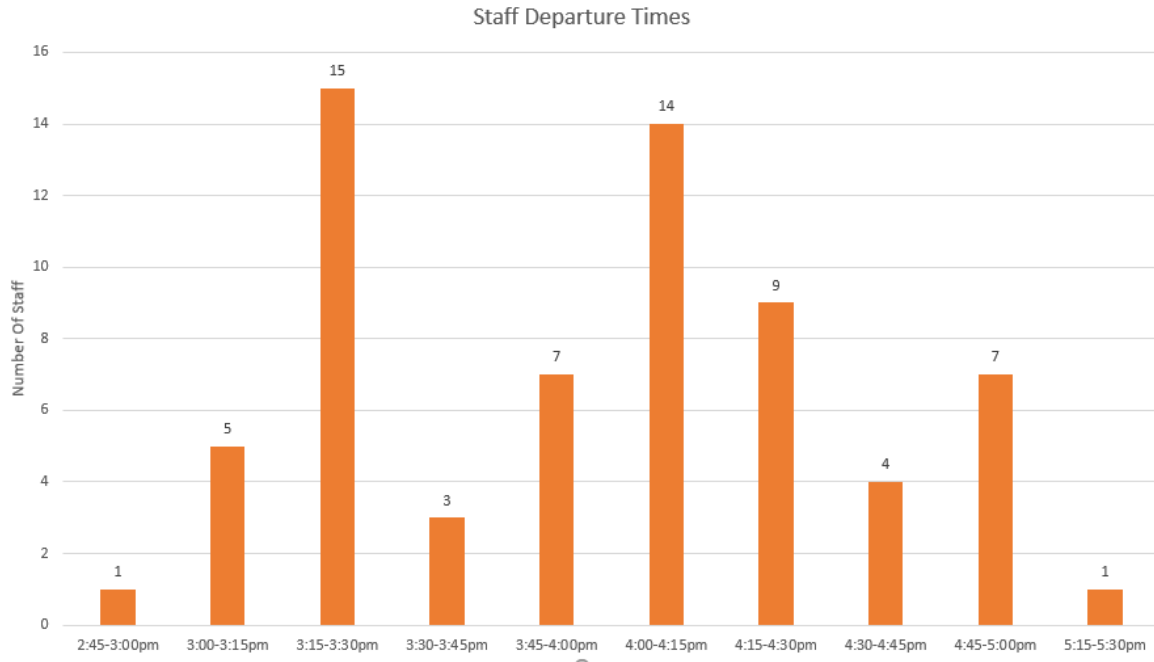
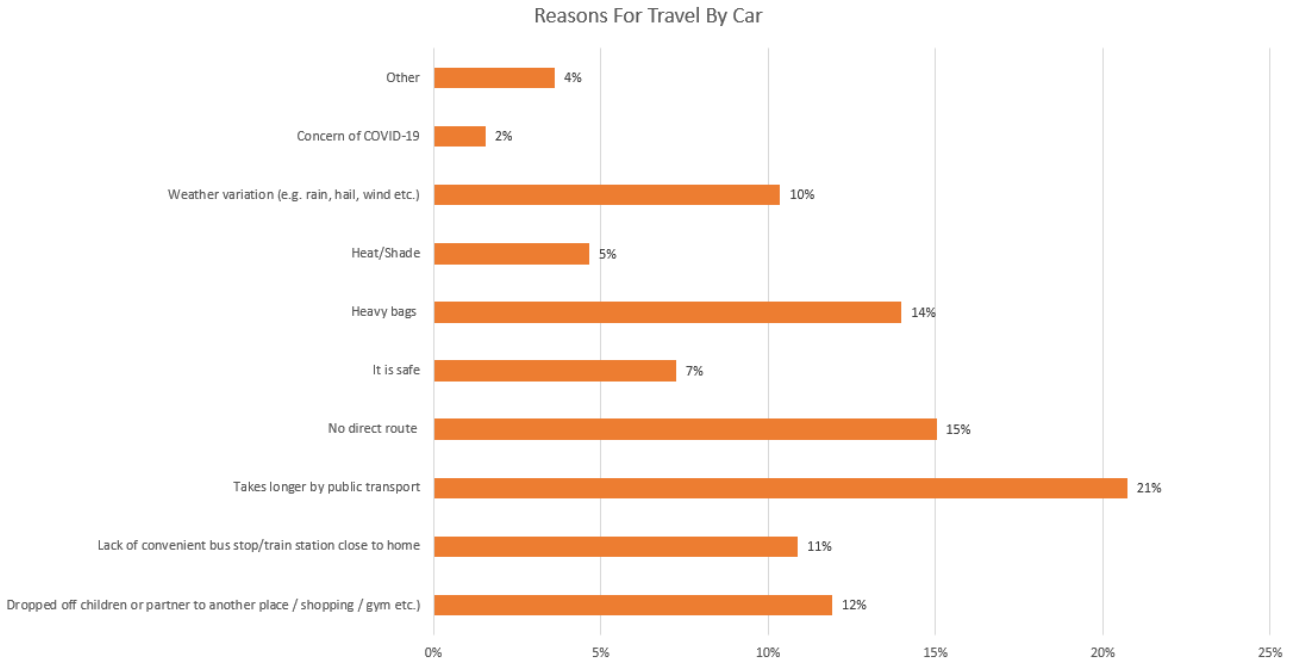


Figure 2.22: Staff Departure Times

### Reasons For Travel by Car

For those staff travelling by car, the survey asked respondents to provide reasons for doing so. The responses can be seen in Figure 2.23.

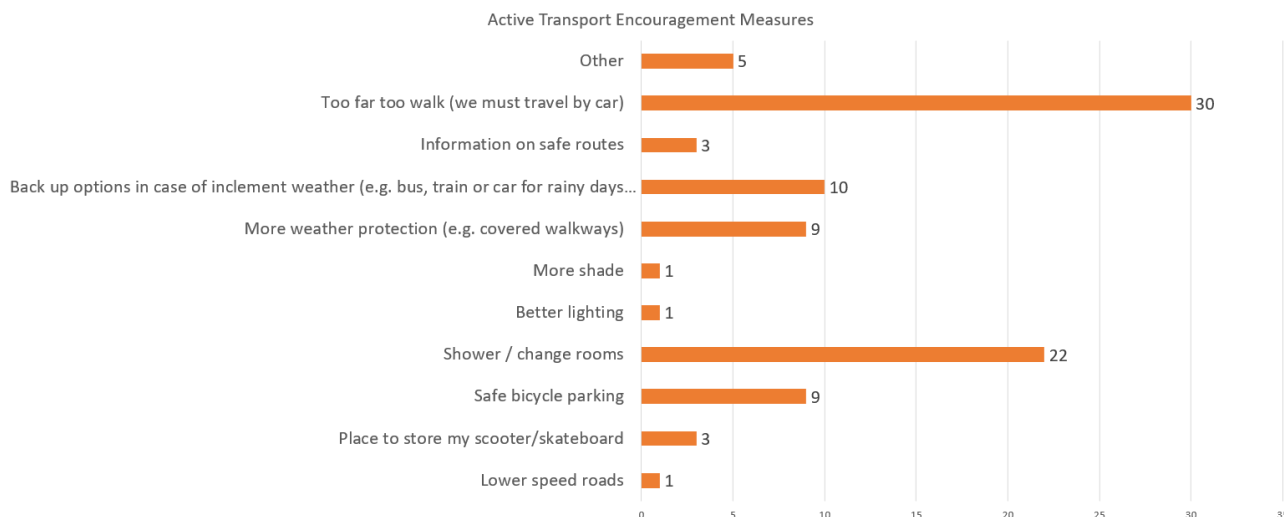


**Figure 2.23: Staff Reasons for Travel by Car**

The figure above indicates that travelling to the school takes longer by public transport in comparison to travelling by car. Staff specified that there are no direct routes to the school from their home location. Carrying heavy bags by the staff is another main reason for using private vehicles.

## Active Transport Encouragement Measures

staff were asked to select which measures would encourage them to use active travel modes such as walking or cycling. The responses can be seen in Figure 2.24. The responses are showing that staff are not eager to change their current travel behaviour since majority of them specified that the school is far from their home location.



**Figure 2.24: Active Transport Encouragement Measures**

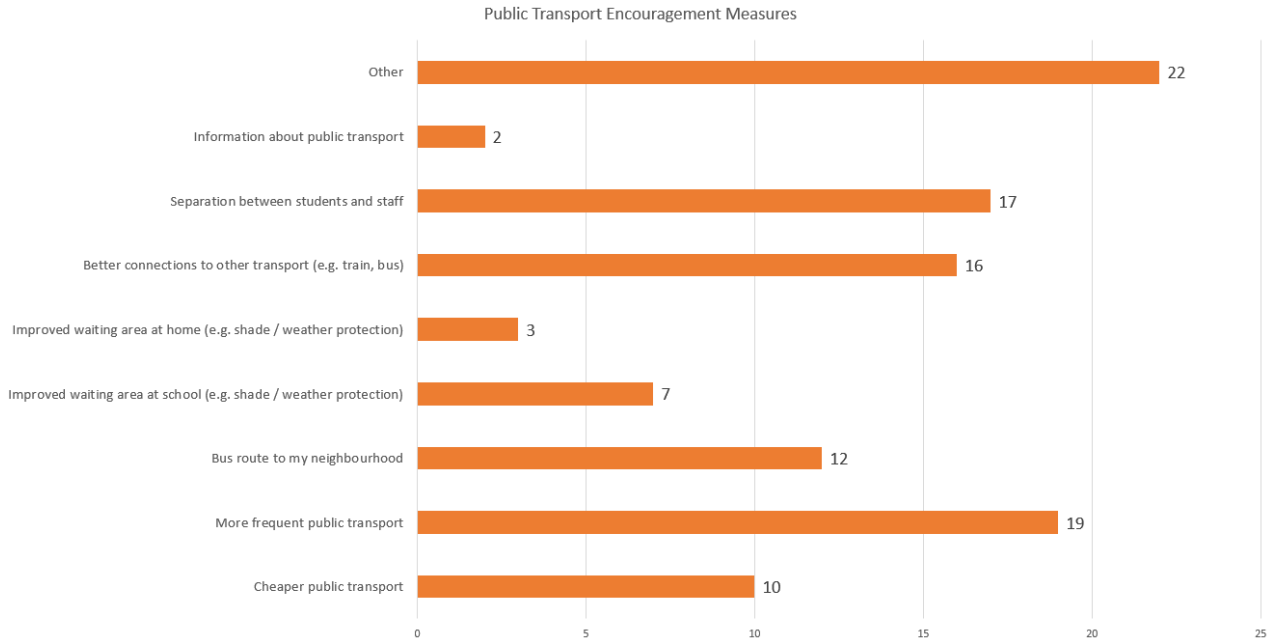
The figure above clearly illustrates that the distance between the school and staff home location is the primary cause of staff utilising cars to travel to the school. The secondary issue is the lack of a shower/change room in case of travelling by bicycle.

## Public Transport Encouragement Measures

Staff were asked to select which measures would encourage them to use public transport to travel to and from school. The responses can be seen in Figure 2.25.

As shown in the Figure below majority of staff chose “other” option. For thorough analysis, these reasons are listed below:

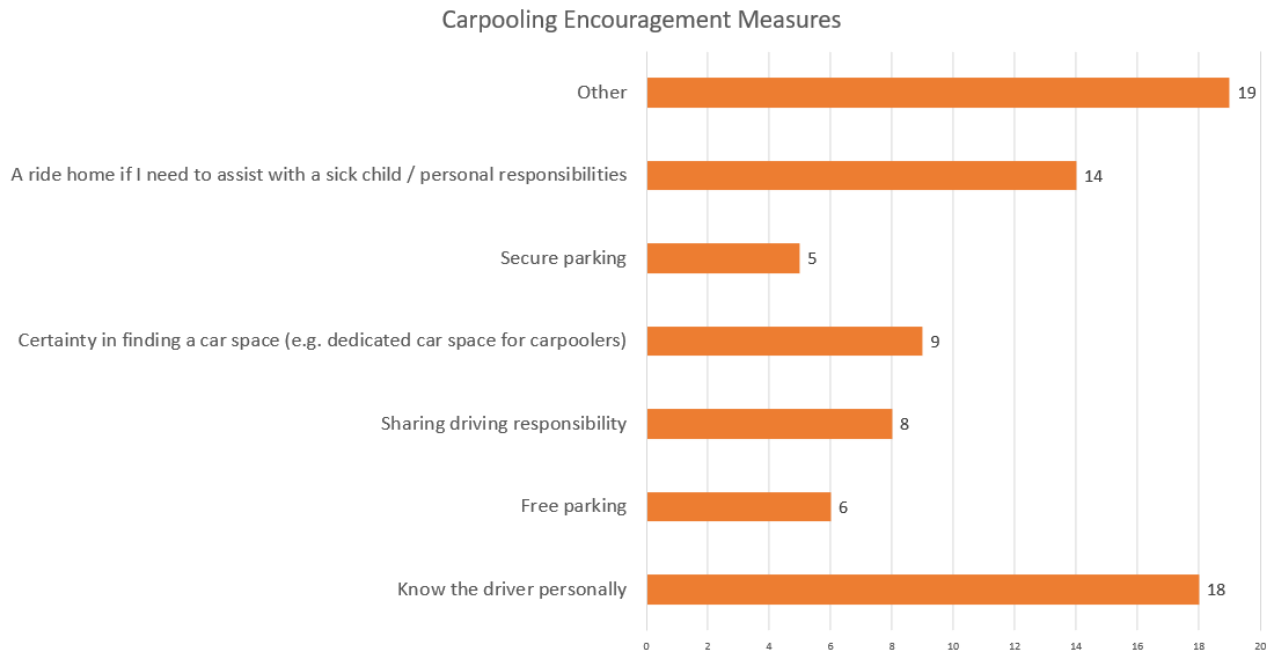
- Public transport is not convenient.
- Long distance between the home location and the stations (either bus or train)
- Some staff need to drop-off or pick-up their children prior to going to school
- Heavy bags and heavy boxes are the main reason for some staff to use their private vehicle.



**Figure 2.25: Public Transport Encouragement Measures**

### Carpooling Encouragement Measures

Staff were asked to select which measures would encourage them to carpool as a travel mode. The responses can be seen in Figure 2.26.



**Figure 2.26: Carpooling Encouragement Measures**

### 3. Proposed Development

#### 3.1 Overall Works

The proposed works are as follows:

- Upgrade of Cronulla High School including demolition of an existing building, construction of two (2) new buildings, and reconfiguration of the existing car park.

It is proposed to retain the four formal angled spaces. Furthermore, a turning zone is provided for vehicles to utilise this turning area and exit the service lane in a forward direction.

It is proposed to utilise the existing sportsfield car park for an over-flow staff parking only. This carpark has 36 spaces.

A summary table of changes to students and staff capacities are shown in Table 3.1.

**Table 3.1: Existing and proposed Operations**

Type	Existing (Permanent)	Existing (2022 Operations)	Estimated 2023	Proposed
Students	800	1309	1280	1000
Staff	70-75	100	95	78

The proposed capacity and staffing of the site are lower than the existing enrolment of the site. This is due to changing the current policy of the school. The proposed policy of Cronulla High School aims to enrol the students only within the school catchment.

The proposed overall site plan is shown in Figure 3.1. It is noted that the site plan includes a potential through-site pedestrian/vehicles entry gate. The proposed plan shows that the vehicle access is via Bate Bay Road and Elouera Road however, pedestrian entry is only via Bate Bay Road.



**Figure 3.1: Proposed Site Plan**  
*Source: fulton trotter (04 July 2022)*

## 3.2 Site Access

### 3.2.1 Bate Bay Road

The existing vehicle/pedestrian site access at Bate Bay Road is proposed to be maintained. The existing pick-up and drop-off zone are to be maintained along this road, however, change of on-street parking sign would need to be considered (described further in Section 3.7). Parking is not permitted on the northern side of the road near the main school entry gate during school hours. Dedicated bus zone is available on this road in front of the pedestrian entry gate.

### 3.2.2 Elouera Road

Vehicle access driveway via Elouera Road is proposed to be maintained. Access to the main staff car park is via this road. Elouera road is a local road, and it runs north-south direction. New roundabout of Elouera Road/Bate Bay Road was completed recently. Additionally, a pedestrian crossing was constructed lately to facilitate the movements of local people and students while crossing Elouera Road.

### 3.2.3 Captain Cook Drive

Captain Cook Drive is a state Road, and it runs east-west direction generally. On-street parking is not permitted on either side of this road. There is no access to the site via this road. However, access to the sportsfield car park (staff over-flow parking) is via this road.

### 3.3 Service Vehicle Access

It is proposed to utilise the service lane as access to the loading area. The loading/unloading would occur near the proposed building M along the service lane. The waste truck is to utilise the designated turning zone between the proposed building M and the existing building C to turn and leave the service lane in a forward direction.

The service lane is capable to accommodate a waste vehicle up to an HRV size (12.5m long).

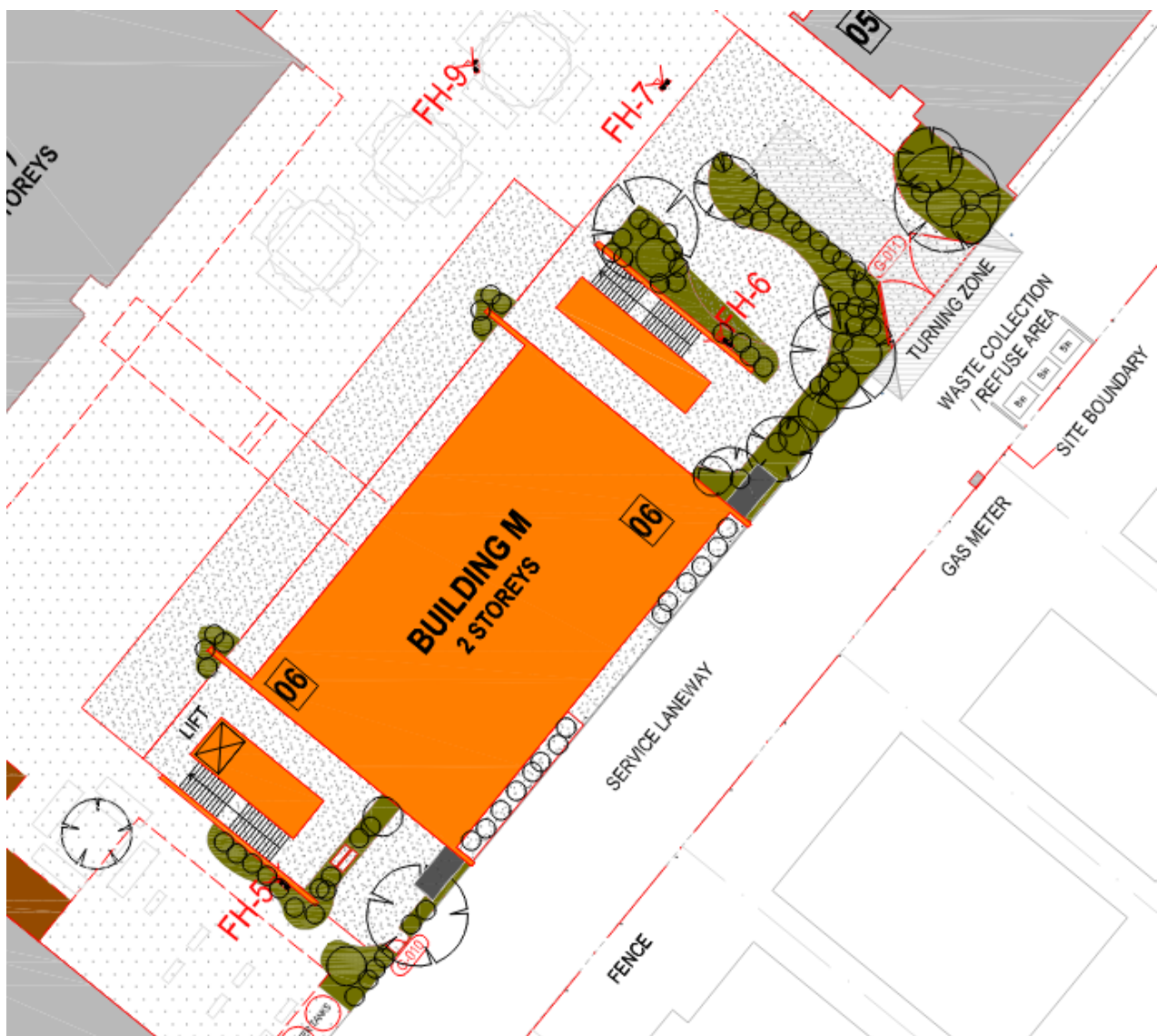


Figure 3.2: Loading/Unloading Area



### 3.4 Pedestrian Infrastructure

To increase the uptake of the walk-only travel mode to the site, and to improve connectivity to surrounding public transport stations and services, multiple off-site pedestrian facilities are available as follows:

- New zebra crossings on Elouera Road, north of the intersection of Bate Bay Road/Elouera Road
- Raised pedestrian crossing on Bate Bay Road near the School's pedestrian entry gate
- Footpath upgrades in School's surroundings, particularly, on Elouera Road and Bate Bay Road

### 3.5 Cyclist Facilities

#### 3.5.1 Rates and Requirements

In accordance with Sutherland Shire Council DCP section 5.2, the school development would require providing *1 bicycle space per 10 car parking spaces for first 200 car spaces, then 1 space per 20 parking spaces after. In addition, 1 unisex shower is required per 10 employees.*

Application of above-mentioned rates would result in providing 4 spaces for staff and 2 spaces for students plus 8 unisex showers.

For further comparison, Table 3.2 shows bicycle parking requirements in surrounding LGAs.

**Table 3.2: Bicycle Parking Requirements in Surrounding LGAs**

DCP	Staff	Students
<b>Sutherland Shire</b>	1 space per 10 required car spaces for first 200 car spaces	1 space per 20 required car spaces
<b>Bankstown</b>	1 space per 10 staff	Adequate provision of bicycle parking for students
<b>Georges River</b>	-	-
<b>Botany Bay (Bayside Council)</b>	10% of the required car spaces	-
<b>Randwick</b>	5% of the car parking rate	-

The NSW Department of Education's Educational Facilities Standards & Guidelines (EFSG) provide requirements for bicycle storage as shown in Table 3.3.

**Table 3.3: Bicycle Parking Requirements in EFSG**

Streams	1	2	3	4	5	6	7	9	12
Bicycle Enclosure	-	24	30	36	42	<b>48</b>	54	66	84

### 3.6 Public Transport Access

While additional public transport services cannot be provided within the scope of a development project, the potential for future services has been discussed with Transport for NSW. To provide improved connectivity to those potential services and to encourage usage of existing services, the pedestrian improvements around the site will benefit public transport users.

### 3.7 Pick-up and Drop-off (Kiss & Ride)

In accordance with the transport strategy for this development, which is to reduce private vehicle volumes, there are no planned increases to the capacity of the existing “Kiss & Ride” zones at Bate Bay Road. Instead, changing signs are proposed to improve safe and efficient traffic flow while retaining the same capacity.

Figure 3.3 below shows the “Kiss & Ride” zone in the currently restricted parking zone.

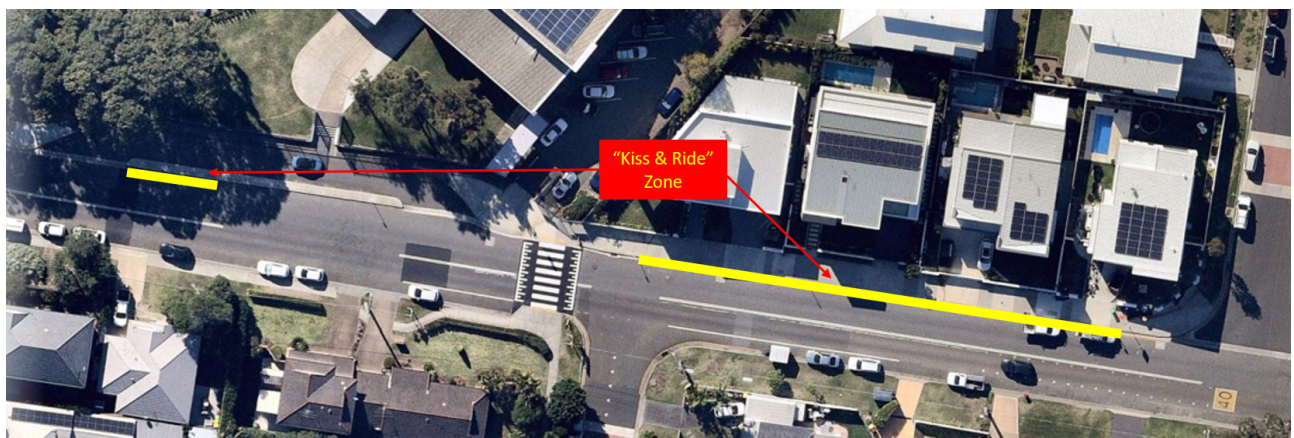


Figure 3.3: Kiss and Ride Zone

### 3.8 Car Parking

It is proposed that the majority of the existing main staff car park be retained and modified to be made fully compliant with the current Australian Standards where possible. The proposed capacity of this car park is 31 spaces. Re-line marking of some existing car spaces might be needed. Additionally, the existing sportsfield carpark is to be utilised by staff only for the purpose of over-flow parking during school hours. The sportsfield car park has 36 car spaces including one accessible space. Furthermore, the four angled spaces within the service lane would be retained.

Overall, a total of **71** car spaces is provided for Cronulla High School redevelopment.

It should be noted that the location of the existing access driveway for the main staff car park will remain unchanged. Access to sportsfield car park is via the separate entry and exit driveway on Captain Cook Drive. Furthermore, the vehicular driveway access on Bate Bay Road to four angled spaces within the service lane would be retained.

Location of the formal car parks are shown in red in Figure 3.4.



## 4. Operational Impacts

### 4.1 Travel Mode

This section contains details about the school's demand for each travel mode comprising private vehicle, public transport, and active transport. This section analyses the current mode share statistics of Cronulla High School in reference to the recent travel mode survey results and JTW mode share data. This section should be read in conjunction with the preliminary School Transport Plan which will be prepared by TTW in a separate document which analyses mode share demand in consideration of future targets, rather than the current requirements. The plan contains strategies and management techniques to reduce dependency on private vehicle use and increase public transport and active transport use.

The current travel demands of Cronulla High School are summarised in Table 4.1. The existing travel volumes are calculated by applying the online travel survey results to the total advised current enrolment and staffing level (759 students and 69 staff). Currently, this is lower than physical capacity of the site, as detailed in Table 3.1 apply those same current splits to the proposed total capacity of 1000 students and 78 staff.

**Table 4.1: Current and Projected Travel Demand**

<b>Students</b>				
<b>Travel Mode</b>	<b>Online Survey Results (#)</b>	<b>Online Survey Results (%)</b>	<b>Existing Volumes (extrapolated)</b>	<b>Forecast Volumes</b>
<b>Car (as driver)</b>	29	4%	52	40
<b>Car (as passenger)</b>	146	19%	249	190
<b>Bus Only</b>	247	33%	432	330
<b>Bicycle</b>	40	5%	65	50
<b>Walk</b>	103	14%	183	140
<b>Ferry + Bus</b>	72	9%	118	90
<b>Train + Bus</b>	96	13%	170	130
<b>Motorcycle</b>	4	1%	13	10
<b>Other</b>	24	3%	39	30
<b>Total</b>	<b>759</b>	<b>100%</b>	<b>1309</b>	<b>1000</b>
<b>Staff</b>				
<b>Travel Mode</b>	<b>Online Survey Results (#)</b>	<b>Online Survey Results (%)</b>	<b>Existing Volumes (extrapolated)</b>	<b>Forecast Volumes</b>
<b>Car (as driver)</b>	62	90%	81	70
<b>Car (as Passenger)</b>	1	1%	1	1
<b>Bus Only</b>	1	1%	1	1
<b>Train</b>	1	1%	1	1
<b>Bicycle</b>	1	1%	1	1
<b>Walk</b>	1	1%	1	1
<b>Ferry + Bus</b>	0	0%	0	1
<b>Train + Bus</b>	1	1%	1	1
<b>Motorcycle</b>	2	3%	2	2
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>90</b>	<b>78</b>

## 4.2 Traffic Generation

To determine the existing traffic condition within the surrounding road network that service the school, traffic intersection analysis have been undertaken by **ptc**. The major surveyed intersections and their results are outlined in Table 4.2 below:

**Table 4.2: Existing Traffic Condition**

Intersection	AM Peak Hour				PM Peak Hour			
	LoS	Delay	DoS	Q95	LoS	Delay	DoS	Q95
<b>Captain Cook Drive/ Elouera Avenue</b>	A	8.3 s	0.276	14.4m	A	8.7 s	0.336	18.5m
<b>Elouera Avenue/ Bate Bay Road</b>	B	22.0s	0.445	22.9m	B	17.1s	0.390	13.4m
<b>Bate Bay Road/ Kirkwood Road</b>	A	6.2 s	0.309	11.8m	A	7.0 s	0.118	13.9m
<b>Bate Bay Road/ Peregrine Drive</b>	A	5.8 s	0.113	1.7m	A	5.9 s	0.333	2.3m

The network peak hours for the **ptc** analysis are:

- Weekday AM Network Peak Hour: 8:00am-9:00am
- Weekday PM School Peak Hour: 2:45pm-3:45pm

Given the fact that there will be no increase in the number of students nor the staff due to the change of enrolment policy. Consequently, there is no associated traffic generation from the site. Additionally, the works to improve active and public transport modes will target to reduce the volume of private vehicles travelling to and from the site. As shown in Section 3.1 of this report, the number of students is reduced from the current enrolment of 1338 to the capacity of 1000 students over the next few years.

### 4.2.1 Trip Distribution

Since there will be no additional traffic generation due to the change of enrolment school policy, trip distribution assessment is no considered further. Additionally, the minimal modifications to the existing kiss and ride conditions would not result in any additional traffic. Similarly, there are no known changes to the school intake boundary.

### 4.2.2 Future Traffic Condition

The development is not proposing to increase the number of students or staff and therefore it is considered that no assessment of future traffic generation is required. In addition, there will be a reduction of the number of private vehicles traveling to and from the site due to the transport strategy of the School Transport Plan.

It should be noted that the existing traffic conditions for the road network surrounding the school performs at a satisfactory level as shown in Table 4.2

Stage 3 of the Sutherland to Cronulla Active Transport Link (SCATL) will assist in improving active transport to the School site. The Transport Link, although outside of the catchment, will provide a route close to the School.

Furthermore, the new roundabout intersection of Elouera Road/Bate Bay Road has improved the traffic flow and consequently improved previous traffic congestion. The new works included a new zebra crossing on Elouera Road which also improves active transport use.

### 4.3 Public Transport

Given the constraint shape of school catchment, Bundeena ferry is an only form of public transport that provides a connection to the most southern area of the school catchment across the water. This ferry service arrives/departs at Cronulla wharf every hour and the trip duration is 30 minutes. Cronulla wharf is 290m away from the Cronulla Station. The students can reach to the station via cycling, or they can catch one of the following available bus services: 971,985,987,988, S370, S371, S375, S376, S377, S378, S384.

The bus route 969 services students between Maianbar and Bundeena Wharf. The bus arrives at Loftus Street (adjacent to the wharf).

The travel survey produced the results shown in Table 4.1 projecting a bus demand of 330 students. Currently, only one staff member and 440 students (33%) are utilising the bus to travel to the school.

Given that the number of students would be reduced in the future (from 1309 to 1000), therefore, current bus services will be sufficient, and they would not require any changes.

Worth noting that any bus service improvements can encourage staff and students to utilise public transport greater than the current demand. Some of these improvements are listed below.

- Improve bus frequency
- Integrate with cycle and walk networks
- Improve bus stop elements (e.g., shelter, light)
- Dedicated bus lane and signal priority

The changes of the existing bus routes were provided by Transdev and shown in Table 4.3, Table 4.4 and Table 4.5.

**Table 4.3: Bus Route changes – AM (Transdev)**

Time	Route	Destination	Move to new bay?
8:01am	987	Cronulla Station	<b>Yes (turn at roundabout)</b>
8:05am	985	Miranda	No (continues on Captain Cook Drive)
8:14am	987	Cronulla Station	<b>Yes (turn at roundabout)</b>
8:15am	S371	Woolooware High School	No (continues on Captain Cook Drive)
8:19am	969	Cronulla Station	No (too many services at this time)
8:20am	987	Cronulla Station	<b>Yes (operates from Captain Cook Dr)</b>
8:35am	985	Miranda	No (continues on Captain Cook Drive)



8:35am	S380	Cronulla Station (meal break)	<b>Yes (turn at roundabout)</b>
8:40am	987	Cronulla Station	No (continues on Captain Cook Drive)
8:40am	S374	Taren Point Depot (meal break)	No
8:40am	S372	Last trip in split shift	<b>Yes (turn at roundabout)</b>
8:42am	S374	Next trip starts Miranda	No

**Table 4.4: Bus Route changes – PM – Tuesday & Thursday (Transdev)**

Time	Route	Destination	Move to new bay?
2:30pm	S378	Cronulla Station	Yes
2:30pm	S375	Cronulla Station	Yes
2:30pm	S370		No (too many services at this time)
2:30pm	S384		No (too many services at this time)
2:30pm	S376		No (too many services at this time)
2:30pm	S377		No (too many services at this time)
2:30pm	S379		No (too many services at this time)
2:35pm	985		No (continues on Captain Cook Drive)
2:35pm	S363	Kurnell	No (continues on Captain Cook Drive)
2:45pm	S373	Kurnell	No (continues on Captain Cook Drive)

**Table 4.5: Bus Route changes – PM – Monday, Wednesday & Friday (Transdev)**

Time	Route	Destination	Move to new bay?
3:15pm	S370	Cronulla Station	<b>Yes</b>

3:15pm	S376	Kurnell	No (continues on Captain Cook Drive)
3:15pm	S375	Cronulla Station	<b>Yes</b>
3:15pm	971	Cronulla Station	No (too many services at this time)
3:15pm	S377	Cronulla Station	No (too many services at this time)
3:16pm	985	Cronulla Station	No (too many services at this time)
3:22pm	988	Cronulla Station then Miranda	<b>Yes</b>
3:28pm	S373	Cronulla Station then Miranda	No (too many services at this time)
3:30pm	S384	Trip before is S370	<b>Yes (turn at roundabout)</b>
3:33pm	S373	Kurnell	No (continues on Captain Cook Drive)
3:35pm	985	Miranda	No (continues on Captain Cook Drive)
3:35pm	987	Cronulla Station	No (continues on Captain Cook Drive)

#### 4.4 Pedestrians

The current and forecasted numbers of students walking to the school are 103 (14%) and 140, respectively. On the other hand, only one staff member walks to the school and it is estimated that this number would not change in the future.

The new pedestrian crossing on Elouera Road is expected to support the current pedestrian demand of 103 students and to sustain the increase in pedestrian numbers.

#### 4.5 Bicycles and Cycling

The current and forecasted numbers of students cycling to the school are 40 (or 5%) and 50, respectively. It is estimated that this number would not face any significant change for staff as currently only one staff member cycling to the school.

It is important that cycling connections are consistently improved to increase options for students and staff to commute safely to the school. Although most of the proposed upgrades have been implemented, however, there are some connections missing within 400m radius of the school. An expansion along Elouera Road should be considered to improve connections to the south particularly from Cronulla train station.

## 4.6 Kiss & Ride

The most significant impacts at any school usually occur around school start and finish times, particularly during the afternoon pick-up period as families arrive in advance to pick-up their children. All activities typically clear in 15-20 minutes. The morning drop-off has less impact to traffic because the pick-up and drop-off activity is spread over a longer time period (45-60 minutes) and does not require vehicles to queue and wait.

Kiss and ride activity will improve compared to the existing condition as the students population reduces.

The “pick-up and drop-off” area along Bate Bay Road is 78 metres (excluding driveways). This can accommodate approximately 13 vehicles.

## 4.7 Car Parking

### 4.7.1 Rates and Requirements

The project is progressing under a Review of Environmental Factors (REF) rather than a local Council approval. However, the project does need to review relevant local Council controls and provide a thorough assessment of parking demands.

There are no relevant rates or requirements for educational facilities specified in the Sutherland Shire DCP. Parking demand are to be assessed and parking provisions are to be justified on a site-specific basis. For the purpose of comparison, additional surrounding Council areas have been reviewed. The rates shown below are those for high school were specified, or for schools or educational establishments where no different rates are provided. If no educational establishments are listed, that LGA is shown as N/A. Table 4.6 shows the car parking requirements in surrounding areas.

**Table 4.6: Surrounding Councils' Parking Rate**

DCP	Staff	Students	Visitors
Sutherland Shire	-	-	-
Bankstown	1 space per staff or classroom	1 space per 8 students in year 12	-
Georges River	-	-	-
Botany Bay (Bayside Council)	1 space per 2 staff	1 space per 10 students (year 12)	One pick-up and drop-off area for every 100 students
Randwick	0.7 space per staff	-	-

Sutherland Shire and Georges River Development Control Plan specify that *a Traffic and Parking Assessment Report with a survey of similar establishments is required.*

## 4.8 Car Parking Provision

As noted in Figure 2.20, it is estimated that around 91% of staff (90% as driver and 1% as passenger) drive to school and require parking. This is equivalent to a parking demand rate of approximately 0.9 vehicles (spaces) per staff member. The proposed capacity of 71 spaces is equivalent to a provision of approximately 0.91 spaces per staff member (or 1 space per 1.09 staff), reduced from the current demands of 1.1 staff member hence, the proposed capacity of 71 car spaces is considered adequate and appropriate on the following grounds:

- There are various external projects available for the staff and also students/parents which would improve active and public transport accessibility.
  - Sutherland to Cronulla active transport link, which is a substantial active transport initiative and sites outside the catchment area but will benefit staff, parents and students.
    - Stage 1 - Sutherland to Kirrawee is complete.
    - Stage 2 - Kirrawee to Caringbah is underway, however will not impact on this project.
    - Stage 3 - Caringbah to Cronulla is out for community consultation.
  - Newly constructed raised pedestrian crossing on Bate Bay Road and Elouera Road
  - Various pedestrian refuge islands in the surrounding which would improve the safe pedestrians' mobility
  - Various pedestrian footpath upgrade in the surrounding area, particularly on and Elouera Road

and Bate Bay Road

- Dedicated bicycle lane on both sides of Captain Cook Drive and also on Elouera Road
- New indented bus bay on Elouera Road
- New roundabout intersection of Elouera Road / Bate Bay Road
- A car parking rate of 0.5 spaces per staff member is applied in Botany Bay DCP.
- A lower provision of parking is consistent with the TfNSW Road User Space Allocation Policy (prioritising pedestrian access and reducing private vehicle infrastructure)
- The proposed strategy assists in moving away from the traditional “predict and provide” methodology towards a more beneficial “decide and provide” methodology for sustainable transport practices.
- The applied School Transport Plan will provide the relevant management strategies and communications to encourage and/or allow lower vehicle usage for staff.
- A reduction in on-site car parking will encourage staff to use alternative modes, thereby reducing vehicular traffic volumes on and around the site and improving safety for students.

Overall, the strategy for the lower provision of parking is consistent with the transport strategy of the development as proposed to the Transport Working Group and achieves the sustainable transport goals of the project and state planning policies more broadly.

## 4.9 Bus Zone

There are several available bus stops in the local road network. The Cronulla High School bus stop located in front of the school gate on Bate Bay Road provides access to wide range of surrounding suburbs. Table 4.7 below contains an estimation of the forecasted student numbers requiring bus services, according to the travel mode survey. Most bus users travel on route 985 which requires 1 bus to sustain the projected demand. Route 987 is the second most common service, requiring 1 bus followed by route 988. The remaining routes have consistently low demand, each requiring one bus to fulfil future requirements.

**Table 4.7: Current and Projected Number of Buses Required**

Bus Number	% Of Bus Users using Particular Route	Current Numbers	Projected Numbers	Number of Buses Required
987	26%	37	28	1
985	28%	40	30	1
988	21%	29	22	1
971	3%	4	3	1
969	7%	10	7	1
S371	12%	17	13	1
S372	2%	3	2	1
S379	1%	1	1	1
<b>Total</b>	<b>100%</b>	<b>141</b>	<b>105</b>	<b>8</b>

## 5. Conclusion

In summary:

- The planning proposal seeks approval for the proposed Cronulla high School redevelopment with the reduced future capacity of 1000 students and 78 staff. The planning pathway for this project the Review of Environmental Factors (REF), and it is reviewed by the Department of Education and the Sutherland Shire Council.
- The proposed redevelopment will not impact on the traffic and transport elements of the surrounding road network. The traffic impact was assessed by ptc previously for the higher number of staff and students. The SIDRA intersection modelling undertaken by ptc shows no significant impact in terms of delay, queueing and etc on the surrounding road network.
- Based on the rates specified in the Sutherland Shire Council DCP 2015, 4 bicycles spaces are required for staff and 2 spaces for students plus one unisex shower. Furthermore, based on EFSG rates for Stream 6, 48 bicycle spaces are required.
- The Sutherland Shire Council does not provide specific parking rates for the school developments. The proposed 71 car spaces are considered adequate and sufficient to accommodate the car parking demand for 78 staff. It is proposed to provide car parking for staff only and not for students.
- There will be no change on pick-up and drop-off capacity or location as a result of Cronulla High School redevelopment.

In light of the above, the Planning Proposal is supported on transport planning grounds, noting that the proposed redevelopment high school will have minimal traffic and parking impacts.

Prepared by



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**AMIR LAHOUTI**

Traffic Engineer

Approved by



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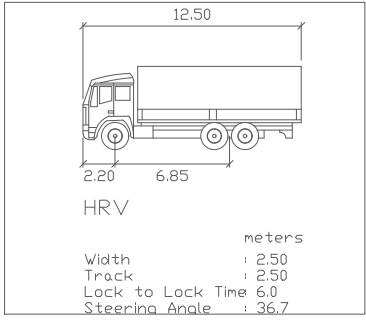
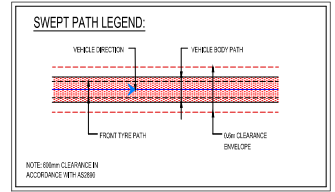
**PAUL YANNOULATOS**

Technical Director/Director

**TAYLOR THOMSON WHITTING (NSW) PTY LTD**

## Appendix A      SWEPT PATH





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A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P2	Preliminary	AL	AL	08/09/2022					

Architect  
**Fulton Trotter Architects**  
 Level 3-35 Spring Street, Bondi Junction  
 NSW 2061

Engineer  
**TTW** Structural Civil Traffic Façade  
 612 9439 7288 | 48 Chandos Street St Leonards NSW 2065

Project  
**CRONULLA HIGH SCHOOL**

Sheet Subject  
**12.5m - WASTE TRUCK**

Scale : A1  
**1:200**

Drawn : **AL**  
 Authorised : **MB**

Job No : **211349**  
 Drawing No : **SK02**  
 Revision : **P2**

Plot File Created: Sep 08, 2022 - 11:28am

**PRELIMINARY**  
 NOT TO BE USED  
 FOR CONSTRUCTION

## Appendix B      SITE PLAN



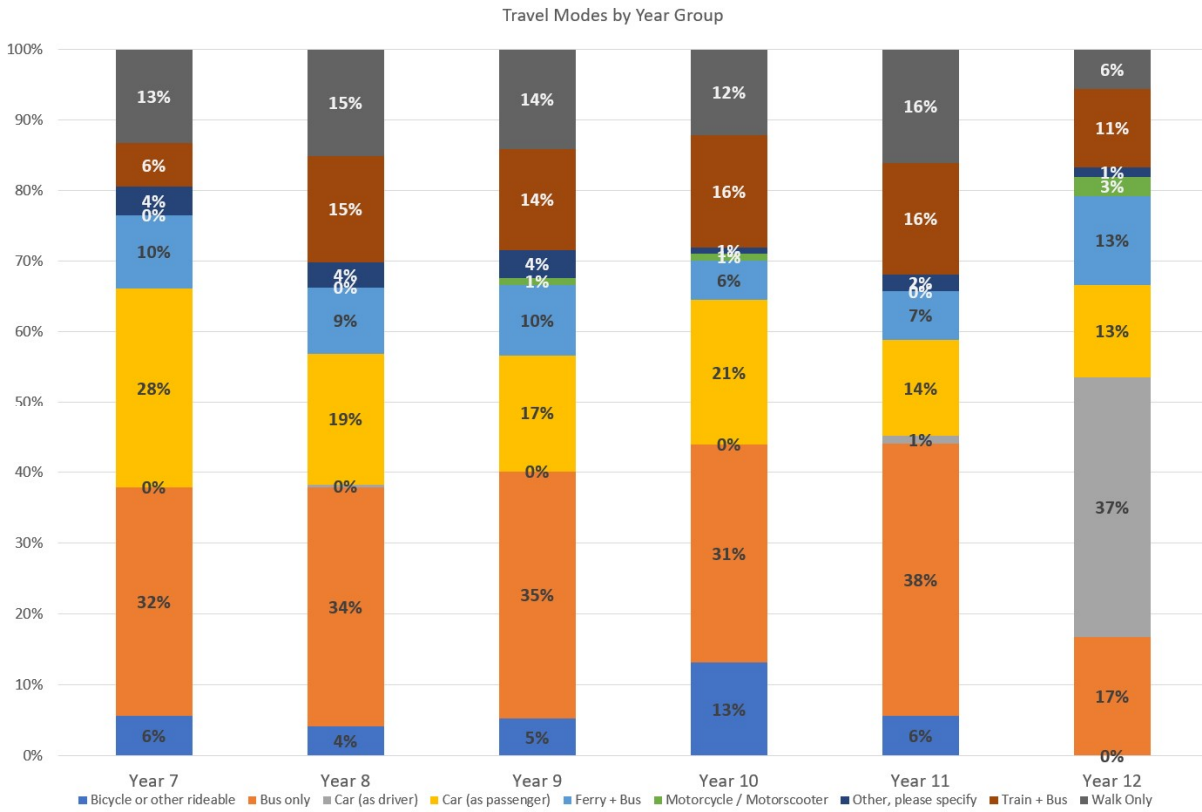
ELC/2018/10

GATE BAY ROAD

CANTON ROAD

## Appendix C TRAVEL MODE BY YEAR GROUP

## Appendix C Travel Modes by Year Group



## Appendix D TWG MEETING MINUTES

## Minutes – Transport Working Group (TWG) 3

### Cronulla High School

Date and Time	28 July 2021 10:00am – 11:00am
Venue	Microsoft Teams
Enquiries	Caryn Lim 0427 085 054

Invitee	Organisation	Role	Attendance
Rod Stanton	SINSW	Senior Project Director, Infrastructure Planning	N
Caryn Lim (CL)	SINSW	Project Director, Infrastructure Planning	Y
Rebecca Lehman (RL)	SINSW	Sustainable Transport Technical Advisor	Y
Bruce Powe (BP)	Sutherland Shire Council	Senior Traffic Engineer	Y
Phillip Mansfield	Sutherland Shire Council	Manager Traffic and Public Domain Services	N
Brendan Pegg (BPg)	TfNSW	Planning and Programs, Land Use Planning	N
Robert Rutledge (RR)	TfNSW	Customer Strategy & Technology	Y
Mark Ozinga	TfNSW	Customer Strategy & Technology	N
Robert Mills (RM)	TfNSW	Integrated Public Transport Planning	Y
David Surplice (DS)	TfNSW	Travel Demand Management	Y
Jacqui Hicks	TfNSW	Land Use	Y
Divna Cvetojevic	TfNSW	Planning and Programs, Land Use Planning	Y
Jonathan McMullan	TfNSW	Contract Management Specialist Greater Sydney (Transdev Contract)	Y
Ilija Pleic	TfNSW	Procurement and Bus Contracts Greater Sydney (Transdev Contract)	N
Michael Babbage (MB)	Taylor Thomson Whitting NSW Trust (TTW)	Senior Traffic Engineer	Y
Amir Lahouti (AL)	Taylor Thomson Whitting NSW Trust (TTW)	Traffic Engineering Consultant	Y
Paul Yannoulatos (PY)	Taylor Thomson Whitting NSW Trust (TTW)	Traffic Engineering Consultant	Y
Richard Moyle	SINSW	Project Officer, Infrastructure Planning	Y



Item	Description	Responsibility
<b>1.</b>	<b>Introductions and Apologies</b>	
1.1	As noted above.	Note
<b>2.</b>	<b>Previous meeting minutes acceptance or amendment</b>	
2.1	Previous meeting minutes were accepted.	Note
<b>3.</b>	<b>Actions from previous meetings</b>	
3.1	Bus pickups and turning to be reviewed by TTW. - <b>This will be covered in the presentation for this meeting.</b>	Closed
3.2	School Events and associated parking requirements and impacts. - <b>Information has just been received on school events and so still processing. CL has also discussed with the Principal and waiting on further information.</b>	CL
3.3	Follow up with TfNSW colleagues re. info on Kurnell Planning Proposal. - <b>BPg has provided the most recent information but on-going monitoring is needed.</b>	On-going
3.4	TTW to present draft Transport Impact Assessment at the next TWG - <b>This will be covered in the presentation for this meeting.</b>	Closed
<b>4.</b>	<b>Draft Transport Impact Assessment (DTIA)</b>	
4.1	The DTIA will be distributed to the TWG for further review and comment. MB asked what the timeline for SEARs and the SSDA is currently. CL responded that the process will start in the next month with a Town Planning consultant. The Concept Design is near completion and formal approval will be requested. A SEARs request will be lodged by the end of the year. MB noted that a DTIA is required for SEARs but since this has not been lodged as yet, this should be ahead of current timelines.	Note
4.2	MB presented 'Transport Working Group Meeting 3' slides.	
	<b><u>Items and Comments arising from the presentation</u></b>	Note
4.2.1	Parking spaces numbers are currently being shown as 31 plus 23 (54) for 78 staff.	
	<u>'Queries from TfNSW &amp; Council'</u>	
4.2.2	RM suggested that it would be good if existing network diagrams were overlaid on the map showing the location of students across the catchment area. MB advised that the map can be updated. RM also noted that there are a number of students outside of the catchment area. MB responded that the current student population of 1,300 will reduce over time to 1,000, focussing on enforcing the out of area enrolment policy so the dots shown outside of the catchment area should fall away. Note that Cronulla HS has a high number of out of catchment enrolments at the school. RM also noted that the catchment area is unique in that it is predominately not of urban form, but mostly surrounded by water or natural features and landscapes.	MB  Note  Note
4.2.3	BP asked what the quantum is for the 37% of Year 12 that are driving. AL responded that from the survey information of the Year 12 enrolments, 26 are using a car as a driver and 9 as a passenger out of 71 enrolments.	Note
	<u>'Bus Routes, Movements and Turning Circle'</u>	



Item	Description	Responsibility
4.2.9	<p>BP asked, given unconstrained parking in the surrounding area, how many cars will park off-site. TTW will show the data as a percentage and in numbers and present back to the TWG.</p> <p>MB will do a summary table of staff and students across all travel modes by numbers.</p> <p>RM asked if MB knew where staff were commuting from, which MB confirmed that there is data available. RM added that car sharing may be more appropriate than mode shifting if the data presents this information.</p> <p>MB to review in more detail as to where staff and students are travelling from and identify gaps within service at a geographical level. This has largely been done for students.</p>	<p>MB</p> <p>Note</p> <p>MB</p>
	<u>'School Transport Plan'</u>	
4.2.10	<p>RL noted that the School Transport Plan (STP) would be new for Council and advised that the it was an amalgamation of the Green Travel Plan and the Operational Transport and Access Management Plan (OTAMP). The STP will include details for event management and will have a communications component. Enrolment data collection and monitoring is ongoing and information can be shared with the TWG. An ongoing governance group (similar to this TWG) will required to be set up. The STP has opportunity to provide promotional material such as tap on/off.</p> <p>RL asked if Council would consider a potential Travel Coordinator Role to assist Council will matters across the LGA and could include matters arising from the town centre and other schools.</p> <p>BP responded that this would seem to be a great initiative, especially for schools with particular issues, and the Council would support this.</p> <p>RL suggested to liaise and continue to discuss the funding for this role. DS responded that there are forums to raise this within TfNSW, but is beyond the remit of what this group can commit to.</p> <p>RL requested that DS provide the details of the appropriate forum and further pursue since Council have indicated their interest. RL and DS to discuss further.</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>DS / RL</p>
4.2.11	<p>PY asked if a road safety officer would be considered a similar role, which is currently funded or subsidised by Council. BP added that the funding was a 50/50 Council and TfNSW arrangement and that this was a possibility but would require more discussion. DS added that funding from TfNSW is focused more on child safety but not for sustainable transport.</p> <p>RL requested that this item as kept on the agenda for this group to monitor and continue the working group process. BP indicated that Council are ready to listen and to play a role. RL added that this shows that SINSW is pursuing realistic targets and moving away from the a tick-box approach it previously was.</p>	<p>Note</p> <p>CL</p>
	<u>'Final Questions'</u>	
4.2.12	<p>MB asked if TfNSW are able to provide the missing Opal data. RM will provide the appropriate contact details.</p> <p><u>Post Meeting Note:</u> RM advised CL in an email that Opal Data cannot be released.</p>	RM
	MB requested that the group advise TTW if any additional documents or information are required for SEARs.	All
<b>5.</b>	<b>Any Other Business</b>	
5.1	Nil	Note
<b>6.</b>	<b>Date and Time of Next Meeting</b>	
6.1	Wed 11 Aug 2021 10.00am – 11.00am	Note

## Minutes – Transport Working Group (TWG) 4

### Cronulla High School

Date and Time	11 August 2021 10:00am – 11:00am
Venue	Microsoft Teams
Enquiries	Caryn Lim 0427 085 054

Invitee	Organisation	Role	Attendance
Rod Stanton (RS)	SINSW	Senior Project Director, Infrastructure Planning	Y
Caryn Lim (CL)	SINSW	Project Director, Infrastructure Planning	Y
Rebecca Lehman (RL)	SINSW	Sustainable Transport Technical Advisor	Y
Bruce Powe (BPowe)	Sutherland Shire Council	Senior Traffic Engineer	Y
Phillip Mansfield	Sutherland Shire Council	Manager Traffic and Public Domain Services	N
Brendan Pegg (BPegg)	TfNSW	Planning and Programs, Land Use Planning	N
Robert Rutledge (RR)	TfNSW	Customer Strategy & Technology	Y
Mark Ozinga	TfNSW	Customer Strategy & Technology	N
Robert Mills (RM)	TfNSW	Integrated Public Transport Planning	Y
David Surplice (DS)	TfNSW	Travel Demand Management	Y
Jacqui Hicks (JH)	TfNSW	Land Use	Y
Divna Cvetojevic	TfNSW	Planning and Programs, Land Use Planning	Y
Jonathan McMullan (JM)	TfNSW	Contract Management Specialist Greater Sydney (Transdev Contract)	Y
Ilija Pleic	TfNSW	Procurement and Bus Contracts Greater Sydney (Transdev Contract)	N
Michael Babbage (MB)	Taylor Thomson Whitting NSW Trust (TTW)	Senior Traffic Engineer	Y
Amir Lahouti (AL)	Taylor Thomson Whitting NSW Trust (TTW)	Traffic Engineering Consultant	Y
Paul Yannoulatos (PY)	Taylor Thomson Whitting NSW Trust (TTW)	Traffic Engineering Consultant	Y
Richard Moyle	SINSW	Project Officer, Infrastructure Planning	N

Item	Description	Responsibility
<b>1.</b>	<b>Introductions and Apologies</b>	
1.1.	As noted above.	
<b>2.</b>	<b>Previous meeting minutes acceptance or amendment</b>	
2.1.	Previous meeting minutes were accepted.	Note
<b>3.</b>	<b>Actions from previous meetings</b>	
3.1.	School Events and associated parking requirements and impacts. - <b>TTW working with school to obtain information, which will be incorporated into the School Travel Plan.</b>	Closed
3.2.	Network diagrams to be overlaid on a student and staff location map. - <b>TTW to include into the School Travel Plan.</b>	Closed
3.3.	Review of a bus turning bay located on the school grounds. - <b>TTW have documented options for the turning bay. It was agreed that the options will <u>not</u> be included but will be discussed in the School Travel Plan. The options will be raised in TTW's powerpoint slides and will be sent to the TWG along with meeting minutes, for information. Also refer to item 4.3.</b>	Closed
3.4.	History of the single 'Kiss & Ride' space and proposed removal. - <b>BPowe suggested that the single kiss &amp; ride space be kept so that cars can stop safely without utilising the bus zone. MB advised that the kiss &amp; ride space is not enough for another bus anyway and it was agreed that the space should be kept.</b>	Closed
3.5.	Survey of staff willingness to shift transport modes. - <b>MB presented the travel mode splits and volumes in their powerpoint slides. Also refer to item 4.1.</b>	Closed
3.6.	The percentage of cars with the potential to use unconstrained parking surround the school to be translated to numbers. - <b>TTW to present findings in their powerpoint slides. Please refer to slides.</b>	Closed
3.7.	Appropriate forum to pursue funding of a Transport Coordinator Role. - <b>DS advised that the matter has been discussed with RL out of session and continues to be discussed in the TfNSW and SINSW Executive Forum Meeting.</b>	Closed
3.8.	Release of Opal Data for TTW analysis. - <b>RM advised in an email to CL that the Opal data cannot be released.</b>	
<b>4.</b>	<b>TTW Presentation Slides and Discussion</b>	
4.1.	<u>Mode Splits and Volumes</u> - The forecasted usage rate is 70 cars (currently 81) and around 39 (currently 52) students requiring parking. MB advised that DoE does not have a policy for student parking. - BPowe noted that it should be clear how many existing and future cars will be potentially parking on the street. MB advised that the data will be clearly summarised in the report.	Note  Note

Item	Description	Responsibility
4.2.	<p><u>Mode Shift and Willingness to Change</u></p> <p>Student Responses:</p> <ul style="list-style-type: none"> <li>- Reasons for travel by car: Takes longer by public transport, Safety, Heavy bags / bulky items to carry.</li> <li>- Active transport encouragement: More weather protection, Backup options for bad weather, Lower speed roads.</li> <li>- Public transport encouragement: Improved waiting areas, More frequent services, Bus route to my neighbourhood.</li> </ul> <p>Staff responses:</p> <ul style="list-style-type: none"> <li>- Reasons for travel by car: Takes longer by public transport, No direct route by public transport, Heavy bags / bulky items to carry/</li> <li>- Active transport encouragement: Too far to walk, Showers and change facilities, Backup options for bad weather.</li> <li>- Public transport encouragement: More frequent services, Separation between students and staff, Better connections to other transport</li> </ul>	<p>Note</p> <p>Note</p>
4.2.1.	TTW will use the data to target geographical areas and will be addressed in the Green Travel Plan.	Note
4.2.2.	BPowe suggested that the school's end of trip facilities be reviewed. CL advised the project had a specific scope of work and the end of trip facilities was never reviewed. CL will discuss with the design team and report back.	CL
4.2.3.	BPowe advised that Council has recently extended shared pathways in the area.	Note
4.2.4.	JH queried that was meant by 'safety', i.e. public transport safety or road safety. However there is no further detail from the survey.	Note
4.2.5.	MB noted that addressing 'bad weather' concerns if very challenging. However the use of bus is preferred over use of cars.	Note
4.2.6.	BPowe queried if Covid has changed the requirement for 'heavy bags / bulky items' being carried to and from school. MB queried if the school has a 'digitisation / online learning' plan that can be referenced. CL to ask the Department's ICT Team or the School Principal.	CL
4.2.7.	<p>BPowe queried if on demand transport could be brought back as there was previously a good uptake by the students in the LGA. JM advised that the program was not sustainable from a commercial / monetary perspective. JM has reviewed the program and the outcomes varied depending on the demographic.</p> <p>JM advised that Opal data has been reviewed and findings can be shared with MB for analysis. MB to review separately with JM.</p>	<p>Note</p> <p>MB / JM</p>
4.2.8.	RM suggested that MB review the staff / student location and advise if any are located near a train station. RM also suggested that car share can be successful. MB to review and include into the Green Travel Plan.	MB
4.3.	<p><u>Bus U-Turn</u></p> <p>MB presented options showing Bus U-Turns from the school site. Reasons why Bus U-Turn are not viable:</p> <ul style="list-style-type: none"> <li>- Clash with on street parking opposite the bus bay and potential removal of parking spaces.</li> <li>- Key challenge is the level change at the front of the school, there is currently a set of stairs leading at the main entry.</li> <li>- Large amount of earthworks to be considered with awkward geometry and impact on cost.</li> </ul>	Note

Item	Description	Responsibility
4.4.	<p><b><u>Carparking Strategy</u></b></p> <p>Onsite parking provisions have been updated. Including:</p> <ul style="list-style-type: none"> <li>- Laneway to be a dedicated service lane only.</li> <li>- The school will utilise the parking adjacent the oval where there is a capacity of 36 spaces. This will allow a total of 67 onsite parking and bring the provision rate up to 85%.</li> </ul> <p>RS noted that the parking adjacent the oval will be utilised during construction.</p> <p>BPowe queried how the oval car park is being impacted by the Sharks Club lease as it was developed in conjunction with the playing fields. RS advised that the lease indicates the school can use the area up to 4pm on school days.</p> <p>BPowe suggest that event management be discussed with the School Principal to ensure understanding of capacity.</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>
<b>5.</b>	<b>Any Other Business</b>	
5.1	CL queried if fortnightly meetings are required. MB advised that the project is in a good position and the next step is to request for SEARs. CL will keep the meeting invitation in the diary and move/cancel as required.	CL
<b>6.</b>	<b>Date and Time of Next Meeting</b>	
6.1	Wednesday 25 August 2021 at 10am.	Note



## Minutes – Transport Working Group 1

### Cronulla High School

Date and Time	16 June 2021 2:00pm – 3:00pm
Venue	Microsoft Teams
Enquiries	Caryn Lim 0427 085 054

Invitee	Organisation	Role	Attendance
Phillip Mansfield	Sutherland Shire Council	Manager Traffic and Public Domain Services	N
Bruce Powe (BP)	Sutherland Shire Council	Senior Traffic Engineer	Y
Brendan Pegg (BPg)	TfNSW	Planning and Programs, Land Use Planning	Y
Robert Rutledge (RR)	TfNSW	Customer Strategy & Technology	Y
Mark Ozinga	TfNSW	Customer Strategy & Technology	N
David Surplice	TfNSW	Travel Demand Management	N
Robert Mills (RM)	TfNSW	Integrated Public Transport Planning	Y
Divna Cvetojevic	TfNSW	Planning and Programs, Land Use Planning	Y
Rebecca Lehman (RL)	SINSW	Sustainable Transport Technical Advisor	Y
Rod Stanton	SINSW	Senior Project Director, Infrastructure Planning	N
Caryn Lim (CL)	SINSW	Project Director, Infrastructure Planning	Y
Richard Moyle	SINSW	Project Officer, Infrastructure Planning	Y
Michael Babbage (MB)	Taylor Thomson Whitting (TTW)	Senior Traffic Engineer	Y

Item	Description	Responsibility
<b>1.</b>	<b>Introductions and Apologies</b>	
1.1.	As noted above.	Note
<b>2.</b>	<b>Transport Working Group (TWG) Terms of Reference</b>	
2.1.	RL noted that the working group will be dealing with confidential material which is to be kept within the confines of this team with the intention being to develop opportunities.	Note
2.2.	<p>BP asked whether there was another forum for planning issues to be discussed with Council's Planning Team and what information can be shared with Councillors, noting that only members of TWG have been requested to sign the Terms of Reference (TOR), which contains a confidentiality clause, however Councillors could be required to review information relating to the Cronulla HS project.</p> <p>RL responded that the draft Terms of Reference (TOR) will be sent to the working group. It is currently not signed by Council or TFNSW staff who are attending this meeting. (Note that the TOR was issued by CL in via email on 16/06/2021). There may need to be a discussion with between SINSW and Council if there are specific issues that are wanted to be raised with Councillors, otherwise all matters not relating to transport and traffic will be taken offline.</p> <p>RL advised CL to check if the TOR covers all Council Staff, including Councillors or if a more detailed Non-Disclosure Agreement (NDA) is required.</p> <p>CL requested that the TOR is reviewed by all TWG attendees with any concerns to be raised and send to CL.</p>	<p>Note</p> <p>Note</p> <p>CL</p> <p>All</p>
<b>3.</b>	<b>Introduction to the Project</b>	
3.1.	<p>CL presented the project design and summarised the scope. A copy of the presentation will be attached to the minutes.</p> <p>The project is an Election Commitment announced by the local member and the minister. The works are an upgrade to the existing school with some boundary realignments to be carried out. The school currently has a high proportion of demountables with 40 permanent teaching spaces and 19 demountables. This is due to a high number of out of areas students attending the School. The current enrolment is 1,333 students, of which approximately 309 are out of area.</p> <p>The live-in catchment student projections are 986 by 2026 and 1002 by 2036, after boundary changes and better enforcement of the out of area enrolment policy.</p> <p>Masterplan Option 3 has been taken forwards to the Final Business Case (FBC). The FBC was submitted to Treasury in March 2021 for consideration.</p>	Note
3.2.	<p>BPg asked if the car parking lot on Captain Cook Drive is available for school use.</p> <p>CL responded that this is used by the Cronulla Sharks after school hours and at weekends. It is on Department of Education land, used under a lease agreement and so there is no exclusive use.</p> <p>BP noted that the building and sports grounds are part of a wider masterplan development by the Sharks Club and includes water polo centre, which currently has a DA in assessment with Council.</p>	Note

Item	Description	Responsibility
3.3.	CL noted that the funding is anticipated in the FY 22/23 budget announcement of 22 June 2021 and the project will then proceed with submission of the SSDA, with the school planned to be operational in 2025.	Note
<b>4.</b>	<b>Transport and Traffic Planning</b>	
4.1.	MB presented "Transport Working Group Meeting 1" slides (attached to these minutes).	Note
4.2.	MB noted the intention was to work with TfNSW and Council to understand if there is anything to be aware of during TTW's development of the Schools Transport Plan. The Project Team is taking a proactive approach to addressing traffic and transport matters to ensure that the design and project scope is sufficient to address matters that would be otherwise raised through the SSDA process.	Note
4.3.	SINSW have reviewed the student catchment boundaries and foresee that there will be minimal or no changes to the catchment boundaries. However, boundary changes might be required if student projections or DPIE planning assumptions are revised.	Note
4.4.	Cronulla HS is being serviced a good bus network and connection to the Cronulla train station. There is also a comprehensive cycle network in this region.	Note
4.5.	Existing car parking on the school site has 52 formal spaces towards the front entrance and approximately 48 informal spaces on the access/service road to the east of the site. There are approximately 100 vehicles parked on site daily. It is currently proposed that staff parking requirements be reduced as part of the school upgrade project. This is due to the anticipated reduction to student enrolments and a reduction to number teachers and school staff. SINSW to confirm staff numbers.	Note  CL
4.6.	Current enrolments are 1,333 with a permanent capacity (excluding demountable teaching spaces) of 800. The proposed permanent capacity after the school upgrade is 1,000 students or 50 permanent teaching spaces. The number and location of car parking is currently in design. Bicycle use by the school population is currently good with end of trip facilities available.	Note
4.7.	MB advised that the school's transport hierarchy is being applied as follows, with modes higher on the list being given priority: <ul style="list-style-type: none"> <li>- Pedestrians</li> <li>- Cycling</li> <li>- Public Transport</li> <li>- Freight and deliveries</li> <li>- Point to point transport</li> <li>- Private vehicles</li> </ul> The above hierarchy aligns with TfNSW's policy and hierarchy for transport.	Note

Item	Description	Responsibility
4.8.	<p>Transport analysis carried out by the previous traffic consultant showed:</p> <ul style="list-style-type: none"> <li>- <u>Students (AM/PM)</u> <ul style="list-style-type: none"> <li>o 20% / 20% active transport</li> <li>o 54% / 58% public transport</li> <li>o 23% / 19% car</li> </ul> </li> <li>- <u>Staff</u> <ul style="list-style-type: none"> <li>o 3% active transport</li> <li>o 3% public transport</li> <li>o 3% motorbike</li> <li>o 90% car</li> </ul> </li> </ul>	Note
4.9.	<p>MB advised that the below projects are currently known, however limited details are available for TTW to undertaken their assessment:</p> <ul style="list-style-type: none"> <li>- <u>Elouera Road roundabout upgrade and zebra crossing.</u> This is a Council project and will be fundamental to tie into due to its close proximity to Cronulla HS. BP advises that works have already commenced and programmed for completion in August 2021.</li> <li>- <u>Sutherland to Cronulla active transport link</u>, which is a substantial active transport initiative and sits outside the catchment area but will benefit staff, parents and students. BP advises that this is a 3 stage project. Stage 1 – Sutherland to Kirrawee is complete. Stage 2 – Kirrawee to Caringbah is underway, however will not impact on this project. Stage 3 – Caringbah to Cronulla is out for community consultation.</li> </ul>	Note
4.10.	<p>BP advised that warrants for pedestrian crossings are not applicable to this project as there was a relatively new crossing constructed on Bate Bay Road and a crossing at Elouera Road is being constructed.</p>	Note
4.11.	<p>MB noted that constraints are largely geographical with limited opportunities to improve. There are potential opportunities to improve connectivity to the school and to fix traffic flow and congestion. The student use of active transport, currently at 20%, can be raised with substantial opportunity to reduce private vehicle use.</p>	Note
4.12.	<p>BP asked with regards to the student enrolments to clarify the existing permanent capacity – does this exclude demountables? MB responded that yes, there are currently 40 permanent teaching spaces excluding the demountables. CL noted that the current enrolment number of 1,333 includes out of area enrolments. It is envisaged that the out of area policy will be enforced going forward. BP asked if the out of area enrolments were set by the school or the Department to which CL responded that there is a Department wide policy and the School Principal, supported by the school executive, approves applications for out of area enrolments.</p>	Note

Item	Description	Responsibility
4.13.	<p>BP asked if the Kurnell development area has been considered in the planning and student projection assumptions.</p> <p>CL advised that the SINSW Demographics team work closely with DPIE to apply planning assumptions to the catchment and school community area. Therefore it should be considered, however CL can double check with the Demographics Team.</p>	<p>Note</p> <p>CL</p>
4.14.	<p>CL noted that the adjacent school, Woollooware High School, has capacity so boundary change may be shifted so that school is used more effectively.</p> <p>10 teaching spaces for the residual 200 students will be built at Cronulla High School to take the permanent teaching spaces from 40 to 50.</p>	Note
4.15.	<p>BP asked what the enrolment versus permanent capacity will eventually be.</p> <p>CL responded that this has a lot to do with school operations enforcing the out of area policy but demographics show that by 2036 there will be 1,000 students living in the Cronulla HS catchment potentially going to the school.</p>	Note
4.16.	<p>BP noted that, looking at the proposed development table, the concern it is not about permanent capacity but more the actual enrolments. The transport infrastructure is in place, however the challenge is getting people to use it.</p>	Note
4.17.	<p>RR asked if MB had the student and staff numbers by postcode. MB responded that they will have. Modes of transport have been established through on-line surveys by the previous transport consultant and were not by postcode.</p> <p>MB to follow up and report back to the group.</p>	<p>Note</p> <p>MB</p>
4.18.	<p>RR asked where the informal car parking was situated to which MB responded that this was on the access/service road.</p> <p>CL noted that there was no formal visitor parking on site and the project will not be providing student parking on site, and is not encouraged. There is unrestricted on street parking which could be used by students.</p>	Note
4.19.	<p>RL asked who within bus planning the project should be working with. RM is the temporary contact until a new staff member is allocated.</p> <p>RM noted that the bus layby and pick up is in a side street, getting occasional complaints from residents about buses turning around. It would be good to have a drive through area but there does not seem to be enough space. Is there room to accommodate this?</p> <p>BP said it would be worth looking at to avoid buses going down narrow streets.</p> <p>RL requested that TTW cover this matter in their report and the level of bus operations.</p> <p>RR noted that the bus company is Transdev NSW (Bankstown, Hurstville and Miranda).</p> <p><u>Post Meeting Note:</u> Contact details for Ilija Pleic from TfNSW may be the relevant contact for future meetings. CL to reach out to Ilija.</p>	<p>Note</p> <p>MB / RM</p> <p>CL</p>
5.	<b>Any Other Business</b>	

Item	Description	Responsibility
5.1.	BP asked if there was any possibility of using overflow parking and if this has progressed any further. RL was aware but this has not progressed.	Note
5.2.	CL and MB to issue both sets of presentations	Attached
<b>6.</b>	<b>Date and Time of Next Meeting</b>	
6.1.	RL requested that the working group be arranged within the next fortnight with the current invitees.	CL

## Minutes – Transport Working Group (TWG) 2

### Cronulla High School

Date and Time	7 July 2021 1:30pm – 2:30pm
Venue	Microsoft Teams
Enquiries	Caryn Lim 0427 085 054

Invitee	Organisation	Role	Attendance
Rod Stanton	SINSW	Senior Project Director, Infrastructure Planning	N
Caryn Lim (CL)	SINSW	Project Director, Infrastructure Planning	Y
Rebecca Lehman (RL)	SINSW	Sustainable Transport Technical Advisor	Y
Bruce Powe (BP)	Sutherland Shire Council	Senior Traffic Engineer	Y
Phillip Mansfield	Sutherland Shire Council	Manager Traffic and Public Domain Services	N
Brendan Pegg (BPg)	TfNSW	Planning and Programs, Land Use Planning	Y
Robert Rutledge (RR)	TfNSW	Customer Strategy & Technology	Y
Mark Ozinga	TfNSW	Customer Strategy & Technology	N
Robert Mills (RM)	TfNSW	Integrated Public Transport Planning	Y
David Surplice (DS)	TfNSW	Travel Demand Management	Y
Jacqui Hicks	TfNSW	Jacqui Hicks	Y
Divna Cvetojevic	TfNSW	Planning and Programs, Land Use Planning	Y
Jonathan McMullan	TfNSW	Procurement and Bus Contracts Greater Sydney (Transdev Contract)	Y
Ilija Pleic	TfNSW	Procurement and Bus Contracts Greater Sydney (Transdev Contract)	Y
Michael Babbage (MB)	Taylor Thomson Whitting NSW Trust (TTW)	Senior Traffic Engineer	N
Amir Lahouti	Taylor Thomson Whitting NSW Trust (TTW)	Traffic Engineering Consultant	Y
Paul Yannoulatos (PY)	Taylor Thomson Whitting NSW Trust (TTW)	Technical Director Traffic Engineering	Y
Richard Moyle	SINSW	Project Officer, Infrastructure Planning	Y

Item	Description	Responsibility
<b>1.</b>	<b>Introductions and Apologies</b>	
1.1	As noted above.	Note
<b>2.</b>	<b>Previous meeting minutes acceptance or amendment</b>	
2.1	BP requested amendments to the previous minutes which was incorporated following meeting (v1.2)	Closed
2.2	Previous meeting minutes to be issued to new attendees.	CL
<b>3.</b>	<b>Actions from previous meetings</b>	
3.1	CL requested that the TOR is reviewed by all TWG attendees with any concerns to be raised and send to CL. <ul style="list-style-type: none"> <li>- <b>No issues or amendments have been raised by the TWG on the TOR. Therefore TOR is deemed acceptable.</b></li> <li>- <b>CL will send TOR to new attendees.</b></li> </ul>	Note CL
3.2	BP asked what information can be shared with Councillors. <ul style="list-style-type: none"> <li>- <b>CL mentioned that a memorandum of understanding was signed by SINSW and the Council's Chief Executive noting information sharing between the parties in good faith. CL will check if the MOU is sufficient to cover this matter.</b></li> <li>- <b>This Transport Working Group is to iron out transport issues for the SSD submission. CL also noted that the project was recently announced for delivery meaning that consultation with the broader Sutherland Shire Council Team is imminent for the SSD submission.</b></li> </ul>	CL Note
3.3	SINSW to confirm staff numbers (with reference to car parking numbers). <ul style="list-style-type: none"> <li>- <b>This will be addressed in the presentation to follow.</b></li> </ul>	Closed
3.4	MB to follow up and report back to the group (with reference to having student and staff numbers by postcode). <ul style="list-style-type: none"> <li>- <b>Student by area information and mode share by year groups has been analysed. This will be addressed in the presentation to follow.</b></li> </ul>	Closed
3.5	RL requested that TTW cover this matter (with reference bus pickups, turning and resident complaints) in their report and the level of bus operations. <ul style="list-style-type: none"> <li>- <b>To be reviewed by TTW and to report back.</b></li> </ul>	PY / MB
<b>4.</b>	<b>Transport and Traffic Planning</b>	
4.1	PY presented "Transport Working Group Meeting 2" (attached to these minutes)	Note
	<b><u>Items and Comments arising from the presentation</u></b>	Note
4.2	RB queried if bus turning circles were being looked at. BP suggested that any bus turning in the area should be designed conceptually, for example slip lanes and footprints, as not yet in detailed design. CL responded that TTW would review this requirement and report back to the group.	Note CL / PY / MB
4.3	PY noted that Councils DCP does not indicate a rate for parking spaces related education facilities, so TTW have compared the requirements from other councils for space per staff member ratios and applied it to the project.	Note



Item	Description	Responsibility
4.4	<p><u>Staff Carpark Ratio</u></p> <p>BP noted that, from a Council and residential parking point of view, the proposed 0.7 spaces per staff ratio is preferable. However it was noted to be at 0.9 in the last meeting from the collected data and school response.</p> <p>PY responded that this was correct however the School Transport Plan (STP) being developed is intended to reduce the current rate of private vehicle use.</p> <p>BP noted that it could be difficult to convince people to change travel modes.</p> <p>PY responded that the STP is intended to look at ways to get people to mode shift and to provide the relevant support to ensure successful transition.</p>	Note
4.5	<p>BP asked if the current staff numbers are fully accommodated on site to which PY confirmed that there are 90 staff with approximately 100 formal and informal (car parking on unmarked school grounds) spaces.</p>	Note
4.6	<p>DS advised that from a Transport Demand Management perspective, restraining onsite car parking is a great way to encourage mode shift.</p> <p>BP noted that constraining parking is one way to encourage a shift in travel modes but that school staff are not prevented from parking on the street.</p> <p>CL advised that SINSW is looking into the lease agreement for the car park being used by the Cronulla Sharks and to make available carparks (currently unused during school hours) and to open up these spaces if possible. The view is that this area will provide spill over parking until staff numbers decline in the future years, meaning that street parking does not have to be used.</p>	<p>Note</p> <p>Note</p>
4.7	<p>CL noted that beach parking was ruled out by RL in the last meeting. BP responded that this came out of an approach from DET to Council who are looking at options.</p>	Note
4.8	<p>DS noted, from a travel demand management perspective, that if constraints are not in place, then cars will be the dominate focus. There need to be incentives and disincentives to encourage a travel mode shift and behaviour change.</p> <p>BP noted that if parking is constrained on site, the off-site parking remains unconstrained.</p>	Note
4.9	<p>PY noted that the school main entrance design and new crossings will encourage pedestrian usage.</p> <p>BP said that the new crossing being built at Eloura Road are looking to be completed this August.</p>	Note
4.10	<p><u>School Events and Impact on Traffic / Parking</u></p> <p>BP requested that school event parking is considered, including the type of event, frequency, and travel demand, with part of the brief being how to manage school events.</p> <p>PY responded that schools will often use their sports field for overflow parking.</p>	Note
4.11	<p>RL requested that it is clarified how often these events are held, including out of school hours, and the type of travel likely to be utilised, with strategies for mitigation.</p> <p>RR noted that the school would have records of historical events, including times and frequency, which would make it easier to develop strategies.</p> <p>RL summarised that the transport assessment should cover off event management, the number of events and previous scale of these, with the need to use historical records from a non-COVID year and to discuss this matter with the Principal which PY agreed to carry out.</p>	TTW

Item	Description	Responsibility
4.12	<p><u>Sutherland to Cronulla Active Transport Link (SCATL)</u></p> <p>With regards to the SCATL, BP provide updates, that Stage 2 is out for consultation and Stage 3 has not yet been announced in any form. It is the intention of Council to improve routes.</p> <p>PY asked if there is any opportunity for SINSW to input into the planning and RL added that SINSW should probably provide data on student travel demand to BPg so that the level of demand from the school is understood.</p> <p>BPg noted that the SCATL project team fits within the TfNSW Greater Sydney division and will get in touch.</p> <p>BP can forward the details of the SCATL Comms team if needed.</p> <p><u>Post Meeting Note:</u> BP forwarded contact details for Zoe Rourke, Community Engagement Manager, TfNSW to CL.</p>	<p>TTW</p> <p>BPg</p>
4.13	<p><u>Kurnell Planning Proposal</u></p> <p>PY asked if there were any updates with reference to the Kurnell Planning Proposal, following a negative community response.</p> <p>BPg responded that issues have been flagged by TfNSW but is unsure where this is at. BPg will be asked for updates later this week.</p> <p>BP noted that the project was being run by DPIE with input from TfNSW and that DPIE could probably provide an update. The planning is not yet publicly known, with internal discussions only, and is probably a sensitive project at this stage.</p> <p>RL responded that the details are not needed, but that they need to include planning for students. BP noted that it is in pre-planning at the moment.</p> <p><u>Post Meeting Note:</u> BPg advised that TfNSW have not heard from DPIE regarding the Kurnell Planning Proposal since October 2020. BPg provided the contact details for Derryn John from DPIE.</p>	<p>BPg</p>
4.14	<p>PY asked if there are any specific requirements for the EIS.</p> <p>RL responded that the draft content of the travel access guide should be provided.</p>	<p>Note</p>
4.15	<p>RL asked how Council receive community concerns to which BP responded that there is a 'report it' app and a general email address (ssc@ssc.nsw.gov.au).</p> <p>RL suggested that being participatory and removing angst from residents, with credit for this, would be of advantage.</p>	<p>Note</p>
4.16	<p>BPg asked when the draft Transport Impact Assessment would be available for comment to which RL responded, and PY confirmed, would be in the next few weeks.</p> <p>BPg is happy to review the draft and provide comments prior to the final submission and Council will also review.</p> <p>RR suggested that the TTW and SINSW work with BPg and DS before submitting the EIS.</p> <p>BPg said he is happy to be contacted directly and DS will work pre-lodgement to achieve good outcomes and make it as strong as possible.</p>	<p>Note</p>
4.17	<p>RL requested a session to go through the draft document in two weeks. PY responded that three weeks would be more preferable.</p> <p>CL noted that there is a TWG scheduled for 21 Jul 2021 so this will be moved to 28 Jul 2021 accordingly, with subsequent meetings to follow each fortnight after.</p> <p><u>Post Meeting Note:</u> CL changed the meeting times per agreement in the meeting.</p>	<p>MB / PY</p>
<b>5.</b>	<b>Any Other Business – Nil</b>	
5.1.	Nil	

Item	Description	Responsibility
<b>6.</b>	<b>Date and Time of Next Meeting</b>	
6.1.	Wednesday 28 Jul 2021 10.00am – 11.00am	
<b>7.</b>	<b>Attachments –</b>	
7.1.	TTW Transport Working Group Meeting 2 Presentation	

## Minutes – Sutherland Transport Working Group 01 Cronulla HS

<b>Date and Time</b>	05 May 2022 at 11:00AM-12:00PM
<b>Venue</b>	Teams Meeting
<b>Enquiries</b>	Zeeshan Ijaz
<b>Teleconference Details</b>	Refer meeting invite for Teams Video Conferencing

<b>Members</b>	<b>Organisation</b>	<b>Role</b>	<b>Attendee</b>
Rebecca Lehman	SINSW	Sustainable Transport Technical Advisor	Y
Sune Nielsen	TfNSW	Senior Manager	Y
Frankie Passarelli	TfNSW	Transport Planning Project Manager	Y
Mukhwinder Athwal	TfNSW	Transport Operations Planner	Y
John Broady	TfNSW	Service Planner	Y
Bruce Powe	Sutherland Shire Council	Senior Traffic Engineer	Y
Ingo Koernicke	Sutherland Shire Council	Senior Environmental Scientist	Y
Mark Stuart	Sutherland Shire Council	Road Safety Officer	Y
Janet Vyse	Transdev NSW	Network Support Lead	Y
Jessica Khin	Transdev NSW	Network Planning and Scheduling Officer	Y
David Spare	SINSW	Senior Project Director	Y
Zeeshan Ijaz	SINSW	Project Director (Delivery)	Y
Jarred Statham	SINSW	Senior City Planner	Y
Sayya Baidengan	SINSW	Manager Intake Areas	Y
Paul Yannoulatos	TTW	Technical Director	Y
Michael Babbage	TTW	Associate	Y
Kate Price	MBB Group	Project Director	Y
Natalya Partington	MBB Group	Assistant Project Manager	Y
Michael Chi	MBB Group	Assistant Project Manager	Y

Item	Description	Action	Due by
1	<p><b>Introduction &amp; Meeting Purpose</b></p> <ul style="list-style-type: none"> <li>Discuss the potential bus route changes and bus stop operations.</li> </ul>		
2	<p><b>Cronulla HS Project Status - TTW</b></p> <ul style="list-style-type: none"> <li>Update to the formal capacity of the school to 1000 students, through removal of the existing demountable buildings, with additional administration and facility upgrades.</li> <li>Transport - Modifications and re-configurations of the existing carpark to suit the proposed location of the new building.</li> <li>School catchment boundary – there is a current extensive school catchment area. School to take fewer local enrolments over time.</li> <li>Recent discussion TTW had related to travel mode splits and volumes looking into staff / students' willingness to travel.</li> <li>TTW are currently exploring the scope path analysis of the existing Bate Bay Road bus bay relating to proposed bus bay works at Elouera Road and potential changes to local bus route.</li> <li>TTW undertook a swept path analysis to explore buses making U-Turns. This was ruled out.</li> </ul>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>	
3	<p><b>Current Council Works - TTW</b></p> <ul style="list-style-type: none"> <li>TTW have received advice from Transdev for potential modified bus services, with SINSW to submit the planning application / approvals.</li> <li>Cronulla HS planning pathway is most likely to change from a SSDA to a REF.</li> </ul> <p><u>Next steps</u></p> <ul style="list-style-type: none"> <li>TTW to complete Transport Assessment Report to support the REF pathway</li> <li>Project team to finalise the REF pathway documentation for lodgement.</li> </ul>	Note	
4	<p><b>Transdev Suggestions - TTW</b></p> <ul style="list-style-type: none"> <li>Several bus routes have been put forward to be redirected from the existing indented bus bay at the school to the new bus bay on Elouera Road.</li> <li>969 morning services and 373 services are some of the suggested changes.</li> </ul>	Note	

Item	Description	Action	Due by
5	<p><b>Purposed Service Changes – Janet Vyse</b></p> <ul style="list-style-type: none"> <li>• Services are be restructured, no additional services are required</li> <li>• Potential to move services into the new bus bay, however services to be agreed upon with school's support, by directing students to their appropriate services.</li> <li>• Potential to move route services onto Elouera Road in the afternoon.</li> <li>• Possibility to have the school routes offset by another minute - capacity to be investigated.</li> <li>• AM services – a lot of services could use bus bay on Elouera Road.</li> <li>• Capacity for two buses or just one to be explored at Bate Bay Road. Note it is a parallel bay.</li> <li>• Option to have one of the 3:15 to start earlier to reduce number of services at one time. To be explored.</li> <li>• NB: buses are meeting trains and ferry and important to not let students miss their connection.</li> <li>• Might be important to keep the Cronulla services together so children are not running between the two bus bays.</li> <li>• Bundeena still included in the school zoning area.</li> </ul>	<p>Note</p> <p>Transdev</p> <p>Transdev / TfNSW</p> <p>Note</p>	
6	<p><b>Next Steps</b></p> <ul style="list-style-type: none"> <li>• JV to provide final school list for different bus bays to RL and MB and to then be distributed to school stakeholders for approval.</li> <li>• JV to then communicate shift changes drivers once agreed.</li> <li>• TTW to prepare the Transport Assessment for the REF with changes incorporated</li> <li>• RL to have discussion with the school community re travel access guide and develop a formal transport plan.</li> <li>• NB: School numbers to be evaluated on an ongoing basis, to ensure resources are used appropriately.</li> <li>• NB: Once endorsed, there will be a 3-week period between changes agreed, and operation.</li> </ul>	<p>JV</p> <p>JV</p> <p>PY /MB</p> <p>RL</p> <p>Note</p> <p>Note</p>	



# Cronulla High School

## Travel Access Guide

18 August 2022

### Project overview

Cronulla high School is being upgraded to meet enrolment growth and will include additional permanent teaching spaces and core facilities.

#### The benefits:

- 10 new permanent learning spaces
- A new canteen
- New administration areas
- Upgraded student and staff amenities

### Apply for a School Opal Card | School Term Bus Pass

- Students may be eligible for free or subsidised public transport under the School Student Travel Scheme.
- If a student does not qualify for free travel, you may be able to buy a School Term Bus Pass for discounted travel on buses.
- Visit [apps.transport.nsw.gov.au/ssts](https://apps.transport.nsw.gov.au/ssts) to find out what public transport programs are available

### Using public transport to get to school



#### School buses and public buses

- The nearest bus stops are on Bate Bay Road (969, 971, 985, 987 and 988) and Elouera Road (985 and 987)
- Public bus routes 969, 985, 987 and school bus route S371 operate in the morning from these bus stops.
- Public bus routes 971, 985, 987, 988 and school bus routes S363, S370, S373, S375, S376, S377, S378, S379 and S384 operate in the afternoon from these bus stops.



#### Trains | Ferries

- Public bus routes 985 and 987 connect Cronulla Station to Cronulla High School.
- Cronulla wharf is accessible via public bus route 985.



#### For more information contact:

School Infrastructure NSW  
Email: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)  
Phone: 1300 482 651  
[www.schoolinfrastructure.nsw.gov.au](http://www.schoolinfrastructure.nsw.gov.au)



## Safety on Public Transport

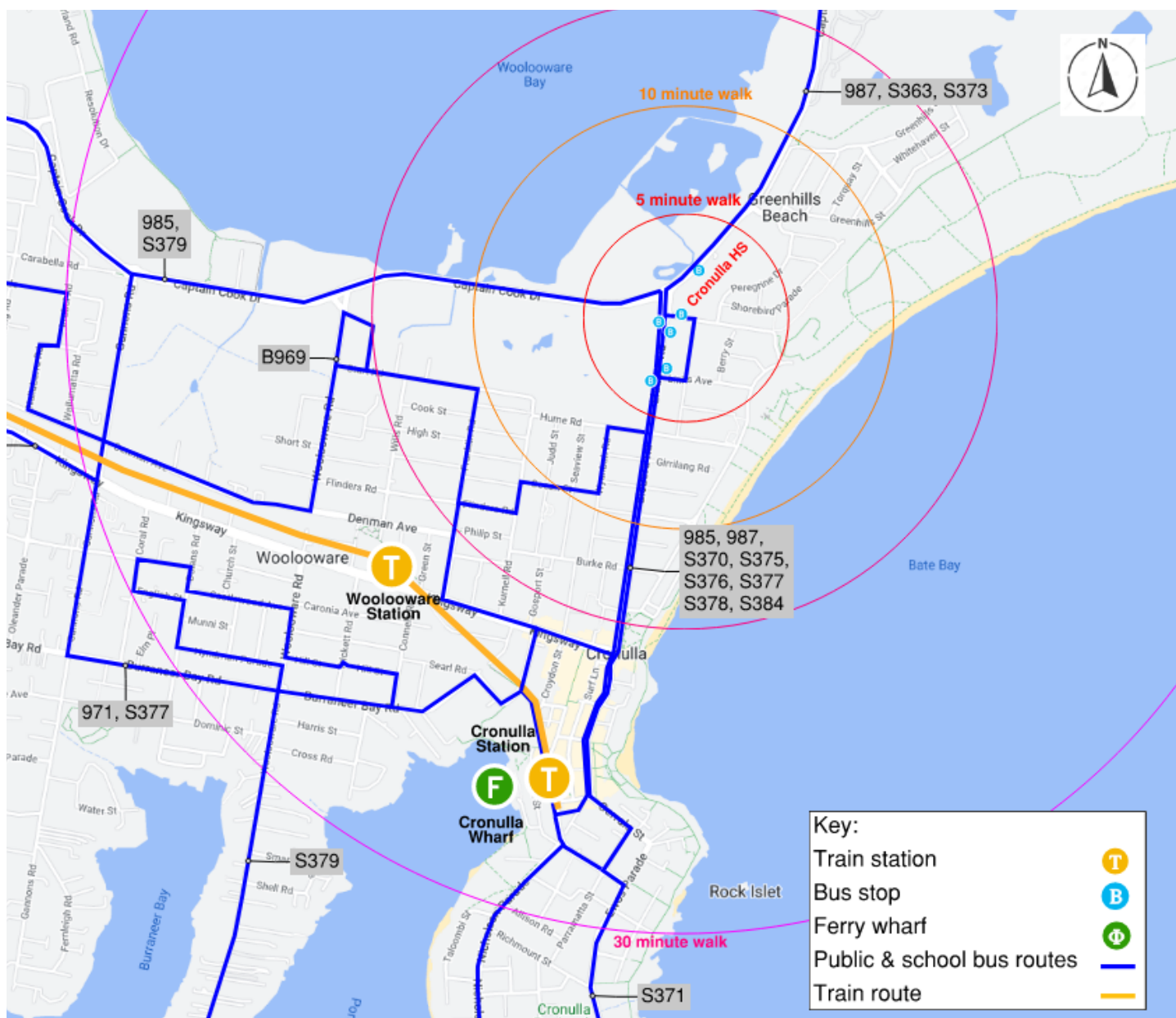
### For students:

- Maintain a safe distance between you and the road when waiting for a bus
- Mind your step when getting on and off the bus or train
- Stand behind the yellow line on the train platform

### For parents / carers:

- Talk to your child about what to do if they get lost or you are running late to meet them at a bus stop or train station
- When meeting your child at a bus stop, never call them across a road

## Local map: Active Travel



### For more information contact:

School Infrastructure NSW  
 Email: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)  
 Phone: 1300 482 651  
[www.schoolinfrastructure.nsw.gov.au](http://www.schoolinfrastructure.nsw.gov.au)