CONSTRUCTION TRAFFIC and PEDESTRAINS MANAGEMENT PLAN

REVISION STATUS – Prepared by Beca Pty Ltd for Lendlease

Rev	Date	Details / Description
01	14/10/2016	Outline Plan for RFT Submission – Will be updated in line with the Contract
02	09/01/2017	Outline Plan in line with SSD 7534 Development Consent dated 7/12/2016 - Schedule 3, Part A, Clause B3.
03	26/05/2017	Construction Traffic and Pedestrian Management Plan - Final version
04	4/09/2017	Construction Traffic and Pedestrian Management Plan - First updated version

TABLE OF CONTENTS

Contents

1.0 PURPOSE

This Construction Traffic and Pedestrian Management Plan (CTPMP) is the first update after the FINAL report was submitted on 26 May 2017 as part of the Stage 2 Development Application for Western Sydney Stadium (WSS). The FINAL report stated "It is proposed that this plan be refined, continuously monitored and updated during the construction of the stadium." This is also relevant for compliance to the Department of Planning and Environment's Development Consent conditions of 31 August 2017 that states in Schedule 2, Part B, Item B47 (a) (x) - The CTPMP must specify "mechanisms for the monitoring, review and amendment of the CTPMP", and Item B48 - "The CTPMP (as revised from time to time) must be implemented by the Applicant for the duration of the construction works".

This updated version is submitted in order to demonstrate to the NSW State Government (State) that Lendlease's project plans can be amended to suit the specific and ongoing requirements of the Western Sydney Stadium project. This process ensures that Lendlease staff have a thorough understanding of how the base plans operate and what project particulars need to be implemented.

This CPMP also takes into account the requirements issued with the original RFT including the SSD 7534 Development Consent document dated 7/12/2016 - Schedule 3, Part A, Clause B3.

2.0 INTRODUCTION

The objective of the Construction Traffic and Pedestrian Management Plan (CTPMP) is to demonstrate how Lendlease will implement and maintain the works in accordance with the traffic management and traffic safety requirements of the contract during the delivery of the WSS works package, including:

- Provision for the safe movement of vehicular and pedestrian / cycle traffic;
- Provision for the safe and efficient operation of public transport services;
- Protection from passing traffic for workers;
- Provision for maintaining existing property access points, where possible or providing alternatives, within the extent of works during construction life cycle; and
- Installation of temporary signage, road markings, lighting and safety barriers as per regulatory standards.

It is proposed that this plan be refined, continuously monitored and updated during the construction of the stadium.

This plan does not specifically include details of traffic management plans and the layout of temporary signage around work zones, which will be prepared by Lendlease if and when required for specific work zone areas according to Australian Standards.

3.0 BACKGROUND AND EXISTING CONDITIONS

3.1 Location and Land Use

The site is located on the fringe of Parramatta CBD and is bounded by the Parramatta River to the west and south and O'Connell Street to the east as indicated in **Figure 3.1** below.

The site is mostly surrounded by park and recreational land use on the south and western side and an approximate frontage of 550 meters along O'Connell Street on the eastern side between Parramatta River in the south and Grose Street in the north. Land use on the eastern side of O'Connell Street is mixed in nature, with various commercial, educational and residential uses located in the immediate vicinity of the site.

Figure3.1 *– Site Location*

3.2 Road Network

The site has frontage to O'Connell Street, as indicated in **Figure 3.2**, with vehicular access provided at the existing signalised intersection with Victoria Road. There is also a mid-block pedestrian crossing on O'Connell Street located mid-way along the eastern site boundary aligning with the existing pool facility (now already demolished). The Parramatta Leaques Club to the north of the site has access from the Grose Street / Eels Place signalised intersection with O'Connell Street.

***Figure 3.2** – Access to site and intersections along O'Connell Street*

O'Connell Street is a 4-lane divided road along the site frontage with right-turning bays at the Victoria Road and Grose Street / Eels Place intersections.
O'Connell Street runs parallel to Church Street, the main north-south road through the Parramatta CBD. Church Street links with James Ruse Drive, the major arterial road, about 2.5km to the north and the Great Western Highway (A44), and M4 Western Motorway, about 1.4km and 2.4km respectively to the south. See road network access to site for construction truck movements in Section 3.3 (e).

3.3 Current Transport Infrastructure

The current transport infrastructure for and operational elements are summarised below:

(a) Study Area and Precinct Connections

The study area from the Stage 1 DA, Appendix F report indicates the different pedestrian and transport connections around the Stadium Precinct as in **Figure 3.3**.

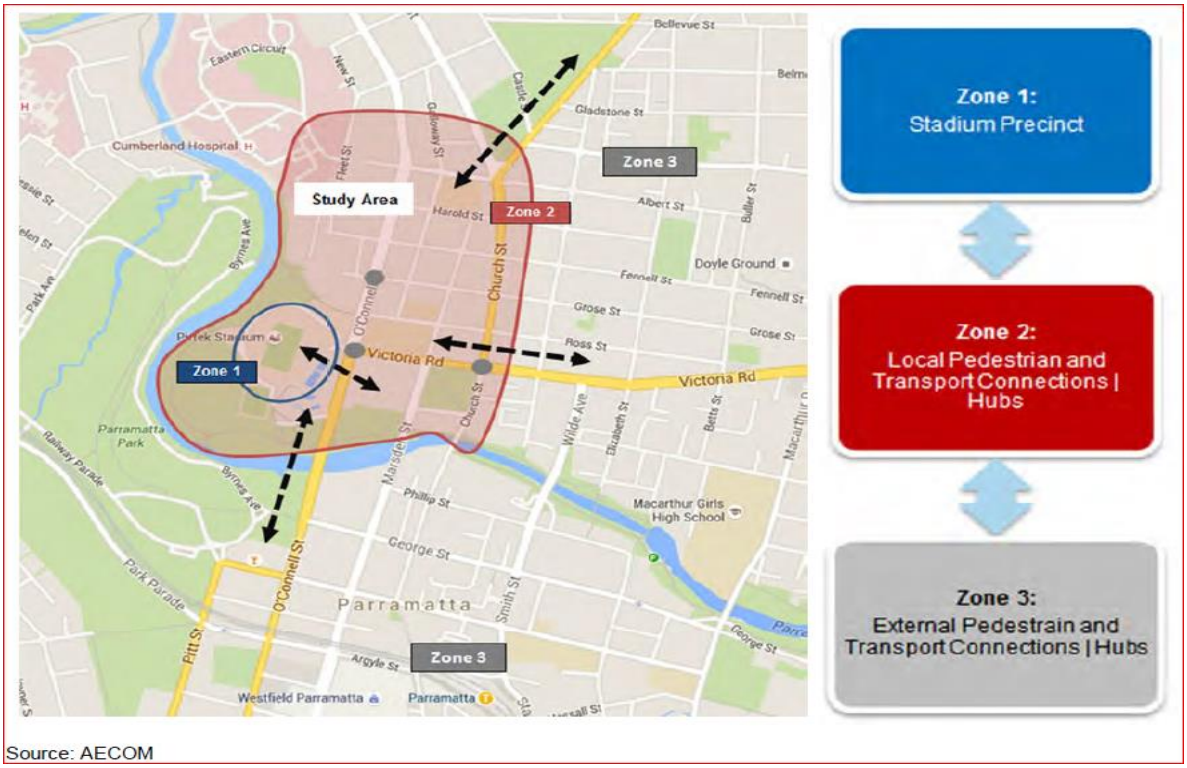


***Figure 3.3** – Study Area – (Ref: Stage 1 DA, Appendix F – AECOM).*

(b) Bus routes

Figures 3.4 and **3.5** show the Parramatta bus network for both State and Council operated services. Sydney Transit operates an extensive bus network within and connecting to Parramatta, including the following scheduled route services that provide transport links between the Parramatta CBD and Epping, via the existing stadium at stops on O'Connell Street:

- Two northbound services per hour during an average weekday AM peak, with a frequency of 20-30 minutes
- Two northbound services per hour during an average weekday PM peak, with a frequency of 15-30 minutes.
- Three southbound services per hour during an average weekday AM peak, with a frequency of 10-30 minutes.
- Two southbound services per hour during an average weekday PM peak, with a frequency of 30 minutes.
- The 900, free shuttle bus, operates every 10 minutes from 7:00 to 18:30 Mondays to Fridays and 8:00 to 16:00 on Saturdays, Sundays and Public Holidays.

This means a maximum of 13 bus trips northbound along O'Connell Street per peak hour.

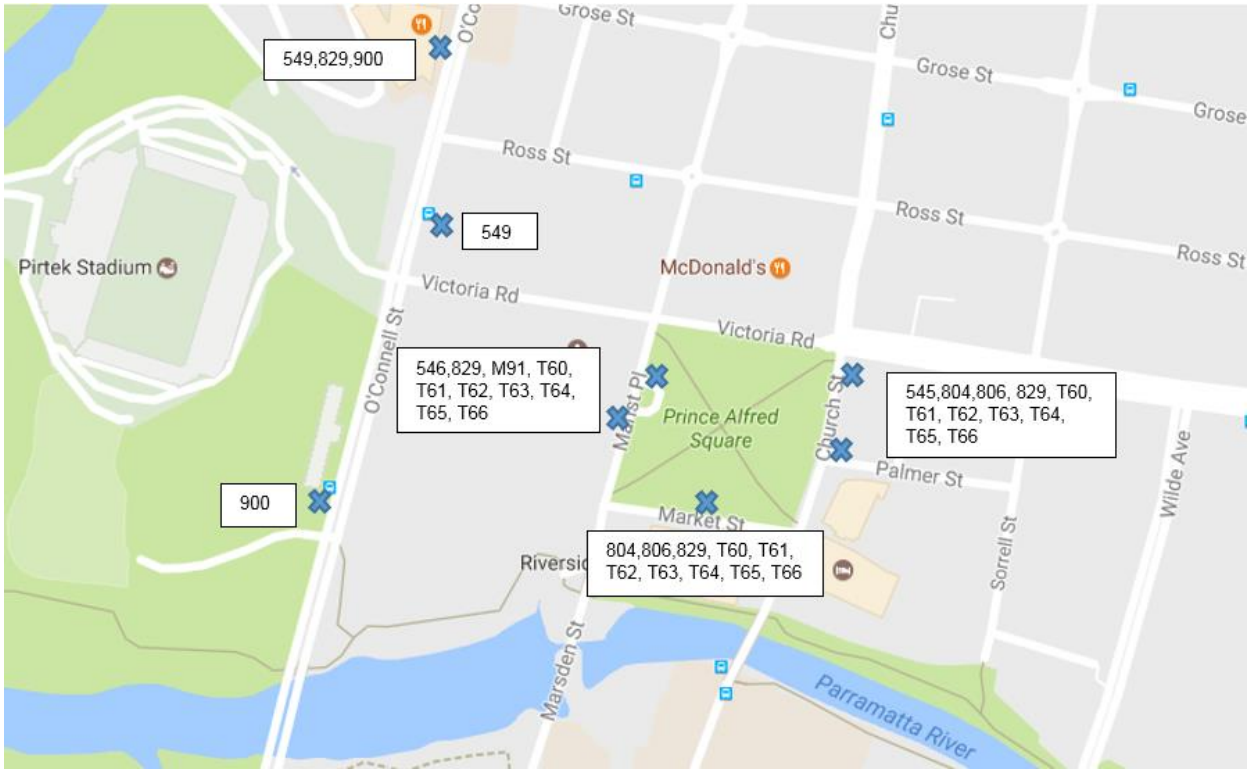
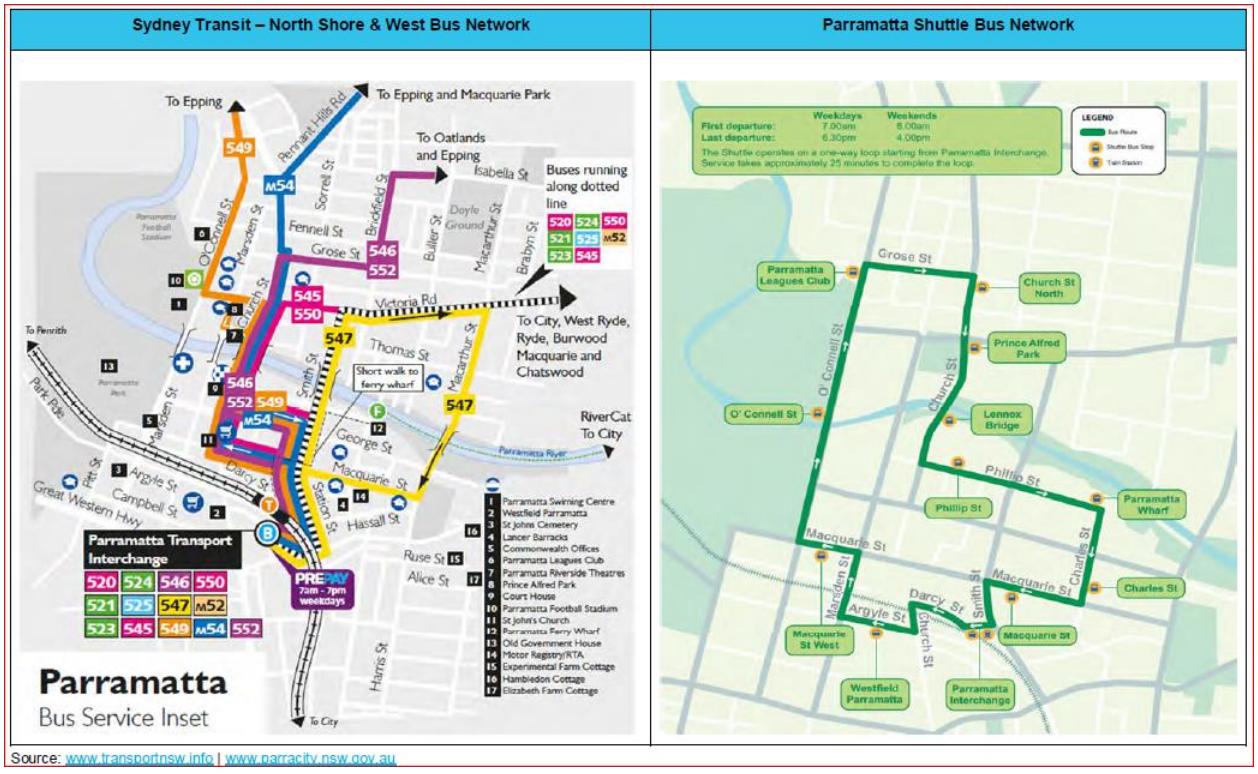


Figure 3.4 *– Key Bus Stops and Bus Routes within Vicinity of WSS*



Source: www.transportnsw.info | www.parracity.nsw.gov.au

Figure 3.5 *– Bus routes with bus stops along O'Connell Street next to the WSS*

(c) Pedestrians

Figure 3.6 identifies the assumed key pedestrian links between parking and public transport facilities. These routes have been based on information through initial discussion and the work undertaken during the Stage DA. These links form the bases of the transportation surveys and pedestrian analysis.

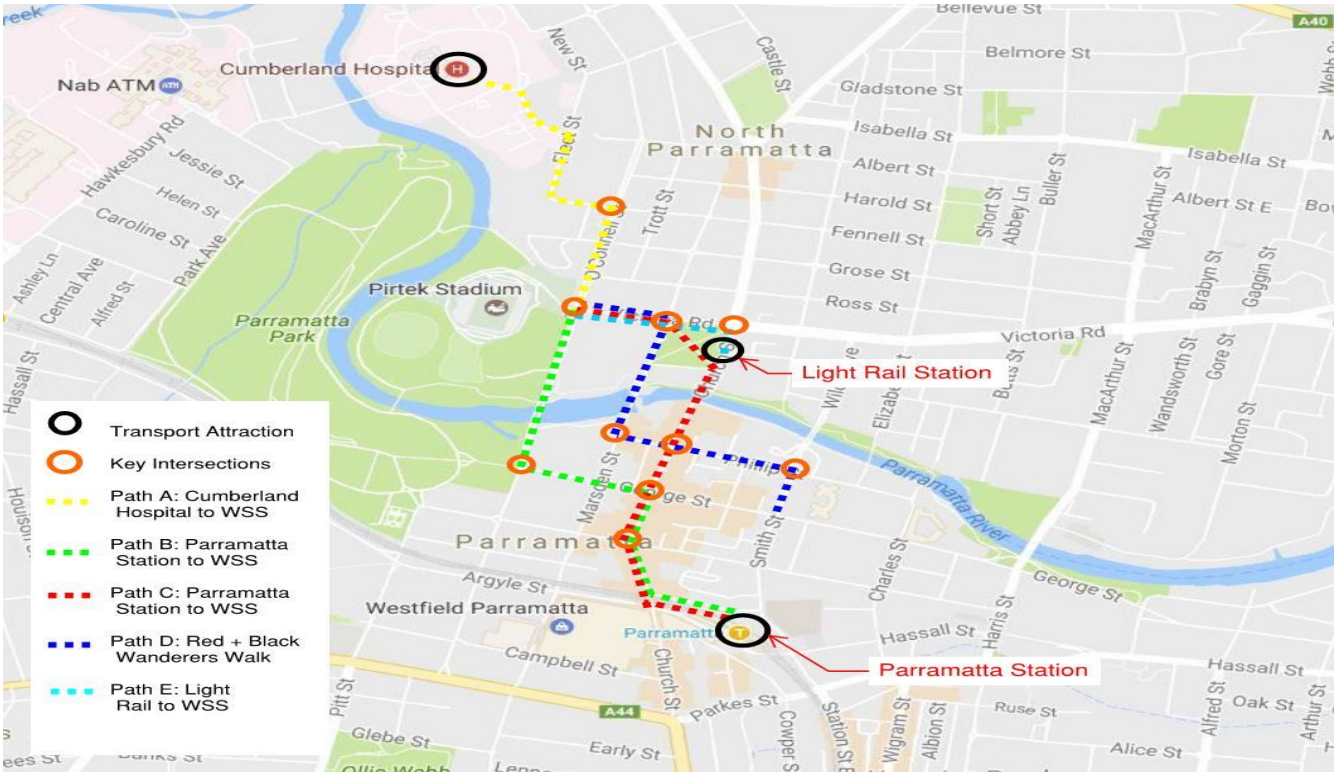


***Figure 3.6** – Key Pedestrian Lines within Area of Influence*

It is expected that pedestrian movements to and from the site will be limited during construction as current attracters will be closed. The swimming pool will be closed after Stage 1 demolition works. The main points of crossing O'Connell Street will be at the existing signalised pedestrian crossing and at the intersections with Victoria Street and Eels Place / Grose Street. Walking paths on the western side of O'Connell Street will be demarcated and signed for safe movement of pedestrians in line with RMS standards.

(d) Walking and Cycle Paths

There is an extensive pedestrian network that connects the current stadium to surrounding areas and the Parramatta CBD via footpaths on both sides of O'Connell Street.

Figure 3.7 highlights the shared pedestrian and cycle paths along the Parramatta River foreshore between the Parramatta CBD and Parramatta Park to the west of the existing stadium. These facilities will remain in use during construction and no conflict with construction traffic and activities should be experienced.

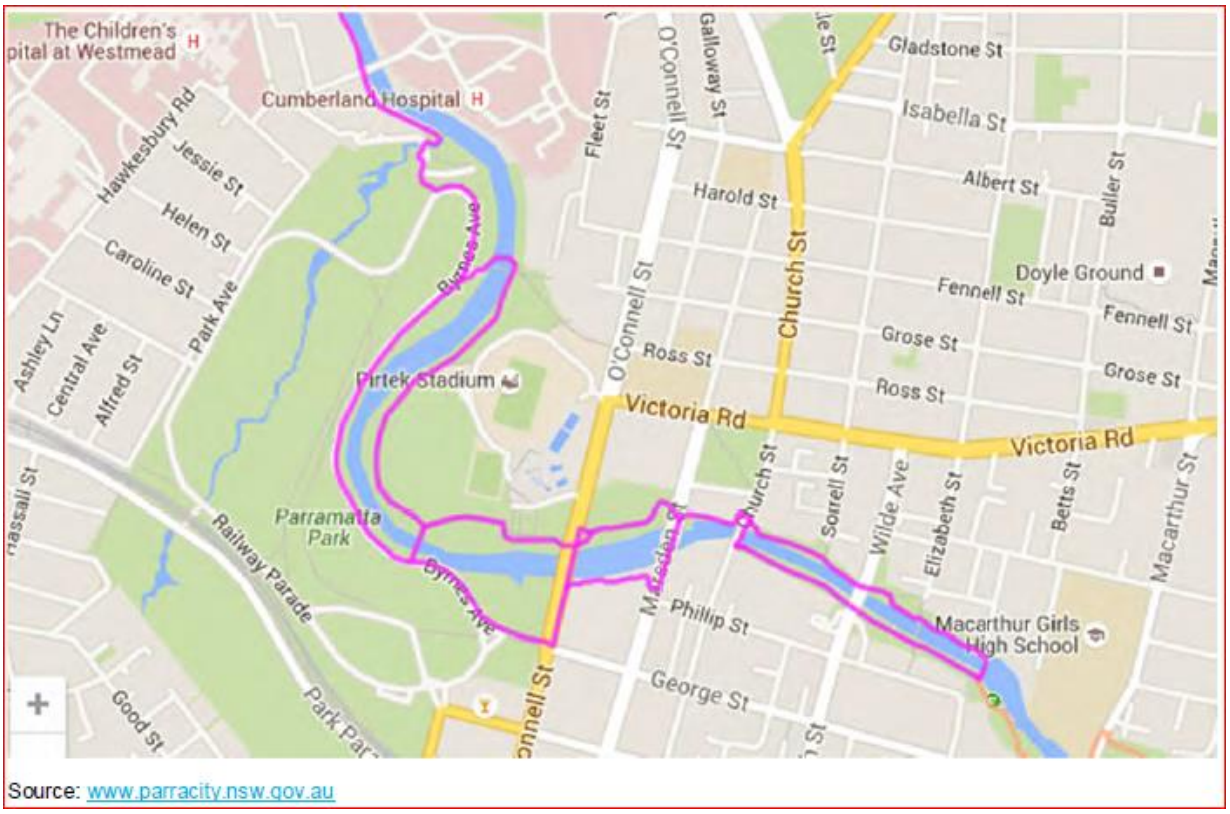


Figure 3.7 *– Shared pedestrian and cycle path network ((Ref: Stage 1 DA, Appendix F – AECOM).*

(e) Parking (pre-demolition)

Parking, prior to demolition, existed within the Site and comprised of a large at grade car park north of the stadium as well as a smaller at grade car park to the west. Further to this, parking was also permitted along the connecting access road which links the two car parks. The total number of spaces available was about 340. This comprised of 74 spaces located within the smaller car park and along the access road to the west of the stadium, as well as 266 spaces in the main northern at grade car park. This parking spaces is now closed for public use during construction.

There were no parking counts available for weekday business hours but if it is conservatively assumed that about 40% of the then available parking spaces represent the inbound and outbound vehicular parking peak hour movements, it means a total of 140 vehicles in and 140 out for the peak hour. This translates to about 5 vehicles in and 5 out per traffic signal cycle during the peak hour.

(f) Truck Routes

There are three obvious route options to connect construction traffic to the main arterial road network to and from the construction site. This include the following routes as indicated in **Figure 3.8** below:

Route A: The southbound route, right-turn from the site (at the Victoria Road intersection) onto O'Connell Street southbound to the Great Western Highway (A44). There are six signalized intersection between the site and the A44.

Route B: The route from the site via Victoria Street and northbound along Church Street towards James Ruse Drive (A28) will be a good alternative for construction traffic to link with the major arterial road network. There are eight signalized intersection between the site and the A28.

Route A is the preferred link for construction traffic (Construction Stages 3 & 4 for large concrete pours and general deliveries) as it is the shortest with less impact.

Route C: This is the out-of-site waste truck route (refer to report by Foresight Environmental – WSS Stage 2 Construction Waste Management Plan).

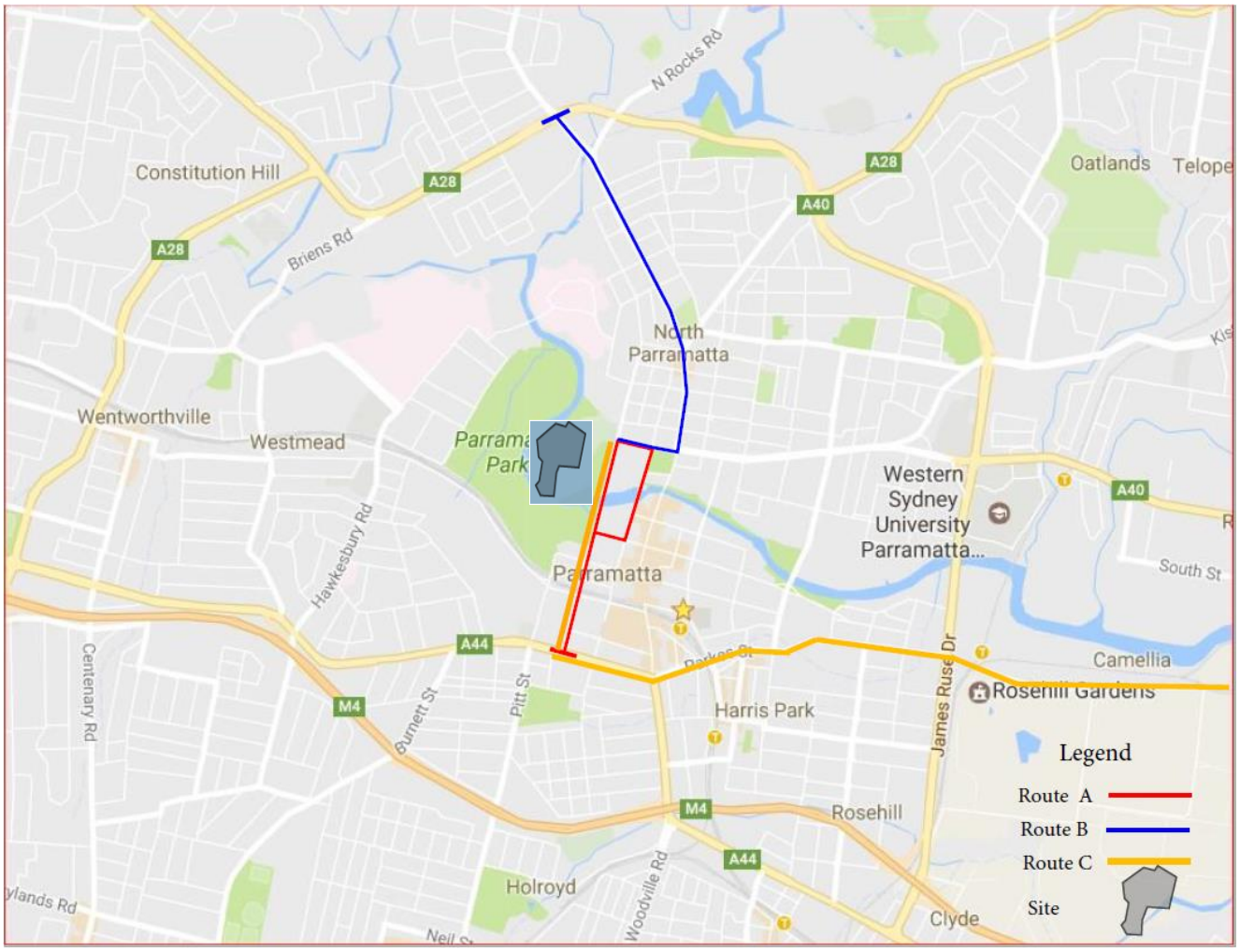


Figure 3.8 *– Truck routes (including waste trucks) to and from site to connect with arterial road network*

4.0 SITE ACCESS AND TRAFFIC MANAGEMENT

4.1 Key Focus

The project construction will involve vehicle and pedestrian movements within and around the site. This will interface with existing vehicle and pedestrian activity within the surrounding precinct.

During the work, the objective for managing traffic will be to:

- Implement an effective management plan that achieves the planned construction activities in a safe and timely manner;
- Minimise the disruption to both vehicular and pedestrian traffic, including:
  - Temporary lane or road closures, detours and other disruptions to public transport services and traffic flows including identification of additional traffic generated as a consequence of these disruptions;
  - Access for people using the precinct;

- Access for disabled persons, pedestrians, cyclists and public transport passengers;
- Site security, site access; and
- Signage, including;
    - Project identification including signs to acknowledge Government initiatives;
    - Traffic (or road user) delay management;
    - Information signage, distance information and advance warning signs;
    - Speed limit signage; and
    - Changes to existing signage locations and provisions for emergency and incident response.

- Protect the environment; and
- Frequency of inspections.

Figure 4.1 below indicates the general access arrangements to the site:

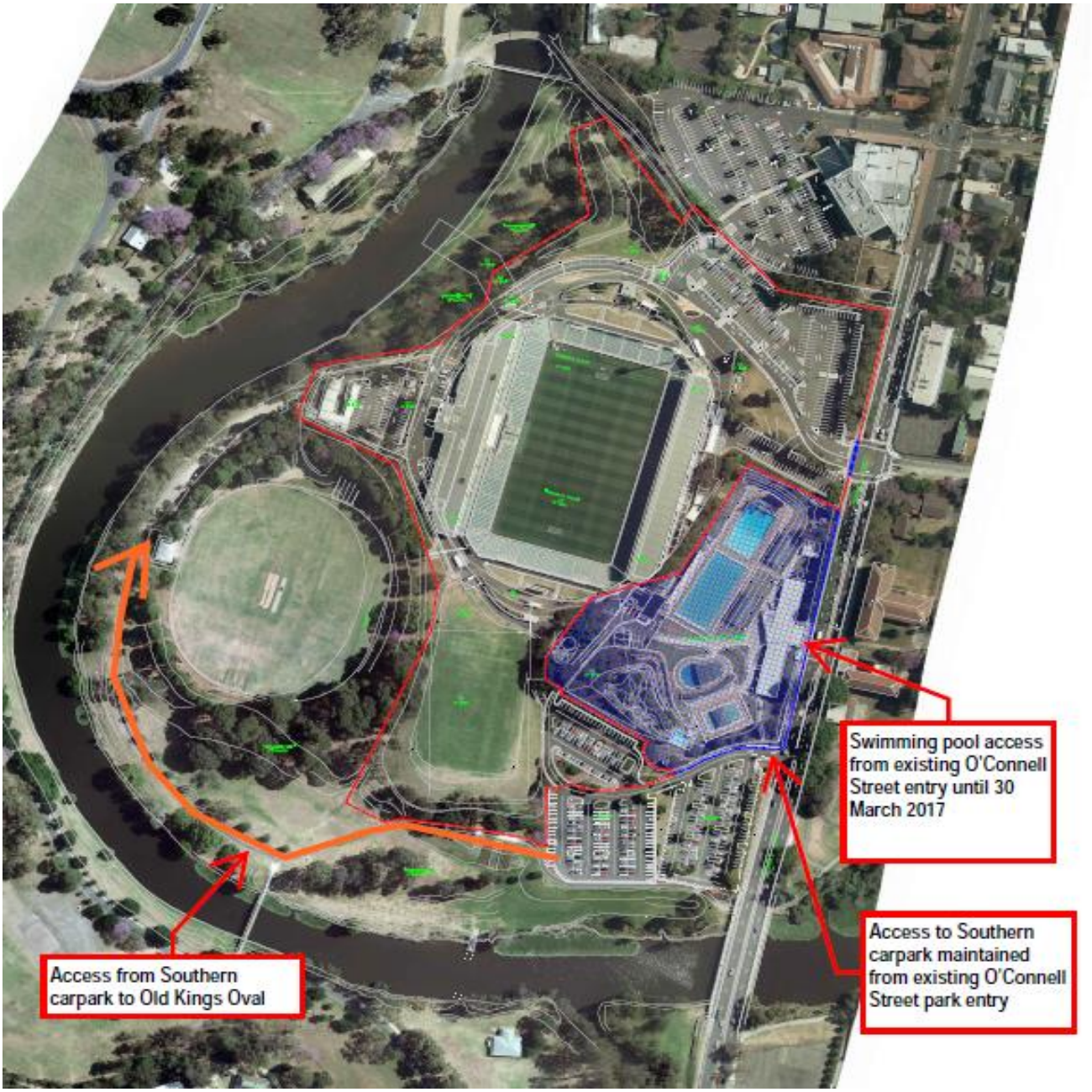


Figure 4.1 *- General Site Access Arrangements*

The access arrangements can be summarized as follow:

- The red line indicates the demarcated site boundary for construction purposes;
- This excludes the blue shaded area around the swimming pool until 30 March 2017 when the demolition on the swimming pool will start. Until then access to the swimming pool will be as it is currently with the pedestrian signalised crossing across O'Connell Street and access to the southern carpark as indicated.
- People using the Old Kings Oval will park at the southern carpark and walk to the oval (outside the demarcated construction area) as indicated in **Figure 4.1**. Vehicle access to the oval will only be for maintenance vehicles.

When demolition starts on the swimming pool (30/03/2017) the site boundary fence will be 3m from the O'Connell Street footpath with signs clearly indicating the footpath and access restrictions.

4.2 Construction Stages

4.2.1 Demolition – Stage 1 (Jan-Mar 2017)

As indicated in **Figure 4.1** the existing pool complex remains operational during the first stage of demolition. The main construction access point will be located at the current signalised intersection of the site at Gate A as indicated below in **Figure 4.2**. This access will accommodate a peak load maximum of 40 trucks (typically 30 tonne truck and trailers) per day as the main entry/exit gate with an alternate exit point at Gate C, utilising the left out southern carpark access with O'Connell Street. Access for site work pedestrians will be dedicated to Gate B.

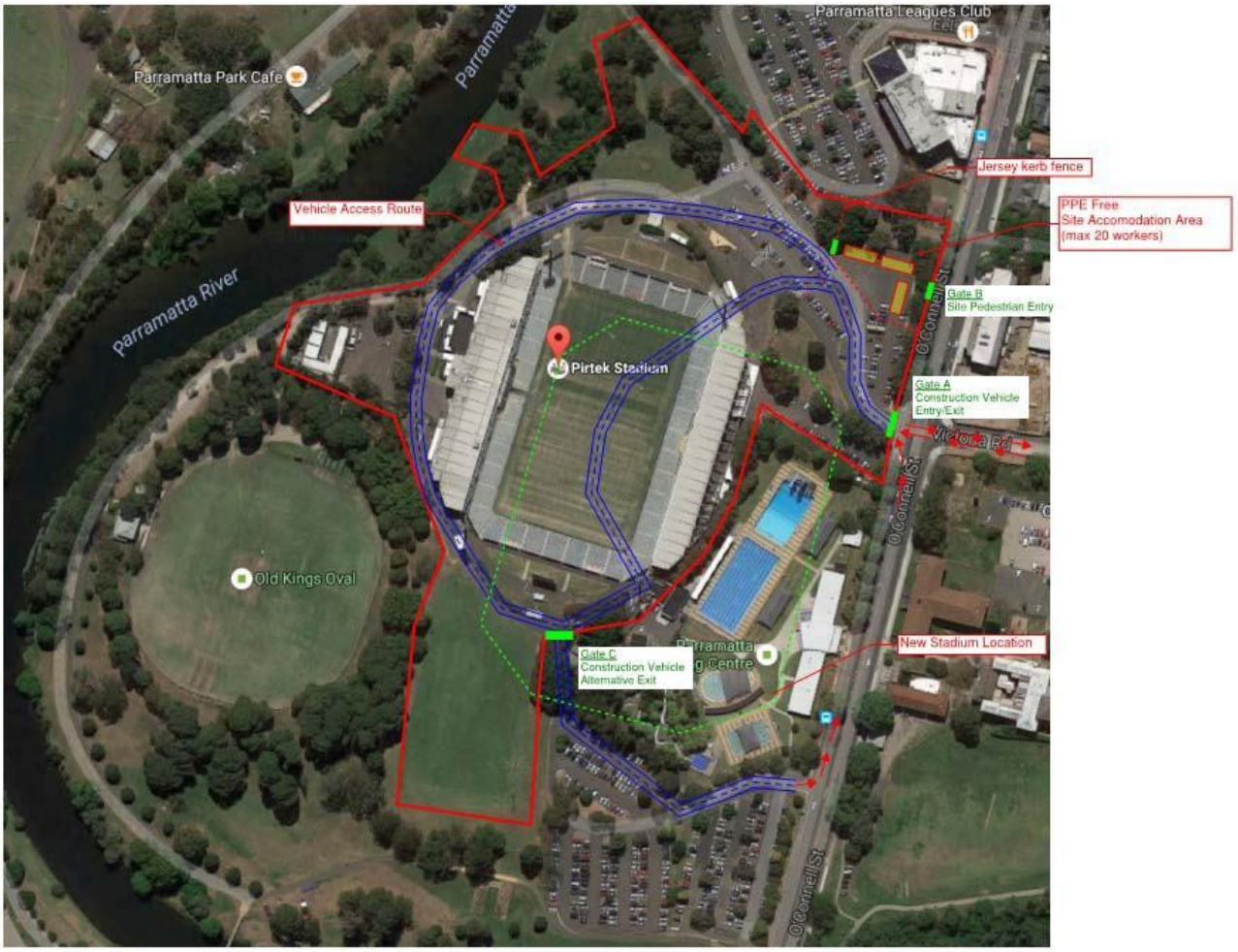


***Figure 4.2** - Demolition - Stage 1*

4.2.2 Demolition – Stage 2 (Apr-Jun 2017)

Following on from the initial stage of demolition, Stage 2 will see the pool complex closed and handed over to the contractor. The main entry/exit point remains at Gate A, as indicated in **Figure 4.3**, and the expected peak load of truck traffic remains as 40 per day. An alternative entry/exit point at Gates C and D will be used spontaneously when works staging restricts use of Gate A. Construction vehicles will be restricted to left-in – left-out movements at the southern carpark access from O'Connell Street when using Gates C and D.

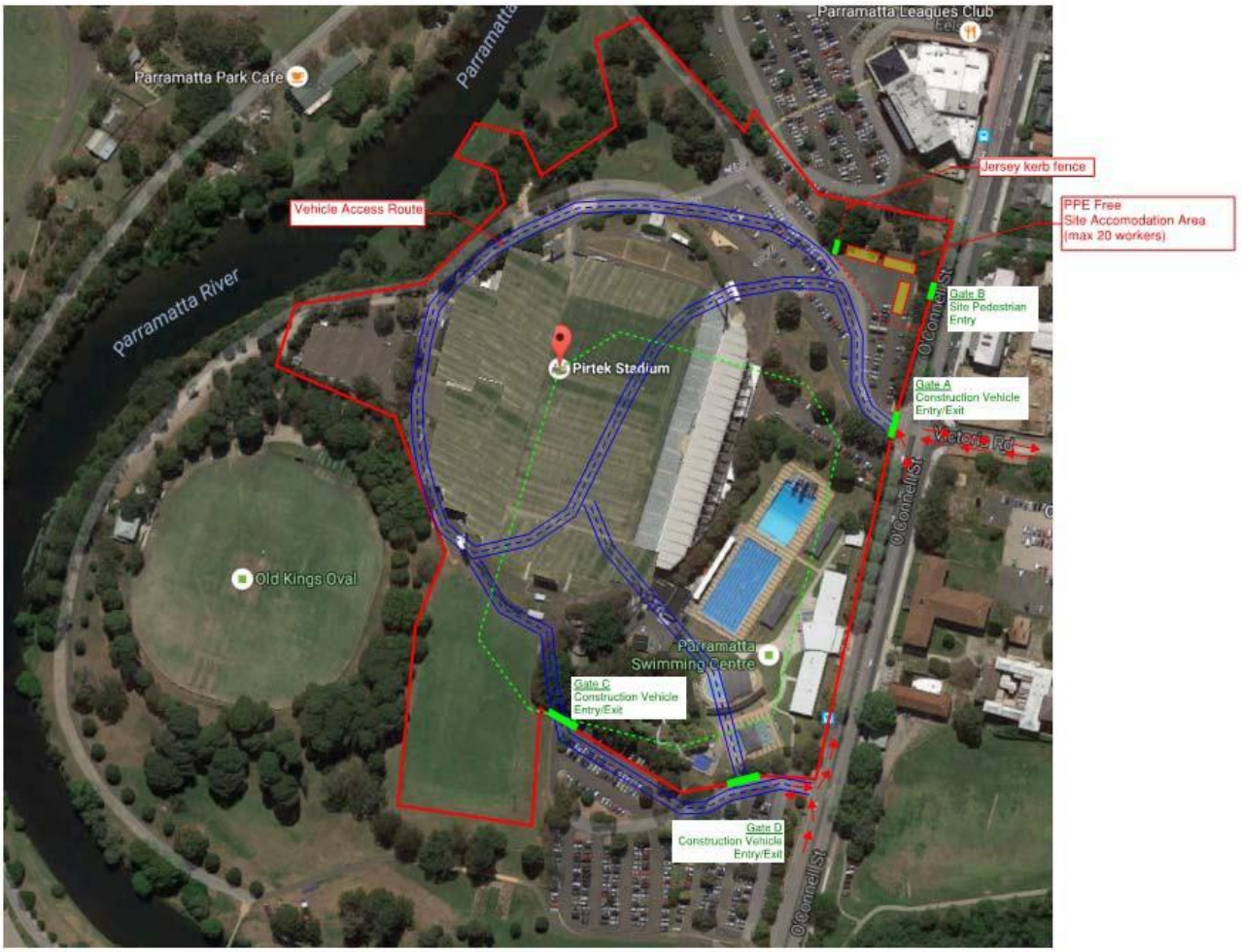


***Figure 4.3** - Demolition - Stage 2*

4.2.3 Bulk Earthworks, Piling, Foundations (May-Nov 2017) - Stage 3

During the earthworks stage, peak truck loads will increase to 120 trucks per day, consisting typically of 30 tonne truck and trailers with extendable bed semi-trailers used for piling cages approximately 15m in length. The main entry/exit point remains at Gate A and an alternative entry/exit point at Gate C (left-in – left-out to and from O'Connell Street) will be used spontaneously when works staging restricts use of Gate A. See details as indicated in **Figure 4.4** below.

Figure 4.4 - Bulk Earthworks, Piling & Foundations – Stage 3

4.2.4 General Construction (Nov 2017-Mar 2019) - Stage 4

During large concrete pours and for general deliveries (including waste trucks along Route C), peak truck loads will be 100 trucks per day, with extendable bed semi-trailers for structural steel the maximum truck size. As indicated in **Figure 4.5** below, the main entry/exit point remains at Gate A and an alternative entry/exit point at Gate C and Gate D will be used spontaneously when works staging restricts use of Gate A, (left-in – left-out to and from O'Connell Street).

Gate C is used for gaining access to the high-level concourse, with a ramp formed during bulk earthworks and Gate D will be used for gaining access into the low-level pitch via the vomitory below the south-east corner of the stadium.

It is noted that during all stages detailed, there will be some out-of-hours wide load deliveries made for large plant. Furthermore, pedestrian access for workers to the site will be through Gate B, a separate gate located approximately 60m north along O'Connell Street from the main access (Gate A).

Figure 4.5 - General Construction - Stage 4

4.3 Traffic Impact during construction activities

4.3.1 Demolition Stages (Stages 1 & 2)

The traffic impact during the demolition stages can be summarized as follow:

Traffic Element	Section	Traffic Impact and actions
Bus Routes	3.3 (b)	With an estimated maximum of 13 buses northbound along O'Connell Street per peak hour it means about one bus every 2nd to 3rd traffic signal cycle which will not have a noticeable impact or conflict with construction traffic in and out of the site.
Pedestrians	3.3 (c)	Pedestrian paths adjacent to the site are not expected to be impacted as a result of the construction activity. No construction vehicles will be parked nor will material/equipment be stored on the public footpaths adjacent to the site. The site will be hoarded with A-Class hoarding along pedestrian footpaths to ensure segregation of the site from external pedestrians. Pedestrian site access (workers) will only be via the Gate B entry, which will be controlled with turnstile access and a constant security presence. Construction vehicle entry and exit at the site gates will be managed and controlled by qualified traffic controllers. Pedestrian warning signs and construction safety signs/devices will be located adjacent to these driveways, in

		accordance with WorkCover requirements. Pedestrian barriers/gates (subject to separate approval from Construction Regulation Unit) will be extended across the footpaths, either side of the construction access driveways to temporarily contain pedestrians when the driveways are in use (when trucks are entering and exiting the site). When the driveways are not in use, the pedestrian barriers/gates will be opened and pedestrian activity along adjacent footpath will be available. The movement of trucks entering and exiting the site, and the movement of pedestrians across the construction access driveways, when in use, will be managed and controlled by qualified traffic controllers. It is expected that pedestrian activity will still be noticeable during Stage 1 as the swimming pool will still be in operation. Pedestrian numbers will then decline from Stage 2 as the pool will be closed.
Walking & Cycle Paths	3.3 (d)	No additional impact is expected between walking and cycle paths as indicated in **Figure 3.7**.
Parking	3.3 (e)	The northern carpark will be closed for public access and become part of the construction zone at the start of Stage 1 and be used as the site accommodation area. There are about 340 parking spaces in this area. It is conservatively assumed that a maximum 40% of the available parking spaces represent the current inbound and outbound vehicular parking peak hour movements, it means a total of 140 vehicles in and 140 out for the peak hour. This translates to about 5 vehicles in and 5 out per traffic signal cycle during the peak hour which is more that the anticipated truck movements in and out of the site during these stages. The impact of truck movements on the adjacent intersections will therefore be less than vehicle movements to and from the existing carparks.
Truck Routes	3.3 (f)	The main access gate to the site will be Gate A (**Figures 4.2 to 4.5**). With Route A (see **Figure 3.8**) as the preferred route most trucks will turn left into the site from O'Connell Street and right outbound to the south. It is estimated that 40 vehicles per day will move in and out. This is a maximum of 5 to 6 trucks per hour which, coupled with the removal of carparking traffic, will have negligible impacts on intersection performance along O'Connell Street and the route southbound. Gate D will be a left-in and left-out movement only with no noticeable impact on traffic movements in and out of the site. Small changes, if any, to the traffic control plan at Gate A (O'Connell Street / Victoria Road intersection) might be required. This will be assessed on site early in Stage 1 and recommendations will be prepared and presented to RMS for approval. See also Section 4.6 for general notes on truck routes.

4.4 Bulk Earthworks and General Construction (Stages 3 & 4)

Lendlease has confirmed, as indicated in Section 4.2.4 above, that for Construction Stages 3 & 4 large concrete pours and general deliveries (including waste truck movements) will occur, with peak truckloads of 100 trucks per day, with extendable bed semi-trailers for structural steel the maximum truck size. This means, on average, an estimated maximum of 12 trucks per hour in and out of the site. This means less than one truck for every traffic signal cycle at the key signalised intersections to and from the site and therefore minimum impact on traffic flow on the route to and from site.

As this CTPMP should be updated frequently, Lendlease should ensure regular traffic observations to monitor any changes in traffic conditions to comply to the Consent conditions as stated in Section 1. Lendlease will also keep stakeholders (RMS and Council) informed of any issues related to construction traffic impact.

4.5 Hours of Work

Construction activities will be carried out within approved specified hours as per the following:

Monday to Friday – 7am to 6pm;

Saturday – 8am to 1pm; and

Sunday/Public Holiday – no work.

Some night work may be required and would be considered where it may reduce impacts to the public and local community. Work outside standard hours may also occur to complete tasks safely or more efficiently and would be carried out in accordance with the Interim Construction Noise Guideline (DECC 2009) including notifying the local community in advance for any work that is proposed.

All work including demolition and construction work during the approved hours will be carried out in accordance with the conditions of consent and the Australian Standard AS2436.1981 Guide to Noise Control and Construction, Maintenance and Demolition Sites. Lendlease will be responsible to instruct and control sub-contractors regarding the hours of work. **Any work outside the approved hours of work would be subject to prior approval from the relevant authorities.**

4.6 General Notes on Truck Routes

During demolition and construction, trucks transporting material to and from the site will be accommodated on-site.

The loading of all trucks with demolition material will be carried out from a designated onsite materials handling/loading area. Access to the on-site materials handling/loading area will be managed and controlled by qualified traffic controllers.

General traffic movements on surrounding streets associated with the continued operation of the existing adjacent premises will be maintained at all times through the construction process. Other than during the delivery and removal of large construction plant and machinery, there will be no requirement to restrict traffic arrangements on the surrounding streets in the vicinity of the site.

Truck movements will be restricted to designated truck routes and at no time during the construction process will be permitted to park on-street within the adjacent CBD.

The preferred truck route, Route A, as indicated in Figure 6 will be tested with stakeholders for approval and then confirmed as the designated truck route to and from the site which will restrict trucks to the main road network through the area. Route A is proposed to prevent trucks accessing other roads within the CBD in the vicinity of the site. Truck drivers will be advised of the designated truck route to and from the site.

It is not envisaged that the traffic control plans (TCPs) for signalised intersections along this route need to be assessed for Stages 1 & 2 (Demolition Stages), as the impact from construction traffic compared to existing traffic volumes will be minimal. The traffic conditions during Stages 3 & 4 (Bulk Earthworks and General Construction) will however be monitored and the need mitigating measures, such as changes to TCPs, assessed. If required, a separate traffic assessment will be undertaken for which additional traffic volume data may be required. The outcome will be discussed with stakeholders and proposed changes to TCPs (if any) will be submitted to RMS and Council for approval.

4.7 Work Zones

On-street work zones are not expected to be required adjacent to the site. The proposed construction access driveways will be managed and controlled by qualified traffic controllers, and these personnel will manage the movement of construction vehicles to and from the site and pedestrian movements adjacent to the construction activity.

4.8 Deliverables

This updated CTPMP will be issued to the Project Director and relevant construction, operation and maintenance staff engaged by Lendlease. Additionally, a copy of the updated plan will be submitted, prior to the commencement of any works, to the City of Parramatta for endorsement.

5.0 STAKEHOLDER ENGAGEMENT AND APPROVALS

Lendlease will arrange engagement with the City of Parramatta, Transport for NSW, as well as RMS in order to ensure the compliance of this proposed Construction Traffic and Pedestrian Management Plan with relevant Australian Standards and the Roads and Maritime Services' Manual for Traffic Control at Work Sites. This CTPMP will be discussed at these meetings with the aim to get alignment on the content.