

Green Travel Plan

New Catherine Field Primary School
O'Keefe Drive, Oran Park

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Table of Contents

1	INTRODUCTION	1
1.1	Background.....	1
1.2	Purpose	1
1.3	Stakeholder Consultation	2
1.4	Detailed Stakeholder Engagement.....	3
1.5	Response to Conditions	8
1.6	Reference Documents	9
2	GREEN TRAVEL PLAN OBJECTIVE	10
3	SITE AUDIT AND DATA COLLECTION.....	11
3.1	Site Location	11
3.2	Site Transport Facilities.....	12
3.3	Surrounding Public Transport Services	13
3.4	Active Transport Connectivity.....	18
3.5	Travel Mode	18
4	ACTION PLAN	27
4.1	Action Plan Measures	27
4.2	Communications Strategy	29
5	TARGETS.....	32
5.1	Mode Share Targets	32
6	GOVERNANCE AND SUPPORT	33
6.1	Travel Plan Coordinator	33
6.2	Resourcing.....	33
7	MONITORING AND REVIEW PROCESS.....	34
7.1	Plan Maintenance	34
7.2	Monitoring and Review Actions	34
7.3	Feedback Framework	35

Appendix A – Traffic Signage and Line Marking Plan

Appendix B – Transport Access Guide

1 Introduction

1.1 Background

Ason Group has been engaged to prepare a Green Travel Plan (the Plan) in relation to the Catherine Field Primary School (the School). The site is located within the Camden Council local government area (LGA). A Development Consent for State Significant Development SSD-9477 has been granted by to the Department of Planning, Industry, and Environment on 17 June 2020.

Specifically, Conditions of Consent D11 specified the following requirements, addressed in this report.

Green Travel Plan

D11. Prior to the commencement of operation, a Green Travel Plan (GTP), must be submitted to the satisfaction of the Planning Secretary to promote the use of active and sustainable transport modes. The plan must:

- (a) be prepared by a suitably qualified traffic consultant in consultation with Council and TfNSW;*
- (b) include objectives and modes share targets (i.e. Site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the GTP;*
- (c) include specific tools and actions to help achieve the objectives and mode share targets;*
- (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*
- (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 requirement for travel surveys to identify travel behaviours of users of the development.*

It is further noted that Condition D12 of the SSD-9477 requires the preparation of an Operational Transport and Access Management Plan (OTAMP) which forms part of a separate report. Traffic management measures that are required by this GTP will be captured in further details within the OTAMP.

1.2 Purpose

This Plan is intended to develop a package of site-specific measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport, and car pooling. These

strategies will therefore assist in less reliance on the use of private vehicles for travel to and from the school, supporting sustainability initiatives for growth into the future, and education of children attending the school of available sustainable travel modes that improve future independence of children attending the school and long term reduction in the reliance of private car transport and potential health benefits associated with walking, scooter and cycling.

In this regard, this Plan sets out objectives and strategies to assist the School in achieving green travel goals to improve sustainability.

This Plan includes a review of the existing transport choices and sets targets so that the effective implementation of the Plan can be assessed. These targets are intended to be realistic but ambitious enough to initiate substantive behavioural change to achieve the desired outcomes, given existing and future multi-modal transport networks.

This Plan is expected to be coordinated with the School or their representatives. It shall be reviewed regularly as part of an ongoing review to ensure it remains relevant and reflective of current conditions.

1.3 Stakeholder Consultation

Over the course of the development of the Plan, Ason Group has consulted with key stakeholders including TfNSW, Camden Council, and the School Principal. Table 1 details the dates of the key consultations and what was discussed.

Table 1: Stakeholder Consultation

Stakeholder	Personnel	Date	Topic
Busabout	Robert Yianakis	17 th August 2020	Ason Group liaised with Busabout to discuss bus service route options
TfNSW	John Broady	19 th August 2020	Ason Group liaised with TfNSW to discuss the future bus routes with consideration for the school catchment and road network.
School Principal	Chad Lindsay	27 th August 2020	Ason Group liaised with Chad Lindsay to discuss the strategies and incentives to be included within the Plan.
Camden Council	Christopher Wood / Roy El Kazzi / Matthew Rawson	1 st September 2020	Ason Group was part of a coordination meeting to liaise with Council regarding all things traffic, engineering and the mechanism of dedicating land back to Council.
Camden Council	Christopher Wood / Roy El Kazzi / Matthew Rawson / Jamie Erken	15 th September 2020	Ason Group was part of a coordination meeting to liaise with Council regarding the updated design and Council Approval processes.
TfNSW	Mario Dizon	28 th September 2020	Ason Group liaised with TfNSW to discuss the school zone associated with the school

Camden Council	Roy El Kazzi	27 th October 2020	Ason Group liaised with Camden Council to discuss feedback on proposed signage and linemarking plan submitted
Interline Bus Services	Michael Pruss / John Broady / Robert Yianakis	28 th October 2020	Ason Group liaised with Interline to discuss bus service route options and bus zone times
Camden Council	Roy El Kazzi	5 th November 2020	Ason Group liaised with Council to discuss the proposed signage and linemarking plan for the School.
Camden Council	Roy El Kazzi / Tom Allen	12 th November 2020	Ason Group further liaised with Council in relation to comments associated with the updated proposed signage and linemarking plan and Council's comments in relation to pedestrian crossings and bus stops.
Interline Buses	Michael Pruss	1 st December 2020	Ason Group liaised with Interline to discuss the location, potential restriction, and routes of bus routes within the local area.

1.4 Detailed Stakeholder Engagement

The following section of this report provide details of consultation undertaken by the Project Team in its preparation of this OTAMP.

1.4.1 Camden City Council Stakeholder Engagement

Table 2: Camden City Council Consultation

Identified Party to Consult:	Camden City Council
Consultation type:	Meeting and email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	1 September 2020 27 November 2020 1 December 2020 2 December 2020
When was consultation held	1 September 2020 27 November 2020 1 December 2020 2 December 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group: Dora Choi, Wendy Zheng, Thomas Lehmann Camden City Council – Roy El-Kazzi, Traffic Engineer; Tom Allen, Team Leader: Traffic and Road Safety

Provide the details of the consultation	1 September 2020: Ongoing discussions held regarding the signage and linemarking plan. 27 November 2020: A meeting was organised for the 1st December to discuss the signage and linemarking plan for the School. 1 December 2020: A meeting was held between Ason Group, Council, and TfNSW to discuss the signage and linemarking plan and the restrictions on the bus stop. Ason Group issued the updated signage and linemarking plan to Council for review at the Local Traffic Committee 2 December 2020: A consultation letter was issued to Council detailing that Interline Buses had provided notices to residences bus stops regarding the proposed new bus route.
What specific matters were discussed?	Discussion: - <i>1 December 2020: A meeting was held between Ason Group, Council, and TfNSW to discuss the signage and linemarking plan and the restrictions on the bus stop. A consultation letter was issued to Council detailing that Interline Buses had provided notices to residences bus stops regarding the proposed new bus route.</i>
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.4.2 TfNSW Stakeholder Engagement

Table 3: TfNSW Consultation

Identified Party to Consult:	Transport for NSW
Consultation type:	Email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	19 August 2020 24 August 2020 27 November 2020 1 December 2020
When was consultation held	19 August 2020 24 August 2020 27 November 2020 1 December 2020

Identify persons and positions who were involved	Traffic Consultant – Ason Group, TfNSW – John Broady Planner, and Mario Dizon Network and Safety Officer
Provide the details of the consultation	19 August 2020: Initial advice was requested by Ason Group regarding the status of bus routes within the local area. TfNSW provided advice regarding the amendments to bus route 850. 24 August 2020: Advice was requested regarding the proposed bus stop locations for the School. TfNSW raised no objections. 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. 1 December 2020: Discussions were held between Council, TfNSW, Ason Group, and Interline Buses regarding potential restrictions to the bus stops located north of the intersection of O’Keefe Drive and Banfield Drive.
What specific matters were discussed?	Discussion: - 19 August 2020: Initial advice was requested by Ason Group regarding the status of bus routes within the local area. TfNSW provided advice regarding the amendments to bus route 850. - 24 August 2020: Advice was requested regarding the proposed bus stop locations for the School. TfNSW raised no objections to the proposed locations north of the intersection of Banfield Drive and O’Keefe Drive. - 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. TfNSW objected to these changes. - 1 December 2020: Discussions were held between Council, TfNSW, Ason Group, and Interline Buses regarding potential restrictions to the bus stops located north of the intersection of O’Keefe Drive and Banfield Drive.
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.4.3 Busabout Stakeholder Engagement

Table 4: Busabout Consultation

Identified Party to Consult:	Busabout
Consultation type:	Email correspondence and phone conversation
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).

When was consultation scheduled/held	17 August 2020 15 September 2020
When was consultation held	17 August 2020 15 September 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group, Dora Choi, Wendy Zheng, Thomas Lehmann Busabout – Robert Yinakis, Scheduler.
Provide the details of the consultation	17 August 2020: Ason Group liaised with Busabout to discuss existing travel routes and any potential adjustments within the local road network. 15 September 2020: Ason Group was informed by with Busabout that a key route was managed by Interline instead.
What specific matters were discussed?	Discussion: - 17 August 2020: Ason Group liaised with Busabout to discuss existing travel routes and any potential adjustments within the local road network. - 15 September 2020: Ason Group was informed by with Busabout that a key route was managed by Interline instead.
What matters were resolved?	17 August 2020: Discussion was held regarding bus route 896 and Ason Group was informed that this route had no plans to be amended. 15 September 2020: It was established that bus route 850 would service the future school. This route is run by Interline.
What matters are unresolved?	No
Any remaining points of disagreement?	No
How will SINSW address matters not resolved?	All matters have been addressed as part of the SSD process.

1.4.4 Interline Buses Stakeholder Engagement

Table 5: Interline Buses Consultation

Identified Party to Consult:	Interline Buses
Consultation type:	Email correspondence
When is consultation required?	Prior to commencement
Why	D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	28 October 2020 27 November 2020 1 December 2020
When was consultation held	28 October 2020 27 November 2020 1 December 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group; Dora Choi, Wendy Zheng, Thomas Lehmann Interline Buses – Michael Pruss

Provide the details of the consultation	28 October 2020: Ason Group liaised with Interline Buses regarding the signage of a bus stop on O'Keefe Drive 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. 1 December 2020: Discussions were held regarding the amendments to bus route 850.
What specific matters were discussed?	Discussion: - 28 October 2020: Ason Group liaised with Interline Buses regarding the signage of a bus stop on O'Keefe Drive. - 27 November 2020: Discussions were held regarding the potential restrictions of the bus stops within vicinity of the school. - 1 December 2020: Discussions were held regarding the amendments to bus route 850 and potential bus stop restrictions.
What matters were resolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
What matters are unresolved?	1 December 2020: On-going discussions and community consultation are being held with TfNSW, Council, Interline Buses, and Ason Group regarding the bus stops closest to the School.
Any remaining points of disagreement?	Council wishes to restrict the timings of the bus stops. Ason Group, TfNSW, and Interline Buses object.
How will SINSW address matters not resolved?	This matter is being addressed presently and will be resolved as part of the SSD process.

1.4.5 Department of Education Stakeholder Engagement

Table 6: Department of Education Consultation

Identified Party to Consult:	Department of Education
Consultation type:	Video conference and email correspondence
When is consultation required?	Prior to commencement
Why	D12 – Green Travel Plan b) Include objectives and mode share targets...to define the direction and purpose of the GTP D13 – Operational Transport and Access Management Plan: Prior to the commencement of operation, an OTAMP is to be prepared by a suitably qualified person, in consultation with Council, Transport for NSW and TfNSW (RMS).
When was consultation scheduled/held	27 September 2020 24 November 2020
When was consultation held	23 September 2020 24 November 2020
Identify persons and positions who were involved	Traffic Consultant – Ason Group, Dora Choi, Wendy Zheng, Thomas Lehmann Estella Road Public School – Chad Lindsay, School Principal,
Provide the details of the consultation	23 September 2020: Ason Group liaised with the School Principal to discuss travel initiatives and travel mode targets.

	24 November 2020: Ason Group requested advice from the School Principal regarding the draft GTP and OTAMP.
What specific matters were discussed?	Discussion: - 11 September 2020: Ason Group liaised with the School Principal to discuss travel initiatives and travel mode targets to inform the Green Travel Plan. - 24 November 2020: Ason Group requested advice from the School Principal regarding the draft GTP and OTAMP.
What matters were resolved?	23 September 2020: Information was provided by the School Principal which assisted with the development of the Green Travel Plan. 24 November 2020: Ason Group received comments from the School Principal which were accommodated in the following update of both the OTAMP and GTP.
What matters are unresolved?	No
Any remaining points of disagreement?	No
How will SINSW address matters not resolved?	All matters have been addressed as part of the SSD process.

1.5 Response to Conditions

In response to Condition D11 of the Development Consent SSD-9477 (issued by Minister for Planning and Public Spaces 17 June 2020), the following table provide details of the requirement of Condition D11 and respective response to the conditions reference demonstrating compliance with the condition.

Table 7: Conditions of Consent

Condition No.	Condition	Response
D11	Prior to the commencement of operation, a Green Travel Plan (GTP), must be submitted to the satisfaction of the Planning Secretary to promote the use of active and sustainable transport modes. The plan must:	
D11(a)	be prepared by a suitably qualified traffic consultant in consultation with Council;	Report prepared by: - D. Choi - T. Lehmann - W. Zheng Refer to Appendix D for CV of authors of this report.
D11(b)	include objectives and modes share targets (i.e. Site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the GTP;	Refer to section 5 of the report for details
D11(c)	include specific tools and actions to help achieve the objectives and mode share targets;	Refer to section 4 of the report for details
D11(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	Refer to sections 4 and 5 of the report for details

D11(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 requirement for travel surveys to identify travel behaviours of users of the development.	Refer to section 7 of the report for details
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1.6 Reference Documents

In preparing this Plan, Ason Group has made reference the following key planning documents:

- Transport for NSW (TfNSW), *Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area*, December 2013
- TfNSW, *Future Transport Strategy 2056*, March 2018
- TfNSW, *Sydney Walking Future*, December 2013
- TfNSW, *Sydney's Cycling Future*, December 2013
- TfNSW, *Sydney's Bus Future*, December 2013
- NSW Government, *Planning Guidelines for Walking and Cycling*
- Cycle Planning Consulting Services, *Camden Council Bicycle Plan*, March 1996
- GTA Consultants, *Trip Generation Surveys, Schools Analysis Report*, August 2014
- NSW Department of Education, *Master planning guidelines for schools*, October 2020
- NSW Department of Education, *SINSW Community of Practice Architects + Transport Planners*, 29th October 2020

2 Green Travel Plan Objective

The primary objectives of this Plan are to:

- Reduce the environmental footprint of the school,
- Promote the use of 'active transport' modes such walking and cycling, particularly for short-medium distance journeys,
- Reduce reliance on the use of private vehicles for travel to / from the School, and
- Encourage a healthier, happier, and more active social culture.

Having regard for the above, this Plan adopts the following movement hierarchy with priority given to 'active transport' followed by mass public transport and lastly the use of cars and other private vehicles.

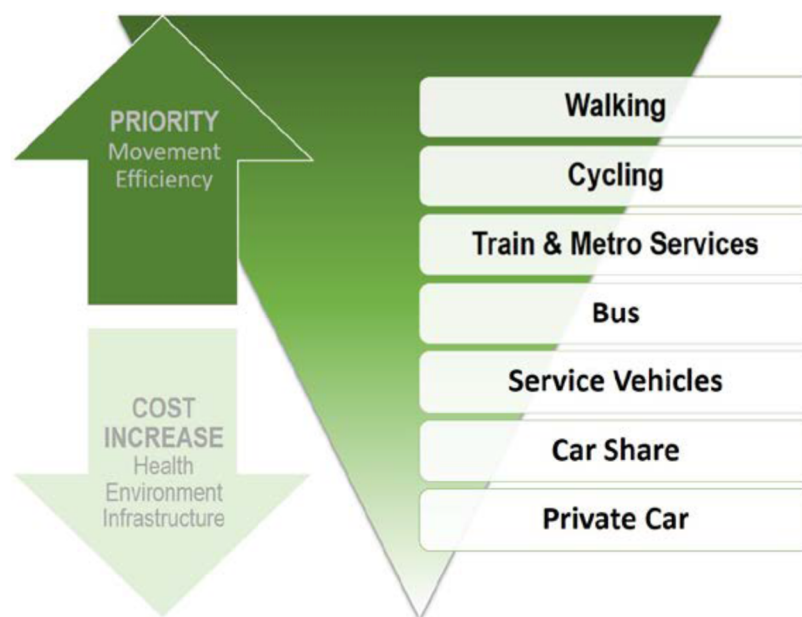


Figure 1 : Movement Hierarchy

In a broad sense, this Plan is intended to encourage the use of active transport thereby reducing the overall distance travelled by private vehicles.

3 Site Audit and Data Collection

3.1 Site Location

The Site is legally referenced as Lot 1001 in DP1234527, with a street address of O'Keefe Drive, Oran Park. It lies within the Catherine Field (Part) Precinct (CFPP) and is currently bordered by O'Keefe Drive to the west; in the future, local roads will form the eastern and southern borders of the site, while sporting fields and a cycle path will border the site to the north, as identified below in **Figure 2**.

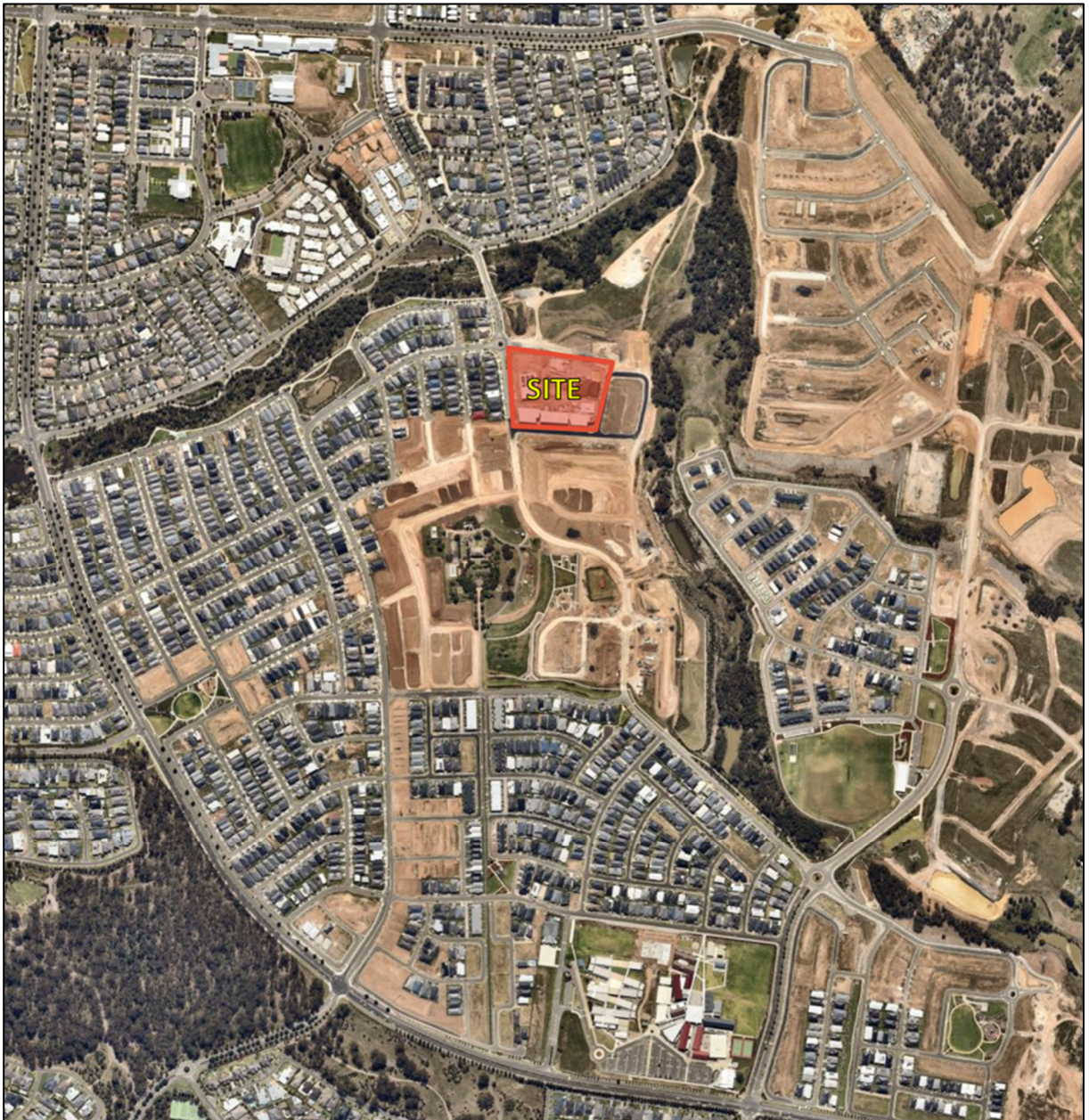


Figure 2: Site Location

3.2 Site Transport Facilities

As it relates to the travel planning, the School and immediate surroundings of the School Site includes:

- 68 car parking spaces,
- On-street drop-off / pick-up areas along the new Northern Road, O’Keefe Drive, and Southern Road,
- Bicycle parking rails at the north side of Building E, near the car park,
- Pedestrian / Bicycle shared path along the northern boundary of the school,
- Constructed concrete footpath along Northern Road, O’Keefe Drive, and Southern Road frontages of the School, and
- Proposed pedestrian crossings and children’s crossings at the intersections of O’Keefe Drive / Banfield Drive / Northern Road, and O’Keefe Drive / Southern Road, currently subject to consultation with Camden Council and Transport for NSW.

With consideration for these facilities, Ason Group has prepared a Signage and Line Marking Plan to assist with access to the Site as well as manage the drop-off / pick-up facilities. This is detailed in Figure 3 and has also been attached in **Appendix A** for further information.

This Signage and Line Marking Plan details the traffic controls within O’Keefe Drive along the School frontage and the roundabout intersection of O’Keefe Drive and Banfield Drive, in particular: parking restrictions relating to the drop-off / pick-up facilities; bus stop controls; pedestrian crossings; and school zone signage.

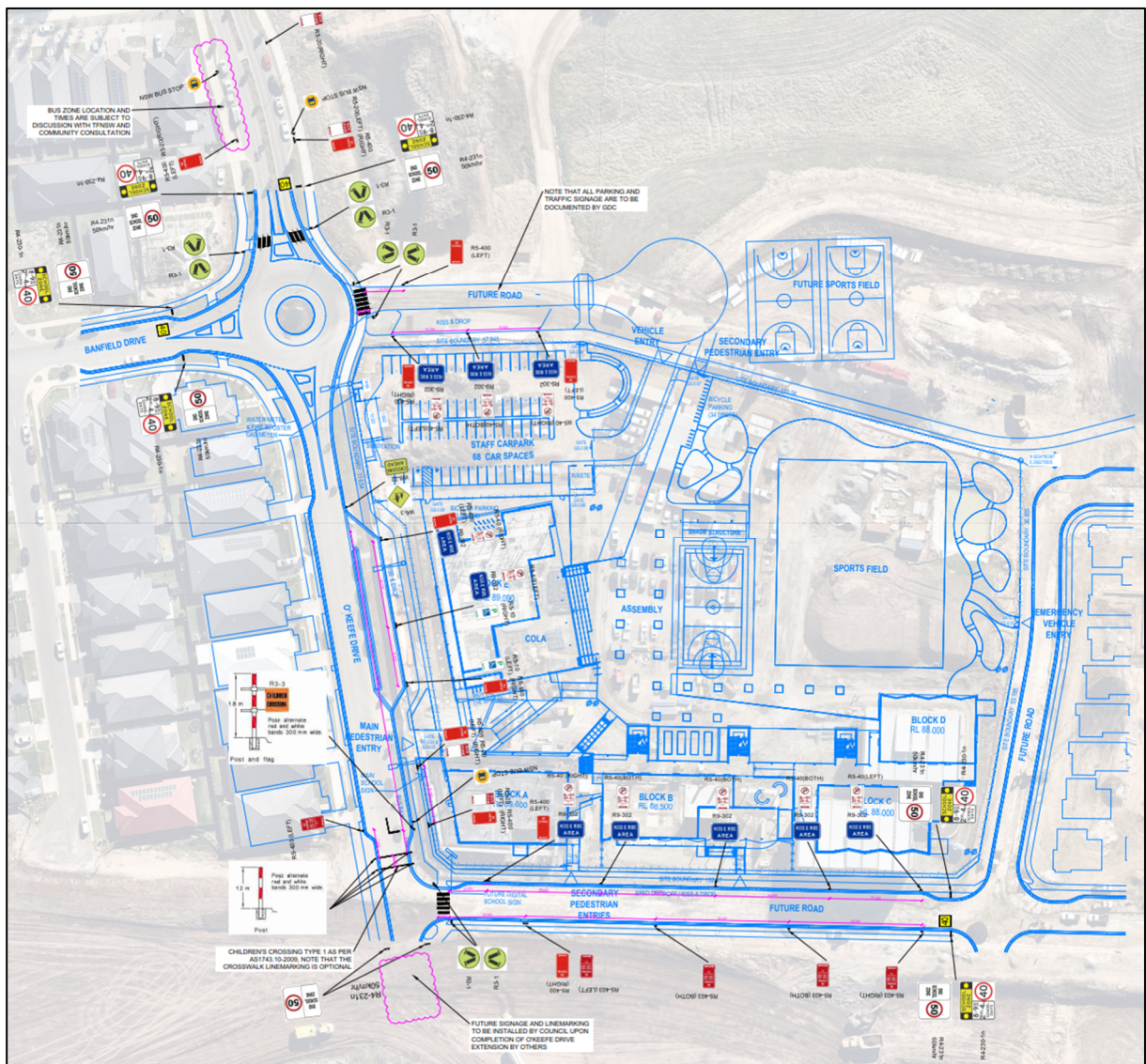


Figure 3: Signage and Line Marking Plan

3.3 Surrounding Public Transport Services

3.3.1 Fixed Rail Services

The Site is located some 8km south of Leppington Station, and 9km north-west of Campbelltown Station. Access to Leppington Station will be provided by buses running along the future Rickard Road Transit Boulevard, while buses running along both O'Keefe Drive and Oran Park Road are expected to provide access to Campbelltown Station, likely via the new Gregory Hills Drive connection.

As a local public school, the use of rail services by students is not anticipated, however, families that take their children to the School may in the future wish to link their trips from place of residence to the school and Railway Station.

Given distance to nearby railway stations, it is expected that any staff / families using rail services would also require the use of bus or other modes as part of a multi-modal trip.

3.3.2 Bus Services – Regional

Having regard to the standard bus travel, the *Integrated Public Transport Service Planning Guidelines* state that bus services influence the travel mode choices of sites within 400 metres (approximately 5 minutes walking distance for adults) of a bus stop.

As discussed above, Rickard Road will be developed as a Transit Boulevard to provide a key link through the SWGC between Oran Park and Leppington Station. Dickson Road will also provide bus connections between Oran Park and Leppington in 2036, while Oran Park Drive and Gregory Hills Drive have also been designated as Transit Boulevards. In addition, the SWSBS Strategy provides for regional services along Camden Valley Way and Oran Park Drive around the precinct.

More broadly, the SWSBS Strategy's long-term 7 regional, 6 district and 3 peak hour only bus routes forming a network linking the CFPP with regional centres including Liverpool, Campbelltown, Parramatta and Leppington). The SWSBS Strategy's bus network plan is shown in Figure 4.

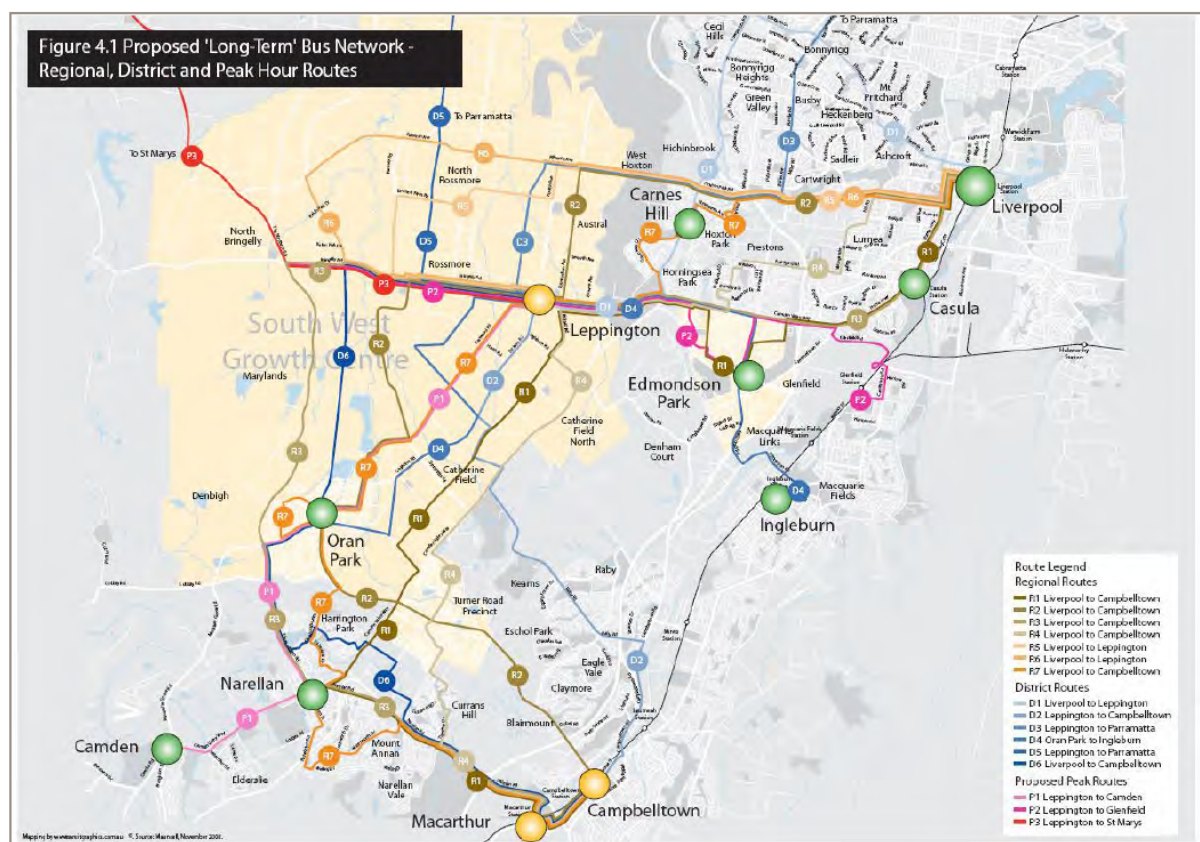


Figure 4: Regional Bus Services

3.3.3 Bus Services - Local

The CFPP bus network includes the regional routes as detailed above, as well as district and local to provide maximum coverage across the CFPP, in turn maximising public transport access and travel choice. While the district services will also primarily operate along arterial roads and the Transit Boulevards, local routes will operate along the collector road network (where minimum 3.5m travel lanes are available), focusing on the Oran Park Town Centre.

The coverage achieved by the proposed regional, district and local routes provides immediate (i.e. within 400m) access to all local centres, schools, medium density housing and some 90% of the remaining CFPP.

These routes are shown in **Figure 5**.

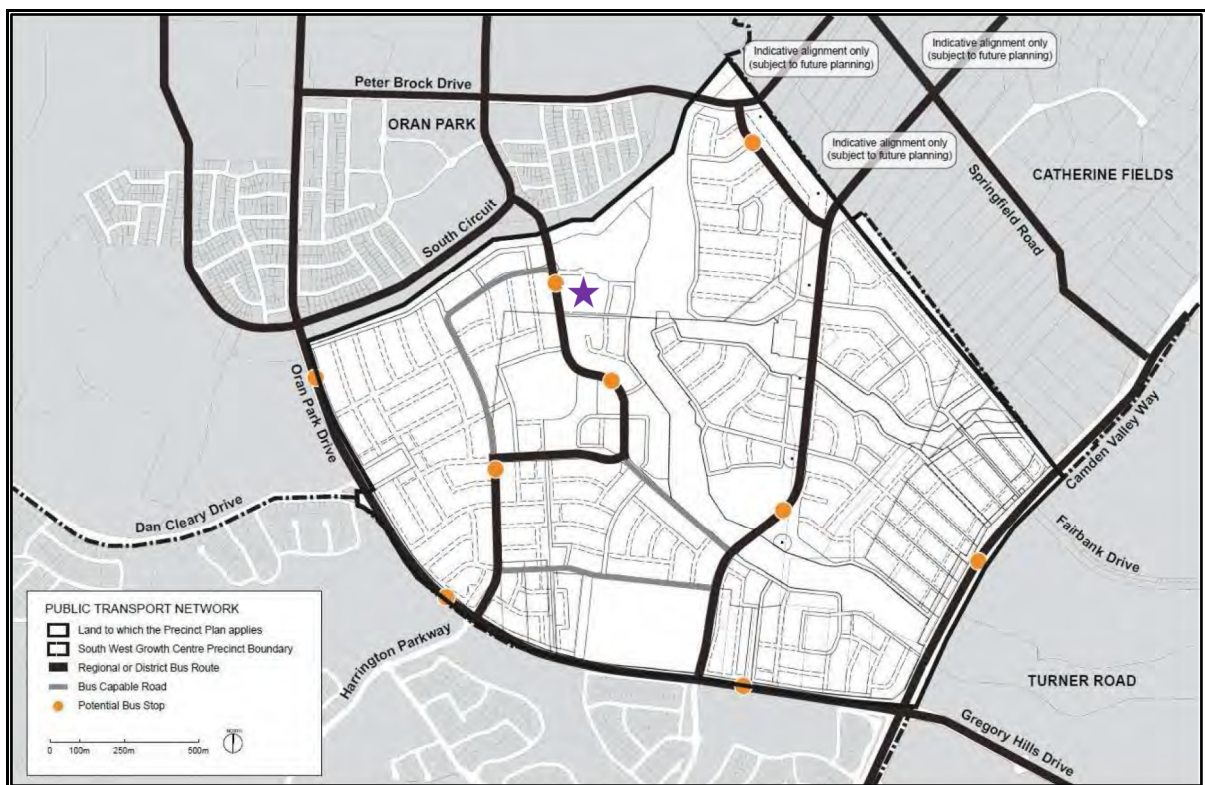


Figure 5: District and Local Bus Services

Further to the above, Ason Group has undertaken consultation with TfNSW and local bus operators Busabout and Interline Bus Service who have undertaken a review of the existing and future road network and have planned for amendments to the route of bus service 850 to provide a beneficial route for students attending the School. TfNSW provided figures detailing the existing, interim (following opening of the School), and ultimate (following completion of the road network) route for bus service 850. These are detailed below respectively.

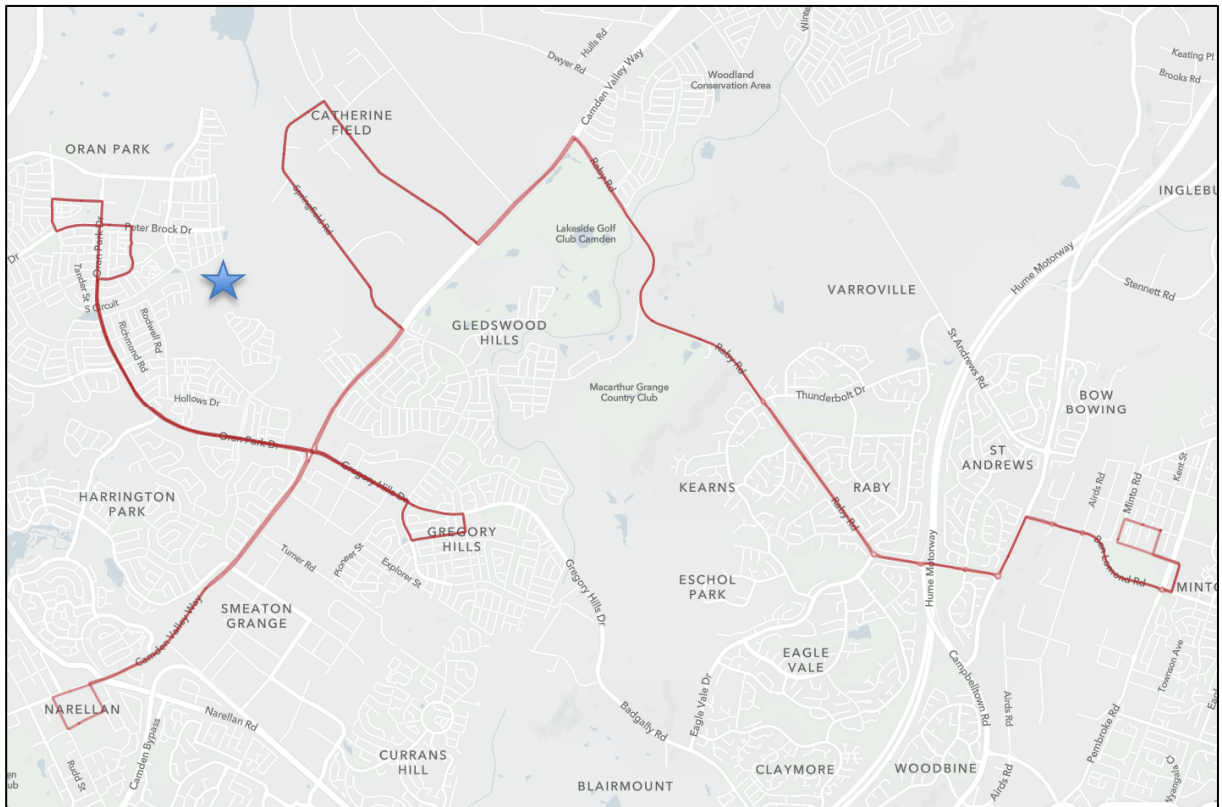


Figure 6: Bus Service 850 – Existing Route

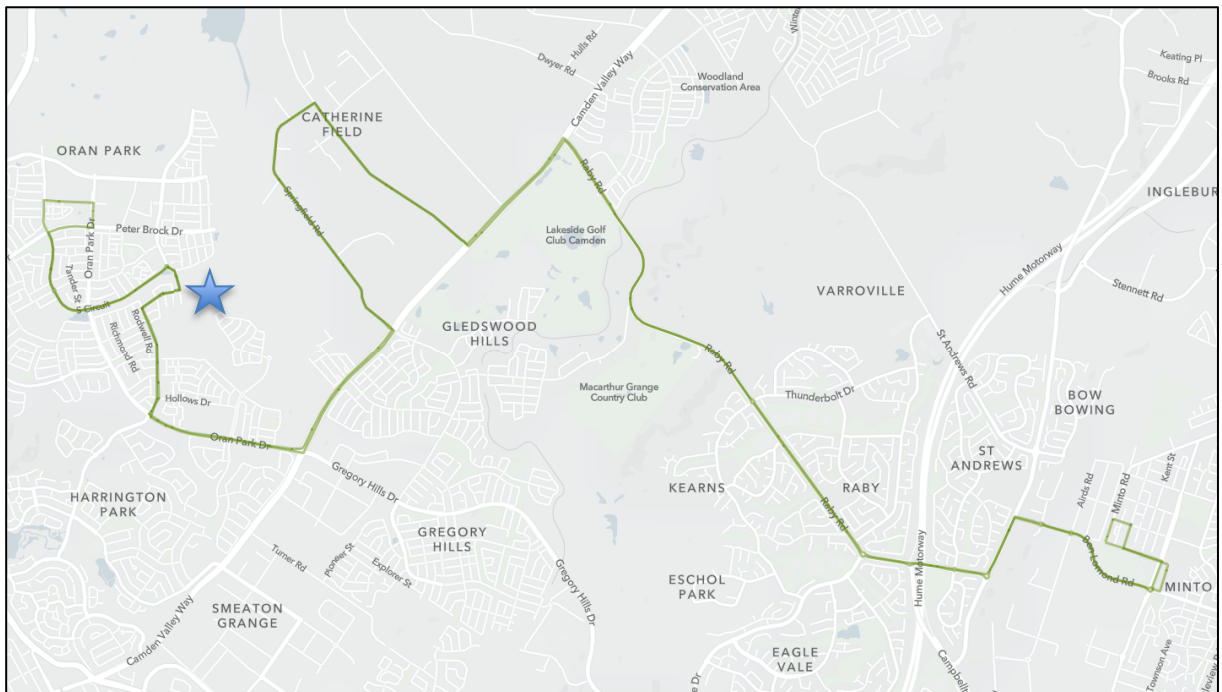


Figure 7: Bus Service 850 – Interim Route (Operational Day 1, Term 1)

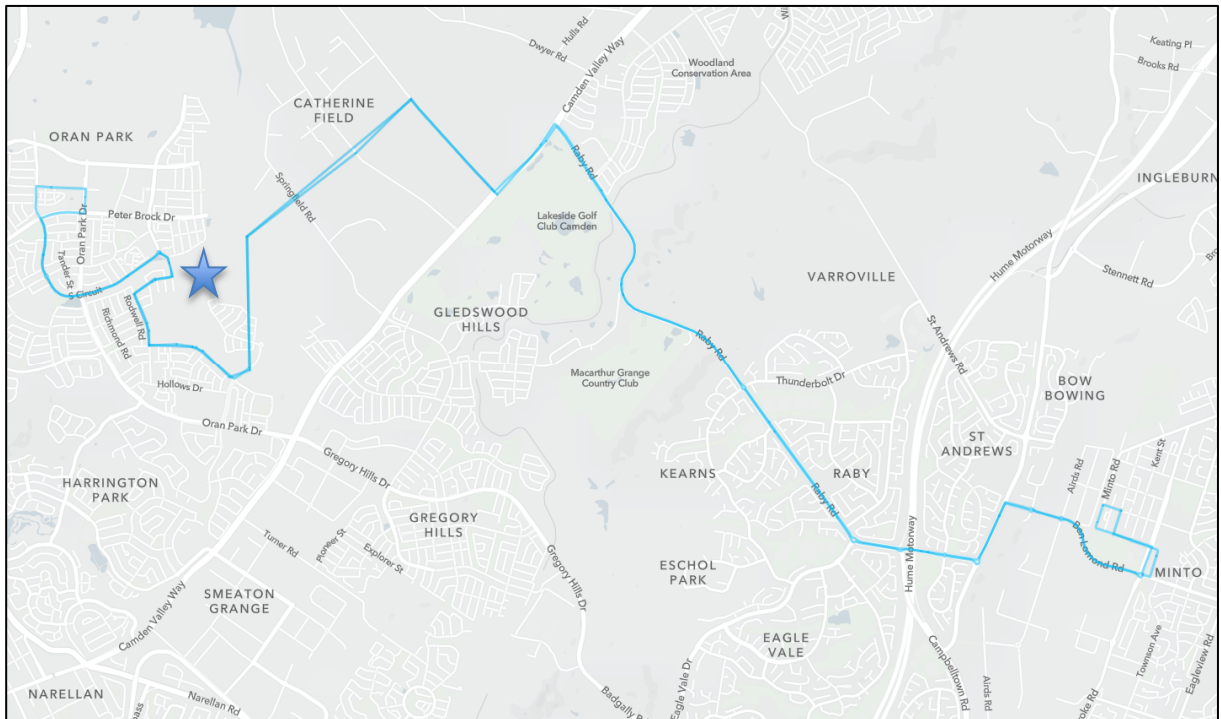


Figure 8: Bus Service 850 – Ultimate Route

3.3.4 School Bus

While there is an expectation that the local and district bus services will provide the coverage and capacity required to accommodate student travel to and from the School, dedicated school bus services could be introduced should demand exceed public bus capacity. However, in general students would be encouraged to travel on scheduled public transport routes.

O'Keefe Drive has been designated as a bus route corridor and as such has been / will be designed in accordance with the appropriate bus standards, including the provision of minimum 3.5m travel lanes and indented bus bays in the vicinity of the Site.

3.3.5 Bus stops

Bus stops are expected to be provided along all bus routes, on the basis that maximises the properties / catchment located within 400 metres of the bus stop. Following consultation with TfNSW and Busabout, Ason Group prepared a signage and line marking plan of the proposed locations of bus stops along O'Keefe Drive, to the north of the intersection of Banfield Drive and O'Keefe Drive, and in the process of seeking Camden Council, TfNSW support prior to the plans being referred to the Camden Local Traffic Committee for approvals.

Upon our most recent consultation with Council undertaken on 12 November 2020, further direct consultation with residents impacted by the proposed bus stops are currently being undertaken.

3.4 Active Transport Connectivity

3.4.1 Pedestrian Accessibility

Footpaths are constructed (and being completed) on all site frontages of the school site, providing connections to the broader areas within Oran Park.

A number of pedestrian crossings / Children's Crossing (with potential for future Council upgrade to pedestrian crossing) have been designed and submitted to Camden Council for review and commentary, on the basis that the pedestrian crossings / Children's Crossing concerned can be assessed against the special warrants outlined in the TfNSW Supplement to AS1742.10-2009: Manual of Uniform Traffic Control Devices (v3) to support the proposed pedestrian crossings.

Currently — with the school under construction and not operational until January 2021 — there are no pedestrian (zebra) crossings or Children's Crossing provided in the immediate area. If approvals can be secured from both TfNSW, Camden Council, and the Camden Local Traffic Committee, this infrastructure presents an opportunity to improve pedestrian connectivity for the local community and provide improved safety outcomes to families walking to / from the school. Following the final resolution of the location of the bus stops for the new interim 850 bus service, the type of pedestrian facilities is to be revised in consultation with key stakeholders.

Refer to **Appendix A** for the Signage and Line Marking Plan prepared by Ason Group for details of the proposed facilities that is subject to further refinement and consultation with key stakeholders.

3.4.2 Cycle Routes

Regional cycle routes are still under development. However, it is noted that a Shared Path is provided which is expected to link to the broader regional cycle network, including the cycleways within the riparian corridor to the north.

3.5 Travel Mode

3.5.1 Student Travel Mode Share Analysis

With consideration for GTA Consultants' *Trip Generation Surveys, Schools Analysis Report* (2014), data is provided detailing the average modal split of trips to and from Primary Schools in Metropolitan Sydney. Travel to and from Primary Schools were primarily comprised of either car or active transport (mainly walking), with a small percentage of public transportation. It was noted that in the surveyed schools, there was a wide variation of mode share percentages, indicating the dependence of mode share on school characteristics.

The average statistics for Primary Schools within the Sydney Metropolitan area are reproduced in **Table 8:**

Table 8: Average Primary School Mode Share

Travel Mode	Percentage
Walking	25%
Bus	4%
Bicycle	2%
Vehicle Passenger	68%

Harrington Street Public School was one of these surveyed primary schools and is located closest to Catherine Field, approximately 20km to the northeast. It is noted that the mode share at Harrington Street Public School was approximately 33% car, ~1% bus, and 66% walking.

In this regard, the travel behaviours for the Catherine Fields Public School is expected to be similar of the Harrington Street Public School and the average Sydney Primary Mode Share statistics for primary schools in the Sydney Metropolitan area.

Notwithstanding the above, analysis has been undertaken of de-personalised data provided by the Department of Education in August 2020 for enrolments anticipated at Catherine Field Public School for its commencement in Term 1 2021. The following figures detail the key catchments, namely student, walking, cycling, and public transport.

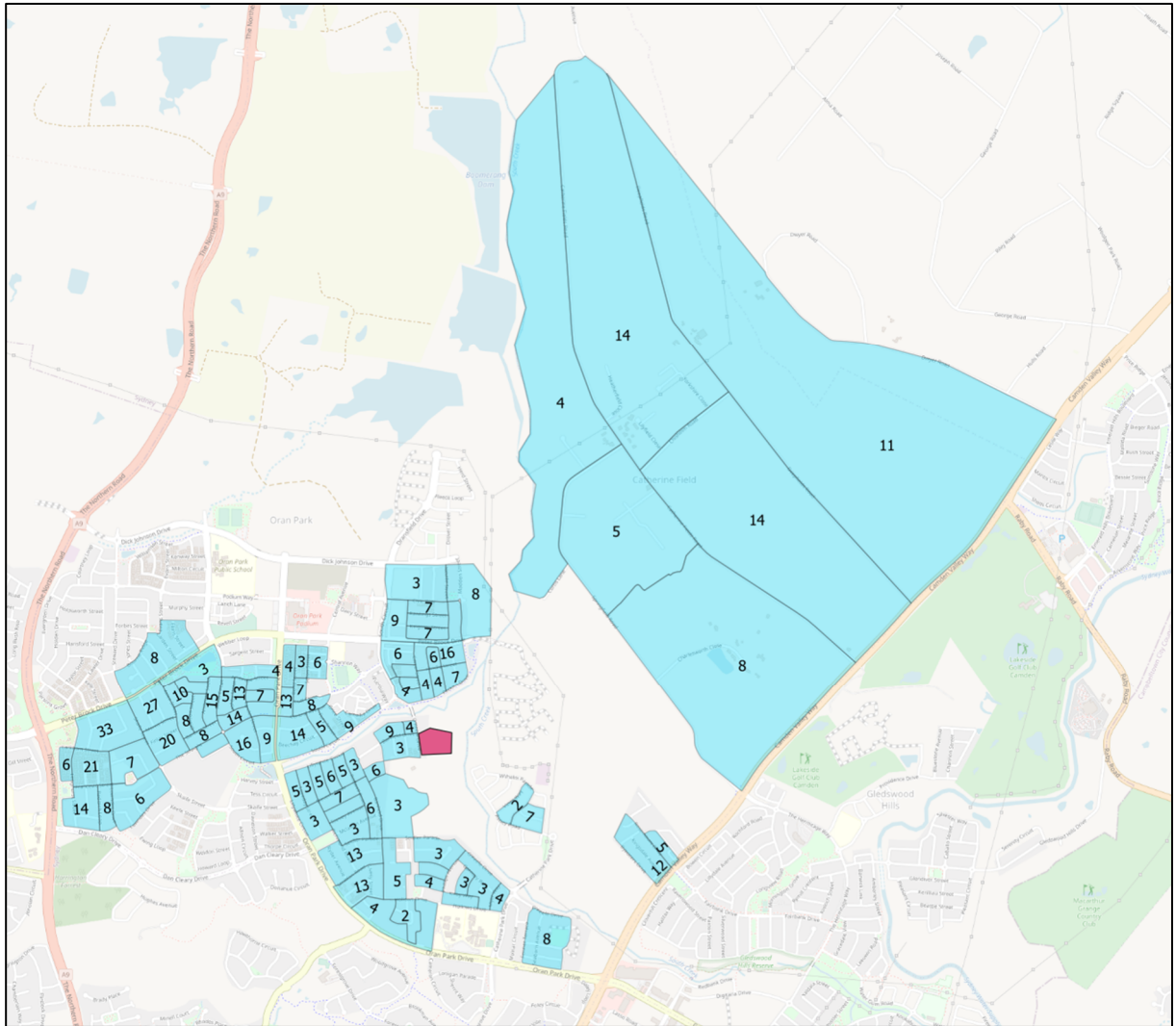


Figure 9: Student Disitribution

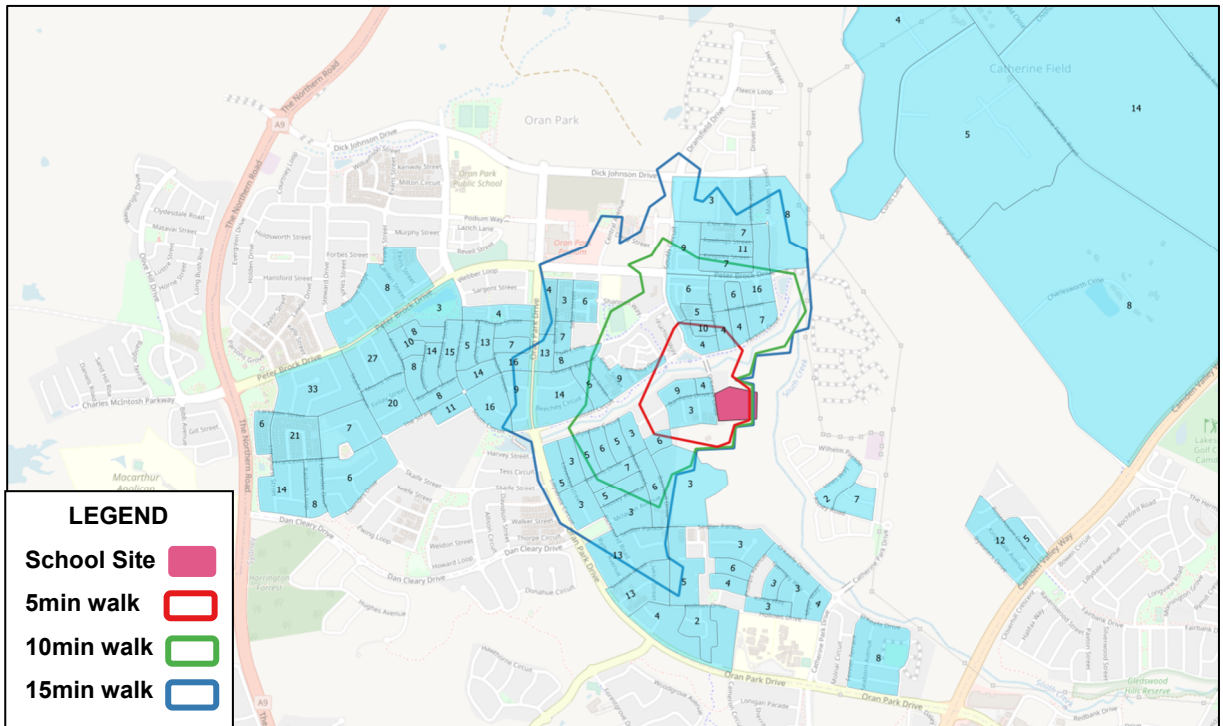


Figure 10: Walking Catchment

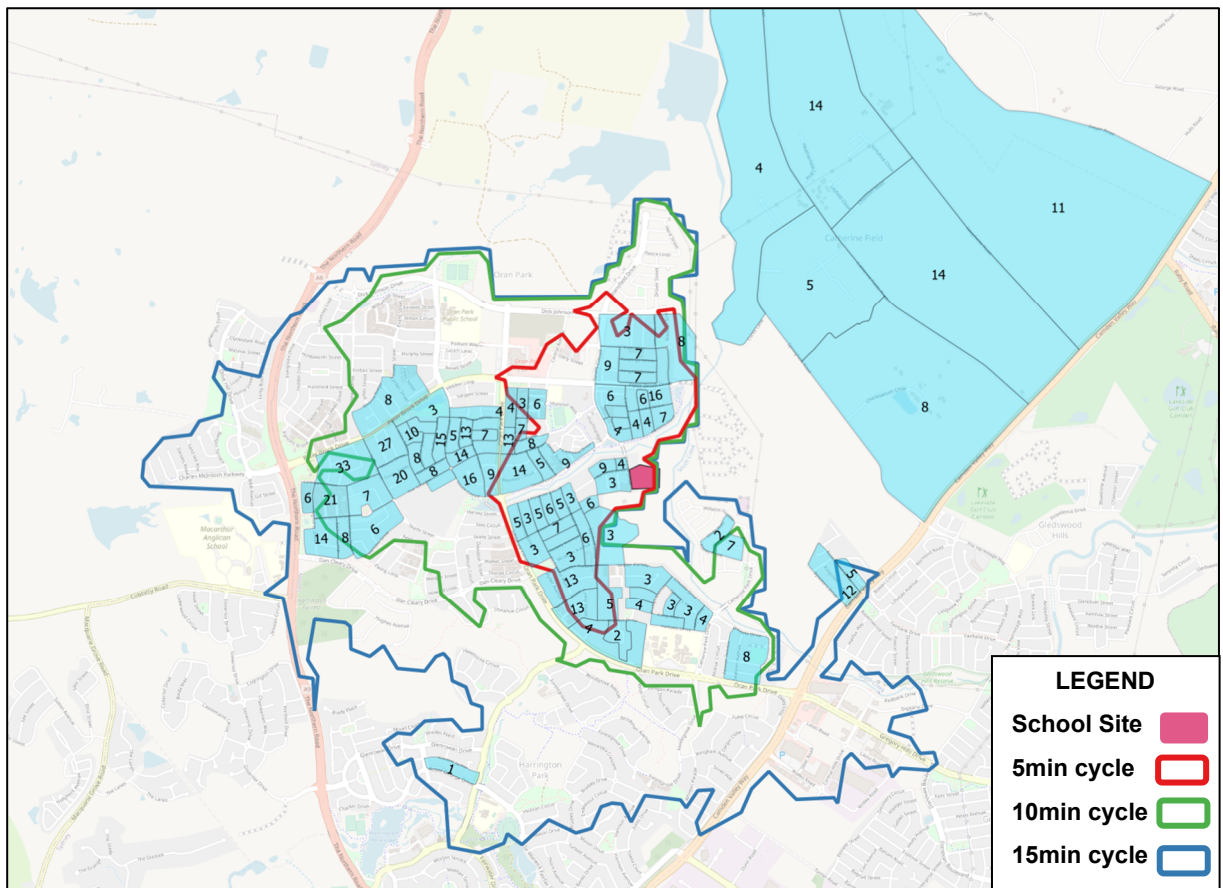


Figure 11: Cycling Catchment

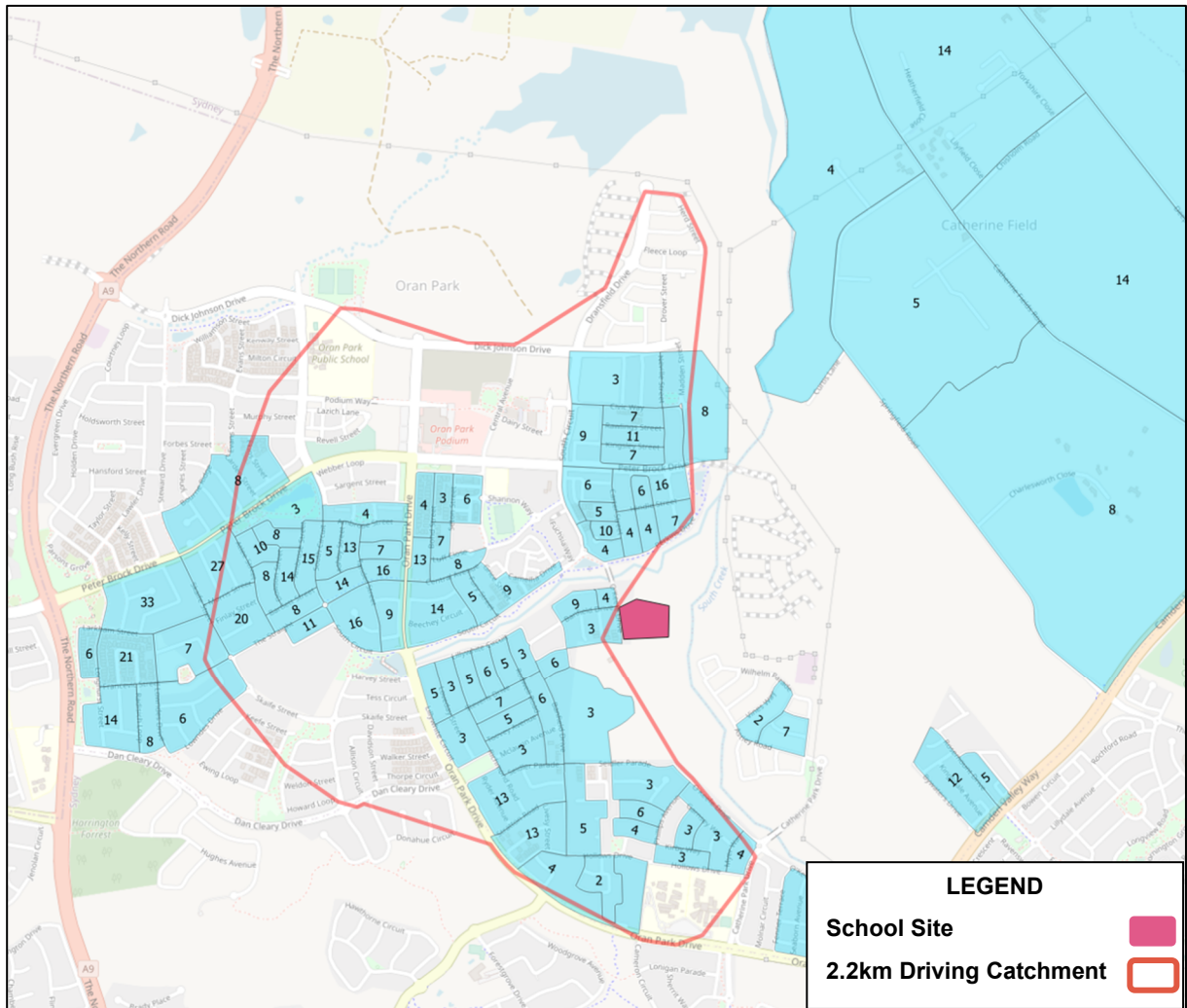


Figure 12: 2.2km Driving Catchment

With reference to the above figures, the following details the student locations in proximity to the School:

- 3% of students live within 400m radius from the school
- 15% of students live within 800m radius from the school
- 30% of students live within 1200m radius from the school.
- 43% of students live within 1600m radius from the school.
- 65% of students live within 2.2km driving distance from the school.

A more detailed breakdown for the 5-minute, 10-minute, and 15-minute walking and cycling distances is presented in **Table 9**.

Table 9: Cycling and Walking Catchment

Catchment	Travel Mode	
	Walking	Cycling
5-Minute	3%	32%
10-Minute	17%	74%
15-Minute	37%	82%

With consideration for the above, the walking and cycling catchments, and the average mode share patterns of schools in the Sydney Metropolitan Area, Ason Group has ranked the likelihood of students utilising a specific transport modes based on age and distance from the school. This is detailed in **Table 10** and **Table 11**.

Table 10: Mode Use by Age and Distance: Kindergarten to Year 3

Catchment	Travel Mode			
	Walking	Bus	Car	Bicycle
Within 400m	High	Low	Moderate	Low
401m – 800m	Moderate	Low	Moderate	Low
801m – 1200m	Low	Low	High	Low
1201m – 1600m	Low	Low	High	Low
1601m +	Low	Low	High	Low

Table 11: Mode Use by Age and Distance: Year 4 to Year 6

Catchment	Travel Mode			
	Walking	Bus	Car	Bicycle
Within 400m	High	Moderate	Low	Moderate
401m – 800m	High	Moderate	Low	Moderate
801m – 1200m	Moderate	High	Low	High
1201m – 1600m	Low	High	Moderate	High
1601m +	Low	Moderate	Moderate	High

With the above breakdown of the likely transport modes to be adopted by students, a mode share target for 2021 has been developed, on the basis that necessary infrastructure including pedestrian crossings can be delivered. This is detailed in **Table 12**.

Table 12: 2021 Mode Share Targets

Travel Mode	Percentage
Walking	35% ¹
Bus	5%
Bicycle	10%
Vehicle Passenger	50%

However, following the implementation of the action plan and the communication strategies, the above mode share would likely change. This is discussed further in Section 4.

3.5.2 Staff Travel Mode Share Analysis

To determine the staff travel mode share, Ason Group has undertaken a review of the Journey-To-Work data from the Australian Bureau of Statistics for the Catherine Field / Oran Park Destination Zone (DZN: 11506005) from the detailed in **Figure 13**.

¹ On the basis that pedestrian crossings and / or children's crossings, and footpaths can be approved and operational. This target is subject to review and refinement in the first 12 months of commencement of school operations.

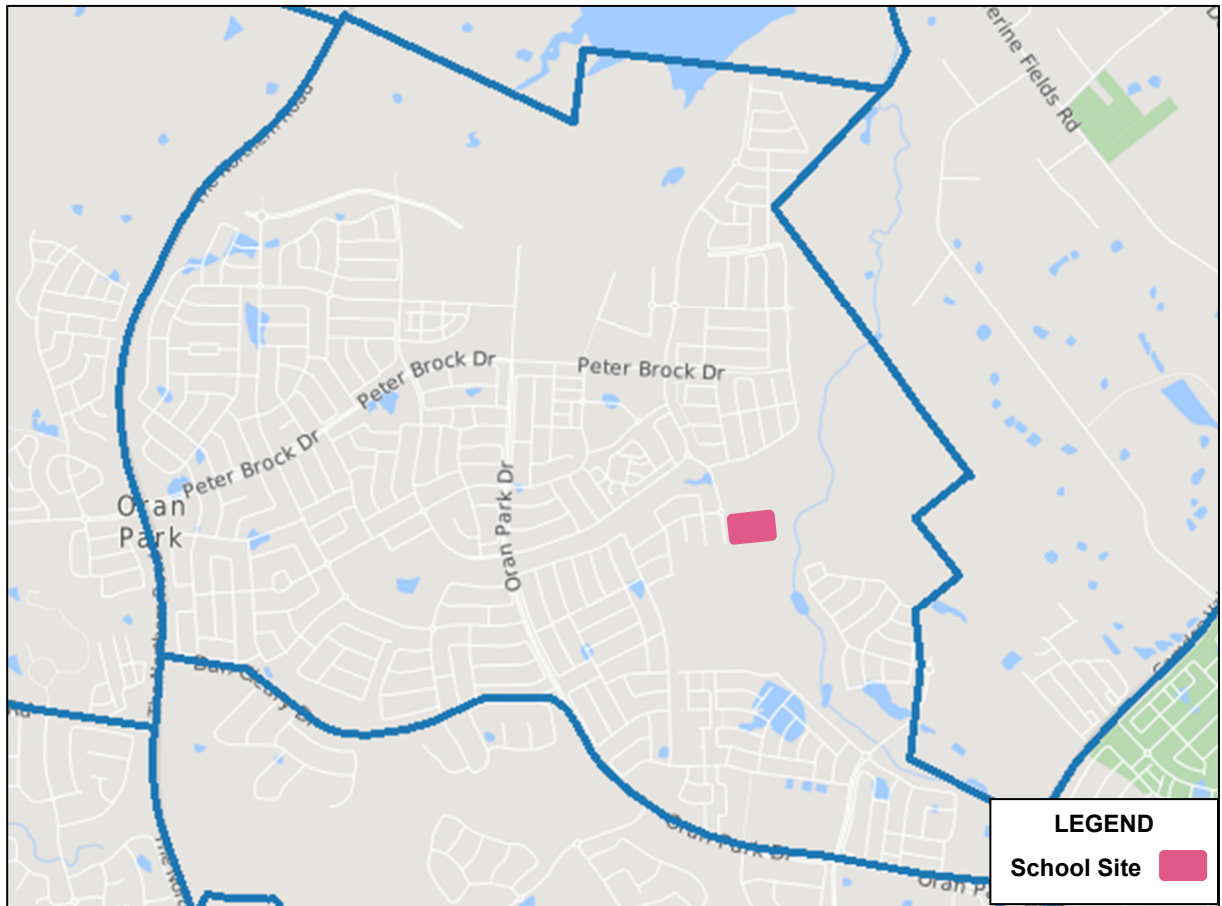


Figure 13 : Site Context within Destination Zone

The travel mode data is detailed in **Table 13**.

Table 13: Journey-To-Work Travel Mode Data

Travel Mode	Percentage
Walking	1%
Bus	1%
Bicycle	0%
Vehicle Passenger	4%
Vehicle Driver	93%
Other Mode	1%

As is evident from the above, the majority of employees within the destination zone travel to the site as a vehicle driver.

Similar to the student mode share, it is anticipated that this can be improved with the implementation and adoption of strategies and initiatives detailed within the action plan in Section 4.

4 Action Plan

4.1 Action Plan Measures

On 27th August 2020, Ason Group met with the School Principal, Chad Lindsay, with TSA Management and Hansen Yuncken to discuss the key items related to the future operation of the School including potential measures to be adopted to encourage alternative modes of transport. The following strategies are subject to discussion still and are to be reviewed prior to commencement of Term 1 2021.

These identified strategies include promotion of some event or day-specific activities. In isolation, these may not dramatically alter the day-to-day travel of staff. However, there are benefits of such activities whereby participation can increase awareness of alternative modes of travel that can then form the basis of future travel patterns.

Table 14: Action Plan Measures

Item No.	Action / Description	Target	Timeframe	Responsibility
1. General				
1.1	Establish a centralised Travel Plan Coordinator (TPC) which is to take responsibility for the ongoing review and monitoring of this Plan. This person(s) shall also provide direction to staff / parents in relation to -specific requirements arising from the Plan. Estimated annual budget for a TPC assuming 10 weeks per term, 4 terms, and 4 hours per week is \$50,000 excl. GST	School Administration / Department of Education	By start of Term 1 2021	School Administration / Department of Education
1.3	Provide 'Travel Welcome Pack' for newly employed staff, highlighting alternate modes of transport other than use of a private vehicle.	Staff	By start of Term 1 2021 and ongoing	TPC
1.4	Review of Plan as a regular item on the agenda of staff / management meetings.	Staff	Annually	TPC
1.7	Preparation of a Transport Access Guide (TAG) and review following changes stipulated by the TPC	Staff, Students, and Parents	By start of Term 1 2021 and ongoing	TPC
2. Walking and Cycling				
2.1	Lobby Council / DPIE for improved cycle connections in the broader area and an updated cycle strategy — noting the current Camden Council Bicycle Plan has been in effect since 1996.	Council	On-going	TPC / DoE

Item No.	Action / Description	Target	Timeframe	Responsibility
2.2	Promote National Ride2Work Day and coincide with participation in Ride-To-School Day. This provides an opportunity for students, parents, and staff to try riding to school as well as celebrating those that currently utilise bicycles.	Staff, Student, and Parents	Annual	School / TPC
2.3	Promote Walk to Work Day and coincide with participation in "Walk Safely to School" Day. Similar to the above, it would encourage alternative modes of transport. Older students can be paired with younger students who live close together to walk to school as a pair or group	Staff, Students, and Parents	Annual	School / TPC
2.4	Develop further school-specific activities designed to get people moving with a reward participation. For example, a competition to see which staff and/or student in each year can get the most 'steps' in a given time period; similar to September activities.	Staff, Students, and Parents	Annual	School / TPC
2.5	Encourage volunteers to organise a walking school buses. This allows for students to travel to school in an organised group guided by two adults. This would require liaising with the TPC.	Students and Parents	Weekly, Monthly, Annually	TPC / Parents
2.6	Advocate, provide, and maintain safe pedestrian and bicycle facilities to and from the school.	Staff and Students	On-going	TPC / Council
2.7	In accordance with the cycling mode share targets identified, sufficient secure parking spaces and 'EoJ' facilities shall be provided and maintained.	Staff and Students	On-going	School / TPC

3. Education Initiatives

3.1	For Year K-2 students include education programs teaching road awareness using play-based learning	Students	On-going	School / TPC
3.2	For Year 3 students include education programs teaching road safety with a focus on walking independently to school.	Students	On-going	School / TPC
3.3	For Year 4 students include education programs to teach road safety with a focus on cycling independently to school. This may include an experience or an excursion to the CARES a bicycle safety education facility in St Marys.	Students	On-going	School / TPC
3.4	For Year 5-6 students include education programs to teach how to travel independently on the public bus system in preparation for travelling to high school and other destinations.	Students	On-going	School / TPC

Item No.	Action / Description	Target	Timeframe	Responsibility
4. Public Transport				
4.1	Display route maps and timetables (for services within 10 minutes walking distance) in high trafficable areas within the school.	Staff and Students	On-going	TPC / DoE
4.2	Advocate for TfNSW to improve public transport services in response to increased development within the surrounding area.	Staff and Students	On-going	TPC / DoE
4.3	Update this Plan and TAG to reflect changes to any bus routes and service times.	Staff and Students	On-going	TPC
4.4	Undertake a review to promote initiatives for staff using public transport. This may include a review of potential tax incentives for Government employees that use public transport.	Staff	On-going	TPC
4.5	Promote use of public transport for students with a rewards scheme. i.e students are provided incentives to travel to and from the school.	Students	On-going	TPC
4.6	Liaise and discuss with TfNSW the feasibility of providing bus services for students outside of the 2.2km driving distance from the School.	Students	To be undertaken prior to school opening	TfNSW / Project Team
5. Reducing Car Travel				
5.1	Review initiatives for staff and parents to promote car-pooling. This may include (but not limited to) the provision of online services or forums to facilitate ease of finding carpooling scheme participants.	Staff and Parents	To be undertaken prior to school opening	TPC
5.2	Undertake research in the feasibility of providing shuttle services to and from the Site to train stations or other interchange nodes. This may require additional coordination with surrounding precincts to facilitate additional capacity potential.	Staff	To be undertaken prior to school opening	TPC
5.3	Potentially introduce and enforce of parking restrictions around the school. This is to be discussed and implemented in collaboration with Council's Road Safety Officer	Staff and Parents	To be undertaken prior to school opening	TPC
5.4	Liaise with staff to discuss the feasibility of a parking management scheme which would discourage the use of single occupant car travel to the site while incentivising employees to travel by alternative modes of transport.	Staff	To be undertaken prior to school opening	TPC

4.2 Communications Strategy

With consideration to the above measures, a communication strategy has been developed that can be adopted by the future school administration and TPC to communicate the measures detailed above. It should be noted that this communication strategy is subject to review following further discussions with the School administration.

Table 15: Action Plan Measures

What	When	Method	Target	Responsibility
Share objectives and goals with the student body and staff	Prior to school opening and every term during operation	Welcome packs to new staff and families. Social media. Website.	Staff, Students, Parents	School / TPC
Provide information regarding transport options to and from the school, and on-site end-of-trip facilities.	Prior to school opening. This information is to be available always and presented every term	Welcome packs to new staff and families. Website. Information boards within school grounds.	Staff, Students, Parents	School / TPC
Provide details regarding school promoted initiative that encourage alternative modes of transport, such as: Ride-To-School Day, Walk-To-School Day, September, etc.	Annually prior to the event	Social Media Website. E-newsletters.	Staff, Students, Parents	School / TCP
Provide details regarding the safety and volunteer process to manage a walking school bus	This information is to be available always and presented every term	Welcome packs to new families. Website. E-newsletters.	Students and Parents	School / TCP
Provide details regarding availability of student bus passes	Prior to, and at school opening. This information is to be available always and presented every term	Welcome packs to new families. Website.	Students and Parents	School / TCP
Liaise with parents regarding the education programs provided by the school that encourage alternative transport modes	Prior to school opening. This information is to be available always and presented every term	Welcome packs to new families. Website.	Students and Parents	School / TCP

What	When	Method	Target	Responsibility
Link key resources regarding operation of school zones, road safety, and parking restrictions within the local area.	Prior to, and at school opening. This information is to be available always and presented every term.	Welcome packs to new families. Social Media Website. E-newsletters.	Parents	School / TPC
Detail information regarding operation of drop-off / pick-up area	Prior to, and at school opening. This information is to be available always and presented every term.	Welcome packs to new families. Social Media Website. E-newsletters.	Parents	School / TPC

4.2.1 Welcome Packs

As detailed above, new staff and families shall be provided with a 'welcome pack' as part of the on-site induction process which includes the Plan and other information in relation to sustainable transport choices. This pack shall include a copy of the Plan as well as general information regarding the health and social benefits of active transport. Advice on where to find further information should also be included.

4.2.2 Accurate Transport Information

In addition to these 'welcome packs', a Travel Access Guide (TAG) shall be provided to all staff.

A copy of the TAG should also be displayed prominently in staff areas, such as lunchrooms and foyer areas, and information boards throughout the school for parents and students. The TAG shall be presented in a form that is reflective of the commitment to achieving positive transport objectives. This TAG is presented in **Appendix B**.

5 Targets

5.1 Mode Share Targets

With consideration for the above Action Plan and the communication strategy, the following target mode shares have been identified. It is expected that further travel mode surveys would be undertaken once the School is operational to establish baseline figures from which progress can be measured.

Table 16: Mode Share Targets

Travel Mode.	Proposed	
	Staff	Students
Walking	5%	35%
Cycling	6%	10%
Bus	3%	10%
Vehicle Passenger	15%	45%
Vehicle Driver	70%	n/a

6 Governance and Support

6.1 Travel Plan Coordinator

A person(s) shall be nominated as the Travel Plan Coordinator (TPC) and be responsible for:

- Engagement with the staff and parent bodies,
- Implementation and promotion of the Plan actions,
- Monitoring the effectiveness of the Plan (refer to monitoring requirements outlined in **Section 7**) and ongoing maintenance of the Plan,
- Provide advice in relation to transport-related subjects to staff, management, and visitors, as required, and
- Liaise with external parties (i.e. Council, public transport, and car share operators) in relation to Travel Plan matters.

This role does not necessarily require full-time position; however, it should be clearly designated among the key responsibilities of the building management group.

This may include financial incentives for staff to use active transport and public transport to travel to work. However, this is not a mandatory requirement and would be subject to the management discretion.

6.2 Resourcing

It is not anticipated that the maintenance of this Plan will have significant ongoing cost implications and shall be reviewed on an annual basis by the TPC in order for the best outcome.

7 Monitoring and Review Process

7.1 Plan Maintenance

This Plan shall be subject to ongoing review, ideally biennially, and will be updated accordingly. Regular reviews will be undertaken by the TPC, as required.

Key considerations regarding the review of the Plan shall be:

- Updating baseline conditions to reflect any changes to the transport environment in the vicinity of the Site such as changes to bus services, new cycle routes, new roads, etc. In this regard, review of the Plan – and associated TAG in particular – may be undertaken on a more frequent basis,
- Tracking progress against proposed travel mode targets,
- To identify any shortfalls and develop an updated action plan to address issues, and
- To ensure travel mode targets are updated (if necessary) to ensure they remain realistic but also ambitious.

7.2 Monitoring and Review Actions

To assess the efficacy of the Plan strategies, the following actions are to be undertaken by the TPC:

- Review updated de-personalised data from the Department of Education with a GIS analysis.
- Travel mode surveys to determine the proportion of persons travelling to/from the site by each transport mode. This will be in the form of annual travel mode questionnaire surveys to be completed by all persons attending the Site, as far as practicable. This survey may be undertaken online or in-person at the discretion of the TPC.
- Review information regarding participation in active travel programs.
- Undertake community consultation to gauge feedback regarding implemented strategies and areas for improvement to further encourage use of alternative modes of transport.
- Periodic on-site review of facilities such as the drop-off / pick-up area, bicycle racks.

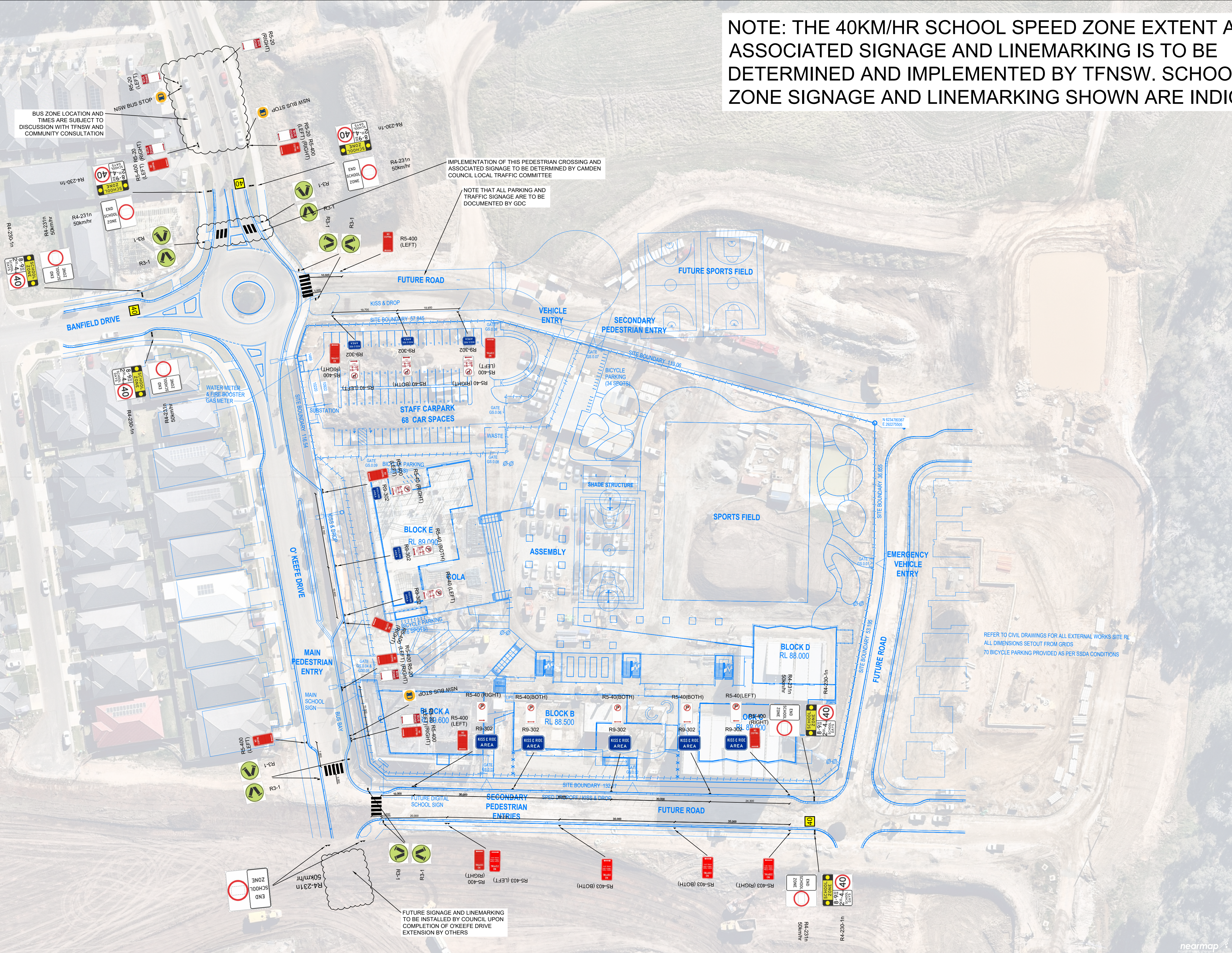
It is recommended that an initial audit be undertaken within 6-months of the school opening to establish baseline mode share as early as possible.

7.3 Feedback Framework

Following the actions undertaken as part of the review process, feedback is to be provided to key stakeholders including: the community, TfNSW, Council, and the Department of Education, detailing the efficacy of the strategies. The strategies and Plan will be adapted accordingly.

Appendix A

Traffic Signage and Line Marking Plan



Notes:
This drawing is provided for information purposes only and should not be used for construction.

Document Info:
Drawn by: Wendy Zheng
File name: P1047-01-v6.dwg
Client:
HANSEN YUNCKEN

Project:
1047
103 O'KEEFE DRIVE, ORAN PARK
Drawing Title:
SIGNAGE AND LINEMARKING PLAN OVERVIEW
INTERIM STAGE PLAN

Date:
01.12.2020
Scale @ A1:
1:600
Drawing Number:
P1047-01-01

Appendix B

Travel Access Guide

Travel Access Guide: Catherine Field Public School 103 O'Keefe Drive, Oran Park

Prepared by

asongroup

Info@asongroup.com.au | +61 2 9083 6601 | Suite 15.02, Level 5, 1 Castlereagh Street, Sydney NSW 2000

November 2020



Public Transport - Interline Bus Service

Route	Destinations	Monday to Friday	
		Earliest-Latest service	Frequency (in minutes)
O'Keefe Drive Bus Stop - adjacent to school			
850	Oran Park Town Centre to Minto	05:15 - 18:30	30 - 60 minutes
Oran Park Drive Bus Stop - 13 minute walk			
840	Campbelltown to Oran Park	06:15 - 20:15	30 - 60 minutes
Central Avenue Bus Stop - 11 minute walk			
858	Oran Park Town Centre to Leppington	05:00 - 21:10	30 minutes

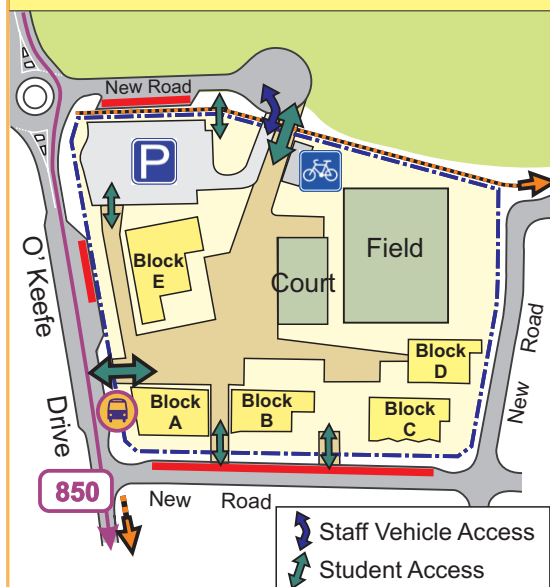
Active Transport

	Off-Road Shared Cycle Paths
	Proposed Off-Road Shared Cycle Paths
	Suggested pedestrian routes and walking distance

Parking Provisions

68 staff car parking spaces
 (with **2** accessible spaces)
3 kiss and drop areas
60 bicycle spaces.

Catherine Field Public School Detail



Appendix C

CVs of Authors GTP

Dora has 20 years of professional experience across the fields of urban planning, and traffic and transport engineering. With specialities in concept and schematic traffic design, road safety engineering, construction traffic management planning and major event traffic and transport operations planning, Dora focus on achieving practical, customer centred solutions commensurate with the project type, purpose and level of user experience established in collaboration with clients, delivery partners and project teams.

Dora's expertise in land use development planning and design has specific focus on car park design, traffic

management system design, and loading facilities design and design of traffic systems based on the operational requirements as well as future adaptability of spaces. Dora has been involved in a broad range of traffic and transport projects providing high quality service and end to end project advice to a range of public and private sector clients.

Dora has worked on a broad range of inter-disciplinary design teams where she collaborated with clients and consultants of various disciplines in achieving forward thinking outcomes that considers both current and future needs of end users.

QUALIFICATIONS & EDUCATION

- Post Graduate Diploma in Transport and Traffic (Monash)
- Post Graduate Diploma Planning & Design (Melbourne)
- Bachelor of Science (Auckland)

KEY PROJECTS

Warrick Lane Precinct, Blacktown NSW Blacktown City Council

The Warrick Lane Precinct (The Precinct) is located within the Blacktown City Centre, 500 metres east of Blacktown Railway Station. The 2.8-hectare site has been identified for redevelopment as part of the of the Blacktown City Centre Transformation. The objective of the transformation is to provide employment, housing, social, cultural, recreation and transport infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including schematic and detailed design input to the Project, Transport Impact Assessment in multiple phases, DA stage and Detailed Stage Construction Traffic and Pedestrian Management Plan preparation and worked closely with the broader project team.

KEY SKILLS

- Transport Management and Operations Planning
- Transport Design
- Event Traffic and Transport Management Operations Planning and Delivery
- Stakeholder management

Blacktown Health Precinct, Blacktown NSW Blacktown City Council

Blacktown Health Precinct is located to the east of the Blacktown City Centre. The Health Precinct has been identified as a transformation project of the Blacktown City Council to support the forecasted growth in population planned for Blacktown. The objective of the transformation is to provide employment and social infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including masterplan, strategic transport analytics and design input to the Project.

Woolworths National Loading Facilities Transport Management Safety Review | Woolworths

Dora was the National Technical Leader for the development and delivery of a loading facilities transport management safety review program for the Supermarkets branch of Woolworths which involved the development and delivery of

a transport management inspection, review and reporting program involving over 1000 stores. Dora worked closely with the Health and Safety section of Woolworths and was a key member of the delivery team of the study.

Woolworths Drive Program Design Standards Development and Test Fit | Woolworths

Dora was the National Technical Design Lead for the review and provision of technical design advice to inform the development of standard layout and the design guideline of drive through facilities for Woolworth Supermarket assets. Dora has completed a series of test fits across a number of stores located in NSW, SA, WA and NT reviewing and providing design options to retrofit drive through facilities.

Woolworths Minchinbury Distribution Centre (NSW) | Woolworths

Dora was the Project Director and Transport Engineering Lead for the redesign of loading, circulation and parking facilities within the existing Woolworths Minchinbury Distribution Centre and associated Development Application Transport Assessment and Modification application.

Woolworths Fresh Refrigerated Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead from feasibility phase of the project, to completion of Planning Permit application and associated Concept to Schematic Design phases of the Woolworths Fresh Project in Truganina, Victoria. The project involved the development of a fourth leg to a roundabout, B-Double queuing areas, vehicle circulation, as well as parking facilities and design of a channelised right turn facility along Foundation Road.

Woolworths Melbourne South Regional Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead for the project and has provided transport engineering input from the development of the Principal's Project Requirement, assisting the Project Architect in the development of a reference design, assistance in provision of transport engineering advice to inform site selection, subsequent Concept and Schematic Design work, and Transport Impact Assessment for the Planning Application.

Victoria Police Centre (2016 – 2020) and City West Police Complex (2011 – 2015), Melbourne | Cbus Property

The recently completed Victoria Police Centre and the City West Police Complex located at the corner of Spencer Street and La Trobe Street, Melbourne forms a custom-designed, integrated precinct.

Dora was the Transport Engineering Lead for the project since 2011 and has worked collaboratively with both the Project Principal, representatives of Victoria Police and the Project Design Team to develop custom designed solutions to traffic and transport facilities associated with the development. Dora prepared Transport Assessment reports, technical memorandums, and heavily involved in consultation with authorities and stakeholder consultation.

Secure Facilities, Melbourne | Reserve Bank of Australia

Dora was the Traffic Management Lead for the Secure Facilities developed by the Reserve Bank of Australia in Craigieburn, Melbourne.

Dora was engaged to develop traffic management arrangements, functional requirements and specifications embedded into the architectural, civil and security arrangements of the project.

Other Select Projects:***Education*****Alex Avenue Public School | NSW Department of Education**

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of contingency parking and site access design, responses to Response to Submissions, development of School Transport Plan, and liaison with Council.

New Estella, Wagga Wagga Public School | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

Tom has a Bachelor of Civil Engineering and has been working in the traffic engineering and transport planning industry since 2015.

During this time, Tom has undertaken numerous projects for both private developers and Government Agencies, including Councils and NSW Health Infrastructure across a range of industry sectors.

Tom has demonstrated ability in all areas of traffic engineering and transport planning and has been involved in many significant studies.

Past projects have ranged in size from detailed design advice in relation to small residential developments with highly constrained access opportunities to the preparation of Traffic Impact Assessment (TIA) for large development submissions.

Tom has been trained in and worked with numerous transport planning models and this experience allows him to provide strategic and specialist advice on transport planning issues. These models and programs include AutoCAD, Autotrack, and SIDRA.

QUALIFICATIONS & EDUCATION

- BE Civil Engineering (University of NSW)
- Member AITPM
- Member of Engineers Australia

PROFESSIONAL BACKGROUND

- 2015 – Current: Ason Group
Traffic Engineer
- 2015: Birzulis Associates
Structural Engineer

KEY SKILLS

- Traffic Impact Assessments
- Master Planning & Feasibility Studies
- Sustainable Transport Planning
(Green Travel Plans & Transport Access Guides)
- Transportation Modelling Analysis (SIDRA)
- Australian Standards (AS2890 & AS1158) Compliance
- Car Park & Loading Dock Design & Assessment,
including for Construction & Occupancy Certification
- Construction Traffic Management Plans

KEY PROJECTS & EXPERIENCE

Education

- *Loreto Normanhurst*
Modal analysis of staff and students and assessment of existing travel behaviours.
- *Moriah College*
TIA to support a new 80-space early learning centre in an existing educational facility.
- *Santa Sophia Catholic College*
TIA to support a new 1,600 primary and secondary school and a 60-space Early Learning Centre.
- *Mt Sinai College*
TIA to support the provision of an 80-space early learning centre in an existing school.

NSW Health Infrastructure

- Numerous Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS) sites in Caringbah, Artarmon, Haberfield, Liverpool, Blacktown, Bankstown, Northmead, Narrabeen, and Penrith.
- Child care centre in the Royal North Shore Hospital – traffic study to support a 70-space child care centre.

Residential, Commercial & Mixed Use Developments

- *Waterloo Road, Macquarie Park Masterplan*
TIA to support the concept masterplan for the commercial development at 45-61 Waterloo Road.
- *Rosehill Street Planning Proposal*
Traffic study to support a concept plan of 320 residential units and 2,550m² of commercial GFA.
- *Warrawong Shopping Centre*
Multiple traffic studies to support additional tenancies and removal of car parking.

Industrial Developments

- *Minto Intermodal*
TIA to support the SSDA for a new intermodal.
- *Old Wallgrove Road*
TIA to support a 44,000m² warehouse for submission DP&E.
- *South Street, Rydalmere*
TIA to support a warehouse development for submission to Parramatta Council

Wendy is a qualified civil engineer with eight years of work experience across project management, traffic engineering, construction management, and civil and drainage design

During this time, Wendy has been involved in numerous projects for both private organisations and government agencies in Australia and United Kingdom.

Wendy has demonstrated her ability across numerous areas of traffic engineering, transport construction, and civil design and has been involved in many significant projects.

Past projects have ranged in size from detailed design of intersection upgrades to the preparation of Construction Traffic Management Plans, Traffic Control Plans, and Construction and Occupation Certification for both private

and public clients. Wendy also has experience dealing with the Transport Management Centre to obtain Road Occupancy Licenses as well as negotiating with Sydney Coordination Office for CTMP approvals.

While working in the UK Wendy was involved in the management, design and delivery of several large scale projects for local councils such as the School Streets project for Haringey and Liveable Streets programme in Tower Hamlets.

Wendy has worked on a broad range of inter-disciplinary design teams where she collaborated with clients and consultants of various disciplines in achieving forward thinking outcomes that considers both current and future needs of end users.

QUALIFICATIONS & EDUCATION

- Master of Engineering Management (University of Technology Sydney)
- BE Civil Engineering w Architecture (University of New South Wales)
- RMS Prepare a Work Zone Traffic Management Plan Card (Combined orange and red card)
- WorkCover Occupational Health and Safety Construction Induction Card.
- Member of Engineers Australia

PROFESSIONAL BACKGROUND

- 2020 – Current: Ason Group
Senior Traffic Design Engineer
- 2019 – 2020: Project Centre Limited (UK)
Senior Traffic Engineer
- 2019 – 2019: WSP (UK)
Senior Engineer
- 2016 – 2019: GTA Sydney
Consultant and Senior Consultant
- 2012 – 2016: The Hills Shire Council
Graduate, and Civil Design Engineer

KEY SKILLS

- Transport Management and Operations Planning
- Transport Design
- Civil and Drainage Design
- Stakeholder management
- Autocad suite / Microstation
- Vehicle tracking / Autoturn

KEY PROJECTS & EXPERIENCE

388 George Street, Sydney | Multiplex

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for the development, as well as the internal traffic management works with the adjoining building that include coordination with Sydney Light Rail Works and construction activities of other nearby developments.

David Jones Elizabeth Street, Sydney | Mainbrace

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for

the development in obtaining the first approval for nighttime concrete works in the CBD from SCO and overtime ROLs while liaising with adjoining developments and Sydney Metro.

Langston Place, Epping | Hutchison Builders

Wendy was the Project Manager and Traffic Management Lead for the Construction Traffic Management Planning for the development in obtaining the first approval for construction works during Epping to Chatswood rail replacement period from the expanded SCO.