



Operational Transport and Access Management Plan & Green Travel Plan

Penshurst Public School



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1 Introduction

1.1 Purpose

TTM Consulting has been engaged to prepare this Transport and Access Management Plan (TAMP) on behalf of Penshurst Public School (the School).

As part of the development process, certain conditions have been imposed on the School to address operational aspects of the site, such as pick up and drop off parking, bus/coach management, in addition to sustainable travel initiatives. The purpose of this OTAMP is to ensure the School complies with the conditions of development by detailing how the School manages traffic risks associated with pedestrian, cycle, bus and car travel. This document addresses the condition requirements as set out in Table 1.1.

Table 1-1: Conditions of Development Consent (SSD 8365)

Item	Notes	Section Reference
D8 – Operational Transport and Access Management Plan		
An OTAMP must be prepared for the school by a suitably qualified person, in consultation with Council, Transport for NSW and RMS, to the satisfaction of the Secretary, and must address the following:	This report has been prepared by Ilona Blackburn. A copy of her CV is provided.	Appendix A
(a) Detailed pedestrian analysis including the identification of safe route options – to identify the need for management measures such as staggered school start and finish times to ensure students and staff are able to access and leave the Site in a safe and efficient manner during school start and finish;	Pedestrian routes to/from the School have been reviewed based on assessment of the School catchment – including identification of priority routes and connections to other travel modes.	3.2.1 & 5 & 7.3
(b) The location of all car parking spaces on the school site and their allocation (ie. staff, visitor, accessible, emergency etc);	Car parking for 20 vehicles is located off street, accessed from Arcadia Street. Car parks are not currently allocated, however consideration is highlighted within the management strategies.	1.4, 6.3 & 8
(c) The location and operational management procedures of the pick-up and drop-off parking, including staff management/traffic controller arrangements;	Operation of P5 parking on Arcadia Street is to assist students and expedite turnover of drop off/pick up activities Kiss and Ride (pick up/drop off) zones to be marshalled by staff in both morning and afternoon periods.	3.2.4 & 7
(d) The location and operational management procedures for the pick-up and drop-off of students by buses and coaches for excursions and sporting activities during the hours of bus lane operations, including staff management/traffic controller arrangements;	Bus access (excludes public transport) is to be facilitated at the Arcadia Street frontage in unrestricted parking areas only. This will be marshalled to manage safety of student access/movement. Potential future provision of bus zone (with time restrictions) to be discussed with the Local Authority should the need arise to limit impact to surrounding network and/or for safety of students and the general public.	10

Item	Notes	Section Reference
(e) Delivery and services vehicle and bus access and management arrangements;	Service vehicles are to use the car park access and shall be scheduled to occur outside of morning and afternoon peak periods. Bus access (excludes public transport) is to be facilitated at the Arcadia Street frontage in unrestricted parking areas only. Potential future provision of bus zone (with time restrictions) to be discussed with the Local Authority should the need arise.	9 & 10
(f) Management of approved access arrangements;	Access for pedestrians and cyclists is via dedicated gates on the Arcadia Street frontage, directly accessible from the footpath. Vehicular access is via a driveway crossover to the northern end of the site, also accessed directly from Arcadia Street.	5 & 8
(g) Potential traffic impacts on surrounding road networks and mitigation measures to minimise impacts, including measures to mitigate queuing impacts associated with vehicles accessing pick-up and drop-off parking;	Traffic impacts have been reviewed and modelled and agreed by the authorities as part of the development application process. Introduction of P5 parking on Arcadia Street has been introduced and is expected to minimise incidents of vehicles waiting on Arcadia Street to drop off/pick up students. The monitoring and review process is proposed and includes requirements to observe operation of the street activities to identify any modifications.	7 & 11
(h) Car parking arrangements and management associated with the proposed use of school facilities by community members; and	Off street car parking is for the sole use of staff and/or bona fide visitors on School business. The car park is not available for use by parents/carers for drop off/pick up activities. The car park may be accessible by community members outside of school hours – this is at the discretion of the school.	8
(i) A monitoring and review program.	A strategy for monitoring and review is provided.	11
The OTAMP(s) must be submitted to the Secretary for approval prior to operation of the development.		
The OTAMP(s) (as revised from time to time) must be implemented by the Applicant for the life of the development.	The strategy for monitoring and review is provided and includes annual review as a requirement.	11
D9 – Green Travel Plan		
Prior to the commencement of operation, a Green Travel Plan (GTP), must be prepared and be submitted to the Secretary to promote the use of active and sustainable transport modes. The plan must:	This report has been prepared by Ilona Blackburn. A copy of her CV is provided.	Appendix A
(a) Be prepared by a suitably qualified traffic consultant in consultation with Council and Transport for NSW;	This plan has been prepared by TTM Consulting Pty Ltd with inputs drawn from ptc prepared reports Traffic Impact Assessment and Green Travel Plan – dated October 2018.	-

Item	Notes	Section Reference
(b) Include objectives and modes share targets (ie. Site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the GTP;	Baseline and future targets have been identified. Feedback from the authorities will be incorporated into the final document prior to finalisation/adoption. Targets shall be reviewed and updated on an annual basis as part of the monitoring and review strategy.	4
(c) Include specific tools and actions to help achieve the objectives and mode share targets;	This document includes management strategies for all travel modes for implementation by the School.	5-8
(d) Include measures to promote and support the implementation of the plan, including financial and human resource requirements, roles and responsibilities for relevant employees involved in the implementation of the GTP; AND	Roles and responsibilities are identified. The Principal's role may include allocating tasks or other roles to staff/committee members.	1.3
(e) Include details regarding the methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets of the GTP, including the frequency of monitoring and the requirements for travel surveys to identify travel behaviours of students and staff to and from the school at appropriate times throughout the academic year.	A monitoring and review strategy has been identified and outlines the procedures for maintaining the plan. Management strategies for all travel modes are incorporated into the plan and shall be updated amended as required.	11
D10-12 Parking Restrictions		
Prior to the commencement of operations, the Applicant must submit to Council, for approval from Council's Traffic Committee, documentation for the installation of the recommended 13 '5P Parking' [sic] spaces and associated signage on the eastern and western sides of Penshurst Public School's Arcadia Street frontage in accordance with the report titled Traffic Impact Assessment; Penshurst Public School, prepared by ptc. and dated 10 October 2018. The restrictions are to apply on a part time basis on School Days only between 8:00am to 9:30am and 2:30pm to 4:00pm. Any fees associated with reporting to the Traffic Committee must be paid by the Applicant prior to processing the application. The installation of the signs must be at no cost to Council. Evidence of approval and installation of relevant signage must be submitted to the Planning Secretary prior to the commencement of operations.	Plans providing details of the existing and proposed signage along both frontages of Arcadia Street have been prepared and are attached to this report.	Appendix C
The 13 5P [sic] parking spaces must be monitored during the AM and PM peak drop-off/pick-up periods twice weekly for the first school term of operation and one day per week during the AM and PM peak drop-off/pick-up period for the second school term of operation unless otherwise agreed by the Planning Secretary. A monthly report over a six month period must be prepared by a suitable qualified person including a discussion of the results of the monitoring including: (a) Time period monitored (date, time); (b) Number of vehicles using the drop off/pick up; (c) Length of time each vehicle loads/unloads students;	Surveys have been scheduled to take place as required.	tbc

Item	Notes	Section Reference
(d) An assessment of how the drop off/pick up zone is operating, and whether there is any observed road safety and efficiency impacts on Arcadia Street; and (e) Any other relevant information as required.		
If after six months of operation, the results of the monitoring indicate road safety and efficiency issues of the drop off/pick up zone, alternative arrangements must be made in consultation with Council to address these issues. Alternative arrangements are to be incorporated into an updated OTAMP and submitted to the Planning Secretary for approval.	Surveys carried out in September 2021. Students have demonstrated positive change, whereas staff have transgressed to higher car usage. Targets have been updated to address the changes to travel.	4

1.2 Scope

This TAMP applies to all staff, students and visitors to the School. The requirements of this TAMP shall be complied with at all times.

This TAMP is a live document and may require revision from time to time to take account of any changes to operations on the site. The TAMP shall be implemented by the School for the life of the development.

1.3 Roles and Responsibilities

The person responsible for the implementation, management and review of this TAMP shall be the school Principal. It will be the Principal's responsibility to convey the procedures of this plan to stakeholders – the means of which may (but not restricted to) be via liaison with Parents and Citizen Association, transport champions (students/staff), school newsletters and committees. The method of information distribution is at the discretion of the Principal.

1.4 Exclusions

School Jurisdiction

This TAMP applies to roads and other infrastructure located within the School boundary. It excludes land and infrastructure outside of the site under the jurisdiction of Local Government or other bodies and agencies.

Construction Work

This TAMP does not apply to construction traffic management. Construction work to be conducted will require work specific traffic management planning.

Special Events

This TAMP does not apply to traffic management of special events. Special events to be held on the site will be subject to an event specific traffic management plan.

Emergency Vehicles

This TAMP does not include specific provision for emergency vehicles as they are lawfully given access and priority at all times when sounding and alarm or showing flashing red or blue lights. In non emergency situations emergency vehicles are required to use formal parking facilities as appropriate.

2 The School

2.1 School Operations

The School is a public school providing education for 1,000 students. The School employs 59 full time equivalent (FTE) staff.

School hours of operation are 9.00am to 3.00pm.

2.2 Enrolment

At the time of writing (October 2020) the School has 413 students enrolled – however the School has been designed to cater for a maximum enrolment of 1,000 students.

The School has an enrolment area as presented in Figure 2.1 (source: my.education.nsw.gov.au).



Figure 2.1: School enrolment catchment map

2.3 Student Transport Subsidies

Transport for NSW (TfNSW) provides subsidies to assist school students. The School supports the School Student Transport Scheme (SSTS – Opal Card) which provides eligible students with free or subsidised travel on public transport between home and school.

- Years K-2 (infants) – no minimum distance
- Years 3-6 (Primary) – more than 1.6km straight line distance or at least 2.3km walking

The 1.6km straight line distance radius in relation to the enrolment catchment is presented in Figure 2.2.

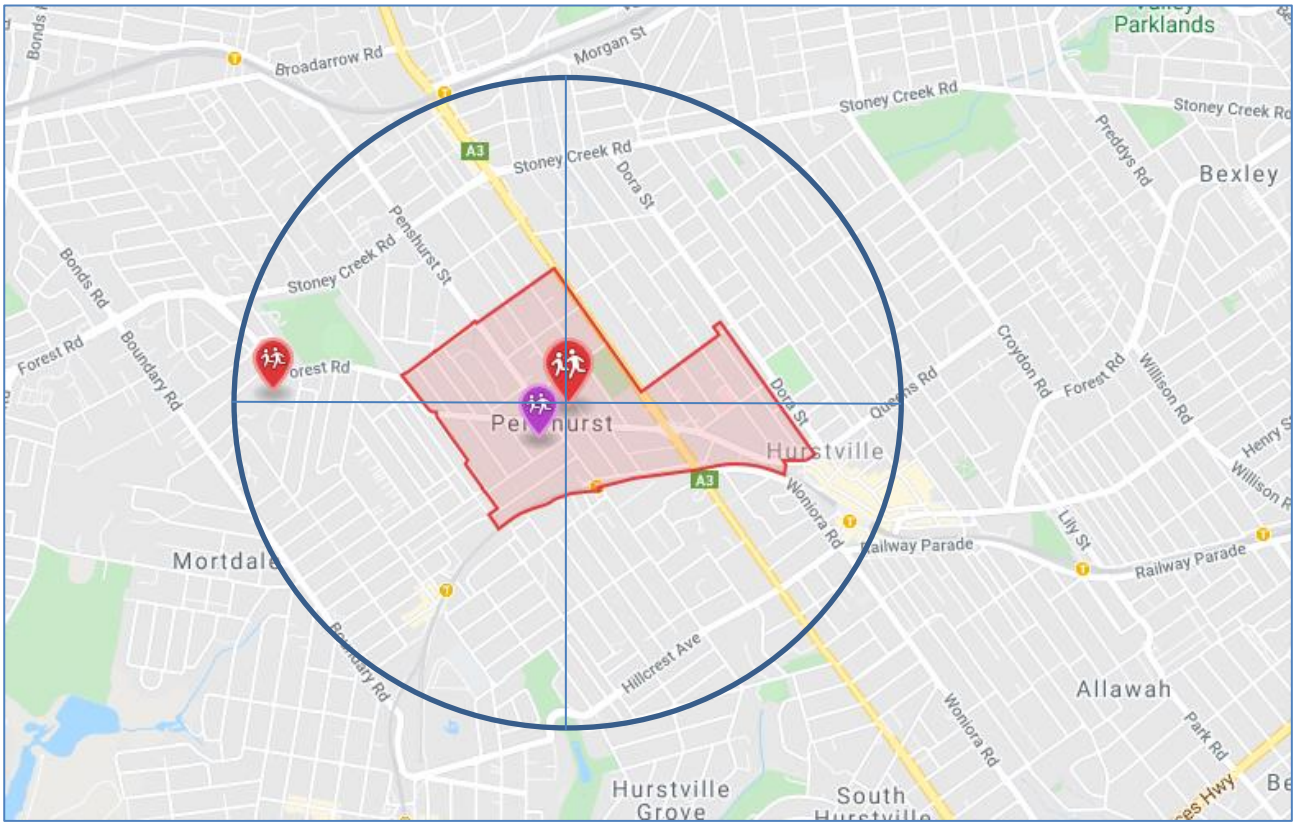


Figure 2.2: School Student Transport Scheme Eligibility Map

3 Transport Network

3.1 Site Location

This chapter reviews the transport infrastructure, accessibility and connectivity of the site and the immediate vicinity of the site.

The site masterplan in the context of the local roads is presented in Figure 3.1 (source: Pedavoli Architects).

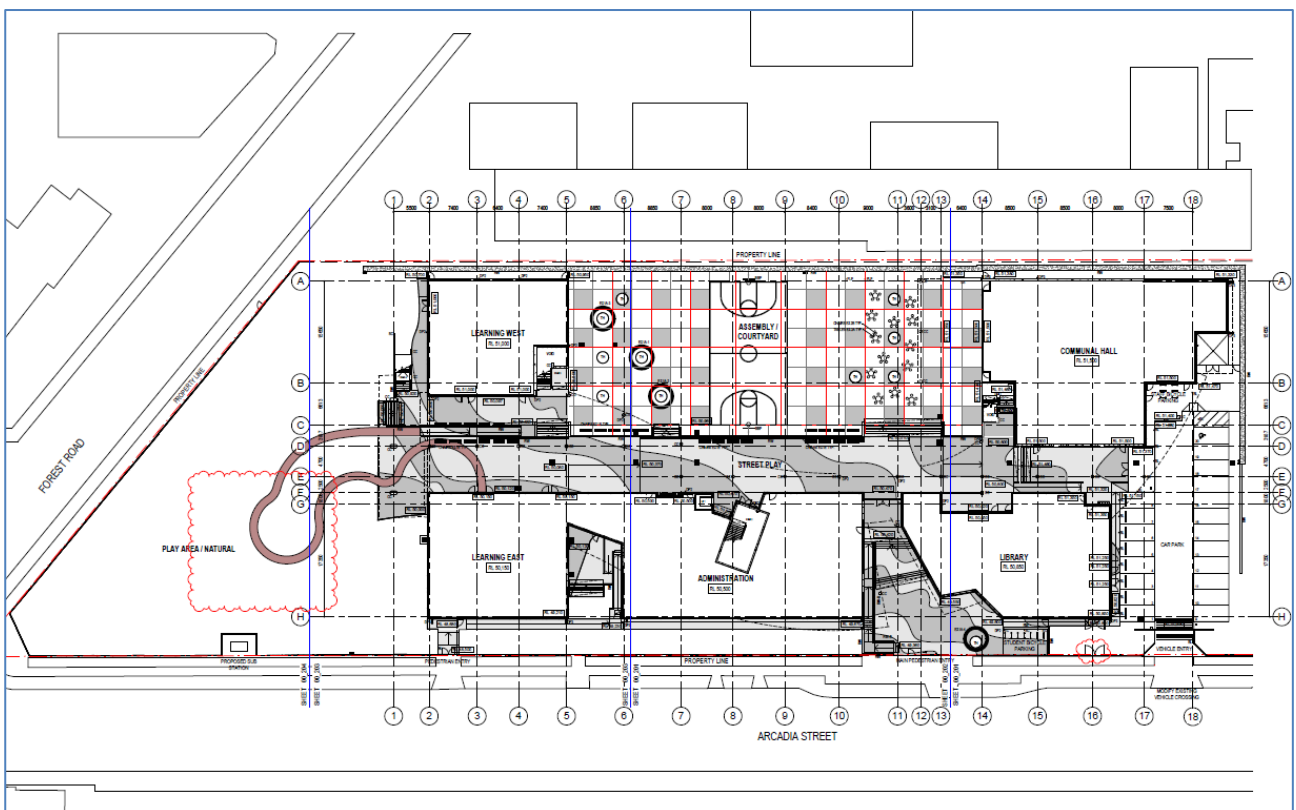


Figure 3.1: Site Masterplan

3.2 Site Access

Reference to the site access options is taken from the Traffic Impact Assessment¹ that was included within the development application package.

3.2.1 Pedestrians

The School is located in a low density residential area with excellent pedestrian connectivity via paved footpaths along both sides of all roads bounding the School.

¹ *Traffic Impact Assessment, prepared by ptc, dated 10 October 2018*

Formal crossings are provided on Percival Street and Penshurst Street, to the north west of the site. There is also a formal crossing on Arcadia Street to the east of the site.

There are signalised crossings at the intersection of Forest Road with Penshurst Street, Austral Street with Penshurst Street and Bridge Street with Penshurst Street.

The locations of footpaths and the crossings identified above are presented in Figure 3.2 (source: TIA²).

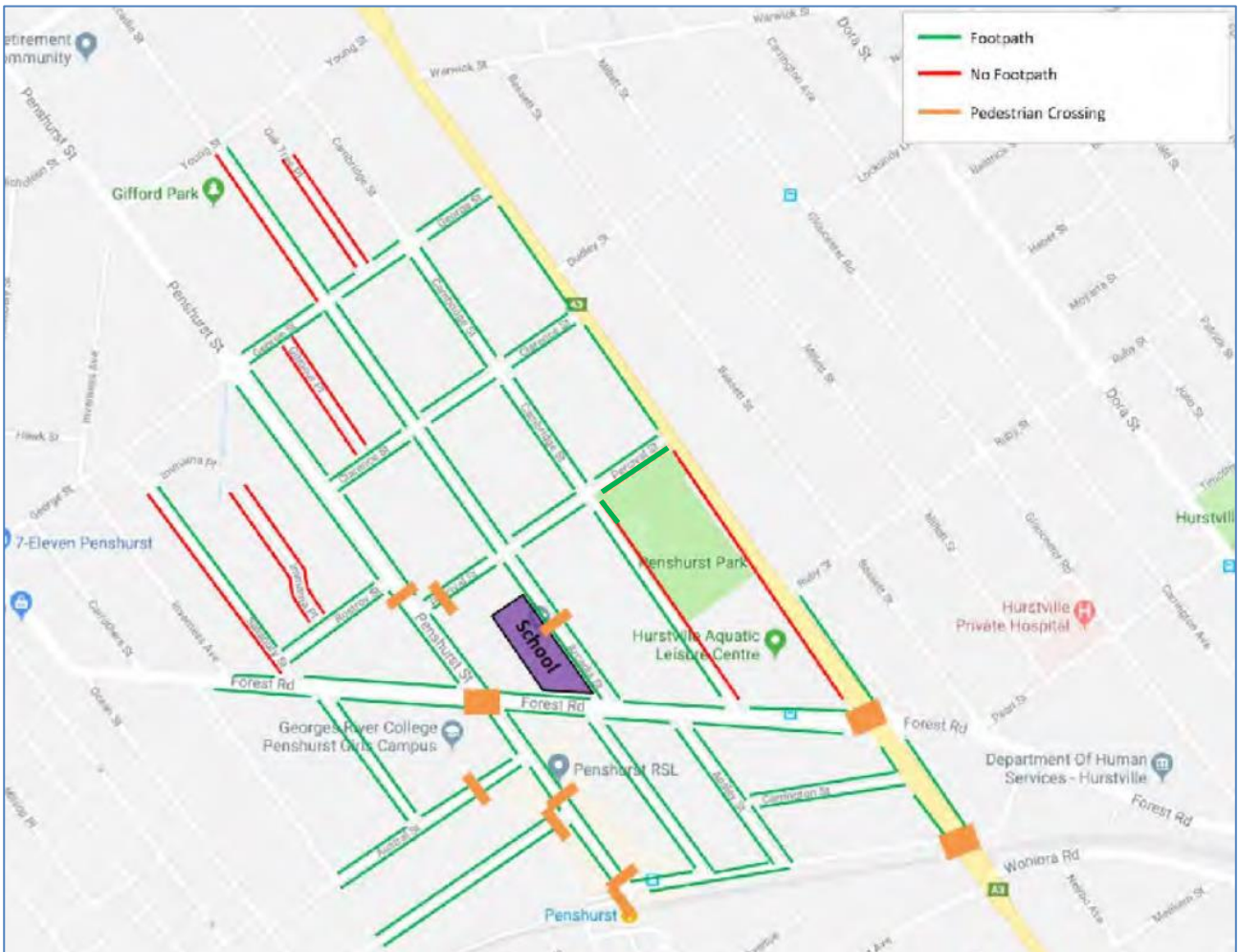


Figure 3.2: Pedestrian crossings and footpaths

Pedestrian access to the School is from two points along the Arcadia Street frontage. Entry points connect to the paved footpath on Arcadia Street which extends the full length to connect with adjacent streets. The locations of these access points are presented in Figure 3.3.

² Traffic Impact Assessment, prepared by ptc, dated 10 October 2018

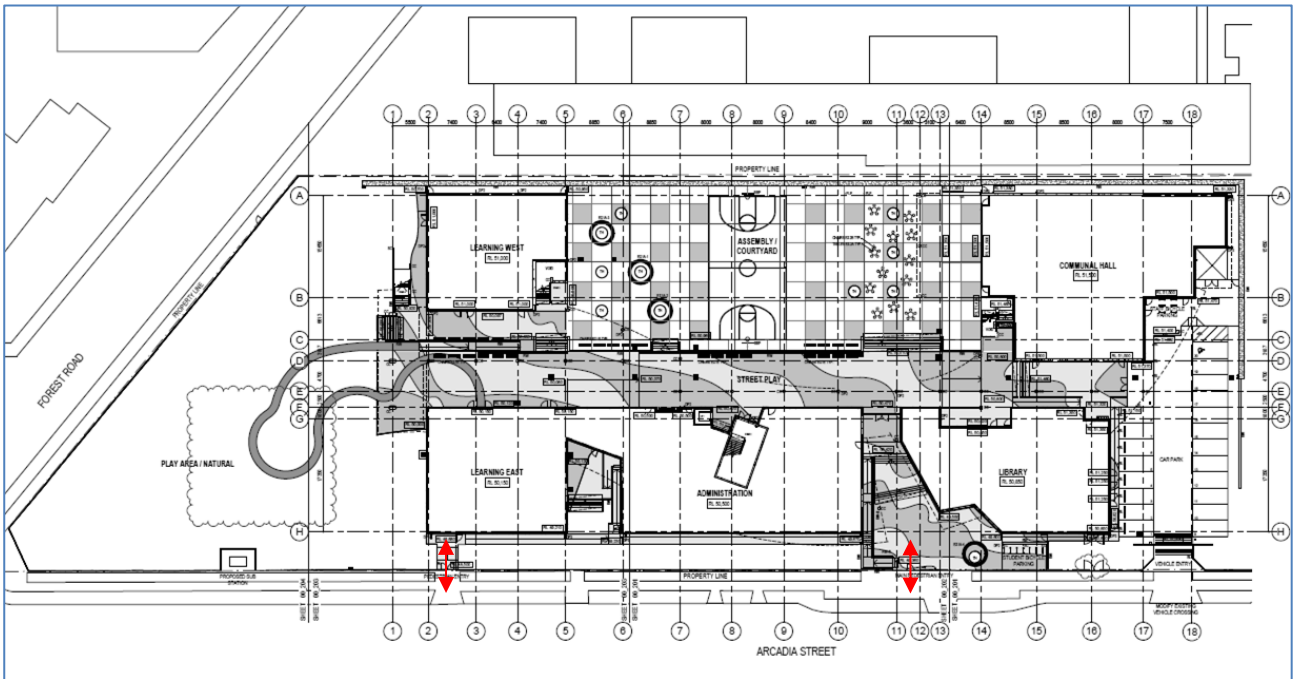


Figure 3.3: Pedestrian access points

3.2.2 Cycling

The School is accessible by cycle from all directions. There is an on road cycle route along Penshurst Road, providing access to/from the north.

In addition to this formal provision, students (and adults accompanying students) are permitted to ride on footpaths. A map of the local cycle network infrastructure is presented in Figure 3.4 (source: www.rms.nsw.gov.au/maps/cycleway_finder).

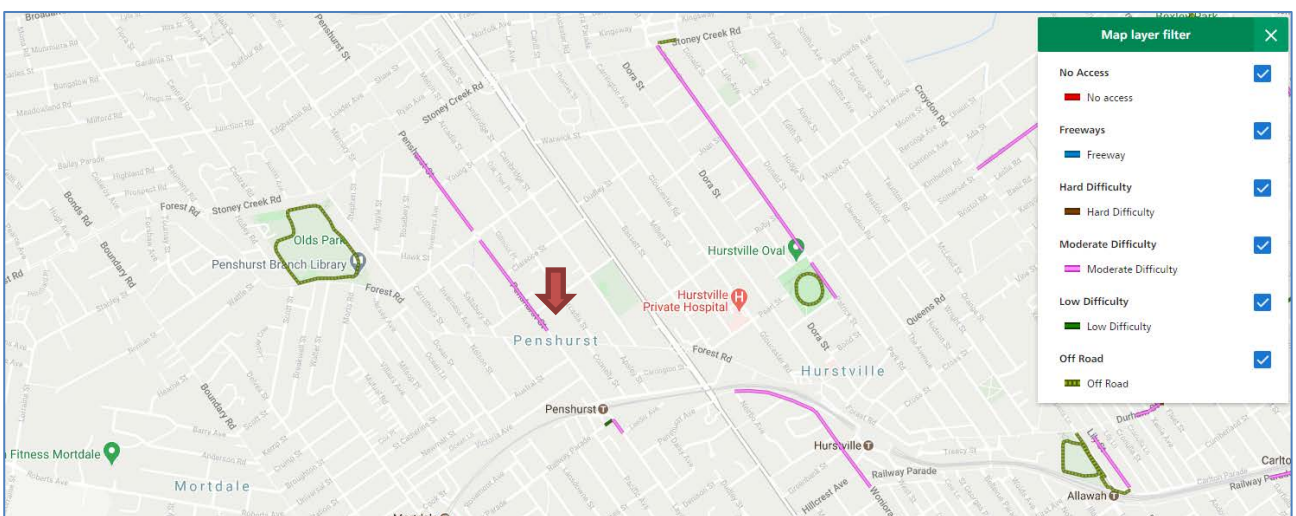


Figure 3.4: Local cycle infrastructure

The School provides a bicycle store room with 10 spaces for staff located adjacent the Communal Hall. A further 12 bicycle spaces for students located at the Arcadia Street frontage – the locations of these are presented in Figure 3.5.

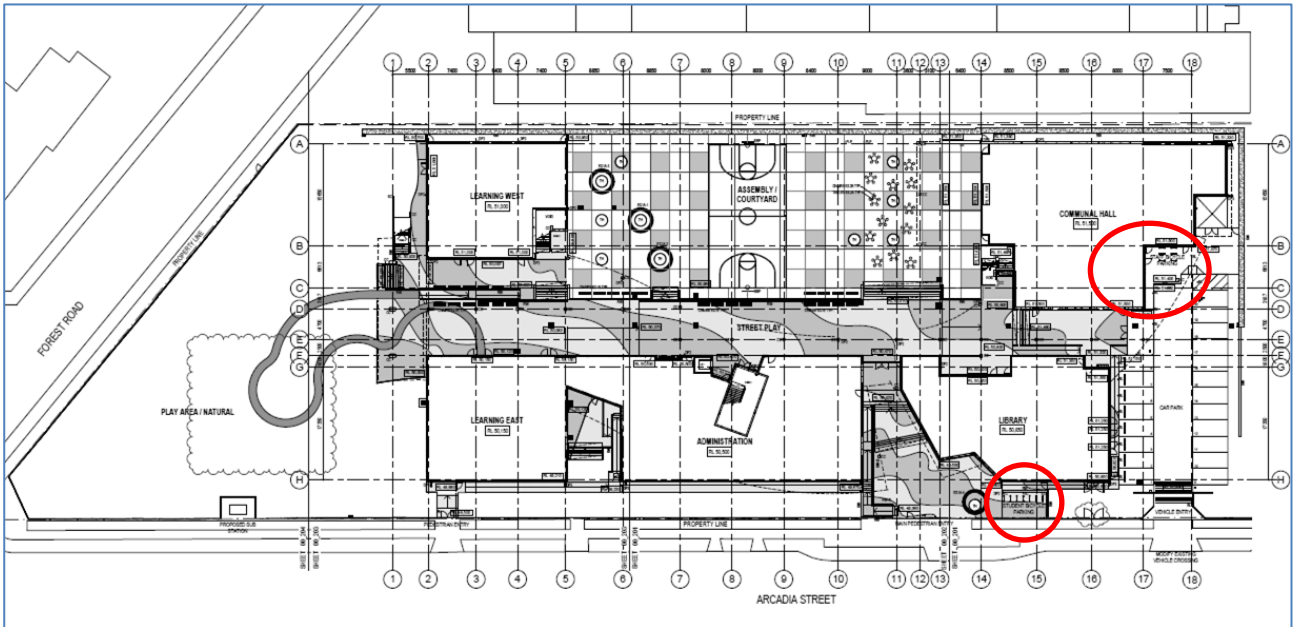


Figure 3.5: Cycle parking locations

There are no dedicated cycle access locations, rather access is shared with pedestrian access points to the School.

3.2.3 Public Transport

Bus

The site is well serviced by buses, with there being 10 bus stops in close proximity to the site – the stops are presented in Figure 3.6 (source: TIA).

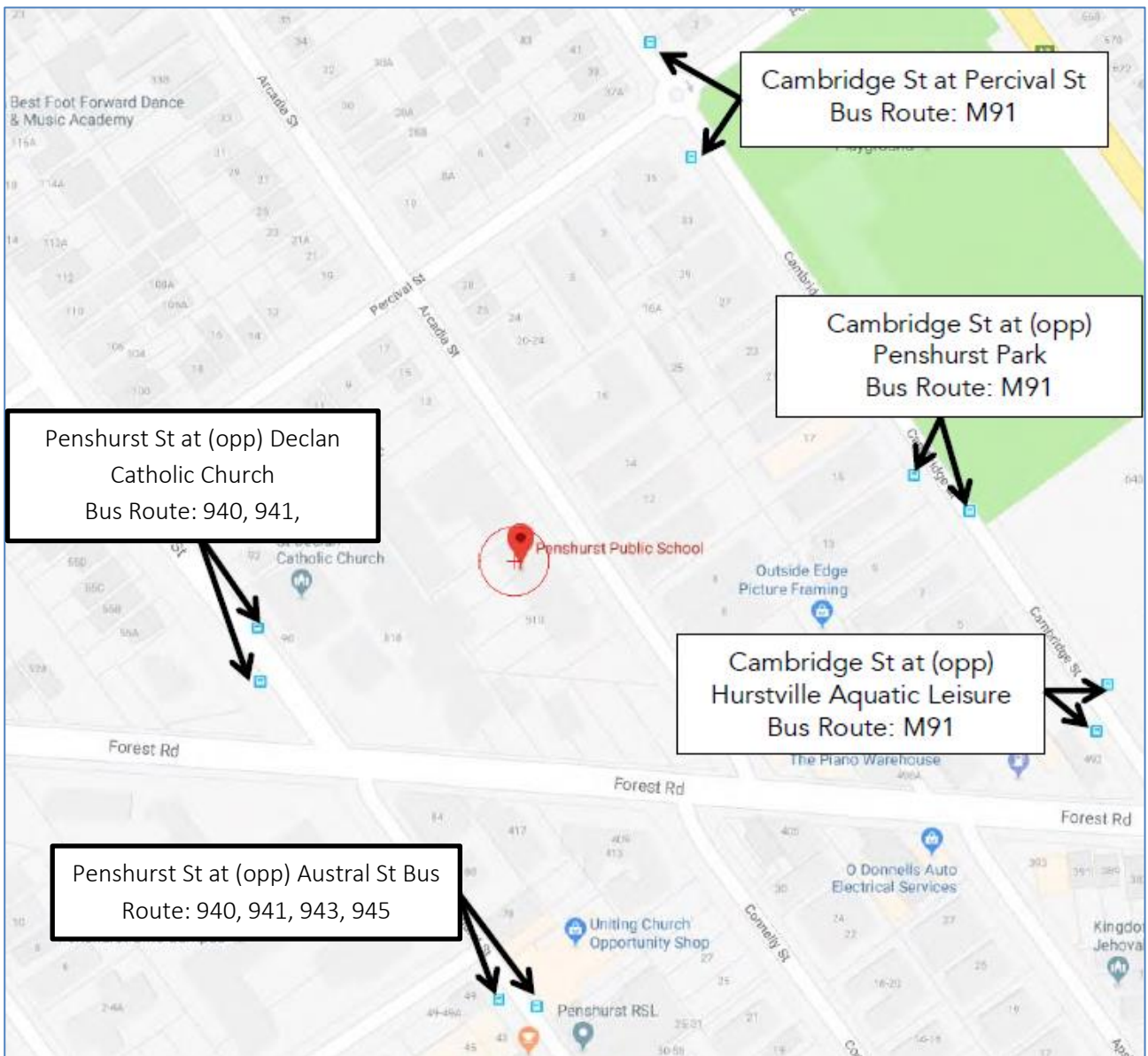


Figure 3.6: Local bus stops

The stops service five routes with regular services as follows:

- 940 – Hurstville to Bankstown via Riverwood
- 941 – Hurstville to Bankstown via Greenacre
- 943 – Lugarno to Hurstville
- 945 – Hurstville to Bankstown via Mortdale
- M91 – Hurstville to Paramatta via Padstow & Chester

The route maps (in proximity to the School) are provided in Figure 3.7 (source: www.transportnsw.info)

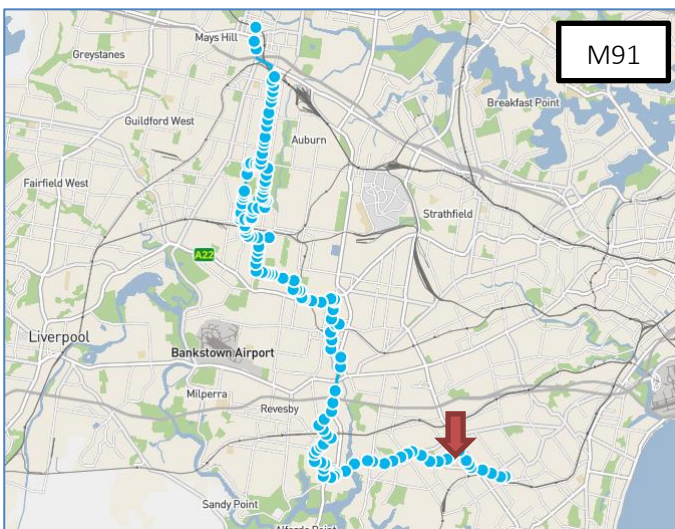
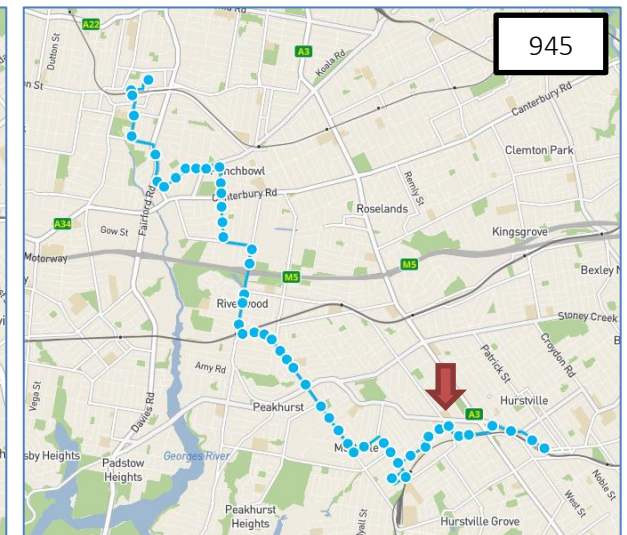
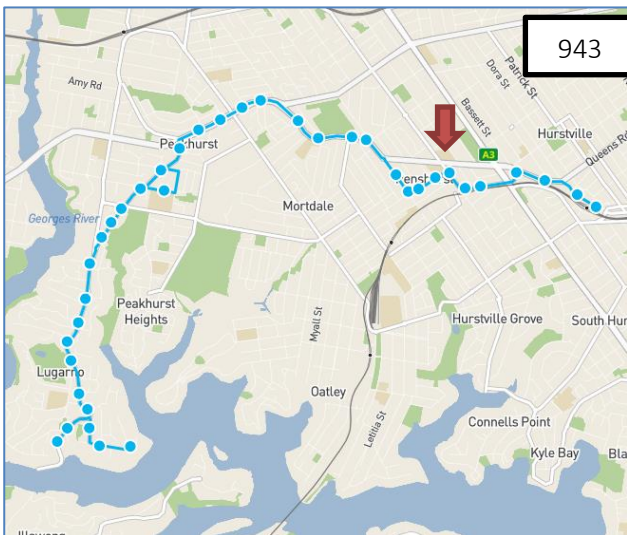
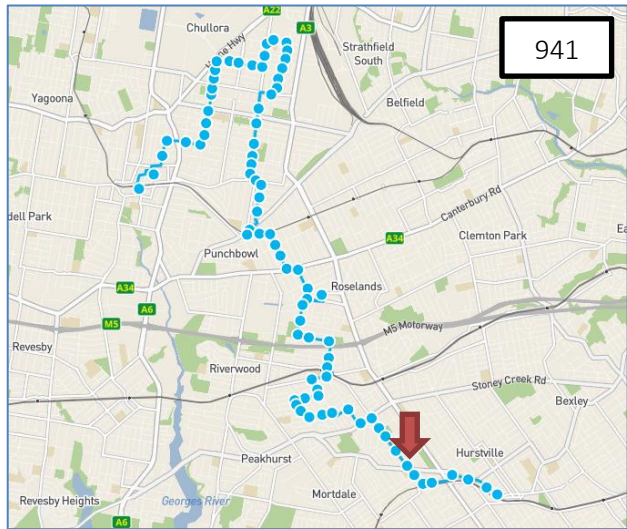
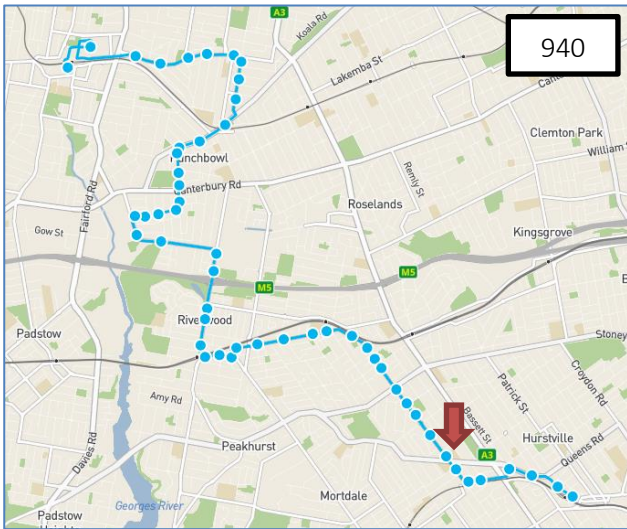


Figure 3.7: Bus routes

The services operate throughout the day between 5:50am and 10:00pm and provide an attractive travel option for staff in particular who reside outside the student enrolment catchment area – but also offer a viable alternative for students.

Train

Penshurst Rail Station is located 650m walking distance from the School entry on Arcadia Street – the walking route to/from the School is presented in Figure 3.8 (source: www.google/maps).

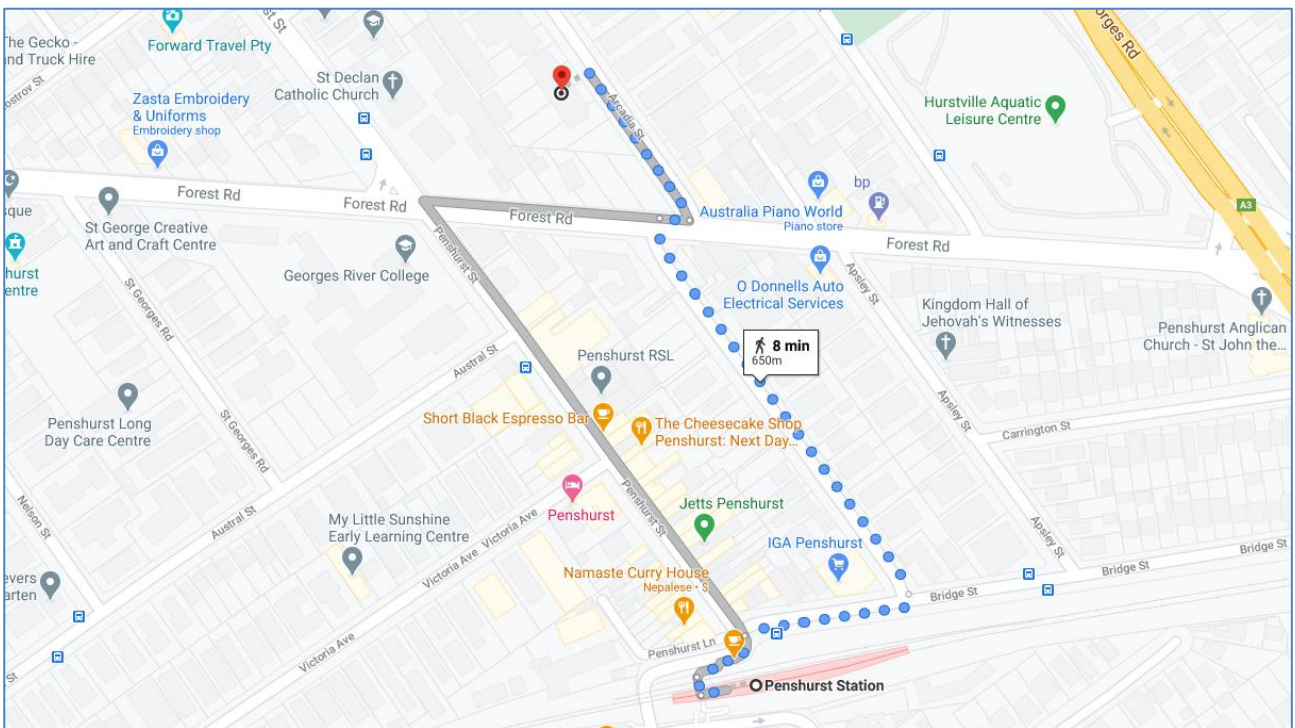


Figure 3.8: Walking route from Penshurst Station

The station services the T4 Eastern Suburbs & Illawarra Line – between 4.08am to 2.51am northbound and between 4.24am to 2.17am in the southbound direction.

In peak periods trains generally operate at 10 minute intervals, increasing to 15 minutes in off peak periods throughout the day, and therefore provides a viable option for staff.

3.2.4 Drop off and Pick Up & On Street Parking

The surrounding roads are predominately characterised by a mix of unrestricted parking, kiss-and-ride parking and 1P and P5 parking. Figure 3.9 (source: ptc TIA October 2018) presents the location of each of these kerb side options.

Beyond this area, the local road network generally provides unrestricted parking on both sides of all streets – the exception being Forest Road and King Georges Road.

Refer to Section for details of management of drop off and pick up areas.



Figure 3.9: On street parking controls

Parking restrictions are limited to school peak times of 8:00am to 9:00am and 2:30pm to 4:00pm. Restricted parking rules are as follows:

- P5 – permitted to park at the kerb for 5 minutes during the times displayed
- 1P – permitted to park at the kerb for one hour during the times displayed

Refer to <https://www.rms.nsw.gov.au/roads/safety-rules/road-rules/parking.html#Parkingrestrictions> for further details of parking rules.

4 Sustainability Targets

4.1 Objectives

Development of sustainability targets is widely accepted as one of the best ways to increase active travel around schools. A successful plan offers many benefits for the school community, including:

- improving social interaction by walking and/or cycling with other students;
- assisting schools to implement any health, fitness and wellbeing programs;
- improving safety around the school by reducing traffic and local road congestion;
- improving the environment by reducing air pollution from private vehicles;
- creating opportunities for healthier lifestyles and more vibrant, cohesive and accessible communities; and
- providing student leadership opportunities.

It is likely that students with a good understanding of active and sustainable modes of transport will follow a healthy and active lifestyle in their adult lives. This will create a generation of professionals who will care about the environment and prioritise location and lifestyle over car ownership.

This TAMP aims to promote and maximise the use of more sustainable modes of travel via a range of actions, promotional campaigns and incentives. The plan includes site management tools which encourage students, parents and staff to make more sustainable transport choices. The plan requires ongoing implementation, monitoring and review. As such, nominating an individual or a team to oversee the implementation of a travel plan is a crucial component of success, as well as gaining support from the senior management.

An effective plan can offer many benefits such as reduced parking costs, less congestions on the public road networks, health and environmental benefits which generally result a healthier and happier school with fewer sick days for staff and students.

4.2 Travel Plan Co-ordinator

A Travel Plan Coordinator or a Committee shall be established to co-ordinate plan activities. This might be a single person who can act as a Travel Plan Coordinator, or a Committee of people who can work together to implement the travel plan. The Coordinator or Committee will be required to oversee the implementation of the actions of the travel plan. The responsible person/s must be an enthusiastic and high-quality communicator/s in order to promote measures that will encourage students, parents and staff members of the school to think about sustainable mode of travel other than a single occupancy car driving.

The key responsibilities of the Co-ordinator/Committee are as follows:

- conducting surveys or other data collection processes to measure progress;

- communicating the travel plan with the stakeholders;
- coordinating implementation efforts;
- coordinating events to promote awareness of the plan and associated initiatives; and
- coordinating marketing and promotional programs.

The Coordinator/Committee will also be responsible for monitoring, reviewing and updating the travel plan over time. It is likely that the Coordinator/Committee will require assistance from ‘champions’ to promote specific actions and encourage the uptake of initiatives.

The plan will require funding to support implementation. As such, senior level support and commitment are essential. Commitment of resources, including financial support and human resources to allow for implementation, monitoring, review and continual improvement of the travel plan are the key components for success of the plan – refer to Section 11 for details of the monitoring and reviewing process.

4.3 Travel Survey

TTM conducted a travel survey to identify current transport patterns, barriers, and behaviours of the School’s staff and students. This survey was released on 24th August 2021, and responses closed on 12th October 2021 (49 days). Surveys were carried out online with ‘Google Surveys’ being used as the primary method of survey distribution and response due to the School’s Covid-19 prevention measures. The links were forwarded to the School, who then distributed the links to all staff/students via email.

There was a total of 52 staff responses and 90 student responses.

4.3.1 Staff Survey

The staff travel survey consisted of 8 questions that were mostly categorical. The details of each question are shown in Table 4-1. The results of the staff travel survey are shown in Figures 4.1-4.7.

Table 4-1: Staff Survey Questions

Number	Question	Responses
1	How do you travel to and from work on a typical day?	51
2	What time do you typically arrive at work?	50
3	What time do you typically travel home?	51
4	In a typical week, when do you attend school?	50
5	If you travel by car, why do you travel by car?	46
6	If you drive, where do you park?	44
7	What postcode/suburb do you live in?	48
8	Do you have any thoughts and ideas to reduce car dependency to the school campus?	21

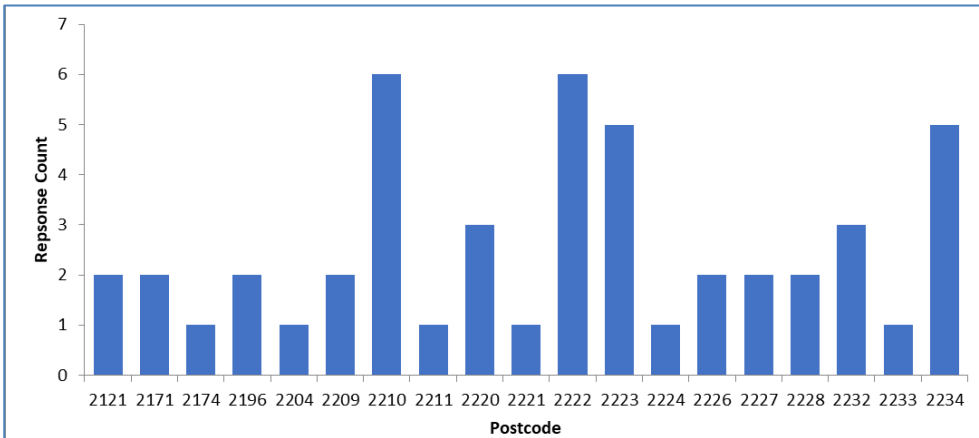


Figure 4.1: Staff Locality by Postcode (Q7)

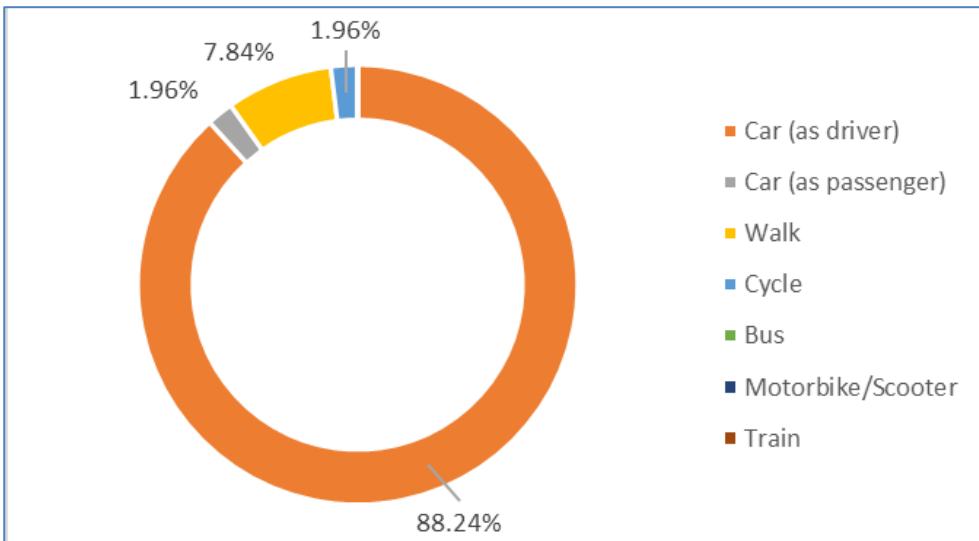


Figure 4.2: Staff Transport Modes (Q1)

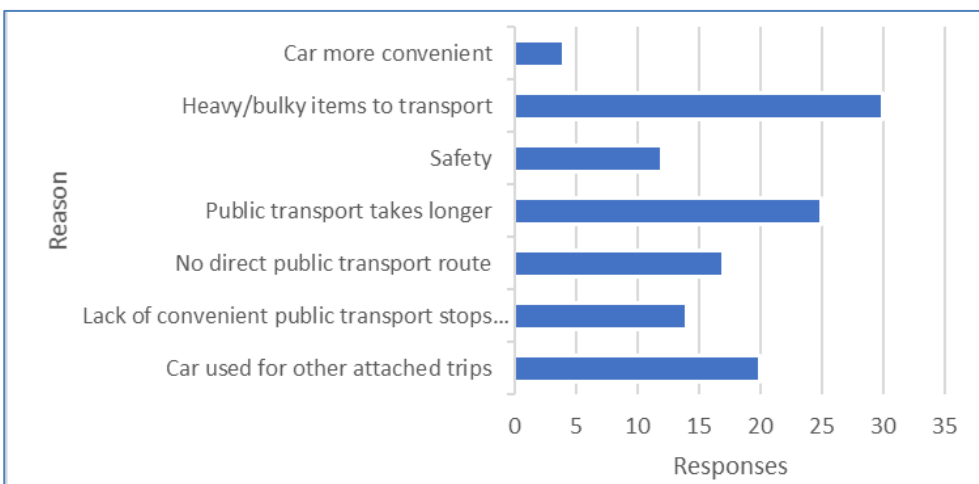


Figure 4.3: Staff Car Travel Behaviour (Q5)

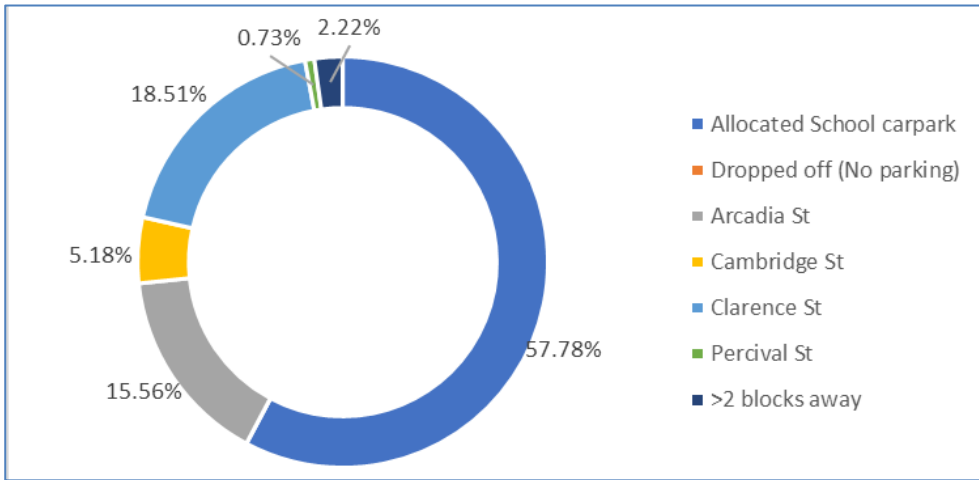


Figure 4.4: Staff Parking Locations (Q6)

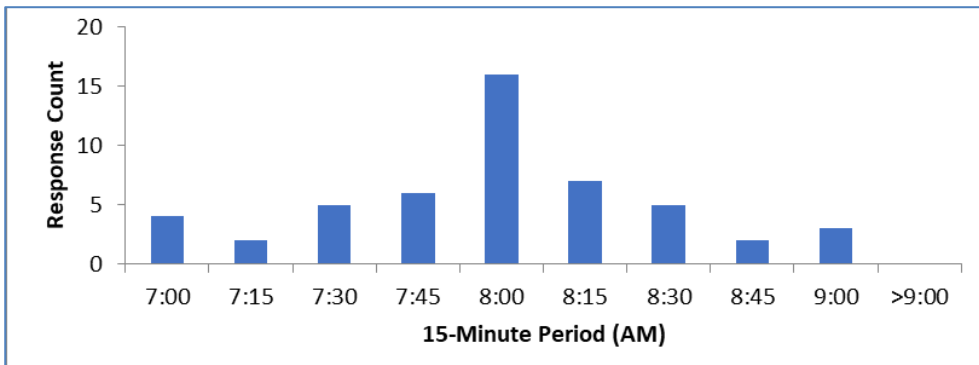


Figure 4.5: Staff Arrival Times (Q2)

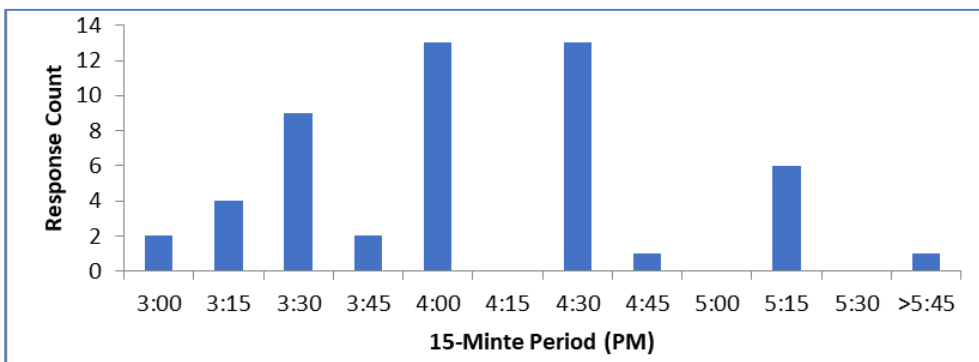


Figure 4.6: Staff Departure Times (Q3)

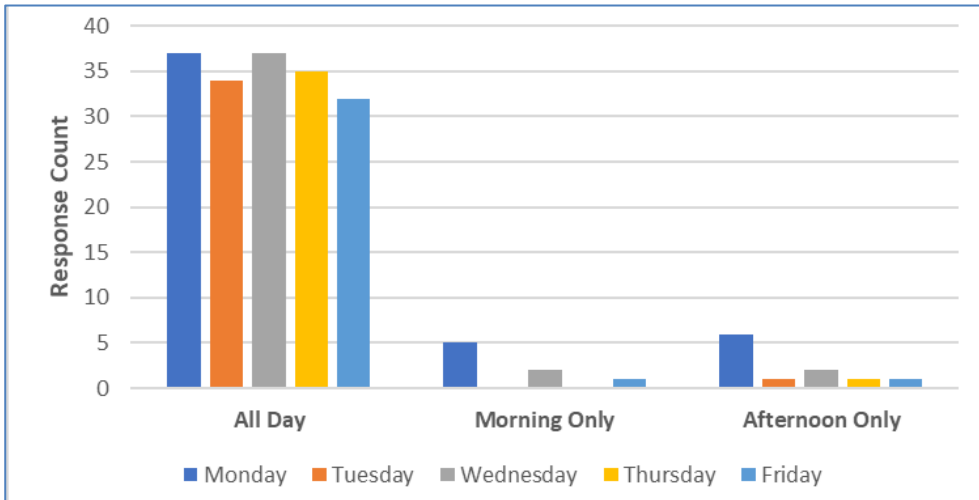


Figure 4.7: Staff Weekly School Attendance (Q4)

4.3.2 Student Survey

The student travel survey consisted of 13 questions that were mostly categorical. The details of each question are shown in Table 4-2. The results of the staff travel survey are shown in Figures 4.8-4.19.

Table 4-2: Student Survey Questions

Number	Question	Responses
1	What year group are you in?	90
2	How do you travel to school on a typical morning?	90
3	If you travel by car, how many other students at the school travel with you?	61
4	If you travel to school by car, where are you dropped off? Where do you park?	52
5	Does your parent/guardian walk with you to school?	89
6	If you travel by car, why do you travel by car?	52
7	How do you travel from school on a typical afternoon?	90
8	If you travel by car, how many other students at the school travel with you?	57
9	If you travel from school by car, where are you picked up in the afternoon?	54
10	How do you get to the car?	55
11	If you travel by car from school, why do you travel by car?	52
12	Where do you live?	90
13	Do you have any thoughts and ideas to reduce car dependency to the school campus?	18

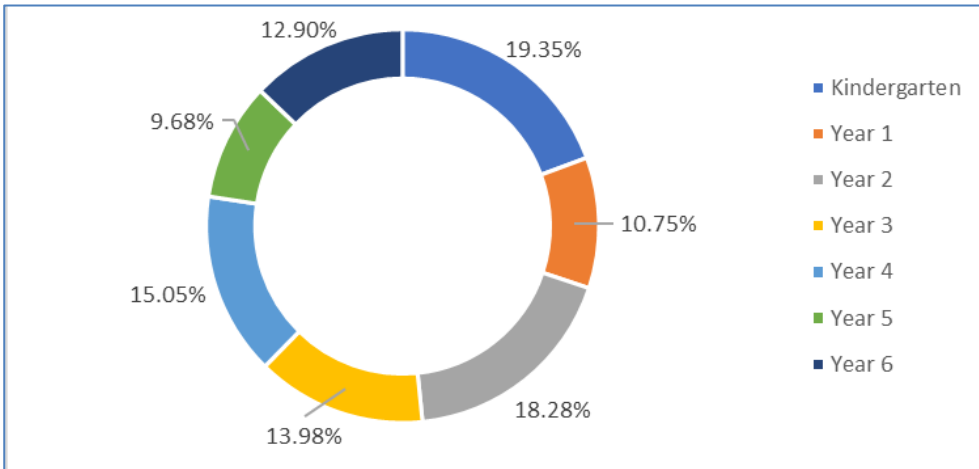


Figure 4.8: Student Response Ages (Q1)

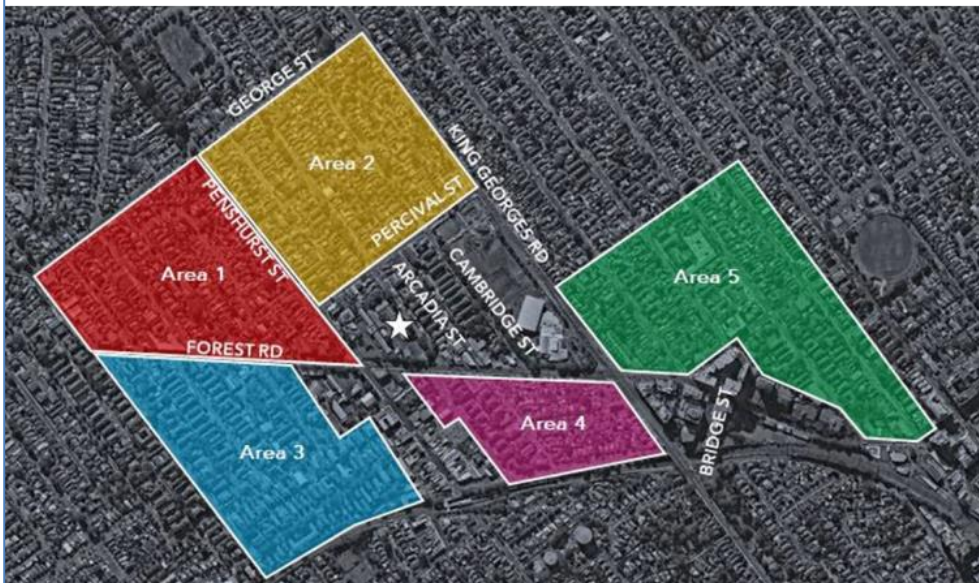
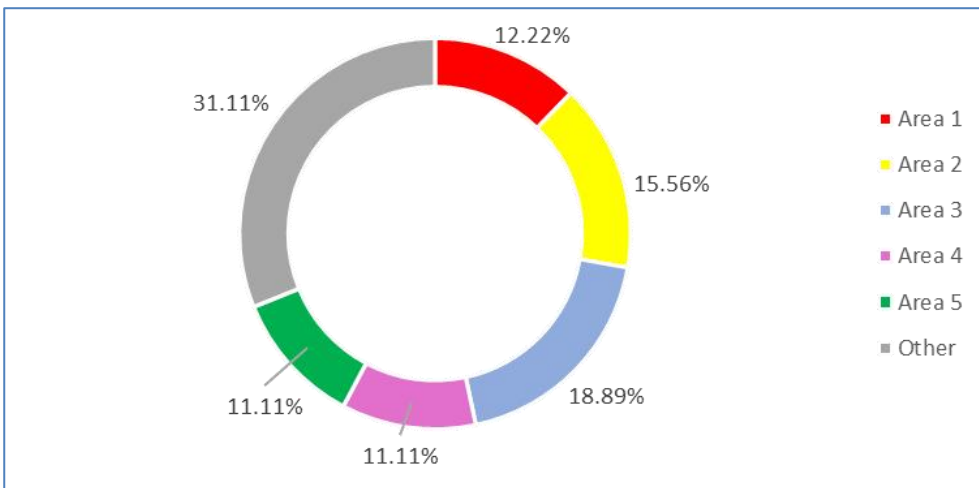


Figure 4.9: Student Locality (Q12)

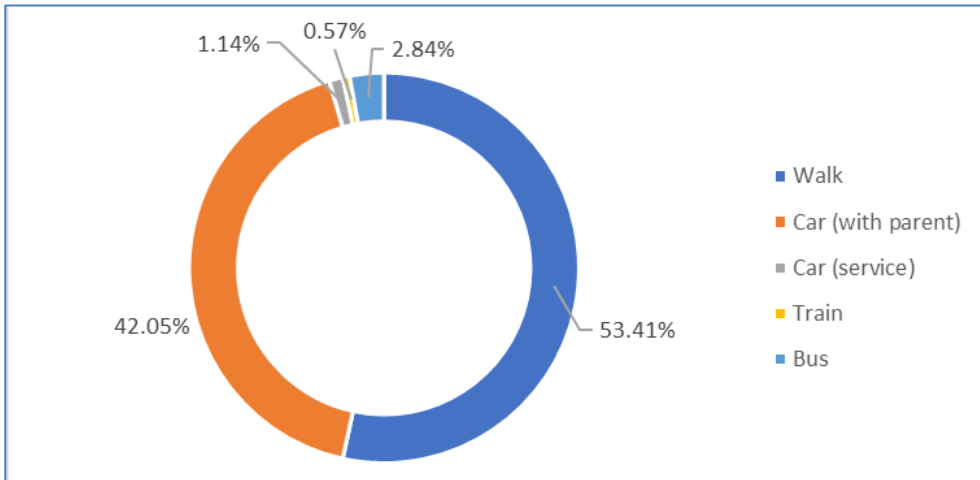


Figure 4.10 Student Transport Modes – Arrival (Q2)

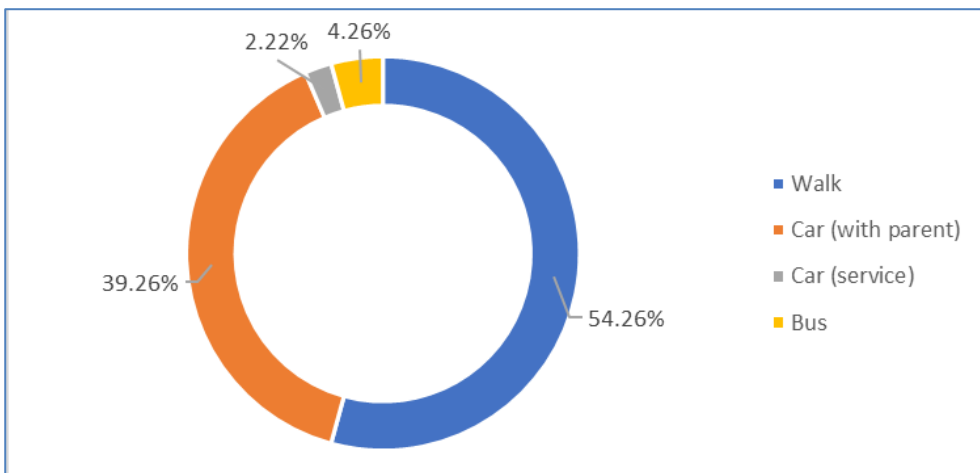


Figure 4.11: Student Transport Modes – Departure (Q7)

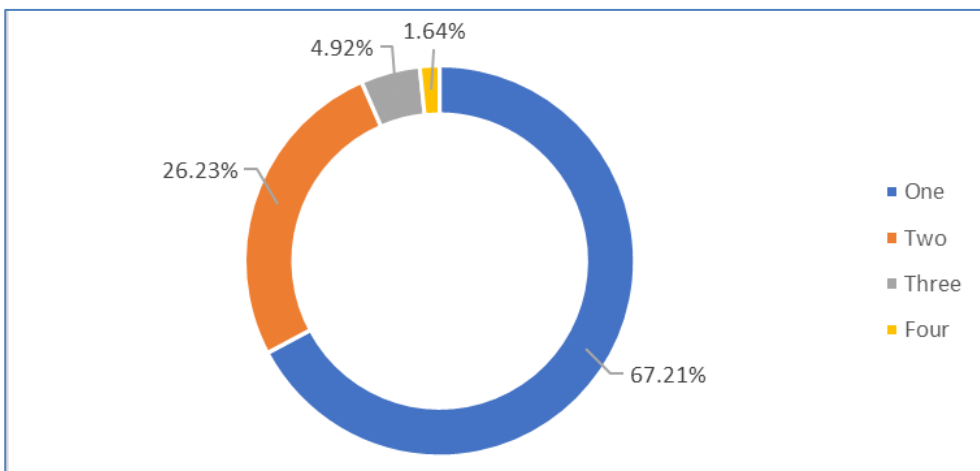


Figure 4.12: Student Shared Car Trips – Arrival (Q3)

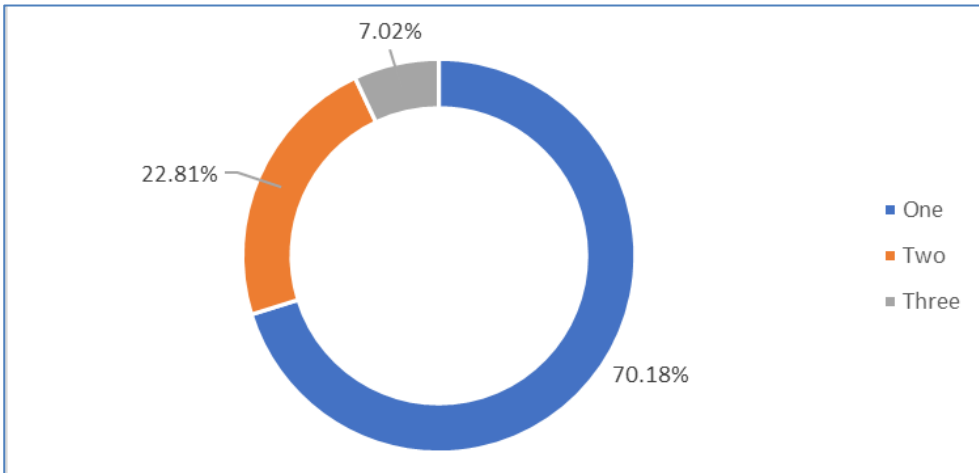


Figure 4.13: Student Shared Car Trip – Departure (Q8)

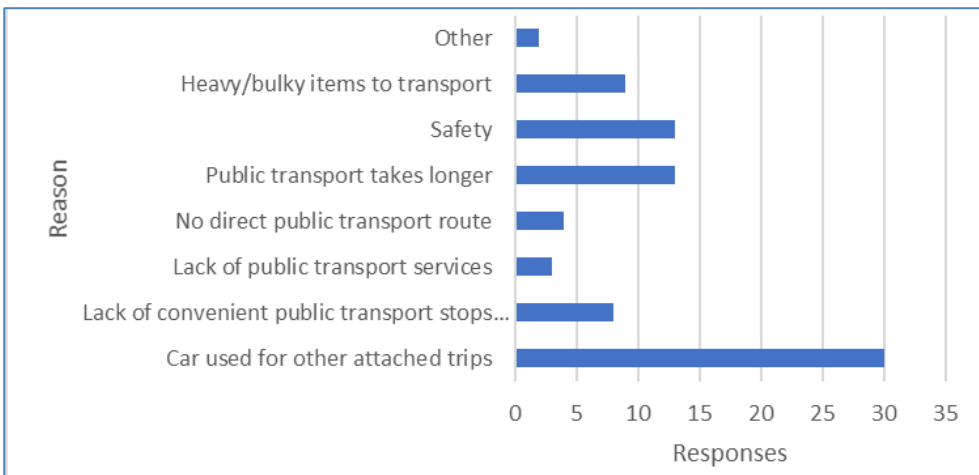


Figure 4.14: Student Parking Behaviour – Arrival (Q6)

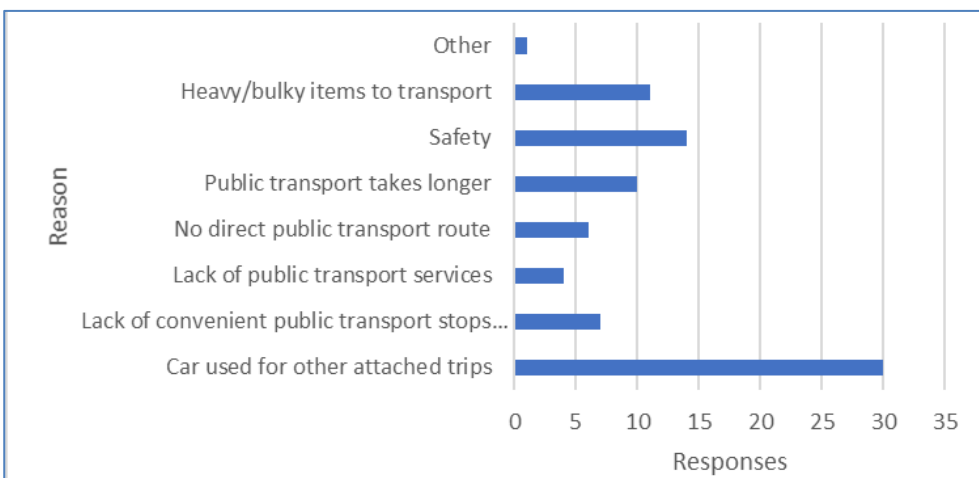


Figure 4.15: Student Parking Behaviour – Departure (Q11)

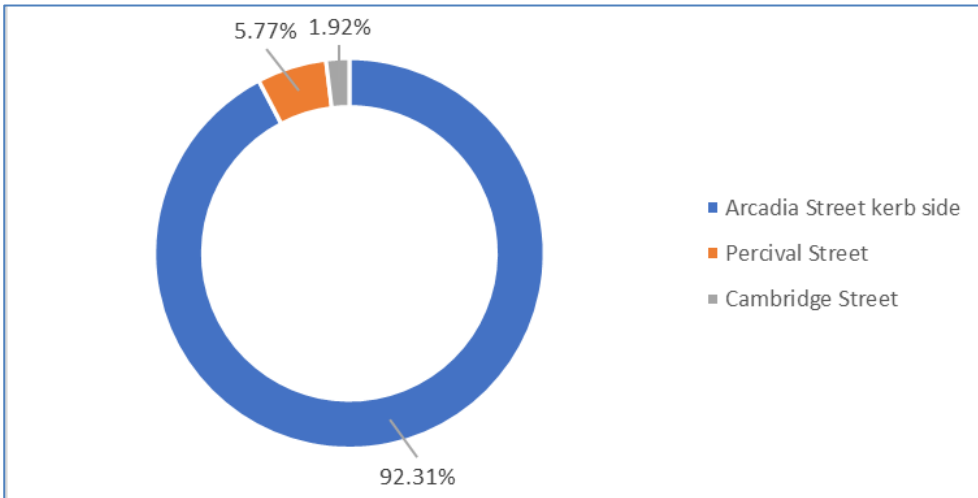


Figure 4.16: Student Parking – Arrival (Q4)

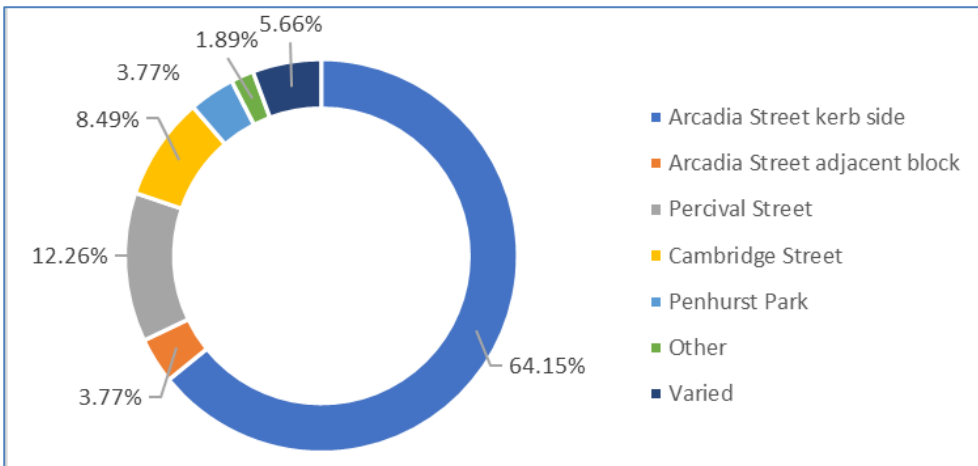


Figure 4.17: Student Parking – Departure (Q9)

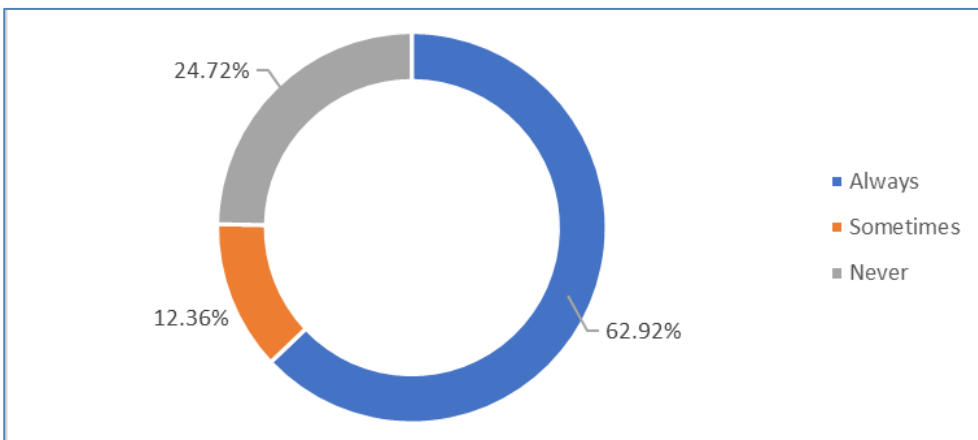


Figure 4.18: Student Walking Accompaniment – Arrival (Q5)

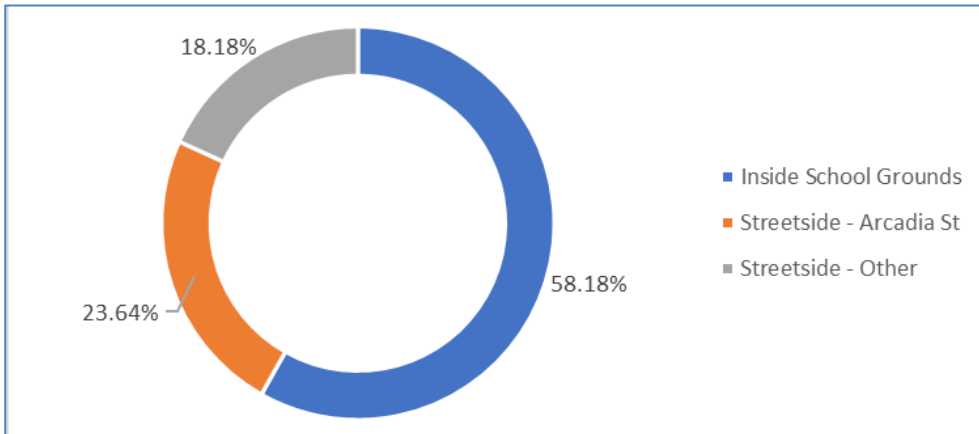


Figure 4.19: Student Waiting Zones – Departure (Q10)

4.4 Discussion

Response rates to the travel survey varied between staff and students. Approximately 80% of staff responded to the travel survey in some capacity compared to 9.1% of students.

There was additional variation in student responses as there was a fair split amongst student year levels from respondents. Due to the disparity in ratio between staff and students, total sample sizes were comparable, though a greater student response rate would be ideal, and should be encouraged in future surveys, to reveal whether outliers found in this survey were of greater significance than identified in this report.

A summary of the staff survey findings is presented below:

- There was little variation in staff transport modes. Travel by car was the dominant mode (90.2% - includes those travelling as passenger), followed by walking (7.8%) and cycling (1.96%).
- Several responses could be selected regarding the reasons for staff car travel. The top three responses concerned issues of luggage (30), travel time being shorter than other modes (25), and the versatility of transport to link trips with other locations (20).
- Staff parking occurred mainly within the School carpark (57.8%), though a significant portion of staff also parked on adjacent streets owing to carpark capacity on site being limited. The second most common response was parking on Arcadia Street (15.6%) – *this equates to up to 8 vehicles parking on street for the duration of the day and is a practice that the School should be actively discouraging in future travel planning due to the impacts on drop off and pick up activities of students.*
- Peak periods for staff car activity were 0800 for peak morning traffic, and 1600-1630 for peak afternoon traffic. Combined with typical staff attendance patterns, the busiest days as a result of staff movement are Monday and Wednesday mornings, and afternoons throughout the week.

A summary of student survey findings is presented below:

- Student transport modes were more varied than staff, with walking (53.4% - 54.2%) as the dominant transport mode, followed by car (39.2% - 42.1%) and then bus (2.8% - 4.2%).
- Walking trends were consistent between trips to and from school, though a slight shift from car to bus was present in the afternoon traffic.
- Where students did travel by car, carpooling was not uncommon, with an average of 1.41 students per car in the morning, and 1.36 students per car in the afternoon.
- The primary reason for car travel on the part of students and their parents was transport connectivity, as the School was part of a network of trips for drivers (30 responses each for both arrival and departure). Other prevalent reasons for car usage for student travel included issues of safety, luggage, and travel time, though the latter was less of a concern during afternoon traffic – however these were cited as less than half the rate of the connectivity at less than 15 responses in all cases.
- Over 92% of morning parking for student traffic was on the nearest local road, Arcadia Street, with the rest spilling onto adjacent streets.
- This trend was similar for afternoon parking for students traffic, though at a lesser rate (64.1%) where there was a much greater spill from Arcadia Street onto other nearby roads. Typical afternoon student waiting areas for cars were largely contained within and adjacent to the school, creating relatively little pedestrian traffic.
- Most students waiting to be picked advised they wait within the school grounds (58.1%), and a further 23.6% wait on Arcadia Street. The remaining students wait in other streets.

4.5 Travel Patterns

The current travel statistics of the school are drawn from the survey results. These are compared to previous data that has been reviewed for both staff and students³. The mode share results are summarised below:

Table 4-3: Current mode share - staff

	Staff 2017 ³	Staff 2021	Change
Car	83%	88.2%	+5.2%
Other	17%	11.8%	-5.2%
Park on Site (% of car users)	37%	57.8%	+20.8%
Park on street (% of car users)	63%	42.2%	-20.8%

It can be seen that staff travel by car has increased since 2017 and the school should actively seek to reverse this change due to the impacts to on street availability on Arcadia Street as identified in the 2021 surveys.

³ Travel mode data outlined in TTM traffic report, 2017, Table 2-2 and Table 2-3.

Table 4-4: Current mode share - students

	2017 ³		2021		Change	
	Student AM	Student PM	Student AM	Student PM	Student AM	Student PM
Car	48%	45%	43.2%	41.5%	-4.8%	-3.5%
Train	0.3%	0.3%	0.6%	0.0%	+0.3%	-0.3%
Bus	0.5%	1.0%	2.8%	4.3%	+2.3%	+3.3%
Walk	51%	53%	53.4%	54.3%	+2.4%	+1.3%
Cycle	0.3%	0.3%	0.0%	0.0%	-0.3%	-0.3%

As can be seen, students attending the school have achieved a 4.8% shift from private car usage to active travel modes, which is commended and sets an excellent example to the achievability of mode shift.

This information represents a benchmark for future data analysis to monitor progress. A copy of the surveys used is included in Appendix B.

4.6 Future Travel Patterns (Targets)

The 2017 target goal was to see a 10% modal shift to sustainable modes of transport over 5 years, equivalent to 2% per annum. This shift was predicted to occur more rapidly from deployment, and gradually taper off.

Students have demonstrated a year on year equivalent change of 1.2% towards active transport modes. Whereas staff have demonstrated the opposite with a year on year equivalent of 1.3% shift away from active travel modes.

As of 2021, survey results show that staff have not progressed towards this shift and have actually regressed, increasing by 5% a shift towards car modality. Conversely, student transport modes have made a 4-5% progression towards a sustainable transition. Because of these trends, TTM has revised previous transport mode shifts from 10% to 12.5% for staff, and 10% to 5% for students.

Table 4-5: Mode Share Targets

	Staff				Student AM				Student PM			
	2017	2021	Target	%	2017	2021	Target	%	2017	2021	Target	%
Car	83%	88.2%	75.7%	-12.5%	48%	43.2%	38.2%	-5%	45%	41.5%	36.5%	-5%
Train & Bus	17%	11.8%	24.3%	+12.5%	1%	3.4%	5.9%	+2.5%	1%	4.3%	6.8%	+2.5%
Walk & Cycle					51%	53.4%	55.9%	+2.5%	54%	54.3%	56.8%	+2.5%

5 Pedestrian and Cyclist Management

5.1 Priority Routes

Pedestrians

As identified in Section 3.2, the school catchment is well served by formal footpaths and crossings along most routes. With reference to this as well as the residential layout, public transport stops and formal crossing locations - priority routes to/from the School have been identified. These are based on the distance from the school in 400m intervals. The priority routes are shown in Figure 5.1.



Figure 5.1: Priority pedestrian and cycle routes

The priority routes are:

- Penshurst Road (between George Street and Bridge Street)
- Forest Road (between Ocean Street and Gloucester Road)
- Arcadia Street (between George Street and Forest Road)
- Percival Street (between King George Road and Penshurst Street)

Cyclists

There are limited formal cycle facilities in the school catchment area. Sections of Penshurst Road are identified as on road cycle routes but there are no off road routes available in the vicinity.

NSW legislation permits children under 16 and adult riders accompanying and supervising to ride on the footpath unless there are signs specifically prohibiting cycling. Therefore, the map of priority routes identified in Figure 5.1 is considered to apply also to cycling.

5.2 Infrastructure Requirements

Section 3.2 identified a number of locations where there was no footpath provision on a number of routes within the school catchment area. A number of updates to infrastructure are required as follows:

- Gilmore Place
- Salisbury Street (south side)

Additional crossings (not identified in Section 3.5) are also recommended as follows:

- Forest Road to accommodate those walking and cycling from the south east streets of the catchment (eg. Carrington Street, Aspley Street)
- Eastern end of Percival Street to capture drop off/pick up on the northern side of the street
- Southern end of Arcadia Street

These upgrades are recommended only and are identified for future review and consultation with Council to develop a wholly connected network in the vicinity of the School.

5.3 Management Strategies

As stated in section 3.2, the existing pedestrian connectivity is generally good in all directions and given that the majority of the school catchment is within 1km radius walking and cycle shall be promoted as the main active travel mode.

The following strategies are to be implemented to increase walk trips to/ from the school⁴:

- staff and students living within 1.2km of the School will be targeted to walk/ scooter to the School;
- a working partnership will be established with Georges River Council to provide a direct, comfortable and safe pedestrian access between the school campus and all transport hubs (e.g. Penshurst Train Station etc.) as per Disability Discrimination Act (DDA) requirements;
- staff will be encouraged to walk by implementing a '10,000 steps per day initiative'. This involves providing staff with trackers that measure the step number they have walked. A viable incentive is for staff members who have achieved the 10,000 steps goal over 80% days of a month to be awarded with

⁴ *Green Travel Plan, prepared by ptc, dated 10 October 2018*

free/ discounted gym membership. Collaboration with Fitness Passport will be considered (<https://www.fitnesspassport.com.au/>);

- ‘Walk to Work’ day will be celebrated by the school community on an annual basis (<http://www.walk.com.au/wtw/homepage.asp>); and
- ‘Kids Walk-to-school’ program will be developed by the neighbourhood (school and council) not only to assist students learn healthy habits but also to help the whole community to connect with family and friends. (<https://www.walktoschool.vic.gov.au/>).
- A bicycle buddy scheme will be considered to assist new cyclists taking up cycling to and from the school campus.

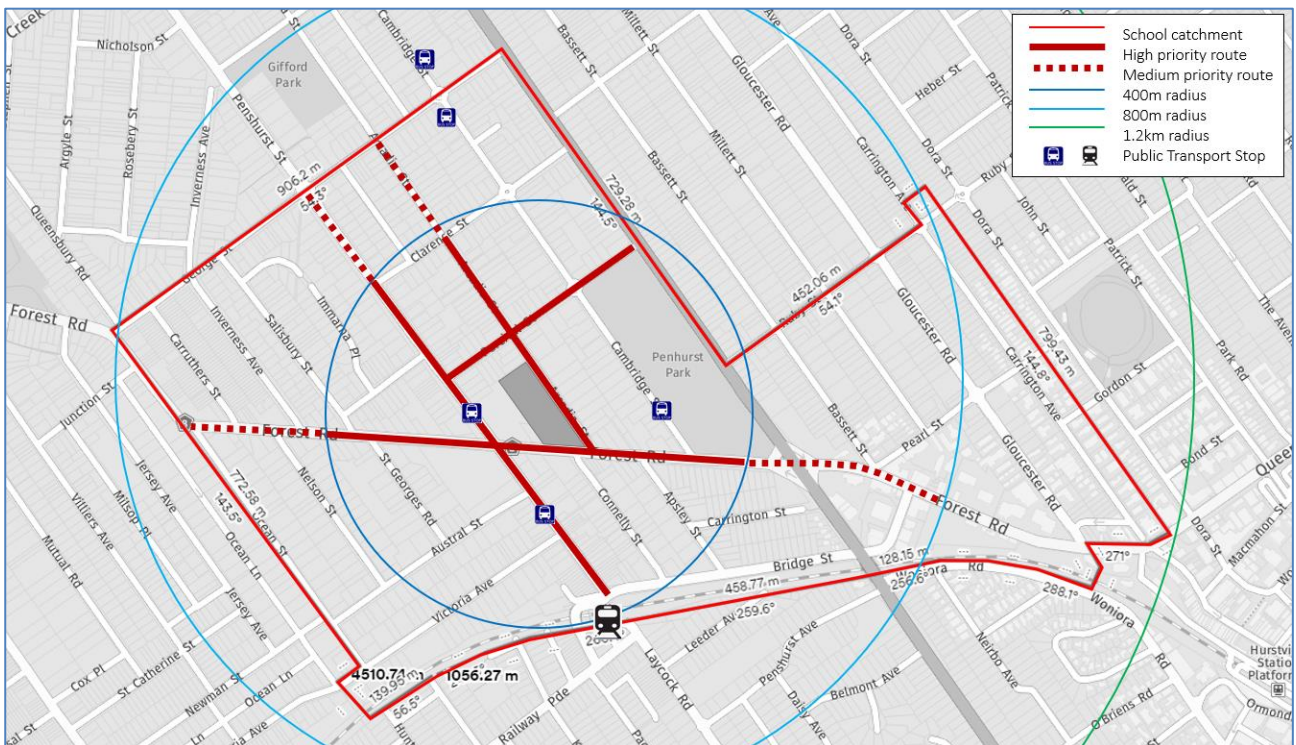
Additional strategies include:

- Active travel to school education programme to educate students about safe active travel to school as they may not be aware of what active travel means and the various modes available to them.
- Introduction of a Walking School Bus. Much of the catchment is within a walkable distance and a Walking School Bus benefits both students and their parents. Walking School Buses are an organised system, generally covering a walk time of 30 minutes (2km) and may be run by volunteers or be commercially promoted via local leisure and gym providers. (<https://education.nsw.gov.au/teaching-and-learning/curriculum/learning-across-the-curriculum/road-safety-education/safe-travel/walking>).
- End of trip facilities have been provided at the School. Staff are provided with a dedicated secure area (separate from student parking) in conjunction with change and shower facilities.
- Using the School website, newsletter and other promotional material to advertise the cycle facilities as well as providing links to cycling education and leisure facilities suitable for children (eg. <https://www.ellaslist.com.au/articles/sydneys-best-bike-parks-and-trails-for-kids>).
- Educate both students and their parents on how to ride safely (<https://education.nsw.gov.au/teaching-and-learning/curriculum/learning-across-the-curriculum/road-safety-education/safe-travel/riding#Riding2>). Including:
 - Ride to the left on footpaths
 - Give pedestrians right of way on footpaths
 - Watch for cars entering or leaving driveway.

6 Public Transport Management

6.1 Priority Routes

As stated in section 3.2, the School is well connected by public transport with 10 stops located within reasonable walking distance. Further, Peshurst Rail Station is located just 10 minute walk south of the School.



It is recognised that the majority of the School catchment is within a 1.2km radius, and therefore it is expected that public transport use will be more suitable for staff uptake, however promotion geared towards students is also advised, as this also educates them in all active transport options.

6.2 Management Strategies

The following strategies are to be implemented to increase the uptake of public transport use, predominantly by staff, but potentially also students⁵ (and their parents) in the future if the catchment area increases:

- a comprehensive map and available public transport network information and available private bus services will be prepared showing the nearby bus stops and train station with appropriate walking routes.

⁵ Green Travel Plan, prepared by ptc, dated 10 October 2018

- parents will be notified when the public transport is free of charge for school children to/ from the school;
- improved wayfinding signage between the school campus and nearby train station / bus stops will be discussed with Georges River Council; and
- eligible staff members will be considered for opal card concession.

Additional strategies include:

- Encourage uptake of the School Student Transport Scheme (SSTS) which provides eligible students with free or subsidised travel on public transport between home and school.
- School excursions will make use of public transport where appropriate. This will help to educate and familiarise students on how public transport operates, the various options available and may also encourage them to use public transport future in their daily travel in the future.

7 Drop off/Pick up & On Street Parking Management

7.1 Priority Routes

Formal Kiss and ride facilities are provided on Penshurst Street and Arcadia Street and there are also 13 no. P5 spaces provided on Arcadia Street – as identified in Figure 3.9.

The Kiss and Ride facility on Penshurst Street is provided along the eastern kerb and is accessible on foot via Arcadia Street and Percival Street or Forest Road. There is no requirement for students to cross roads to complete this route.

The Kiss and Road, P5 spaces and unrestricted parking spaces on Arcadia Street are provided on both sides of the street. Access to/from the eastern side of the street is facilitated by a formal crossing that is in close proximity to the School entrance.

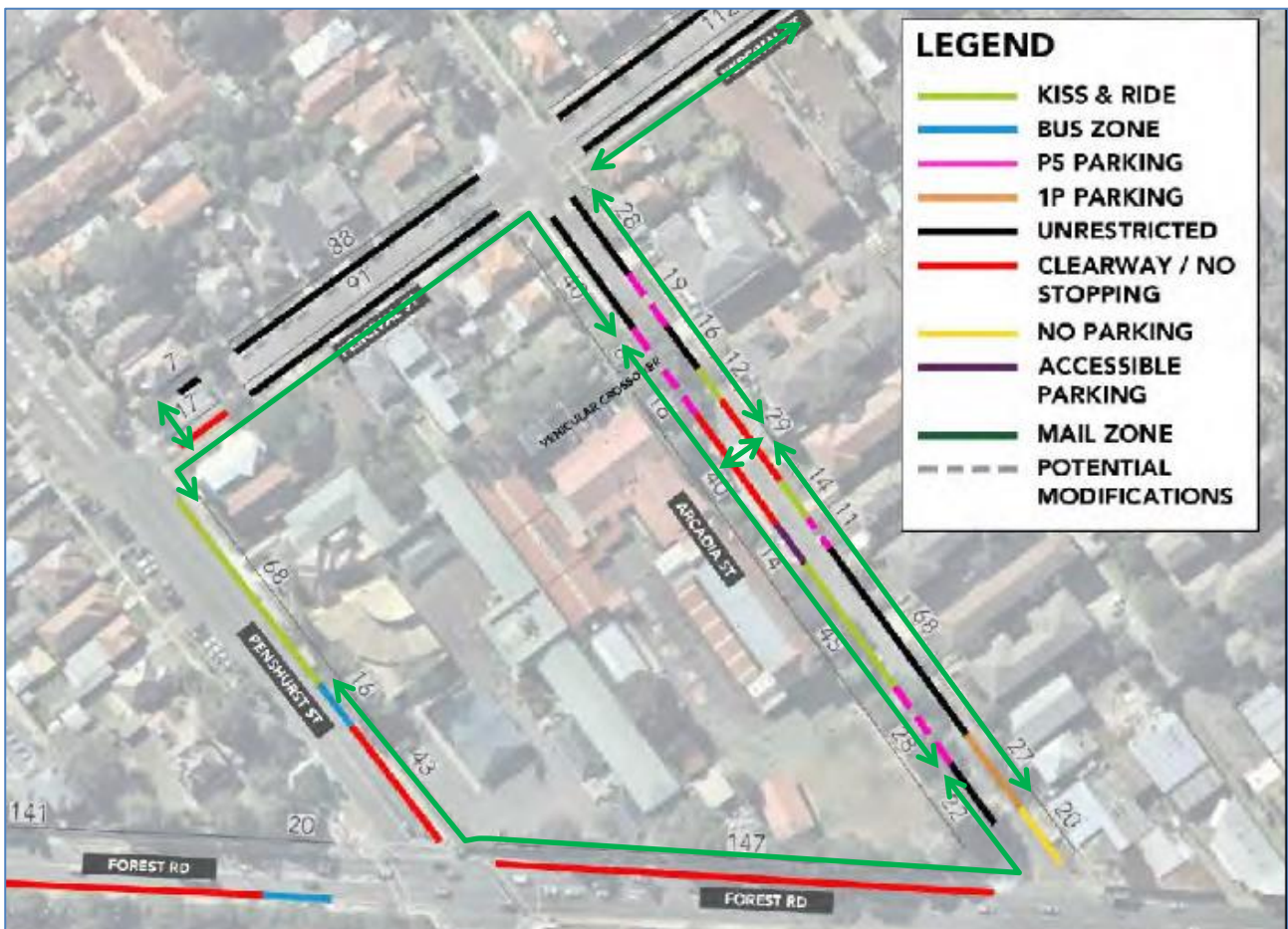


Figure 7.1: Drop off and pick up routes

7.2 Infrastructure Requirements

As per conditions of development changes to kerbside allocation are proposed along both sides of Arcadia Street. Refer to Appendix C for plans that show the existing and proposed signage.

As identified in Section 5.2, there may be scope to introduce an additional crossing along the western end of Percival Street (west of Arcadia Street) to capture drop off/pick up instances on the northern side of the street.

These upgrades are recommended only and are identified for future review and consultation with Council to develop a wholly connected network in the vicinity of the School.

7.3 Management Strategies

The following strategies will be implemented to manage private vehicle access by parents/carers:

- Kiss and Ride (pick up/drop off) zones will be marshalled by staff in both morning and afternoon periods.
- A newsletter will be provided and website updated to advise parents/carers of the correct usage and operation of kiss and ride and P5 facilities. There is currently no information on the website advising of this and it is recommended that commentary is added.
- Monitoring/survey of the operation of the kiss and ride and P5 spaces during both AM and PM peak drop off/pick up periods twice weekly for the first school term of operation and one day per week during the AM and PM peak drop-off/pick-up period for the second school term of operation will be carried out – to assess operational pros and cons and potential impacts on the surrounding road network and to ultimately identify if modifications are required.
- If after six months of operation, the results of the monitoring indicate road safety and efficiency issues of the drop off/pick up zone, alternative arrangements must be made in consultation with Council to address these issues. Alternative arrangements are to be incorporated into an updated TAMP and submitted to the Planning Secretary for approval.
- If usage of the zones grows to the extent that it impacts on the wider network flow and/or impacts safety of road users – consideration for staggering class start/finish times will be given to limit impacts. Many schools stagger times of K-2 and 3-6 by approximately 20 minutes – a stagger that is generally sufficient to allow the demand of the zones to be reduced.
- A system will be set up a system for incident reporting (this may be an online facility via the School website or via a nominated staff member) such that assessment can be made and modifications or change management can be implemented if required.

8 Car Park Management

8.1 Infrastructure

The car park on site provides for 20 car parking spaces, including 1 PWD space. Access is provided direct from Arcadia Street. All off street car parking will be staff reserved and/or available for bona vide visitors – parent parking for pick up/drop purposes is not permitted. The location of the car parking area is presented in Figure 8.1.

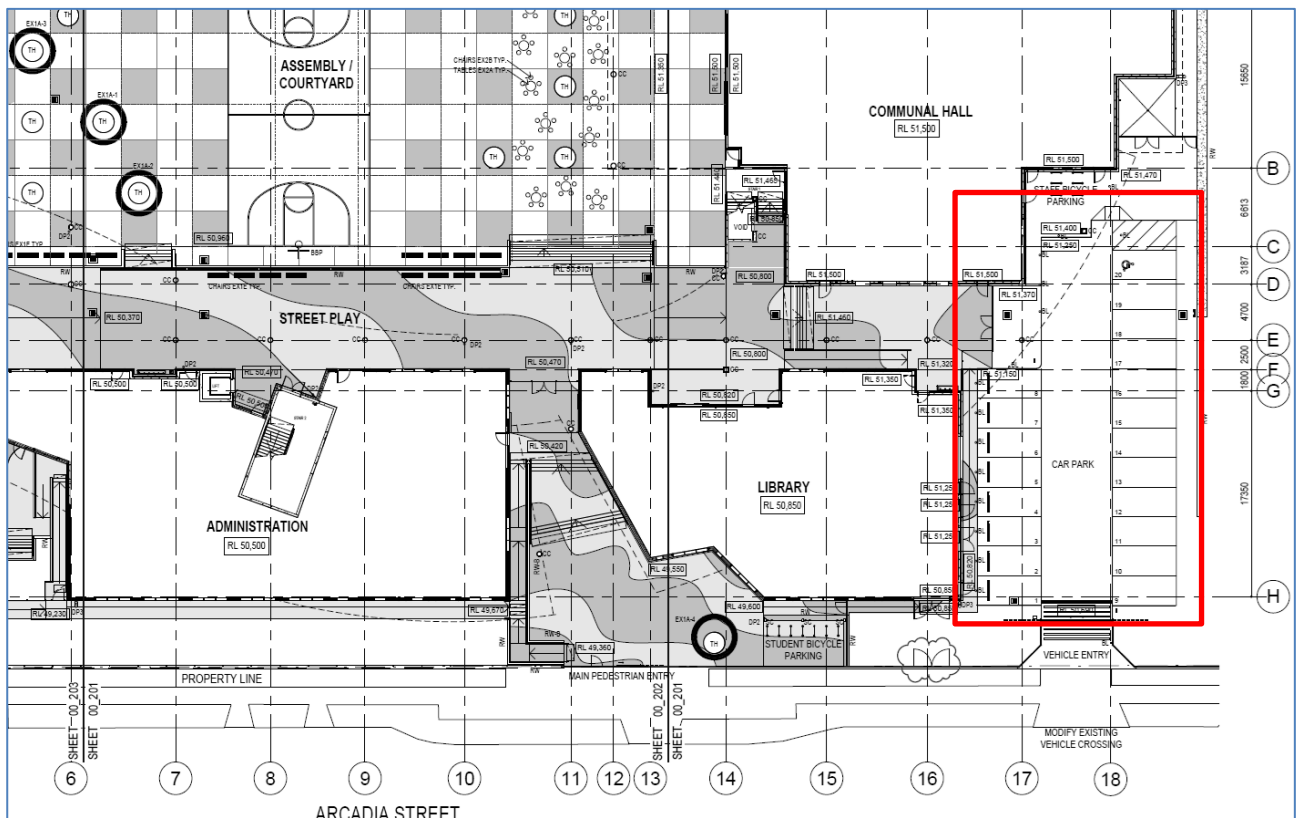


Figure 8.1: Staff off street car parking

8.2 Management Strategies

The provision of 20 spaces is 10 spaces less than that required by the Hurstville DCP and it is therefore expected that some staff will park on street. It is however encouraged that alternatives to single person travel by car be promoted to minimise the impact to both on and off street parking.

The following strategies are to be implemented to increase the uptake of more sustainable transport options by staff:

- To discourage driving and to make public transport more competitive, on-site parking should not be free - however this is at the discretion of the school. A reasonable fee will contribute reduced demand for on-campus parking and increased usage of other mode of transport.

- As a result of the above, discussion shall be held with Georges River Council to convert unrestricted on-street parking to time restricted spaces within 800m radius of the school campus with a view to further discouraging car driving to the school campus so as to limit impact on residents.
- One car share vehicle will be considered within the campus (e.g. GoGet, Flexicar, Popcar) which is available for use by staff members to attend external meetings and/or for emergencies.
- Reserve some off street parking spaces for those committed to carpooling to ensure on site availability.
- Monitor on street parking usage by staff to maintain a clear picture of where sustainable travel gaps may be.
- If parking is not free, consider allocating off street parking based on staff residence location and for those with limited access to other travel options.
- If staff must travel, actively discourage them from parking in Arcadia Street as this reduces availability for student drop of and pick up.

There is potential for the car park to be used by community groups out of school hours. Such activities will be agreed with school and access to the car park provided. Agreements between the school and any community group will be in writing and will include details of rules and regulations for on site activities (including use of parking) and also advise that all on street parking will be in accordance with signage and standard road rules.

Note: This TAMP does not include specific provision for emergency vehicles as they are lawfully required to be provided access and priority at all times when sounding an alarm or showing flashing red or blue lights. In non-emergency situations emergency vehicles are required to use formal parking facilities as appropriate.

9 Service Vehicle Management

9.1 Infrastructure

Waste collection will utilise the Arcadia Street car park entrance to carry out waste collection activities. Waste collection is scheduled to occur outside of peak periods so as not to coincide with morning and afternoon drop off and pick up activities.

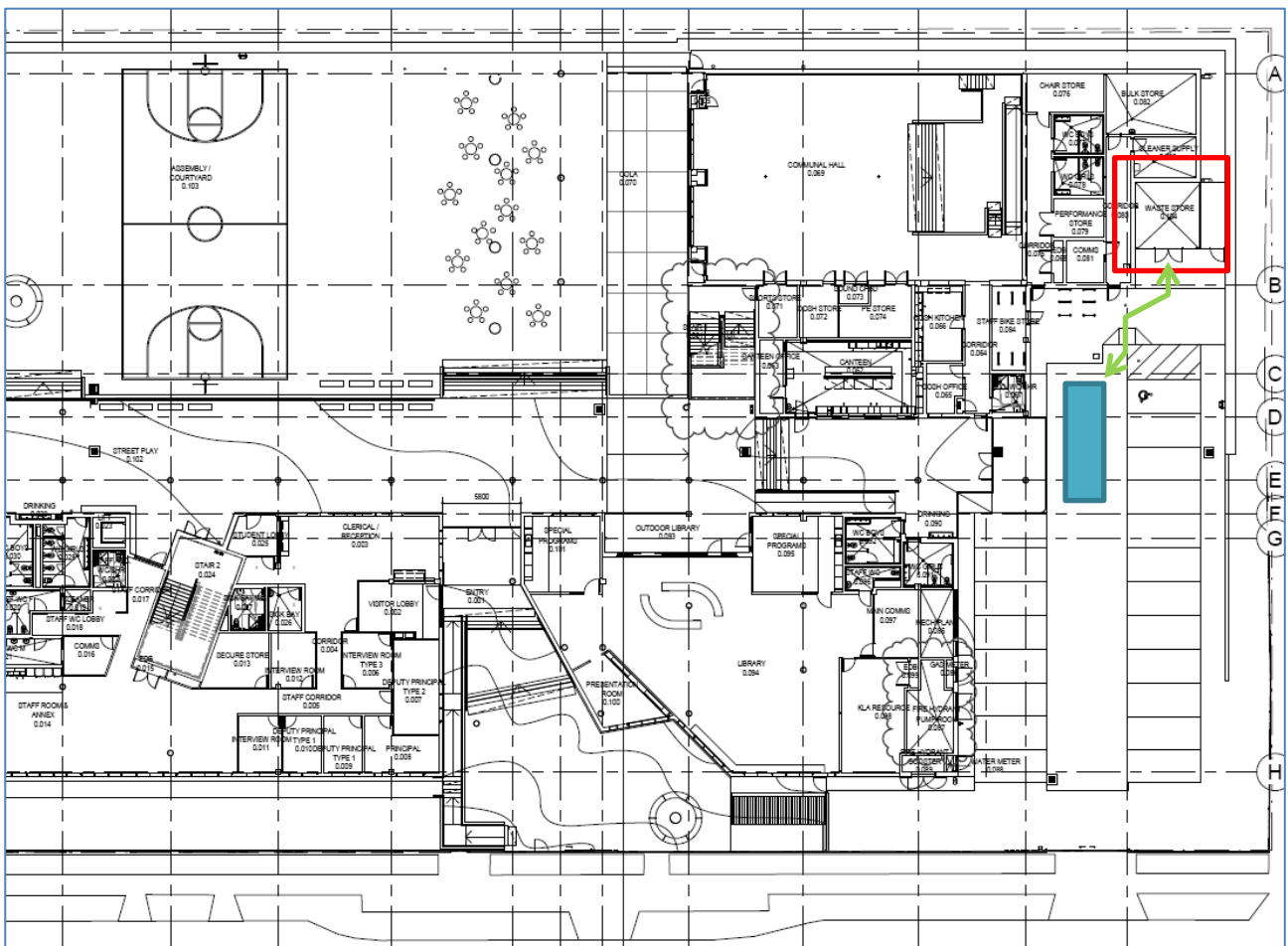


Figure 9.1: Waste collection store and loading location

General deliveries will also take place via the same location – this includes but is not limited to food deliveries and cleaner supplies.

9.2 Management Strategies

All regular service providers shall be scheduled as far as reasonably practicable to ensure no more than one delivery occurs at any one time. All deliveries (and waste collection) shall be scheduled to occur outside of morning and afternoon drop off and pick up activities.

All service providers will be given instructions and rules for accessing the site. This will be supported by signage on entry to advise of access restrictions.

This is to ensure the safety of pedestrians at crossings and minimise reversing manoeuvres in the vicinity of the crossover to Arcadia Street.

Additionally, a car park bay (refer to ptc TIA extract presented in Figure 9.2) will be made available for service vehicles outside of school hours to maintain access and circulation for other cars in the car park if necessary.

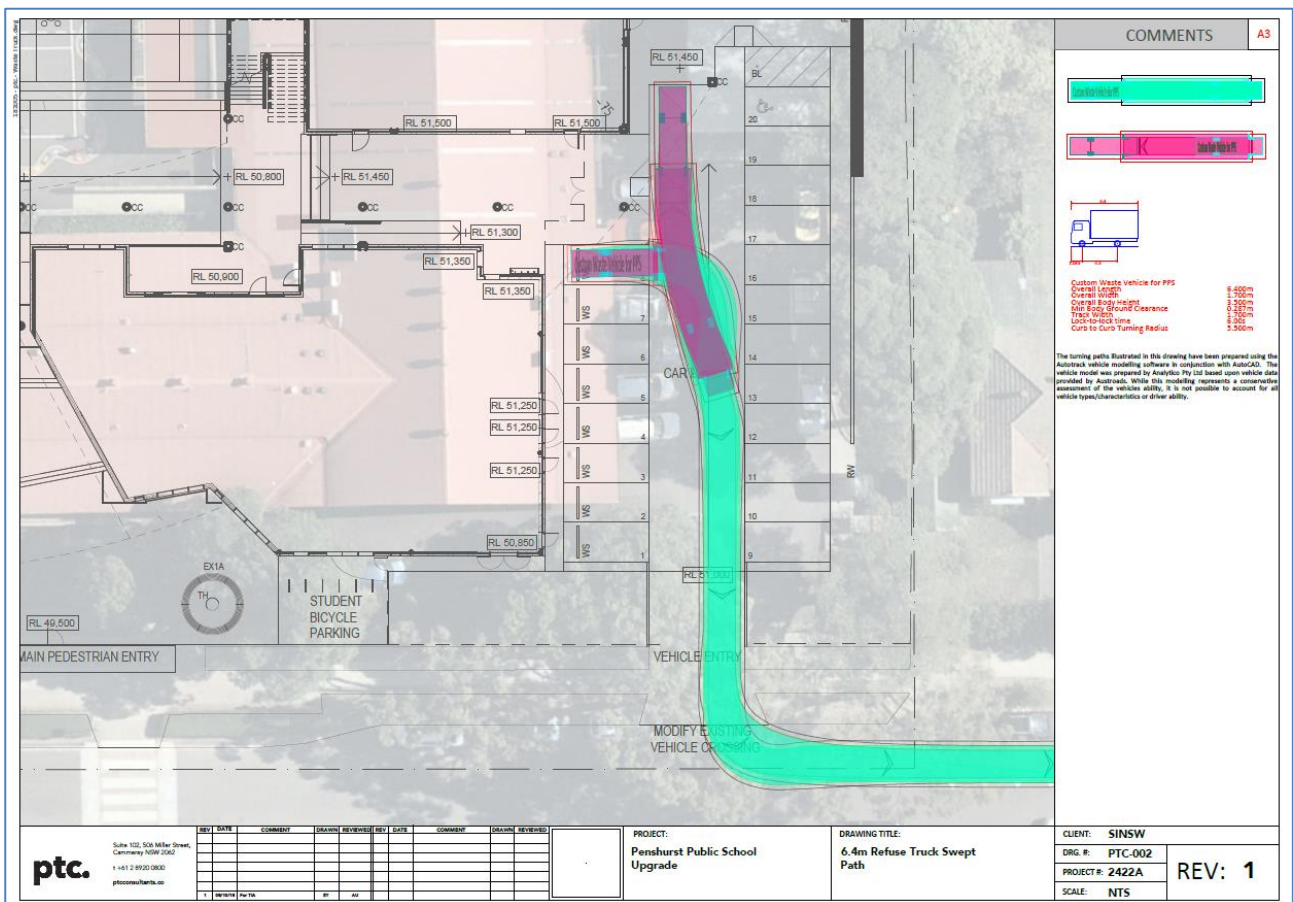


Figure 9.2: Site service vehicle swept path

10 Bus and Coach Management

This section addresses bus and coach use for specific reasons such as excursions. Travel to/from School by bus is covered within the Public Transport chapter.

10.1 Infrastructure

There are no long term provisions such as dedicated bus stops or on site access for buses and/or coaches – however formal kerb side allocations for buses is provided on Penshurst Street.

Depending on the frequency of instances and number of students to be accommodated for special purposes there is opportunity for minibuses to utilise the on-site car park in the same manner as service vehicles to enable on site boarding and alighting.

It is intended that in the outset – buses/coaches stop at the kerbside as new parking restrictions are operational for limited hours. In the event that the street is fully parked up out of hours, thereby limiting the ability for buses/coaches to stop at the school frontage, the school will liaise with the Local Authority to implement temporary traffic control/reservation of kerb side areas to facilitate a safe pick up/drop off area.

Subject to the outcome of parking surveys required to be carried out in response to conditions D12 and D13 of the development consent and/or the frequency of incidents when buses/coaches are not able to park at the site frontage – further co-ordination with the local authority will be considered to review the potential introduction of a Bus Zone on Arcadia Street. This would include the addition of Bus Zone signage to sign post positions L-8 and L-3/L-9 on TTM drawing 20SYT0059-09A. The Bus Zone signage would include time restrictions which are to be determined in liaison of the school with the Local Authority.

This shall be reviewed in line with the management strategies and monitoring and evaluation process and procedures.

All buses attending the site (whether it be minibuses on site or standard buses/coaches at kerb side) will be managed by school staff. This management includes the hiring of and marshalling of all buses and coaches to ensure the safety of students, staff and the general public. Marshalling will be generally contained on site and students to be directed to/from buses to limit disruption to the public on the Arcadia Street frontage.

10.2 Management Strategies

- School excursions will make use of public transport where appropriate. This will help to educate and familiarise students on how public transport operates, the various options available and may also encourage them to use public transport future in their daily travel in the future.
- Where private bus/coach travel is proposed ensure relay of information to provider regarding use of and stopping location on the Arcadia Street frontage.

Ensure that only vehicles fitted with seatbelts are hired.

11 Monitoring and Review

11.1 Purpose

Monitoring and reviewing of the Transport and Access Management Plan is one of the most critical components of the travel planning process. It is crucial to understand whether and how the travel plan is having an impact on the mode share – existing, objectives and targets.

11.2 Frequency

Revision of this document will take place annually. Updates will be communicated prior to the start of the new school year.

Surveys will be carried out in term 3 to ensure that changes can be identified and implemented/conveyed prior to the start of the new school year.

The kerbside provisions of the Arcadia Street frontage are new for 2020 and monitoring of the operation of the kiss and ride and P5 spaces during both AM and PM peak drop off/pick up periods is to be carried out twice weekly for the first school term of operation and one day per week during the AM and PM peak drop-off/pick-up period for the second school term of operation. This shall be conducted by the contractor as part of the planning conditions.

Future monitoring shall be the responsibility of the School.

11.3 Data Collection

The annual collection of data will be carried out primarily by survey of staff, students and their parents, visitors and service providers (eg. Deliveries). Secondary information will be collated from responses, as a result of the various management strategies, received by the School – whether this be via website links, email or by phone.

A sample survey to be used is provided in Appendix A.

11.4 Taking Action

Once data are updated, the targets and actions of the TAMP will need to be reviewed. The review will consider:

- are the targets still realistic? Are they still ambitious? Do they need to be updated?
- is the school struggling to achieve particular targets? What are the likely reasons for this?
- are there any gaps with regards to actions?
- what is preventing further improvement on mode share and how can this be addressed?

The steps outlined above should not be considered as a linear process, rather as an ongoing cycle. Travel planning requires regular review and adjustment which may reveal the need to reconsider objectives or targets or to add new actions to create greater incentives for the uptake of sustainable transport choices.

- School Management – recommendations of changes to school procedures, policies and management shall be reported to the Principal and applicable executive group and/or P&C Committee for input and action.
- School Works – for changes to the physical infrastructure of the School (such as additional cycle parking, signage, facilities) minor works may be undertaken in co-ordination with the maintenance and management team. Changes shall be raised with the executive group for budgeting purposes.
- External Works – where changes to the public network are identified to be required (eg. Changes to kerb side parking allocations) the Local Authority shall be approached for discussion. Results of surveys, observations and comments shall be made available to Council to inform the decision.

Appendix A Ilona Blackburn CV



ILONA BLACKBURN

ASSOCIATE DIRECTOR - TRAFFIC

KEY PROJECTS

Some of the most notable projects Ilona has been involved in include:

- Cross River Rail Traffic Management Planning
- St Elmo Vanadium Project
- Kawana Shopping World Expansion
- Queen's Wharf Integrated Resort Construction Traffic Management Planning
- Qantas Domestic Terminal Brisbane Lounge Expansion
- Griffith University Engineering Building Traffic Management Planning
- Pentland & Powlathanga Bio-Energy Projects
- RNA Redevelopment & Modelling
- Yeppoon Foreshore Master Plan
- Sunnybank Hospital Expansion
- Alpha Mining Village Master Plan
- Redbank Plains Shopping Centre Expansion
- Moreton Bay Rail Project
- Brisbane Commuter Bikeway Corridors Study
- NDRRA Transport Network Reconstruction Program , Far North & Central West Queensland
- QCLNG TMP, Gladstone
- Sunshine Coast University Hospital

QUALIFICATIONS

CPEng RPEQ (Civil)

DTMR Traffic Management Design (Open)

NSW Prepare Work Zone Traffic Management Plan

BEng (Hons) Civil Engineering and Management

CONTACT

Office: 07 5514 8000

Email: iblackburn@ttmgroup.com.au

Website: ttmgroup.com.au

EXPERIENCE:

Ilona is a Chartered Engineer with 17 years experience in the profession including 10 years in the UK. She has a sound understanding of all project disciplines and components from experience on several multidisciplinary projects that encompassed planning, design and construction.

She has a broad technical background and understanding of a wide range of components of a project from experience gained in highways design, traffic engineering, master planning, transport planning, construction site supervision, health and safety, risk assessment and transport modelling.

Throughout her career, Ilona has advised both public and private sector clients to develop the infrastructure requirements of various types of developments. This work has included assessing the feasibility of proposals, the identification of the scope and extent of transport impact analysis and off-site highway improvements, the preparation of transport assessments and travel plans in support of applications for planning approval.

Ilona complements her work with her experience in the development and implementation of traffic management plan strategies for construction. Incorporating prioritised programs for implementation she has developed traffic management strategies which identify issues, opportunities and constraints (physical and institutional) whilst considering developer, state, council and stakeholder feedback.

She provides a hands on approach to design and analysis and shows innovative thought and commitment which is reflected in her work.



Appendix B Travel Mode Survey

Penshurst Public School

Staff Travel Survey



This survey is being undertaken to determine the transport characteristics of the School. All responses will be anonymous and only **one response per staff** is requested. Your feedback to the following questions will greatly assist the School in managing its transport needs.

1. How do you travel to and from work on a typical day?

- | | |
|--|--------------------------------|
| <input type="checkbox"/> Car (as driver) | <input type="checkbox"/> Bus |
| <input type="checkbox"/> Car (as passenger) | <input type="checkbox"/> Cycle |
| <input type="checkbox"/> Motorbike / Scooter | <input type="checkbox"/> Walk |
| <input type="checkbox"/> Train | |

2. What time do you typically arrive at work?

- | | | |
|--|--|---|
| <input type="checkbox"/> Before 06:00 | <input type="checkbox"/> 07:30 – 07:59 | <input type="checkbox"/> 09:30 – 09:59 |
| <input type="checkbox"/> 06:00 – 06:29 | <input type="checkbox"/> 08:00 – 08:29 | <input type="checkbox"/> 10:00 or later |
| <input type="checkbox"/> 06:30 – 06:59 | <input type="checkbox"/> 08:30 – 08:59 | |
| <input type="checkbox"/> 07:00 – 07:29 | <input type="checkbox"/> 09:00 – 09:29 | |

3. What time do you typically travel home?

- | | | |
|--|--|---|
| <input type="checkbox"/> Before 15:00 | <input type="checkbox"/> 16:30 – 16:59 | <input type="checkbox"/> 18:30 – 18:59 |
| <input type="checkbox"/> 15:00 – 15:29 | <input type="checkbox"/> 17:00 – 17:29 | <input type="checkbox"/> 19:00 or later |
| <input type="checkbox"/> 15:30 – 15:59 | <input type="checkbox"/> 17:30 – 17:59 | |
| <input type="checkbox"/> 16:00 – 16:29 | <input type="checkbox"/> 18:00 – 18:29 | |

4. In a typical week, when do you attend school?

	Monday	Tuesday	Wednesday	Thursday	Friday
All day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Morning only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Afternoon only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. If you travel by car, why do you travel by car? (Tick all that apply)

- I use the car as part of another trip (drop off children/partner to another place / shopping / gym etc.)
- Lack of convenient bus stop/train station close to home
- Lack of public transport services
- Takes longer by public transport
- No direct route (e.g. need to change buses, or from train to bus to complete the journey)
- Heavy bags / bulky items to carry (e.g. files, papers etc.)
- Other (please specify)

6. If you drive, where do you park?

- Dropped off (do not park)
- Allocated parking in the school grounds
- Adjacent street (please specify street name below)
- Adjacent car park (please specify car park location below)
- Other (please specify below)

7. What postcode/suburb do you live in?

8. Do you have any thoughts and ideas to reduce car dependency to the school campus?

Thank you for taking our survey. Your response is very important to us.

Penshurst Public School

Student Travel Survey



This survey is being undertaken to determine the transport characteristics of the School. All responses will be anonymous and only **one response per student** is requested. Parents may complete this survey for the students, if necessary. If you have more than one child at the School, please answer the questionnaire for each child. Your feedback to the following questions will greatly assist the School in managing its transport needs.

1. What year group are you in?

- | | | |
|---------------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> Kindergarten | <input type="checkbox"/> Year 3 | <input type="checkbox"/> Year 5 |
| <input type="checkbox"/> Year 1 | <input type="checkbox"/> Year 4 | <input type="checkbox"/> Year 6 |
| <input type="checkbox"/> Year 2 | | |

2. How do you travel to school on a typical morning?

- | | |
|--|--------------------------------|
| <input type="checkbox"/> Car (as driver) | <input type="checkbox"/> Train |
| <input type="checkbox"/> Car (with parents) | <input type="checkbox"/> Bus |
| <input type="checkbox"/> Car (with another family) | <input type="checkbox"/> Cycle |
| <input type="checkbox"/> Motorbike / Scooter | <input type="checkbox"/> Walk |

3. If you travel by car, how many other students at the school travel with you?

- | | | | |
|-------------------------------|----------------------------|----------------------------|-----------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5+ |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 3 | <input type="checkbox"/> 5 | |

4. If you travel to school by car, where are you dropped off? Where do you park?

- Drop off at kerb side on Arcadia Street
- Park in the school grounds
- Adjacent street (please specify street name)
- Adjacent car park (please specify car park location)
- Other (please specify)

5. Does your parent/guardian walk with you to school?

- Yes No Sometimes

6. If you travel by car, why do you travel by car? (Tick all that apply)

- The car is used for more than one purpose (eg. parent/guardian drives to work after dropping me off)
- Lack of convenient bus stop/train station close to home
- Lack of public transport services
- Takes longer by public transport
- No direct route (e.g. need to change buses, or from train to bus)
- It is safer
- Heavy bags / bulky items to carry (e.g. books, musical instrument, sports kit etc.)
- Other (please specify)

7. How do you travel from school on a typical afternoon?

- | | |
|--|--------------------------------|
| <input type="checkbox"/> Car (as driver) | <input type="checkbox"/> Train |
| <input type="checkbox"/> Car (with parents) | <input type="checkbox"/> Bus |
| <input type="checkbox"/> Car (with another family) | <input type="checkbox"/> Cycle |
| <input type="checkbox"/> Motorbike / Scooter | <input type="checkbox"/> Walk |

8. If you travel by car, how many other students at the school travel with you?

- | | | | |
|-------------------------------|----------------------------|----------------------------|-----------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5+ |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 3 | <input type="checkbox"/> 5 | |

9. If you travel from school by car, where are you picked up in the afternoon?

- Kerb side on Arcadia Street
- Adjacent street (please specify street name)
- Adjacent car park (please specify car park location)
- Other (please specify)

10. How do you get to the car?

- Wait on street on Arcadia Street
- Walk to adjacent street (please specify street name)
- Wait inside school grounds for parent/guardian

11. If you travel by car from school, why do you travel by car? (Tick all that apply)

- The car is used for more than one purpose (eg. parent/guardian drives to shops after picking me up)
- Lack of convenient bus stop/train station close to home
- Lack of public transport services
- Takes longer by public transport
- No direct route (e.g. need to change buses, or from train to bus)
- It is safer
- Heavy bags / bulky items to carry (e.g. books, musical instrument, sports kit etc.)
- Other (please specify)

12. Where do you live?

- Area 1
- Area 2
- Area 3
- Area 4
- Area 5



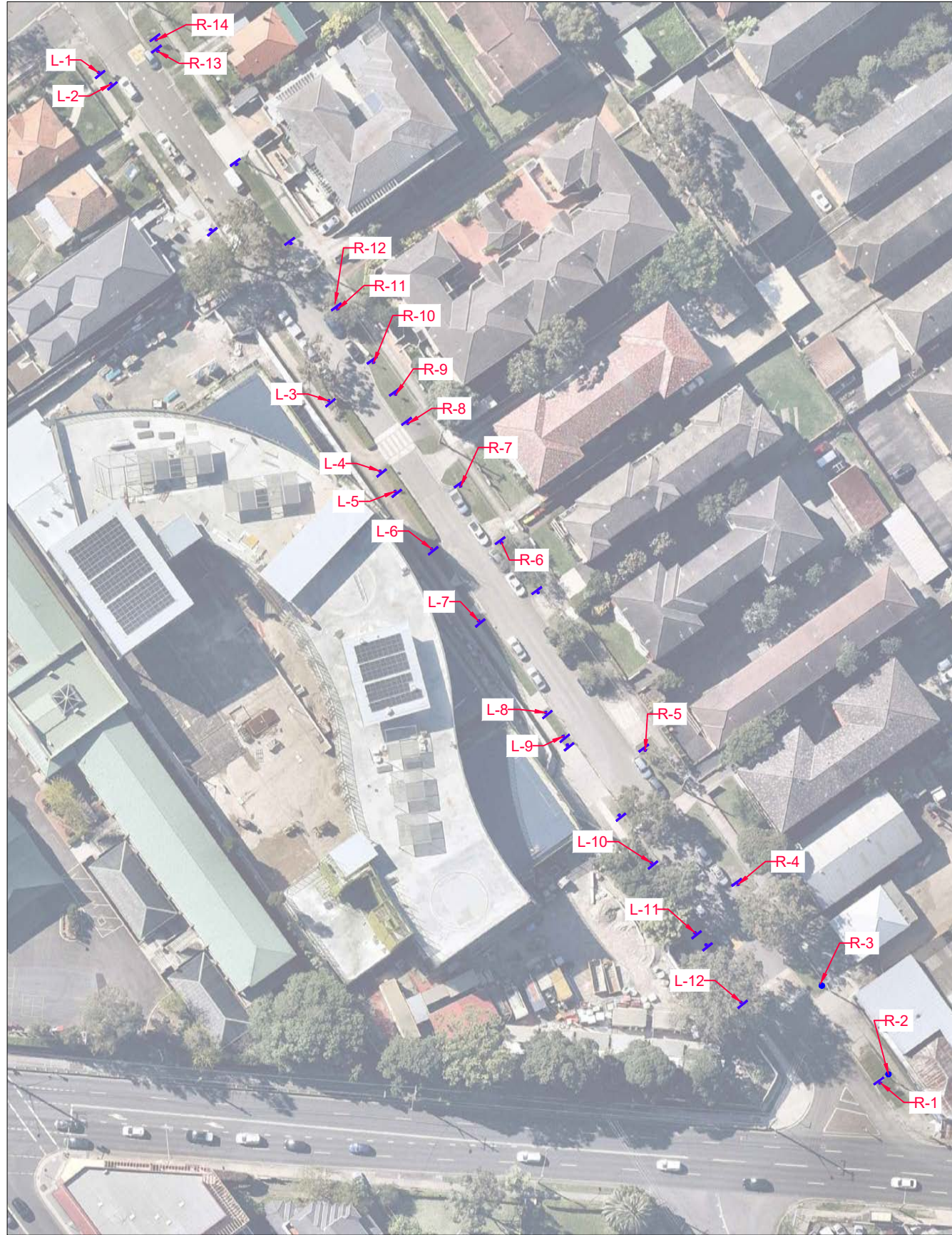
- Other (please provide suburb and postcode)

7. Do you have any thoughts and ideas to reduce car dependency to the school campus?

Thank you for taking our survey. Your response is very important to us.

Appendix C Parking Restrictions Plan

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L-1



L-2



L-3



R-1



R-2



R-3



L-4



L-5



L-6



R-4



R-5



R-6



L-7



L-8



L-9



R-7



R-8



R-9



L-10



L-11



L-12



R-10



R-11



R-12



R-13

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	26-10-20	ORIGINAL ISSUE	SM	IB	IB

SCALE
NOT TO SCALE

NORTH

CLIENT
GRINDLEY CONSTRUCTION PTY LTD

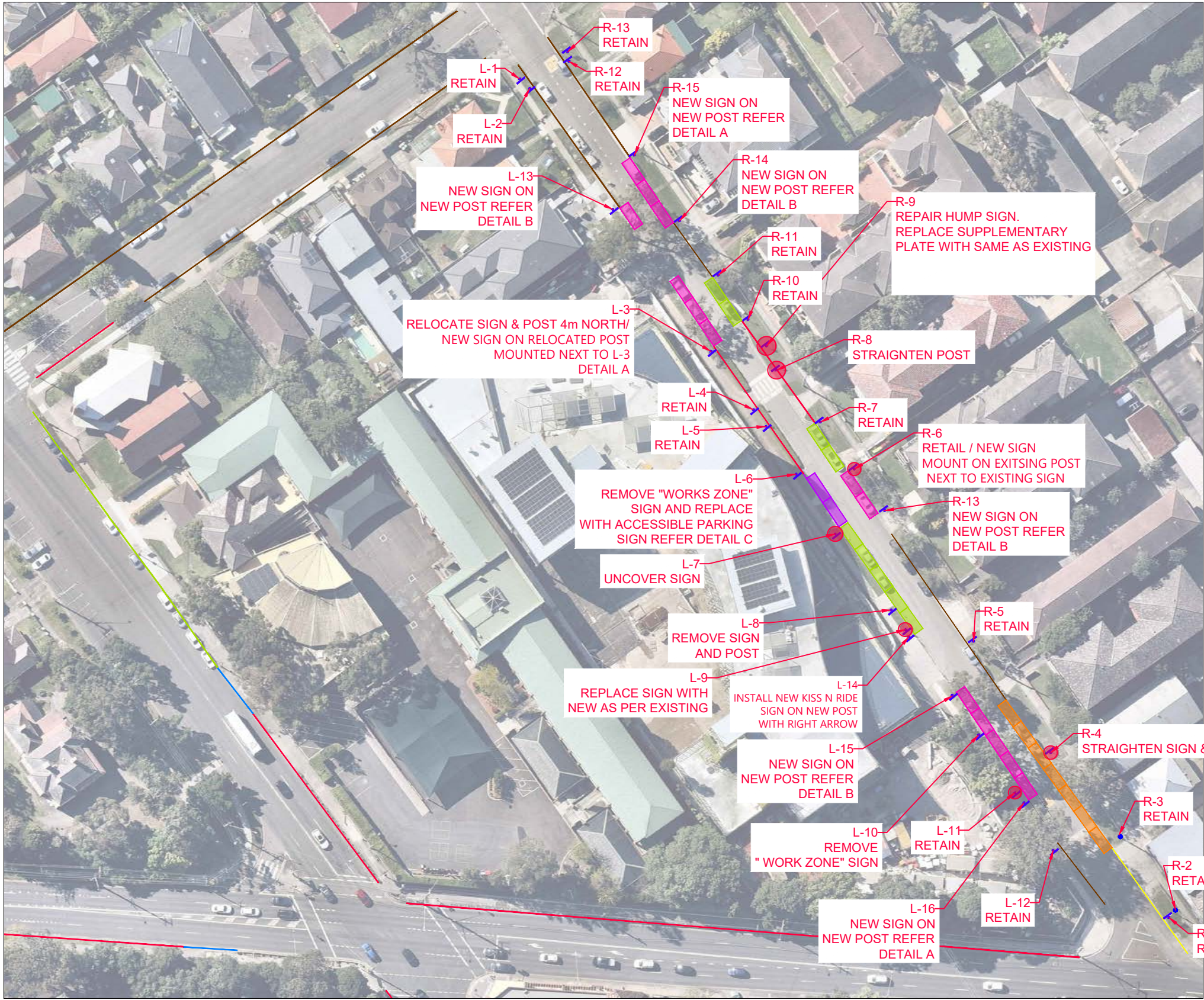
ttm CONSULTING PTY LTD
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 T: (07) 5514 8000
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PROJECT
PENSHURST PUBLIC SCHOOL - ROAD SAFETY MEASURE

DRAWING TITLE
EXISTING PARKING RESTRICTIONS LOCALITY PLAN

PROJECT NUMBER 20SYT0059	ORIGINAL SIZE A3
DRAWING NUMBER 20SYT0059-07	REVISION A
DATE 26 Oct 2020	SHEET 1 OF 1

o:\synergy\projects\20sy\20sy\0059 penshurst public school - ssda conditions3 - plans\201022- (street parking)\20sy\0059-.dwg



LEGEND

-  KISS & RIDE
-  BUS ZONE
-  P5 PARKING
-  1P PARKING
-  UNRESTRICTED
-  CLEARWAY/ NO STOPPING
-  NO PARKING
-  ACCESSIBLE PARKING
-  DAMAGED SIGNS



DETAIL A




DETAIL B



DETAIL C

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	26-10-20	ORIGINAL ISSUE	SM	IB	IB

SCALE
NOT TO SCALE

NORTH 

CLIENT
GRINDLEY CONSTRUCTION PTY LTD

ttm TTM CONSULTING PTY LTD

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PROJECT
PENSHURST PUBLIC SCHOOL - ROAD SAFETY MEASURE

DRAWING TITLE
PROPOSED PARKING RESTRICTIONS LOCALITY PLAN

PROJECT NUMBER 20SYT0059	ORIGINAL SIZE A3
DRAWING NUMBER 20SYT0059-08	REVISION A
DATE 26 Oct 2020	SHEET 1 OF 1