TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS

GREEN TRAVEL PLAN

Eileen O'Connor Catholic School
84 Gavenlock Road, Mardi NSW 2259
SSD - 67173718

Reference: 23.104r03v03
Date: March 2025

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Planning Secretary's Environmental Assessment Requirements

Development Details

Application No:	SSD-67173718
Project Name:	New Eileen O'Connor Catholic School
Location:	84 Gavenlock Road, Mardi NSW 2259 Lot 9 Section 4 DP3368 within Central Coast
Applicant:	Catholic Schools Broken Bay

The following documentation has been prepared to support the State Significant Development Application for the above project and in accordance with the Planning Secretary's Environmental Assessment Requirements (SEARS) dated 19th February 2024 as follows:

	Issue and Assessment Requirements	Relevant Section of this Report
1	**Statutory Context:**	
	Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.	Council's Development Control Plan parking requirements and Traffic Assessment Guidelines are discussed in Section 7 and 8, respectively.
	Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.	Compliance with AS2890 requirements is discussed in Section 10.
9	**Traffic, Transport and Accessibility:**	
	Provide a transport and accessibility impact assessment, which includes:	
	• an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.	Refer to Section 5 of the Transport & Accessibility Impact Assessment.
	• details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.	Refer to Section 6, 7, and Appendix D of the Transport & Accessibility Impact Assessment.
	• analysis of the impacts of the proposed development during construction and operation (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), potential queuing in drop-off/pick-up zones and bus bays during peak periods, identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict), and any cumulative impact from surrounding approved developments.	Refer to Section 8 of the Transport & Accessibility Impact Assessment and the Preliminary Construction Traffic Management Plan Report.
	• measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms (including proposed arrangements with local councils or government agencies) of delivery of any infrastructure improvements in accordance with relevant standards.	Refer to Section 8 of the Transport & Accessibility Impact Assessment.

	• measures to promote sustainable travel choices for employees, students and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.	Refer to the Green Travel Plan.
	• a preliminary operational traffic and access management plan for the development, including drop-off/pick-up zones, bus bays and their operations.	Refer to Section 9 of the Transport & Accessibility Impact Assessment.
	Provide a Construction Traffic Management Plan detailing predicted construction vehicle routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	Refer to Preliminary Construction Traffic Management Plan Report.
21	**Infrastructure Requirements and Utilities:**	
	In consultation with relevant service providers: • assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. • identify any infrastructure required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. • provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.	Refer to Section 8 of the Transport & Accessibility Impact Assessment.
26	**Engagement:**	

	Detail engagement undertaken and demonstrate how it was consistent with the Undertaking Engagement Guidelines for State Significant Projects. Detail how issues raised and feedback provided have been considered and responded to in the project. In particular, applicants must consult with:
	• the relevant Department assessment team.
	• any relevant local councils.
	• any relevant agencies, including:
	  ○ Transport for NSW
	  ○ for development within the Western Parkland City, the Western Parkland City Authority.
	• the community.
	• if the development would have required an approval or authorisation under another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s4.42 of the EP&A Act, the agency relevant to that approval or authorisation.
		Refer to Section 11 of the Transport & Accessibility Impact Assessment.

DOCUMENT VERIFICATION

Job Number	23.303			
Project	Proposed Eileen O'Connor Catholic School			
SSDA No.	SSD-67173718			
Client	Catholic Schools Broken Bay			
Revision	Date	Prepared By	Checked By	Signed
v03	14/03/2025	Stephan Hoang	Ben Liddell	

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CONTENTS

1. INTRODUCTION

1.1 Background

TRAFFIX has been commissioned by Catholic Schools Broken Bay to prepare a Green Travel Plan (GTP) report in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of the State Significant Development Application (SSD-67173718) for the proposed school at Lot 9 Section 4 on DP3368, Mardi, NSW.

The GTP aims to assist with the management of future travel demands being generated as a consequence of the development.

1.2 Green Travel Plan Objectives

The purpose of a Green Travel Plan is to set site-specific actions and incentives to manage travel demands and embrace the principles of sustainable transport to maximise the use of transport modes that have a lower environmental impact such as walking, cycling, public transport, or car share schemes etc.

New developments present an excellent opportunity to accommodate innovative ideas at an early stage into the designs so that transport demands arising from the future use of the development can be efficiently managed, and future staff/visitors would not need to depend on the usage of private vehicles.

1.3 Green Travel Plan Benefits

In addition to providing area-wide benefits such as reduction of congestion and pollution, Green Travel Plans can deliver a range of benefits to staff and visitors of a development that can:

- Reduce the need to provide parking within the development.
- Help to attract and retain staff.

- Create opportunities for healthier lifestyles and more vibrant, cohesive, and accessible communities.
- Provide staff and visitors with potential travel cost savings.
- Increase potential market for the development by improving accessibility.

1.4 Report Structure

Consistent with industry's best practice to ensure the Green Travel Plan is robust, realistic, and achievable, the report has been structured as follows:

- Section 2: Documents existing transport conditions and mode choice.
- Section 3: Identifies GTP objectives and sets travel mode targets.
- Section 4: Set out actions that will help achieve the envisaged travel mode targets.
- Section 5: Sets out a monitoring and review process.
- Section 6: Presents the overall study conclusions.

2. SEARS RESPONSES

A response to each relevant requirement of the Secretary's Environmental Assessment Requirements (SEARs) is provided below, including references to sections of this report where applicable.

Table 1: SEARs Requirements and References

SEARs Requirements	Reference
Traffic, Transport and Accessibility	
An analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.	**Refer to Transport and Accessibility Impact Assessment prepared separately**
Details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.	**Refer to Transport and Accessibility Impact Assessment prepared separately**
Analysis of the impacts of the proposed development during construction and operation (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), potential queuing in drop-off/pick-up zones and bus bays during peak periods, identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict), and any cumulative impact from surrounding approved developments.	**Refer to Transport and Accessibility Impact Assessment prepared separately**
Measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms (including proposed arrangements with local councils or government agencies) of delivery of any infrastructure improvements in accordance with relevant standards.	**Refer to Transport and Accessibility Impact Assessment prepared separately**
Measures to promote sustainable travel choices for employees, students and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.	**Refer to Section 5**
A preliminary operational traffic and access management plan for the development, including drop-off/pick-up zones, bus bays and their operations.	**Refer to Transport and Accessibility Impact Assessment prepared separately**
Provide a Construction Traffic Management Plan detailing predicted construction vehicle routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	**Refer to CTMP prepared separately**

3. SITE AUDIT

3.1 Public Transport Infrastructure

The existing public transport services that operate in the locality are shown in **Figure 1**. It is evident that the development benefits from good bus services with nine (9) bus stops being situated within 400m of the subject site. These services provide regular connections to Tuggerah, The Entrance, Wyong, Gosford, Bateau Bay and other key destinations as summarised in **Table 1**.

Table 1: Bus Routes and Service Frequencies

Bus No.	Bus Route	Service Frequency	
		Weekdays	Weekends
16	The Entrance to Wyong	Limited Services	Limited Services
19	Wyong to Gosford	Every 60 minutes	Every 60 minutes
24	The Entrance to Wyong	Limited Services	Limited Services
26	The Entrance to Wyong	Every 20-30 minutes	Every 60 minutes

Figure 1: Public Transport

3.2 Cycling Infrastructure

Cycling provides substantial health benefits, is sustainable and can help reduce transportation costs associated with owning / using a private car. Bicycle facilities are provided in the surrounding area, with several on-road and off-road bicycle routes available in the locality. These cycleways can be used in conjunction with one another in order to provide connections to the wider bicycle network throughout the Central Coast region. The primary cycleways in the locality are presented in **Figure 2**.

3.3 Pedestrian Infrastructure

Walking in daily transport routine helps maintain health and improves fitness. The subject site is accessible by pedestrians with a paved pedestrian footpath to be provided as part of infrastructure upgrades along Keefers Glen and existing paved pedestrian footpaths along Woodbury Park Drive.

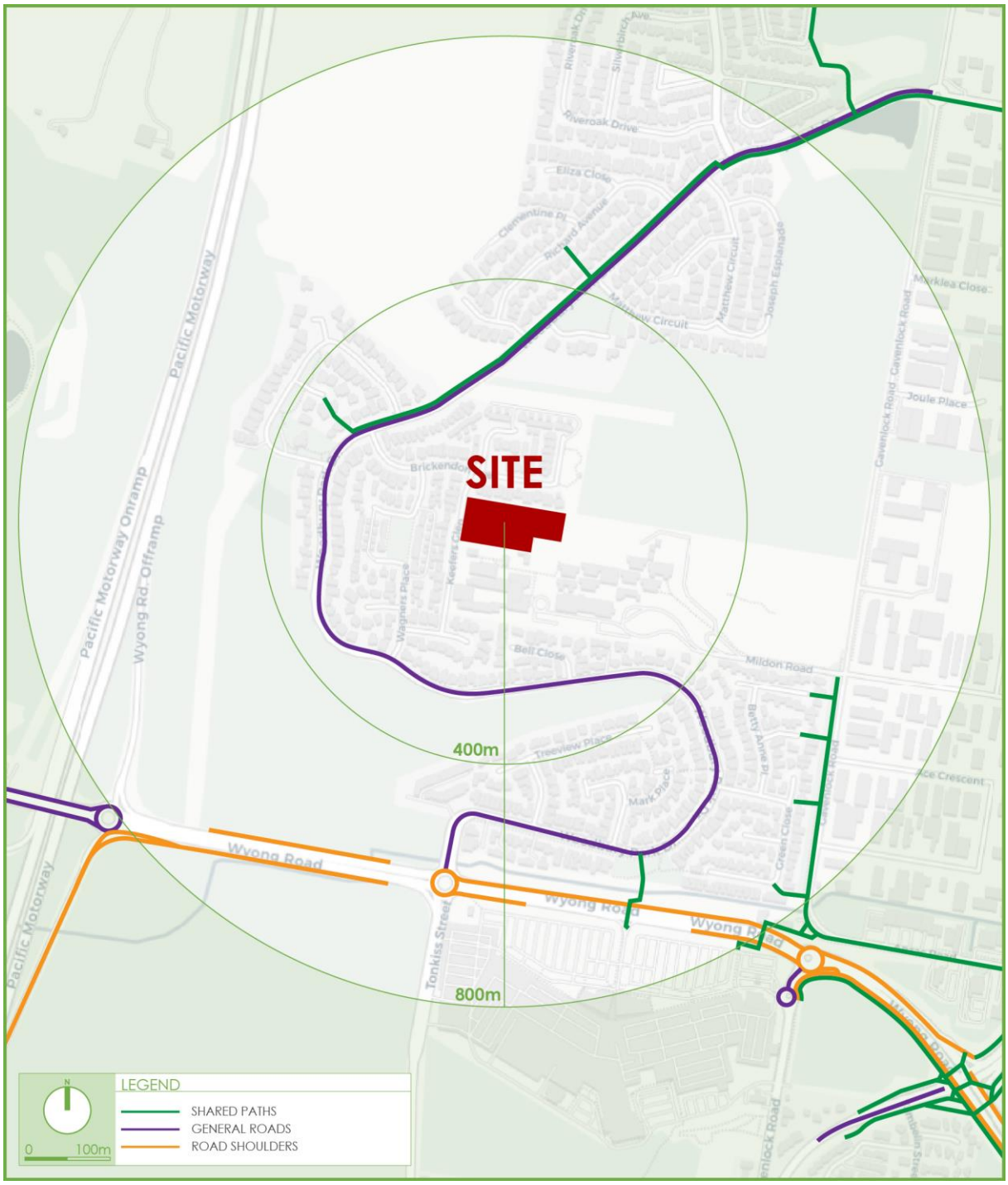

Figure 2: Active Transport

3.4 Existing Mode Choice

The Australian Bureau of Statistics (ABS) 2016 Census Data reports on the existing travel modes of people travelling to Tuggerah for work. The existing travel modes of workers within Tuggerah/Mardi is summarised in **Table 2** below:

Table 2: ABS Travel Mode Data – Tuggerah

Travel Mode	Percentage
Other	0.2%
Bicycle	0.4%
Motorcycle/scooter	0.7%
Walking	1.2%
Train	2.1%
Bus	2.2%
Car (as passenger)	5.7%
Car (as driver)	86.6%

As can be seen from Table 2 above, there is a high percentage (86.6%) of workers drive private vehicles to / from work. The data also demonstrates minimal use of walking, cycling and public transport.

4. OBJECTIVES AND TARGETS

4.1 Objectives

The following objectives are set out to achieve the vision of this Green Travel Plan to maximise the use of transport modes that have a lower environmental impact such as walking, cycling, or public transport etc:

- *Accessibility:* improve access, safety amenity and convenience of sustainable transport modes for travel to and from the site.
- *Incentives:* incentivise the use of sustainable transport modes.
- *Restrict:* continue to limit the convenience of car parking to encourage other modes of transport.

4.2 Target Mode Share

The objective of this Green Travel Plan is to reduce potential private vehicle trips to and from the site to maximise the use of transport modes that have a lower environmental impact such as walking, cycling, or public transport etc. Specifically, this plan targets staff and visitor trips noting the school caters to students with disabilities that will utilise the Assisted School Travel Program with minimal use of public and active transport.

To ensure the Green Travel Plan remains effective, its implementation will be monitored regularly with its success measured by setting mode share targets and identifying measures / actions that have had the greatest impacts.

It is understood that mode shift between 3-5 percent is generally considered to be a significant achievement and given the emerging trends in travel behaviours in recent years, a shift of 3-5 percent is considered reasonable.

On the above basis, it is proposed to reduce staff private car usage by 5% as set out in **Table 3**.

Table 3: Staff Target Modal Share

Travel Mode	Existing Modal Splits	Proposed Modal Split	Difference
Other	0.2%	0.2%	0%
Bicycle	0.4%	2.4%	+2%
Motorcycle/scooter	0.7%	0.7%	0%
Walking	1.2%	1.2%	0%
Train	2.1%	2.1%	0%
Bus	2.2%	4.2%	+2%
Car (as passenger)	5.7%	6.7%	+1%
Car (as driver)	86.6%	81.6%	-5%
Total	**100%**		**-**

5. ACTIONS AND STRATEGY

5.1 Site Specific Measures

This Green Travel Plan recommends the following measures to be implemented at the occupation stage to maximise the use of transport modes that have a lower environmental impact such as walking, cycling, or public transport etc.

5.1.1 On-site Passenger Drop-off / Pick-up Area

The development provides a five (5) drop-off/pick-up spaces adjacent to the main entrance. This area will be utilised primarily by students being dropped-off and picked-up, however can be used by staff and visitors, especially outside of peak periods. **Figure 3** outlines the location of the pick-up and drop-off zone.

5.1.2 Electric Vehicle (EV)

The continual shift in global vehicle trends towards electric vehicles (EV) promotes significant benefits to the environment. To further promote sustainable modes of transport, it is recommended to consider electric vehicle charging bays within the development.

5.1.3 Walking

Management is encouraged to implement a '10,000 steps per day' initiative to achieve health benefits for their staff via email communications. The Transport Access Guide (TAG) which is discussed in further detail below would be provided to all staff to inform of nearby bus stops and provide a general navigation tool to encourage walking.

5.1.4 Cycling

Bicycle parking is provided within the development in an accessible location. Wayfinding signage to staff and visitor bicycle parking areas can be provided prior to OC stage to encourage the use of these facilities.

The TAG will be provided to all staff and visitors to inform of nearby cycle friendly roads and provide a general navigation tool to encourage cycling.

5.1.5 End of Trip Facilities

The development provides end-of-trip facilities for staff including a shower and lockers. The TAG will inform staff of the on-site end-of-trip facilities.

5.1.6 Public Transport

The nearby bus stops are illustrated within the TAG, and this would be distributed to all staff visitors. Public transport information is recommended to be prominently displayed at entrances and building foyers to make staff and visitors aware of alternative transport options that are available.

5.1.7 Other Measures

Council also has a continual responsibility to implement measures in the public domain that can influence a positive shift towards non-car based travel, these include:

- Footpaths, cycleways, and pedestrian crossing facilities to be maintained in good order.
- Continue to improve and maintain signage and way finding to / from key public transport hubs and destination.
- Provide community cycling programs to assist inexperienced riders and improve on-road awareness.
- Continue to improve sustainable transport infrastructure in the locality and update the community on a regular basis.
- Promote and advertise sustainable transport on public information boards.

5.2 Transport Access Guide

The information provided in this Green Travel Plan will be provided to staff and visitors in a package of easy-to-understand information brochure often referred to as a Transport Access Guide (TAG).

The TAG will be provided to staff via email correspondence and visitors on the facility's website. The TAG provides a visual representation of customised travel information for people travelling to and from the site using alternate, sustainable modes of transport to encourage the use of non-car based travel.

A copy of the recommended TAG is provided in **Appendix A**.

5.3 Transport Information

There are several channels with information regarding local transport options. Providing staff and visitors with updated information will help facilitate journey planning and increase their awareness of convenient and potentially cost-saving transport options.

- *Transport for NSW info:* up-to-date public transport timetables, fare information, and journey planning are provided by Transport for NSW at **http://www.transportnsw.info**
- *Cycleway Finder:* Service NSW provides and maintains a map with detailed cycling route information to encourage people of all levels of experience to ride a bicycle, the finder can be accessed at **https://roads-waterways.transport.nsw.gov.au/maps/cycleway_finder**
- *Google Maps:* Google Maps provides up-to-date information regarding all transport options; it also has a cycling mode for cyclists to identify appropriate cycle routes.

5.4 Travel Plan Coordinator

This GTP requires the nomination of an individual, being a 'Travel Plan Coordinator' to oversee its implementation, as well as to review and update the GTP to reflect the site operation,

changes to public transport services and the achievable modal-split targets for the site. The nomination of the Travel Plan Coordinator can be undertaken at Occupation Certificate stage.

5.5 Actions

A series of actions are recommended in **Table 4** which forms the strategies and initiatives that can be implemented to achieve the desired transport modal split targets.

It is pertinent that these actions are regularly monitored and updated to reflect current local transport conditions.

Table 4: Green Travel Plan Action Table

Strategy	Action	Target	When	Responsibility
Reduce Car-based travel				
Car Pooling	Encourage staff to car pool, where possible.	Staff	Within two months post occupation.	Travel plan coordinator
Short Term Drop-off / Pick-up Parking	Provide on-site short-term parking for taxis, rideshare and visitors etc.	Staff and visitors	On-going	School Management
Promote Sustainable Car-based Travel				
Electric Vehicle (EV)	Consider EV charging stations	Staff and visitors	Development application / construction certificate	School Management
Promote Public Transport				
Provide public transport information	Provide and maintain an updated TAG with public transport information, and ensure copies of the TAG are easily accessible	Staff and visitors	Ongoing – Travel Plan Coordinator to check whether any updates are required to TAG every six (6) months.	Travel plan coordinator
Promote Cycling and Walking				
Provide bicycle parking and end-of-trip facilities	Consider bicycle parking and end-of-trip facilities and associated wayfinding signages	Staff and visitors	Development application / construction certificate	School Management
Monitor bicycle facility usage	Determine if on-site bicycle parking is nearing capacity and if so, consider expansion of facilities in the future.	Staff and visitors	On-going Travel Plan Coordinator to make on-site observations every six (6) months.	Travel plan coordinator
Maintain bicycle and end-of-trip facilities	Maintain bicycle and end-of-trip facilities in good order.	Staff and visitors	Ongoing – cycle facilities to be inspected monthly.	Travel plan coordinator
10,000 steps initiative	Promotion via emails	Staff	Ongoing – Travel plan coordinator to inform yearly	Travel plan coordinator

Strategy	Action	Target	When	Responsibility
Provide up-to-date cycling information	Provide and maintain an updated TAG with cycling information, and ensure copies of the TAG are easily accessible	Staff and visitors	Ongoing – Travel Plan Coordinator to check whether any updates are required to TAG every six (6) months	Travel plan coordinator
Keep Information Up-to-Date				
Green Travel Plan - Update and Review	Provide staff and visitors with updated GTP to encourage non-car-based travel	Staff and visitors	Ongoing – Travel Plan Coordinator to organise yearly update to GTP	Travel plan coordinator

5.6 Communications Strategy

The Transport Access Guide will be distributed to staff via internal email communications and will be available for viewing by visitors on the school's website.

6. MONITORING AND MAINTENANCE

A monitoring and review process for this travel plan will be set out by the Travel Plan Coordinator to ensure that information contained within reflects any changes to the local transport conditions as well as building facilities.

A Travel Plan Coordinator will be designated with the responsibility of maintaining the travel plan and revisit the proposed travel mode targets to refine and update the proposed modal-split on a regular basis.

Regular review of the success measures outlined in this plan will be undertaken intermittently to determine whether alternative or supplementary measures are necessary. Travel mode data will be collected via a travel survey within the first 12 months of occupation to provide suitable baseline travel data for staff. A travel survey shall then be conducted one year post occupation to assess the performance targets set in the Green Travel Plan and updated if necessary. The Transport Access Guide is also to be updated simultaneously to reflect any updated to transport services in the vicinity of the site.

This evaluation will provide a reliable overview of the areas in which the Green Travel Plan is operating effectively and which areas that require more attention. It is envisaged that the target travel modes be achievable in 5 years however, it is noted that these targets are aspirational and will require on-going evaluation and fine-tuning.

7. CONCLUSIONS

The proposed development at Lot 9 Section 4 on DP3368, Mardi is conveniently located within walking distance to existing public transport services.

This travel plan has recommended a number of actions to manage future travel demands being generated as a consequence of the development, specifically, these actions seek to reduce reliance on private vehicle trips and comprise the following:

- On-site Passenger drop-off / pick-up area;
- Consider provision of EV charging facilities;
- Provision of bicycle parking and end-of-trip facilities;
- Encourage staff car pooling;
- Maintain an open channel of communication with Council to maintain / improve existing sustainable infrastructure in the local area; and
- Make TAG easily accessible to staff and visitors.

It is pertinent to note that those actions recommended in this Green Travel Plan should be implemented together as a set of coordinated measures to achieve its maximum effect of influencing travel habits to increase non-car based travel to and from the site, as well as promoting a healthier and active lifestyle.

APPENDIX A

Transport Access Guide

TRAVELLING TO COLLEGE

BIKE AND WALKING

Bicycle and Walking: Safe and accessible bicycle and walking infrastructure is provided in the surrounding Tuggerah area, staff and visitors would be able to take advantage of the various infrastructure around St Peter's Eileen O'Connor Catholic. Additional bicycle and walking routes will be updated as additional infrastructure becomes available.

For alternative cycling and walking routes please visit **http://www.rms.nsw.gov.au/roads/bicycles/cycleway-finder.html** for more information.

BUS

By Bus: The closest existing bus stops are located on Woodbury Park Drive near the corner of Woodbury Park Drive and Wagners Place, which provides regular services between The Entrance, Gosford and Wyong. There is also a bus stop within St Peter's Catholic College, providing services between Lake Haven, Tuggerah, Wyong and Noraville. Information concerning service frequencies for all services throughout the week may be obtained via the Transport Info website at: **http://transportnsw.info**.

CAR

By Car Pool: Car Pooling is a great way to reduce traffic congestion. Please consider your co-workers and other visitors when attending the college to arrange your schedules.

By Taxi: Taxi services are available by contacting the following company: 13 CABS by calling **13 22 27** or visiting their website **http://www.13cabs.com.au**.

By Uber: Offers car rideshare services available through the Uber app on your smartphone or tablet.

TRANSPORT GOALS

This Travel Access Guide (TAG) provides information to staff and visitors on how to travel to and from St Peter's Eileen O'Conner Catholic College by active transport, reducing reliance on private vehicles.

The college supports active travel as its benefits include:

- Minimising car use
- Reduced carbon emissions and improved air quality
- Less traffic congestion
- A safer, more pleasant urban environment
- Opportunities for staff and visitors to be healthier, improve their wellbeing and increase their daily physical activity

For further public transport information
go to **www.transportnsw.info** or call **131 500**

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TRAFFIC AND TRANSPORT PLANNERS

TRANSPORT ACCESS GUIDE

St Peter's Eileen O'Connor Catholic College

TRANSPORT INITIATIVES

Learning how to travel to St Peter's Eileen O'Connor Catholic College using active transport is a learning and resilience opportunity for students, visitors, and staff. We encourage staff and visitors particularly to get involved in using active and public transport. As well as encourage students to use public transport.

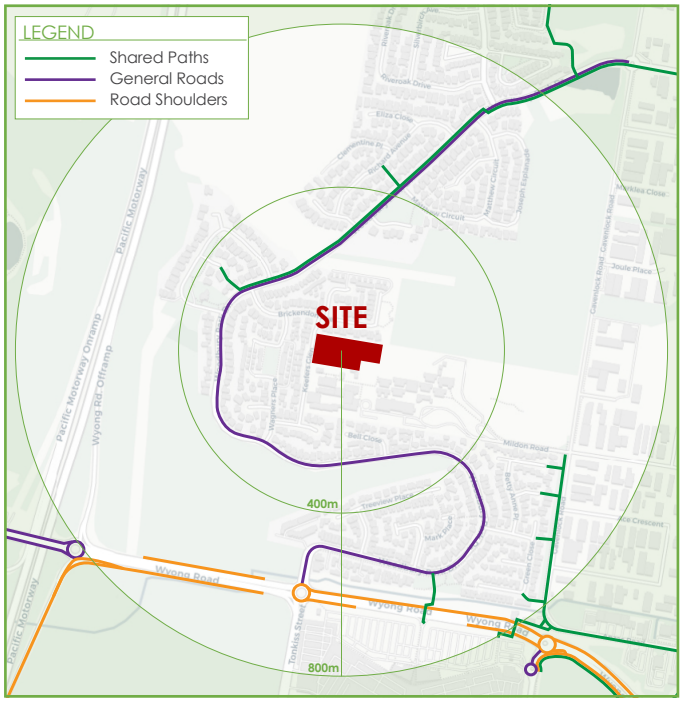
PEDESTRIAN & CYCLEWAYS

St Peter's Eileen O'Connor Catholic College is accessible by pedestrian and cycling facilities. Paved pedestrian footpaths will be provided along Keefers Glen as part of infrastructure upgrades, as well as along the eastern frontage of St Peter's Catholic College, Gavenlock Road. Sections along Woodbury Park Drive and Gavenlock Road provide pedestrian kerb ramps and provide connections to public transport.

Bicycle facilities are also provided in the surrounding area, with several on-road and off-road bicycle routes available in the locality. These cycleways can be used in conjunction with one another in order to provide connections to the wider bicycle network throughout the Central Coast region.

CYCLE NETWORK

The existing cycleways in the vicinity of the site are presented in the figure below.



PUBLIC TRANSPORT MAP

The local bus routes and train stations located in walking distance of the recreational centre are presented in the figure below.