



ptc.

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**Lang Walker AO
Medical Research
Building - Macarthur
Western Sydney
University
Construction Worker
Travel Plan;**

For: **Western Sydney University**

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contents;

Document reference number: 21-3113	1
1. Introduction	1
1.1. Overview	1
1.2. Compliance with Conditions of Consent	2
1.3. Construction Proposal	2
2. Transport Environment	3
2.1. Road Hierarchy	3
2.2. Public Transport	4
2.2.1. Bus Services	5
2.2.2. Rail Services	6
2.3. Active Transport	7
2.3.1. Pedestrian facilities	7
2.3.2. Cyclist facilities	7
3. Construction Worker Travel Plan	8
3.1. What is a CWTP?	8
3.2. The purpose of a CWTP	8
4. Opportunities and Targets	9
4.1. Walking	9
4.2. Bicycle network	9
4.3. Opal Cards	10
4.4. Car Pooling	10
5. Construction Worker Transportation Strategies	11
5.1. Private Transport	11
5.2. Public and Active Transport	11
6. Workplace Transport Plans	13
6.1. Dedicated Carpooling Space	13
6.2. Public Transport	13
6.3. Shuttle Bus Service	13
6.4. Transport access guide	13
7. Monitoring and Evaluation	1

1. Introduction

1.1. Overview

ptc. has been engaged by Richard Crookes Constructions to prepare a Construction Worker Travel Plan (CWTP) in relation to the construction of the Lang Walker AO Medical Research Building.

The new building will comprise a multi-faceted research facility that forms part of an integrated hospital and research precinct delivering world-class research and improved health outcomes for the Macarthur region and wider community.

The location of the site within the local context is shown in Figure 1.



Figure 1: Subject Site (Source: Nearthmap)

1.2. Compliance with Conditions of Consent

The following matters are addressed in the CWTP (where applicable):

B20. Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy to the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities. A copy of the strategy must be provided to the Planning Secretary for information.

1.3. Construction Proposal

Figure 2 presents the general site plan of the proposal prepared by BVN.



Figure 2: Proposed Site Plan

2. Transport Environment

2.1. Road Hierarchy

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, partly funded by the State)

Local Roads: Collector and local access roads (Council Managed)

The subject site is located on Parkside Crescent (local road) in the suburb of Campbelltown and is primarily serviced by State roads including Appin Road, Oxley Street, Kellicar Road, Menangle Road and Narellan Road, as well as Regional roads including Therry Road and Gilchrist Drive. The site is also serviced by local roads managed by Campbelltown City Council.

Figure 3 below shows the classification of the surrounding roads.

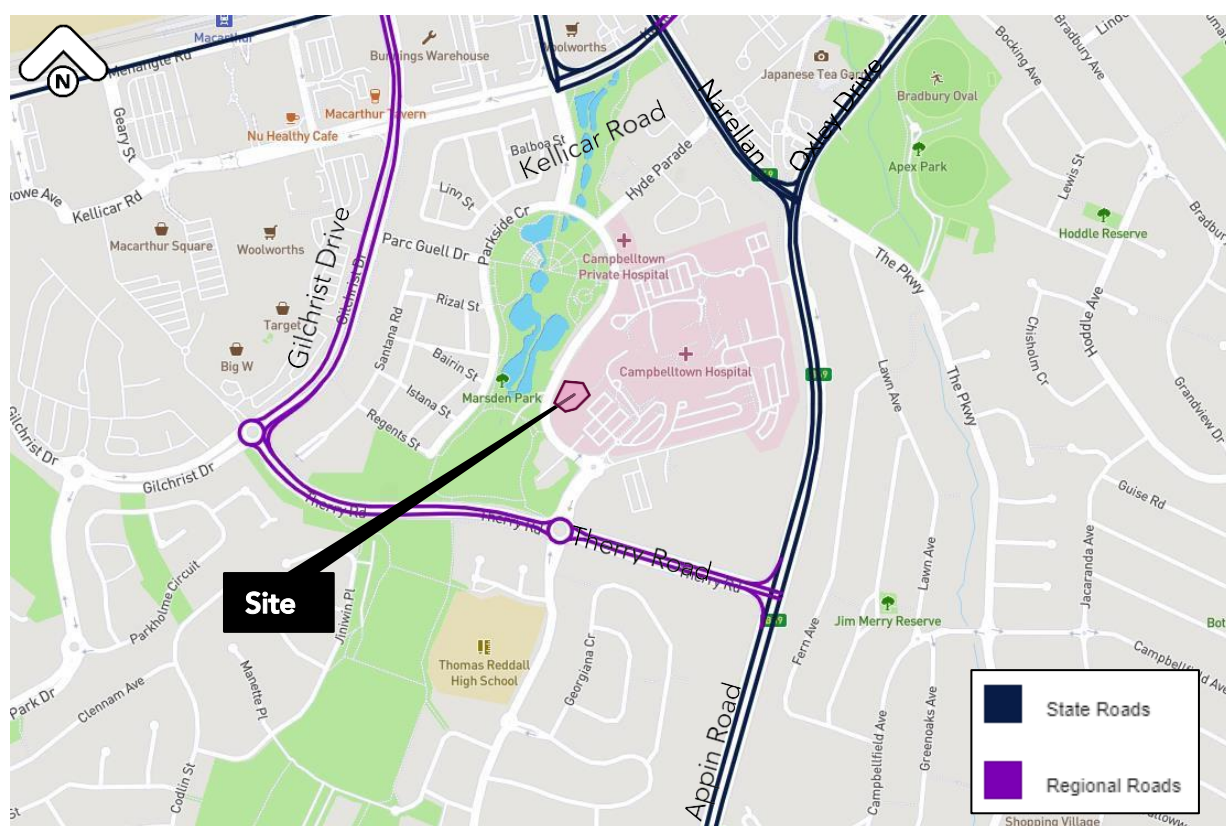


Figure 3: Road Hierarchy (Source: RMS State and Regional Roads)



2.2. Public Transport

The locality has been assessed in the context of available forms of public transport that may be utilised by prospective staff and visitors. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggests that 400m-800m is a comfortable walking distance. Furthermore, the Guidelines also suggest 1500m is suitable for cycling accessibility to public transport facilities and local amenities.

The 400m and 800m catchments are shown in Figure 4.

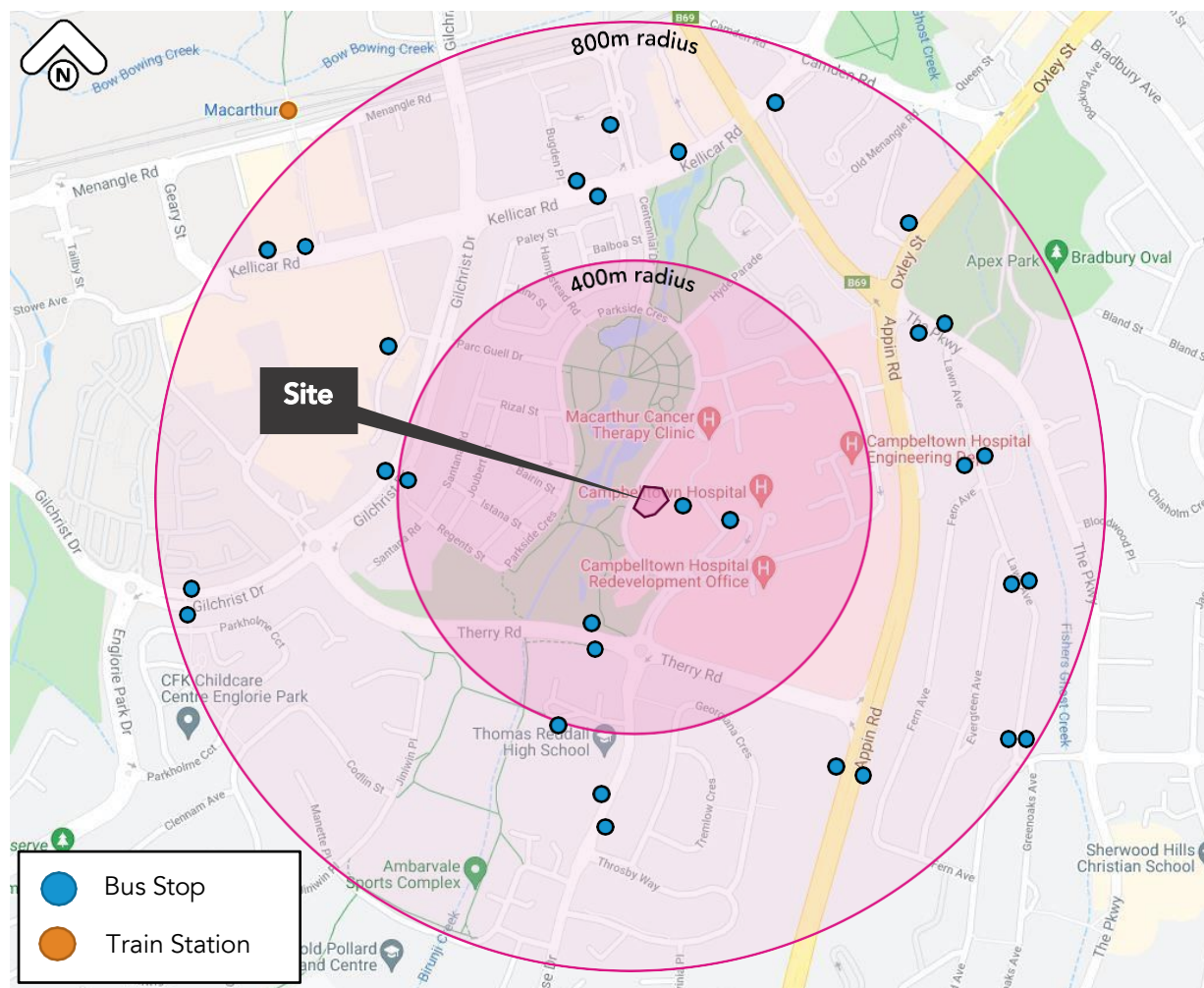


Figure 4: Public transport services within 400m and 800m walking catchments

2.2.1. Bus Services

The Hospital is serviced by several bus services (see Figure 5).

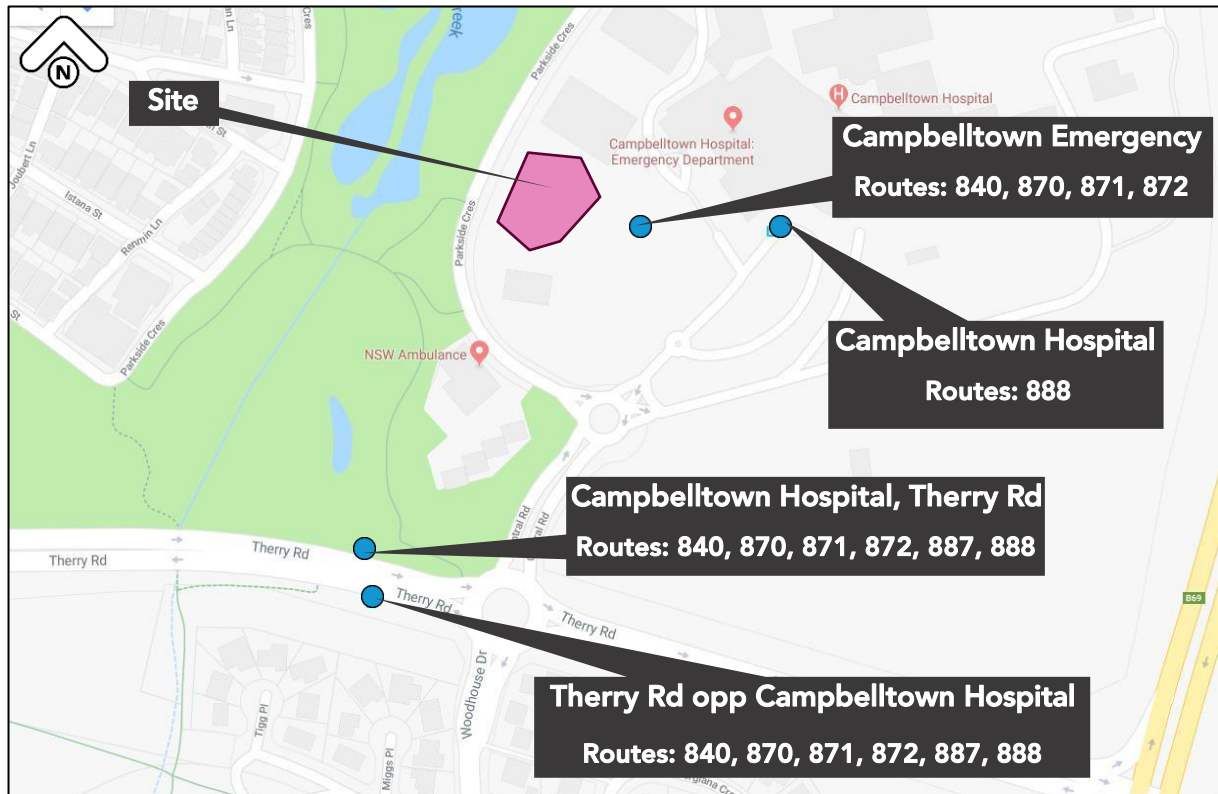


Figure 5: Nearby Bus Stops

Table 1 details the frequency of the bus services at these nearby bus stops.

Table 1: Bus route summary

Bus Route	Coverage (to and from)	Service Frequency
840	Oran Park to Campbelltown Hospital	Weekdays: Peak period – every 30 mins Off peak – every hour Weekend/Public Holidays: Service every hour
870	Liverpool to Campbelltown	Weekdays: Peak period – every 30 mins Off peak – every hour Saturday: Service every hour Sunday/Public Holidays: Service every 2 hours
871	Liverpool to Campbelltown	Monday - Saturday: Service every hour Sunday/Public Holidays: Service every 2 hours
872	Liverpool to Campbelltown	Monday - Saturday: Service every 30 mins

		Weekend/Public Holidays: Service every hour
887	Wollongong to Campbelltown via Appin	Weekdays: Service every hour Weekend/Public Holidays: Service every 2 hours
888	Campbelltown to St Helens Park (Loop)	Monday - Saturday: Service every 10-20 mins Sunday/Public Holidays: Peak period – every 20 minutes Off peak – every 30 minutes

2.2.2. Rail Services

Macarthur Train Station is located approximately 850m north west of the subject site as shown in Figure 4. Figure 6 shows Macarthur Train Station in the context of the entire Sydney Trains network. Considering the distance of the train station from the subject site, it is anticipated that staff who choose to travel to the site will use a combination of bus and rail public transport services.



Figure 6: Sydney Trains network

2.3. Active Transport

2.3.1. Pedestrian facilities

Walking is a viable transport option for distances under 800m and is often quicker for short trips door to door. Walking is also the most space efficient mode of transport for short trips and presents the highest benefits. Co-benefits where walking replaces a motorised trip include improved health for the individual, reduced congestion on the road network and reduced noise and emission pollution. Site observations show that the existing footpath networks and crossing points between the adjoining residential precincts and the hospital are generally adequate.

A very low proportion of hospital-users walk to and from the Hospital, with 0.2% of staff, 1.2% of visitors and no outpatients walking to the hospital (as per surveys conducted in July 2017).

2.3.2. Cyclist facilities

Like walking, cycling is only likely to be an attractive mode share for staff members who live within relatively close distance to the campus. Surveys conducted in July 2017 indicate that no staff members cycle to the Hospital, and 0.4% of other hospital-users bicycle/motorcycle to the Hospital.

The site is reasonably accessible to bicycles from all directions, due to generous road width with hard shoulders in the locality; however, the area is reasonably hilly which may deter staff from cycling. The only dedicated cycle paths are from the north, on Narellan Road and Oxley Street. Figure 7 shows possible cycle routes around the site.

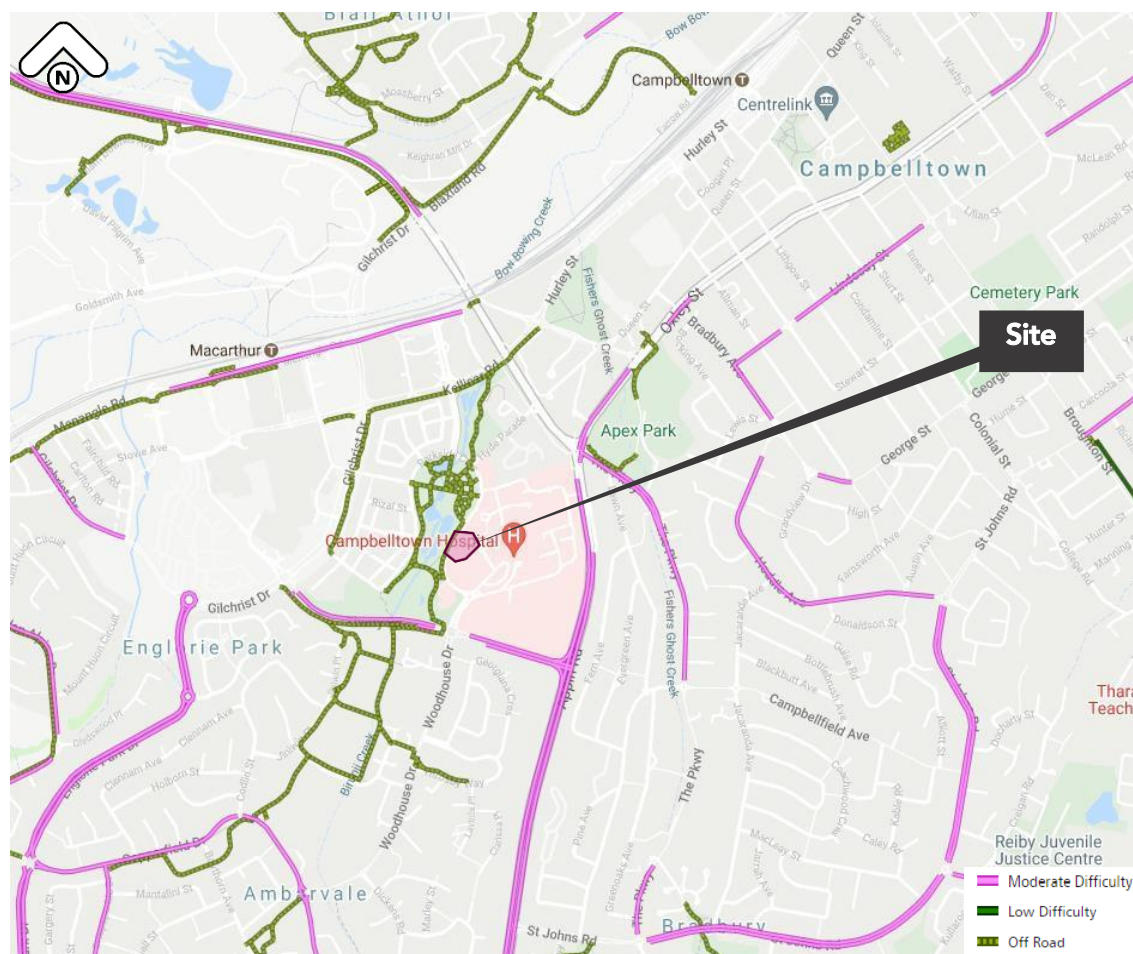


Figure 7: Cycling Paths (Source: Transport for New South Wales Cycle Finder)

3. Construction Worker Travel Plan

3.1. What is a CWTP?

A CWTP is a document that outlines how a construction site can make travel to and from the site safer and more sustainable for workers.

An effective CWTP can offer many benefits such as reduced parking costs, less congestions on the public road networks, health and environmental benefits. The development of a CWTP is accepted as one of the best ways to increase active travel to/from a site.

It is likely that workers with a good understanding of an active and sustainable mode of transport will follow a healthy and active lifestyle, care about the environment and prioritise location and lifestyle over car ownership.

3.2. The purpose of a CWTP

The purpose of the CWTP is to provide a package of measures with the aim at promoting and reducing the reliance of private car usage and encourage and support the uptake of daily business in a more sustainable way. This may be achieved through the review of existing policies and identifying programmes to encourage residents, visitors and employees to adopt more active and sustainable forms of transport. This document identifies the following:

- Review of existing public transport infrastructure and future transport options;
- Assessment of existing travel patterns within the area;
- A modal share target for the development;
- A framework to identify and respond to travel demand from the development and surrounding area;
- Strategies to implement prior and during occupancy; and
- The monitoring strategy to track performance of the CWTP.

4. Opportunities and Targets

4.1. Walking

Walking is only likely to be an attractive option for people who live relatively close to the campus.

It is a viable transport option for distances under one kilometre (approximately 20-25min) and is often quicker for short trips door to door. Walking is also the most space efficient mode of transport for short trips and presents the highest benefits.

Co-benefits where walking replaces a motorised trip include improved health for the individual, reduced congestion on the road network and reduced noise and emission pollution. Site observations show that the existing footpath networks and crossing points between the adjoining residential precincts and the hospital are generally adequate.

Whilst it is not likely that a notable portion of the construction workforce will live within walking distance, this does indicate that walking between the site and other transport hubs (bus stops, train stations) is catered for.

The pedestrian connections from the car parks to the Site is generally acceptable. Within the hospital precinct, paths are mostly quite generous. Away from the hospital, at many locations, footpaths are not provided or are provided only one side of the street. In many instances, the road network has been designed to prioritise vehicle movements, including intersections with roundabouts where pedestrians need to negotiate many directions of traffic whilst crossing the road. These often provide positive efficiency outcomes for vehicle movements. However, pedestrians have no priority and are at greater risk crossing when compared with other intersection layouts. It is recommended that inadequate provision of footpaths be rectified.

Further, it is important to note that the train connection between Liverpool to Campbelltown is much faster than buses (e.g. 23min compared to approx. 70-80min by buses). From the hospital, Macarthur Station is approximately 20min walk (Campbelltown Station is a 30min walk). State Government has a land use and infrastructure plan for streetscape works, such as shared pathways, footpath improvements, pedestrian crossings and refuges to improve connections to Campbelltown Station and within Campbelltown CBD (NSW Government, Campbelltown Precinct Land Use and Infrastructure Analysis).

The pedestrian route to Campbelltown & Macarthur stations should be assessed. If required, necessary discussion should be held with the Council and State Government. Staff, especially day time staff, should be encouraged to use the pedestrian routes to the stations highlighting the health benefits and reduction of net travel time by traveling via train and walk, rather than bus.

4.2. Bicycle network

Similar to walking, cycling is only likely to be an attractive mode share for staff members who live within relatively close distance to the campus.

Our site observations indicate that minimal cycling is currently occurring to the hospital and no bicycle was seen parked at the racks located outside the main entrance of the hospital. However, if suitable bike lock-up facilities and shower/change rooms are provided within the construction site, cycling provides a viable and sustainable travel options.

4.3. Opal Cards

To improve the relative attractiveness of public transport, other transport modes such as driving should be benchmarked against and generally exceed the cost of public transport. Communal opal cards could be considered when travelling to and from the site.

4.4. Car Pooling

Car pooling will remove a common requirement to drive to the site for workers who live in close proximity.

5. Construction Worker Transportation Strategies

5.1. Private Transport

The construction workforce will be made aware that there is minimal on site and street parking. As part of the induction program, contractors and sub-contractors will be advised during their site inductions that there is no parking within the Campbelltown Hospital site, or within the adjacent streets.

To minimise impact on street parking in the locality, contractors and sub-contractors will be encouraged to use public transport, cycling and walking where possible, or to carpool.

Detailed car parking arrangements will be developed.

5.2. Public and Active Transport

All employees and sub-contractors will be encouraged to use public and active transport to access the site. To support alternative travel, secure areas could be made available within the work compounds for tradesmen and staff to store equipment, overnight, making light travel via alternative modes more viable.

There are several strategies which can be employed to encourage non-car modes of transport to and from the construction work site. The following table outlines potential strategies that can be adopted in achieving future transport targets.

Table 2: Potential strategies for adoption to achieve future transport targets

Target	Strategy
Public Transport	
Increase journeys to work by Public	Create a map identifying the location of bus stops and routes and make this available to all staff and visitors. Promote the use of apps for public transport connectivity.
Cycling	
Increase journeys to site by cycling	Create maps and bike routes, which link to surrounding key amenities and available facilities. Provide facilities on-site for staff and visitors to repair bikes. Ensure visitor bicycle racks are positioned in an accessible and sheltered location that provides good passive surveillance, and is easily recognisable to visitors. Provide secure, internal End of Trip facility with bike storage racks and shower and change amenities.

Walking	
Encourage workers to walk to work as part of their journey	Encourage any workers who reside within walkable distance to the site to walk, and those who take public transport to walk to the site where practicable.

Target	Strategy
Car Pooling	
Improve accessibility to car share	Encourage workers who reside close to each other to car pool, create a forum or group chat on social media to allow workers to find other mates could travel together. The same shift patterns could also be allocated to those workers who can car pool.

6. Workplace Transport Plans

The core principle in reducing the demand for car parking spaces is to introduce and promote “Healthy Transport Plans”.

The availability of the rail, bus, cycle and pedestrian network near the Hospital Precinct combined with a proportion of staff living within relatively close proximity to the Precinct clearly highlights the possibility of introducing a robust and sustainable travel plan. Travel plans should aim to:

- Encourage workers to use more sustainable travel options to get to the site.
- Encourage workers to adopt healthy transport choices such as walking and cycling where this is a realistic option.
- Explore car parking needs with Public Transport providers, which may include consideration of park and ride schemes.
- Pursue opportunities for sharing vehicles or transport not only for workers but to explore innovative solutions to minimise journeys.
- Consider journey management and distance covered.
- Ensure that the project’s actions in respect to transport do not have an adverse impact upon the environment. There is a requirement to balance the needs of workers against ensuring protection of the environment for which we all have a responsibility.

6.1. Dedicated Carpooling Space

The hospital should allocate some dedicated carpooling spaces to promote carpooling by the staff members living in the same areas. There are many ways to manage carpooling spaces which can be explored in due course. As a start, two (2) to three (3) parking spaces are recommended for carpooling with an effective marketing strategy to promote these spaces to the staff members.

6.2. Public Transport

To improve the relative attractiveness of public transport, other transport modes such as driving should be benchmarked against and generally exceed the cost of public transport. Local Health District (LHD) is interested in working with Campbelltown Council to provide clear wayfinding signage between the train station and hospital, to promote the use of public transport.

6.3. Shuttle Bus Service

Based on the staff survey, if there is reasonable number of staff is found to be living within the 5-10km radius of the hospital, a shuttle bus can be considered in the future based on the demand. Discussion should be held with Transport for NSW/ Council for effective operation of the shuttle bus service.

6.4. Transport access guide

To encourage staff and visitors to adopt alternative sustainable transport options, a Transport Access Guide should be developed to summarise available transport options identified. A Transport Access Guide is a concise presentation of how to reach the site using low-energy, sustainable and active forms of transport.

The aim of a Transport Access Guide is to make sure people know how to get to the subject development by walking, cycling or public transport (as well as by car).

A Transport Access Guide can take many forms such as a map printed on the back of business cards or invitations to more comprehensive information provided to new residents or staff as part of their induction kit. Guides may be incorporated into stationery, brochures and sales literature and provided electronically on the web site and in emails. An electronic version can be kept on a computer and produced as needed. Reception and enquiry staff should be familiar with the content so they can advise callers about easy transport alternatives to car travel.

7. Monitoring and Evaluation

A Travel Plan Co-ordinator and Travel Plan Group should be established to monitor and review the sustainability targets.

As a minimum, the Plan should be reviewed on a yearly basis incorporating consultation with staff and visitors at the completion of a regular travel survey.

The yearly review should result in an update to the Travel Plan which may include, where necessary:

- Modifications to the previously agreed targets as a result of data collected and analysed.
- Implementation of additional remedial actions if the Travel Plan is not meeting its objectives within the timescales specified which remedial actions may include but not be limited to, undertaking new or additional monitoring activities to those specified in the Travel Plan.

Contact details for Travel Plan Co-ordinator - Arthur Bakouris