

Western Sydney University **Bankstown City Campus** Green Travel Plan

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It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Arup
Arup Pty Ltd ABN 18 000 966 165



Arup
Level 10 201 Kent Street
PO Box 76 Millers Point
Sydney 2000
Australia
www.arup.com

ARUP

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1 Introduction

This report addresses Condition D15 of the Conditions of Consent for the Western Sydney University (WSU) Bankstown City Campus (BCC) State Significant Development Application (SSDA) (SSD-9831). The SSDA was approved by the Minister for Planning and Public Spaces on 18 February 2021.

The WSU BCC is a transformative project for the Bankstown Central Business District (CBD) and from a transport and traffic perspective, responds to a modal shift and changing travel demands resulting from improvements in public transport access and general CBD improvements.

The project, entailing a stand-alone vertical campus building, will facilitate the relocation of teaching, research and staff facilities currently located at the WSU Bankstown Campus at Milperra. The academic program offered at the new Bankstown Campus will reflect its status as a flagship campus for WSU, in a region that is highly connected by public transport.

The academic facilities for staff workspaces, research and teaching will be supplemented by other facilities to create a comprehensive university experience for students and foster connections with local business, industry and community. Facilities that will be incorporated into the Campus include basement parking, ground level retail spaces, a branch of the University Library, flexible conference and event spaces, facilities for student social engagement and administrative services, and large outdoor terraces.

1.1 Background

The SSDA sought approval for:

- Construction of a 19-storey building over two levels of basement parking;
- Use as a University including learning spaces, research, library, administration and ground floor retail;
- Landscaping works, including plantings on terraces within the building and ground level plantings;
- Associated road and public domain works, including upgrade of The Appian Way and upgrade of Rickard Road footpath; and
- Four signage zones.

1.2 Purpose of this report

This document is a Green Travel Plan (GTP) addressing travel demand and sustainable travel initiatives for the WSU BCC at 74 Rickard Road, Bankstown, Sydney. It responds to Condition D15 of the Conditions of Consent for the SSDA associated with the project. This condition states that: “Prior to the commencement of operation, a Green Travel Plan (GTP) must be submitted to the satisfaction of the Planning Secretary to promote the use of active and sustainable

transport modes.” The requirements of the condition and where in this report they are addressed are summarised in Table 1.

Table 1: Condition D15 requirements

Requirement	Section of this Report
(a) be prepared by a suitably qualified traffic consultant in consultation with City of Canterbury Bankstown Council and (Sydney Coordination Office) Transport for NSW.	1.2, 8
(b) include objectives and modes share targets (i.e. Site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the GTP.	Objectives: 1.7 Mode share targets: 4.6.2 Implementation timeframes: 7
(c) include specific tools and actions to help achieve the objectives and mode share targets.	3, 4, 5 (summarised in 7)
(d) include measures to promote and support the implementation of the plan, including financial and human resource requirements, roles and responsibilities for relevant employees involved in the implementation of the GTP.	5
(e) include details regarding the methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets of the GTP, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours of users of the development.	6
(f) include strategies to encourage students to utilise The Appian Way to the Mall and deter unsafe movement across Jacobs Street, including provisions promoting safe movement across Jacobs Street at crossings and signalised intersections.	0
(g) include consideration of incorporating car share and carpooling parking spaces in the basement carpark.	3

This GTP has been prepared by Sophie Zachulski (BEng (Hons) MIEAust) and James Turner (BEng (Hons) MIEAust CPEng NER).

1.3 Site location

The Campus site is in Bankstown CBD, north of Bankstown Station and west of Bankstown Central Shopping Mall (see Figure 1). It is situated within the Canterbury-Bankstown Local Government Area (LGA) and is bounded by Bankstown Library and Knowledge Centre to the west, Bankstown Civic Tower to the east, Rickard Road to the north and Paul Keating Park to the south. It is well connected to the public transport network, with both a rail and bus interchange located within 400m of the site.



Figure 1: Bankstown City Campus location

1.4 What is a Green Travel Plan?

A GTP is a tool to minimise the negative impact of greenhouse emissions from travel on the environment. The GTP is a package of measures put in place to encourage more sustainable travel. It describes ways in which the use of sustainable transport may be encouraged – using public transport, cycling, walking, working from home, carpooling, making business vehicles more fuel efficient and the use alternative fuels are all more sustainable means of transport than single occupant driving.

The principles of a GTP are applied to all people travelling to and from a site. Government authorities around the nation are placing increasing emphasis on the need to reduce the number and lengths of motorised journeys and in doing so encourage greater use of alternative means of travel which have less environmental impact than cars.

1.5 Benefits of a Green Travel Plan

The GTP can bring a number of benefits to WSU BCC staff, students and visitors, including:

- Improved health, less stress, a better quality of life, cost and time savings, and greater travel choice;
- Reduced traffic congestion; and
- Improved air quality, less noise and pollutants.

1.6 Green Travel Plan framework

A GTP for an educational building will need to address the following issues:

- What are the objectives for the building in terms of travel journeys including trips to work, retail and other land uses?
- How are the set objectives going to be met? What measures are going to be implemented and encouraged?
- Who is going to be responsible for the management, implementation and administration of the measures?

The key element to reducing the reliance on private vehicle for the site will be maximising the use of public transport and the promotion of car share vehicles.

1.7 Green Travel Plan objectives

The main objectives of the GTP are to reduce the need to travel and promotion of sustainable means of transport. The more specific objectives to enable staff, students and visitors to adopt the GTP include:

- To increase the mode share of public transport, cycling and walking to work;
- To ensure adequate facilities are provided at the site to enable staff, students and visitors to commute by sustainable transport modes;
- To reduce the number of car journeys associated with business travel by staff;
- To reduce the need to travel for work-related activities, particularly air travel;
- To raise awareness of sustainable transport amongst staff and students;
- To reduce site traffic congestion and associated pollution in order to enhance, improve and make safe journeys of minority/sustainable transport mode users; and
- To continually develop, implement, monitor, evaluate and review the progress of the travel plan strategy.

2 Site-specific transport assessment

The Bankstown Complete Streets project¹ was developed in response to growing traffic congestion issues. It promotes active transport and public transport as a way to move large volumes of people safely to and within the Bankstown CBD. Key outcomes for the Bankstown Complete Streets project include:

- Vision and design principles to guide transport and street improvements in Bankstown;
- Traffic network and intersection improvements to improve flow and safety;
- Strategies to optimize parking including demand management, supply capacity, location, restrictions and smart technologies;
- Concept designs for street upgrades to enhance pedestrian safety and amenity; and
- Other recommendations to improve transport and the public domain.

The Bankstown Complete Streets project was adopted by Canterbury-Bankstown City Council (CBCC) on 22 October 2019. This project has been considered during the development of this GTP and relevant elements of it are included throughout the following sub-sections.

2.1 Local environment for pedestrians and cyclists

2.1.1 Walking network

The future pedestrian network outlined in the Bankstown Complete Streets is presented in Figure 2. Footpaths are provided throughout the local area, with signalised crossings provided at major intersections. Raised tables and zebra crossings are provided along the Mall at its intersections with Featherstone Street, The Appian Way and Jacobs Street.

In the future, the key pedestrian routes are expected to be in a north-south direction between the BCC (to the north) and Bankstown Station (to the south). Pedestrian priority and amenity will be enhanced along streets and at intersections where pedestrian volumes are high.

¹ <https://www.cbcity.nsw.gov.au/development/planning-for-the-city/bankstown-complete-streets-project>

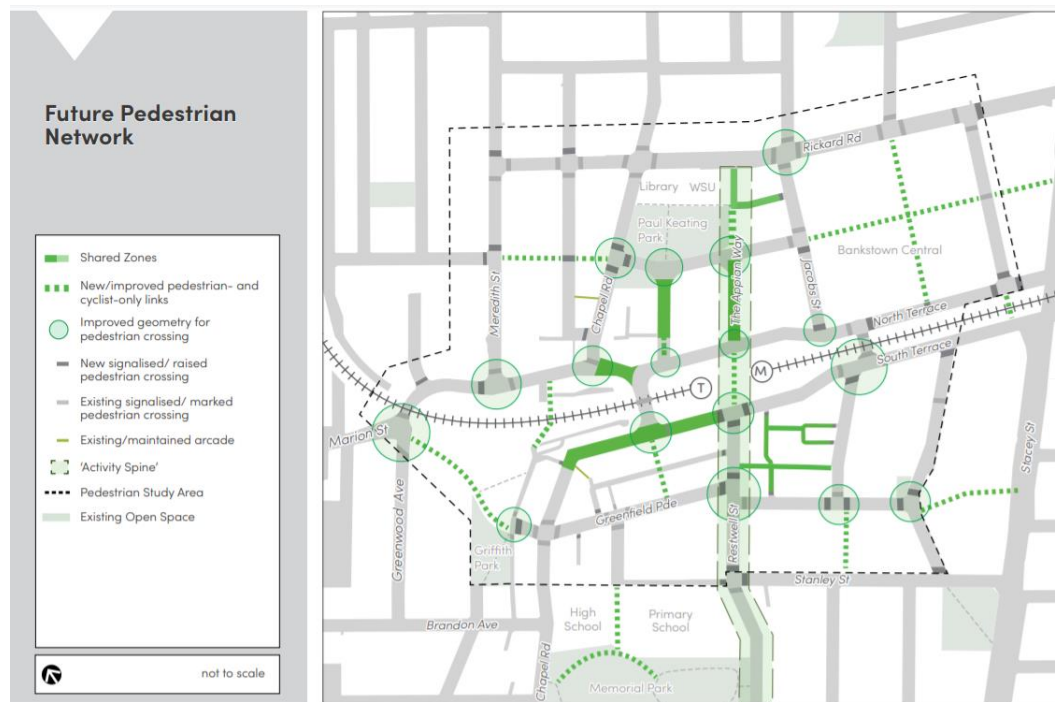


Figure 2: Future pedestrian network (Bankstown Complete Streets, CBCC, 2019)

Public domain works along The Appian Way works are being submitted as a development application (DA) to CBCC. This DA includes provisions promoting safe movement across Jacobs Street at its intersection with Rickard Road or The Mall. This responds to the many observed instances of pedestrian jaywalking due to insufficient pedestrian amenity that responds to key desire lines between destinations outlined in the Bankstown Complete Streets plan.

On the north side of the Railway line there is a core zone of footpaths that cater for through access (2.4m+) but lack amenity overall due to lack of active frontages, trees, awnings, difficulty of intersections crossings and quality of pavements.

The number of pedestrian trips expected once WSU BCC is in operation is as shown in Table 2².

Table 2: Pedestrian trip generation

Mode of Transport	Peak number of pedestrian trips per hour	Number of pedestrian trips per min*
Bus	368	8
Train/Metro	367	8
Local	156	4

*assuming 30% arrive in a peak 15 minutes, and then attenuation of flows evenly across those 15 minutes due to spread as a result of escalators, delays at intersections, general differences in walking speeds, etc.

² Details on how these numbers were derived can be found in the WSU BCC Transport Management and Accessibility Plan, August 2020

To determine the future Level of Service (LoS) of the pedestrian network surrounding the BCC site, pedestrian trips generated by the above modes were added to the routes described in Figure 3. To account for a worst-case scenario, the number of trips were added to all possible routes that patrons can take from the various public transport services. Additionally, it was assumed that local foot traffic would originate north of Rickard Road as that is primarily a residential area.

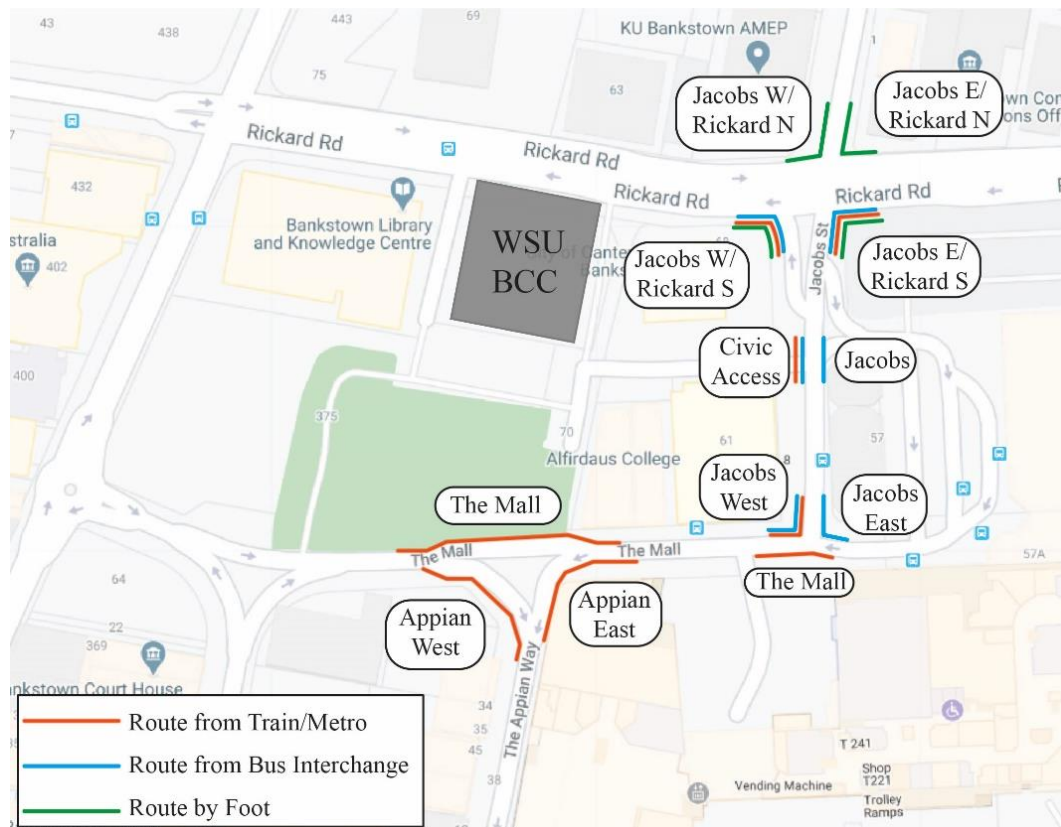


Figure 3: Routes affected by WSU BCC peak pedestrian activity

Fruin LoS was used to assess the level of storage at an intersection and the impact on the footpaths. The Fruin metric is a widely-recognised standard in pedestrian planning where a LoS A is the highest level of service, enabling easy access and LoS F is a highly constrained pedestrian environment. Figure 4 illustrates the Fruin standards for walkways and Table 3 indicates the corresponding Level of Service criteria.

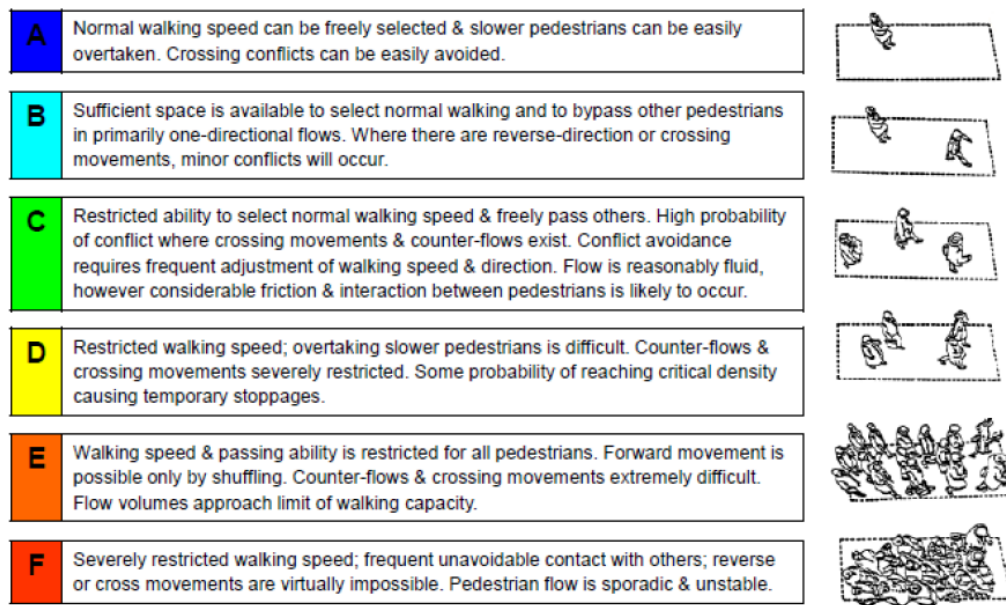


Figure 4: Fruin Level of Service standard for walkways (Pedestrian Planning and Design, John J. Fruin, 1987)

The LoS of footpaths are determined by dividing the peak minute bidirectional flow by the width of the footpath.

Table 3: Fruin Level of Service

Level of Service	Area (m2) per pedestrian	Pedestrians per minute per width (m)
A	1.21+	23 –
B	0.93 – 1.21	23 – 33
C	0.65 – 0.93	33 – 49
D	0.28 – 0.65	49 – 66
E	0.19 – 0.28	66 – 82
F	0.19 –	82+

The LoS results for the future AM peak and lunch time peak are shown in Figure 5 and Figure 6, respectively.

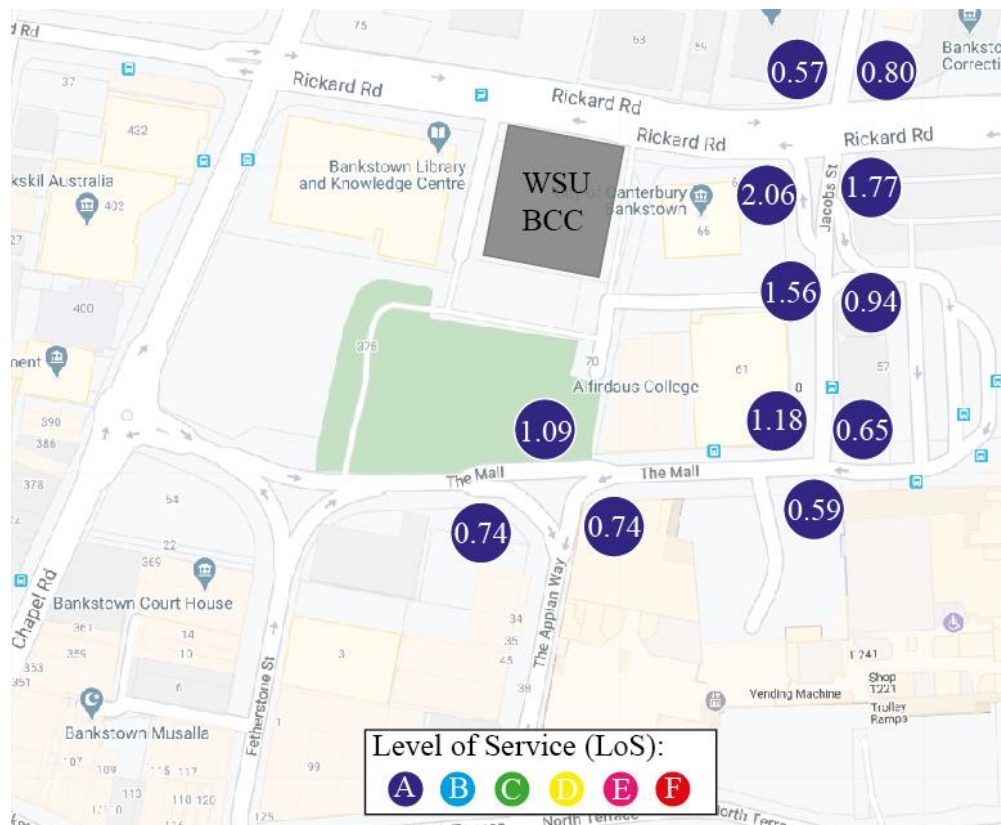


Figure 5: Morning peak intersection assessment – future pedestrian activity (pedestrians per minute per footpath width)

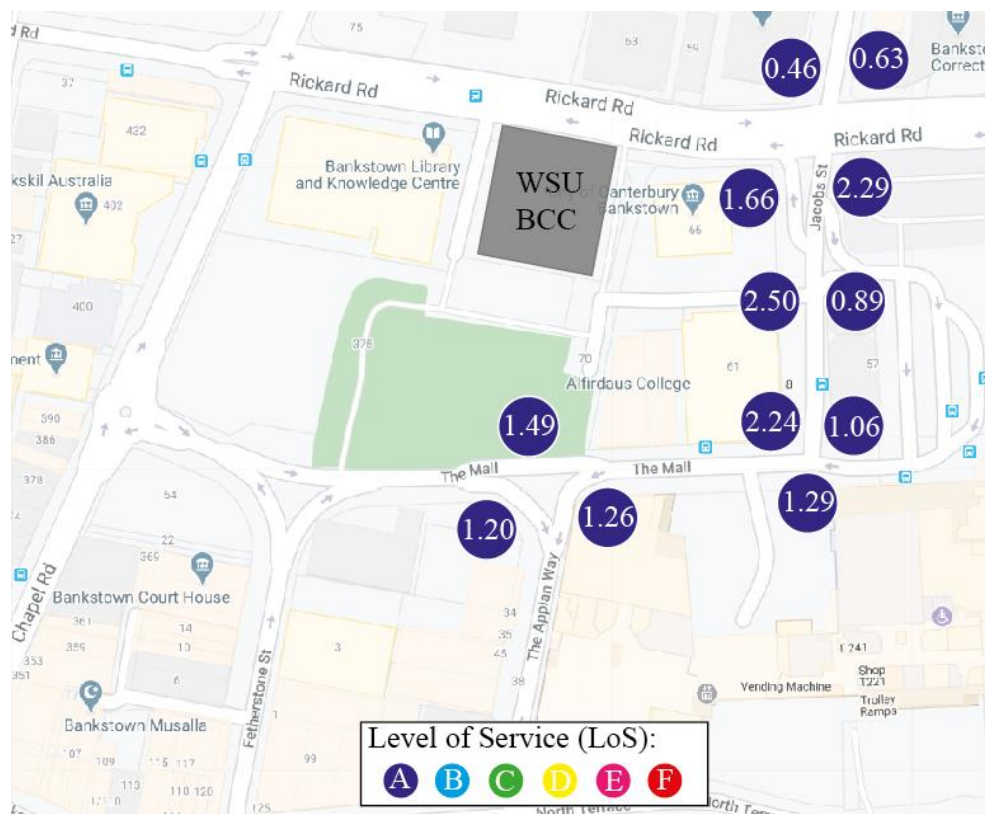


Figure 6: Lunch time peak intersection assessment – future pedestrian activity (pedestrians per minute per footpath width)

The results indicate that there is sufficient capacity on the surrounding pedestrian network to accommodate the expected volumes of pedestrian traffic generated by WSU BCC. Given the results, the current footpaths and waiting areas are deemed sufficient. The analysis indicates that the existing pedestrian connections to public transport and shops are sufficient to achieve the mode share targets outlined in Section 4.6.2.

2.1.2 Cycling network

The future cycling network outlined in the Bankstown Complete Streets is presented in Figure 7.

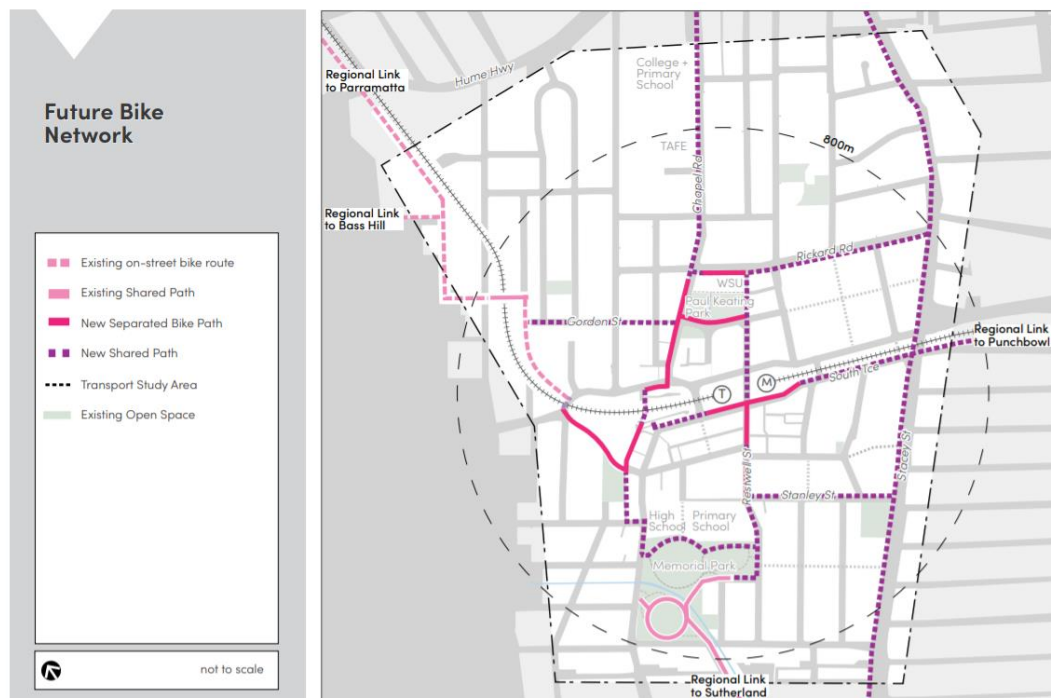


Figure 7: Existing cycling network (Bankstown Complete Streets, CBCC, 2019)

New bike facilities (separated bike paths and shared paths) are planned along Rickard Road, Chapel Road, The Mall and The Appian Way. This will allow for safe and convenient access to WSU BCC by bicycle from all directions.

2.2 Public transport links serving the site

The public transport network in the local area consists of trains and buses. The future public transport network outlined in the Bankstown Complete Streets is presented in Figure 8.

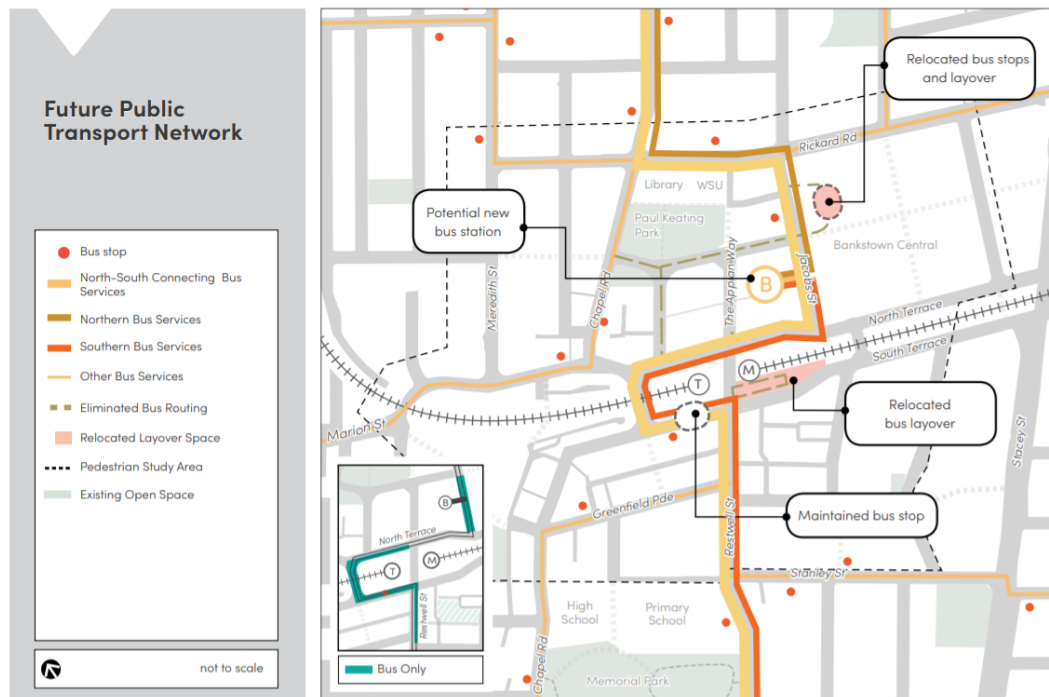


Figure 8: Future public transport network (Bankstown Complete Streets, CBCC, 2019)

2.2.1 Trains

Bankstown Station is located on the T2 and T3 rail lines. The T3 line operates between the City and Liverpool or Lidcombe via Bankstown. The Sydenham to Bankstown section of the line will be upgraded as part of the Sydney Metro works, with services operating from 2024.

Sydney Metro services will operate between Bankstown and the City (and beyond to the Northwest) while services to and from Liverpool will continue to be serviced by Sydney Trains.

Sydney Metro will operate at a peak frequency of 15 trains per hour in both directions (1 every 4 minutes). This is in comparison to the existing peak frequency of approximately 8 trains per hour.

2.2.2 Buses

Bankstown is serviced by many buses as it is a terminus for many services as well as being the main interchange station on the T3 line. It also provides for regional connectivity.

The bus interchange located along The Mall, to the south of the site, is served by 16 bus routes and connects Bankstown to surrounding centres and suburbs. With the exception of through routes, routes serving areas to the south typically start/terminate from Bankstown Central interchange, while routes serving areas to the north typically start/terminate at Bankstown Station.

The location of the bus interchange will mean staff, students and visitors of WSU BCC who are travelling by bus will most likely utilise The Appian Way to The Mall and deter unsafe movement across Jacobs Street.

It is anticipated that the most utilised bus stops by the future campus users will be

- Rickard Road (opposite the Library) – for users alighting services from the north; and
- Bankstown Central, The Mall – for users boarding southbound services. It may also be used by some passengers alighting from through routes from the north.

3 Design features for alternative transport

3.1 Car share

Car sharing is a proven means of reducing the number of car journeys generated by a development. A recent study on the effectiveness of car sharing schemes across Sydney (e.g. Go Get) shows that every car share space replaces the need for 12 private vehicle spaces³.

Consultation with car share operators could be undertaken by WSU to provide car share vehicles within the proposed road network. This will be dependent upon the requirements of car share operators although the development is considered to be a suitable candidate site for the provision of facilities for car share vehicles.

16 of the 87 basement car parking spaces (excluding loading bays) are not secure – i.e. they are located before the boom gate. There is therefore opportunity to designate one or more bays for car share (or car pooling) vehicles.

3.2 Car parking restrictions

The basement car park will be restricted to WSU staff or visitors and service vehicles. The majority of private parking areas will be controlled by a boom gate within B1 as shown in Figure 9.

TfNSW recommended reducing the amount of car parking proposed as this will further encourage car driving as a preference, and reduce any incentive to harness other more sustainable modes, consistent with Future Transport 2056 in which Travel Demand Management (TDM) is one of TfNSW's top priorities. This is particularly the case given the site's proximity to very good public and active transport options.

It is noted that car parking is already only catering for up to 15% of WSU staff and no students as per the approved conditions. Post-occupation, car parking will be monitored through surveys and the supply reduced/adapted to other uses in the future if demand characteristics change (e.g., future proofing for future mobility such as electric vehicles, increased micro mobility uptake, etc.). A parking management strategy should be prepared by the end car park operator to ensure that the number of available spaces are prioritised for car pooling vehicles, electric vehicles, etc.

³ SGS Economics & Planning (2012), Benefit-Cost Analysis of Car Share within the City of Sydney

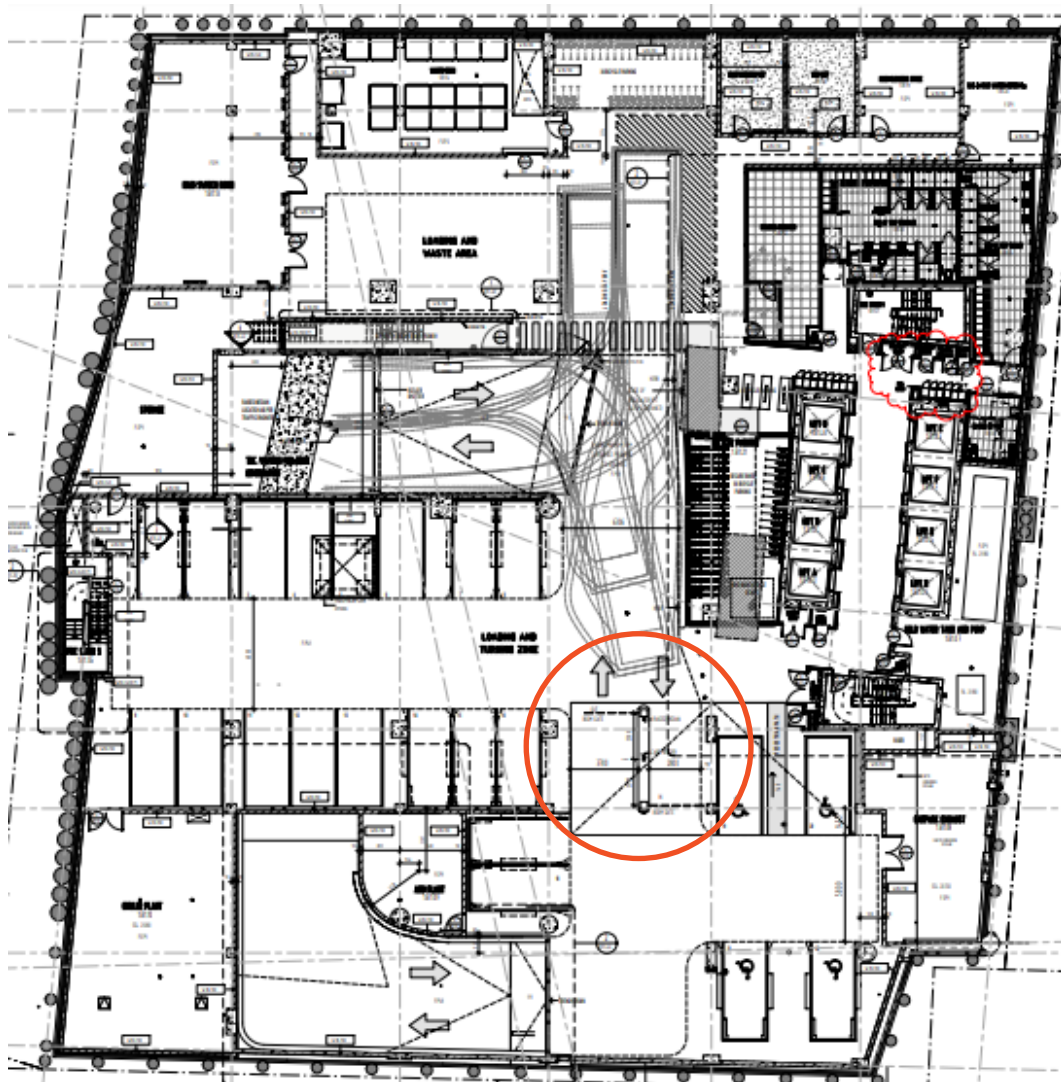


Figure 9: Boom gate access on Basement Level 1

3.3 Site pedestrian and cyclist paths

Cyclist traffic and vehicle traffic will access their respective parking from the Bankstown Library and Knowledge Centre (BLaKC) lane, immediately west of the site. Cyclist traffic is separated from vehicular traffic to enter the Campus building via a dedicated entry, with stairs and a wheeling ramp to the bike parking located on Basement Level 1 (see Figure 10). End of trip facilities, including lockers and showers are also located on Basement Level 1.

The provision of:

- 56 secure bicycle parking spaces for staff and 42 visitor bicycle parking spaces in the Level 1 basement;
- 38 visitor bicycle parking spaces on ground level within the site (see Figure 11); and
- 20 visitor bicycle parking spaces in the public domain.

This will meet the demand for cycle parking for the staff and students over the course of the day.

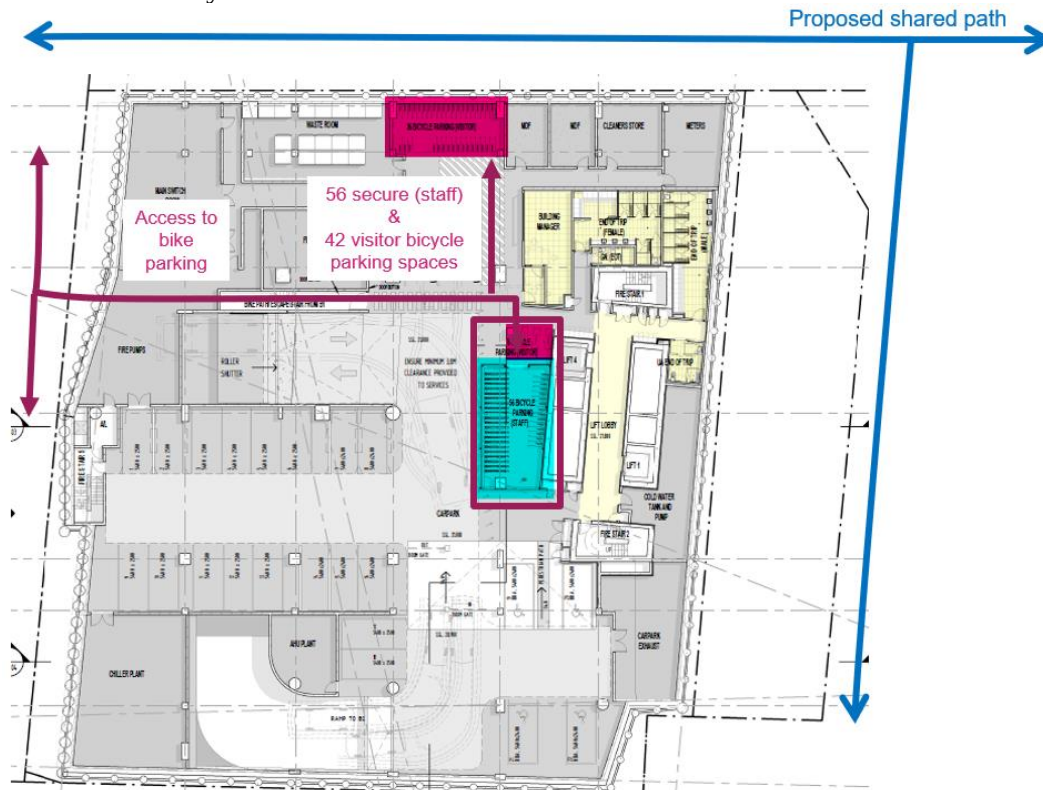


Figure 10: Cyclist access to Basement Level 1



Figure 11: Bicycle parking on ground level within the site

3.4 Facilities for cyclists

3.4.1 Bicycle parking

The NSW Planning for Walking and Cycling Guidelines (NSW Government, 2004) outline suggested bicycle parking provision rates for tertiary education establishments. Applying these rates to the assumed on-site staff and student populations on a typical day generates a range of the required long-term and short-term bicycle parking facilities. This is detailed in Table 4 below.

Table 4: Bicycle parking provision

	Long-term use		Short-term use	
	Staff		Staff	Students*
Rate	3-5%		5-10%	5-10%
On-site population assumption	650		65**	2,000
Bicycle parking requirement	20-33		3-7	100-200
Total	20-33		103-207	

Source: The NSW Planning for Walking and Cycling Guidelines (NSW Government, 2004, *Table 1 – Suggested bicycle parking provision rates for different land-use types*)

*Students are more likely to be short-stay and use bicycle racks for quick and easy parking

**10% of full-time staff will be additional staff visitors

The NSW Planning for Walking and Cycling Guidelines were written in 2004 when tertiary education establishments operated more traditionally, where students would attend between 9am and 5pm. The nature of WSU BCC is that classes would be scheduled so that students stay on site for shorter durations. For this reason, it has been assumed that students will be more likely to be classified as short-stay and use bicycle racks for quick and easy parking. As such, the rate for bicycle parking provision for students has been applied as a short-term use rate, rather than a long-term use rate.

As shown in Table 4, the required number of bicycle parking spaces is 123-240. WSU BCC proposes 56 secure staff spaces in the basement, plus 80 visitor spaces on-site, and a further 20 spaces within the public domain (i.e. 156 bicycle parking spaces in total). This is therefore a sufficient provision.

3.4.2 End-of-trip facilities

No provision of end-of-trip (EoT) facilities for students has been allowed. As mentioned above, the BCC proposal provides a total of 98 bicycle parking spaces within the public domain. This provides students and visitors, as well as public visitors to the general precinct, with the ability to securely park bicycles with users' own locks. Students will have access to personal lockers as part of the building fit-out for required storage, but they will not have access to showers. The potential for secure EoT facilities to be provided for students elsewhere in the development (i.e. other than in the secure basement), including enclosed storage room and shower/change facilities, was discarded due to the following issues:

- Prioritisation of Ground Level space to create active engagement facilities, including retail tenancies, exhibition and multi-function spaces; and

- Necessity for an additional separate ramped entry for bicycle access, ramping up from external ground level to necessary freeboard above the 100year flood level.

The location of EoT within Basement Level 1 are shown in Figure 12.



Figure 12: End-of-trip facilities within basement

4 Operational opportunities for alternative transport

4.1 Promotion of walking

Specific measures designed to encourage more walking trips to and from work by those staff, students and visitors living within a reasonable distance include:

- Produce walking related articles for inclusion on the Campus intranet focussing on 'walking champions' to highlight best practise in walking to Campus.
- Create and maintain a register of 'useful walking routes' containing useful routes to key parts of the Bankstown CBD, including public transport, eat streets, shops and other local businesses and attractions. These should also be included on the Campus intranet.
- Participate in Walk to Work day.

4.2 Promotion of cycling

As described in Section 2.1.2, the Campus will have good access to the cycling network and will provide onsite facilities for cyclists i.e., easily accessible bike parking, changing rooms, showers and lockers. In order to activate and promote cycling the following measures should be taken:

- Provide local cycle maps to staff and students.
- Participate in annual events such as 'Ride to Work Day'.
- Provide secure bicycle parking and end of trip (EoT) facilities for Campus staff. Bicycle parking and EoT facility provision should be monitored to ensure sufficient supply.
- Campus broadcasts should have news of events / generic posters promoting cycling.
- Staff or students who cycle to Campus should be encouraged to form a Bicycle User Group in order to provide a body of regular cyclists who can discuss issues relating to the provision of on-site cycling facilities and the maintenance of off-site cycle routes.
- Set up 'Bike Buddies' scheme for less confident staff or students interested in cycling to Campus.

4.3 Promotion of public transport

To promote the use of public transport to access the Campus, the following measures should be considered:

- Create and maintain an intranet 'Public Transport links page' containing useful links to journey planning websites in Sydney.
- Consider reimbursing or partially reimbursing staff for journey to work trips made by public transport.

- Consider providing interest-free loans for staff to buy an annual ticket for public transport.
- Provide useful public transport maps and promotional items to potential and current public transport users.

4.4 Deliveries and contractor vehicles

A loading dock with capacity for one medium rigid vehicle (MRV) and one small rigid vehicle (SRV) will be provided on Level 1 of the basement. This is expected to completely cater for the daily typical loading and servicing requirements of the Campus. Any larger vehicles required to access the Campus will require prior arrangement, likely via Civic Drive.

4.5 Visitors' transport

For internal site access information, the building should consider developing an interactive map to show useful walking routes, nearby public transport terminals and popular cycling routes to work, expanded to include additional local information useful to visitors such as nearby shops and services or locations for recreational activities.

4.6 Mode share

4.6.1 Existing mode share

2016 Census data was used to gain an understanding of how people currently travel to work in the area surrounding the proposed site. The proposed site is located in ABS Destination Zone (DZN) 115710002, the boundary of which is defined in Figure 13.

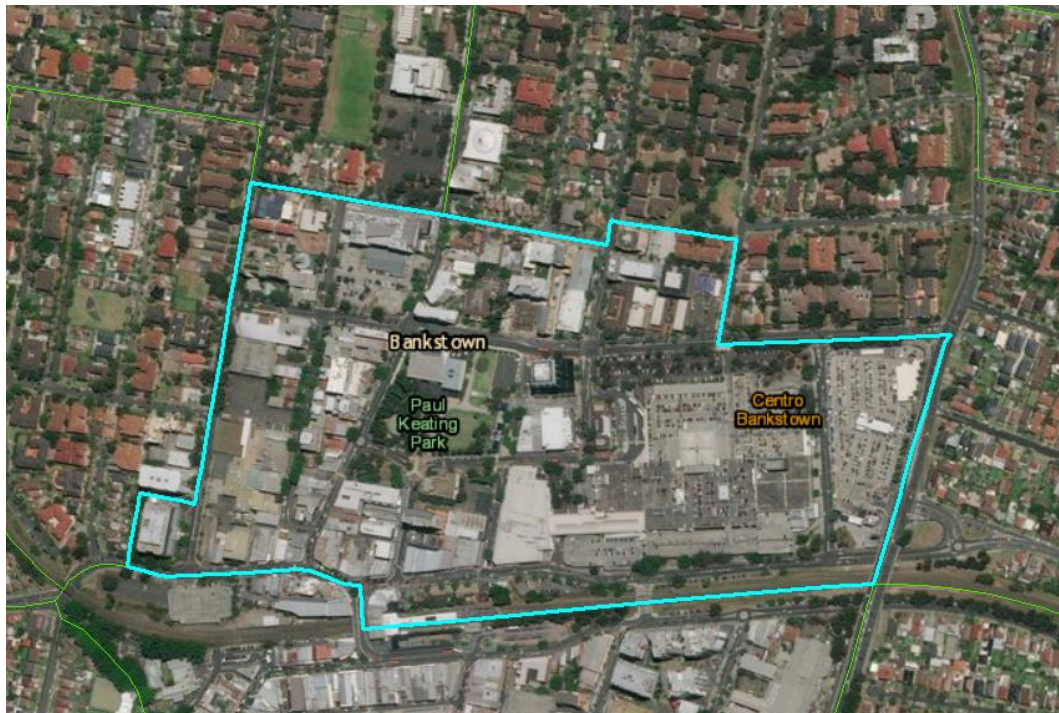


Figure 13: ABS DZN 115710002 boundary

The analysis indicates that approximately 5,000 people are employed within this DZN. The mode of travel to work is presented in Figure 14. The majority of workers commute by private vehicle (as a driver or passenger). Public transport accounted for approximately 15% of commuting trips, of which most are by train.

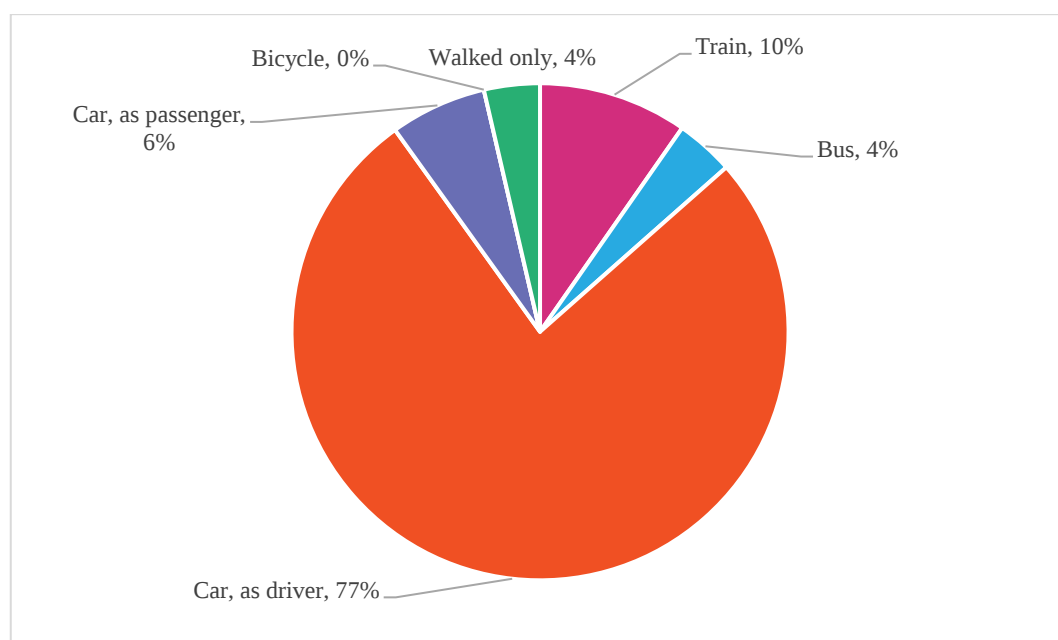


Figure 14: Existing travel to work mode share (DZN 115710002)

4.6.2 Mode share targets

The mode share targets of staff and students of the WSU Campus is included in Table 5 below. The mode split was developed to align with the vision for Bankstown CBD, as set out in the Bankstown Complete Streets project. It looks to promote active transport and public transport as a way to move large volumes of people safely to and within the CBD. The mode split is also reflective of current mobility trends for similar university CBD-located campuses, for example, WSU Parramatta and WSU Liverpool.

Table 5: Mode share targets

Mode	University / Education space staff	Students
Walk	10%	15%
Cycle	5%	5%
Car Driver	15%	5%
Car Passenger (incl.drop-off)	3%	5%
Bus	30%	33%
Train/Metro	32%	32%
Other	5%	5%
Total	100%	100%

An ambitious student car driver mode share (5%) has been set and can be justified by the transport considerations outlined in the following sections.

Anticipated future travel patterns

WSU encourages and promotes the use of public transport and active modes by staff and students as a mode of travel to their campuses. The relocation of the campus from a car dependent location (i.e. Milperra) to Bankstown city centre provides more equitable access to public transport for both staff and students. It will enable staff and students to commute by cheaper, more sustainable modes of transport, as opposed to private vehicle.

Further, based on trip origin data provided by WSU, it is expected that more students will live closer and therefore within the walk and cycle catchment of the Campus. CBD-located housing offers more affordable housing opportunities for students. This contributes to their ability to choose sustainable travel modes, particularly active travel modes.

Future public transport provision

The Campus will be located in an area that is well serviced by public transport with significant capacity available on existing and planned public transport services. Bankstown is a bus hub and is served by up to 58 services per direction during peak times. The train station is within 400m of the site, with the upgrade and conversion of the existing T3 Bankstown Line to metro standards between Sydenham and Bankstown due to be complete in 2024. The Sydney Metro City & Southwest Project will provide a step-change in public transport service provision, providing faster and more reliable journey times with trains every 4-minutes in both directions. It is expected that majority of trips for both staff and students will

be taken by public transport, with the Metro having a significant role in serving the anticipated travel demand.

Trends at other universities/campuses

Being purpose-designed for university use, the Campus will have different travel patterns when compared to typical commercial developments. University students are on average younger and typically have access to less disposal income to invest in and operate cars. Students that choose to drive often car share with other students to reduce the associated costs.

Lessons learned from the opening of the WSU Parramatta CBD campus show that students and staff will choose public transport when parking provision is limited and the alternative option of quick and frequent public transport is available, as would be the case at BCC.

Availability of on-site car parking spaces

No parking is proposed to be provided on-site for students. Any students wishing to drive will need to utilise existing on-street or off-street public or private parking spaces within Bankstown. Limiting access to car parking as a way of encouraging people to travel by other modes is a key feature of the Bankstown Complete Streets project.

Absence of on-site student parking is a means to discouraging student driving. This has been WSU's experience at the Parramatta and Liverpool campuses. Conversely, if WSU provide parking, more students will likely drive.

Local changes in transport policy

Both the NSW Government and CBCC have committed to support the growth in Bankstown through integrated transport to ensure the city centre is accessible. The Bankstown Complete Streets document outlines several proposed infrastructure initiatives and improvements that will facilitate the integration of the Campus with existing and future public transport networks. Changes to parking policy in the CBD and new cycling infrastructure as part of the Bankstown Complete Streets project should reduce driving and encourage other, more sustainable forms of transport.

The mode share targets have been described in the Sustainable Transport Calculator.

4.7 Trip origins

4.7.1 Students

The location of students attending the existing WSU Campus in Milperra is presented in Figure 15, highlighting the suburbs with the highest concentration of student home locations.

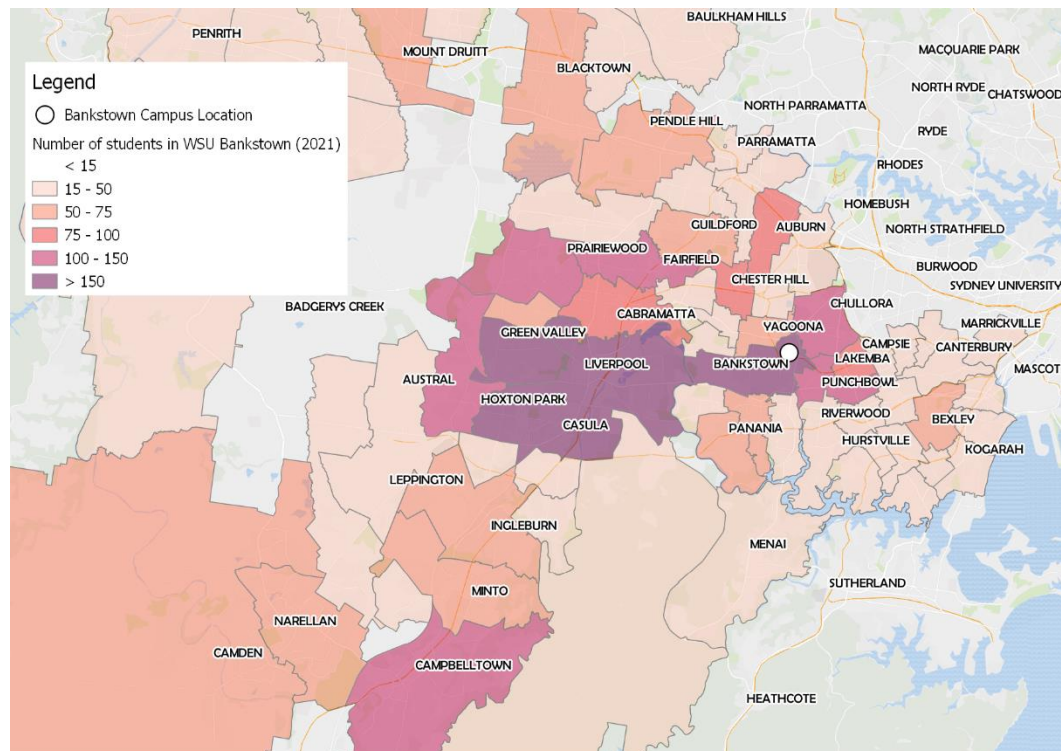


Figure 15: Enrolled student home locations (2021) by postcode

Suburbs to the west such as Liverpool and Green Valley have the highest number of students living within them who currently attend WSU Milperra. This is followed by areas close to the future Bankstown campus such as Bankstown/Condell Park (within 30 minutes walking distance of WSU BCC), Punchbowl and Chullora (within 30 minutes cycling distance of WSU BCC) (see Figure 16).

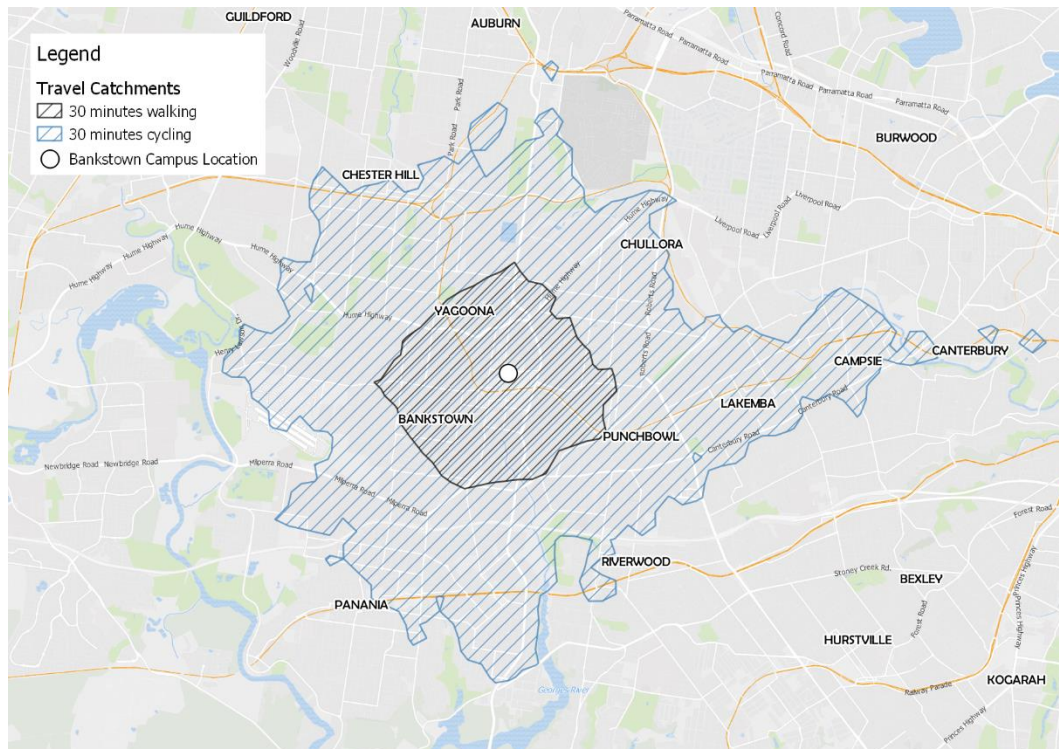


Figure 16: 30-minute walking and cycling catchment

Figure 17 shows the 30-minute walking and cycling catchments overlaid with the enrolled student home locations by postcode.

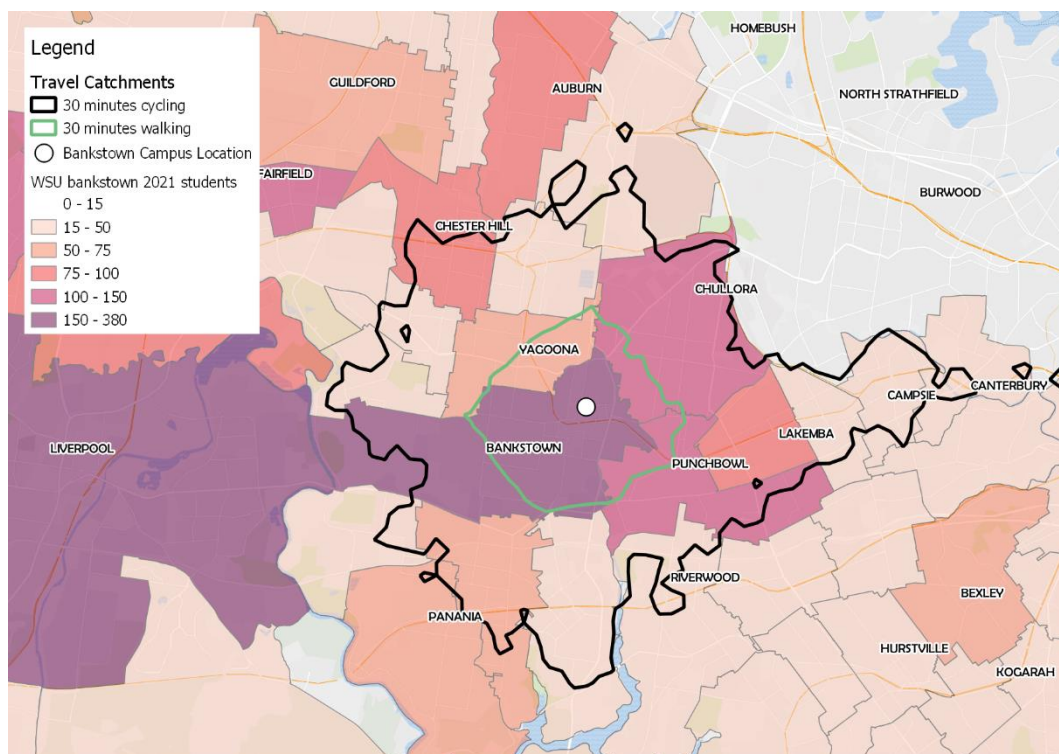


Figure 17: 30-minute walking and cycling catchment with enrolled student home locations by postcode

Other suburbs outside the 30-minute walking and cycling catchment such as Fairfield, Cabramatta and Auburn have public transport connections which allow students to reach WSU BCC within one hour commute as shown in the public transport catchment in Figure 18.

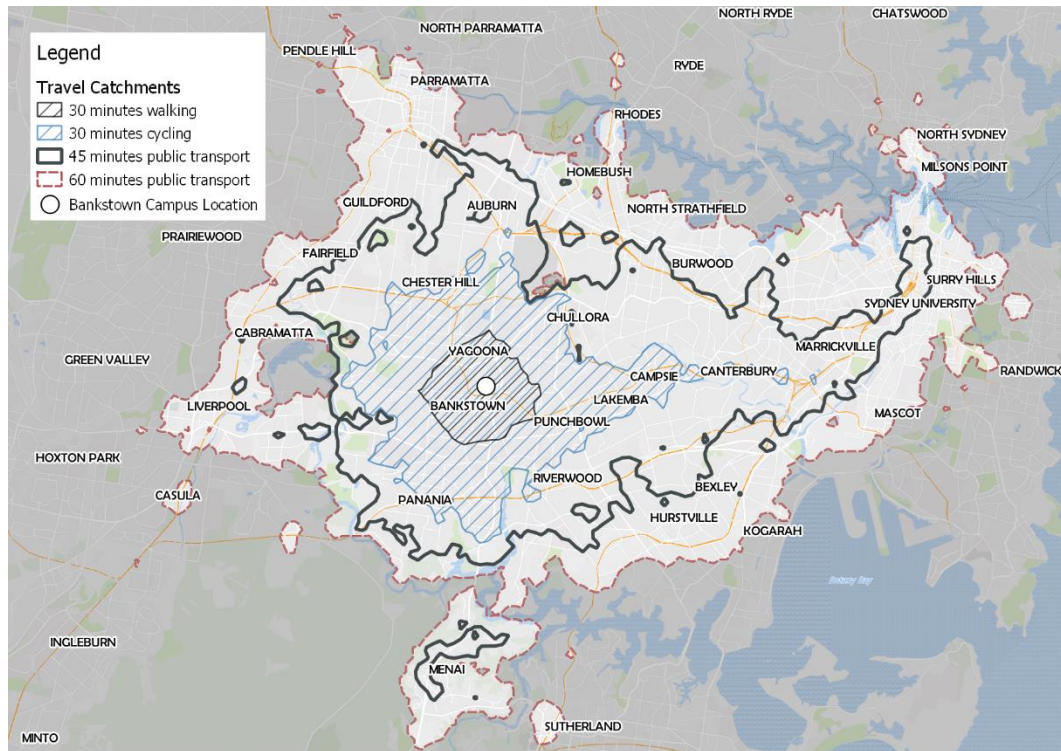


Figure 18: Active travel and public transport catchment from the WSU BCC

The catchment analysis summarised in Table 6 indicates that 31% of students can reach WSU BCC in under 45 minutes by public transport and 52% of students can reach WSU BCC in one hour.

Table 6: Proportion of students within public transport and active travel catchments from WSU BCC

Travel Catchment	% of existing enrolled students
30 minutes by walking	4%
30 minutes by cycling	20%
45 minutes by public transport	31%
60 minutes by public transport	52%

* Catchment percentages are not exclusive
Analysis conducted in the weekday morning peak

4.7.2 University / Education space staff

The location of staff currently working at the existing WSU Campus in Milperra is presented in Figure 19, highlighting the suburbs with the highest concentration of staff home locations. The analysis shown reveals the university workforce is spread out throughout Sydney, with a large proportion of staff located to the south-west of WSU BCC, and as far as Camden, Casula and Penrith.

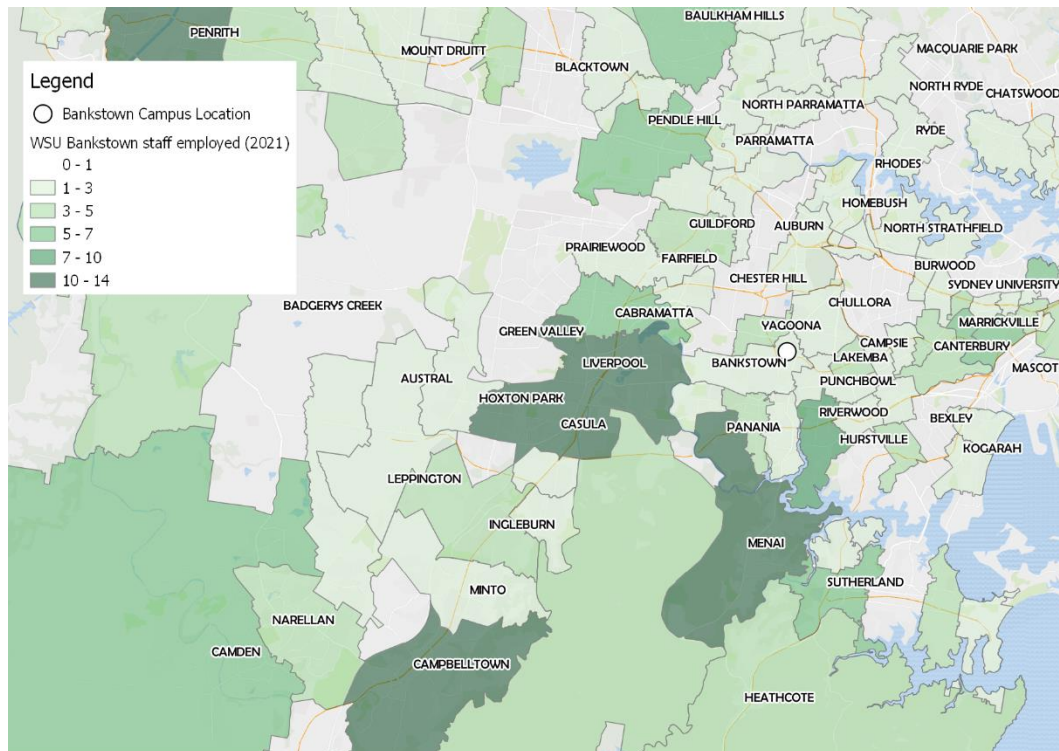


Figure 19: Locations of employed staff (2021) by postcode

Most suburbs with the high concentration of staff were located nearby in suburbs such as Liverpool, Panania, Peakhurst, Campbelltown, Marrickville, and Canley Vale, most of which have rail connections. Figure 20 shows the 30-minute walking and cycling catchments overlaid with the staff home locations by postcode.

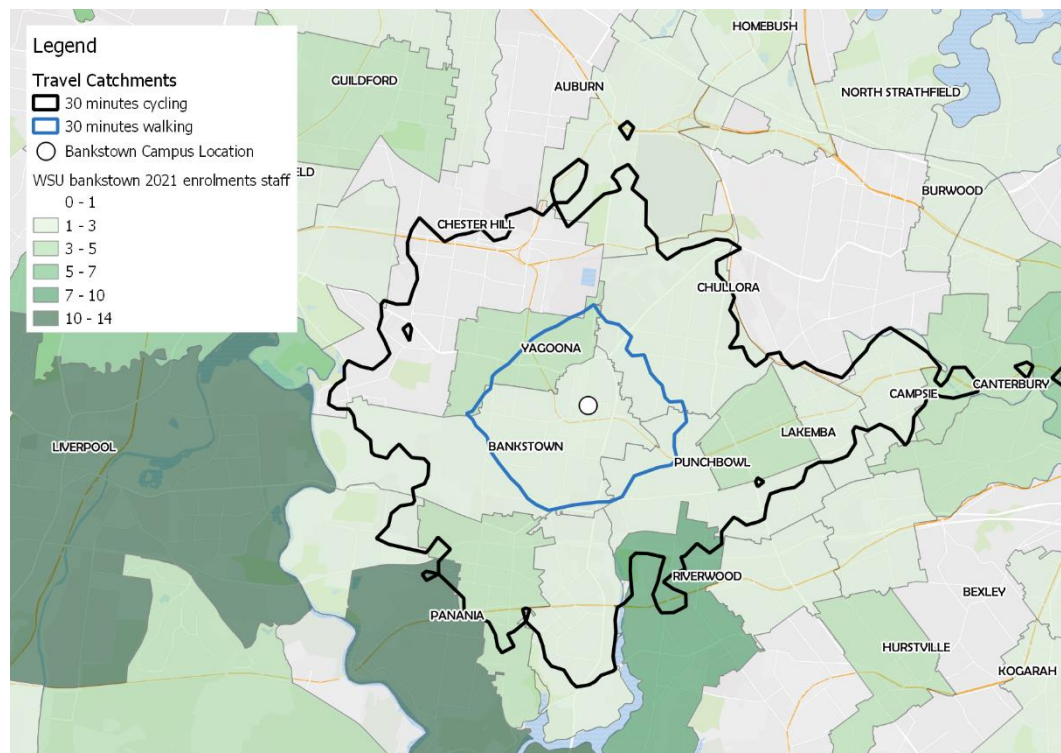


Figure 20: 30-minute walking and cycling catchment with staff home locations by postcode

As a result, 41% of staff can reach WSU BBC within a one-hour commute as indicated in Table 7. Out of this proportion, 22% of staff are located between 45-60 minutes away by public transport.

Table 7: Proportion of staff within public transport and active travel catchments from BCC

Travel Catchment	% of existing employed staff
30 minutes by walking	0%
30 minutes by cycling	7%
45 minutes by public transport	19%
60 minutes by public transport	41%

* Catchment percentages are not exclusive
Analysis conducted in the weekday morning peak

4.7.3 Future catchments

Overtime, locations along the Metro line will become attractive locations for students to live given the levels of accessibility to Bankstown it affords. As shown in Table 8 and Figure 21, Sydney Metro will result in journey times of 30 minutes or less between Bankstown and Pitt Street station in Sydney CBD and less than 45 minutes to locations such as Chatswood. These journey time savings, along with the frequency and reliability of service, are expected to attract students from suburbs located along the Metro line, including Lakemba, Campsie and Marrickville.

Table 8: Sydney Metro journey times

Bankstown to:	Existing journey time (mins)	Sydney Metro (mins)	Saving (mins)
Central	34	28	Up to 6
Pitt Street	45	30	Up to 15
Barangaroo	59	34	Up to 24
Victoria Cross	52	37	Up to 15
Chatswood	68	43	Up to 25
Macquarie University	79	54	Up to 25

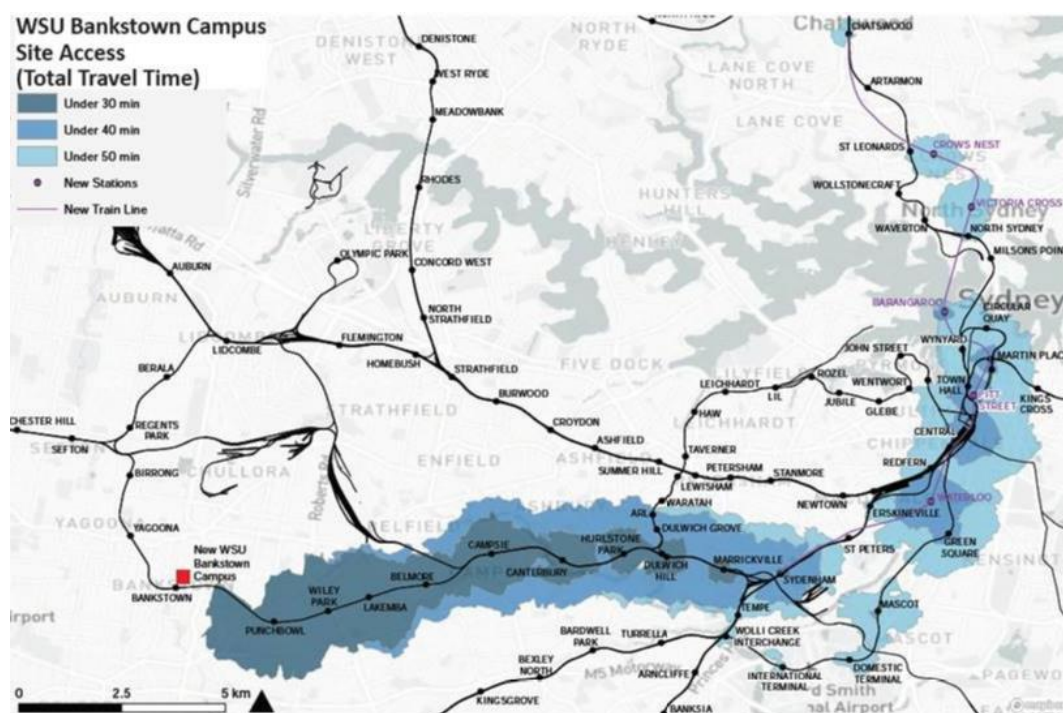


Figure 21: Future travel time along Sydney Metro line (WSU, 2019)

5 Campus users' information

5.1 General marketing and promotion

The objectives of the GTP will only be achieved with the support of the Campus' staff and students. Marketing the benefits and promoting the sustainable alternatives available are therefore crucial in encouraging staff to adopt the GTP measures. It is important that at an early stage, staff are made aware of the need for the GTP, and that it is emphasised that the measures are being introduced to support and encourage people to use cars more wisely. Key measures to ensure this include:

- In addition to raising general awareness, any successes achieved will be fully publicised to staff and students in order to motivate them to use sustainable modes of transport.
- A dedicated webpage for the Campus should be created to include travel information section containing information on cycle parking and useful links to public transport websites specific to the office location.
- Support and promote events such as National Bike Week, Bike2Work Days, walk to work day to staff through, broadcast messages and intranet.

5.2 Reducing the need to travel

To ensure that sustainable transport options are promoted to staff when making journeys for work purposes, and to reduce the need to travel, the following measures should be implemented. These measures require implementation by staff members across the Campus:

- Active promotion of teleconferencing facilities as an alternative to face-to-face meetings. This can be achieved by placing 'reducing the need to travel' as an item on internal group meeting agendas.
- Consider a more formal approach to working from home and actively encourage staff to consider this option. Include working from home as an item on the agenda for internal group meetings.

5.3 Staff and student induction

To ensure new members of staff and new students to the Campus are aware of the GTP, all new staff and students should be made aware of the Plan as part of their induction process. The GTP section of the induction should provide new starters with the following:

- A brief introduction to the GTP and its purpose.
- Tour of the Campus to include a visit to cycle parking areas and shower and changing facilities (staff only).
- Provision of GTP information which would include information on incentives to use sustainable means of transport.

5.4 Administration

A part of an effective GTP is to nominate a Travel Demand co-ordinator for the Campus. The representative would form a Travel Demand Management team enabling a consistent and organised approach for the whole Campus.

The role should be undertaken by an enthusiastic and high-quality communicator in order to promote measures that will encourage staff and students to think about travel other than as a single occupancy car user. He/she will need to be an enthusiastic and respected member of staff who is keen to champion the cause of the GTP. Other qualities that may be appropriate include the capability of dealing with all types of people within the Campus and external organisations, the ability to lead by example, the ability to approach issues with a practical and balanced perspective and the capability for original and innovative thinking to raise awareness of the GTP at a local level.

Senior management support is critical to ensuring the success of any travel plan for a number of reasons such as to:

- Lead by example.
- Allow budget allocations for the implementation of measures.
- Give support to changes or development of policy documentation.

5.5 Consultation

The success of the GTP will rely on the support of the Campus users which will be overseen by the Travel Demand co-ordinator.

The Travel Demand co-ordinator will be responsible for all liaisons with outside bodies, including local transport operators, planning and highway authorities.

Liaison with officers of CBCC, e.g. those responsible for cycling and public transport will be undertaken as required. The Travel Demand co-ordinator will also seek to join and attend meetings with any local travel forums as appropriate in order to exchange ideas with other like-minded organisations.

5.6 Promotion

All Campus users will be made aware of the details of the GTP, its objectives in enhancing the environment and the role of individuals in achieving its objectives at its launch. Job applicants and prospective students will be made aware of the GTP at the application stage. If successful, each new staff member and student will be provided with GTP information upon commencement of Campus involvement.

The promotional material will advise employees wishing to raise specific transport-related matters to discuss them with the appropriate nominated Travel Demand co-ordinator who in turn would liaise with the GTP management team, transport operators and the local authority as required.

6 Updating, reviewing and monitoring

The GTP is a strategy that will evolve over time. Although the objectives of the plan to ‘educate’ employees and to facilitate travel by sustainable modes will not change, it may be possible over time to define or re-define specific targets. Target setting should reflect an ambition for continued progress year on year and there should be a mechanism to review targets in the light of monitoring surveys.

A travel survey for both staff and visitors should be undertaken in the first six months of occupation, and then annually from then on. These travel surveys are conducted to obtain data (including residential postcodes) to identify the travel origin and destination patterns of users. This would inform on modes of transport and distance travelled by each mode, from which more specific travel demand management measures can be developed. For reference, a sample of an online employee travel survey can be found here:

<http://data.mysydney.nsw.gov.au/files/Online+staff+travel+survey.pdf>

Following the implementation of the GTP, the Travel Demand Management team should meet annually to undertake a review of the Travel Demand measures. The objective will be to measure their success and to identify the potential for refinements.

The Travel Demand Management team will then compile a review report outlining the results of the review. The report will also incorporate the results of on-going monitoring processes throughout each of the preceding periods.

Initial review and monitoring tasks have been included in the implementation strategy in section 7.

7 Implementation strategy

No.	Measure/Initiative	Implementation Date	Responsibility	Indicator
Design Features				
1	Car share parking bays	Occupation date	WSU	N/A
2	Car parking restrictions	Occupation date	WSU	N/A
3	Site pedestrian and cyclist paths	Occupation date	WSU	N/A
4	Facilities for cyclists	Occupation date	WSU	N/A
5	Improvements to pedestrian access to bus services	Occupation date	CBCC	N/A
6	Monitor alignment of car parking supply and demand (including opportunities for adaptation)	Post-occupation	WSU	Feedback from users
Staff Travel				
7	Active promotion of teleconferencing facilities as an alternative to face-to-face meetings	Occupation date	WSU	Feedback from employees
8	Allowance for working from home	Occupation date	WSU	Feedback from employees
General Marketing and Promotion				
9	Travel information webpage, maps, posters, campus broadcasts (for walking, cycling and public transport)	Occupation date	WSU	Feedback from staff and employees
10	Events such as National Bike Week, Bike2Work Days, walk to work day promoted to students and staff through notice board posters and email	Annually	WSU	No. of attendees
Car Sharing				
11	Consultation with car share operators to increase provision of car share spaces nearby to the campus	Prior to building occupancy	WSU	No. of new car share members
Cycling				
12	Provide local cycle maps to staff and students	Ongoing	WSU	N/A

No.	Measure/Initiative	Implementation Date	Responsibility	Indicator
13	Participate in annual events such as 'Ride to Work Day'	Ongoing	WSU	Take-up by staff and students
14	Set up 'Bike Buddies' scheme for less confident staff interested in cycling	Occupation date	WSU	Take-up by staff and students
15	Promote cycling in Campus broadcasts	Ongoing	WSU	N/A
16	Encourage the formation of a Bicycle User Group	Post-occupation	WSU	Formation of Bicycle User Group
17	Monitor bicycle parking and EoT facility provision to ensure sufficient supply	Ongoing	WSU	Take-up by staff
Walking				
18	Produce walking related articles for inclusion on the Campus intranet	Ongoing	WSU	N/A
19	Create and maintain a register of 'useful walking routes' containing useful routes	Ongoing	WSU	N/A
20	Participate in Walk to Work day	Ongoing	WSU	Take-up by staff and students
Public Transport				
21	Create and maintain an intranet 'Public Transport links page'	Ongoing	WSU	N/A
22	Consider reimbursing or partially reimbursing staff for journey to work trips made by public transport	Ongoing	WSU	Reimbursement scheme initiated
23	Consider providing interest-free loans for staff to buy an annual ticket for public transport	Ongoing	WSU	Loan scheme initiated
Staff and Student Induction				
24	Provide all new staff and students with information regarding the travel plan as part of their induction process	Ongoing	WSU	Feedback from staff and students
25	Provide tour of the campus and facilities to all staff and students	Occupation date	WSU	No. of staff and employees

No.	Measure/Initiative	Implementation Date	Responsibility	Indicator
Administration				
26	Nominate a travel demand co-ordinator for the campus	Occupation date	WSU	Co-ordinator nominated
27	Prepare a parking management strategy	Post-occupation	WSU	Prepared and circulated
28	Prepare a travel access guide (TAG) as part of campus communications	Post-occupation	WSU	Prepared and issued
29	Conduct a travel survey of staff and students	Post-occupation (first six months; then annually)	WSU	Conducted
30	Revise travel demand management strategies of the campus based on travel survey of staff and students (see item no. 29).	Post-occupation (first six months; then annually)	WSU	Review undertaken

This implementation strategy should be reviewed and updated on an annual basis and when transport services are upgraded as part of the ongoing monitoring of the travel plan.

8 Consultation

CBCC and Transport for NSW (TfNSW) have been consulted during the development of this GTP. Feedback was received from TfNSW (Greater Sydney Customer Journey Planning team) on 24 May 2022 and from CBCC on 16 June 2022. Their feedback has been incorporated into this final GTP. A summary of how the feedback was incorporated is included in Table 9.

Table 9: Summary of consultation feedback on the draft GTP

Comment	Source	Response
TfNSW recommend reducing the amount of carparking proposed as this will further encourage car driving as a preference, and reduce any incentive to harness other more sustainable modes, consistent with Future Transport 2056 in which Travel Demand Management (TDM) is one of TfNSW top priorities. This is particularly the case given the sites proximity to very good public and active transport options.	TfNSW	The number of car parking spaces to be provided is equivalent to one space for ~15% of university staff to be employed on-site. A target car mode share of 15% for staff of this location is a significant reduction when compared to the existing mode share (the 2016 census indicated a car mode share of 77% for this location). This large reduction has been justified in the SSDA process and aligns with the vision for Bankstown CBD in terms of parking supply. A note has been added in section 3.2 detailing that post-occupation, car parking will be monitored through surveys and the supply reduced/adapted to other uses in the future if demand characteristics change (e.g. future proofing for future mobility such as EVs, increased micro mobility uptake, etc.).
TfNSW also strongly recommends that a parking management strategy be put into the TP, that prioritises use by staff and visitors on a needs basis, i.e. preference for parking for employees that are car-pooling (noting Arup have recognised an opportunity to provide bays for car-pooling and car share). It is also recommended that charging for EVs be considered.	TfNSW	A note has been added in section 3.2 and section 7 detailing that a parking management strategy will be prepared by the end car park operator (post-occupation) to ensure that the number of available spaces are prioritised for car pooling vehicles, electric vehicles, etc.
TfNSW appreciates that there are around 62 bicycle parking spaces proposed and a further 98 in the surrounding public domain. It is noted that no EoT is to be provided for students, but they will have access to lockers, and EoT are to be provided for Campus staff – no further details have been provided on the amount of EoT. TfNSW	TfNSW	More details on EoT facilities have been added to section 3.4.2, section 4.2 and section 7.

Comment	Source	Response
recommend that this bicycle parking and EoT should be monitored over time to ensure sufficient supply to encourage active transport both to/from and around the site. The bicycle parking should be located throughout the site at convenient locations, be safe, secured and under cover. Some further guidance on bicycle parking and end of trip facilities can be found in the cycleway design toolkit.		
TfNSW appreciated that the GTP has a Summary of Measures in Section 6, but suggest that this could include all of the initiatives and incentives, timing and completion dates to ensure the overall effectiveness of the TP as an implementation strategy.	TfNSW	This (now section 7) has been adjusted to be an 'implementation strategy' that includes all initiatives. A note has also been added to the section that details the update requirements of the implementation strategy (annual basis and when future transport services are upgraded).
TfNSW appreciates that annual travel surveys will be undertaken annually, and ask that these are for both staff and visitors in the first 6 months of occupation, and then annually.	TfNSW	Section 6
TfNSW asks that a Travel Access Guide (TAG) be prepared as part of the GTP and included as an Appendix.	TfNSW	WSU will incorporate a TAG into their campus communications (being prepared separately) that will be provided to all students and staff. This has been noted in section 7.
Update the location of the bus interchange.	CBCC	Relevant Figures and descriptions have been updated throughout.
Confirm bicycle parking provision aligns with Conditions of Consent and the plans CBCC have seen.	CBCC	Bicycle parking provision has been confirmed and updated as necessary.

Further collaboration opportunities with both CBCC and TfNSW will also be sought on the implementation of the GTP at a later stage.

9 Conclusion

WSU is committed to encouraging more equitable and sustainable modes of transport. The implementation of a GTP is essential for providing access to the Campus in a sustainable way.

A number of measures have been outlined in this GTP that could be used by WSU to help promote the use of sustainable modes to access the new Bankstown Campus. These measures support the objectives of the NSW Government to encourage non-car modes to constitute a larger percentage of modal share.

The new Bankstown Campus is an opportune site for the use of sustainable transport access modes. This is mainly due to:

- Proximity of the site to public transport, both rail and bus;
- A large proportion of students living within 5km of the site; and
- Design elements such as no student parking provision, on-site bicycle parking for staff and students and end of trip facilities for staff.

WSU will incorporate a travel access guide (TAG) into their campus communications (being prepared separately) that will be provided to all students and staff.

The GTP will contribute to a healthier and better quality of life for staff, students and visitors, as well as a reduction in air and noise pollution.