

Operational Traffic Management Plan

Loreto Normanhurst Master Plan

Prepared for Loreto Normanhurst / 8 December 2020

181202 TAAB

Contents

1.0	Introduction	5
1.1	Aim	5
1.2	School Objectives	5
1.3	Roles and Responsibilities	5
2.0	Background.....	6
2.1	Site Location	6
2.2	Current Operations.....	7
2.2.1	Parking and Access.....	7
2.2.2	Pick Up and Drop Off.....	8
2.2.3	Buses.....	8
3.0	Future Operations	9
3.1	Proposed Concept Plan.....	9
4.0	Pick Up and Drop Off Management	10
4.1	Priority Routes	10
4.2	Procedure	11
4.2.1	Prior to Arrival	11
4.2.2	Ingress Route.....	11
4.2.3	Management Upon Arrival	12
4.2.4	Management Before Departure.....	12
4.2.5	Egress Route	12
4.3	Management Strategies	12
4.3.1	Inform of Alternative Transport Methods	12
4.3.2	Inform of Operational Traffic Management Plan	12
4.3.3	Website, Email and Newsletter Communication	12
4.3.4	Dedicated Locations for Pick Up and Drop Off	12
4.3.5	Parking Zones	13
4.3.6	Traffic Marshals.....	13
4.3.7	Right Turn Audits.....	13
5.0	Pedestrian and Cyclist Management	14
5.1	Priority Routes	14
5.2	Procedure	15

5.2.1	Ingress Route.....	15
5.2.2	Egress Route	15
5.2.3	Management during Arrival and Departure.....	15
5.3	Management Strategies	15
5.3.1	Crossing Guard	15
5.3.2	In-class Public and Active Travel to School Education	15
5.3.3	Walking School Bus.....	15
5.3.4	End-of-Trip Facilities.....	15
5.3.5	Learn to Cycle Programs.....	15
6.0	Car Park Management	16
6.1	Priority Routes	16
6.2	Procedure	17
6.2.1	Allocation of Spaces.....	17
6.2.2	Ingress Route.....	17
6.2.3	Egress Route	17
6.3	Management Strategies	17
6.3.1	Inform of Alternative Transport Methods	17
6.3.2	Inform of Operational Traffic Management Plan	17
6.3.3	Student Parking Cap	17
6.3.4	Website, Email and Newsletter Communication	17
6.3.5	Dedicated Locations for Staff and Student Parking	17
6.3.6	Parking Audits.....	18
7.0	Service Vehicle Management.....	19
7.1	Priority Routes	19
7.2	Procedure	20
7.2.1	Ingress Route.....	20
7.2.2	Egress Route	20
7.3	Management Strategies	20
7.3.1	Inform of Operational Traffic Management Plan	20
7.3.2	Delivery Schedules.....	20
8.0	Bus and Coach Management	21
8.1	Priority Routes	21
8.2	Procedure	21
8.2.1	Prior to Arrival	21

8.2.2	Ingress Route.....	21
8.2.3	Management Within Slip Road	22
8.2.4	Egress Route	22
8.3	Management Strategies	22
8.3.1	Inform of Operational Traffic Management Plan	22
8.3.2	Bus Pick Up and Drop Off Schedules	22
9.0	Special Events	23
9.1	Parking	23
9.2	Access.....	24
9.3	Management Strategies	24
9.3.1	Inform of Alternative Transport Methods	24
9.3.2	Inform of Operational Traffic Management Plan	24
10.0	Conclusion.....	25

Revision Register

Rev	Date	Remarks	Prepared By	Reviewed By	Approved By
0	16/10/20	Draft	GC	PY	-
1	4/12/20	For Review	GC	PY	PY
2	8/12/20	For Issue	GC	PY	PY

Document Control

Internal reference	181202 TAAB
File path	P:\2018\1812\181202\Reports\TTW\Traffic\2020 SSDA Submission\Operational Management Plan\Operational Management Plan.docx

Reviewed by



GRACE CARRP

Senior Traffic Engineer

Authorised By



**PAUL
YANNOULATOS**
Technical Director

TAYLOR THOMSON WHITTING (NSW) PTY LTD
in its capacity as trustee for the
TAYLOR THOMSON WHITTING NSW TRUST

1.0 Introduction

1.1 Aim

This Operational Traffic Management Plan has been prepared for the Loreto Normanhurst Master Plan project as part of the State Significant Development Approval process (reference number SSD 17_8996).

The aim of this Plan is to formalise movements of pedestrians, cyclists, private vehicles (pick-up/drop-off and parking), and buses related to the Loreto Normanhurst School Campus. This Plan considers the staged development of the Campus through the Master Plan and addresses the impact of the operation of the Early Learning Centre (ELC).

This Plan has been developed in consultation with the School and with consideration to the community's concerns and authority requirements. This Plan should be read in conjunction with the Green Travel Plan for the site.

1.2 School Objectives

The objectives of the School in the implementation of this Plan include:

- Decongest area roads.
- Increased safety in travel to School and for the general public.
- Encouragement of healthy travel to School.

1.3 Roles and Responsibilities

The person responsible for the overall implementation and evaluation of this Plan shall be the Principal. The Principal is responsible for delegations or actions as necessary, which may include:

- Allocation of other transport 'champions' within the School staff team.
- Liaison with students and parents.
- Publication of transport related information and updates (such as newsletter information).
- Organisation of monitoring and evaluation processes.

2.0 Background

2.1 Site Location

Loreto Normanhurst is located within the local government area of Hornsby Shire Council, approximately 750m south of the Normanhurst Railway Station (refer to Figure 2.1).

The site comprises the existing campus grounds of the Loreto Normanhurst school at 91 – 93 Pennant Hills Road, Normanhurst. The campus itself is bound by Pennant Hills Road (to the north), Osborn Road (to the west) and Mount Pleasant Avenue (to the east). Detached dwellings on individual residential lots abut the southern boundary of the site.

Figure 2.2 provides an aerial map of the site and its immediate surrounds.

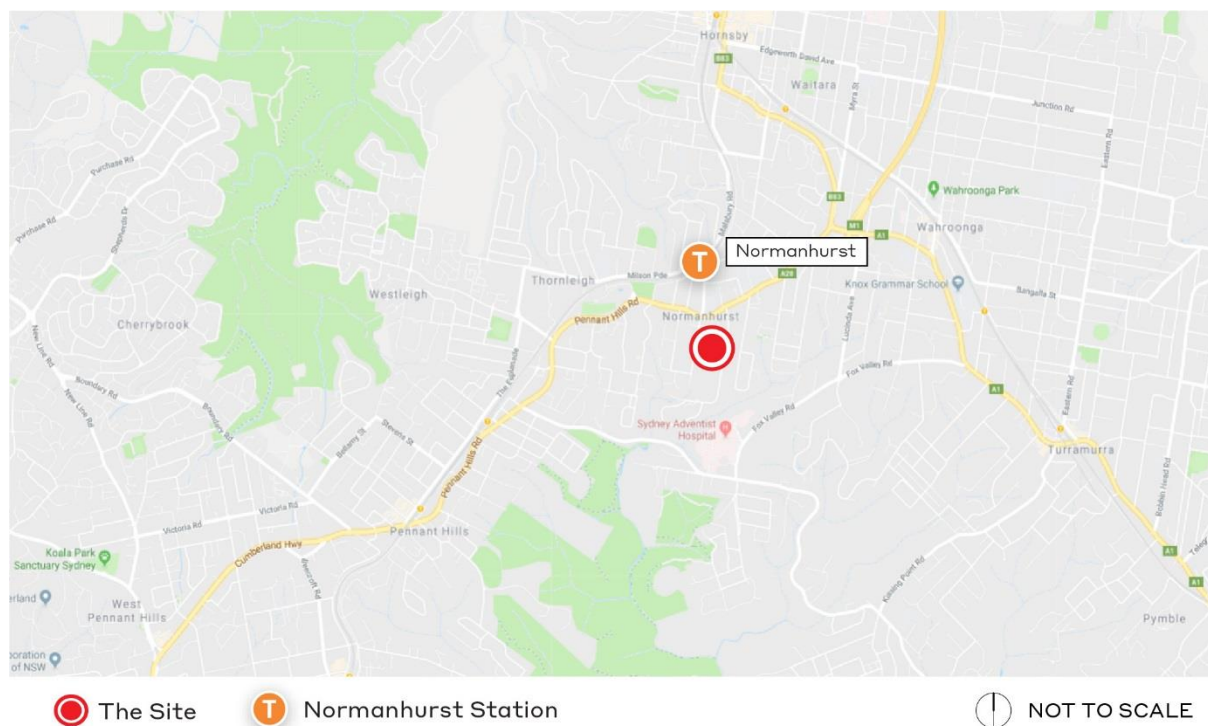


Figure 2.1: Loreto Normanhurst Campus Location Context Plan
Source: Ethos Urban



Figure 2.2: Aerial Map of the Loreto Normanhurst Campus
Source: AJ+C Architects

2.2 Current Operations

2.2.1 Parking and Access

The existing on-site parking consists of 187 spaces located across the site with the main two car parks accessed from Osborn Road to the west of the site and centrally to the site from Mount Pleasant Avenue. There are access driveways to the School from Osborn Road, Mount Pleasant Avenue and Pennant Hills Road.

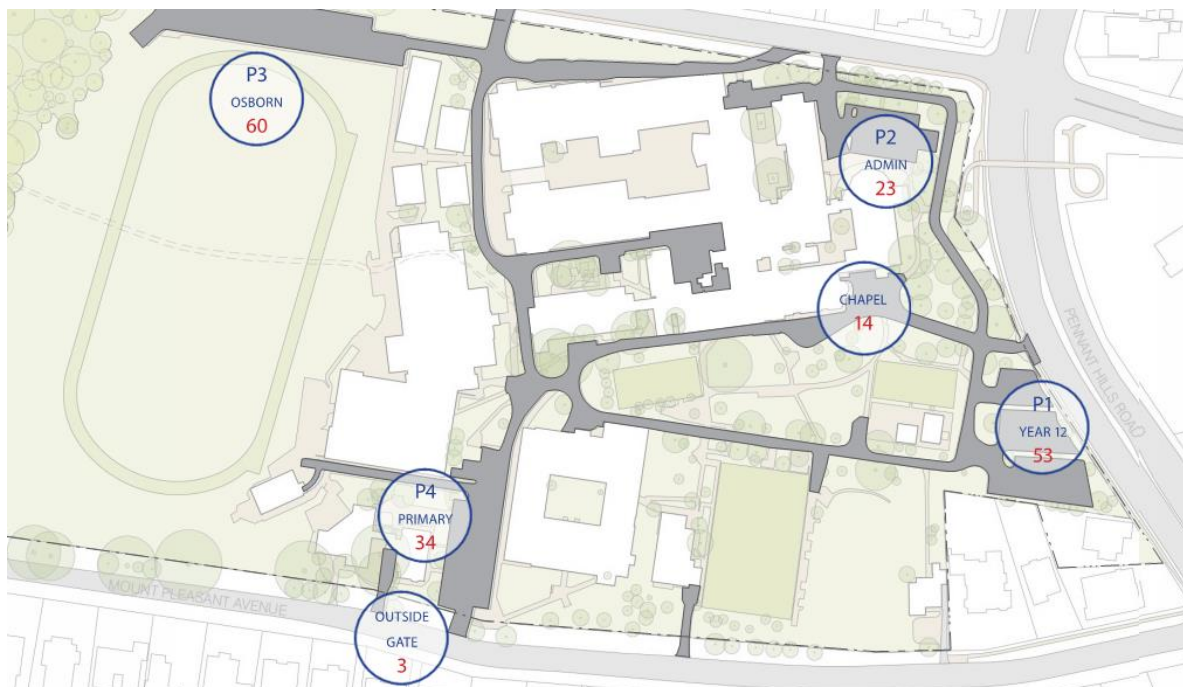


Figure 2.3: Existing On Site Car Parking
Source: AJ+C

2.2.2 Pick Up and Drop Off

There is a dedicated pick-up and drop-off (PUDO) facility accessed from Osborn Road that accommodates approximately four vehicles in a separated drop off bay along the western kerbside with a through lane and bus drop off on the eastern side that can accommodate two bus vehicles.

During drop off times, vehicles are marshalled into drop off bays where students disembark and cross the through road to access the School. If no spaces are available, drivers are instructed to recirculate. Similarly, during pick up drivers are instructed to continue to recirculate if their child is not yet ready. This recirculation is intended to reduce queuing from the PUDO into Osborn Road.

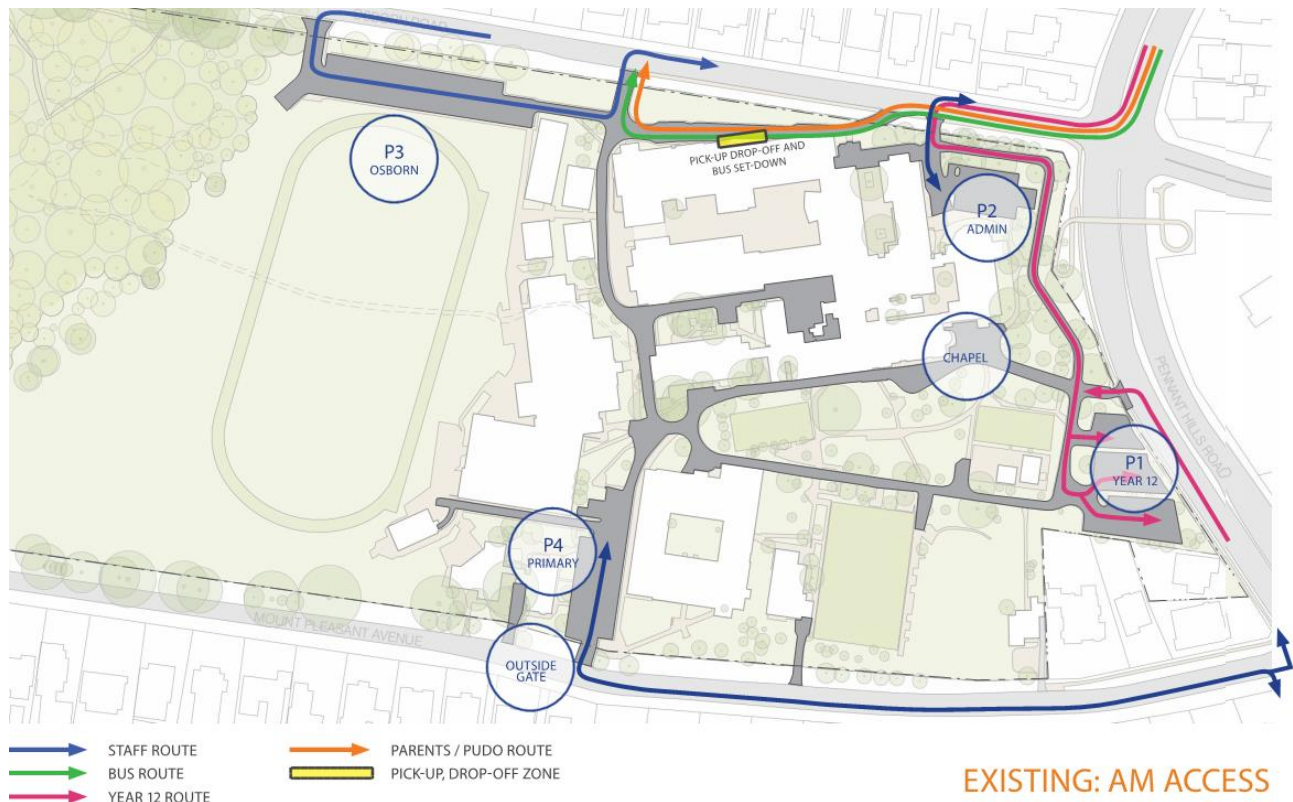


Figure 2.4: Existing Traffic Flows in PUDO Facility
Source: AJ+C

2.2.3 Buses

There is a dedicated bus layover within the Osborn Road PUDO facility that can accommodate two buses. The School currently manages bus pick-up by organising students into bus lines prior to the bus arriving to make the boarding process quicker. The access driveway to the bus layover is shared with the traffic generated by the PUDO. This is illustrated in Figure 2.4.

3.0 Future Operations

3.1 Proposed Concept Plan

The Concept Plan sets out a 30 year projection of development of the Loreto Normanhurst campus that includes:

- Establishment of a series of new building envelopes across the site for education and ancillary uses including student accommodation;
- Increase of the student number cap to 2,000 students from 1,150;
- Improvements to open space and landscape design;
- Changes to pedestrian and circulation arrangements; and
- Associated car parking provision.

The Concept Plan includes staged development of the Campus. This Operational Traffic Management Plan will detail the traffic management at the completion of the Campus development. It is noted that the developments most impacting the site's traffic are to be completed during Stage 1.

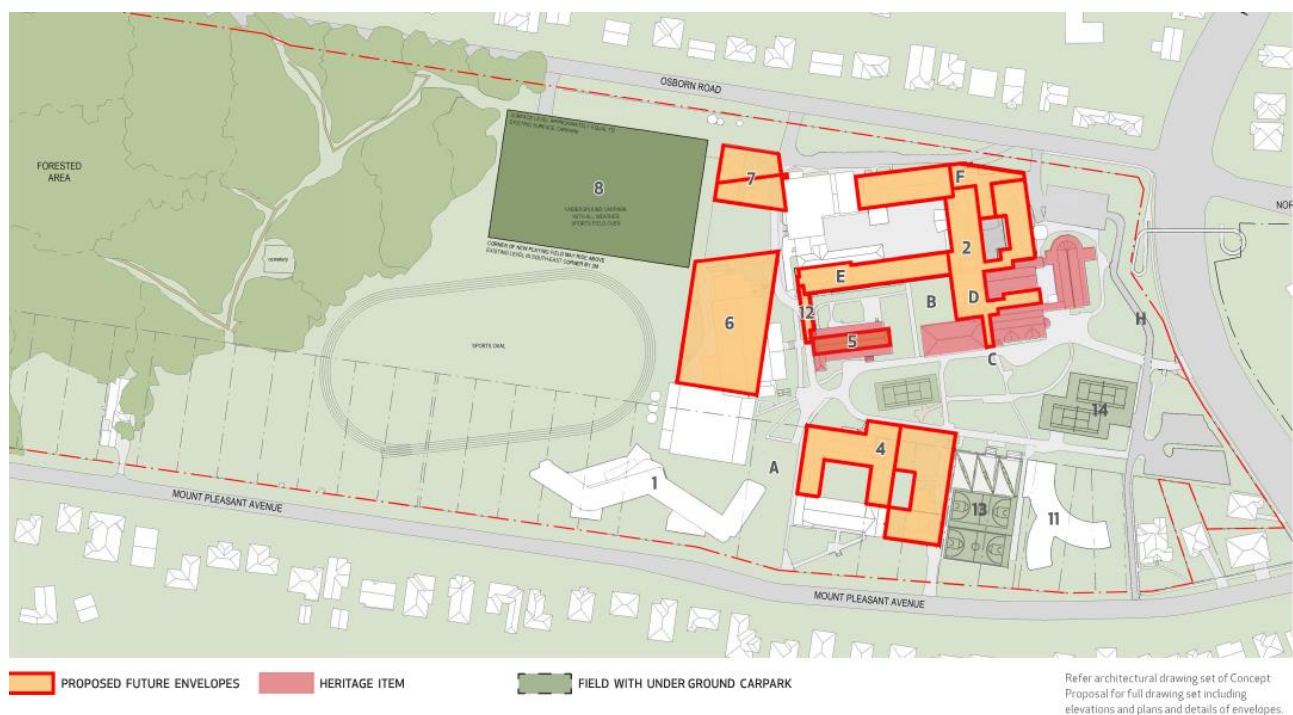


Figure 3.1: Concept Plan Site Layout
Source: AJ+C

4.0 Pick Up and Drop Off Management

4.1 Priority Routes

Postcode data received from the School has indicated that there is a relatively even split of approaches to the site, with 52% of students likely to approach the School from the East and 48% likely to approach from the West (refer to Figure 4.1).

With the current drop off location, drivers to the site enter and exit through Osborn Road. In future once the through-site link is operational, drivers approaching from the west will enter the school via Osborn Road and exit via Mount Pleasant Avenue. The Early Learning Centre (ELC) within the Campus will have a pick up and drop off facility accessed by Mount Pleasant Avenue.

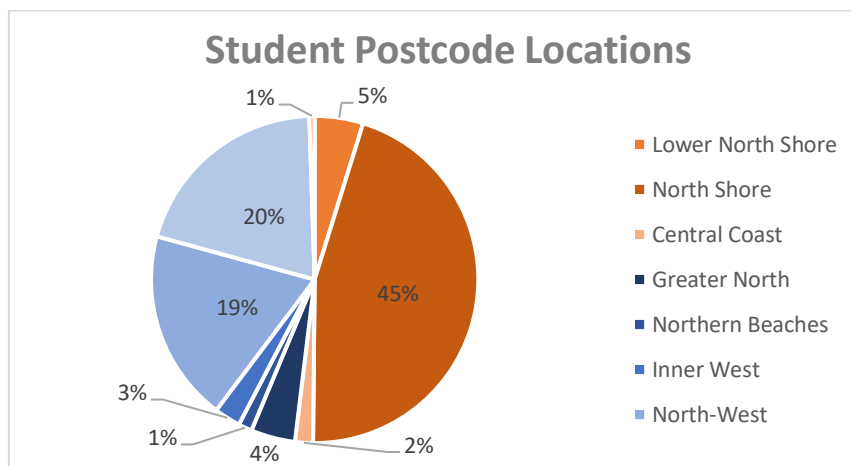


Figure 4.1: Student Postcode Split

Priority routes are therefore from Pennant Hills Road to the site from Osborn Road and Mount Pleasant Avenue.

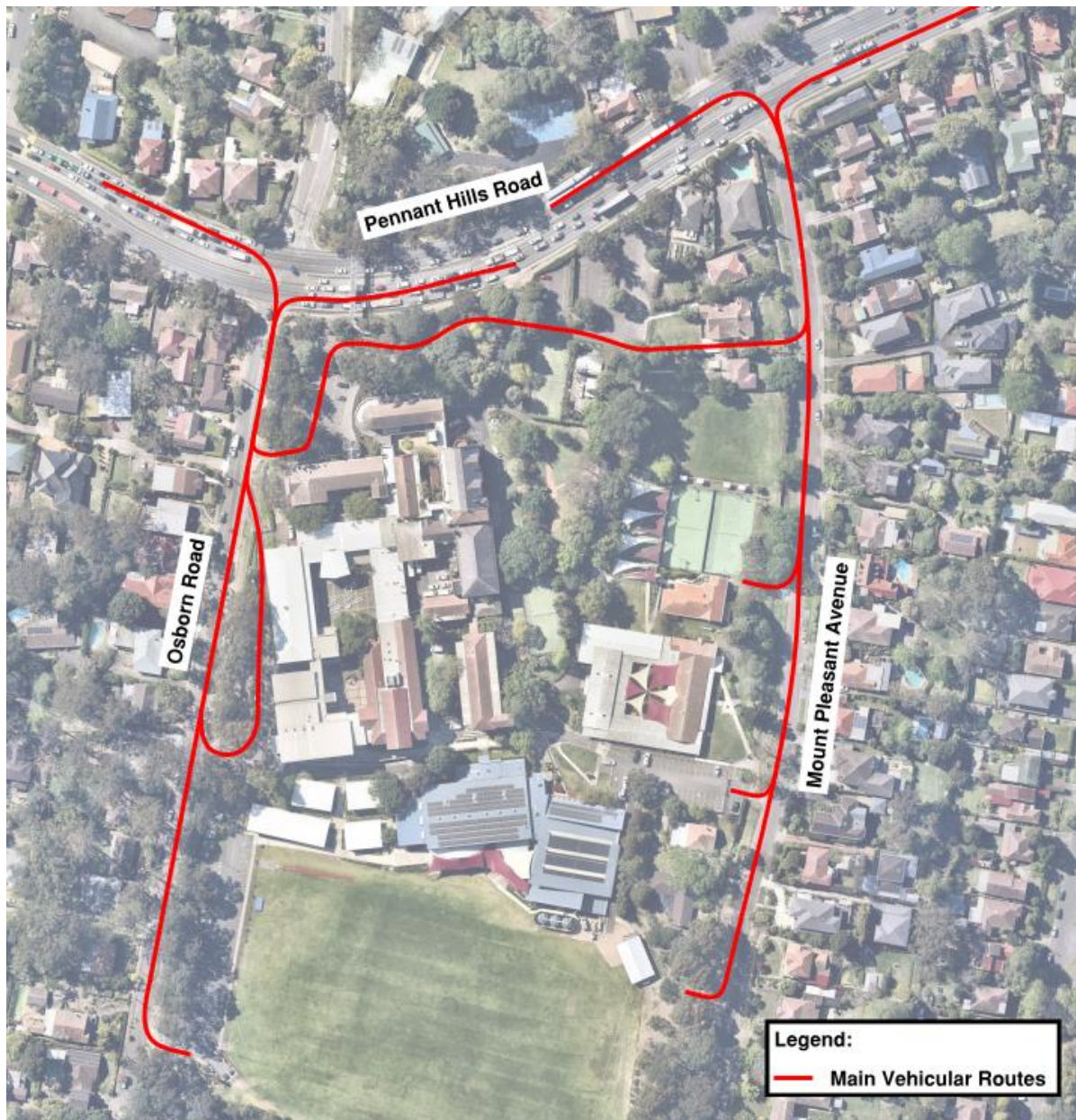


Figure 4.2: Priority Vehicle Routes

4.2 Procedure

4.2.1 Prior to Arrival

Parents/carers will be allocated to a specific drop off location based on their approach to the school. Those with addresses to the west of the site will be directed to use the through site link and those to the east of the site will be directed to use Osborn Road. Those travelling to/from the ELC will be required to enter the School via Mount Pleasant Avenue.

Parents/carers will be required to display the last name(s) of who they are picking up to provide advance warning to students when their pick up arrives.

4.2.2 Ingress Route

To access both pick up and drop off facilities for the main School Campus, vehicles will be required to enter from Osborn Road. To access the ELC drop off, vehicles will enter from Mount Pleasant Avenue.

4.2.3 Management Upon Arrival

As the vehicles arrive, traffic marshals will be in place to direct vehicles through the pick up and drop off bays. Should all the bays be full, the traffic marshal will direct vehicles to continue through the bay to recirculate through the drop off. For the Osborn Road drop off, vehicles will be directed to exit back onto Osborn Road and re-enter the entry driveway. For the through site link, vehicles will be required to continue out of the link onto Mount Pleasant Avenue, Pennant Hills Road and Osborn Road.

Pick up and drop off areas will be signposted as No Parking which restricts stopping time to 2 minutes and requires drivers to remain in or within 3 metres of their vehicles.

At the ELC pick up and drop off parents/carers will be required to escort the student into the building.

4.2.4 Management Before Departure

Once passengers have been picked up, the traffic marshals will manage the safe merging of vehicles back into the through lanes of both pick up and drop off facilities. Should a queue be forming on Mount Pleasant Avenue, drivers will be directed to queue within the school grounds prior to exiting to avoid queuing on the public roadway.

4.2.5 Egress Route

Drivers using the through site link will be directed to turn left at the intersection of Mount Pleasant Avenue and Pennant Hills Road. Those using the Osborn Road facility will exit Osborn Road via a right turn onto Pennant Hills Road.

Drivers using the ELC drop off will be directed to exit Mount Pleasant Avenue via a left turn. Those needing to travel east will need to turn right at Normanhurst Road and perform a u-turn at the roundabout at the intersection of Normanhurst Road and Denman Parade.

4.3 Management Strategies

4.3.1 Inform of Alternative Transport Methods

To reduce reliance on private vehicles, parents/carers will be provided with the Green Travel Plan and Transport Access Guide to make them aware of the public and active transport options available to them.

4.3.2 Inform of Operational Traffic Management Plan

Strategies detailed within this Operational Traffic Management Plan including the vehicular routes to be taken, pick up and drop off locations, recirculation requirements and other travel considerations should be communicated to parents/carers and students prior to their journey to the School.

4.3.3 Website, Email and Newsletter Communication

As one of the major areas of potential road safety concerns and traffic issues, good management of the drop off and pick up area relies on a good understanding of the correct operation by parents and carers. The School website and newsletter will be kept up to date with current advice and direction on usage of the pick up and drop off.

4.3.4 Dedicated Locations for Pick Up and Drop Off

The School will implement dedicated pick up and drop off areas that relate to whether the student is travelling

to/from the west or east. Those students travelling from the west will be directed through the through-site link, students travelling from the east will be directed to use the Osborn Road pick up and drop off.

4.3.5 Parking Zones

The implementation of a No Parking zone restriction, will restrict stopping time to 2 minutes and require drivers to remain in or within 3 metres of their vehicle. Maintaining these parking restrictions in place will prevent drivers from arriving at the pick up zone early and causing queuing and congestion within Osborn Road.

4.3.6 Traffic Marshals

As is currently implemented, a staff member will monitor the pick up and drop off areas to ensure that drivers remain within their car and do not arrive early to the pick up and drop off. These marshals will be responsible for enforcing the parking zone restriction and ensuring that vehicles continue to recirculate through the pick up should their child not be located at the pick up zone.

4.3.7 Right Turn Audits

Quarterly an audit will occur to review whether instructions have been followed by parents/carers exiting Mount Pleasant Avenue to turn left.

5.0 Pedestrian and Cyclist Management

5.1 Priority Routes

Key pedestrian routes external to the Campus are to and from Normanhurst Station where bus and train connections are available and to and from Pennant Hills Road which connects to the adjacent local streets.

The priority routes are well serviced by pedestrian facilities. Pennant Hills Road provides concrete footpaths on both kerbsides, with a footbridge crossing and a signalised crossing at Osborn Road. This footbridge crossing provides access from Normanhurst Station. No formalised pedestrian crossing is available along Mount Pleasant Avenue.

Within the site the key priority routes are to and from the pick up and drop off locations. Currently this is to and from the western boundary of the Campus. As discussed in Section 4.0, following completion of the Master Plan there will be two locations where this will occur.

The School is not linked to any local cycling route and the surrounding topography and road access results in difficult cyclist access to the site. Due to the constrained access roads, it is anticipated that cyclists will approach from Pennant Hills Road or the pedestrian bridge that extends across Pennant Hills Road.

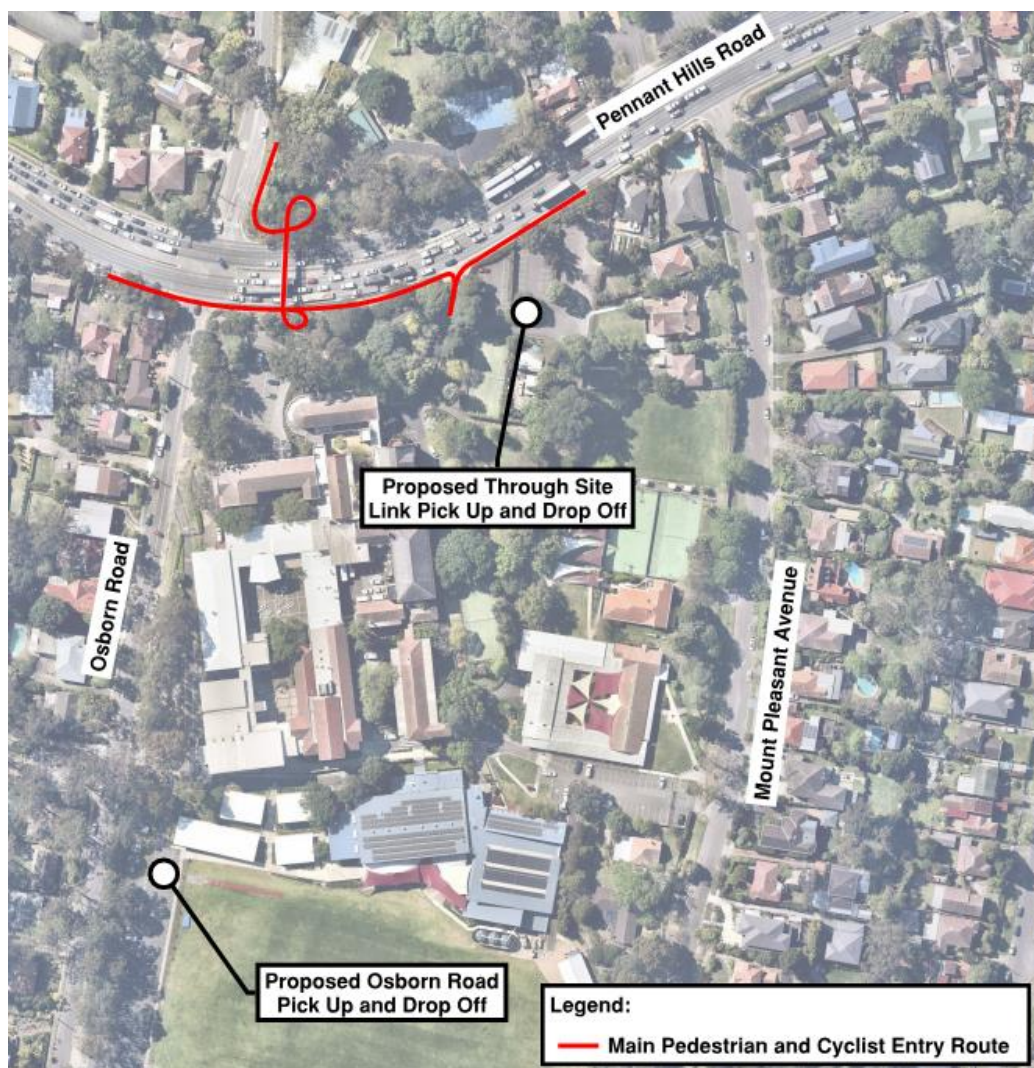


Figure 5.1: Priority Pedestrian and Cyclist Routes

5.2 Procedure

5.2.1 Ingress Route

The majority of pedestrians are to enter the School through the main entry from Pennant Hills Road. Additional pedestrian entries are located from Mount Pleasant Avenue. No pedestrian pathways enter the School from Osborn Road.

5.2.2 Egress Route

As with the ingress route, pedestrians are to exit the School through the Pennant Hills Road pathway. Some pedestrians may also exit onto Mount Pleasant Avenue.

5.2.3 Management during Arrival and Departure

The main pedestrian entry requires crossing of the through-site link. It is proposed that a crossing guard be in place during peak times to allow for students to cross this roadway safely during pick up and drop off traffic movements. The pedestrian pathway width is such that a large volume of students are able to queue within the site prior to the through-site link.

5.3 Management Strategies

5.3.1 Crossing Guard

A crossing guard will be located at the crossing of the pedestrian entry with the through-site link to assist students in crossing this roadway during peak pick up and drop off times.

5.3.2 In-class Public and Active Travel to School Education

Students should be educated about safe public transport and active travel to school. Not all students may be aware of different travel modes. An in-class education should be held for students to discuss public and active travel to school.

5.3.3 Walking School Bus

In a Walking School Bus program, students walk to and from school in a group supervised by parents, with a specified route and pick-up points similar to that of a school bus. This supervised and organised system is considered to provide improved safety for students walking to school, which is an encouragement to children and their parents/carers. It is recommended that this system be put in place for primary school students.

5.3.4 End-of-Trip Facilities

End-of-trip facilities are those facilities such as lockers and drying facilities for active transport users to refresh and prepare at the end of the journey. Depending on uptake and attitudes toward cycling as a travel mode, provision of facilities such as lockers could encourage more staff to cycle to the School.

Cycling options and the School's end-of-trip facilities provided should be discussed in staff meetings to encourage staff members to travel by cycling.

5.3.5 Learn to Cycle Programs

Students could be encouraged to use bikes through learning to cycle programs at school as practical skill development. The playing field could be a training ground for students interested to learn cycling. Share or loan a bike within the school for students could be applied while taking the program.

6.0 Car Park Management

6.1 Priority Routes

As noted in Section 2.2.1, there are a number of car parks located throughout the School site. Currently there are allocated general locations for Year 12 car parking, staff parking and visitor parking. While staff do not currently have specific spaces allocated to them, generally staff park in areas close to their classrooms.

As a result there are a number of priority routes to car parking spaces, however these spaces are all accessed from Osborn Road and Mount Pleasant Avenue.



Figure 6.1: Car Parking Areas

6.2 Procedure

6.2.1 Allocation of Spaces

Staff will be allocated specific car parking locations to use to prevent excessive recirculation and additional traffic volumes on local streets.

Students will also be provided with a specific parking location and must display their parking permit at all times within the School.

6.2.2 Ingress Route

Staff will approach the site from Osborn Road or Mount Pleasant Avenue dependent on their allocated car parking location.

Students will approach from Osborn Road and enter the student parking area through the through-site link.

6.2.3 Egress Route

Staff will exit the site via Osborn Road or Mount Pleasant Avenue dependent on their allocated car parking location.

Students will exit the site via the through-site link to Mount Pleasant Avenue.

6.3 Management Strategies

6.3.1 Inform of Alternative Transport Methods

To reduce reliance on private vehicles, staff and students who have their license will be provided with the Green Travel Plan and Transport Access Guide to make them aware of the public and active transport options available to them.

6.3.2 Inform of Operational Traffic Management Plan

Strategies detailed within this Operational Traffic Management Plan including the vehicular routes to be taken, location of car parking space allocations and other travel considerations should be communicated to staff and students prior to their journey to the School.

6.3.3 Student Parking Cap

The School currently limits the number of permits provided for students to drive to School. This permit system should be maintained and enforced. Students will be provided with a parking pass that they must display when parking within the School site.

6.3.4 Website, Email and Newsletter Communication

The School website and newsletter will be kept up to date with current advice and direction on student parking.

6.3.5 Dedicated Locations for Staff and Student Parking

The School will implement allocated parking spaces for staff members, including allocation for carpooling spaces. Student parking allocation will meet the limit of parking permits provided.

6.3.6 Parking Audits

Quarterly a parking audit will occur to review whether the parking permits and instructions have been followed by the students and those students who have not adhered to this plan will be penalised.

7.0 Service Vehicle Management

7.1 Priority Routes

The proposed loading dock is located adjacent to the Boarding House which is accessed by Mount Pleasant Avenue. Other informal servicing also occurs around the site including through the existing Osborn Road car park and at the administration car park.

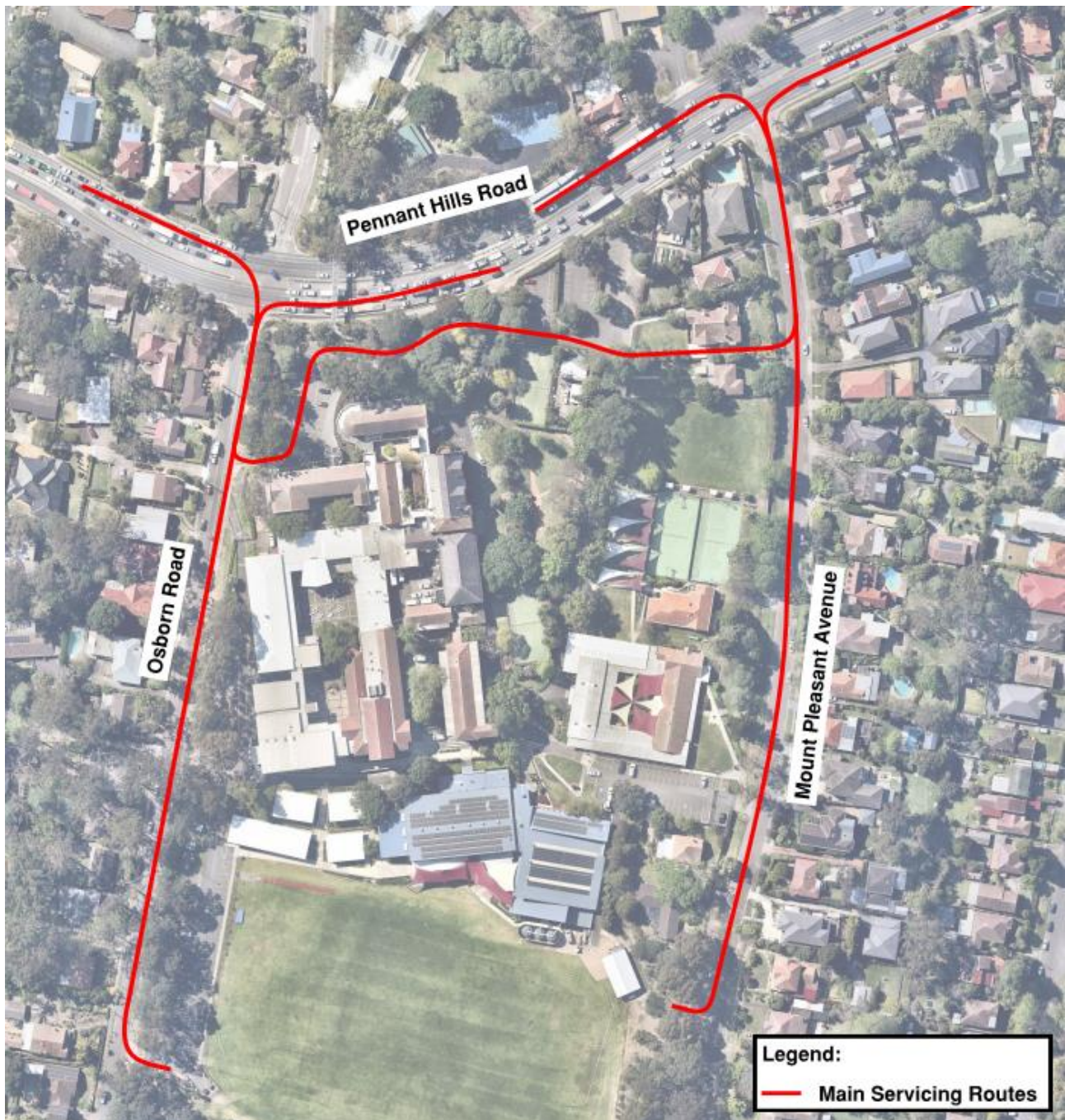


Figure 7.1: Service Vehicle Movements

7.2 Procedure

7.2.1 Ingress Route

To access the Boarding House loading dock, service vehicles enter via Mount Pleasant Avenue.

7.2.2 Egress Route

Service vehicles are to turn around within the site at the designated manoeuvring area provided within the loading dock. Service vehicles elsewhere on the campus are to exit the site in a forward direction.

7.3 Management Strategies

7.3.1 Inform of Operational Traffic Management Plan

Strategies detailed within this Operational Traffic Management Plan including the vehicular routes to be taken, management of students and vehicle priorities should be provided to all bus drivers to the site.

7.3.2 Delivery Schedules

All regular vehicle arrivals to the site should be scheduled. To ensure improved safety and management of the car park area, delivery times should be adjusted where possible to ensure an even spread across the day. Overlap of bookings and the presence of multiple delivery or service vehicles should only occur when strictly necessary.

School deliveries should remain scheduled outside peak hours to ensure pedestrian safety at crossover points and to reduce local congestion.

8.0 Bus and Coach Management

8.1 Priority Routes

The bus and coach pick up and drop off area is accessed from Osborn Road and is the current location used for bus drop off and pick up. The only access route is through Osborn Road and its intersection with Pennant Hills Road.



Figure 8.1: Bus and Coach Priority Routes

8.2 Procedure

8.2.1 Prior to Arrival

During the afternoon pick up, bus passengers are to be organised in lines for each specific bus adjacent to the bus pick up area as per the existing management in place.

8.2.2 Ingress Route

Bus vehicles will enter the drop off bay through the existing driveway at Osborn Road.

8.2.3 Management Within Slip Road

Once buses arrive they are to queue within the designated area within the slip road with preference to the eastern kerbside. Passengers are to disembark or board at this area. Should buses be dropping passengers off on the western side of the slip road, the teacher on duty will be required to escort students across the slip road.

8.2.4 Egress Route

Bus vehicles will continue through the slip road and exit onto Osborn Road. Where the slip road meets the exit of the pick up and drop off movements, bus vehicles are to give way to oncoming passenger vehicles.

8.3 Management Strategies

8.3.1 Inform of Operational Traffic Management Plan

Strategies detailed within this Operational Traffic Management Plan including the vehicular routes to be taken, management of students and vehicle priorities should be provided to all bus drivers to the site.

8.3.2 Bus Pick Up and Drop Off Schedules

To ensure improved management of the slip road, a schedule should be implemented to ensure that there are adequate layover spaces for the bus vehicles within the slip road. Slight staggering of bus times may be required as bus vehicle volumes increase.

9.0 Special Events

Loreto Normanhurst hosts a number of events within the School grounds including sporting competitions, open days and fairs. The School also provides use of its Chapel for ceremonial events including weddings.

9.1 Parking

Generally parking during events is available throughout the School car parks. For significant events, overflow parking is made available within the School oval accessed from P3 Osborn Car Park.



Figure 9.1: Event Car Parking

9.2 Access

For typical events the majority of vehicle access will occur via Osborn Road due to the location of the overflow parking. Visitors that egress from Mount Pleasant Avenue are to turn left onto Pennant Hills Road as per the drop off arrangement discussed in Section 4.2.5.

For access to the Chapel, bollards are to be removed on the main pedestrian entrance and ceremonial vehicles permitted use of the Pennant Hills Road driveway. Other vehicles associated with these events are to use the Admin and Year 12 car parks to prevent further traffic movements through this driveway.

9.3 Management Strategies

9.3.1 Inform of Alternative Transport Methods

To reduce reliance on private vehicles, event attendees will be provided with the Green Travel Plan and Transport Access Guide to make them aware of the public and active transport options available to them.

9.3.2 Inform of Operational Traffic Management Plan

Strategies detailed within this Operational Traffic Management Plan including the vehicular routes to be taken, location of car parking space allocations and other travel considerations should be communicated as part of the event.

10.0 Conclusion

This Operational Transport Management Plan provides a framework for the organisation of pedestrian, cyclist, vehicle, bus and service vehicles throughout the Loreto Normanhurst campus. The aim of this Plan is to prevent traffic congestion and increase safety within the site.

The intent of this Plan is that it is not a static document, rather this Plan will be subject to change following the final design and construction of the Loreto Normanhurst Master Plan. Any future works that will impact this Plan will require modifications to the strategies discussed. Should there be any suggested improvements or additional strategies once this Plan is in operation, these should be included in future revisions of the Plan.