# VINCENTIA HIGH SCHOOL

## Traffic and Transport Impact Assessment

BITZIOS consulting
traffic engineering transport planning

### NSW Department of Education

**01 April 2025**



**Gold Coast**
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377

**Brisbane**
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442

**Sydney**
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

**W**: www.bitziosconsulting.com.au

**E:** admin@bitziosconsulting.com.au



## Document Issue History

| Report File Name | Version | Document Control | | Date | Issued to |
|---|---|---|---|---|---|
| P6189.001R Vincentia High School TTIA Report (DRAFT) | 001 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 12/12/2024 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |
| P6189.002R Vincentia High School TTIA Report (DRAFT) | 002 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 22/01/2025 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |
| P6189.003R Vincentia High School TTIA Report (DRAFT) | 003 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 19/02/2025 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |
| P6189.004R Vincentia High School TTIA Report | 004 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 05/03/2025 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |
| P6189.005R Vincentia High School TTIA Report | 005 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 31/03/2025 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |
| P6189.005R Vincentia High School TTIA Report | 006 | Prepared:<br>Reviewed:<br>Issued | J. Brook<br>A. Eke<br>J. Brook | 01/04/2025 | Harry Hao, RP Infrastructure<br>Matthew Spooner, RP Infrastructure |

# CONTENTS

## Tables



## Figures



## Appendices

# 1. INTRODUCTION

## 1.1 Background

Bitzios Consulting has been engaged to prepare a Transport and Traffic Impact Assessment (TTIA) to support a Review of Environmental Factors (REF) for the NSW Department of Education (DoE) for Vincentia High School upgrade (the activity).

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

This document has been prepared in accordance with the *Guidelines for Division 5.1 assessments* (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI) as well as the *Addendum Division 5.1 guidelines for schools*.

## 1.2 Site Description

The site is located at 142 The Wool Road, Vincentia, NSW, 2540 and has an approximate site area of 8.09 hectares. The site is comprised of two lots, legally referred to as Lot 1 Deposited Plan P809057 and Lot 1 Deposited Plan 550361 and is located within the Shoalhaven Local Government Area (LGA). An aerial photograph of the site is provided at Figure 1.

The site is zoned SP2 Educational Establishment and existing development comprises various buildings, a car park, landscaping, a sports field and sports courts associated with Vincentia High School. Vincentia High School currently comprises 49 permanent teaching spaces (PTS) and 17 demountable teaching spaces (DTS). The eastern portion of the site contains natural bushland.

The site is an irregularly shaped lot. Vehicle access is provided to The Wool Road via a driveway that connects to a signalised intersection. There is a footpath and cycleway along The Wool Road. The surrounding land consists of extensive natural bushland (Jervis Bay National Park). The existing site context is shown in Figure 1.1 below.


**Figure 1.1: Site Aerial Map**

## 1.3 Scope and Significance of Environmental Impacts

This TTIA includes the following components:

- A review of the existing transport conditions including drop-off / pick-up arrangements, pedestrian and cycling facilities, public transport facilities and connectivity surrounding the subject site
- A summary of previous consultation with relevant council and agencies – through a Transport Working Group
- A review of the existing transport planning documents
- A transport assessment of the development's student enrolment catchment and travel modes
- A review of historical crash data
- Assessment of the existing and proposed access arrangements for vehicles, servicing and refuse collection
- Assessment of the development's car and bicycle parking provision
- Assessment of the on-site parking layout, access, servicing and refuse collection requirements.

Based on the identification of potential impacts and an assessment of the nature and extent of the impacts of the proposed development, it is determined that all potential impacts can be appropriately mitigated to ensure that there is minimal impact on the locality, community and/or the environment.

Importantly, the assessment of the transport impacts of this school need to be put into context, including:

- The project is a facility improvement project and is not expanding the school population
- Transport facility improvements are proposed to respond to historic issues and deficiencies

## 1.4 Stakeholder Engagement

In preparation of this TTIA, key transport stakeholders were consulted including representatives from, Shoalhaven City Council (Council) and Transport for New South Wales (TfNSW). This was undertaken through a number of meetings as part of a Transport Working Group (TWG) process.

Consultation regarding the existing transport operations of the school was also undertaken with the current principal. Key items from the stakeholder engagement are as follows:

- TWG Meeting on 5 September 2024 with DoE, Council and TfNSW to provide an overview of the project, rapid transport assessment findings and initial transport facility improvements. During the meeting, the following matters were raised:
  - Discussed the existing site conditions and issues with no existing Kiss and Drop zone, conflicts between general car movements and buses
  - Discussed the site parking demands with existing informal parking occurring outside of the site
  - Obtained support for the Kiss and Drop facility arrangement
  - Obtained support for the improvements to pedestrian facilities
  - Discussed any other opportunities for improvement for bus priority to minimise timetable delays. Noted additional green time had recently been provided at the signals during peaks to assist with peak movement time to/from the school. Key further improvement items discussed included consideration of a 'bus only' exit lane at the site's traffic lights with The Wool Road or a bus stop on The Wool Road frontage
  - Discussed identified plans for potentially widening of The Wool Road and potential considerations this may have for a bus stop of The Wool Road
- TWG Meeting on 4 November 2024 with DoE, Council and TfNSW. The discussion related to following up on items raised at the previous TWG and results of investigations by the project team:
  - Discussed while timing of Wool Road duplication is yet to be confirmed, the duplication would mean any bus stop works now would become temporary/sacrificial and noted other constraints. Confirmed that a bus stop on The Wool Road is not considered feasible and will not be progressed any further

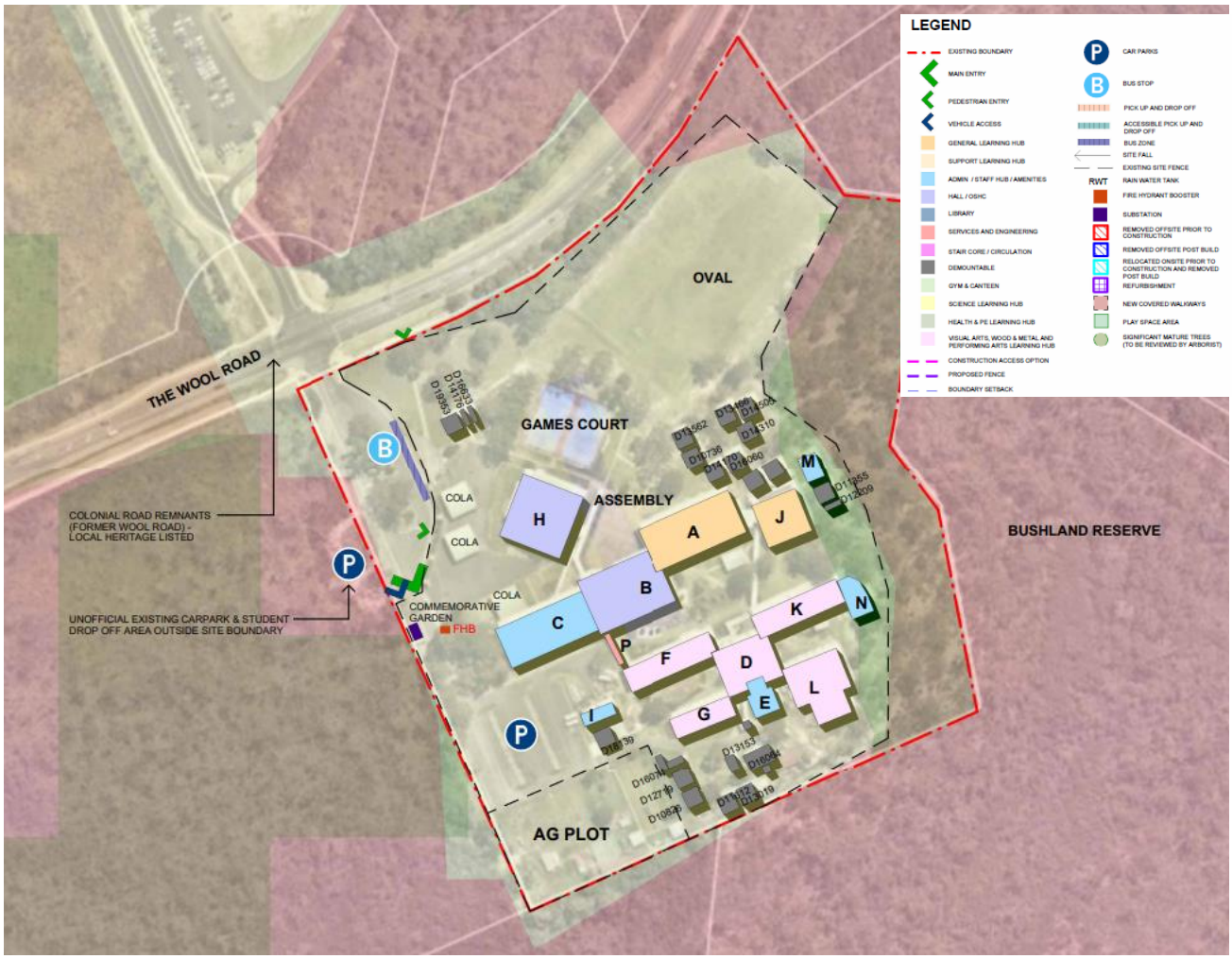
- Discussed spatial considersations, costs and flow on impacts of trying to accommodate an additional exit lane for buses. Confirmed this update option would not be progressed and was generally accepted by the TWG
- Recapped on the approach to parking and that project seeks to maximise practical parking supply in available school land, while balancing wider school service needs, supporting other transport modes and providing formalised Kiss n Drop facility

# 2. EXISTING CONDITIONS

## 2.1 Subject Site

The school currently operates with around 999 students and 128 full-time equivalent (FTE) staff. The school starts at 8:15am and finishes at 2:20pm. Existing attributes of the subject site are noted as follows:

- The subject site exhibits an area of approximately 80,900m² and is located in the suburb of Vincentia
- The subject site has a frontage to The Wool Road
- In its existing state, the subject site comprises the existing school which contains 49 permanent teaching spaces (PTS) and 17 demountable teaching spaces on site
- Carparking is provided at the rear of the site via the school single access point to the Wool Road.




*Source: NBRS, 2023*

**Figure 2.1: Existing Site Conditions**

## 2.2 Road Network

Details of the surrounding road network are provided in Table 2.1

**Table 2.1:Surrounding Road Network**

| Road Name | Jurisdiction | Hierarchy | Lanes | Divided | Posted Speed |
|---|---|---|---|---|---|
| The Wool Road | Council | Regional Road | 2 | No | 60km/h (40km/h school times) |
| Naval College Road | Council | Regional Road | 2 | No | 60km/h to 80km/h |

No on-street parking existing in the vicinity of the site.

The surrounding key intersections in proximity to the school are summarised in Table 2.2

**Table 2.2: Surrounding Key Intersection Details**

| No. | Major Road | Minor Road/s | Jurisdiction | Control |
|---|---|---|---|---|
| 1 | The Wool Road | School Access / Bay and Basin Leisure Centre | Council | Signalised |
| 2 | The Wool Road | Naval College Road | Council | Roundabout |
| 3 | The Wool Road | George Caley Place | Council | Priority |

The location of the key intersections with respect to the school is shown in Figure 2.2.


*Source: NSW Road Network Classification*

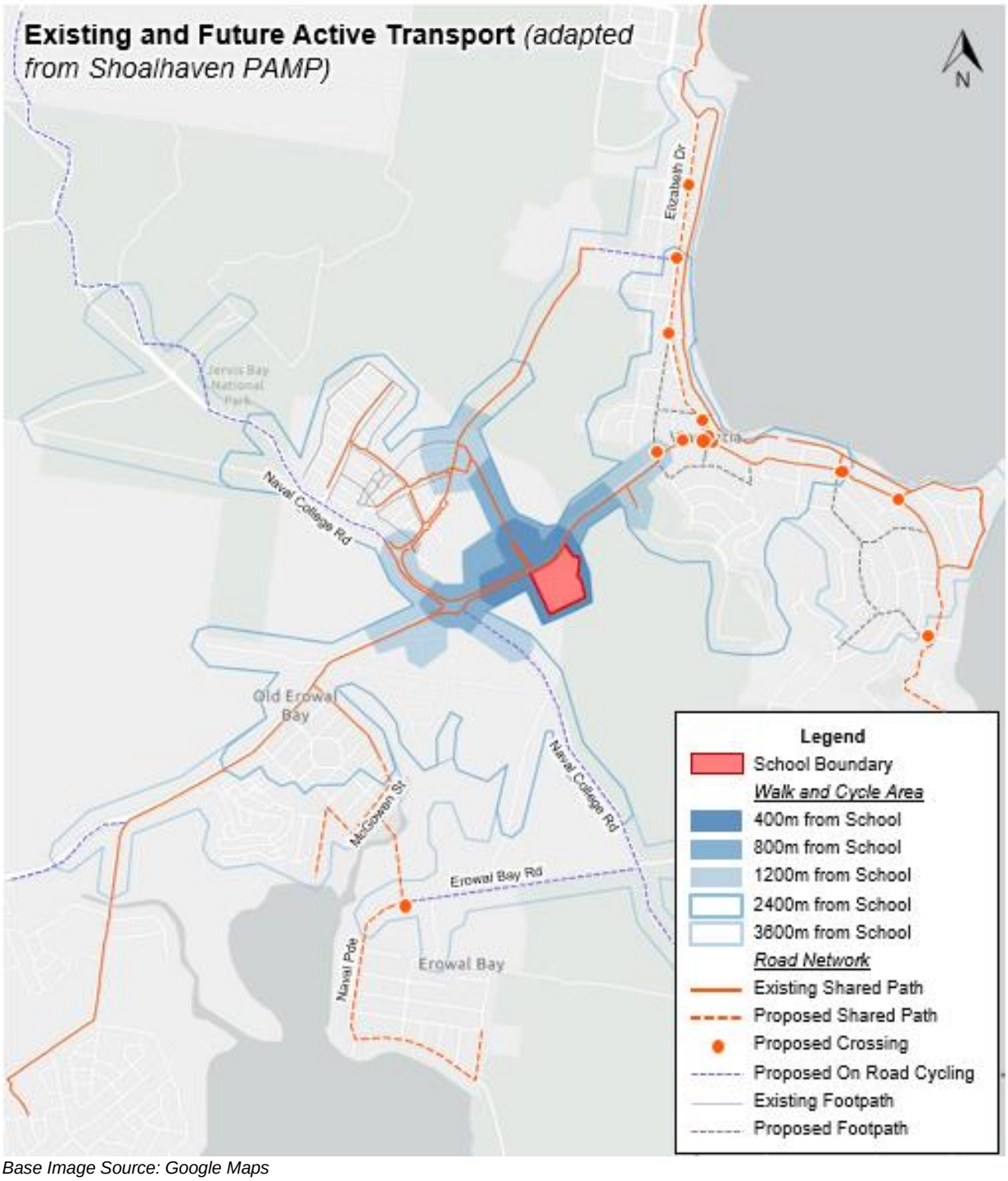
**Figure 2.2: Key Intersections**

## 2.3 Alternate Transport

### 2.3.1 Active Transport

In the context of the school location and its student population it is important to note that most of the residential catchments in the VHS intake area are outside of 1.2km (15 minute) walkable catchment with less than 1% of students living within this walking catchment.

There are existing shared paths on the main roads connecting VHS to Vincentia East and West, Old Erowal Bay and Erowal Bay. The existing footpath network surrounding the subject site is shown in Figure 2.3. Currently there are limited paths within these areas, but proposed paths are identified in the Shoalhaven Pedestrian Access and Mobility (PAMP), which is also illustrated in Figure 2.3.




*Base Image Source: Google Maps*

**Figure 2.3: Pedestrian and Cycling Connectivity**

### 2.3.2 School Bus and Public Transport

Existing school bus services are provided by ShoalBus, Premier Motor Service, and Nowra Coaches under contracts with TfNSW. There are 10 school bus services that services students of VHS and/or currently stop within the school site.

The public transport facilities surrounding the school are shown in Figure 2.4

Details of the public transport services are provided in Table 2.3 including timetable based arrivals/departures.

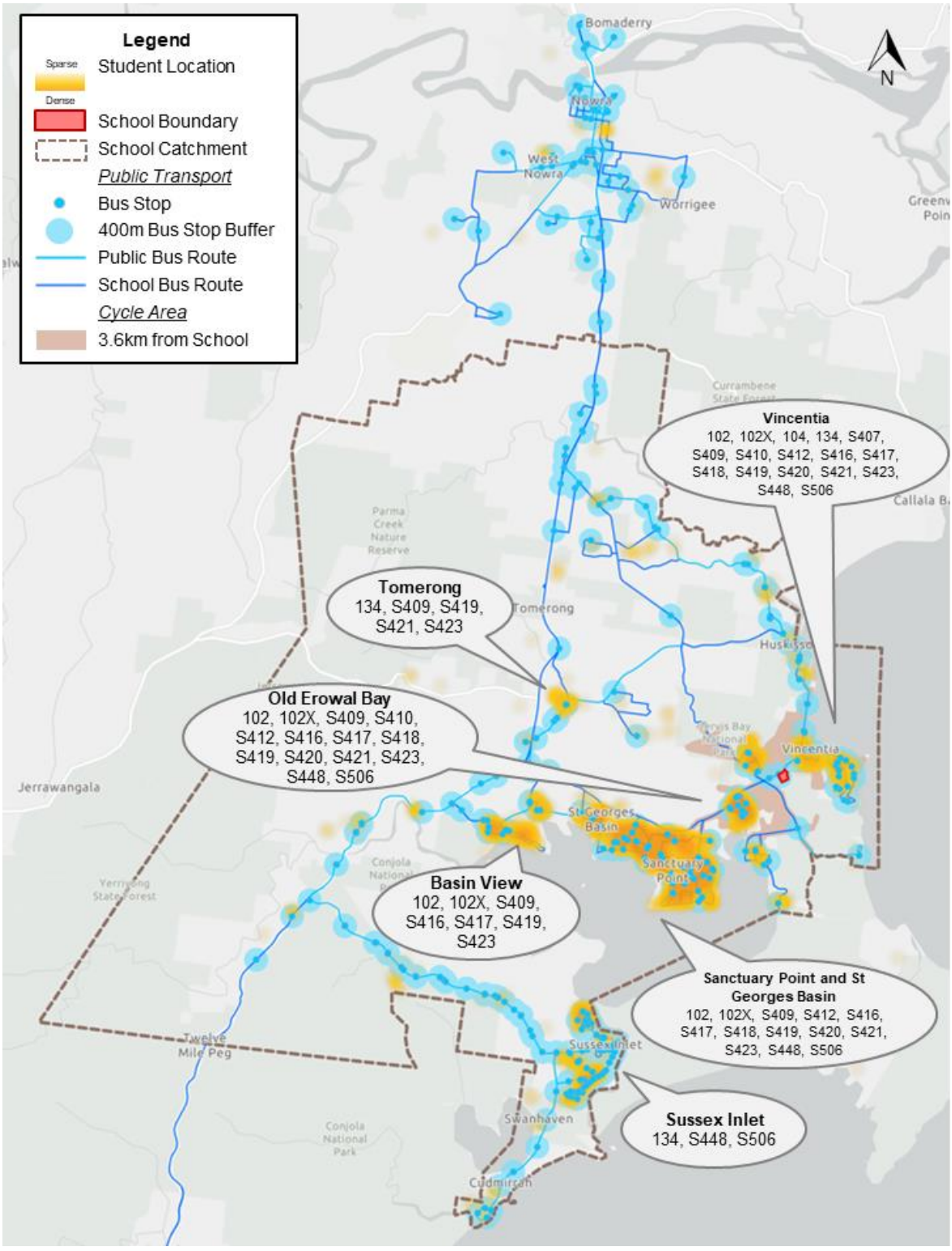



**Figure 2.4: Bus Routes**

**Table 2.3: Route Information**

| Route Number | Route (AM/PM) | Est AM Arrival Time | Est PM Arrival / Departure Time |
|---|---|---|---|
| 102 | Bomaderry Station & Nowra to Basin View via St Georges Basin | 9.04 | 14:23 |
| 102X | St Georges Basin to Bomaderry Station via Sanctuary Point | 7:15 | 15:20 |
| S416 | Huskisson to Ulladulla via Sanctuary Point and Milton Schools | Interchanges with direct other school services | |
| S417 | Vincentia to St Georgs Basin via Sanctuary Point Schools / Sanctuary Point to Huskisson Schools via Vincentia | 8:13 | 14:25 |
| S419 | Tomerong to Vincentia via St Georges Basin / Vincentia to Tomerong via St Georges Basin | 7:55 | 14:25 |
| S420 | Nowra to Vincentia Schools / Vincentia Schools to Nowra | 7:50 | 14:25 |
| S421 | Vincentia to Falls Creek via St Georges Basin & Tomerong | 7:44 | 14:25 |
| S423 | St Georges Basin to Tomerong via Vincentia Schools / Vincentia to Erowal Bay via Sanctuary Point | 8:12 | 14:25 |
| S448 | Berrara to Nowra via Sussex Inlet / Nowra to Berrara via Sussex Inlet | 7:55 | 14:25 |
| S506 | Sussex to Vincentia / Vincentia to Sussex | 747 | 14:30 |

## 2.4 Transport Mode Share

A student travel mode share survey was undertaken in October 2023 to determine the existing travel behaviours. The survey accounted for 78% of students with the remaining students being absent on the day of the survey and year 12 student having finished for the year. The mode share split of students is provided in Figure 2.5.

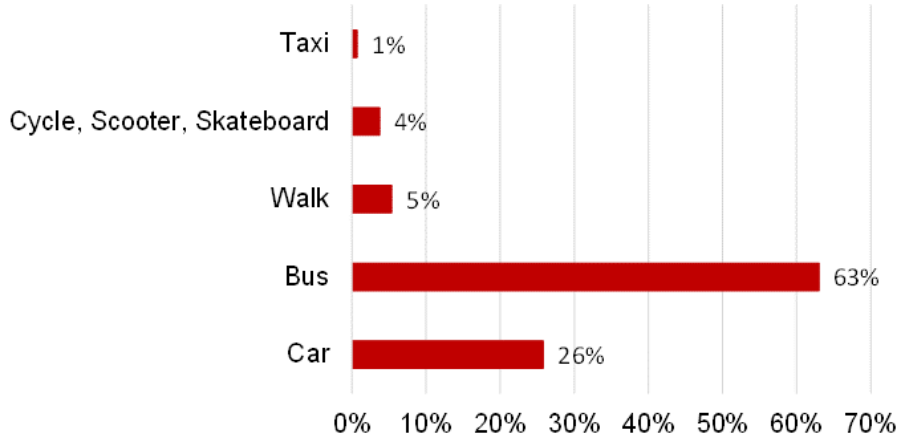



**Figure 2.5: Student Travel Mode Share**

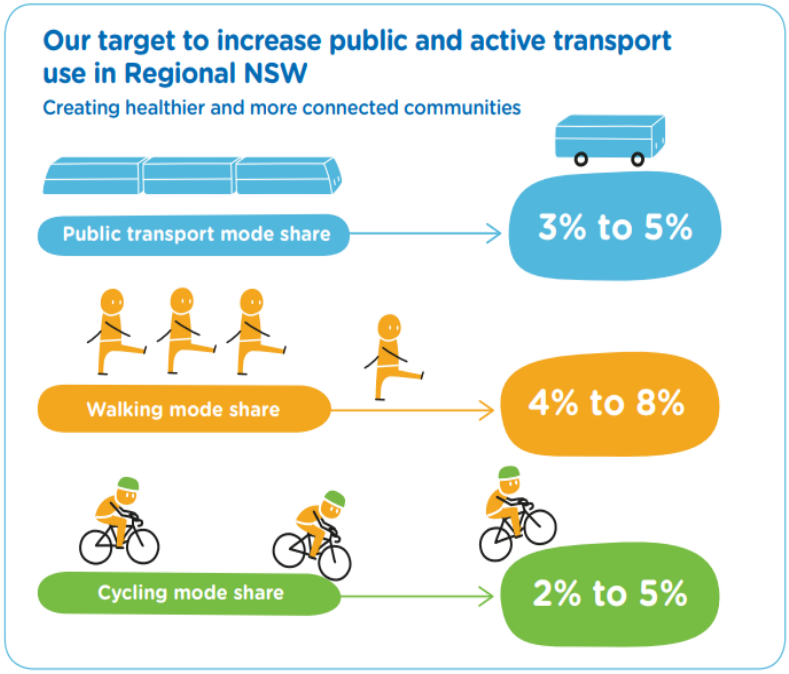
As shown, buses account for 63% of student travel. At the time of the travel survey 81% students lived within 400m of a bus stop. Importantly, any changes to the bus network are the responsibility of TfNSW.

While car-based travel is currently the second highest mode of travel of car-based trips 60% are carpooling (i.e. dropped-off/picked up in a car with another siblings or other students) based on the school travel survey.

Active transport participation is limited but this reflects the surrounding environment with traditional residential areas being outside an active transport catchment and other nearby areas that is still in transition with planned surrounding residential development. At the time of the survey only 1% of students lived in a walk-up catchment (1.2km distance or 15-minute walk) and 14% within a cycle catchment (3.6km distance or 15-minute cycle). Use of active modes may however increase over time with new residents moving into the surrounding residential developments.

A staff travel mode survey was not undertaken but existing staff mode shares are understood to entirely be by car and there is little alternate transport participation.

As discussed herein, the staff car parking provided at a provision to balance the staff parking demands with TfNSW Regional Mode Share targets and encouraging more sustainable travel. Additional encouragement to shift staff to other modes is discussed in more detail through the implementation of a School Travel Plan (STP) provided in **Appendix B**.



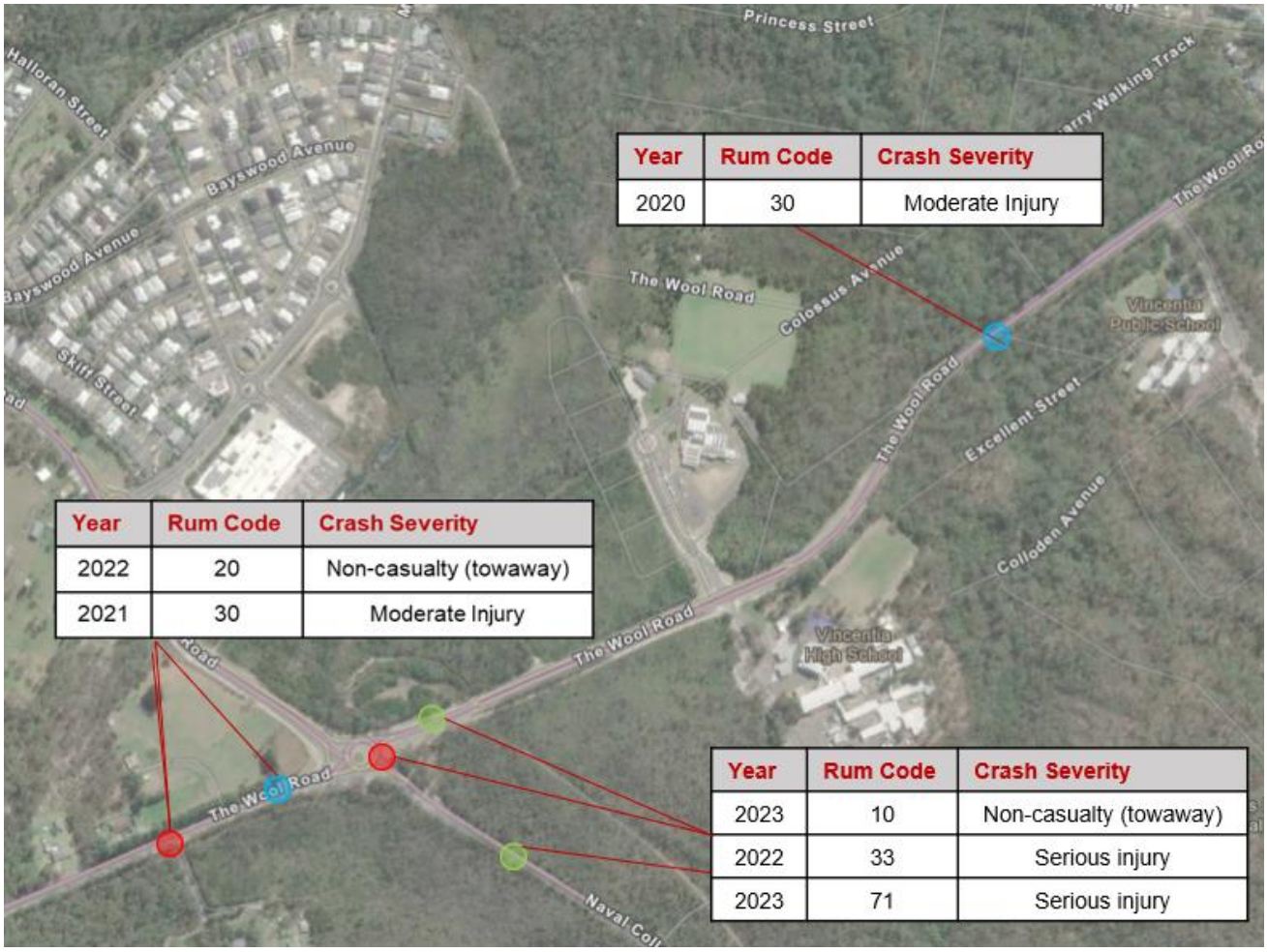

*Source: Transport for NSW*

**Figure 2.6: Regional NSW Mode Share Targets**

## 2.5 Historic Crash Analysis

The TfNSW Centre for Road Safety's interactive crash statistics were used to source crash data for the area surrounding Vincentia High School. A review of reported crashes that occurred between 2018 and 2023 were analysed and identified a total of six crashes occurring within 100m proximity to the key intersections along The Wool Road.

Figure 2.6 shows the location and Road User Movement (RUM) code of each crash.




*SOURCE: TfNSW Crash Map*

**Figure 2.7: Crash Analysis**

Based on crash information, reported vehicular incidents do not appear to involve vehicle traffic associated with the school.

# 3. PROPOSED ACTIVITY DESCRIPTION

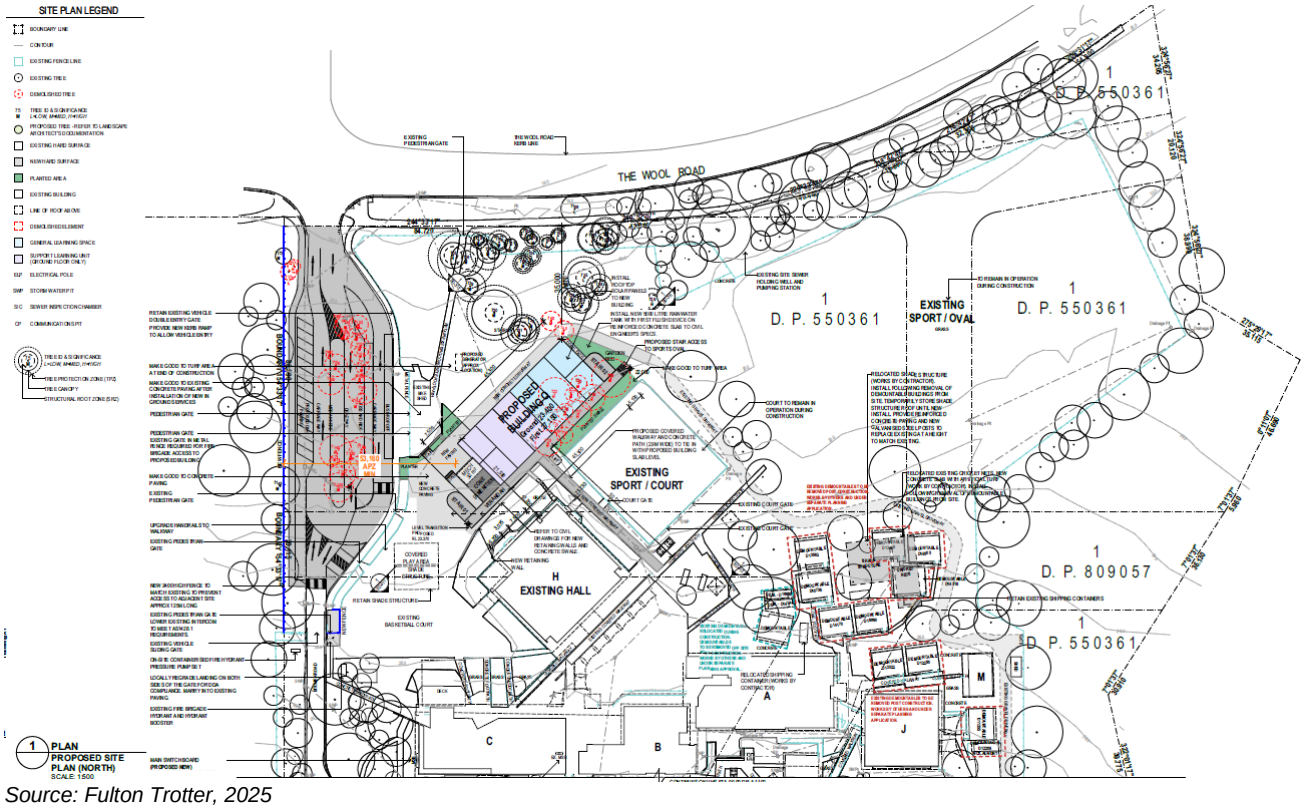
## 3.1 Details

The proposed activity relates to upgrades to Vincentia High School. Specifically, the proposed activity comprises the following:

- Construction of a new two-storey home base building.
- Installation of solar panels.
- Construction of new stairs and covered walkways.
- Internal road upgrade which involves providing a new drop off zone, parking spaces and pedestrian pathway.
- Relocation of existing shade structure.
- External landscape works.
- Tree removal.

Any works relating to the existing demountables or associated with substations will be undertaken via a separate planning pathway. Figure 3.1 provides an extract of the proposed site plan.

Architectural Plans prepared by Fulton Trotter, relevant to transport and traffic items are contained in **Appendix A**.




*Source: Fulton Trotter, 2025*

**Figure 3.1: Site Plan**

# 4. TRANSPORT ASSESSMENT

## 4.1 Overview and Evaluation of Environmental Impacts

As noted earlier the proposal is for building a new building and current arrangements for transport and traffic elements will generally remain unchanged. Importantly with the development there is no net increase in traffic generation since no student or staff demand increase is proposed.

While there is not the need for transport mitigation to offset 'development' impacts, DoE has however sought to address any key potential safety and operational issues as part of a duty of care and to support improvements that assist in promoting increased sustainable travel (i.e. by active and public transport).

The following sections summarise Bitzios' review and outcomes of discussions with bus service providers, TfNSW and Shoalhaven City Council.

To support the goals on promoting increased sustainable travel, in addition to provided improvement works, a preliminary School Transport Plan (STP) has been prepared which contains a suite of potential initiatives and measures to be implemented lead up to 'opening' of the school upgrade. The STP is contained in **Appendix B**.

## 4.2 Proposed Transport Facilities

Transport facility upgrades are included in the proposal to provide a dedicated Kiss n Drop (KnD) area to pick-up and drop-off students, formalised additional parking spaces and pedestrian safety and crossing improvements to the existing facility.

The transport related components are discussed in Table 4.1.

**Table 4.1: Proposed Transport Facility Upgrades**

| Infrastructure Description | Benefit |
|---|---|
| 1. Creation of Kiss n Drop Zone | Provides a formalised and managed pick-up and drop-off area that is in a separate lane/area to the bus pick-up/drop off area to assist with bus operations |
| 2. Pedestrian Footpath and Crossing Facilities | Provides clear designated crossing points through the site's main vehicle areas. Formalised footpath facilities along the western boundary and out to The Wool Road removes previous trip-fall risks with informal pedestrian areas |
| 3. Formalised angled parking and bus zone | Creates 17 additional formalised parking supply within school property to accommodate for visitor and student parking<br>Improved line marking and delineation for buses |
| 4. Updated Persons with Disability Parking | Provides parking for the pick-up and drop off of students with disabilities more in-line with demands and in an area clear of bus movements to resolve previous issues with vehicle conflicts and delays for buses being able to depart. |

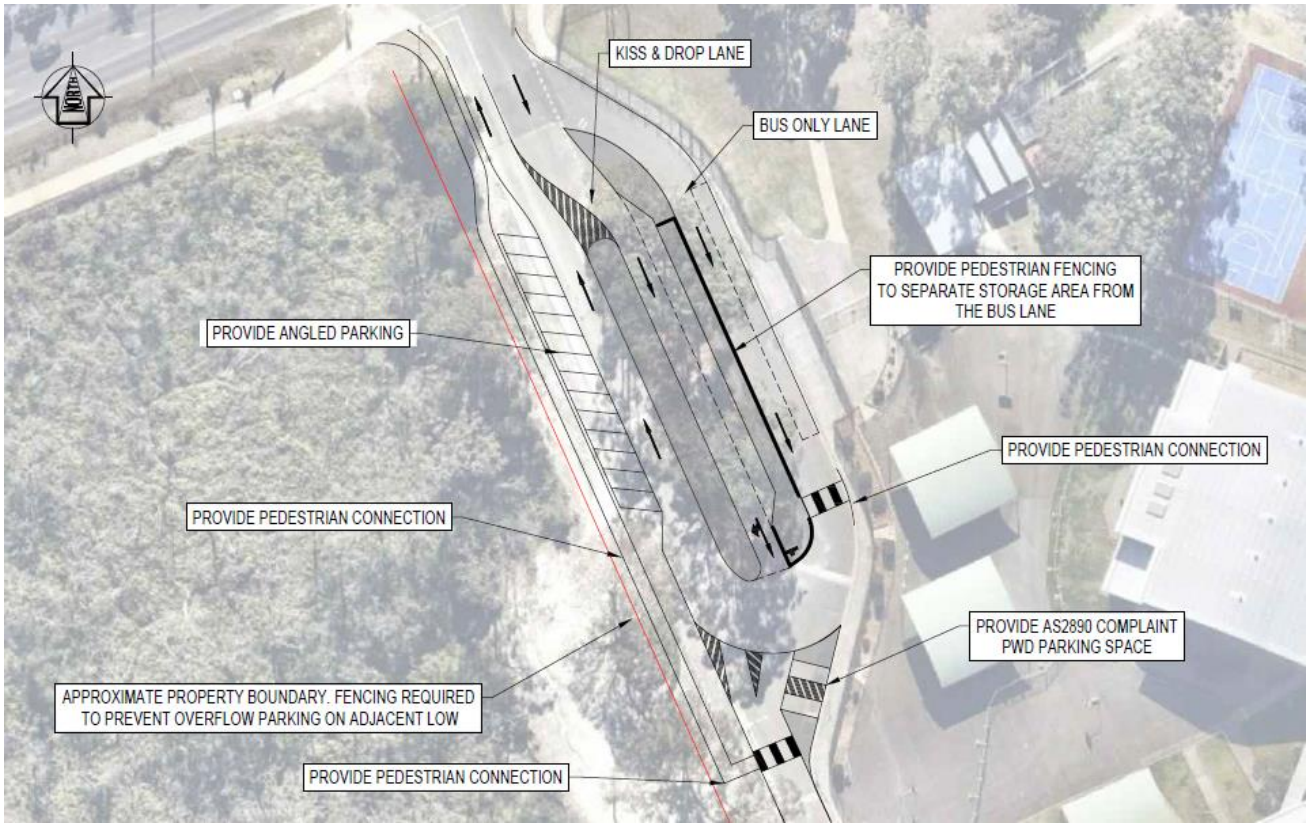



**Figure 4.1: Transport Facility Upgrade Layout, including additional of a KnD lane**

## 4.3 Parking Assessment

### 4.3.1 Overview

As noted earlier the proposal is for building a new building and current arrangements for transport and traffic elements will generally remain unchanged apart from the improvement noted in Section 4.2. Importantly with the development there is no net increase in parking demand generation.

On-site car parking facilities provided have been assessed against the relevant requirements of Council's DCP and Australian Standards AS2890.1, AS2890.2 and AS2890.6, and are considered to be compliant. It is recommended that refinements to the schematic plans are undertaken through detailed design stages. This may include detailed features such as kerbs, line marking, bollards, signage and fencing are incorporated to achieve the outcomes of AS2890 prior to construction.

**Table 4.2: Car Parking Geometric Layout Assessment (Changed Areas Only)**

| Design Element | Required | Provided | Complaint |
|---|---|---|---|
| 60 degree Angled Parking Bay (User Class 3) | Minimum 3.0m x 5.4m with 4.3m aisle | 3.0m x 5.4m with 4.39m aisle | Yes |
| PWD Parking Bay | Minimum 2.4m x 5.4m with 2.4m wide shared space | Minimum 2.4m x 5.4m with 2.4m wide shared space | Yes |
| | | Regarding the positioning of the PWD bays, the available parking aisle provides sufficient spatial provisions utilising painted hard-stand areas. | |

### 4.3.2 Car Parking Requirements

Standard car parking rates were sourced from Council's *Development Control Plan (DCP) - Chapter G21 – Car Parking and Traffic.* The relevant car parking rates and requirements are outlined in Table 4.3.

**Table 4.3: Development Parking Requirements and Compliance**

| Land Use | Parking Rate | Quantity | Spaces Required | Spaces Provided |
|---|---|---|---|---|
| High School | ▪ 1 space per 8 students, minimum; and<br>▪ Pick up/drop off zone of minimum length sufficient to allow 1 space per 35 students and<br>▪ Bus zone of minimum length to be sufficient to allow 1 bus space per 200 students. | 999 students | 125 spaces | 115 spaces (98 existing,<br>17 proposed) |

An important consideration when planning for the car parking provision is to achieve a balance between parking demand and providing an oversupply.

The provided 115 spaces is a practical maximum on-site parking supply based on available space, while balancing the need for other school facilities and adequate separation of student areas from on-site vehicle traffic. The school has an existing 109 full-time equivalent staff, and the 98 existing spaces generally meets the current demands for staff of the school.

There 17 new car parking spaces proposed as part of the facility improvements works in the north-western corner of the site and is proposed to provide for visitor parking demands.

A KnD facility is proposed to offset the need to provide dedicated parking spaces for student pick-up/drop-off purposes and is further discussed herein. Outside of peak pick-up and drop-off times the KnD zone could be used for visitor parking.

Consistent with DoE policies to reduce private vehicle utilisation and not promote or encourage students to drive to the site, on-site parking will not be prioritised for student use. In addition, any further parking provision on-site would impact available space for educational purposes as well as introduce additional traffic movements within high pedestrian activity areas on the school grounds.

### 4.3.3 Kiss n Drop (KnD) Facility

A KnD facility is proposed to offset the need to provide dedicated parking spaces for student pick-up/drop-off purposes on site. The proposed KnD facility is located within the site's front vehicle access area. The facility has capacity for six to seven vehicles, with further queuing space within the site and ability for vehicle to recirculate. It would be recommended two of the angled parking spaces be signed for 10 minute parking during peak pick-up/drop-off times to accommodate for parents who arrive, but their student is not present within the maximum 2 minutes allowed in the KnD 'No Parking' zones time limit. The KnD facility has capacity to be able to service approximately 144 vehicles over a 30-minute period (based on a up to 60 second average dwell time and the first four KnD bays being to pick-up/drop off and rear bays in the KnD supporting queuing), with student pick-up demands estimated to be around 137 vehicles based on existing travel mode shares and car-pooling levels (i.e. 1.75 students per car and a student mode share of 26% car of which 24% use the KnD)

The operations of the KnD facility will includes clear policies and procedures outlined in the School Travel Plan.

The KnD collection bays and queuing will be signed as a No Parking zones during peak times and allow for parking outside of these times.

To manage demands and the operational efficiency of the KnD, the infrastructure provisions will be supported by the School Travel Plan, Travel Access Guide and supporting operational guidance on the correct and appropriate use of the KnD zone i.e:

- *This kiss and drop is a 'No Parking' zone, meaning you may stop for a maximum of 2 minutes.*
- *Do not arrive before the school bell time and park in the kiss and drop*
- *If you wish to park, there are other alternate locations nearby within unrestricted parking where you can park and walk to the school gate*
- *Drive as far towards the front of the kiss and drop as possible so people can pull in behind you.*

## 4.4 Bicycle Parking Requirements

Austroads and Council's DCP stipulates a bicycle parking rate of "1 bicycle space per 5 students over Year 4" and based on the enrolments of 999 this would equate to 200 bicycle parking spaces.

Based on the travel mode surveys, the above rate does not accurately reflect the current bicycle parking demand as students travelling by bicycle is linked to:

- The age of the student and therefore competence and confidence
- The quality infrastructure to provide a high level of service
- The quantity and quality of end of trips facilities provided at the destination.

It is noted that other wheeled devices including skateboards and scooters are also included in bicycle parking and specific storage devices can be provided. The bicycle parking demands consider the travel mode surveys discussed in Section 3.4 and the active transport catchment discussed in Section 3.3. A summary of the bicycle parking demands, and provision is provided in Table 4.3

Standard bike parking rates were sourced from Austroads Guide to Traffic Management, Part 11 (1 bicycle space per 5 students over Year 4). The relevant bike parking rates and requirements are outlined in Table 4.3.

**Table 4.4: Bicycle Parking Rates**

| Land Use | No. Students | Austroads / DCP Requirements | Future Demand based on Travel Mode Surveys | No. Students within Cycle Catchment | Recommended Cycle Storage Provision |
|---|---|---|---|---|---|
| Student – High School | 999 | 228 | 20 to 50 spaces | ~119 students | 40 to 50 bicycle parking spaces |

The VHS currently has demands for 15 to 25 bicycle (depending on weather) and a bicycle cage accommodating for approximately 40 bicycles. It is recommended to existing provision on-site be maintained, with space made available for expansion to a total of 50 bicycle parking spaces in the future to align with mode share targets. It is recommended that as part of implementation of a STP that the usage of the existing bicycle/scooter parking facilities be monitored to understand the need for when any additional facilities are needed to match with any increase in cycling/scooting as a mode share.

To further encourage a modal shift, it is recommended that an initial seven (7) staff bicycle parking spaces be provided to meet the active travel mode target of the STP. Similar to the student bicycle parking spaces, this should also be monitored and increased based on the demand in the future. The staff bicycle parking is to be supplemented with end of trip facilities (e.g. showers, lockers, change areas, etc) for which 20 lockers and 3 showers are provided.

## 4.5 Servicing and Refuse Collection

The proposed upgrade is not expected to result in a significant change to the servicing or refuse collection demand. The school has confirmed that the largest vehicle to enter the site is the refuse collection vehicle (RCV). Servicing is typically undertaken with a much smaller vehicle than the RCV. This 8.8m medium rigid vehicle (MRV) is consistent with a large delivery truck and a typical emergency vehicle (i.e. ambulance or fire truck). Therefore, these vehicles are able to access and circulate through the site as needed. As servicing and refuse collection occur outside of peak times it will not have an adverse impact on the safety and efficiency for other road users or pedestrians.

# 5. STAGING

## 5.1 Overview

The project will be delivered in two (2) stages generally consisting of:

- Stage 1: Site establishment and demolition and relocation of existing structures
- Stage 2A: Building new buildings and associated external works (i.e. covered walkway, landscaping) while the school operates
- Stage 2B: Construct new internal transport facility upgrades while the school is not in operation (i.e. school holiday periods)

Construction Staging and Management Plans are provided in **Appendix A**.

The current timeline for the project is expected to total around 60 weeks, detailed as follows:

- Relocation of demountables: 4 weeks
- Site establishment: 2 weeks
- Construction: 50 weeks
- Demobilisation and Handover: 4 weeks.

Standard construction hours are expected to be:

- Monday-Friday: 7:00 AM – 6:00 PM
- Saturday: 7:00 AM – 1:00 PM.
- No works to be done on Sundays or Public Holidays.

## 5.2 Transport Staging Considerations

In terms of transport considerations during the construction phase:

- A construction site access will be provided via a new entry gate near the existing driveway entry (see plans in **Appendix A**). The nominated construction access zone has sufficient space to accommodate for manouvring of the expected required service vehicles (see herein), but it is recommended that:
  - A loading/unloading area be provided off this construction access zone
  - Existing bus stop facilities could be used occasionally outside of school peak AM/PM times
- For construction worker parking:
  - It is estimated there will be demand for in the order of 50 construction worker cars
  - During school holiday periods construction works can use the staff parking area
  - When the school is in operation during school term, temporary parking areas be allocated within the construction access zone area, clear of the area needed for construction service vehicle manouvring

The truck types / sizes are expected but not limited to for this project include the following:

- 12.5m heavy rigid vehicles (HRV) (i.e. mobile cranes, boom pump trucks, concrete trucks, bin trucks)
- 7.7m 13T and 7.1m 8T bogies
- Utility vehicles <8.8m (Medium Rigid Vehicle equivalent), excavators, bobcats, forklifts, manitou)
- 5.2m B99 vehicles (i.e. utility vehicle, van).

It is estimated that an average of 3-5 heavy vehicles per day is expected to access the site and 50 construction work vehicles. The impact on the road network is considered negligible. It is anticipated that the primary traffic generation of construction will comprise of:

- The delivery and removal of construction machinery and materials, spoil and waste

- The movement of construction personnel, including contractors, the project labour force, and management staff.

Heavy vehicle movements will occur throughout the day but will be generally outside of peak traffic times. These movements will also be generally undertaken outside of school zone hours.

Most construction workers will arrive and leave the area outside of peak times (i.e. arrive before 8am and end work before 5pm).

During the construction work, the loading and unloading of all materials will only occur within the site. Construction vehicle traffic movements shall be scheduled so the majority of movements occur outside school peak periods between 7:45 AM – 8:45 AM and 2:00 PM – 3:30 PM. There are to be no construction vehicle movements in or out of the access gate during school PM peak/finish time to minimise conflicts with parents/students.

# 6. SUMMARY

The key findings of the VHS traffic and transport impact assessment are as follows:

- The proposed upgrade of VHS is driven by a facilities upgrade, and DoE does not seek to increase enrolments
- Generally with these types of projects that do not have a demand increase, therefore do not have infrastructure-based conditions imposed for transport works. DOE has however sought to address any key potential safety and operational issues as part of a duty of care and to support improvements that assist in promoting increased sustainable travel (i.e. by active and public transport).
- Transport facility upgrades are included in the proposal to provide a dedicated KnD area to pick-up and drop-off students, formalised additional parking spaces and pedestrian safety and crossing improvements
- The provided 115 spaces is a practical maximum on-site parking supply based on available space, while balancing the need for other school facilities and adequate separation of student areas from on-site vehicle traffic
- A KnD facility is proposed to offset the need to provide dedicated parking spaces for student pick-up/drop-off purposes on site. The proposed KnD facility is located within the site's front vehicle access area. The facility has capacity for six to seven vehicles, with further queuing space within the site and ability for vehicle to recirculate (i.e. if child is not there to be picked up after 2 mins can move along within the car park and re-join queue). The KnD facility has capacity to be able to service approximately 144 vehicles over a 30-minute period, with student pick-up demands estimated to be around 137 vehicles based on existing travel mode shares and car-pooling levels
- To assist in manage demands and the operational efficiency of the KnD, the infrastructure provisions will be supported by the School Travel Plan, Travel Access Guide and supporting operational guidance on the correct and appropriate use of the KnD zone
- The proposed treatments in response to the development proposal are considered appropriate to meet the needs of the school at year of project 'opening'.

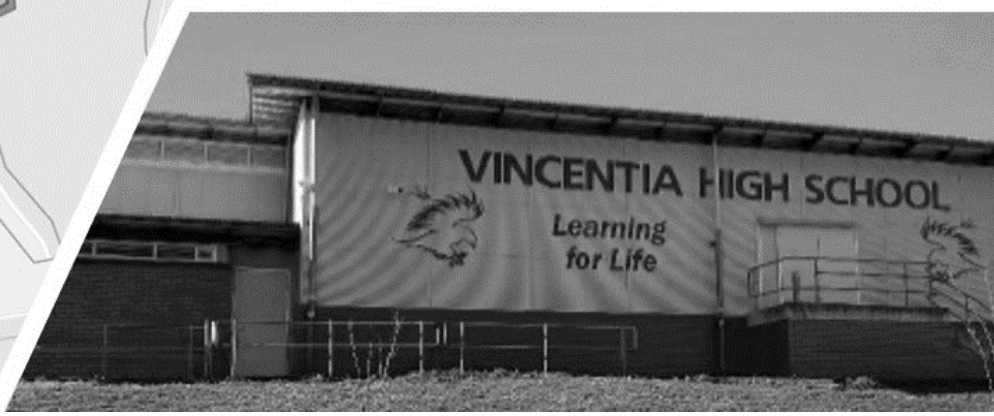
A summary of the proposed mitigation measure is provided in Table 5.1.

**Table 6.1 Proposed Mitigation Measures**

| Project Stage *Design (D) Construction (C) Operation (O)* | Mitigation Measures | Reason for Mitigation Measure | Relevant Section of Report |
|---|---|---|---|
| D/C | Provide safe crossings through the site's main entry area | To address deficiencies in the crossing facilities within the site | Section 4 |
| D/C | Provide a formalised the Kiss n Drop (KnD) zone. The KnD Zone is to consist of a zone with capacity of 6 to 7 vehicle, plus further queuing space. | This dedicate facility will improve site operations and assist with reducing impacts with current school bus timetables caused by general cars utilising the bus area. | Section 4 |
| O | Prepare and implement School Travel Plan, Travel Access Guide and | To support infrastructure provisions and provide supporting operational guidance on the correct and appropriate use of the transport facilities surrounding the site. | Section 4 |

# Appendix A: Plans

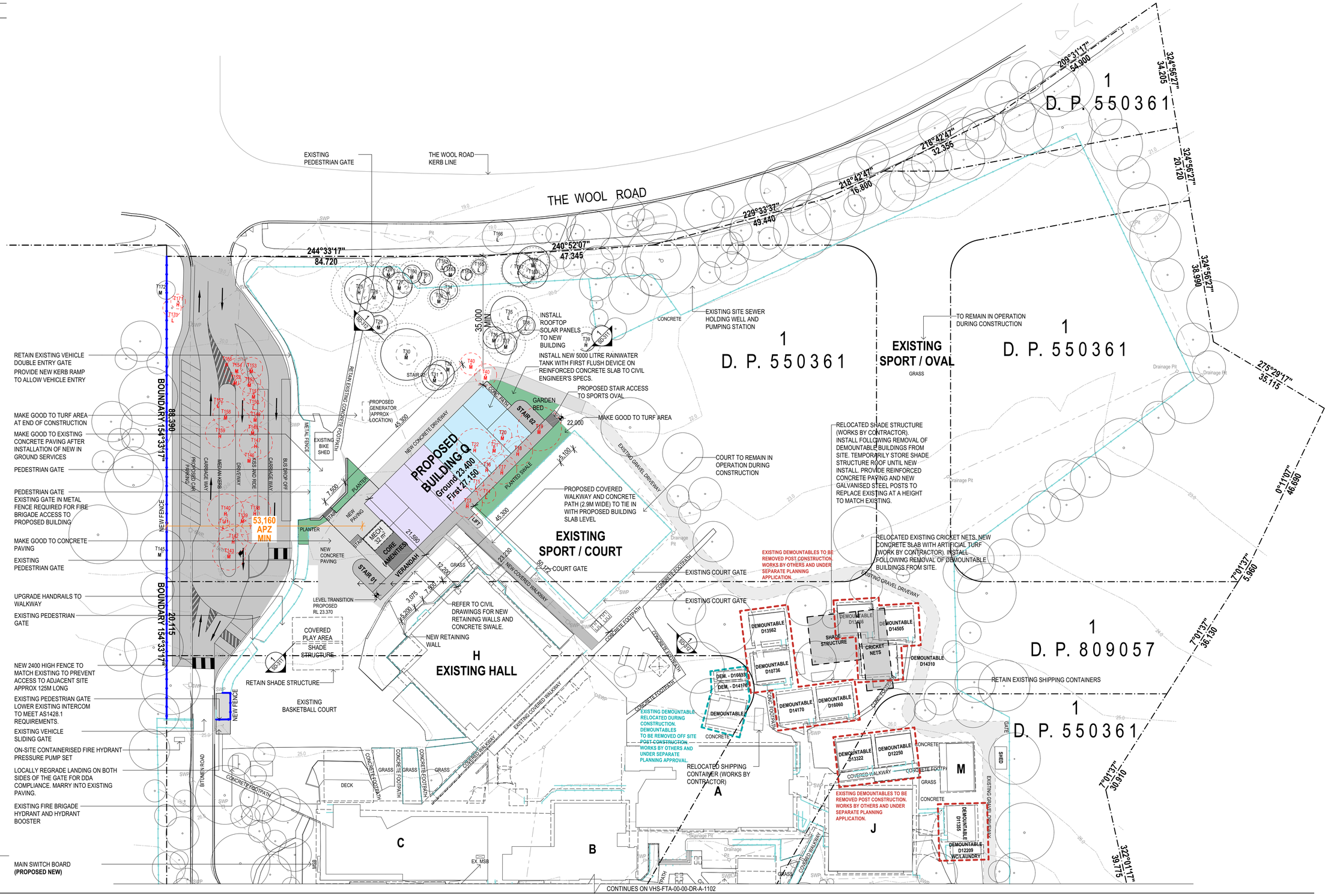




## SITE PLAN LEGEND

- BOUNDARY LINE
- CONTOUR
- EXISTING FENCE LINE
- EXISTING TREE
- DEMOLISHED TREE
- 75 M — TREE ID & SIGNIFICANCE *L=LOW, M=MED, H=HIGH*
- PROPOSED TREE - REFER TO LANDSCAPE ARCHITECT'S DOCUMENTATION
- EXISTING HARD SURFACE
- NEW HARD SURFACE
- PLANTED AREA
- EXISTING BUILDING
- LINE OF ROOF ABOVE
- DEMOLISHED ELEMENT
- GENERAL LEARNING SPACE
- SUPPORT LEARNING UNIT (GROUND FLOOR ONLY)
- ELP — ELECTRICAL POLE
- SWP — STORM WATER PIT
- SIC — SEWER INSPECTION CHAMBER
- CP — COMMUNICATIONS PIT

75 M — TREE ID & SIGNIFICANCE *L=LOW, M=MED, H=HIGH*
- TREE PROTECTION ZONE (TPZ)
- TREE CANOPY
- STRUCTURAL ROOT ZONE (SRZ)




1 **PLAN**
**PROPOSED SITE PLAN (NORTH)**
SCALE: 1:500

CONTINUES ON VHS-FTA-00-00-DR-A-1102

**NOTES**

DEMOUNTABLE RELOCATIONS AND REMOVALS ARE TO BE INCLUDED IN A SEPARATE PLANNING PATHWAY.

PROVIDE 20 NEW STEEL LOCKERS FOR STAFF END OF TRIP FACILITIES. TO BE SPREAD ACROSS THE SCHOOL NOMINALLY TO BUILDINGS B, C, H AND J. FIX IN POSITION OUTSIDE EXISTING STAFF SHOWER LOCATIONS. PROVIDE VINYL WRAP TO LOCKERS EXTERIOR SURFACES. REFER TO ARCHITECTURAL SPECIFICATIONS.

| REV. | DESCRIPTION | DATE | INIT. |
|---|---|---|---|
| 12 | REF ISSUE | 31/03/2025 | JH |
| 11 | REF ISSUE | 25/03/2025 | JH |
| 10 | DRAFT TENDER ISSUE | 27/02/2025 | JH |
| 09 | 100% SCHEMATIC DESIGN ISSUE | 07/02/2025 | JH |
| 08 | DRAFT 100% SCHEMATIC DESIGN ISSUE | 10/01/2025 | JH |
| 07 | 80% SCHEMATIC DESIGN ISSUE | 12/12/2024 | JH |
| 06 | SCHOOL WORKSHOP | 11/12/2024 | JH |
| 05 | 50% SCHEMATIC DESIGN ISSUE | 28/11/2024 | JH |
| 04 | DRAFT 50% SCHEMATIC DESIGN ISSUE | 22/11/2024 | JH |
| 03 | 100% CONCEPT DESIGN ISSUE | 10/11/2024 | JH |
| 02 | CONSULTANT COORDINATION | 07/11/2024 | JH |
| 01 | 80% CONCEPT DESIGN ISSUE | 18/10/2024 | JH |

PRINT IN COLOUR

fulton trotter
ARCHITECTS BRISBANE SYDNEY
www.fultontrotter.com.au
SYDNEY Suite 904, Level 9, 28-36 Foveaux Street, Surry Hills, NSW 2010
t. (02) 8383 5151 e. sydney@fultontrotter.com.au
Fulton Trotter Architects ACN 677 264 550 ABN 57 677 264 550

DIRECTORS
Greg Isaac raia — NSW 6855 — QLD 2920
Justine Ebzery fraia — QLD 3313
John Ward raia — VIC 18804 — NSW 8371 — QLD 3647
Katerina Dracopoulos fraia — NSW 7434 — QLD 4529
Paul Sekava fraia — NSW 7180 — QLD 3108
Ryan Loveday fraia — QLD 4500

PHASE **SCHEMATIC DESIGN**
CLIENT SCHOOL INFRASTRUCTURE NSW
PROJECT VINCENTIA HIGH SCHOOL
ADDRESS 142 THE WOOL ROAD, VINCENTIA, NSW

DRAWING **PROPOSED SITE PLAN 01**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER **7068VI01** | DIRECTOR **GI** | CHECKED
DRAWING NUMBER **VHS-FTA-00-00-DR-A-1101** | REVISION **12**

150mm @ A1 | 100 | 50

## SITE PLAN LEGEND

- BOUNDARY LINE
- CONTOUR
- EXISTING FENCE LINE
- EXISTING TREE
- DEMOLISHED TREE
- 75 M — TREE ID & SIGNIFICANCE *L=LOW, M=MED, H=HIGH*
- PROPOSED TREE - REFER TO LANDSCAPE ARCHITECT'S DOCUMENTATION
- EXISTING HARD SURFACE
- NEW HARD SURFACE
- PLANTED AREA
- EXISTING BUILDING
- LINE OF ROOF ABOVE
- DEMOLISHED ELEMENT
- GENERAL LEARNING SPACE
- SUPPORT LEARNING UNIT (GROUND FLOOR ONLY)
- ELP — ELECTRICAL POLE
- SWP — STORM WATER PIT
- SIC — SEWER INSPECTION CHAMBER
- CP — COMMUNICATIONS PIT

75 M — TREE ID & SIGNIFICANCE *L=LOW, M=MED, H=HIGH*
- TREE PROTECTION ZONE (TPZ)
- TREE CANOPY
- STRUCTURAL ROOT ZONE (SRZ)

PEDESTRIAN GATE

EXISTING GATE IN METAL FENCE REQUIRED FOR FIRE BRIGADE ACCESS TO PROPOSED BUILDING

MAKE GOOD TO CONCRETE PAVING

EXISTING PEDESTRIAN GATE

UPGRADE HANDRAILS TO WALKWAY

EXISTING PEDESTRIAN GATE

NEW 2400 HIGH FENCE TO MATCH EXISTING TO PREVENT ACCESS TO ADJACENT SITE APPROX 125M LONG

EXISTING PEDESTRIAN GATE LOWER EXISTING INTERCOM TO MEET AS1428.1 REQUIREMENTS.

EXISTING VEHICLE SLIDING GATE

ON-SITE CONTAINERISED FIRE HYDRANT PRESSURE PUMP SET

LOCALLY REGRADE LANDING ON BOTH SIDES OF THE GATE FOR DDA COMPLIANCE. MARRY INTO EXISTING PAVING.

EXISTING FIRE BRIGADE HYDRANT AND HYDRANT BOOSTER

MAIN SWITCH BOARD **(PROPOSED NEW)**
A NEW EXTERNAL MSB IS TO BE INSTALLED IN THE INDICATED LOCATION AND NEW CONSUMER MAINS INSTALLED FROM THE NEW SUBSTATION, A CLEAR SPACE NO LESS THATN 1400 IS TO BE PROVIDED IN FRONT OF THE NEW MSB.

PROPOSED SUBSTATION 1MVA TO BE BUILT IN THE LOCATION INDICATED UNDER SEPARATE PLANNING APPLICATION. REFER TO ELECTRICAL ENGINEER'S DETAILS

MAIN SWITCH BOARD
(TO BE MODIFIED)
EXISTING MSB TO REMAIN AND BE BACK FED FROM NEW MAIN SWITCHBOARD

53,160 APZ MIN

BOUNDARY 154°33'17" 20.115

BOUNDARY 154°33'17" 172.920

CONTINUES ON VHS-FTA-00-00-DR-A-1101

PROPOSED COVERED WALKWAY AND CONCRETE PATH (2.9M WIDE) TO TIE IN WITH PROPOSED BUILDING SLAB LEVEL

EXISTING SPORT / COURT

EXISTING COURT GATE

EXISTING COURT GATE

REFER TO CIVIL DRAWINGS FOR NEW RETAINING WALLS AND CONCRETE SWALE.

NEW RETAINING WALL

LEVEL TRANSITION PROPOSED RL 23.370

COVERED PLAY AREA SHADE STRUCTURE

RETAIN SHADE STRUCTURE

EXISTING BASKETBALL COURT

H EXISTING HALL

EXISTING DEMOUNTABLES TO BE REMOVED POST CONSTRUCTION. WORKS BY OTHERS AND UNDER SEPARATE PLANNING APPLICATION.

EXISTING DEMOUNTABLES RELOCATED DURING CONSTRUCTION. DEMOUNTABLES TO BE REMOVED OFF SITE POST CONSTRUCTION. WORKS BY OTHERS AND UNDER SEPARATE PLANNING APPROVAL.

RELOCATED SHIPPING CONTAINER (WORKS BY CONTRACTOR)

REPLACE EXISTING AT A HEIGHT TO MATCH EXISTING.

RELOCATED EXISTING CRICKET NETS. NEW CONCRETE SLAB WITH ARTIFICIAL TURF (WORK BY CONTRACTOR). INSTALL FOLLOWING REMOVAL OF DEMOUNTABLE BUILDINGS FROM SITE.

RETAIN EXISTING SHIPPING CONTAINERS

EXISTING DEMOUNTABLES TO BE REMOVED POST CONSTRUCTION. WORKS BY OTHERS AND UNDER SEPARATE PLANNING APPLICATION.

D16139 TO BE RETAINED

D16064 AND SHED TO BE RETAINED

EXISTING DEMOUNTABLES TO BE REMOVED POST CONSTRUCTION. WORKS BY OTHERS AND UNDER SEPARATE PLANNING APPLICATION.

EXISTING PARKING AREA TO REMAIN ACCESSIBLE DURING CONSTRUCTION OF ROADWORKS

PARKING AREA TO REMAIN ACCESSIBLE DURING CONSTRUCTION

1 D. P. 550361

1 D. P. 809057

1 D. P. 550361

1 D. P. 809057

1 D. P. 550361

7°01'37" 5.960

7°01'37" 36.130

7°01'37" 30.910

322°01'17" 39.775

BOUNDARY 197°32'17" 100.200

64°33'17" BOUNDARY 66.970

64°33'17" BOUNDARY 35.155

244°33'17" BOUNDARY 139.225

## 1 PLAN
## PROPOSED SITE PLAN (SOUTH)
SCALE: 1:500

**NOTES**

DEMOUNTABLE RELOCATIONS AND REMOVALS ARE TO BE INCLUDED IN A SEPARATE PLANNING PATHWAY.

PROVIDE 20 NEW STEEL LOCKERS FOR STAFF END OF TRIP FACILITIES. TO BE SPREAD ACROSS THE SCHOOL NOMINALLY TO BUILDINGS B, C, H AND J. FIX IN POSITION OUTSIDE EXISTING STAFF SHOWER LOCATIONS. PROVIDE VINYL WRAP TO LOCKERS EXTERIOR SURFACES. REFER TO ARCHITECTURAL SPECIFICATIONS.

50 100 150mm @ A1

PRINT IN COLOUR

| | | | |
|---|---|---|---|
| 10 | REF ISSUE | 25/03/2025 | JH |
| 09 | DRAFT TENDER ISSUE | 27/02/2025 | JH |
| 08 | 100% SCHEMATIC DESIGN ISSUE | 07/02/2025 | JH |
| 07 | DRAFT 100% SCHEMATIC DESIGN ISSUE | 10/01/2025 | JH |
| 06 | 80% SCHEMATIC DESIGN ISSUE | 12/12/2024 | JH |
| 05 | 50% SCHEMATIC DESIGN ISSUE | 28/11/2024 | JH |
| 04 | DRAFT 50% SCHEMATIC DESIGN ISSUE | 22/11/2024 | JH |
| 03 | 100% CONCEPT DESIGN ISSUE | 10/11/2024 | JH |
| 02 | CONSULTANT COORDINATION | 07/11/2024 | JH |
| 01 | 80% CONCEPT DESIGN ISSUE | 18/10/2024 | JH |
| REV. | DESCRIPTION | DATE | INIT. |


fulton trotter
ARCHITECTS BRISBANE SYDNEY
www.fultontrotter.com.au
SYDNEY Suite 904, Level 9, 28-36 Foveaux Street, Surry Hills, NSW 2010
t. (02) 8383 5151 e. sydney@fultontrotter.com.au





DIRECTORS
Greg Isaac raia
Justine Elzoery fraia
John Ward raia
Katerina Dracopoulos fraia
Paul Sekava fraia
Ryan Loveday fraia

NSW 6855 QLD 2920
QLD 3313
VIC 18804 NSW 8371 QLD 3847
NSW 7434 QLD 4529
NSW 7180 QLD 3108
QLD 4500


PHASE **SCHEMATIC DESIGN**

CLIENT SCHOOL INFRASTRUCTURE NSW

PROJECT VINCENTIA HIGH SCHOOL

ADDRESS 142 THE WOOL ROAD, VINCENTIA, NSW

DRAWING **PROPOSED SITE PLAN 02**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

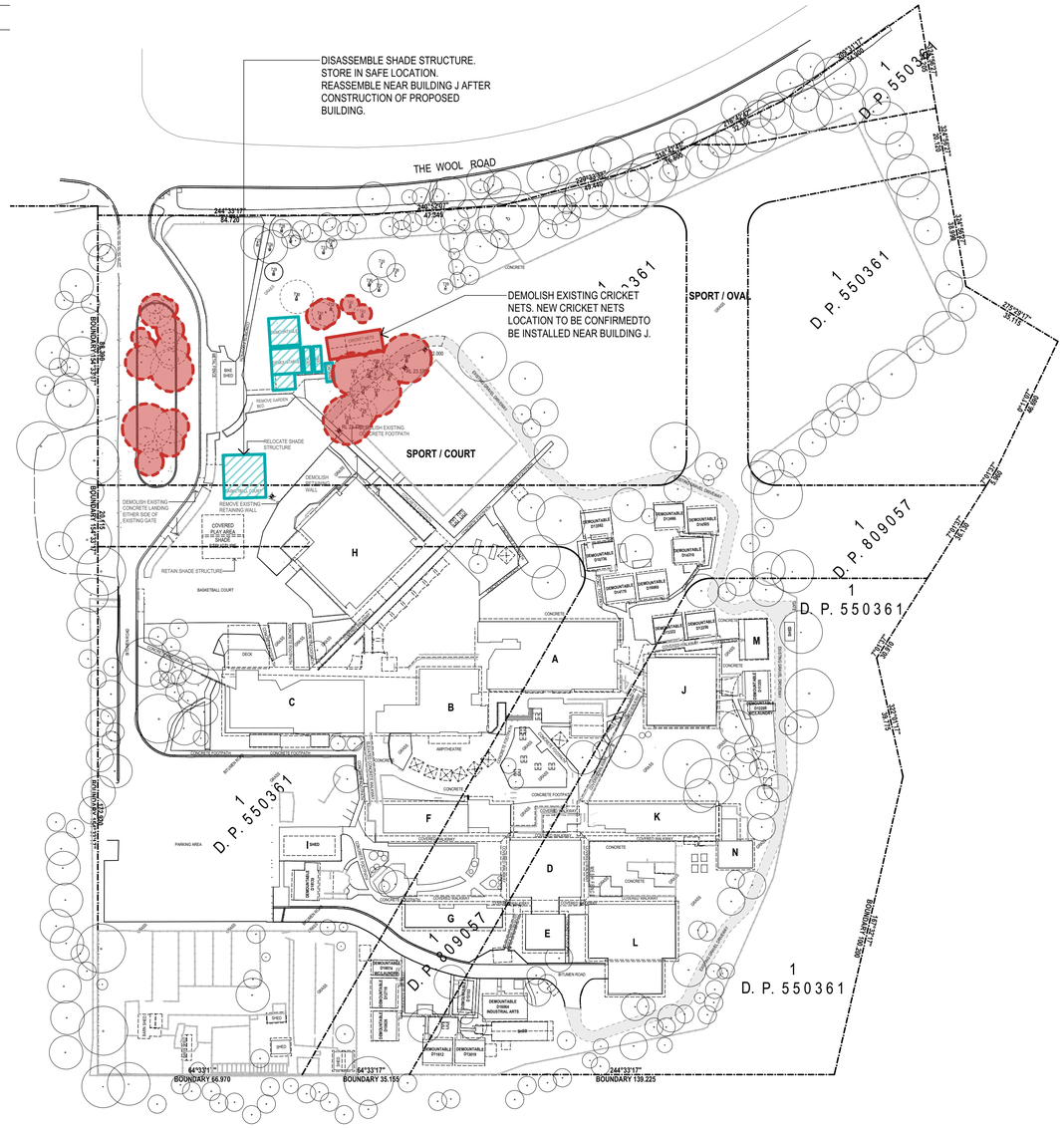
PROJECT NUMBER **7068VI01** | DIRECTOR **GI** | CHECKED

DRAWING NUMBER **VHS-FTA-00-00-DR-A-1102** | REVISION **10**

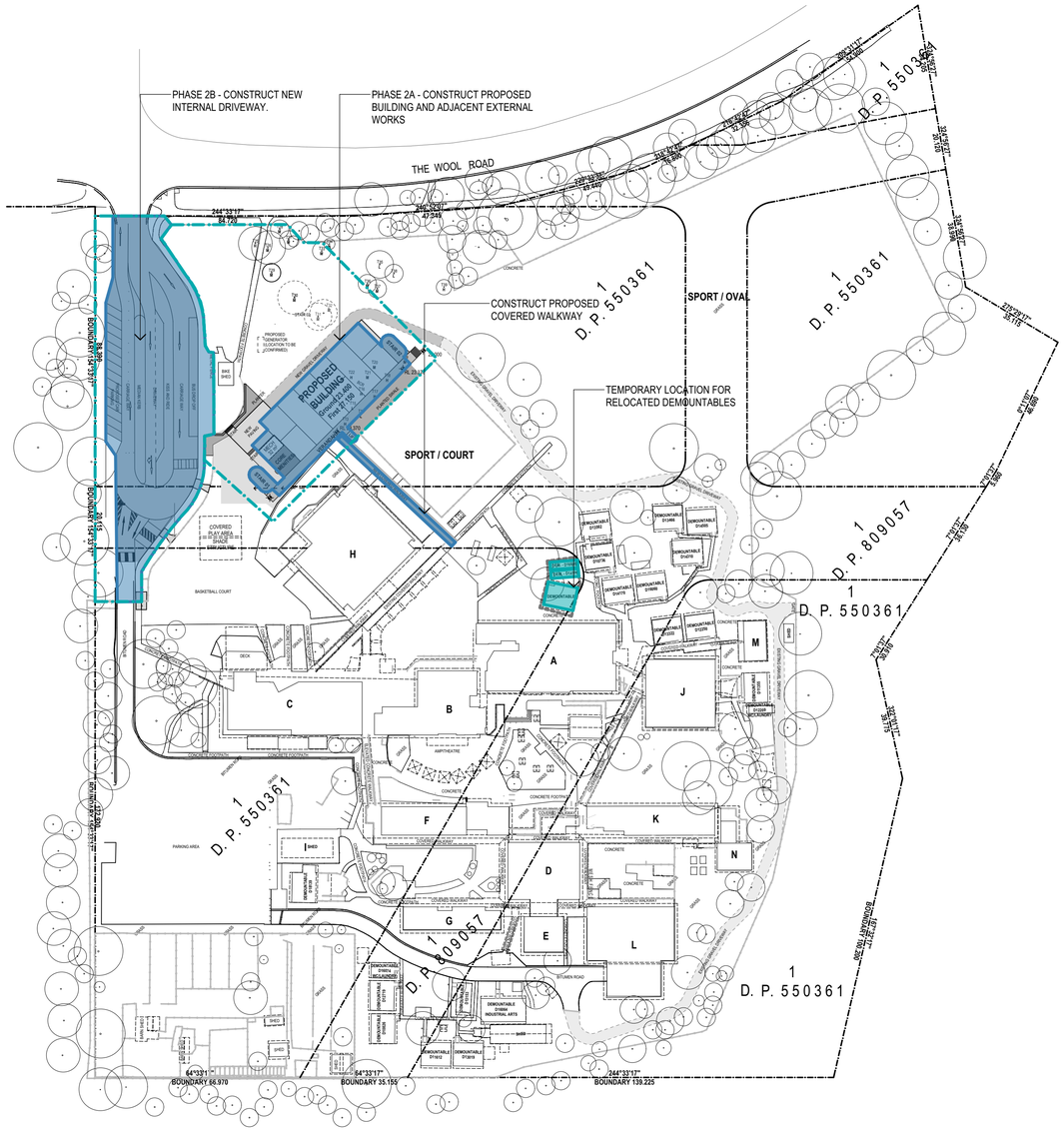

plot date: Tuesday, 25 March 2025 6:44 PM file location: BIMcloud: FTA-SYD-BIM26 - BIMcloud Basic for Archicad 26/7068VI01 Vincentia High School

## STAGING PLAN LEGEND

- EXISTING BUILDING / STRUCTURE TO BE RELOCATED
- EXISTING BUILDING / STRUCTURE IN RELOCATED POSITION
- EXISTING BUILDING / STRUCTURE TO BE REMOVED FROM SITE
- TREE TO BE REMOVED
- NEW BUILDING / STRUCTURE
- CONSTRUCTION ZONE




**1 PLAN**
**STAGING PLAN - PHASE 1 (RELOCATION/DEMO)**
SCALE: 1:1000




**2 PLAN**
**STAGING PLAN - PHASE 2 (NEW BUILD)**
SCALE: 1:1000

| REV. | DESCRIPTION | DATE | INIT. |
|---|---|---|---|
| 05 | DRAFT 100% SCHEMATIC DESIGN ISSUE | 10/01/2025 | JH |
| 04 | 80% SCHEMATIC DESIGN ISSUE | 12/12/2024 | JH |
| 03 | 100% CONCEPT DESIGN ISSUE | 10/11/2024 | JH |
| 02 | CONSULTANT COORDINATION | 07/11/2024 | JH |
| 01 | 80% CONCEPT DESIGN ISSUE | 29/10/2024 | JH |


fulton trotter
ARCHITECTS BRISBANE SYDNEY
www.fultontrotter.com.au
**SYDNEY** Suite 904, Level 9, 28-36 Foveaux Street, Surry Hills, NSW 2010
t. (02) 8383 5151 e. sydney@fultontrotter.com.au





**DIRECTORS**
Greg Isaac raia — NSW 6855 — QLD 2920
Justine Ebzery fraia — QLD 3313
John Ward raia — VIC 18804 — NSW 8371 — QLD 3647
Katerina Dracopoulos fraia — NSW 7434 — QLD 4529
Paul Sekava fraia — NSW 7180 — QLD 3108
Ryan Loveday fraia — QLD 4500


PHASE: **SCHEMATIC DESIGN**
CLIENT: SCHOOL INFRASTRUCTURE NSW
PROJECT: VINCENTIA HIGH SCHOOL
ADDRESS: 142 THE WOOL ROAD, VINCENTIA, NSW

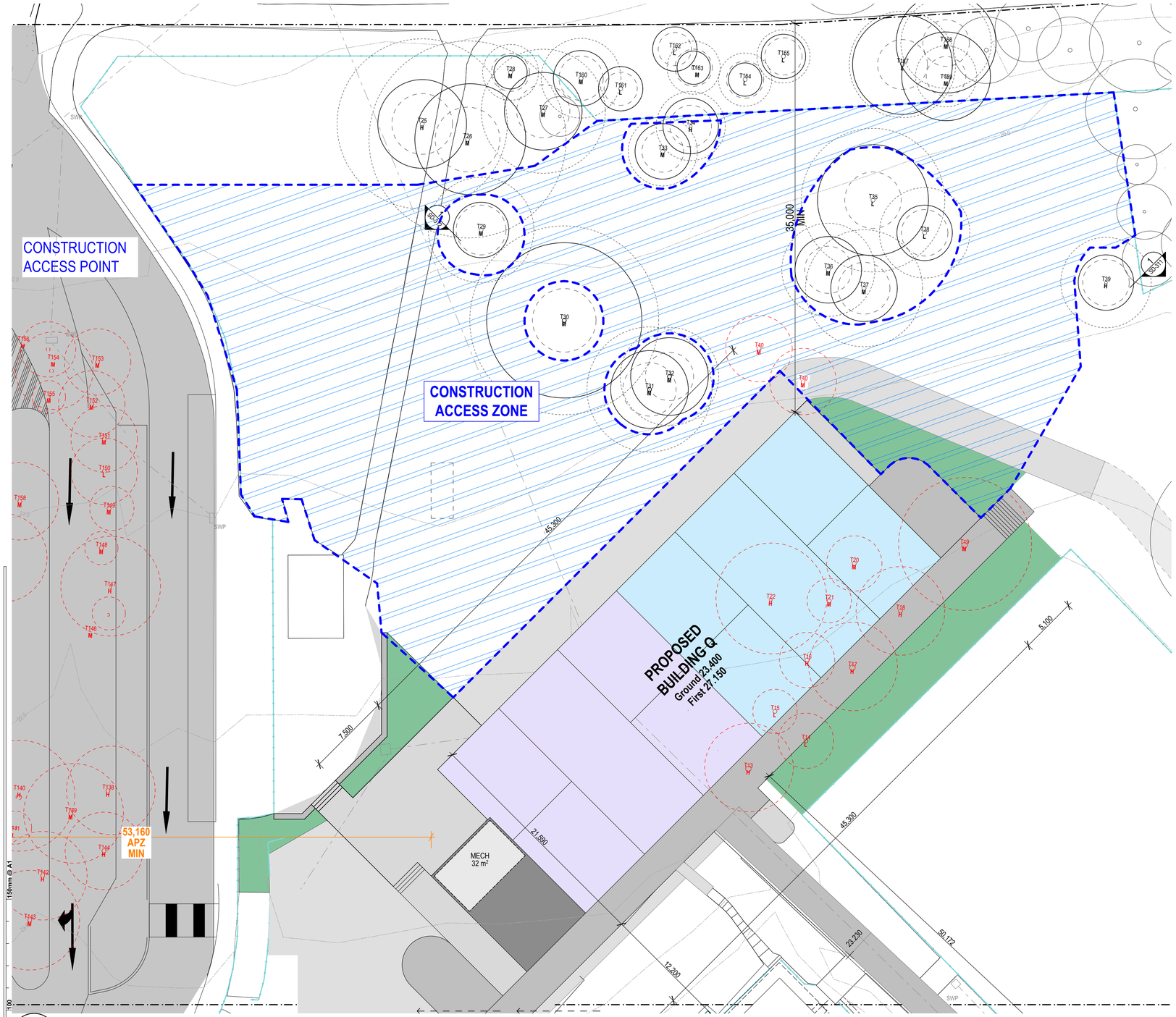
DRAWING: **STAGING PLAN 01**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

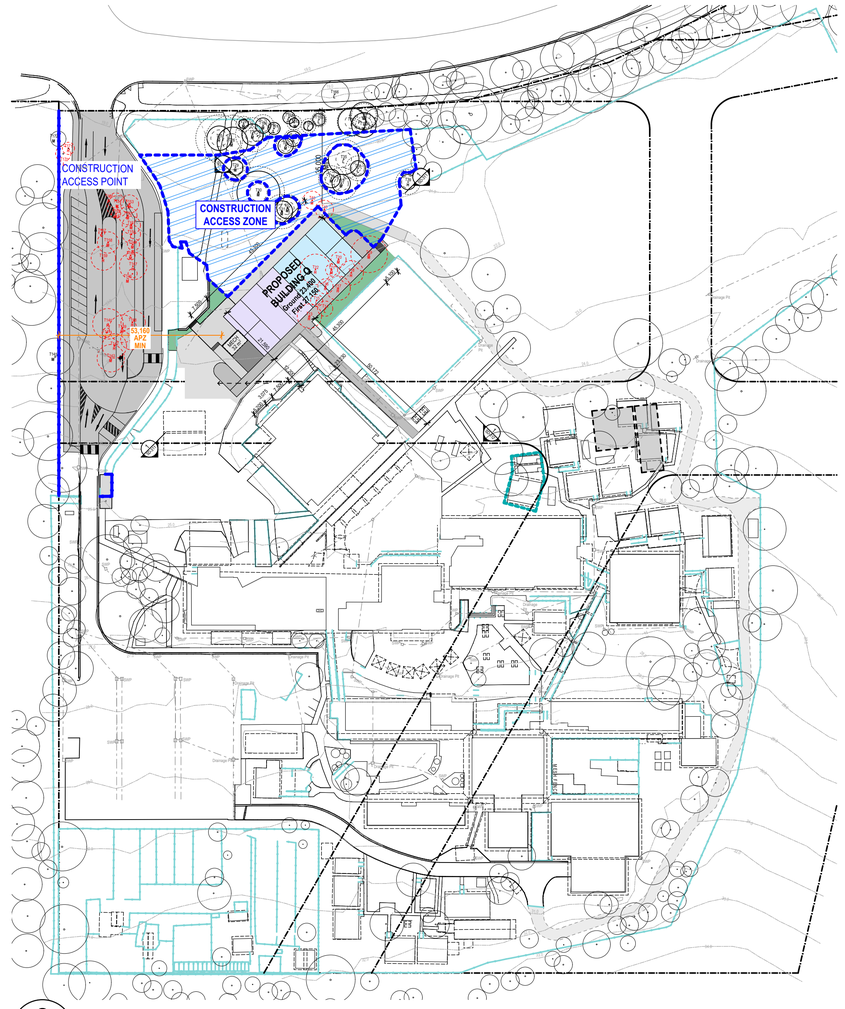
PROJECT NUMBER: **7068VI01**
DIRECTOR: **GI**
CHECKED:
DRAWING NUMBER: **VHS-FTA-00-00-DR-A-1501**
REVISION: **05**

150mm @ A1
50 100 150mm @ A1


plot date: Friday, 10 January 2025 6:00 PM file location: BIMcloud: FTA-SYD-BIM26 - BIMcloud Basic for Archicad 26/7068VI01 Vincentia High School




## 1 PLAN
**PROPOSED CONSTRUCTION MANAGEMENT PLAN**
SCALE: 1:200




## 2 PLAN
**PROPOSED CONSTRUCTION MANAGEMENT PLAN (SITE PLAN)**
SCALE: 1:1000

### SITE PLAN LEGEND

- BOUNDARY LINE
- CONTOUR
- EXISTING FENCE LINE
- EXISTING TREE
- DEMOLISHED TREE
- 75 M — TREE ID & SIGNIFICANCE *L=LOW, M=MED, H=HIGH*
- PROPOSED TREE - REFER TO LANDSCAPE ARCHITECT'S DOCUMENTATION
- EXISTING HARD SURFACE
- NEW HARD SURFACE
- PLANTED AREA
- EXISTING BUILDING
- LINE OF ROOF ABOVE
- DEMOLISHED ELEMENT
- GENERAL LEARNING SPACE
- SUPPORT LEARNING UNIT (GROUND FLOOR ONLY)
- ELP ELECTRICAL POLE
- SWP STORM WATER PIT
- SIC SEWER INSPECTION CHAMBER
- CP COMMUNICATIONS PIT
- CONSTRUCTION ACCESS ZONE

| REV. | DESCRIPTION | DATE | INIT. |
|---|---|---|---|
| 03 | REF ISSUE | 31/03/2025 | JH |
| 02 | DRAFT TENDER ISSUE | 27/02/2025 | JH |
| 01 | FOR INFORMATION | 18/02/2025 | JH |


fulton trotter
ARCHITECTS BRISBANE SYDNEY
www.fultontrotter.com.au
SYDNEY Suite 904, Level 9, 28-36 Foveaux Street, Surry Hills, NSW 2010
t. (02) 8383 5151 e. sydney@fultontrotter.com.au





**DIRECTORS**
Greg Isaac nsia — NSW 6855 QLD 2920
Justine Elzaery fnaia — QLD 3313
John Ward naia — VIC 18804 NSW 8371 QLD 3847
Katerina Dracopoulos fnaia — NSW 7434 QLD 4529
Paul Sekava fnaia — NSW 7180 QLD 3108
Ryan Loveday fnaia — QLD 4500


PHASE: **SCHEMATIC DESIGN**
CLIENT: SCHOOL INFRASTRUCTURE NSW
PROJECT: VINCENTIA HIGH SCHOOL
ADDRESS: 142 THE WOOL ROAD, VINCENTIA, NSW

DRAWING: **CONSTRUCTION MANAGEMENT PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

| PROJECT NUMBER | DIRECTOR | CHECKED |
|---|---|---|
| 7068VI01 | GI | |

DRAWING NUMBER: VHS-FTA-00-00-DR-A-1605
REVISION: 03


plot date: Monday, 31 March 2025 4:45 PM file location: BIMcloud: FTA-SYD-BIM26 - BIMcloud Basic for Archicad 26/7068VI01 Vincentia High School

# Appendix B: School Travel Plan

# VINCENTIA HIGH SCHOOL

## School Travel Plan

### NSW Department of Education

**01 April 2025**

**Gold Coast**
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377

**Brisbane**
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442

**Sydney**
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

**W**: www.bitziosconsulting.com.au

**E:** admin@bitziosconsulting.com.au



## Document Issue History

| Report File Name | Version | Document Control | | Date | Issued to |
|---|---|---|---|---|---|
| P6189.001R DRAFT Vincentia High School STP | 001 | Prepared:<br>Reviewed:<br>Issued | A. Soltan / J. Brook<br>A. Eke<br>J. Brook | 05/03/2025 | Harry Hao, RP Infrastructure |
| P6189.002R Vincentia High School STP | 002 | Prepared:<br>Reviewed:<br>Issued | A. Soltan / J. Brook<br>A. Eke<br>J. Brook | 31/03/2025 | Harry Hao, RP Infrastructure |
| P6189.002R Vincentia High School STP | 003 | Prepared:<br>Reviewed:<br>Issued | A. Soltan / J. Brook<br>A. Eke<br>J. Brook | 01/04/2025 | Harry Hao, RP Infrastructure |

# CONTENTS



## Tables



## Figures

# 1. INTRODUCTION

## 1.1 Background

Bitzios Consulting has been commissioned by the NSW Department of Education (DoE) to undertake a Transport and Traffic Impact Assessment (TTIA) for the upgrade of the existing Vincentia High School (VHS) campus. As part of the TTIA, a School Travel Plan (STP) is required.

VHS is located is located at 142 The Wool Road, Vincentia, NSW, 2540 and has an approximate site area of 8.09ha. An aerial photograph of the site is provided at Figure 1.1

*Source: NearMap*

**Figure 1.1: Subject Site Location**

Purpose of a School Transport Plan

The School Transport Plan is a live document that is managed by the school travel coordinator which identifies strategies to increase safe travel to school. The aim of the document is to deliver efficient, safe, and sustainable access to the school during the planning, delivery, and operation of school assets. The school travel coordinator will be appointed based on a 12-month period.

## 1.2 About the School Transport Plan

The STP is a document that focusses on details for sustainable travel options to and from the school campus. It importantly proposes strategies to encourage the uptake of alternative transport. This plan covers:

- VHS's transport facilities and conditions;
- Current student and staff travel patterns;
- Proposed green travel targets; and,
- Proposed actions to achieve travel mode share targets.

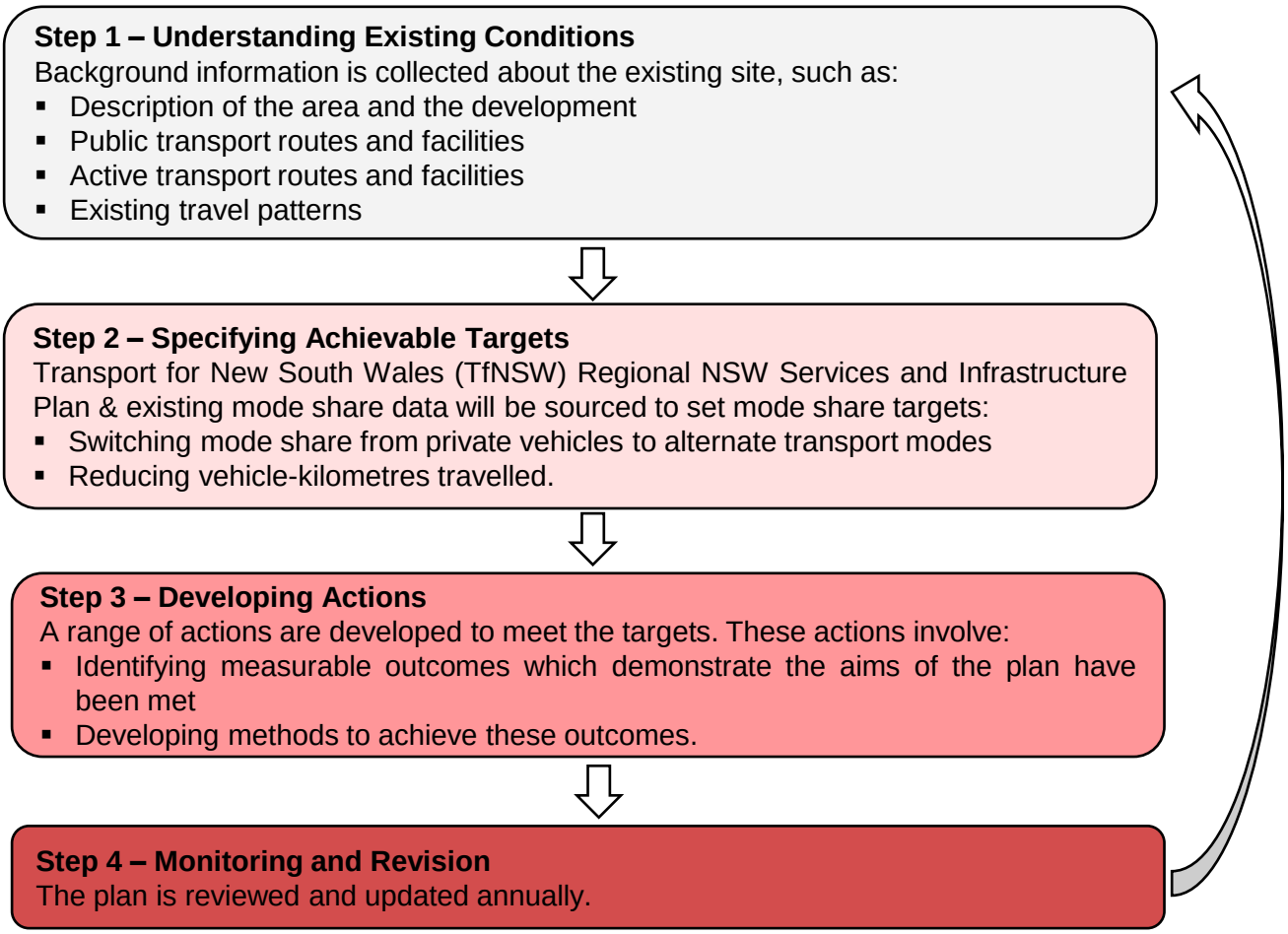



**Figure 1.2: STP Methodology**

# 2. VHS TRANSPORT INCLUSIONS

## 2.1 Existing Conditions

Existing transport attributes of the subject site are noted as follows:

- The subject site has a frontage to The Wool Road
- Carparking is provided at the rear of the site via the school single access point to the Wool Road.
- On-street parking is not available in vicinity of the site
- VHS is presently serviced by several public school bus routes
  - These services are provided by ShoalBus, Premier Motor Service, and Nowra Coaches


**Figure 2.1: Existing Site Conditions**

## 2.2 Proposed VHS Transport Facilities

The proposed transport and access activity included as part of the VHS upgrade comprises the following:

| Infrastructure Description | Benefit |
|---|---|
| 1. Creation of Kiss n Drop Zone | Provides a formalised and managed pick-up and drop-off area that is in a separate lane/area to the bus pick-up/drop off area to assist with bus operations |
| 2. Pedestrian Footpath and Crossing Facilities | Provides clear designated crossing points through the site's main vehicle areas. Formalised footpath facilities along the western boundary and out to The Wool Road removes previous trip-fall risks with informal pedestrian areas |
| 3. Formalised angled parking and bus zone | Creates 17 additional formalised parking supply within school property to accommodate for visitor and student parking<br>Improved line marking and delineation for buses |
| 4. Updated Persons with Disability Parking | Provides parking for the pick-up and drop off of students with disabilities more in-line with demands and in an area clear of bus movements to resolve previous issues with vehicle conflicts and delays for buses being able to depart |

As part of this redevelopment, no additions or reductions to the student intake are proposed, ensuring the student cohort remains consistent with existing operations. For the purposes of this report, this means no net increase in traffic generation is anticipated with the upgrade of VHS.

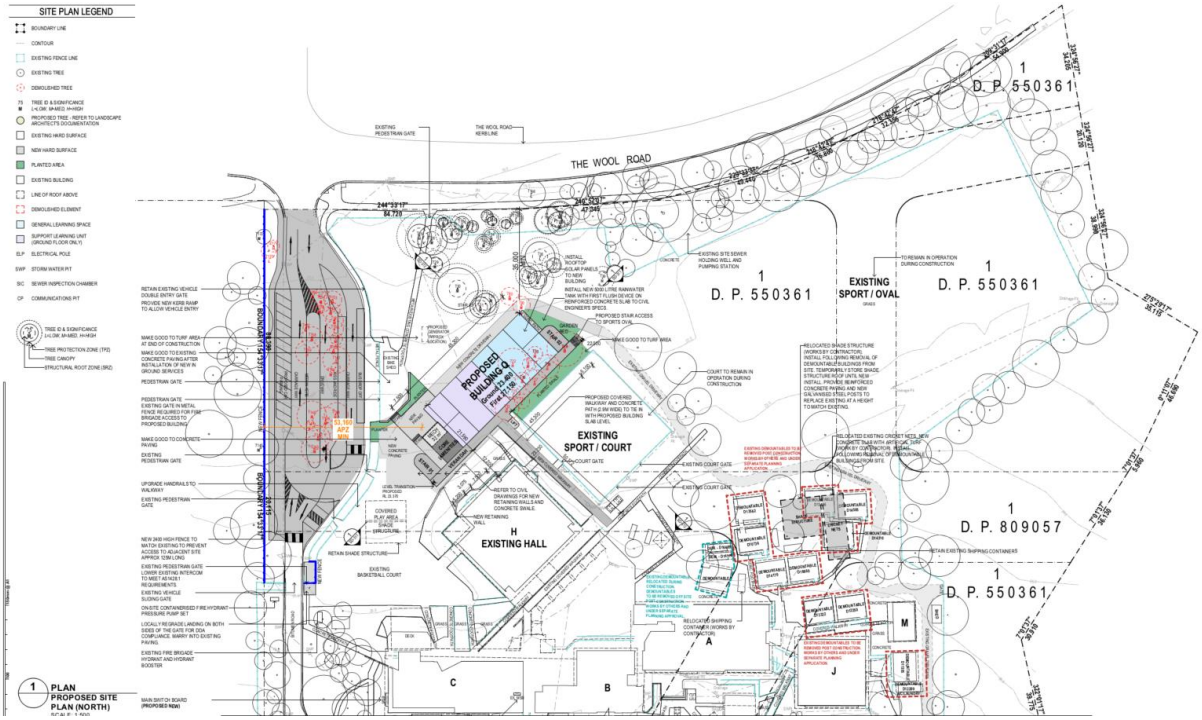



**Figure 2.2: Site Plan**

## 2.3 Catchment Analysis

A significant proportion of the student growth is within the surrounding walk and cycle catchment of the subject site, supporting local and state government goals of reduced car dependence. The percentage of existing students living within defined walk and cycle catchments to the campus are detailed in Table 2.1.

**Table 2.1: Student Population within Active and Public Transport Catchments**

| Catchment | Distance | Population | Proportion |
|---|---|---|---|
| 400m | 5min walk | 0 students | 0% |
| 800m | 10min walk | 0 students | 0% |
| 1200m | 15min walk / 5min bicycle | 8 students | 1% |
| 2400m | 10min bicycle | 89 students | 9% |
| 3600m | 15min bicycle | 134 students | 14% |
| Public bus stops | 400m | 760 students | 81% |
| Bus routes | 400m | 856 students | 91% |

Figure 2.3 demonstrates the student distribution and the walk/cycle catchments in relation to the VHS campus.

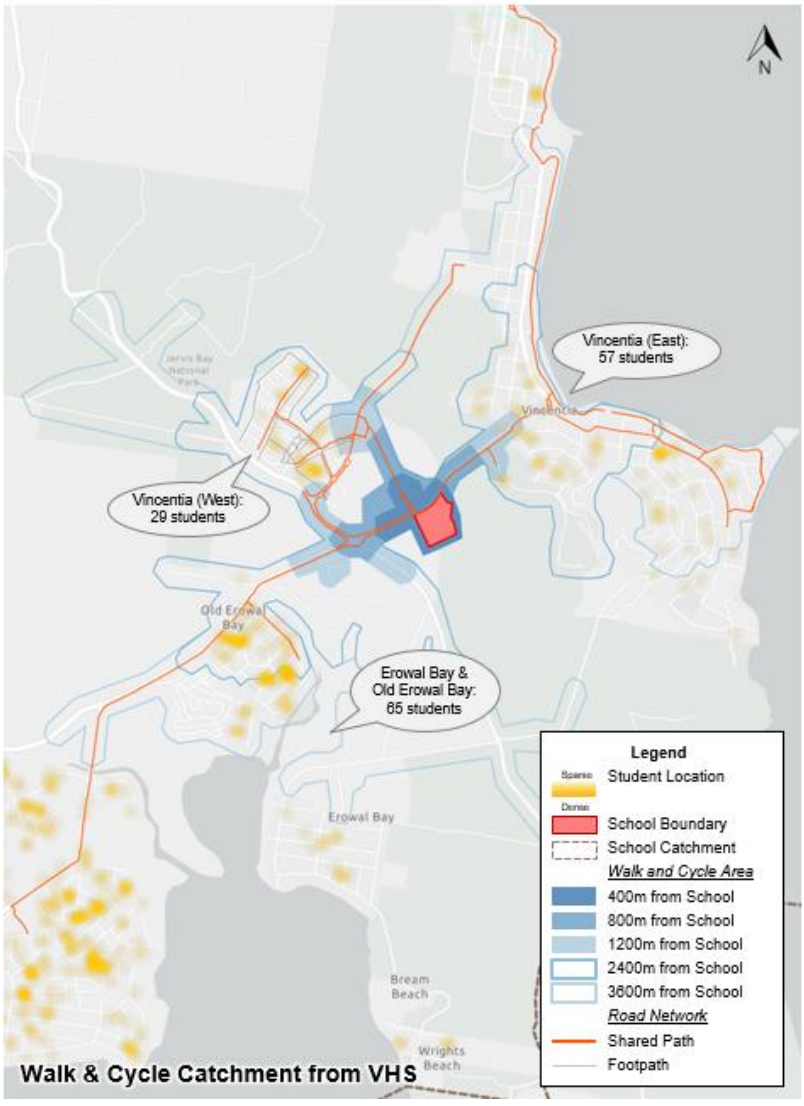



**Figure 2.3: Student Catchment Analysis**

## 2.4 Transport Mode Share

A student travel mode share survey was undertaken in October 2023 to determine the existing travel behaviours. During the time of surveys, year 12 students had already completed their education for the year.

The estimated mode share split of students is provided in Figure 2.4.

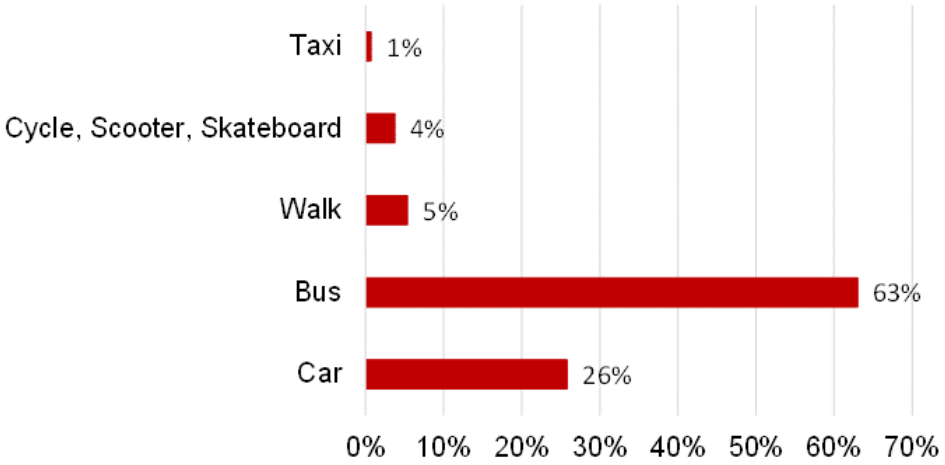



**Figure 2.4: Student Travel Mode Share**

# 3. TRANSPORT POLICIES, OBJECTIVES AND ACTIONS

## 3.1 Policy and Objectives

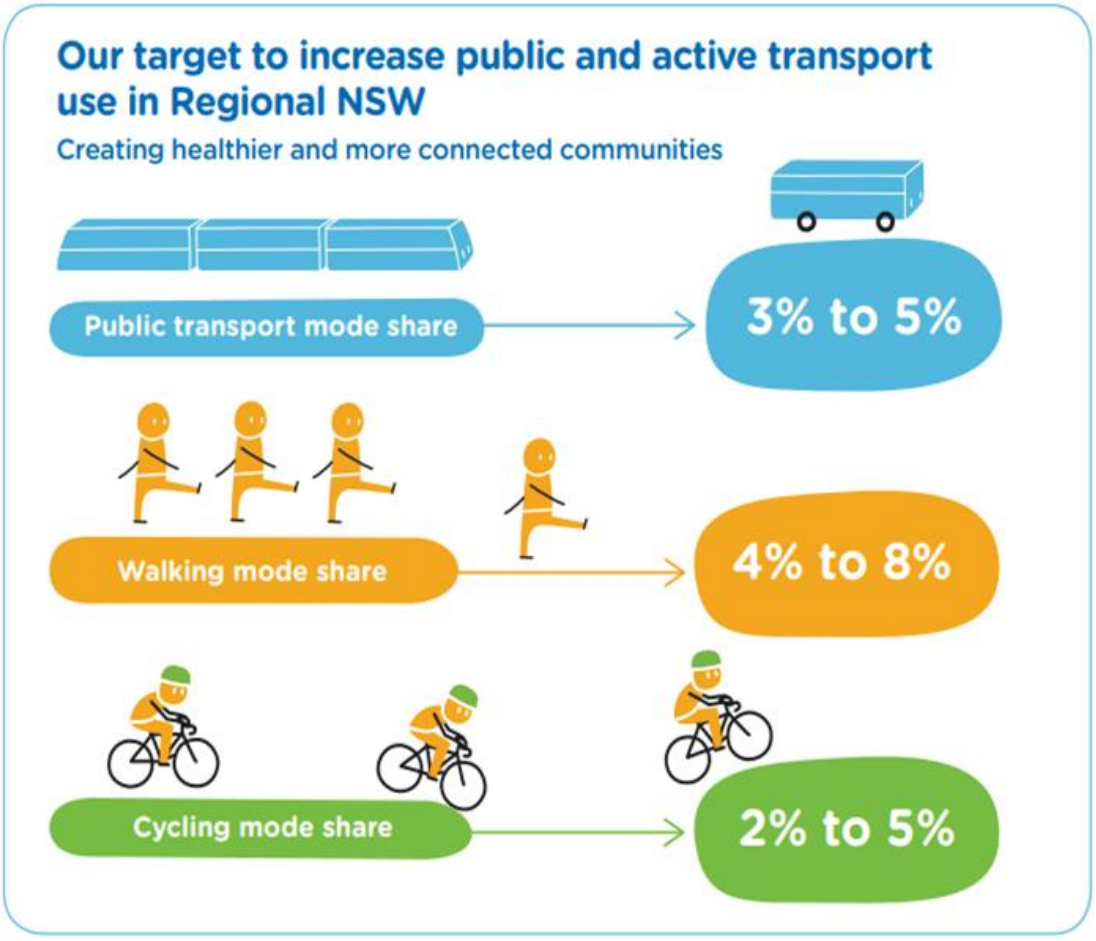
The overarching transport policy for VHS is to *"improve pedestrian and student safety."* This will seek to increase participation in alternate transportation modes, namely public and active transportation, and increase daily physical activity which has a strong correlation to improved education results.

The DoE STP *Practice Note* was used to adopt objectives specifically relevant for VHS and will influence the direction of the STP.

The four (4) key pillars and objectives for school travel are summarised in Table 3.1.

**Table 3.1: Transport Objectives**

| Safe | Efficient | Sustainable | Collaborative |
|---|---|---|---|
| To minimise pedestrian and vehicle conflict | To reduce local traffic congestion and parking impacts | To increase sustainable transport mode share to school | To identify opportunities to work with state and local government transport agencies |
| To identify and implement new transport and safety as required | To ensure required infrastructure and operations are delivered prior to occupancy. | To minimise short-stay car parking through KnD provision onsite | To share identified travel demand and transport opportunities early in the process |




*Source: Regional NSW Services and Infrastructure Plan*

**Figure 3.1: Regional NSW Mode Share Targets**

## 3.2 Targets

The mode share targets for VHS have been identified considering the transport targets included within the Regional NSW Services and Infrastructure Plan (2018), student travel mode surveys, and the catchment analysis. It is noted the staff mode share targets more relate to the regional targets outlined in Figure 3.1 (retrieved from the Regional NSW Services and Infrastructure Plan), while the student mode share targets are derived from the catchment analysis in Section 2.3.

These targets should continue to promote mode share changes to reduce car-dependence and to promote sustainable forms of transportation. Table 3.2 details the future mode share targets for VHS.

**Table 3.2: VHS Mode Share Targets**

| Travel Mode | Existing Mode Share (Baseline) | STP Mode Share Targets (Moderate & Reach) | | Change | |
|---|---|---|---|---|---|
| **Students** | | | | | |
| Bus | 63% | 66% | 70% | 3% | 7% |
| Walk | 5% | 5% | 5% | - | - |
| Bike, Scooter, Skateboard | 4% | 6% | 9% | 2% | 5% |
| Car (dropped off/ picked up) | 26% | 22% | 15% | -4% | -11% |
| Other (Taxi) | 2% | 2% | 2% | - | - |
| **Staff** | | | | | |
| Bus | 0% | - | 3% | - | 3% |
| Walk | 1% | 1% | 2% | - | 1% |
| Bike, Scooter, Skateboard | 1% | 2% | 5% | 1% | 3% |
| Car | 98% | 95% | 93% | -3% | -5% |
| Carpool | - | 5% | 10% | +5% | +10% |

## 3.3 Actions

### 3.3.1 Overview

Several actions proposed to achieve the transport objectives and mode share targets are provided below.

As this document is intended to be 'live' and updated regularly, it is recommended that new measures be introduced at any time.

### 3.3.2 Active and Public Transport

#### 3.3.2.1 Student and Staff Bicycle Parking

Bicycle/scooter/skateboard parking infrastructure provision for students is required to accommodate a modal shift away from car dependence and towards more sustainable forms of transportation. While existing facilities on-site appear adequate usage should be monitored to observe and provide infrastructure to support future uptake.

To further encourage a modal shift, it is recommended that an initial seven staff bicycle parking spaces be provided to promote active travel and facilitate a less car-dependent mode share. The staff bicycle parking is to be supplemented with end of trip facilities (e.g. showers, lockers, change areas, etc) for which 20 lockers and 3 showers are provided.

**Monitor and Review**

Monitor the usage of existing student and staff bicycle/ scooter parking facilities to proactively identify and react accordingly to when demand warrants further parking provisions in the future, facilitating a greater increase in cycling/scooting as a mode share.

Gain student and staff feedback on cycling/scooting and its facilities in an annual travel mode survey.


**Figure 3.2: Example of Scooter/Skateboard Parking Facilities**

### 3.3.3 Private Vehicles

#### 3.3.3.1 Staff Carpooling Initiative

Staff carpooling can reduce the number of private vehicle trips by reducing the number of drivers and increasing the number of passengers. This could be undertaken informally (i.e. co-workers) or formally by online registers.

The School Travel Coordinator will monitor and assess the opportunity to introduce staff carpooling which will be implemented if feasible and provided there is sufficient interest. A school-based carpooling register could assist in arranging staff carpooling initiatives. It is also recommended that dedicated car parking spaces for carpooling vehicles only are provided in a convenient location to further encourage staff to carpool.

As part of the carpooling initiative the following is recommended to be incorporated:

- Line-marked / signed dedicated parking spaces within the car park for carpool vehicles
- Incentives to staff parking areas for staff involved in the carpool initiative
- Provide a "Guaranteed Ride Home" arrangement with Taxi or rideshare operators to provide the ability for carpool users to return home in an emergency.

**Aim:**

- Encourage staff to carpool and reduce the total number of private vehicle trips
- Reduce private vehicle trips by increasing vehicle mode share
- Reduce car parking demands and allows for cost sharing amongst staff.

**Measure:**

- Monitor staff level of awareness of carpooling initiative through the travel survey
- Monitor the staff carpooling usage to commute daily to VHS.
- Review as part of routine utilisation survey.

**Timing:**

- Trial during the first 12 months of VHS reopening
- Review utilisation, uptake and feedback on carpool initiatives as part of travel surveys.

## 3.4 Communication Initiatives

Communication initiatives should outline VHS Green Travel actions. This includes marketing of active transport initiatives, such as:

- The provision of bicycle repair stations and bicycle parking spaces
- Carpooling initiatives
- Public transport initiatives
- A potential trial for staff concession public transport cards.

#### 3.4.1.1 Transport Access Guide

Provide all staff and students (including parents and guardians) with a Transport Access Guide information map. The map should display information on public transport routes, bus stops and active transportation infrastructure (footpaths and cycle lanes), as well as referral for further information from related websites and smartphone applications.

The information provided in the Transport Access Guide is to be clearly available to staff, parents and students and visitors via a variety of means, including:

- Workforce handbook and induction
- Travel access guide online.

**Aim:**

- Provide easily accessible information on public and active transport modes to all staff, parents and students
- Encourage use of alternate modes of transport such as active transport and public transport
- Reduce reliance on private vehicle usage.

**Measure:**

- Confirm the distribution of the Transport Access Guide at staff induction
- Provide Transport Access Guide Information Maps in common areas of the VHS for visitors and students
- Provide Transport Access Guide Information Maps on the VHS website.

**Timing:**

- Commence prior to reopening in preparation and monitor annually.

#### 3.4.1.2 Travel Plan Actions

The alternate transport initiatives provided by STP shall be clearly available particularly for staff. This should include the location of on-site bicycle parking, bicycle repair stations and end-of-trip facilities, as well as carpooling initiatives and healthy habits initiatives. The active transport, public transport and private vehicle existing mode share and mode share goals should also be available.

Transport Access Guide information is to be clearly available to staff, parents and students via a variety of means, including:

- Workforce handbook and induction
- Monthly / semestral e-mails for all staff.

**Measure:**

- To provide easily accessible information on alternate transport initiatives for VHS staff
- Encourage use of alternate modes of transport such as active transport and public transport
- Reduce reliance on private vehicle usage.

**Measure:**

- Confirm the provision of ‘School Travel Plan Actions’ at staff induction
- Confirm the delivery of semestral internal email with a link for the Travel Plan Actions at the VHS
- Survey the usage of the provided actions, such as bicycle parking, carpooling and public transport

**Timing:**

- Commence upon reopening and monitor annually.

### 3.4.1.3 Healthy Habits Initiatives

There are a number of 'healthy habits' initiatives that can promote the use of alternate transport modes. These initiatives have the potential to change staff and student travel behaviour in the medium / long term. A few examples of well-known healthy habit initiatives are:

- Car-Free Days (celebrated yearly on 22nd September encourages motorists to give up their cars for a day)
- StepTember, 10,000 Steps program or Pedometer Challenge (encourages participants to achieve 10,000 steps daily)
- Display motivational and informative posters / brochure about benefits of physical activity and tips on using active transport / public transport to commute daily.

**Aim:**

- Promote active transport as a practical mode of transport
- Increase the use of active transport and public transport for staff to commute to work
- Reduce the reliance in private vehicle usage.

**Measure:**

- Monitor awareness of healthy habits initiatives through the travel survey tool
- Monitor active transport usage rates using travel survey tool.

**Timing:**

- Commence upon reopening and monitor annually.


# 4. TRAVEL ACCESS GUIDE

A Travel Access Guide (TAG) should be provided to students upon enrolment and before the start of the school year to inform the available transport modes. The TAG summarises the access locations to the school, its location in relation to other local destinations and its transport facilities. This document also provides links to other external information as required (i.e. bus route and timetable information).

# 5. MONITOR AND MANAGE TRAVEL DEMAND

## 5.1 Monitor School Travel Plan

An annual student and staff travel mode share survey undertaken by the School Travel Coordinator should be implemented to collect current data and assist in decision making. This data can be compared against the mode share targets identified in Section 3.2. The STP can be updated to align with the results of the mode share survey and potentially include additional actions. The annual student and staff travel mode share survey aims to gain feedback and provide realistic actions targeted specifically for VHS staff and students.

Communication between state and local government agencies will be required to collaborate policies where possible. Shoalhaven City Council (Council's) policies, including the Pedestrian Access and Mobility Plan (PAMP), could include the STP's actions to better integrate VHS's transport facilities within the nearby community.

The School Travel Coordinator will be required to submit progress reports to the Department of Education.

The following template can be used to accurately monitor and review actions annually.

| **Action Name (i.e. Staff Carpooling)** | |
|---|---|
| Target Date | |
| Current Status | |
| Updates Requested | |
| Revised Target | |
| Date for Review | |

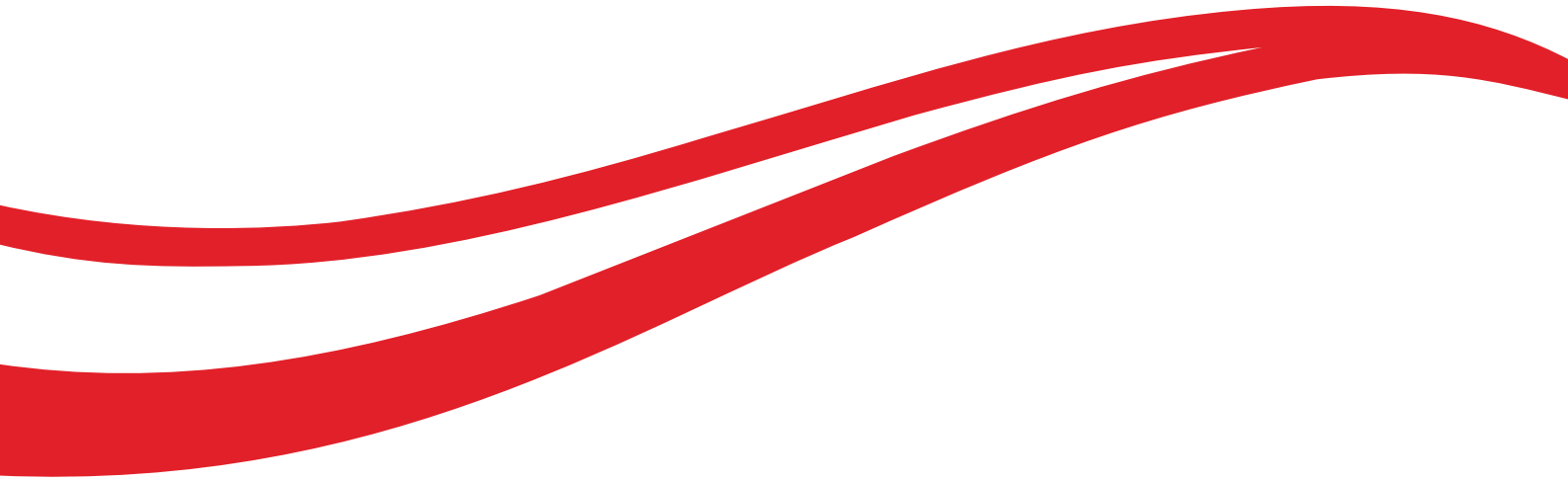
# 6. FUNDING ARRANGEMENTS

## 6.1 Potential Funding Opportunities

The available funding for active and public transport projects is reliant on Council's budget allocations and successful grant applications through State and Federal Government programs. Potential funding options include:

- DoE/School Infrastructure NSW Infrastructure Programs
- Collaborations with other State Government departments (e.g. TfNSW active transport grants and road safety improvements)
- Contribution from other developments in the area
- Council Rates
- Planning Agreements
- Reallocation of existing funds within Council's budget
- Cycleway grants
- Commonwealth Government grants.

DoE seeks to work proactively and collaboratively with both VHS and Council in promoting sustainable school travel outcomes. This includes the continued and ongoing implementation of improved transport infrastructure and operational programs to meet the specific needs of the school.


BITZIOS
consulting
traffic engineering transport planning

**Gold Coast**
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377

**Brisbane**
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442

**Sydney**
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

BITZIOS consulting
traffic engineering transport planning

**W:** www.bitziosconsulting.com.au
**E:** admin@bitziosconsulting.com.au

**Gold Coast**
Suite 26, 58 Riverwalk Avenue
Robina QLD 4226
P: (07) 5562 5377

**Brisbane**
Level 2, 428 Upper Edward Street
Spring Hill QLD 4000
P: (07) 3831 4442

**Sydney**
Studio 203, 3 Gladstone Street
Newtown NSW 2042
P: (02) 9557 6202

BITZIOS consulting
traffic engineering transport planning

**W:** www.bitziosconsulting.com.au
**E:** admin@bitziosconsulting.com.au