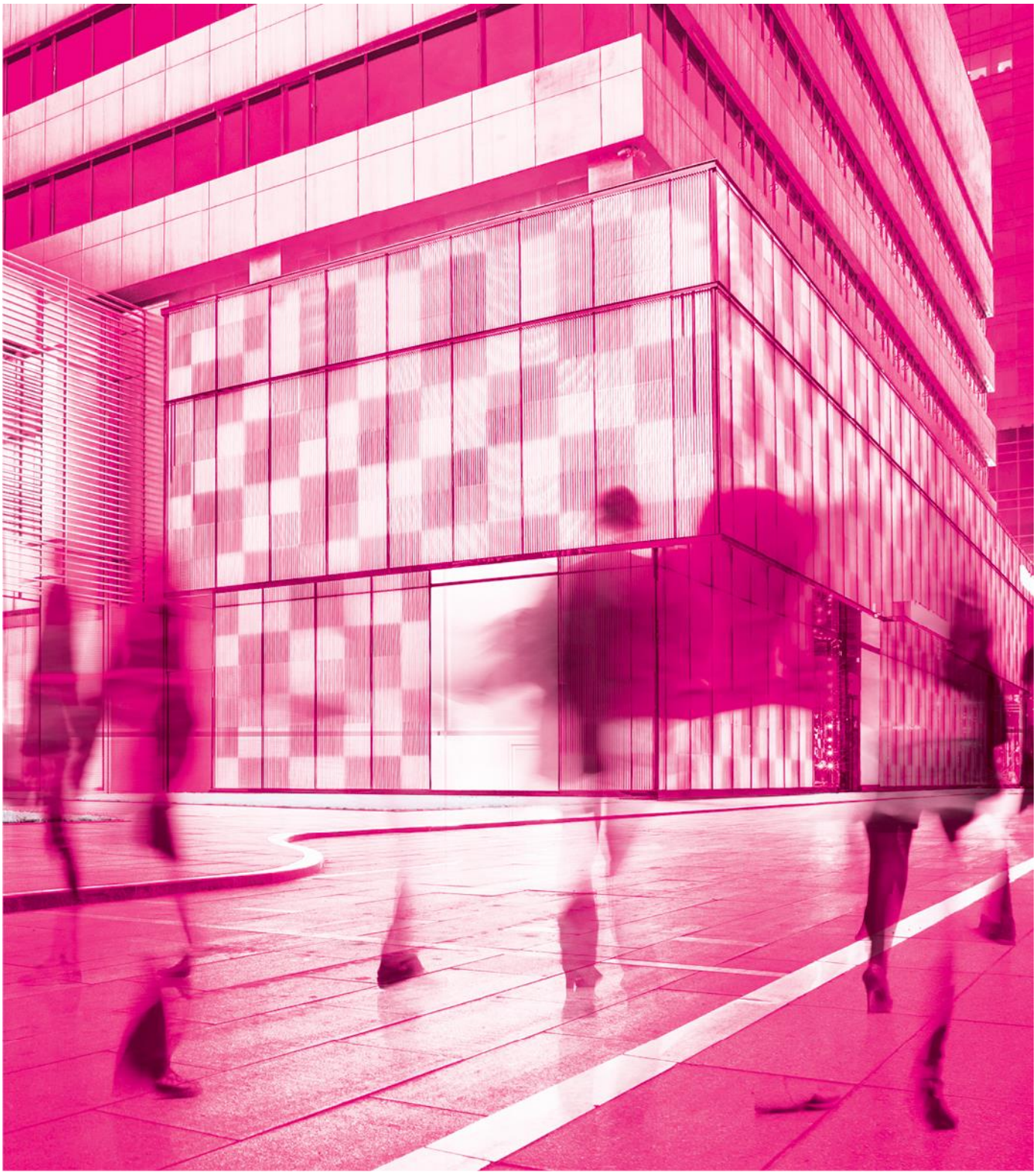


construction pedestrian traffic management plan;

Winx Stand Development

For Australian Turf Club

30 October 2019

parking;
traffic;
civil design;
wayfinding;

ptc.

Document Control

Winx Stand Development, Construction pedestrian traffic management plan

Issue	Date	Issue Details	Author	Reviewed	For the attention of
1	16/10/2019	Draft Issue	EL	FL/ AU	Andrew McConnell (MCG)
2	17/10/2019	Draft Issue	EL	FL/ AU	Andrew McConnell (MCG)
3	30/10/2019	Final Issue	EL	AM	Andrew McConnell (MCG)

Contact

Eric Lei
+61 2 8920 0800
eric.lei@ptcconsultants.co

Andrew Morse
+61 2 8920 0800
Andrew.morse@ptcconsultants.co

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
info@ptcconsultants.co
t + 61 2 8920 0800
ptcconsultants.co

Contents

1. Introduction

ptc. has been engaged by the Australian Turf Club to prepare a Construction Pedestrian Traffic Management Plan (CPTMP) for a State Significant Development (SSD) within the Royal Randwick Racecourse for the construction of a new spectator stand (SSD 10285). This CPTMP will accompany the Environmental Impact Statement (EIS) as requested by the Planning Secretary's Environmental Assessment Requirements (SEARs). The proposed site for the new spectator stand, known as the Winx Stand, will be located on the current Leger Lawn in Royal Randwick Racecourse. It is noted that the Royal Randwick Racecourse lies within the Randwick City Council Local Government Area.

This report is associated with the demolition, excavation and construction of the following proposal:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The project site is comprised of a building and a lawn area and is located south of the existing QEII Grandstand and to the east of the newly delivered Multi Deck Car Park. The location and an aerial view of the subject site is presented in Figure 1.1 and Figure 1.2 respectively.

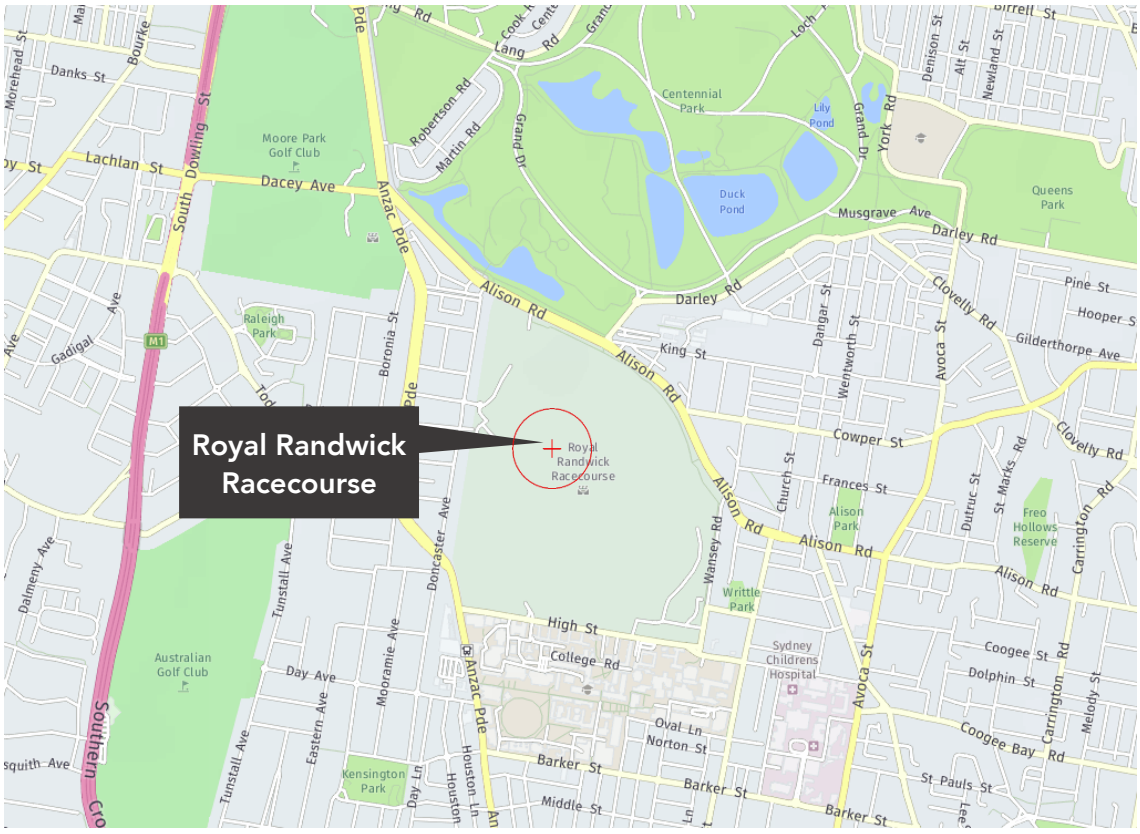


Figure 1.1 – Site Location (Source: HERE WeGo Maps)

Figure 1.2: Aerial View of the Site

1.1 Purpose of this Report

This report presents the following considerations in relation to the construction pedestrian traffic management of the Proposal:

Section 2	A description of the project;
Section 3	A description of the road network serving the development property;
Section 4	Management of construction vehicles and non-site traffic; and
Section 5	Summary.

2. The Development

2.1 Site Content

The Royal Randwick Racecourse lies within a Public Recreation Zone (RE1) which spans the entire footprint of the Royal Randwick Racecourse as well as to the north. The subject site is bounded by Infrastructure (SP2) to the south with Low Density Residential (R2) and Medium Density Residential (R3) to the east and west. Local Centre (B2) land uses are located to the east and west of the site.

Figure 2.1 presents the surrounding land uses of the Site.

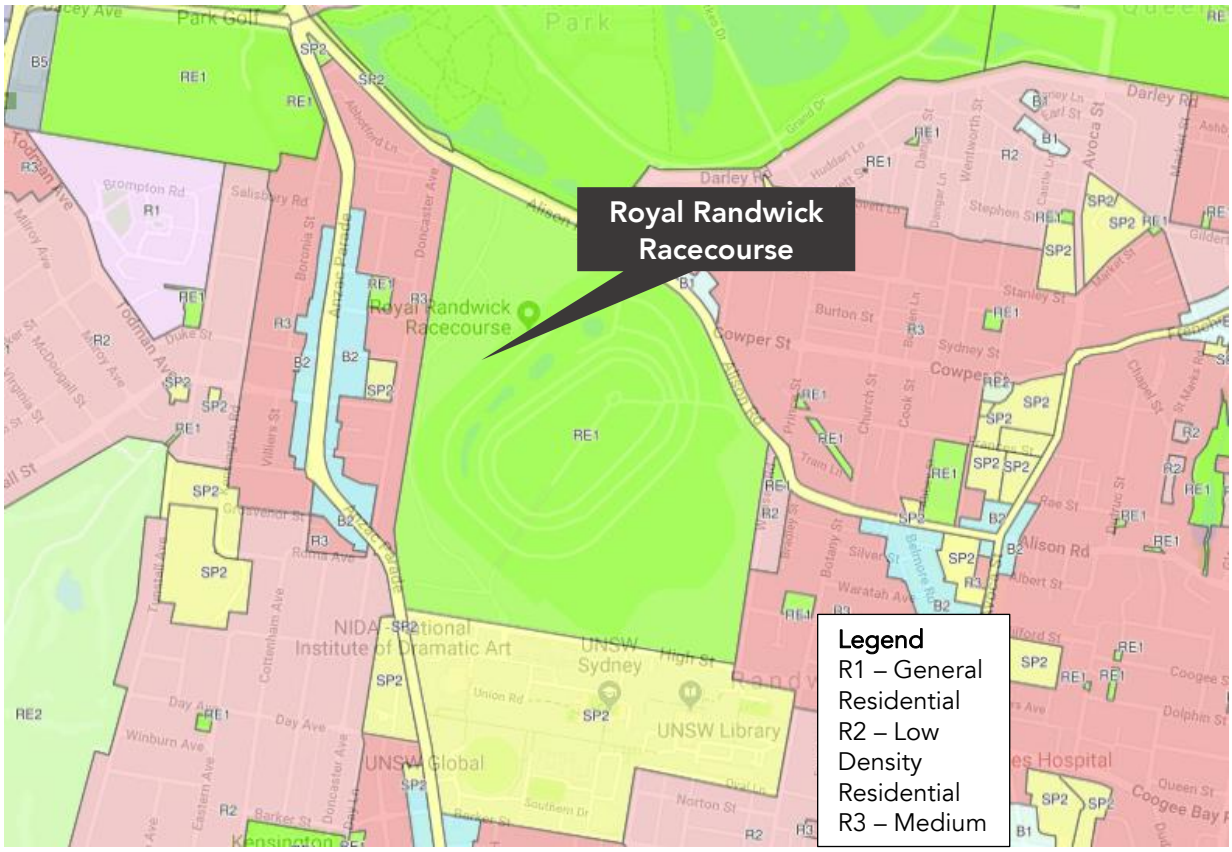


Figure 2.1 - Surrounding Land Uses of the Development

2.2 Development Proposal

The development proposal involves the development of a one-storey multi-purpose race day facility:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The multi-purpose facility acts as an improvement to the amenity of Royal Randwick Racecourse, it does not seek approval for increase of patronage numbers.

Figure 2.2 – Ground level Plan

3. Existing Transport Facilities

3.1 Road Hierarchy

The subject site is located in the suburb of Randwick and is primarily serviced by the State Roads including Anzac Parade, Alison Road, Dacey Avenue, Avoca Street, Frenchmans Road, Carrington Road, and M1, as well as Regional Roads such as Darley Road, Carrington Road, York Road, Cowper Street, Todman Avenue, and Bourke Street. The site is also serviced by local roads managed by Council.

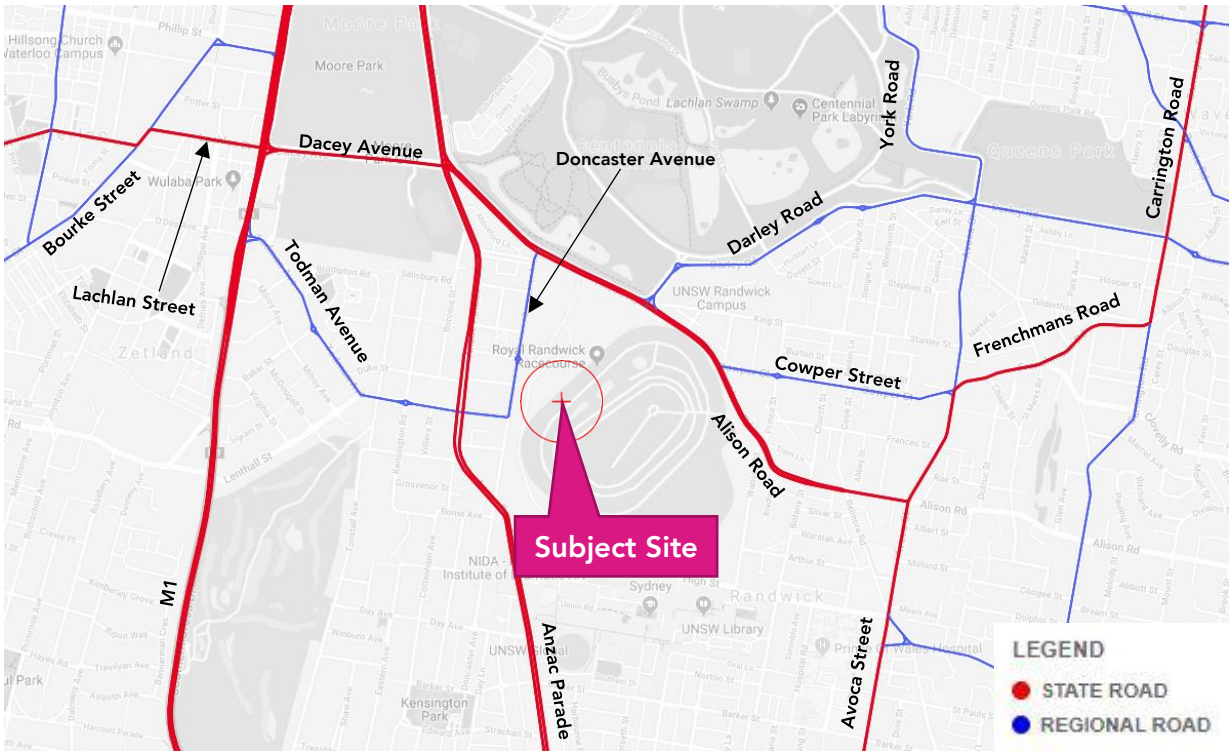


Figure 3.1: Road Hierarchy (RMS Road Hierarchy Review)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

State Roads	- Freeways and Primary Arterials (RMS Managed)
Regional Roads	- Secondary or sub arterials (Council Managed, Part funded by the State)
Local Roads	- Collector and local access roads (Council Managed)

Anzac Parade	
Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	70 km/h
School Zone	No
Parking Controls	No Parking
Forms Site Frontage	No

Figure 3.2: Anzac Parade – Southbound towards Darling Street

Alison Road	
Road Classification	State Road
Alignment	Northwest-Southeast
Number of Lanes	3 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	60 km/h east of Doncaster Avenue; 70km/h west of Doncaster Avenue
School Zone	Between Avoca Street and Bradley Street
Parking Controls	Prohibited west of Wansey Road; time restricted parking east of Wansey Road
Forms Site Frontage	No

Figure 3.3: Alison Road – Northwest towards Anzac Parade

Avoca Street	
Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Undivided
Carriageway Width	13m
Speed Limit	60 km/h
School Zone	Between Albert Street and Mears Avenue
Parking Controls	No Parking southbound from 7am to 9am & from 4pm to 6pm (Mon-Fri) & No Parking northbound 7am to 6pm
Forms Site Frontage	No

Figure 3.4: Avoca Street – Northbound towards Allen Street

Doncaster Avenue	
Road Classification	Regional Road
Alignment	North-South
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50 km/h
School Zone	Between Ascot Street and Darling Street
Parking Controls	Time restricted parking
Forms Site Frontage	No

Figure 3.5: Doncaster Avenue – Northbound towards Bowral Street

3.2 Public Transport

The locality has been assessed in the context of available forms of public transport that may be utilised by prospective employees and customers. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggest that 400m-800m is a comfortable walking distance.

Figure 3.6: 800m radius of the subject site

3.2.1 Train

There are no train services within 800m radius of the development.

3.2.2 Bus

The development site is 470 metres and 510 metres to the bus corridors on Anzac Parade and Alison Road respectively. The locality is well serviced by buses that are operated by Sydney Bus Network. The bus stop locations are presented in Figure 3.7 and a summary of the bus routes are provided in Table 3.1.

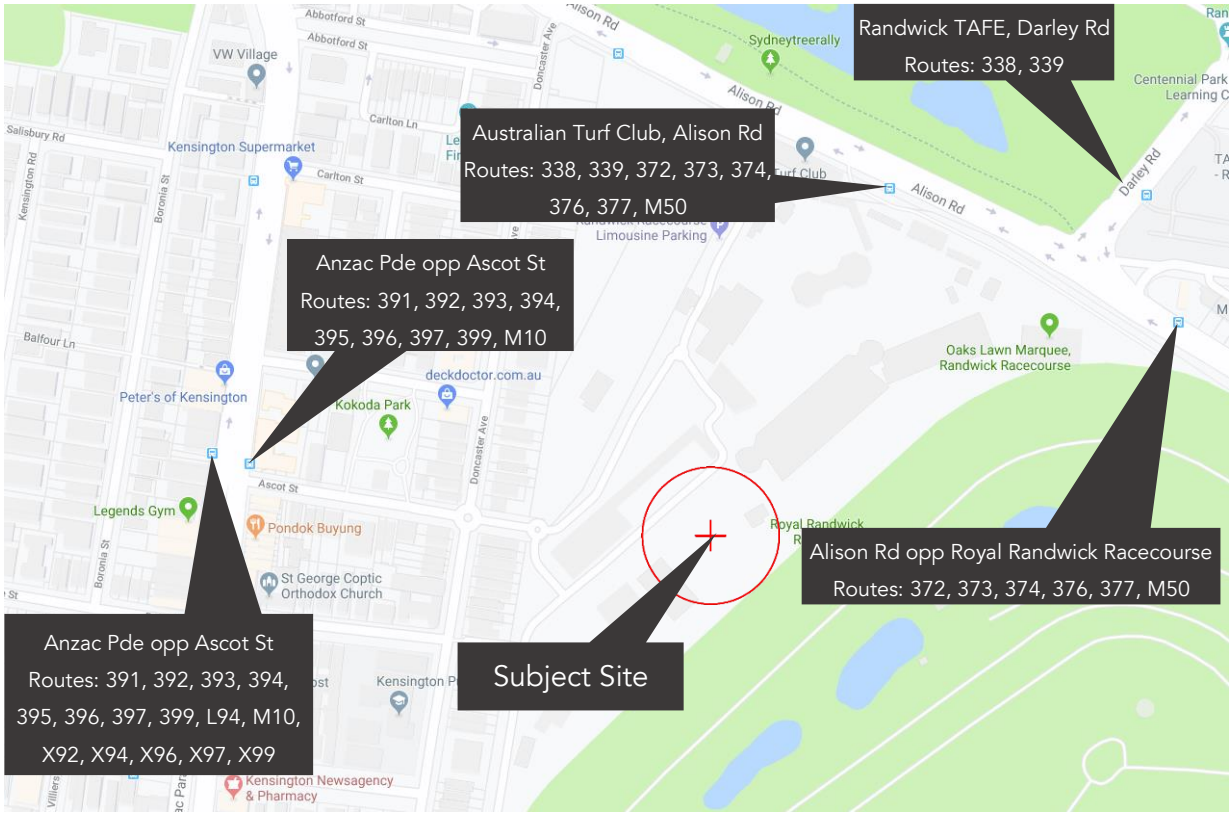


Figure 3.7: Surrounding bus stops

Table 3.1: Summary of Bus Services

Route No.	Frequency (approximate)	Coverage	Stop Location
338	Only operate every 30 minutes from 7:30am to 9:30am and every 10 minutes from 4:30pm to 7pm Mon-Fri	Clovelly to Central Railway Square	530m & 540m
339	Every 30 minutes from 6am to 12am on weekdays Every 30 minutes from 6am to 1am on weekends	Clovelly to Circular Quay	530m & 540m
372	Every 15 minutes from 5:30am to 12:30am on weekdays Every 15 minutes from 5:30am to 11:30pm on weekends	Coogee to Central Railway Square	510m & 530m
373	Every 10 minutes on peak and every 30 minutes off peak throughout the day and night	Coogee to Circular Quay	510m & 530m
374	Every 15 minutes on peak and every 30 minutes off peak from 7am to 12am on weekdays Every 30 minutes from 7am to 12am on weekends	Coogee to Circular Quay	510m & 530m
376	Every 10 minutes on afternoon peak and every 30 minutes off peak from 7am to 7pm on weekdays Every 30 minutes from 9am to 7pm on weekends	Maroubra Beach to Central Railway Square	510m & 530m

Route No.	Frequency (approximate)	Coverage	Stop Location
377	Every 15 minutes on afternoon peak and every 30 minutes off peak from 6:30am to 12:30am on weekdays Every 30 minutes from 6am to 12:30am on weekends	Maroubra Beach to Circular Quay	510m & 530m
391	Every 15 minutes on peak and every 30 minutes off peak from 5:30am to 6:30pm on weekdays Every 30 minutes from 9am to 5pm on weekends	La Perouse to Central Railway Square	470m & 580m
392	Every 15 minutes on afternoon peak and every 30 minutes off peak from 8am to 12:30am on weekdays Every 30 minutes from 7am to 12am on weekends	Little Bay to Circular Quay	470m & 580m
393	Every 10 minutes on peak and every 30 minutes of peak from 6am to 11pm on weekdays Every 15 minutes on peak and every 30 minutes off peak from 6:30am to 11pm on weekends	Little Bay to Central Railway Square	470m & 580m
394	Only operate every 30 minutes during the day and every hour during night time from 3:30pm to 8:30am on weekdays and from 7pm to 7am on weekends	La Perouse to Circular Quay	470m & 580m
395	Every 30 minutes from 6am to 7:30pm on weekdays Every 30 minutes from 8am to 6:30pm on weekends	Maroubra Beach to Central Railway Square	470m & 580m
396	Every 30 minutes from 6:30am to 3:30am on weekdays Every 30 minutes from 6am to 3:30am on weekends	Maroubra Beach to Circular Quay	470m & 580m
397	Every 30 minutes from 9am to 11:30pm on weekdays Every 30 minutes from 8:30am to 11:30pm on weekends	South Maroubra to Circular Quay	470m & 580m
399	Every 15 minutes on peak and every 30 minutes off peak from 9am to 11:30pm on weekdays Every 30 minutes from 7am to 11:30pm on weekends	La Perouse to Circular Quay	580m
L94	Every 15 minutes from 9am to 7pm on weekdays Every 15 minutes from 8am to 6:30pm on weekends	La Perouse to Circular Quay	580m
M10	Every 10 minutes on peak and every 15 minutes off peak from 7am to 8:30pm on weekdays	Maroubra Junction to Leichhardt	470m & 580m

Route No.	Frequency (approximate)	Coverage	Stop Location
	Every 20 minutes from 7:30am to 8pm on weekends		
M50	Every 10 minutes on peak and every 15 minutes off peak from 6:30am to 8:30pm on weekdays Every 20 minutes from 7:30am to 7:30pm on weekends	Coogee to Drummoyne	510m & 530m
X92	Only operate every 15 minutes from 6:30am to 8am to the city and from 5pm to 6:30pm from the city on weekdays	Little Bay to City Museum	580m
X94	Only operate every 20 minutes from 7am to 8:30am to the city and from 4pm to 7pm from the city on weekdays	La Perouse to Circular Quay	580m
X96	Only operate every 15 minutes from 7am to 8:30am to the city and from 5pm to 6:30pm from the city on weekdays	Maroubra Beach to City Martin Place	580m
X97	Only operate two services from 7:30am to 8am to the city and from 5:20pm to 5:40pm from the city on weekends	South Maroubra to City Museum	580m
X99	Only operate every 30 minutes from 7am to 8:30am to the city on weekdays	Little Bay to City Museum	580m

The existing bus services are frequent and provide good connection to the City and major neighbouring town centres.

3.2.3 Light Rail

The Sydney CBD and South East light rail is currently under construction and is expected to reach completion in 2019. As a result, the roads along the route are undergoing significant upgrades. The light rail comprises of 19 stops along the 12km route, which originates in Circular Quay, passing through Wynyard, Town Hall, Central, Moore Park and then splitting up into two lines at the intersection of Anzac Parade with Alison Road and terminating in Randwick and Kingsford respectively. The light rail services will operate every four minutes during the peak hours and will be able to transport the mass reliably.

In summary, there are six light rail stops surrounding Royal Randwick Racecourse, which will provide easy access to and from the city.

The routes and stops of the prospective light rail are presented in Figure 3.8.

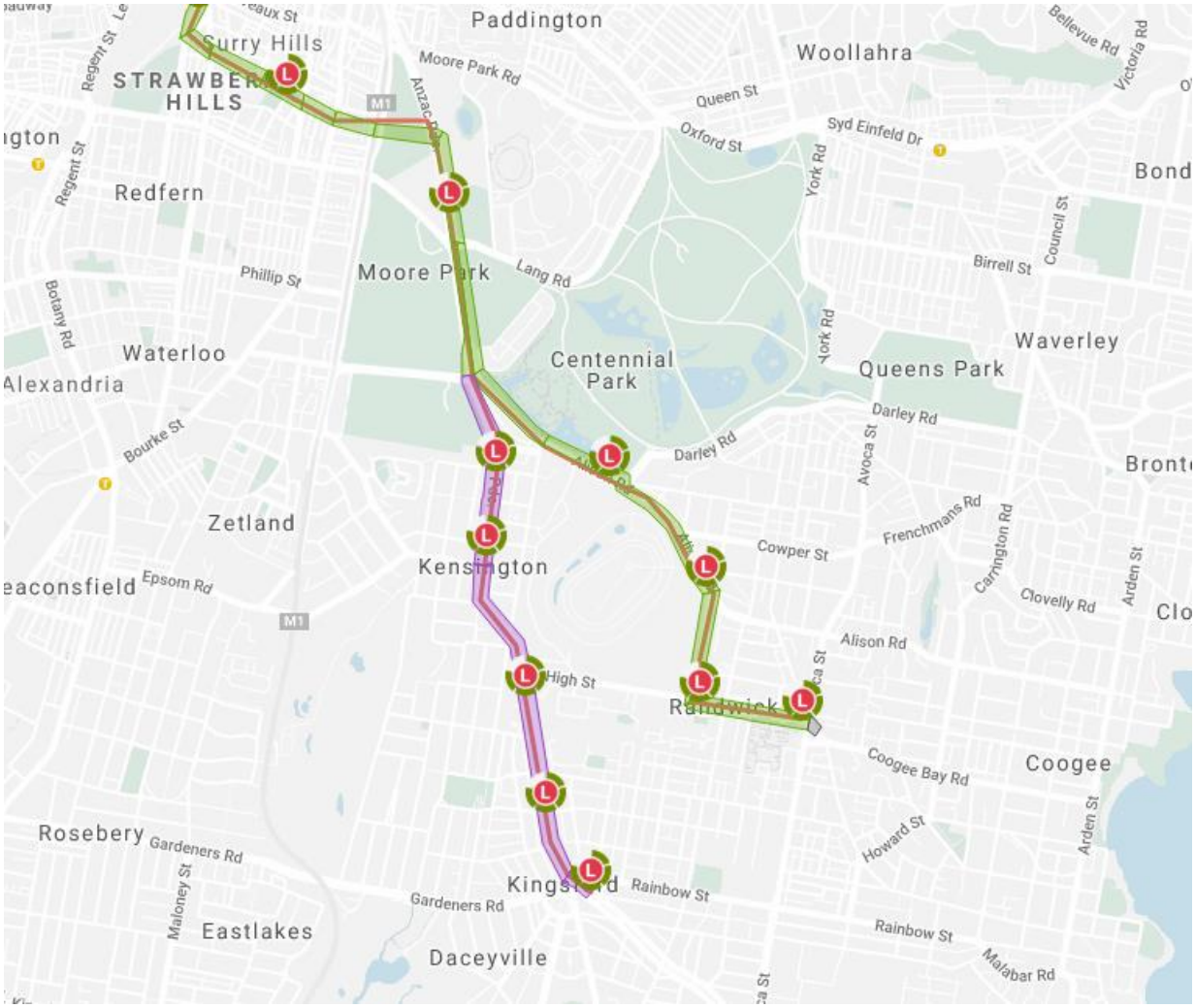


Figure 3.8: Light Rail Routes under construction (Source: Sydney Light Rail)

3.3 Active Travel

In addition to public transport, the locality has been assessed for its active transport potential.

3.3.1 Walking

In terms of public infrastructure, the local road network offers a high level of amenity and safety for pedestrians, providing footpaths on either side of most roadways, signalised crossings, supporting signage and appropriate lighting throughout the locality.

3.3.2 Cycling

According to Randwick City Council's cycling and walking map, the subject site is located within a well-connected bicycle network. This will encourage and promote cycling as an alternative mode of transport for its occupants which is a healthy, low cost and environmentally-friendly method of travel.

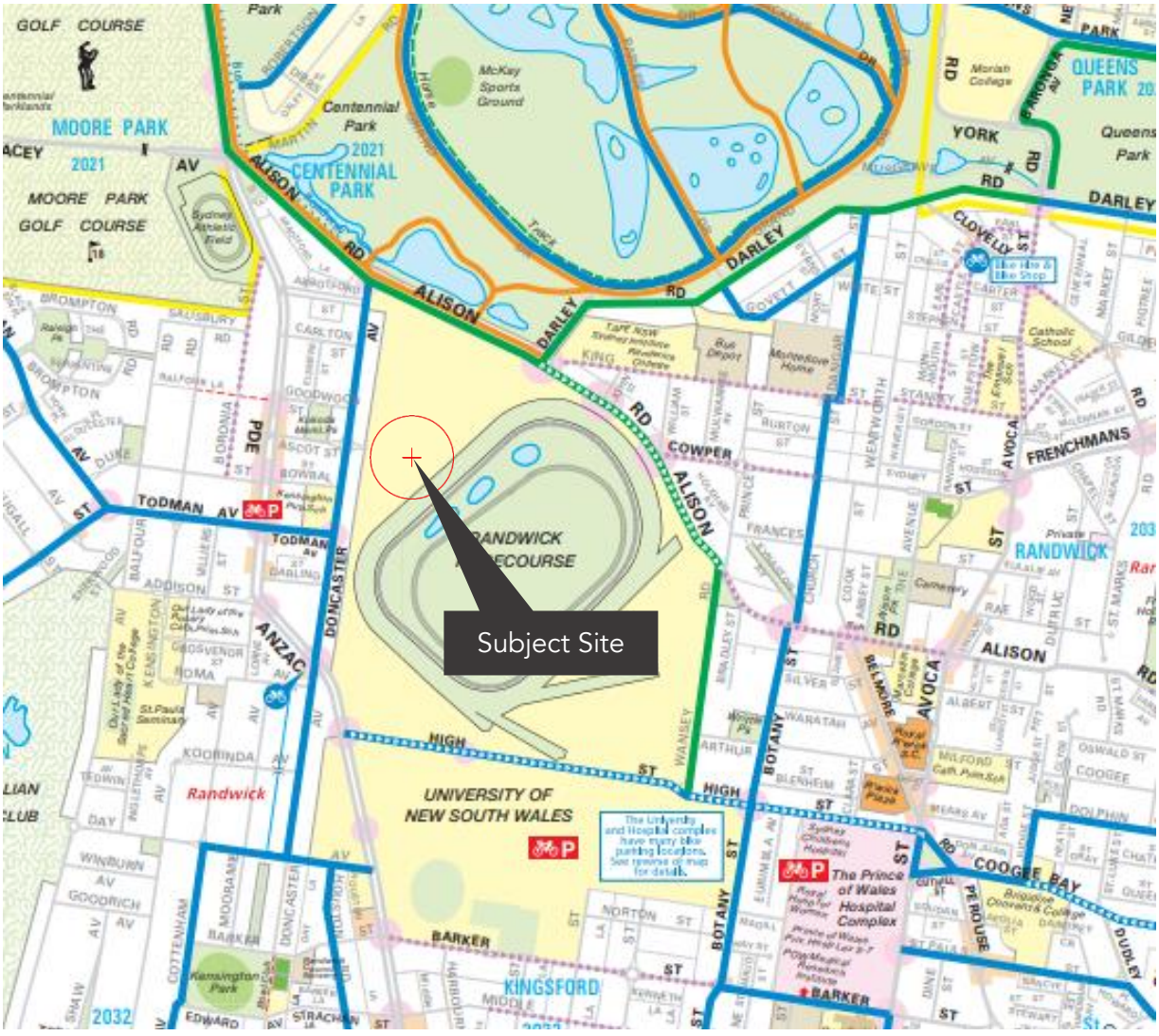


Figure 3.9: Randwick City Council's Cycling and Walking Map

4. Construction Pedestrian Traffic Management Plan

4.1 Objective

The traffic management plan associated with the construction activity aims to ensure the safety of all workers and road users within the vicinity of the construction site and the following are the primary objectives:

- To minimise the impact of the construction vehicle traffic on the overall operation of the road network;
- To ensure continuous, safe and efficient movement of traffic for both the general public and construction workers;
- Installation of appropriate advance warning signs to inform users of the changed traffic conditions;
- To provide a description of the construction vehicles and the volume of these construction vehicles accessing the construction site;
- To provide information regarding the changed access arrangement and also a description of the proposed external routes for vehicles including the construction vehicles accessing the site; and
- Establishment of a safe pedestrian environment in the vicinity of the site.

4.2 General Requirements

In accordance with Road and Maritime Services (RMS) requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site.

All subcontractors must be inducted by the lead contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles.

Vehicles operating to, from and within the site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration. No tracked vehicles will be permitted or required on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

4.3 Staging and Program

The proposed overall development of the site will involve demolition, earthworks / excavation and construction, to which this CPTMP relates.

The estimated staging, description and programming of the works is summarised in Table 4.1.

Table 4.1 – Staging and Program of the overall Project

Phase	Description	Duration	Estimated Commencement
Demolition	Demolition of existing temporary race day stalls and site setup	15 days	November 2020
Excavation	Ground works including piling, footing and excavation	30 days	December 2020
Construction	Construction of slabs, columns and the roof	210 days	January 2021
Services Fitout	Fitout and finishes of the services	75 days	August 2021

4.4 Hours of Work

All works associated with the project will be restricted to the time periods specified in the Conditions of Consent. As the conditions of consent have not yet been issued, the development is proposing the following working hours to be associated with the construction activity:

- Monday to Saturday 08:30am to 05:30pm;
- Sunday or public holidays No works to be undertaken without prior approval

Where it is necessary for works to occur outside of these hours, a separate approval of an 'outside of hours works permit' will be required.

In addition, it is proposed that no works are to be carried out on race days, or prior to 11:30am on barrier trial days.

4.5 Construction Vehicle Types

As discussed in Section 4.3, the construction will be undertaken in four (4) stages and each stage will require access and egress for various vehicles dependent on the stage of construction.

Table 4.2 – Construction vehicles and estimated vehicle trips

Phase	Description	Maximum Size of Vehicles	Estimated Max Daily Trips
Demolition	Demolition of existing temporary race day stalls and site setup	19m AV*	6
Excavation	Ground works including piling, footing and excavation	19m AV	6
Construction	Construction of slabs, columns and the roof	HRV**	6
Services Fitout	Fitout and finishes of the services	MRV	6

* 19m long Articulated Vehicle, ** 12.5m long Heavy Rigid Vehicle

**These are the estimated maximum trips during each stage and the intensity will vary dependent on the construction activity being undertaken, i.e. – concrete pours, material deliveries, etc.*

Any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Randwick City Council prior to any delivery.

4.6 Construction Vehicle Routes

The site is located in Randwick and the proposed construction vehicle inbound and outbound routes have regard for the surrounding traffic arrangements within the vicinity of the site, as shown in Figure 4.1.

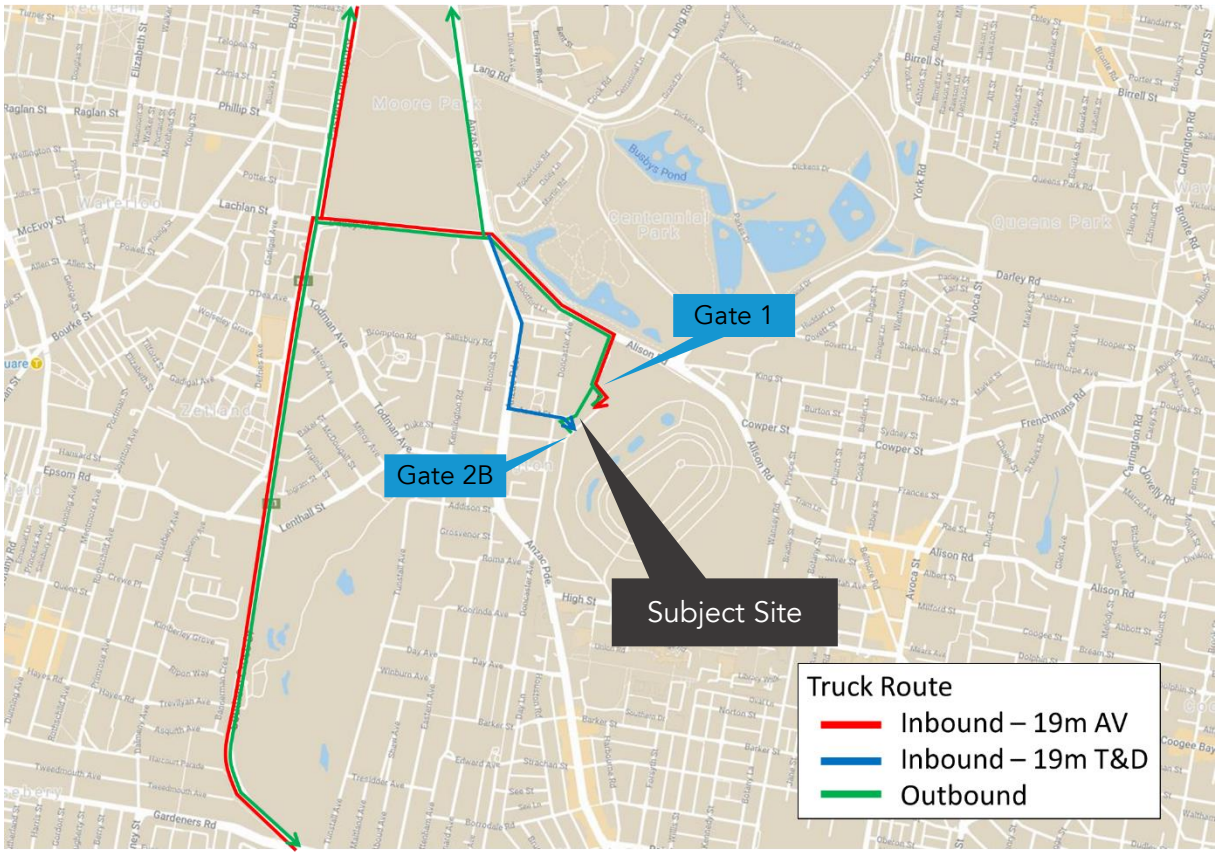


Figure 4.1 – Construction Vehicle Routes

Construction vehicles during all stages of work will access Royal Randwick Racecourse and subsequently the subject site via either one of two routes:

- Gate 1 via Alison Road
- Gate 2B via Aston Street

It is noted that the site access via Gate 2B is limited to a 19m Truck and Dog (T&D), while the Gate 1 access can accommodate vehicles up to a 19m articulated vehicle (AV). Loading/Unloading and concrete pouring activities will occur within Royal Randwick Racecourse, no queuing or marshalling of trucks is permitted on any public road.

All vehicle routes are constrained to existing public roads that have the physical geometry to accommodate the turning movements.

All access gates to the site will be managed by gate controllers to ensure the safe management of the access and egress to the site and its interaction with non-construction traffic on the road network.

Swept path analysis has been undertaken by utilising the largest vehicle type on the key intersections to confirm that the existing intersections can accommodate these truck movements. It is noted that a traffic

controller will be required at these two intersections to manage the truck movements, due to the potential encroachment of opposite traffic lane (refer to Figure 4.2).

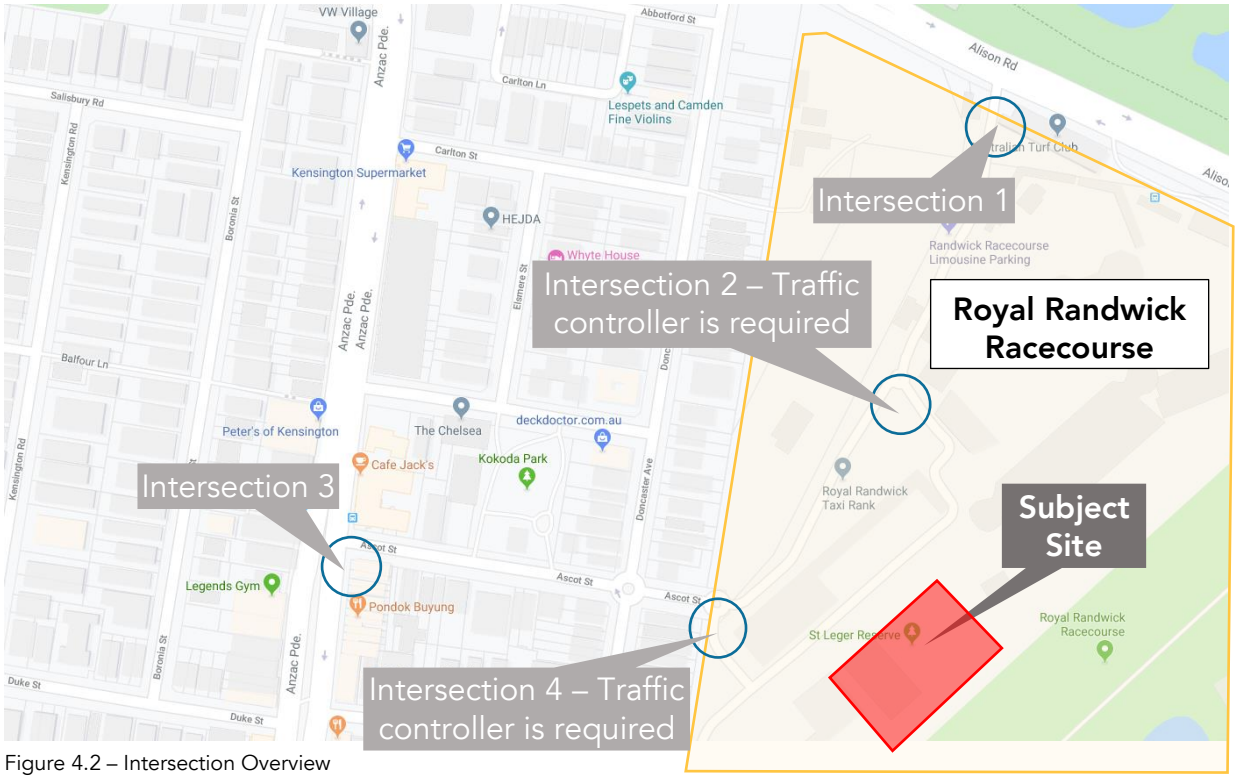


Figure 4.2 – Intersection Overview

The swept path analysis for each intersection can be found in Figure 4.3, Figure 4.4, Figure 4.5, and Figure 4.6 accordingly.

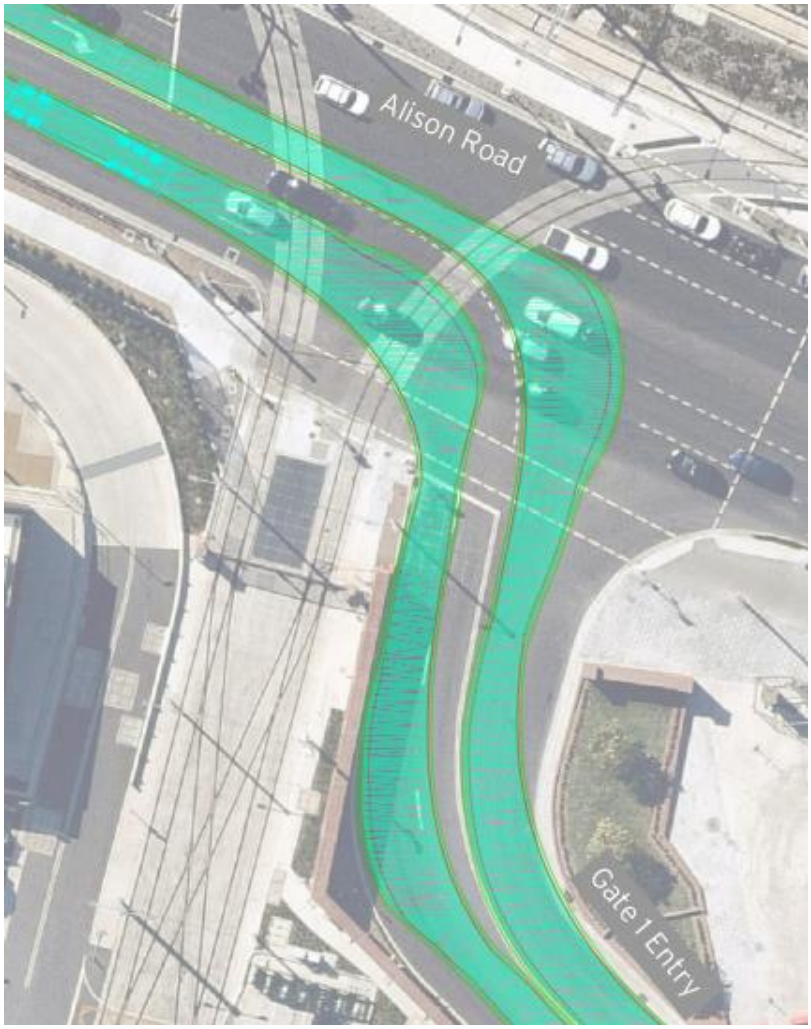


Figure 4.3 – 19m AV Swept Path Analysis – Intersection 1 (Alison Road/Gate 1 Entry)

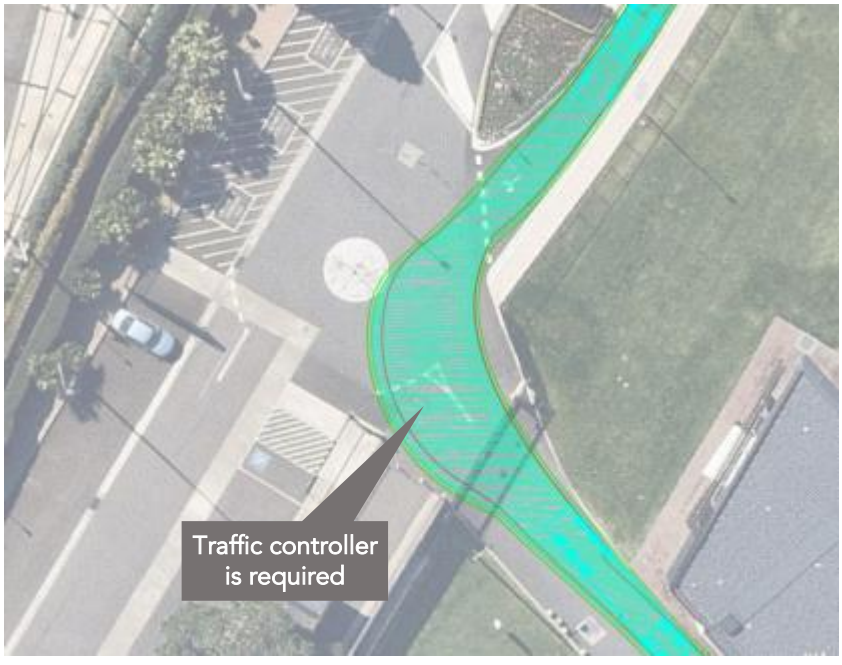


Figure 4.4 – 19m AV Swept Path Analysis – Intersection 2 (Internal Road)

Figure 4.5 – 19m T&D Swept Path Analysis – Intersection 3 (Anzac Parade/Ascot Street)

Figure 4.6 – 19m T&D Swept Path Analysis – Intersection 4 (Ascot Street/Gate 2B Entry)

4.7 Construction Vehicle Site Access and Egress

As discussed in Section 4.6, the construction activity will be fully within Royal Randwick Racecourse (RRR) with site access and egress via either Gate 1 or 2B. Traffic controllers will be utilised to safely manage the access and egress paths within RRR.

4.8 Works Zone

No works zone is proposed on public roads. The loading/unloading and other construction related activities will be fully accommodated within Royal Randwick Racecourse.

4.9 Pedestrian Access

Pedestrian access to and around the site is to be maintained at all times. To provide segregation and protection for pedestrians, it is proposed a security gate is erected in all internal roads leading to the subject site.

All access points are to be securely locked when construction activities are not in progress.

The exact locations of these gates are to be agreed on site, prior to commencement of the works.

4.10 Special Deliveries

Whilst not anticipated, any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Council prior to any delivery. Requests shall be submitted 28 days prior to the scheduled date of use of an oversized vehicle.

4.11 Staff Parking

The workers' parking demand will be contained fully within Royal Randwick Racecourse and it is not expected to create any parking demand in the nearby residential streets. In addition, with excellent bus services around the site and the upcoming light rail, the workers will also be encouraged to rely on public transport.

A public transport pack information is to be provided to all staff and contractors, advising them of the public transport options available.

4.12 Work Site Security

As discussed in Section 4.9, to provide security to the works site and protection to the general public, it is proposed that a security gate is to be erected in all internal roads leading to the subject site. All access points are to be securely locked when construction activities are not in progress. The exact locations of the access points are to be agreed on site, prior to commencement of the works.

4.13 Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures. Additionally, the lead contractor will discuss TMP requirements regularly as a part of toolbox talks and advise workers of public transport and car-pooling opportunities.

4.14 Emergency Vehicle Access

The proposed traffic control arrangements do not propose closure of any local roads.

Any emergency vehicles requiring access to the project site will do so via the site access on Alison Road or Ascot Street.

4.15 Access to adjoining properties

Access to all adjoining properties will be maintained throughout the works.

4.16 Occupational Health and Safety

Any workers required to undertake works or traffic control within the public domain shall be suitably trained and will be covered by adequate and appropriate insurances. All traffic control personnel will be required to hold RMS accreditation in accordance with Section 8 of RMS Traffic Control at Worksites.

4.17 Contact Details for On-Site Enquiries and Site Access

For on-site enquiries and site access, Mostyn Copper, the Superintendent, or alternatively Matt Mostyn, the Joint Managing Director of Mostyn Copper Group Pty Ltd (the Principal Builder) can be contacted via phone: 0421 744 080.

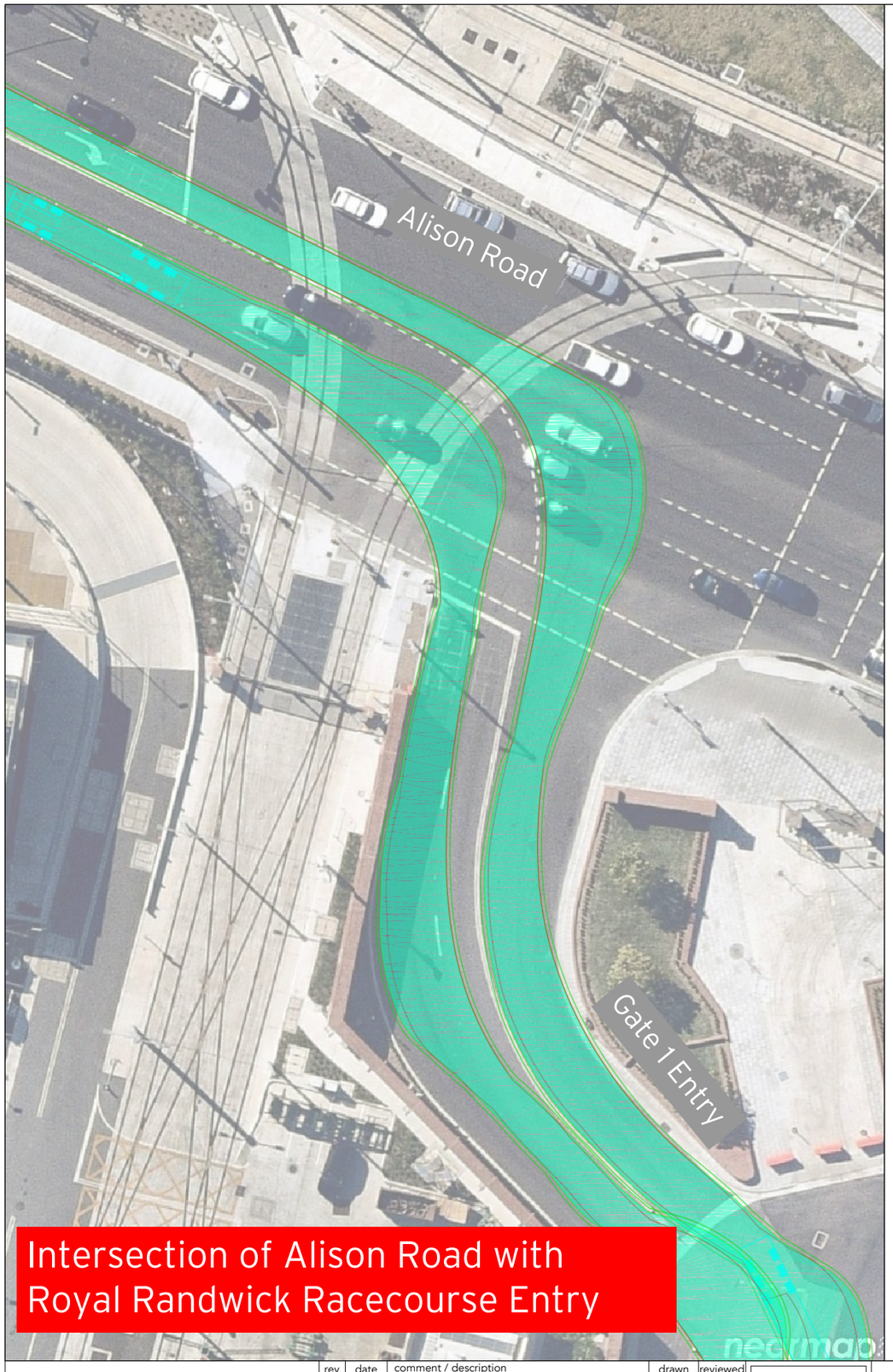
5. Summary

This CPTMP has been prepared to outline the construction traffic measures to improve site safety to the public and workers and the construction process, which will accompany the Environmental Impact Statement (EIS) as requested by the Planning Secretary's Environmental Assessment Requirements (SEARs).

The construction activity is anticipated to have minimal disruption to the daily activities within the vicinity of the site.

It is envisaged that this document will be continually reviewed and amended if required, due to changes in design, RMS, Councils or any other authority requirements.

Attachment 1 Swept Path Assessment



Intersection of Alison Road with Royal Randwick Racecourse Entry

Internal Road Manoeuvre

comments

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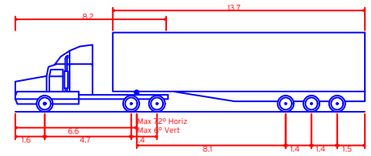


AV - Articulated Vehicle	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

rev	date	comment / description	drawn	reviewed
1	15/10/19	FOR INFORMATION	EL	EL

project
Leger Lawn Development, Royal Randwick Racecourse

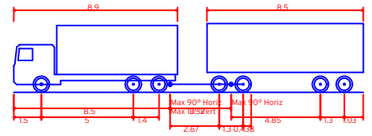
drawing title
19m Articulated Truck Swept Path - Gate 1 Access via Alison Road

client	Australian Turf Club
drawing #	TP-001
project #	2595B
scale	1 : 400

rev 1

comments

A3



19M TRUCK AND DOG	
Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

rev	date	comment / description	drawn	reviewed
1	15/10/19	FOR INFORMATION	EL	EL

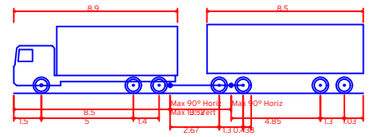
project
Leger Lawn Development, Royal Randwick Racecourse

drawing title
19m Truck and Dog Swept Path - Gate 2B Access via Anzac Parade

client	Australian Turf Club
drawing #	TP-002
project #	2595B
scale	1 : 250

rev 1

comments | A3



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

rev	date	comment / description	drawn	reviewed
1	15/10/19	FOR INFORMATION	EL	EL

project
Leger Lawn Development, Royal Randwick Racecourse

drawing title
19m Truck and Dog Swept Path - Gate 2B Access via Anzac Parade

client	Australian Turf Club
drawing #	TP-003
project #	2595B
scale	1 : 400

rev 1

Attachment 2 Site Establishment Plan

Site Access via Alison Rd

Site Access via Ascot St

ATC Security Gates 24/7

Royal Randwick Taxi Rank

Royal Randwick Racecourse Entrance

St Leger Reserve

Royal Randwick Racecourse

Kokoda Park

The Chelsea

7-Eleven Kensington North

The Stables

Pondok Buyung

St George Coptic Orthodox Church

Ogalo Kensington

Australia Post

Kensington Public School

Accommodation

Anzac Pde

Doncaster Ave

Elsmere St

Ascot St

Bowral St

ATC & RNSW Winx Stand
Proposed Construction Site Plan

- Construction Site
- Site Sheds (on top of SWAB)
- Materials Handling
- Contractor Parking