



Sydney Zoo - Updated Operational Transport Management Plan Night-time Events & Corporate Functions

Prepared for:

Sydney Zoo Pty Ltd

23 March 2022

The Transport Planning Partnership

Sydney Zoo - Updated Operational Transport Management Plan Night-time Events & Corporate Functions

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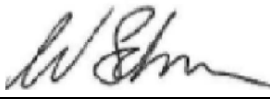

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	8/12/21	Charbel Hanna	Kelly Yoon	Wayne Johnson	DRAFT
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- B. TRAFFIC CONTROL PLAN

1 Introduction

1.1 Background

Sydney Zoo Pty Ltd has commissioned The Transport Planning Partnership Pty Ltd (TTPP) to prepare an Operational Transport Management Plan (OTMP) for the night-time functions and events within the Western Sydney Parklands. Specifically, the OTMP would help facilitate Sydney Zoo's future night-time events and functions.

The OTMP has been prepared in-line with the Development Consent Conditions for the State Significant Development (SSD 7228). The consent conditions to which this OTMP applies are shown in Table 1.1.

Table 1.1: Development Consent Conditions

Condition C5B	Addressed In
The Applicant must update the Operational Traffic Management Plan for the Development prior to the commencement of any activities approved under MOD 7 to the consent. The updated plan must: a) be prepared by suitably qualified and experienced person;	Throughout this OTMP
b) be prepared to the satisfaction of the Planning Secretary; and	-
c) include details of specific management measures for parking, traffic and transport to facilitate the undertaking of temporary and community events and use of the site as a function centre.	Sections 4 and 5

Furthermore, it is noted that extensive consultations with Blacktown City Council, Roads and Maritime Services and Transport for NSW have been undertaken as part of the pre-opening phase and initial operation phase of the Sydney Zoo.

This report is an updated OTMP to mitigate the traffic, transport, and parking impacts during the night-time events and corporate functions.

1.2 Referenced Documents

In preparing this OTMP, reference has been made to the following documents:

- Sydney Zoo – Extension of Night-time Events Transport Impact Assessment by TTPP dated 9 February 2021.
- SSD 7228 Development Consent Conditions dated 8 September 2017 with subsequent modifications, including MOD 7 (Modifications to hours and ancillary use for functions and events).
- Sydney Zoo, Operational Transport Management Plan by TTPP dated 8 February 2019.

2 Existing Conditions

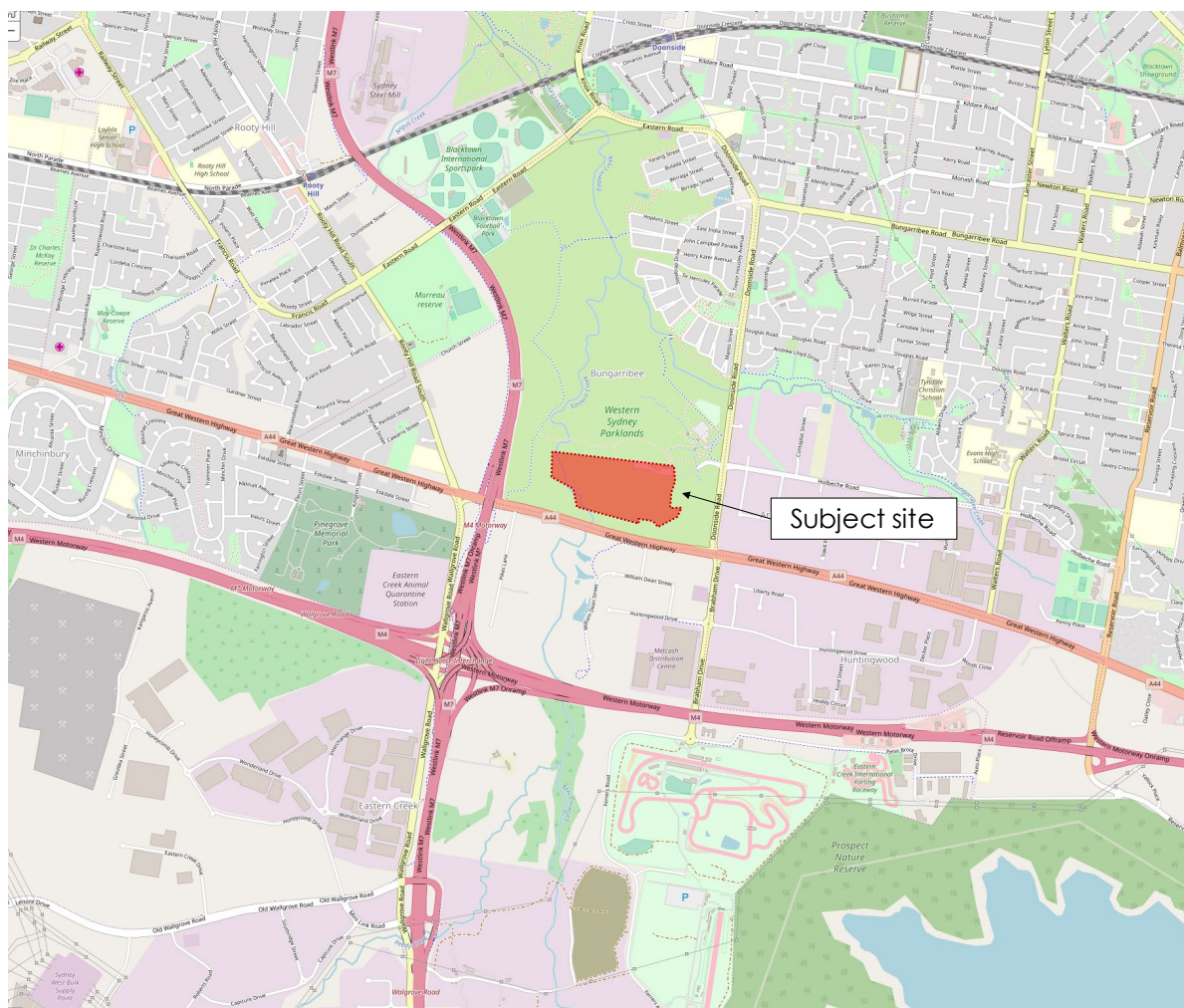
2.1 Subject Site

The subject site is located in the Western Sydney region approximately 6 km south-west of Blacktown CBD within the local government area of Blacktown City Council. The site comprises an area of approximately 16.5 ha within the Bungaribee Precinct in the Western Sydney Parklands.

The site is bound by Doonside Road to the east and Great Western Highway to the south. Surrounding land uses consist of Western Sydney Parklands to the north, low-density residential dwellings to the north-east and Huntingwood industrial precinct to the east and south-east.

The location of the subject site and its surrounding environs are presented in Figure 2.1.

Figure 2.1: Site Locality



Basemap Source: ArcGIS

2.2 Car Park and Circulation

A car park with 476 formal car parking spaces and some 550 unmarked spaces with six coach parking spaces is provided at the site. Vehicle circulation throughout the formal car park is marked as one-way. The formal car park and area containing unmarked parking spaces are connected by a two-way circulation road as shown in Figure 2.2.

Figure 2.2: Car Park Circulation



Base Map Source: Aspect Studios

Aerial photos of the formal and informal car parks are provided in Figure 2.3 and Figure 2.4.

Figure 2.3: Formal Car Park



Figure 2.4: Informal Car Park



2.3 Surrounding Road Network

Great Western Highway (GWH) is a State Road that runs in an east-west direction through Sydney which carries traffic volumes in the order of 40,000 two-way vehicles daily. GWH connects to Sydney's key motorways including Westlink M7 and M4 Western Motorway (via Westlink M7). It has a speed limit of 80 km/h and there is no on-street parking permitted surrounding the subject site.

Sydney Zoo Access Road is a two-way local road which provides access to the subject site off GWH and forms the northern leg of the main signalised intersection adjacent to the site. The road is divided by a median and generally has one traffic lane in each direction. The posted speed limit along the access road is 30 km/h. On-street parking is not permitted at all times.

Rudders Street is a two-way local road that forms the southern leg of the signalised intersection used to access the subject site. It runs through the Huntingwood industrial precinct located on the south side of GWH. At the intersection with GWH, Rudders Street is a two-lane two-way road with a posted speed limit of 50 km/h. On-street parking is not permitted at all times.

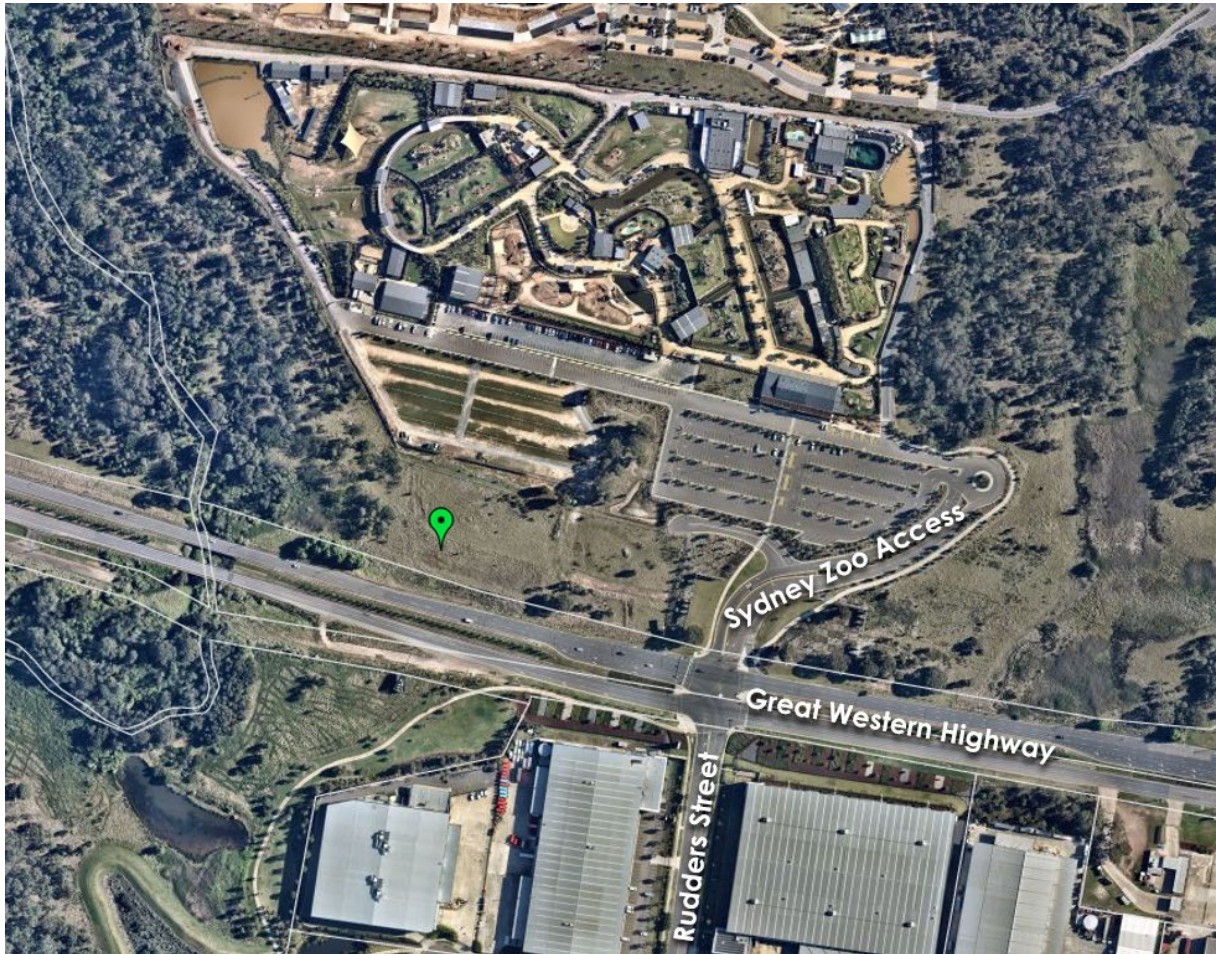
Doonside Road is a Regional Road with a four-lane two-way carriageway aligned in a north-south direction which can be used to access the Western Sydney Parklands. Parking is not permitted on Doonside Road in vicinity of the site. Doonside Road has a posted speed limit of 70 km/h.

2.4 Vehicle Access

Vehicle access to Sydney Zoo is via the northern leg of GWH / Rudders Street. These roads intersect at a signalised junction where there is a dedicated left-turn and right-turn lanes into the Zoo.

The current layout of the signalised intersection of GWH and Sydney Zoo Access is presented in Figure 2.5.

Figure 2.5: Great Western Highway and Sydney Zoo Access Intersection



Base Map Source: Nearmap, aerial photo dated 3/12/2021

2.5 Public Transport

Doonside Railway Station is the nearest station to the subject site which is located approximately 4 km north of the site. The closest major station is Blacktown Railway Station which is around 6 km north-east of the site. Both stations are served by Sydney Trains T1 Western Line services which connects to other major centres including Penrith, Parramatta, and Sydney City. Blacktown Railway Station also interchanges with the T5 Cumberland Line and Intercity Blue Mountains Line (BML).

Transport interchanges exist at Blacktown Station and the nearby Westpoint Shopping Centre. The bus interchange at Westpoint is located a few minutes' walk from Blacktown Station. Bus Route 729 (which is shown in Figure 2.6) operates between the bus interchanges and the subject site during weekdays and weekends. Bus stops for Bus Route 729 serving the subject site are located on GWH near the Sydney Zoo Access road as shown in Figure 2.7. These bus stops are located within 400m of Sydney Zoo which is equivalent to a five-minute walk.

Bus Route 723 services the Huntingwood industrial precinct on weekdays only. The service runs from the transport interchanges to bus stops on Rudders Street which are located approximately 200m walking distance from Sydney Zoo.

Bus routes departing Blacktown Transport Interchange and Westpoint Interchange provide links to surrounding suburbs including Mt Druitt, St Marys, Doonside, Rouse Hill, Prospect, Eastern Creek, Glenwood and Castle Hill. A snapshot of bus services at the interchanges is given in Figure 2.8.

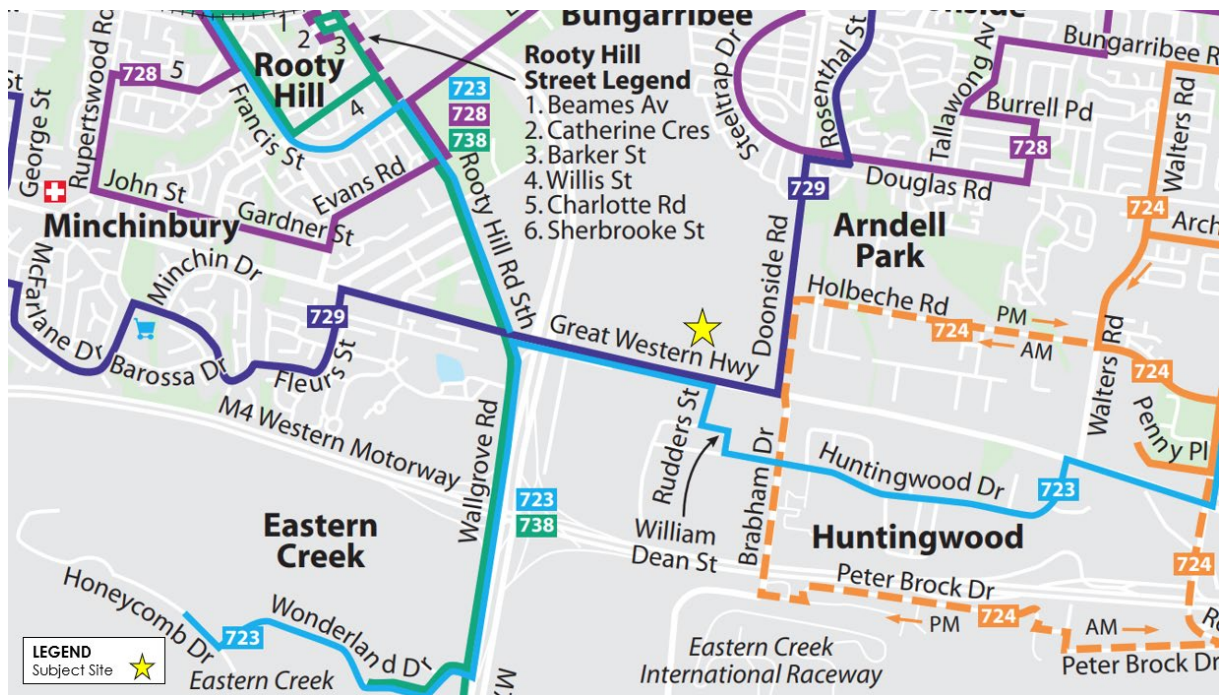
A summary of the public transport provisions surrounding the subject site is given in Table 2.1.

Table 2.1: Public Transport Services

Service	Route	Route Description	Location of Stop	Last Service		
				Weekday	Saturday	Sunday
Sydney Trains	T1	Emu Plains or Richmond to City	Doonside Station Blacktown Station	12:35 AM*	12:18 AM*	11:48 PM
		City to Emu Plains or Richmond		2:00 AM*	2:03 AM*	1:17 AM*
	T5	Richmond to Leppington	Blacktown Station	11:46 PM	12:11 AM*	12:11 AM*
		Leppington to Richmond		1:17 AM	12:55 AM	12:25 AM
NSW Trains	BMT	Bathurst to Central		11:46 PM	12:36 AM*	12:36 AM*
		Central to Bathurst		12:52 AM*	12:58AM*	12:58AM*
Busways Western Sydney	729	Mount Druitt to Blacktown via Minchinbury	Stop ID: 276738 GWH opposite Rudders Street	11:49PM	11:49 PM	8:35 PM
		Blacktown to Mount Druitt via Minchinbury	Stop ID: 276628 GWH before Rudders Street	11:01PM	11:01 PM	8:06 PM
	723	Blacktown to Mount Druitt via Eastern Creek	Stop ID: 2766154 Rudders Street before GWH	9:06 PM	n/a	n/a
		Mount Druitt to Blacktown via Eastern Creek	Stop ID: 2766155 Rudders Street after GWH	7:57 PM	n/a	n/a

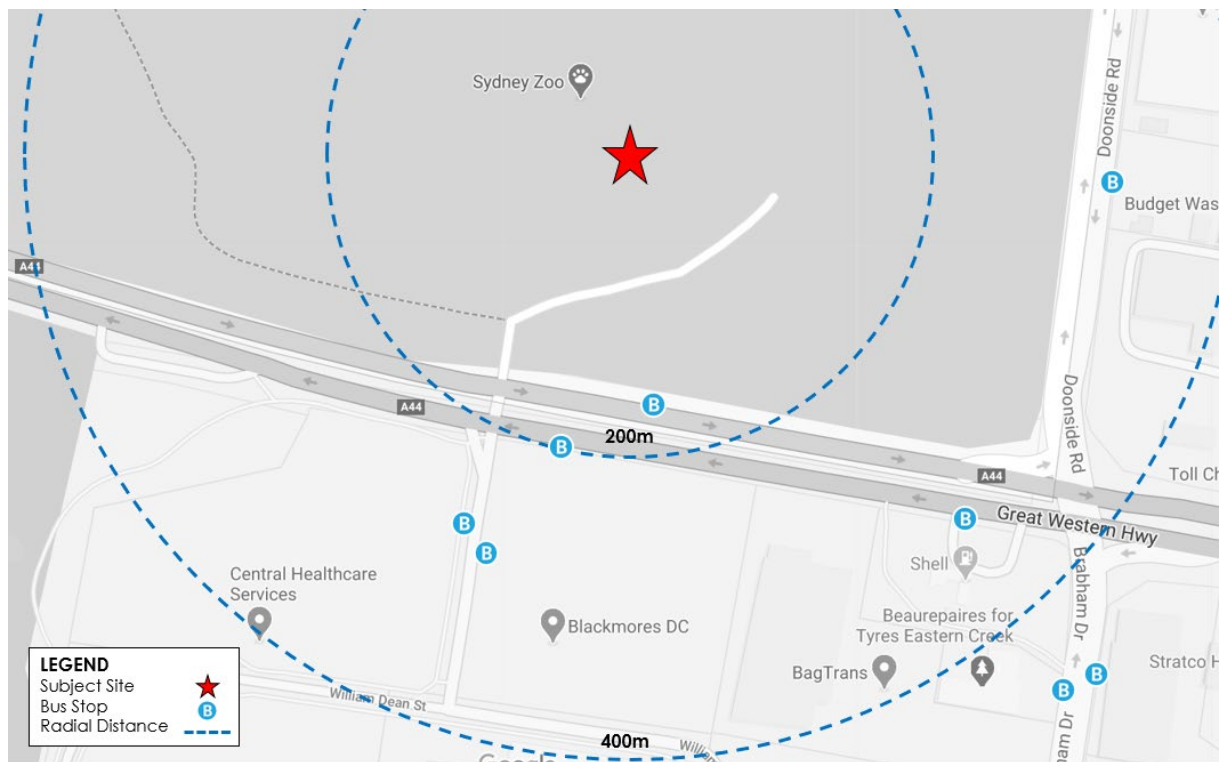
Source: General Transit Feed Specification, "*" indicates a service on the following day

Figure 2.6: Local Bus Network



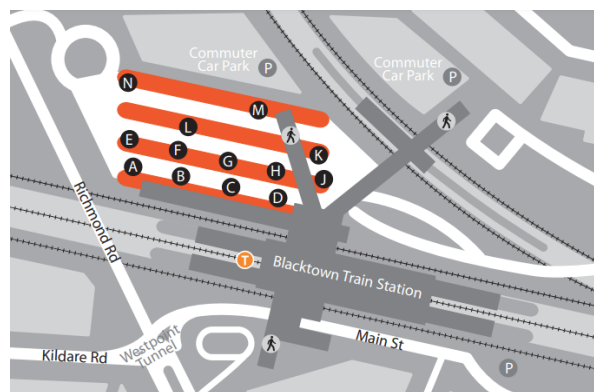
Source: Busways, viewed online 19/11/21

Figure 2.7: Nearby Bus Stops

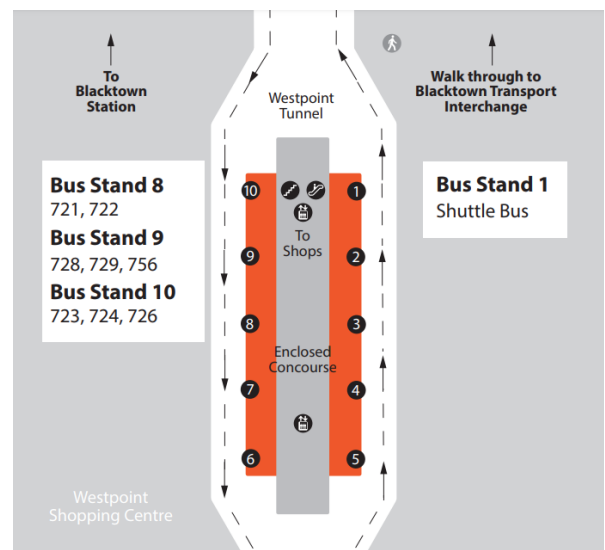


Base Map Source: Google Maps, viewed online 19/11/2021

Figure 2.8: Interchange Bus Services



Bus Stand A 752 Shuttle Bus	Bus Stand E 728, 729	Bus Stand N 743
Bus Stand B 753, 756	Bus Stand F 723, 724, 726	Bus Stand M 730, 731, 732, 734, 735, 744, S7
Bus Stand C 750, 751, 754	Bus Stand G 721, 722	



Source: *Busways*, viewed online 22/11/21

2.6 Pedestrian and Cycling

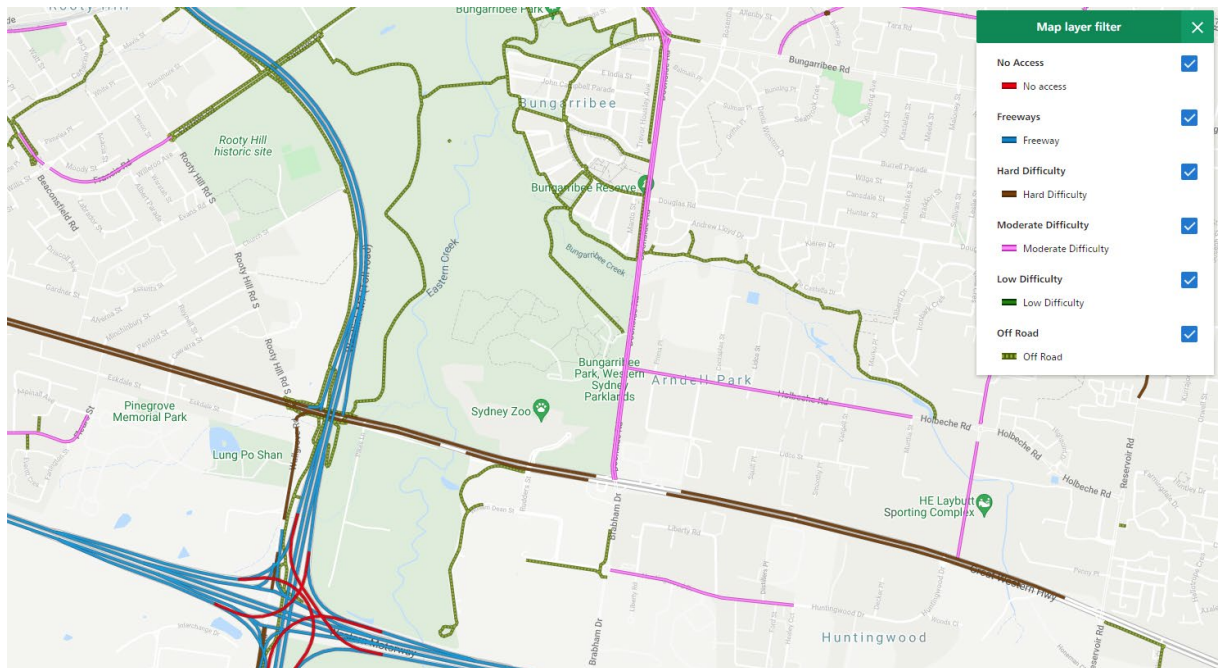
Pedestrian and cycling infrastructures are available in the vicinity of the subject site.

Pedestrian footpaths are provided on both sides of Rudders Street and are between 1.2 m – 2.2 m wide. Marked pedestrian crossings are provided on all legs of the nearby intersection of Rudders Street / Great Western Highway.

Pedestrian footpaths are provided on the Sydney Zoo access road, between the site and GWH, thus, providing pedestrian connectivity between Sydney Zoo and nearby bus stops.

The Roads and Maritime Services cycleway map indicates shared paths are available within the Western Sydney Parklands and along the Westlink M7. Cycling on Great Western Highway is classified as 'hard difficulty' as shown on the map in Figure 2.9.

Figure 2.9: Cycleway Map



Source: https://roads-waterways.transport.nsw.gov.au/maps/cycleway_finder (accessed 22/11/21)

3 Night-time Events & Corporate Functions

3.1 Modified Consent Conditions

Under the current approval, the following relevant conditions have been modified and/or added as part of SSD7228 MOD7:

B10. The hours of operation for the Development are restricted, on any day, to the hours specified in Table 1 below:

Table 1: Hours of Operation

Activity Description	Hours of Operation
Public opening hours	9am – 11pm
Maintenance activities conducted by staff of the Development including cleaning, animal curation, feeding and general maintenance activities	5:30am – 11pm
Emergency activities (including animal medical events)	24 hours, 7 days a week
Use of the site as a function centre	7am – 11pm
Temporary and community events	7am – 11pm
Delivery of goods, waste collection and specimen related services including animal and food delivery	7am – 11pm
Private zoo experiences / small group tours	7:30am – 11pm

Note: The operational noise limits specified in Condition C32 apply to all activities

B10A. Temporary and community events are limited to a maximum of eight events per calendar year, until such time the Planning Secretary is satisfied that the requirements of Condition C5D and C32C have been met.

B10D. The use of the site as a function centre for the holding of corporate events and function style events between the hours of 6pm and 11pm is limited to a maximum total patronage of 350 persons.

B10E. The maximum number of visitors permitted on site between the hours of 6pm and 11pm is limited to a maximum total of 3,850 visitors, unless otherwise agreed by the Planning Secretary.

C5B. The Applicant must update the Operational Traffic Management Plan for the Development prior to the commencement of any activities approved under MOD 7 to the consent. The updated plan must:

- a) be prepared by suitably qualified and experienced person;
- b) be prepared to the satisfaction of the Planning Secretary; and

c) include details of specific management measures for parking, traffic and transport to facilitate the undertaking of temporary and community events and use of the site as a function centre.

C5D. Within three months of the conclusion of the Sydney Zoo Light Festival 2021 event held at the site in July and August 2021 or an equivalent temporary and community event agreed to by the Planning Secretary, the Applicant must prepare and submit a Traffic Verification Report. The Report must:

a) be prepared by a suitably qualified traffic consultant to the satisfaction of the Planning Secretary;

b) quantify the mode share for any event being held between the hours of 4 pm and 11 pm;

c) verify the total traffic impacts of all activities commencing, or being undertaken, during the hours of 4 pm and 11 pm throughout the duration of the Sydney Zoo Light Festival 2021 event (or equivalent approved event) on the capacity, efficiency and safety of the road network using SIDRA or similar traffic modelling; and

d) provide details of any management of mitigation measures required, including any upgrades or changes in services required for the Development, and a timetable for the implementation of any required actions.

3.2 Vehicle Access and Car Park

The current access arrangements and operation of the car park are discussed in Sections 2.2 and 2.4.

No changes are proposed to the current access arrangements and operation of the car park as part of this OTMP. Subject to event visitation demand, additional site personnel could be provided to guide motorists within the car park, as per the Traffic Control Plan provided in Attachment B.

3.3 Traffic Generation

Based on the maximum number of visitors permitted on site, which is, a maximum total of 3,850 visitors, peak traffic generation of the night-time event and corporate function is expected to be around 509 to 516 vehicle trips per hour, which is expected to occur at 6-7PM and 9-10PM when the majority of visitors would arrive and exit the site during both Friday and Saturday nights.

Post development analysis indicates that the Great Western Highway / Sydney Zoo Access intersection would operate satisfactorily with level of service of "C" or better during the afternoon peak and night-time periods for both Friday and Saturday.

A detailed traffic assessment was undertaken as part of the approval process.

3.4 Parking Generation

Sydney Zoo car park has a total capacity of approximately 1,026 car parking spaces, that is 476 formal spaces with some 550 unmarked spaces.

Total car parking demand, which includes the current car park occupancy is expected to peak up to 1,008 and 1,010 spaces on Friday and Saturday nights, respectively.

Parking analysis indicates that even during the major event nights with function centre in operation, the current car park has sufficient capacity to cater for the additional parking demand generated by the proposed development.

A detailed parking assessment was undertaken as part of the approval process.

4 Traffic and Pedestrian Management

4.1 Marshals

Additional staff to be deployed as marshals during the major event nights to manage and direct vehicle traffic at the main entry and within the car park to ensure continual circulation in a safe and efficient manner. Marshals will be dressed in uniform and personal protective gear, including a high-visibility jacket. Staff will be equipped with light-up traffic batons to direct motorists and hand-held radios to stay in communication with other staff at all times. The latter will be vital for staff in the car park to communicate with staff at the main site entry when the car park approaches full capacity.

Marshals will also be stationed at nearby bus stops to direct pedestrians towards the site who will be travelling by public transport. Visitors will be provided with a pamphlet containing a map with walking directions to the site and details of departing public transport services.

4.2 Pedestrian Arrangements

The car park is well connected to Sydney Zoo entry through footpaths and pedestrian crossings. This high level of pedestrian accessibility will be supplemented through the proposed footpaths and/or shared paths towards Great Western Highway bus stops.

Site personnel will be stationed within the car park to provide transport information and direct pedestrians to designated set-down and pick-up areas.

4.3 Coaches and Buses

Coaches and buses will access the car park via the main site access and will be directed by marshals to dedicated zones. These vehicles will only be permitted to drop-off and pick-up visitors in the dedicated zones to minimise disruptions to car park circulation.

4.4 Advertising

During the major night-time events, advertisements for Sydney Zoo will promote travel by public transport. Car parking will be advertised as limited. Information on Sydney Zoo's website will advise visitors of public transport services to/ from the site and will feature a link to Transport for NSW's online Trip Planner tool.

5 Mitigation Measures

Whilst there will be measures in place to manage traffic and pedestrian movements, additional actions can be taken to further alleviate traffic, parking and pedestrian impacts particularly during the major event nights. These mitigation measures may include:

- Implementation of time ticketing.
 - When purchasing an entry ticket to Sydney Zoo, patrons may be required to select the hour which they choose to visit. If a preferred time slot becomes 'booked out', patrons will be able to select from the remaining available periods. The purpose of this system is to allocate visitors a time slot so to spread out their arrivals time, however, they will not be restricted to enter at this time as this will a method of guiding and encouraging visitors to enter at their nominated time.

Time ticketing is a measure that can be used to smooth critical parking periods. It will provide Sydney Zoo operators better information on anticipated patron arrivals, associated parking demand and parking turnover across the night.

- Integrated public transport ticketing
 - Sydney Zoo tickets which are purchased online may incorporate both the entry price to the venue and transport costs on Sydney's public transport system. This permits Sydney Zoo patrons to use their entry ticket to access public transport to and from the venue.

Integrated transport ticketing can encourage access via public transport which in-turn will reduce parking demand at the Zoo as well as traffic generation to and from the Zoo. Benefits include reduced traffic congestion at the venue and the surrounding road network, and increase online ticket sales for Sydney Zoo.

Examples where this measure is currently used include the Sydney Royal Easter Show at Sydney Olympic Park, and major concert and sporting events at Sydney Cricket Ground and Sydney Football Stadium in Moore Park.

- Provide free shuttle bus service between Sydney Zoo and Blacktown Station.
 - A shuttle bus service will encourage patrons to use public transport to access the venue thus reducing parking demand and traffic generation. Implementation of this measure requires further consultation with TfNSW to negotiate stopping locations for the Zoo's shuttle buses at Blacktown Station. The shuttle bus may utilise the dedicated coach/bus stop at the main entrance to the Zoo. It is recommended that clear signage and line marking be implemented to access routes to/from shuttle bus stops and pick-up and drop-off areas.

Preliminary consultation from TfNSW in relation to the process for the shuttle bus between Sydney Zoo and Blacktown Station is provided in Attachment A.

- A Work Place Travel Plan has been prepared to encourage staff travel through non-private car usage.
 - Clear details on non-private car use travel options and benefits of sustainable travel will be included in the staff pre-employment package. Commitment to the Work Place Travel Plan may be rewarded through incentives such as staff vouchers for meals/ drinks and public transport to work.
- Promotion of car-pooling.
 - This could be included as part of the staff pre-employment package. A dedicated parking area for those car-pooling can be designated to save time for drivers when parking.
- Preparation of a Transport Access Guide.
 - This will detail sustainable transport options for travel to Sydney Zoo to encourage non-private car use. The Transport Access Guide will be available to download at the time of booking an on the Sydney Zoo website.

Attachment A

TfNSW Consultation

From: [John Broady](#)
To: [Wayne Johnson](#)
Subject: FW: Sydney Zoo Shuttle Bus Operation - TfNSW Consultation
Date: Friday, 28 January 2022 8:45:52 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Hi Wayne

In a sense I am the person to speak to for information as I am the planner for the region, but in these circumstances Transport for NSW would not run additional services and all Sydney Zoo would have to do is contact one of the local bus companies and charter as many buses as you need for the day.

The only thing to consider is that this sort of charter cannot charge a fare on boarding. I forget the exact wording but it goes something about not being able to charge fares or payment in kind. This means that you cannot have any form of "bus ride" tickets including a gold coin "donation" sold when passengers board.

To defray the cost of the charter, what they can do is to include the cost of bus travel in the ticket as a part of their overall pricing for the events.

OFFICIAL: Sensitive - NSW Government

John Broady

Lead Service Planner, Bus, Ferry & Light Rail
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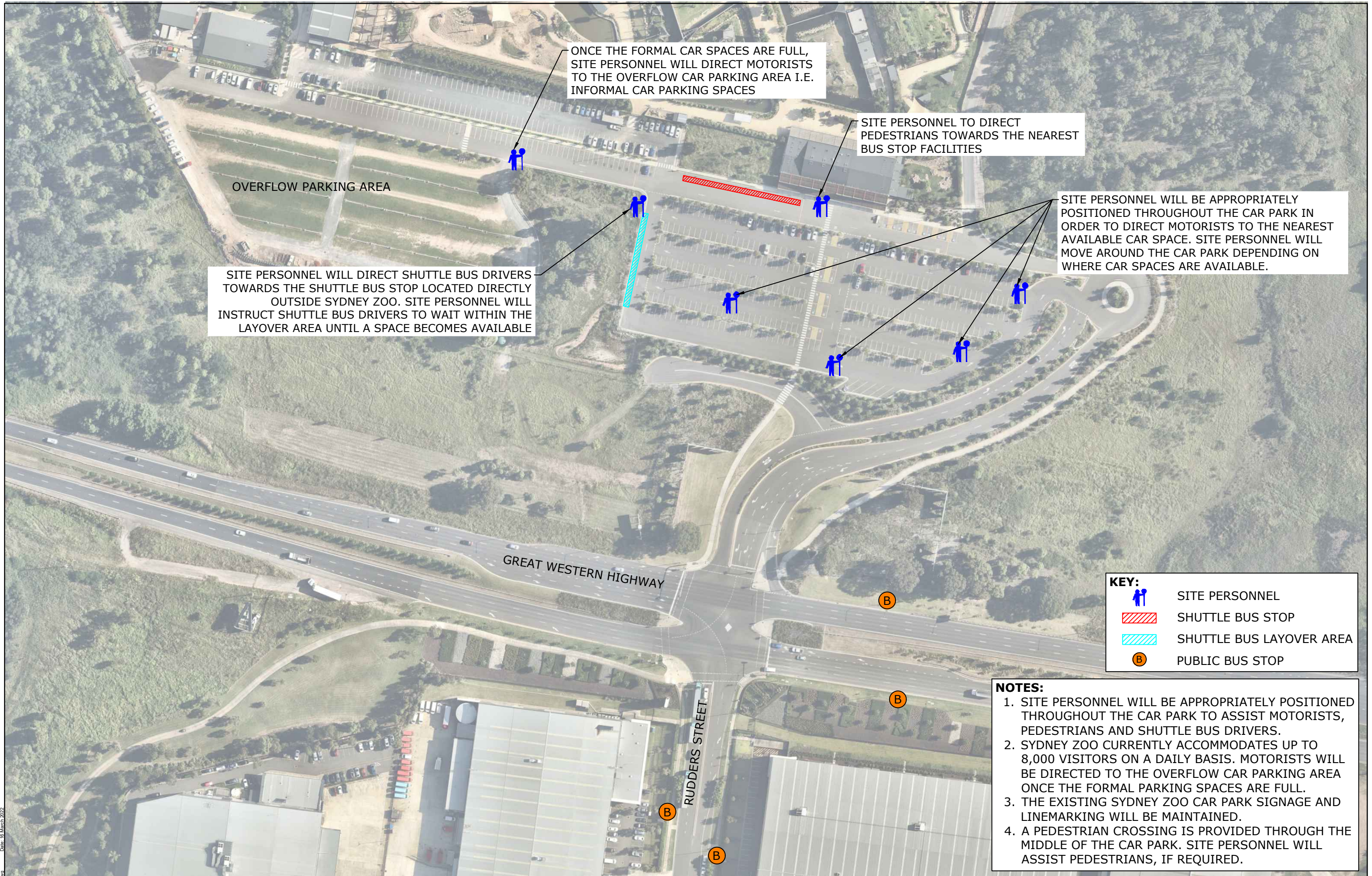
**Transport
for NSW**



I acknowledge the Aboriginal people of the country on which I work, their traditions, culture and a shared history and identity. I also pay my respects to Elders past and present and recognise the continued connection to country.

Attachment B

Traffic Control Plan







ONCE THE FORMAL CAR SPACES ARE FULL, SITE PERSONNEL WILL DIRECT MOTORISTS TO THE OVERFLOW CAR PARKING AREA I.E. INFORMAL CAR PARKING SPACES

SITE PERSONNEL TO DIRECT PEDESTRIANS TOWARDS THE NEAREST BUS STOP FACILITIES

SITE PERSONNEL WILL DIRECT SHUTTLE BUS DRIVERS TOWARDS THE SHUTTLE BUS STOP LOCATED DIRECTLY OUTSIDE SYDNEY ZOO. SITE PERSONNEL WILL INSTRUCT SHUTTLE BUS DRIVERS TO WAIT WITHIN THE LAYOVER AREA UNTIL A SPACE BECOMES AVAILABLE

SITE PERSONNEL WILL BE APPROPRIATELY POSITIONED THROUGHOUT THE CAR PARK IN ORDER TO DIRECT MOTORISTS TO THE NEAREST AVAILABLE CAR SPACE. SITE PERSONNEL WILL MOVE AROUND THE CAR PARK DEPENDING ON WHERE CAR SPACES ARE AVAILABLE.

KEY:

-  SITE PERSONNEL
-  SHUTTLE BUS STOP
-  SHUTTLE BUS LAYOVER AREA
-  PUBLIC BUS STOP

- NOTES:**
1. SITE PERSONNEL WILL BE APPROPRIATELY POSITIONED THROUGHOUT THE CAR PARK TO ASSIST MOTORISTS, PEDESTRIANS AND SHUTTLE BUS DRIVERS.
 2. SYDNEY ZOO CURRENTLY ACCOMMODATES UP TO 8,000 VISITORS ON A DAILY BASIS. MOTORISTS WILL BE DIRECTED TO THE OVERFLOW CAR PARKING AREA ONCE THE FORMAL PARKING SPACES ARE FULL.
 3. THE EXISTING SYDNEY ZOO CAR PARK SIGNAGE AND LINEMARKING WILL BE MAINTAINED.
 4. A PEDESTRIAN CROSSING IS PROVIDED THROUGH THE MIDDLE OF THE CAR PARK. SITE PERSONNEL WILL ASSIST PEDESTRIANS, IF REQUIRED.

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	WJ	WJ	16/03/22



PROJECT: SYDNEY ZOO - NIGHT-TIME EVENTS

TITLE: TRAFFIC MANAGEMENT PLAN

DWG No. 18313CAD04-FIGURE 1	
DATE STAMP 16 MARCH 2022	
PROJECT No. 18313	SCALE NTS
REV. A	

File Name: 18313CAD04-TMP-210316.dwg Date: 16 March 2022

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