METAFORA

School Transport Plan

Richmond Agricultural Centre, Hawkesbury

For: Richard Crookes Constructions

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Document History

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1 Introduction

1.1 Summary of the project

This School Transport Plan (STP) has been prepared by Metafora on behalf of the Department of Education (DoE) to set out measures minimising car-based travel to and from the Richmond Agricultural Centre (RAC) at 2 College Street Richmond (the Site).

The report assesses the existing transport infrastructure, sets out achievable targets for mode shift based on the existing infrastructure and student residential areas, and provides methods to monitor and review the plan.

This report accompanies a Review of Environmental Factors (REF) that seeks approval for the construction and operation of the agricultural centre which will provide facilities for a specialist agricultural curriculum at the site.

The location of the site is shown in Figure 1.

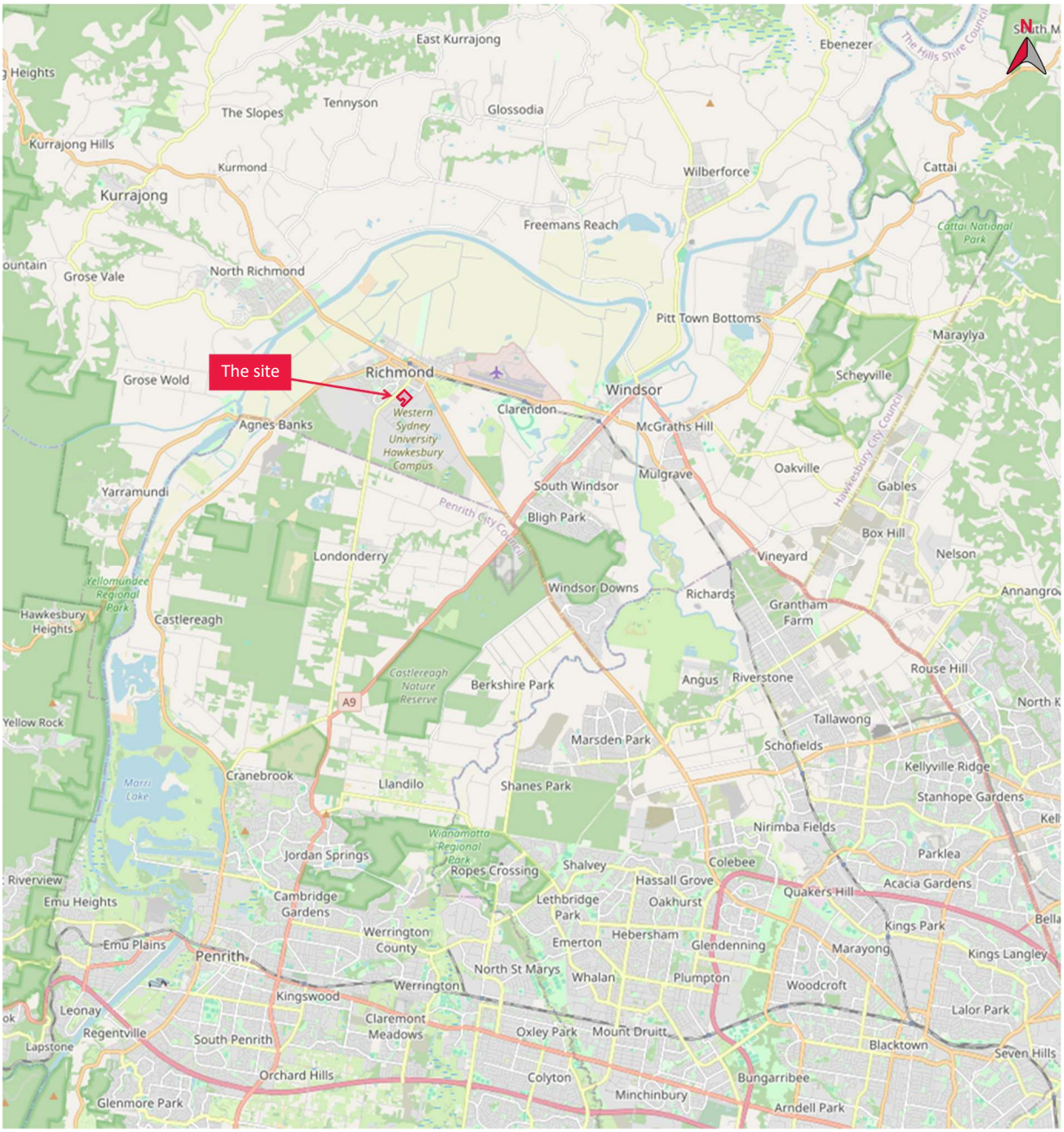


Figure 1: Location of the site (Source: OpenStreetMap)

1.2 Purpose of the report

The purpose of this report is to assesses the existing transport infrastructure, set out achievable targets for mode shift based on the existing infrastructure and student residential areas, and provide methods to monitor and review the plan. The report also identifies items to be further discussed with relevant authorities.

It is envisaged that this report will be used during the operation of the RAC to minimise car-based travel to and from the site.

This STP will be submitted to School Infrastructure NSW (SINSW) for internal approval as part of the REF process.

The following table reproduces the School Transport Plan requirements contained in the REF Review Checklist. It also outlines where the individual items have been addressed in this report.

Table 1: Transport and accessibility requirements contained in the REF Review Checklist

Transport and accessibility	Response
School Transport Plan *Has a School Transport Plan been included in the TAIA which:*	
• *sets out measures to reduce car-based travel?*	See Section 5 and 6
• *sets achievable targets for mode shift with supporting explanation and evidence?*	See Section 5
• *include provisions for the monitoring and review of the plan?*	See Section 9 and 10

2 Richmond Agricultural Centre

2.1 Operational characteristics

The school is currently operating within the WSU campus, with a current student enrolment of 174. These students will be relocated to the new RAC building once operational.

The RAC will have 2 streams:

- AgSTEM – which is the regular agricultural course for students in years 7-12. Students from years 7-10 will attend the RAC 3 days a week (while attending their regular school during the remaining 2 days), and years 11-12 will attend the RAC 5 days a week. The expected number of students and allocation of each year per weekday will be as follows:
  - Year 7 60 students 3 days a week (W Th F)
  - Year 8 60 students 3 days a week (M Th F)
  - Year 9 60 students 3 days a week (Tu W Th)
  - Year 10 72 students 3 days a week (M Tu W)
  - Year 11 72 students 5 days a week (M Tu W Th F)
  - Year 12 72 students 5 days a week (M Tu W Th F)

  => Of the 396 overall population, max 324 students on the same day during typical school period

  There will be 27 staff in support of the regular curriculum.
- State outreach – which consists of some regular and some irregular programs and events, mostly for students and staff from outside the regular AgSTEM program. These include:
  - Stage 5/6: students accessing courses at RAC one day a week
    10-20 students; They make their own way to the RAC, i.e. by train, bus or by private vehicle
  - Other schools attending full day excursions
    May be up to 180 additional students and staff, mostly coached
  - Teacher/ School Support and Admin Staff Professional Learning (SSAS PL) events
    1-2 days a week, both weekday and weekend, irregular in nature
    60-100 staff, mostly drive and park at the WSU at $7/day, as per the existing arrangements

  These programs / events will occur Mon-Fri during normal school hours (i.e. 8:30-2:00pm, sometimes till 4pm). Occasionally (i.e. once per month) events will be held on weekends
  There may be up to 180 participants during each of the programs / events, but they will not run concurrently.
  It should be noted that these programs already run at the existing school location. No changes are proposed as part of this project, and the activities will be relocated to the new RAC once operational.

The potential worst-case distribution of the numbers of students, staff and program participants on any one day during the week is shown in Figure 2. It is noted that the participation numbers and frequency of the State Outreach programs will vary significantly throughout weeks, months and years.

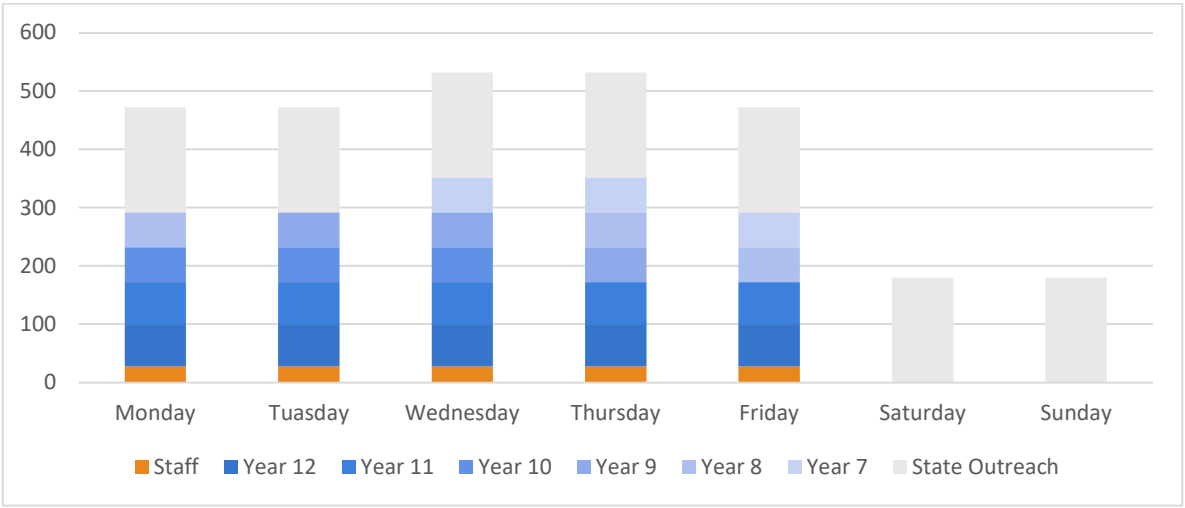


Figure 2: Expected student and staff population throughout the week

2.2 Bell times

The bell times for the AgSTEM are as follows:

- Year 7-10: 8:20am – 2:45pm
- Year 11-12: 8:00am – 4:00pm (Mon-Thu), 2:45pm (Fri)

These bell times may be adjusted in the future if alternative times are more suitable with changes to bus routes and bus and train time tables.

2.3 Transport related on-site infrastructure

The development will provide the following transport related infrastructure on-site:

- 24 scooter parking spaces for students
- 24 bicycle parking spaces for students
- 2 bicycle parking spaces for staff
- 1 locker and 1 shower / change room as an End of Trip Facility
- 6 pick-up & drop-off spaces
- 1 loading area
- 25 car parking spaces for staff (including 1 accessible space and 4 capable of use for EV charging)
- Raised pedestrian crossing across College Drive

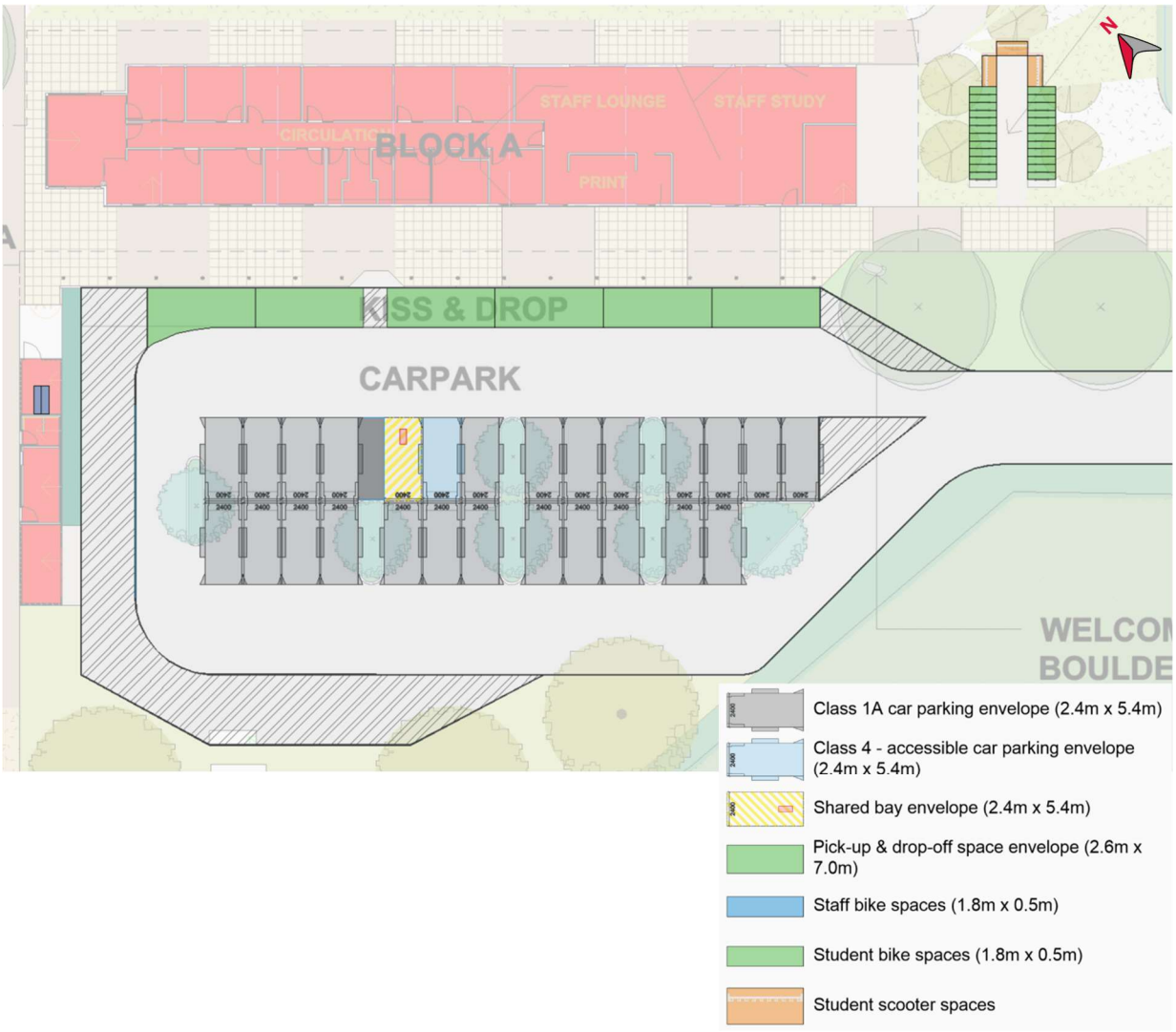


Figure 3: On-site transport infrastructure

2.4 Enrolment catchment

RAC is a selective school / course with no fixed enrolment catchment area.

As students from the existing school in the WSU campus will be transferred to the RAC, the existing residential data of students in years 7-10 was provided and analysed. The density of enrolments by suburb is presented in Figure *4*.

Notable is that the highest student population lives in Marsden Park, followed by Ropes Crossing and Riverstone, and in general in many of the newly developed suburbs south-east of the site. There is also a considerable proportion of students from suburbs south of the RAC such as Cranebrook, Jordan Springs and other areas surrounding Penrith. A smaller portion of students live north of the site, spread across suburbs such as Wilberforce, East Kurrajong or Grose Vale. The lower density in these areas aligns with the lower density housing.

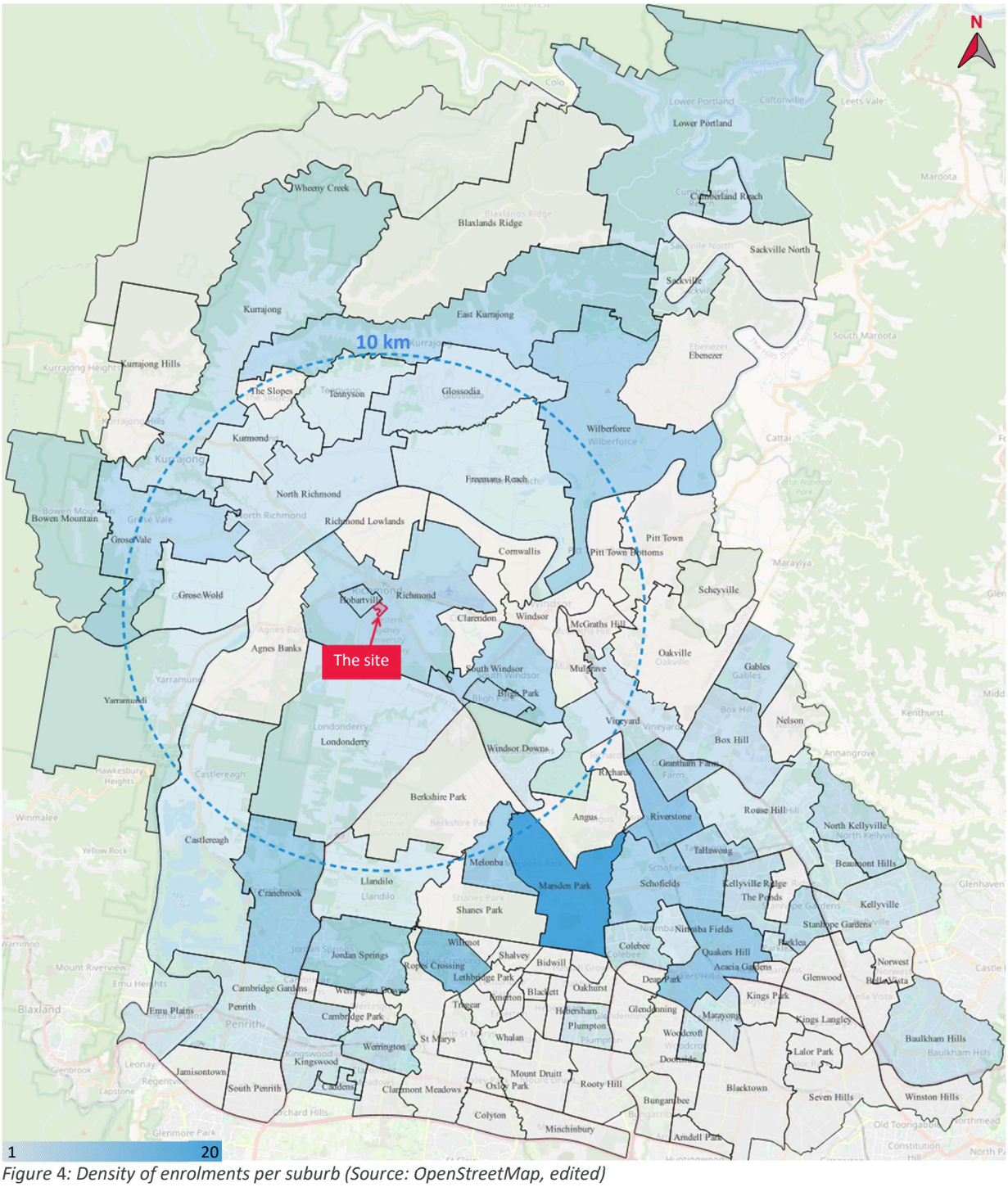


Figure 4: Density of enrolments per suburb (Source: OpenStreetMap, edited)

3 Transport infrastructure and operation

3.1 Site location

The Site is located on 2 College Street, Richmond (Part Lot 2 DP 1051798). The site is located within the Hawkesbury City Council area.

The site is located approx. 60km north-west from the Sydney CBD, 20km north of Penrith and 1.5km south of the Richmond town centre. It is positioned on the northern portion of the WSU property.

The site has a road frontage to Londonderry Road on its western boundary and College Drive – a private internal road – on its eastern boundary. The WSU property also fronts College Street on the northern boundary.

While there are no existing access points to the site itself, the WSU can be accessed via College Drive, off College Street, Vines Drive off Londonderry Road and Campus Drive off Blacktown Road.

The location of the site in the broader context is shown in Figure 1, while a zoomed-in map is shown in Figure 5.

Figure 5: Zoomed-in location of the site (Source: OpenStreetMap, edited)

3.2 Surrounding transport infrastructure and travel demand

3.2.1 Active transport

3.2.1.1 Walking

The pedestrian network within 1200m (representing a 15-minute walk) from the site is considered to be generally underdeveloped. Residential streets to the west of the site have mostly no footpaths on either side of the carriageways, though these are largely cul-de-sacs with low traffic volumes and speeds. There are walking paths along recreational areas, and pedestrian links from the cul-de-sacs, which increases the pedestrian permeability.

However, there are no footpaths and no pedestrian crossings along Londonderry Road south of College Street, a road section with higher traffic volumes and speeds. This lack of crossing opportunities would make walking to / from the site form / to the western residential area unsuitable for school students.

The area to the north of the site has a more developed pedestrian network, with most of the main roads having footpaths on both sides of the carriageway, and signalised pedestrian crossings across major roads, i.e. Lennox Street.

The walking catchment and pedestrian infrastructure around the site is shown in Figure 6.

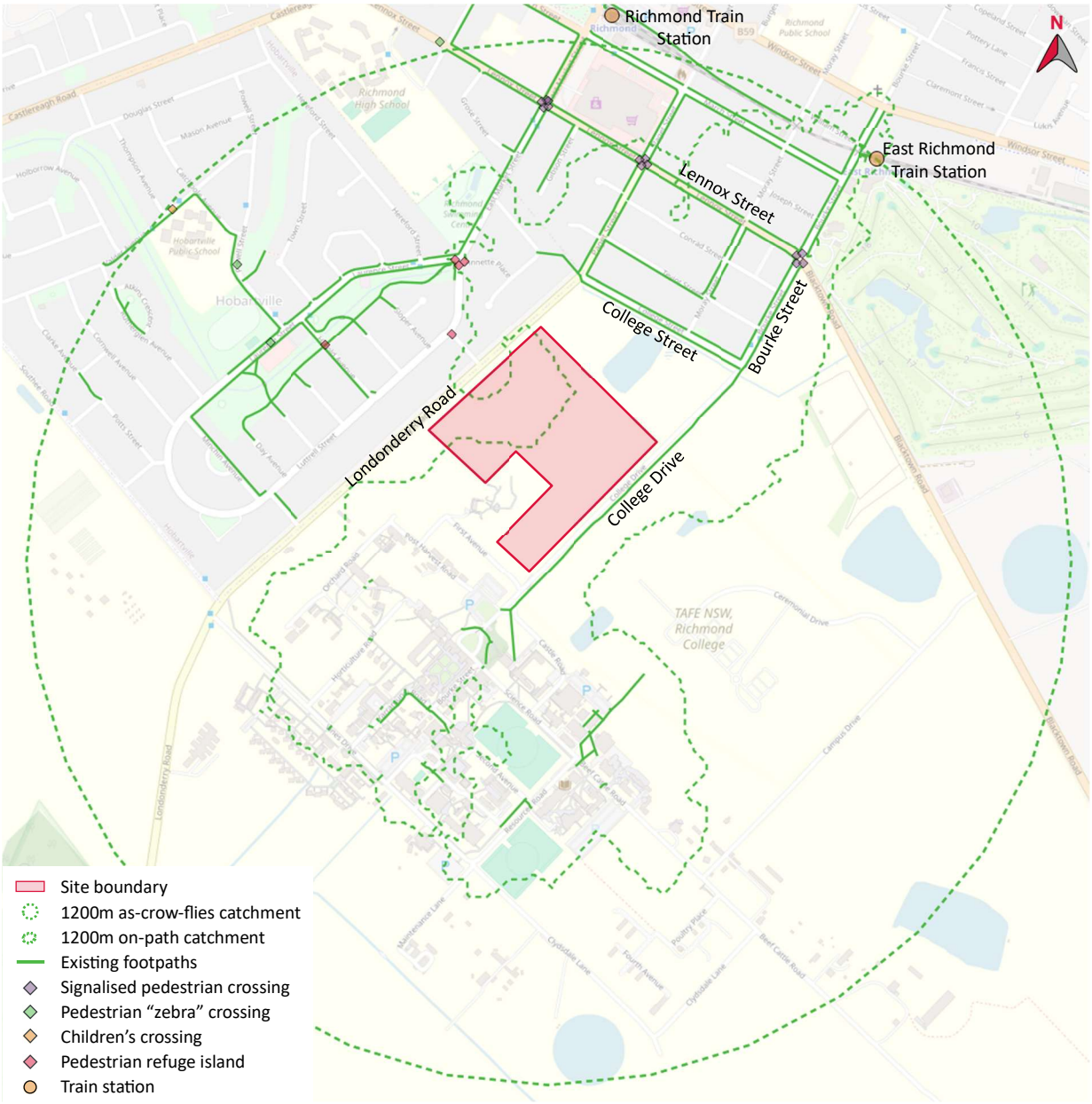


Figure 6: Walking catchment and infrastructure (Source: OpenStreetMap, edited)

3.2.1.2 Cycling

The cycling infrastructure within the surroundings of the site is considered to be underdeveloped. This is because there is limited cycling infrastructure provided within the 3600m (approx. a 15-minute cycle) from the site, with dedicated bike paths only along the Hawkesbury Valley Way. There are "Shared Paths" along Bourke Street and College Street, but these do not connect to any other dedicated cycle paths.

The following is noted:

- Under the NSW road rules, riders under the age of 16 are generally permitted to ride on footpaths, so the pedestrian network analysed in Section 3.2.1.1 provides a broader cycling connectivity for the prospective students.
- Many of the streets within Richmond are of residential character, with some being cul-de-sacs. Such roads, in combination with crossing facilities at larger intersections may represent a suitable cycling opportunity for more experienced and confident riders under the staff cohort.

The cycling catchment and the existing cycling network are shown in Figure 7.

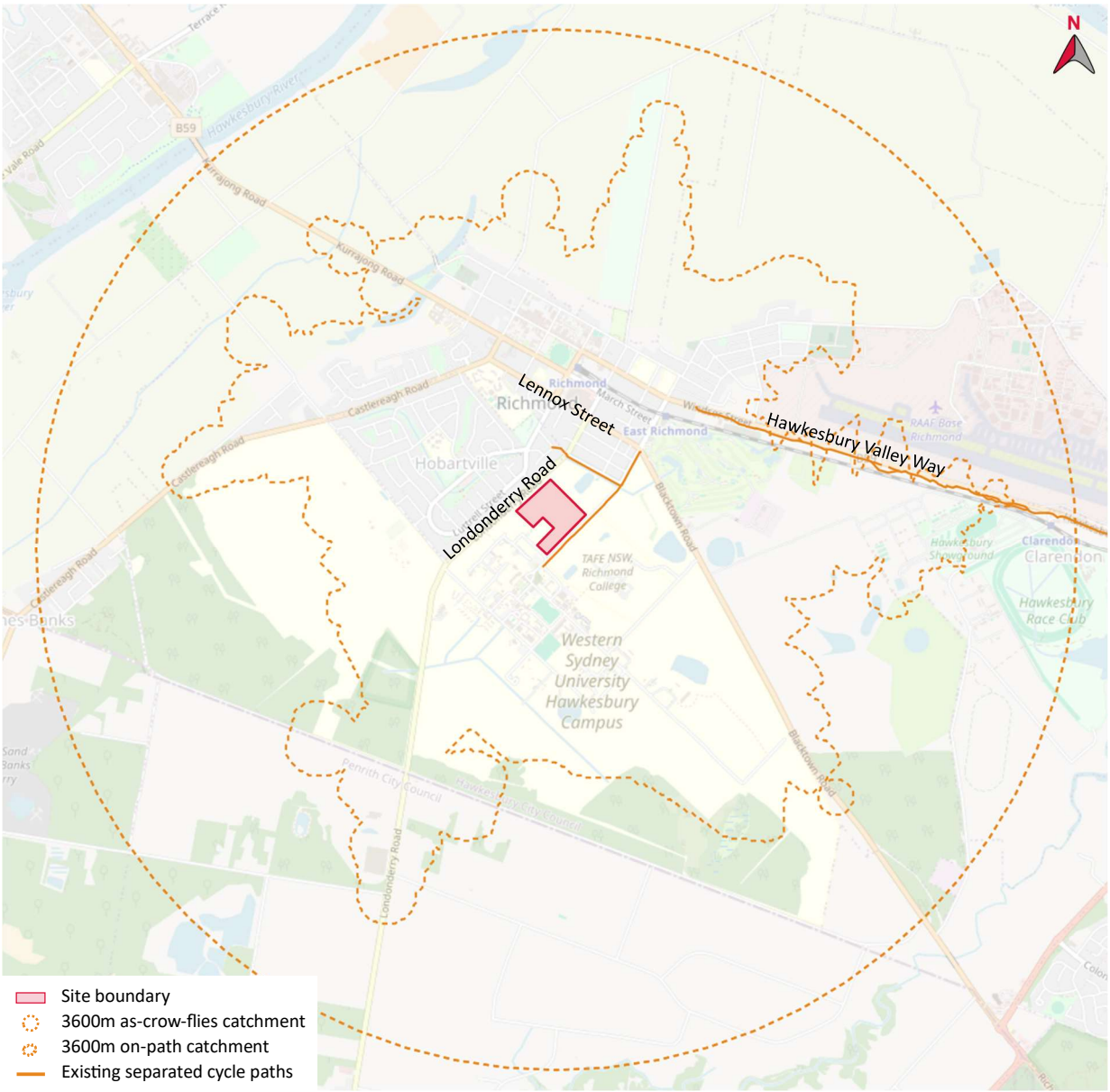


Figure 7: Cycling catchment and infrastructure (Source: OpenStreetMap, edited)

3.2.2 Public transport

3.2.2.1 Pedestrian connectivity to closest bus stops and train stations

The NSW Guidelines to Walking & Cycling (2004) suggests that 400-800m is a comfortable walking distance when considering public transport accessibility on foot. These distances represent a 5–10-minute walk. It is suggested that a 15-minute walk (1200m) is still a suitable distance for school students. With this in mind, the site was reviewed for public transport options within these distances.

There are multiple bus stops within the "as-crow-flies" 1200m distance, one train station just within and one train station just outside that same distance. Considering the "on-path" catchment, the closest bus stops and train stations are as follows:

- Bourke Street bus stop
- Laurence Street bus stop
- East Richmond train station
- Richmond train station

An analysis of pedestrian connectivity to these stops and stations is presented overleaf.

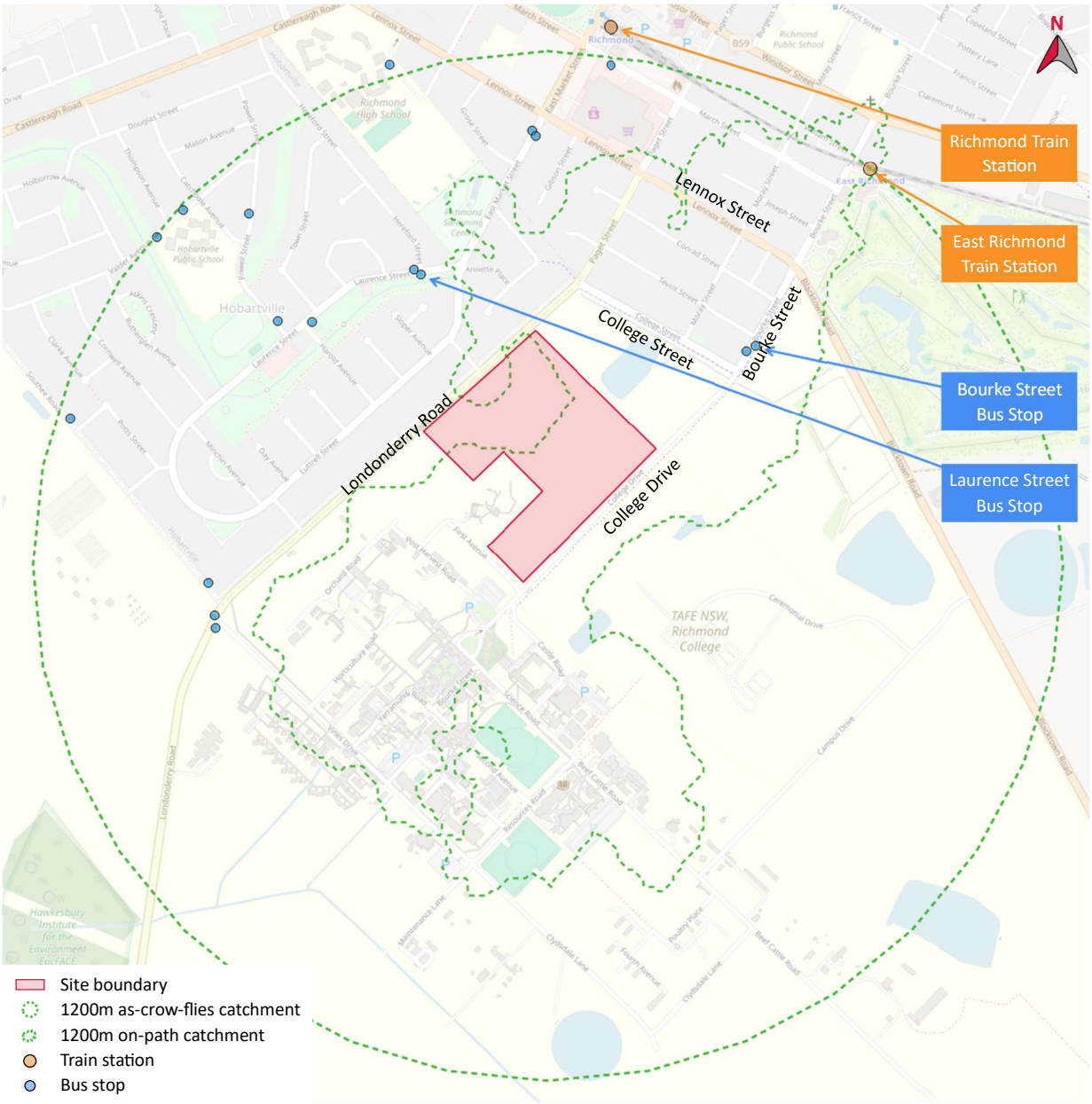


Figure 8: Closest bus stops and train stations (Source: OpenStreetMap, edited)

The following considerations, challenges and opportunities have been identified (refer to Figure 9):

1. A pedestrian crossing across College Drive is required.
2. A pedestrian crossing across Bourke Street may be required if access to both bus stops is required.
3. Multiple crossings and footpaths are missing along the path to / from the Laurence Street bus stop.
4. Londonderry Road is a state road, with higher speeds and vehicle sizes. This is not favourable as a crossing point for students if a suitable alternative is provided. Also, there is an approval risk for a pedestrian crossing across a state road with high speeds.
5. If a pedestrian access was provided off Londonderry Road, there would be potential for parents stopping along the road to pick-up / drop-off students.
6. Pedestrian connectivity between East Richmond Train Station and the RAC is continuous along the footpath on the eastern side of Bourke Street. However, it can get hot and uncomfortable to walk the full distance, particularly in the summer.
7. Pedestrian connectivity between Richmond Train Station and the RAC is incomplete and requires multiple crossings of roads.

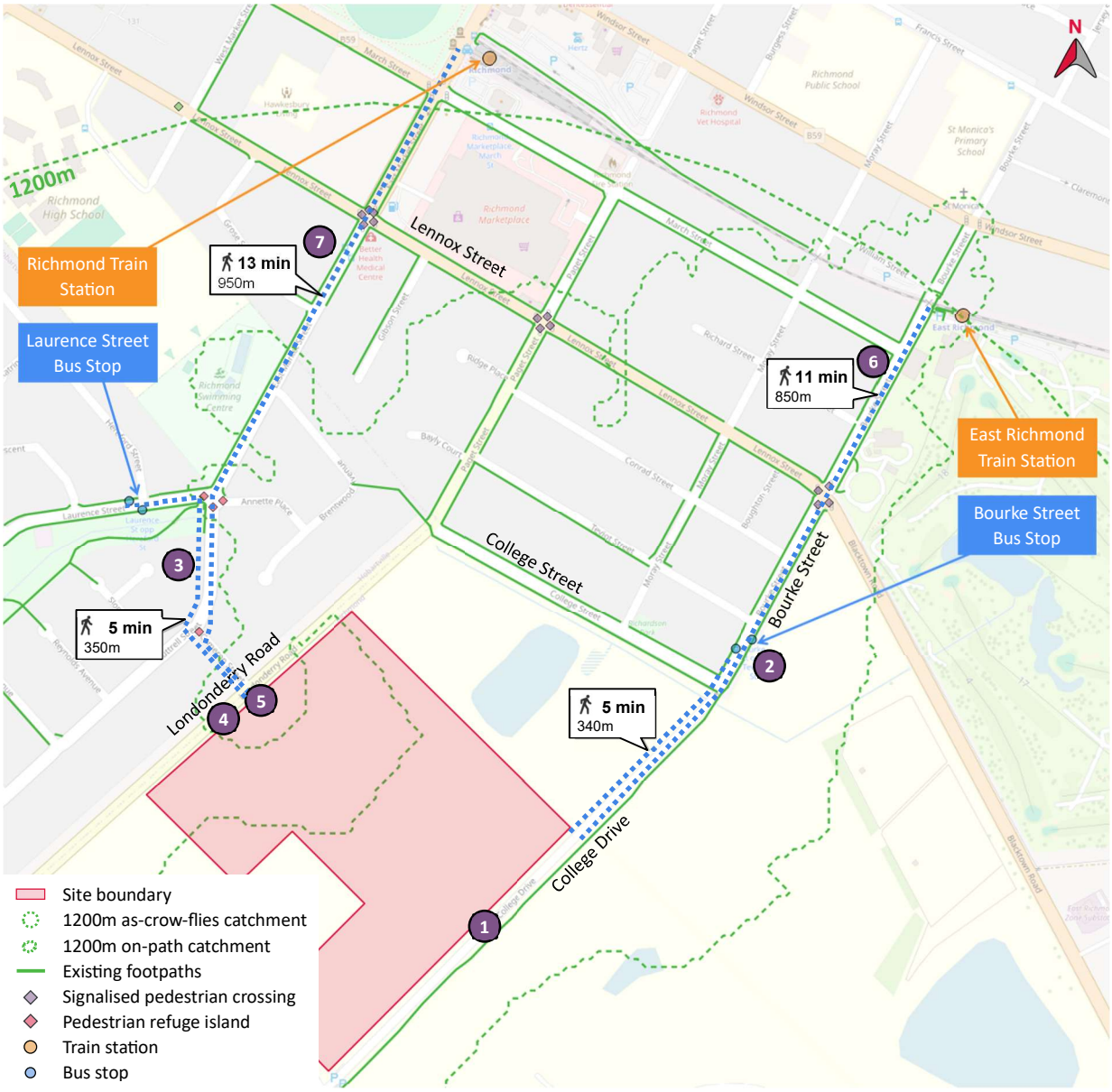


Figure 9: Considerations, challenges and opportunities (Source: OpenStreetMap, edited)

3.2.2.2 Public transport network reach

The following considerations, challenges and opportunities have been identified (refer to Figure 10, Figure 11, Figure 12 and Figure 13):

8 The Bourke Street bus stop is serviced by only one public bus. The bell times should consider the bus arrival and departure times if a significant proportion of students are expected to use this bus.

9 Investigate the opportunity to extend bus 677 to Bourke Street bus stop.

10 The WSU bus may be convenient in the morning, but not so in the afternoon due to its one-way service arrangement. Investigate opportunity to amend the bus route or timings, the feasibility of its use by the RAC students and, if feasible, investigate the potential to implement a bus stop right outside the RAC access.

11 There appear to be many school buses travelling around Richmond, but none of them via the Bourke Street bus stop:

- Investigate if any of these buses can stop at the Bourke Street bus stop
- Investigate if any of these buses can go via either the East Richmond or Richmond train station to pick-up / drop-off students from the train

12 Students living in the suburbs south-east of the site can use the train to travel to East Richmond. Consider the pedestrian connectivity between the train station and the site.

13 Students from Bligh Park have the option to use the bus which stops directly at the Bourke Street bus stop. Check that the bell time aligns with the arrival and departure times of the bus.

14 Students from the Penrith area, south of the school live too far away to use the train, and none of the buses pass the RAC. Investigate potential to amend existing buses.

15 Students living in the north have some buses travelling to Richmond, but they stop at the Richmond train station. Investigate bus connectivity between this station and the Bourke Street bus stop.

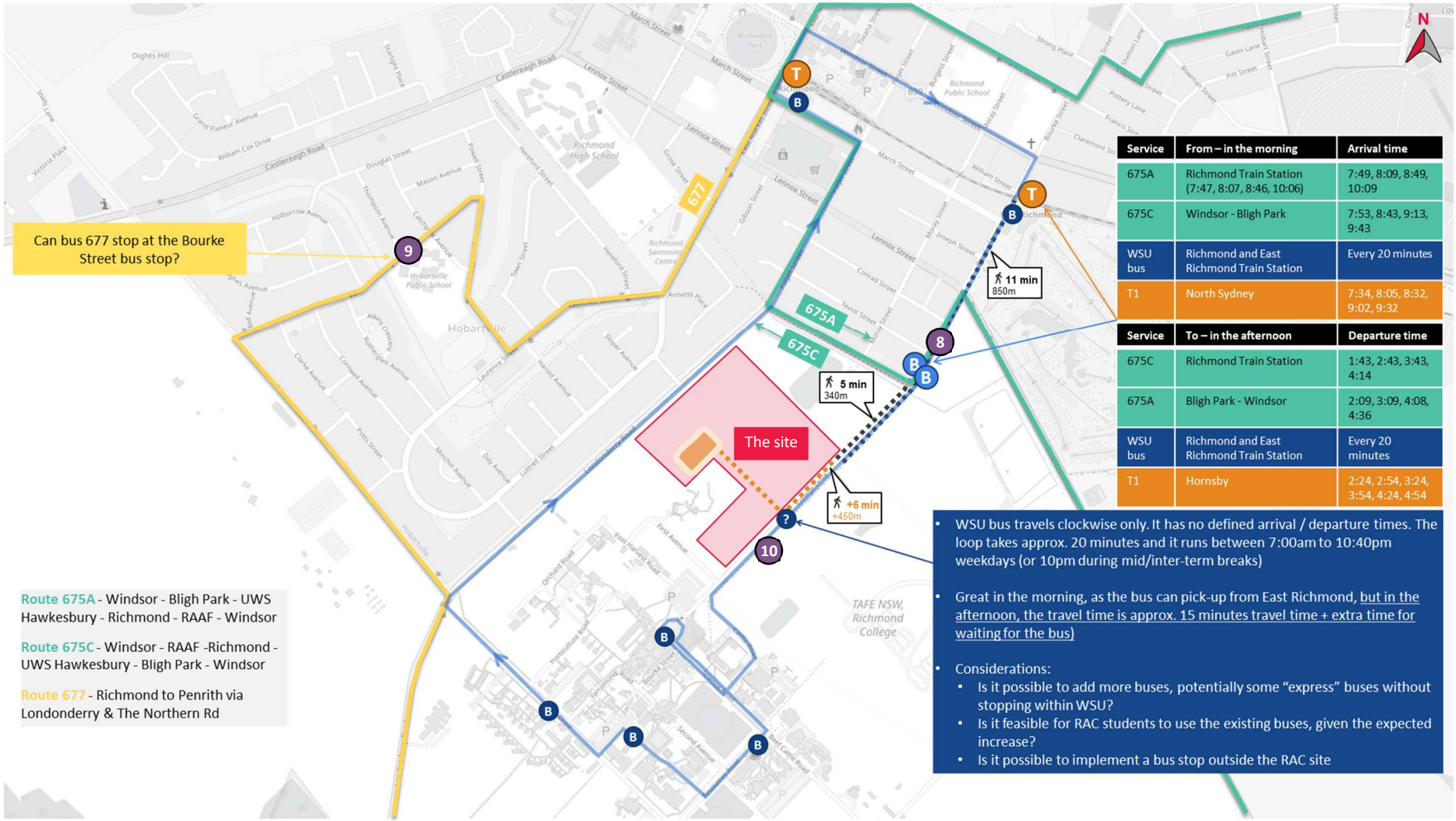
16 Many of the school buses do not service the most densely populated areas, such as Marsden Park.

17 There are buses servicing the Penrith area. Investigate if these buses can travel via the Bourke Street bus stop.

18 There are buses servicing the suburbs west of the site, but they stop at the Richmond train station. Investigate bus connectivity between this station and the Bourke Street bus stop.

Overall, the key challenges and opportunities are as follows:

- Students residing in the suburbs south-east of the site have no bus connection, but can use the train and walk from East Richmond station to the site. The pedestrian connectivity is good, with a continuous footpath and pedestrian crossings along the way. The only consideration is the walking distance of approx. 1.2km, which may not be acceptable to some. Therefore, an alternative connectivity for those who cannot walk such distances is required, in the form of a bus. Some students may use scooters or bicycles to travel this distance.
- Students from the wider Penrith area have no train connectivity, and the existing buses do not stop near the site. However, a number of buses service Penrith – Richmond, so an investigation is required into opportunities to alter these bus services to stop at the Bourke Street bus stop.
- Students residing to the north and west of the site have public and school buses available, but most of them stop at Richmond Train Station. An investigation into bus connectivity between this station and the Boure Street bus stop is required.



Service	From – in the morning	Arrival time
675A	Richmond Train Station (7:47, 8:07, 8:46, 10:06)	7:49, 8:09, 8:49, 10:09
675C	Windsor - Bligh Park	7:53, 8:43, 9:13, 9:43
WSU bus	Richmond and East Richmond Train Station	Every 20 minutes
T1	North Sydney	7:34, 8:05, 8:32, 9:02, 9:32

Service	To – in the afternoon	Departure time
675C	Richmond Train Station	1:43, 2:43, 3:43, 4:14
675A	Bligh Park - Windsor	2:09, 3:09, 4:08, 4:36
WSU bus	Richmond and East Richmond Train Station	Every 20 minutes
T1	Hornsby	2:24, 2:54, 3:24, 3:54, 4:24, 4:54

Figure 10: Public and WSU buses near the site (Source: TfNSW and WSU website, edited)

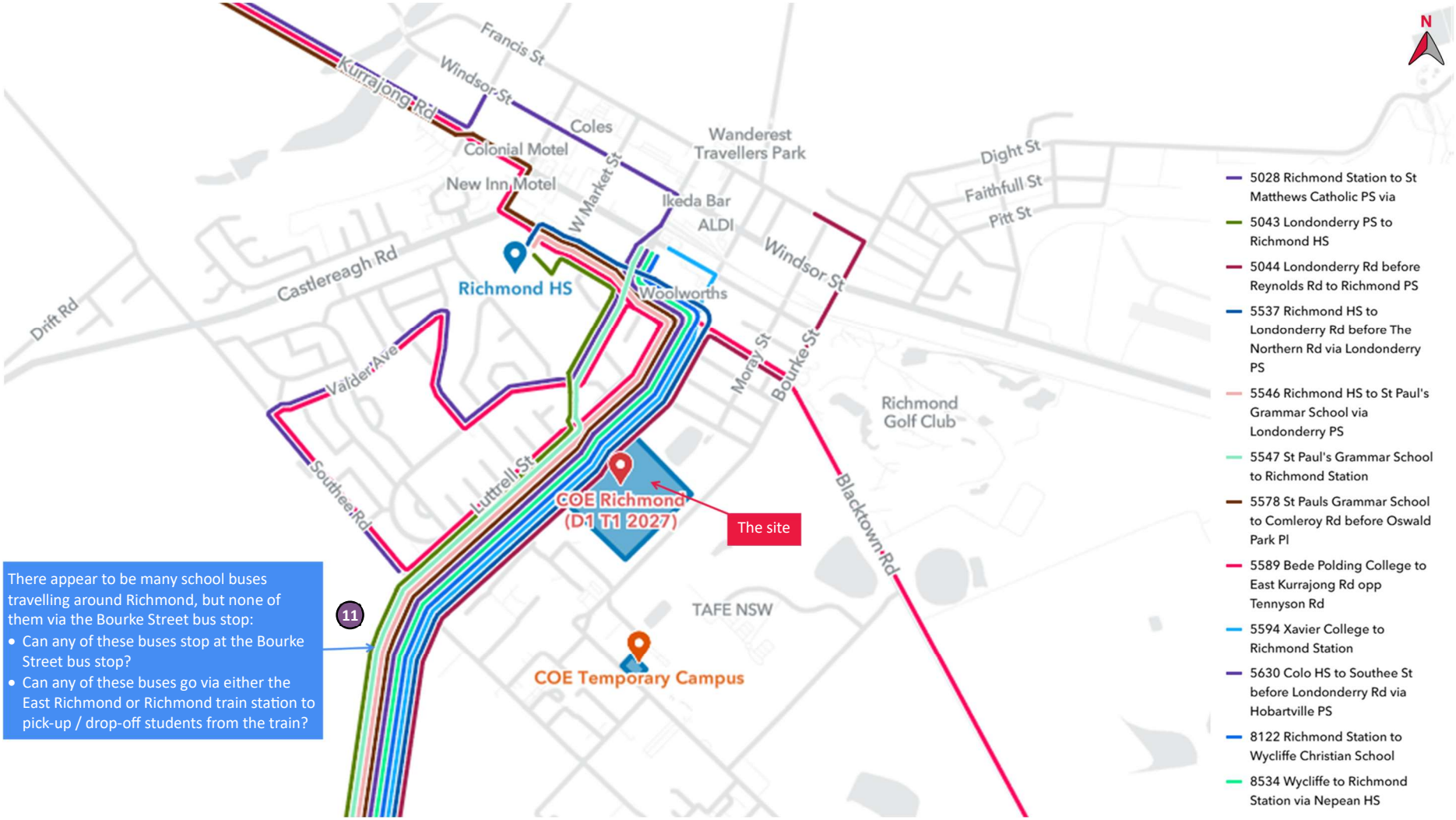


Figure 11: School buses near the site (Source: TfNSW, edited)

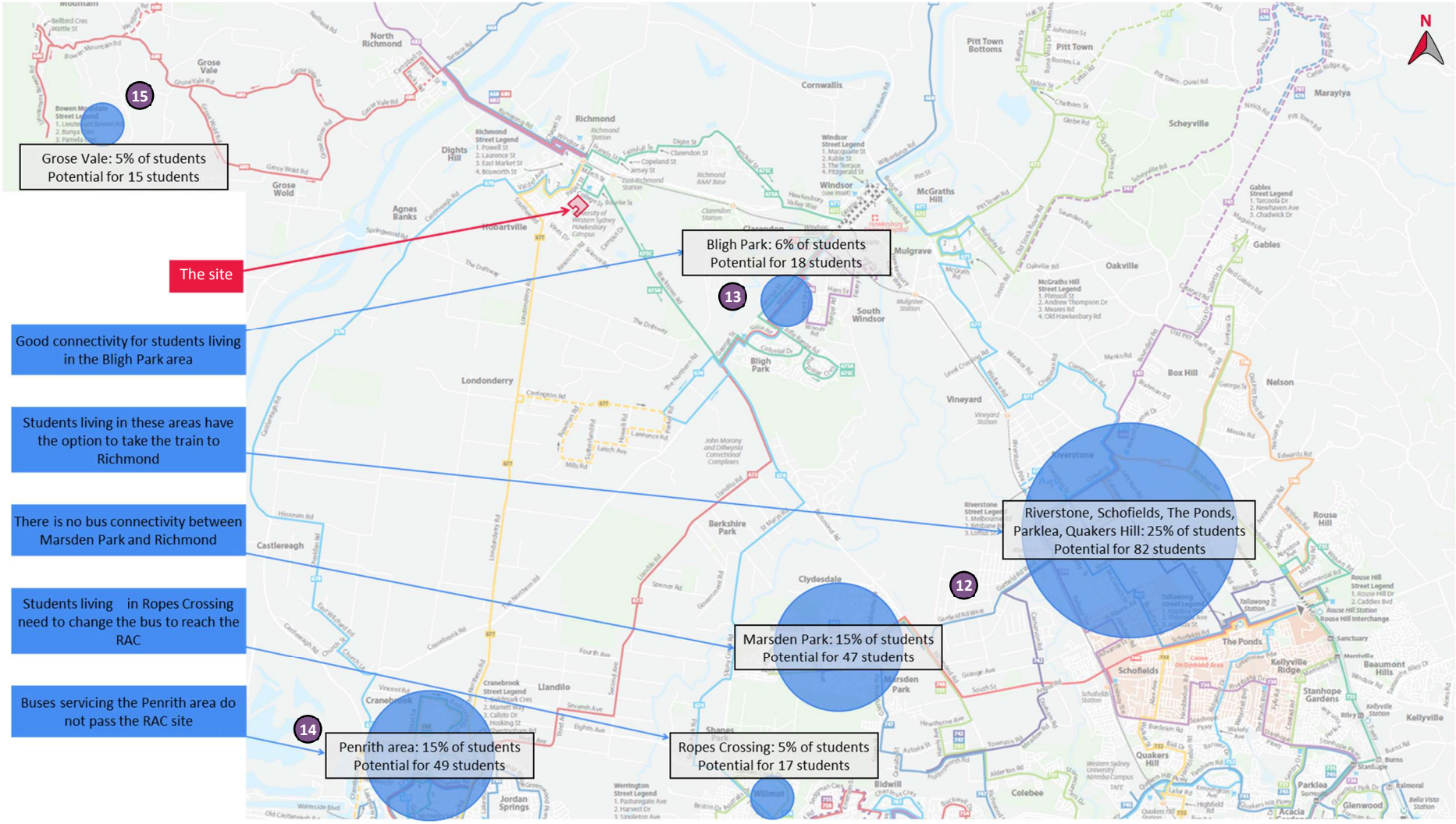


Figure 12: Public bus network reach (Source: TfNSW, edited)

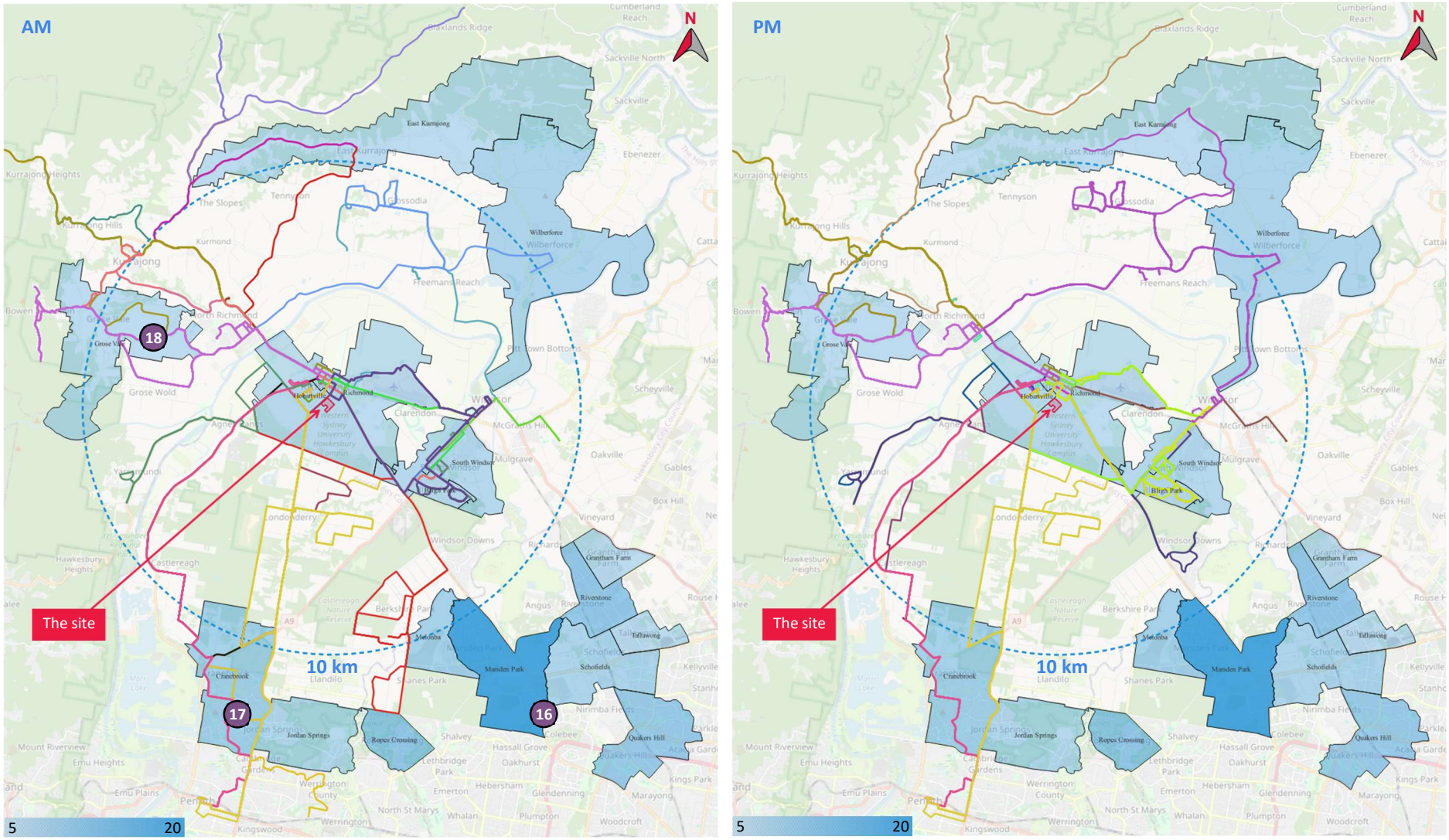


Figure 13: School bus network reach in most densely populated suburbs (l: AM, r: PM) (Source: OpenStreetMap and TfNSW, edited)

3.2.3 Road network

3.2.3.1 Road hierarchy

The sites western frontage road – Londonderry Road – is a classified State Road, owned and managed by TfNSW, as shown in Figure 14. This road leads to other classified roads, connecting Richmond in all directions to the wider network.

The sites eastern frontage road – College Drive – is owned privately by the WSU.

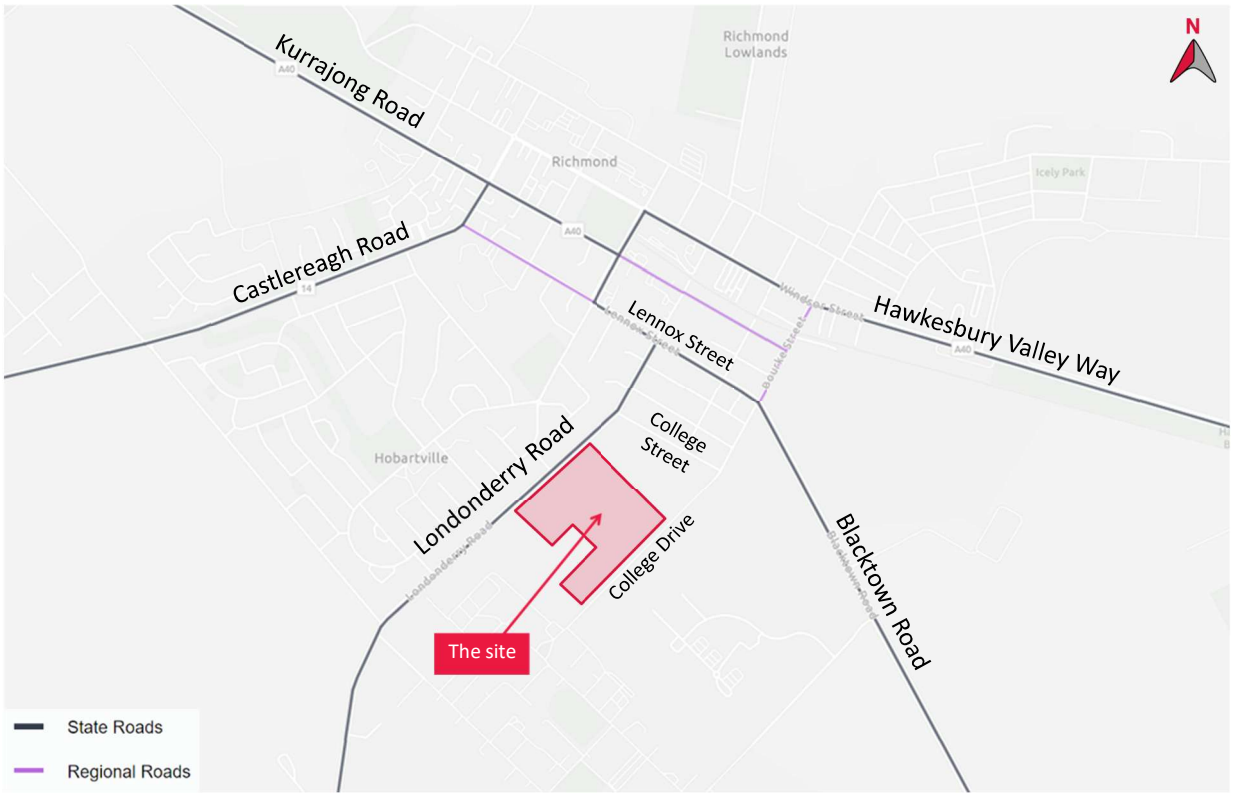
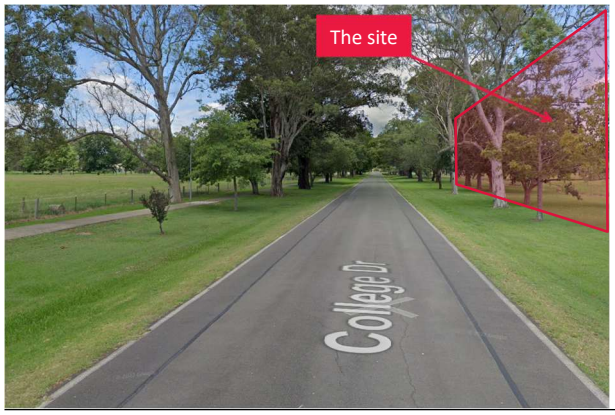


Figure 14: NSW Road Network Classifications (Source: maps.transport.nsw.gov.au, edited)

3.2.3.2 Road characteristic

The site is located south of the Richmond, on the northern portion of the WSU site. The characteristic of relevant surrounding roads is detailed below.



College Drive			
Classification	private	**Width**	6.4m
Sealed	Yes	**Divided**	No
Site frontage	Yes	**School Zone**	No
Speed limit	40km/h		
Alignment	Northeast-southwest		
Travel lanes	1 in each direction		
Parking	N/A		
Other	N/A		

Figure 15: College Drive: StreetView in the northbound direction (Source: Google, edited)

Londonderry Road

Classification	state	**Width**	8.5-11m
Sealed	Yes	**Divided**	No
Site frontage	Yes	**School Zone**	No
Speed limit	60km/h		
Alignment	Northeast-southwest		
Travel lanes	1 in each direction		
Parking	Unrestricted		
Other	Shoulder: unsealed on the eastern side, partially sealed on the western side		

Figure 16: Londonderry Road: StreetView in the northbound direction (Source: Google, edited)

Bourke Street

Classification	local	**Width**	9-11m
Sealed	Yes	**Divided**	No
Site frontage	No	**School Zone**	No
Speed limit	50km/h		
Alignment	Northeast-southwest		
Travel lanes	1 in each direction		
Parking	Unrestricted		
Other	Eastern shoulder is unsealed, and the footpath is not raised. Bus stops on both sides of the road.		

Figure 17: Bourke Street: StreetView in the southbound direction (Source: Google, edited)

College Street

Classification	local	**Width**	9m
Sealed	Yes	**Divided**	No
Site frontage	No	**School Zone**	No
Speed limit	50km/h		
Alignment	Northwest-southeast		
Travel lanes	1 in each direction		
Parking	Unrestricted		
Other	Southern shoulder is unsealed, and the footpath is not raised.		

Figure 18 College Street: StreetView in the southbound direction (Source: Google, edited)

3.2.4 Car parking

The residential streets surrounding the site have generally unrestricted parking on both sides of the road.

Roads immediately bounding the site, i.e. Londonderry Road and College Street, as well as Bourke Street have no sealed shoulder on one side and therefore, there is no on-street parking provided.

College Drive, being a private road, is subject to internal parking restrictions imposed by the WSU. These rules stipulate that parking is only permitted in marked bays, of which there are none along College Drive.

There are multiple car parks within the WSU, with parking spaces allocated to either permit holders or to general parking. The general parking spaces can be used by visitors, and a 'Pay and display' one-day parking permit can be obtained from the machines in the parking areas. These currently cost $9.50 and are valid for the day of purchase.

The existing RAC school currently utilises WSU parking spaces. It is noted that the use of car parking spaces by the RAC is captured within the Access and Facilities Agreement between SINSW and WSU. The agreement outlines that specific car parks form part of "Shared Facilities", which "*are to be jointly used by the Licensor and the Licensee*". These car parks have a combined capacity of approx. 260 parking spaces.

The on-street parking restrictions, internal WSU car parks and the joint use car parks are shown in Figure 19.

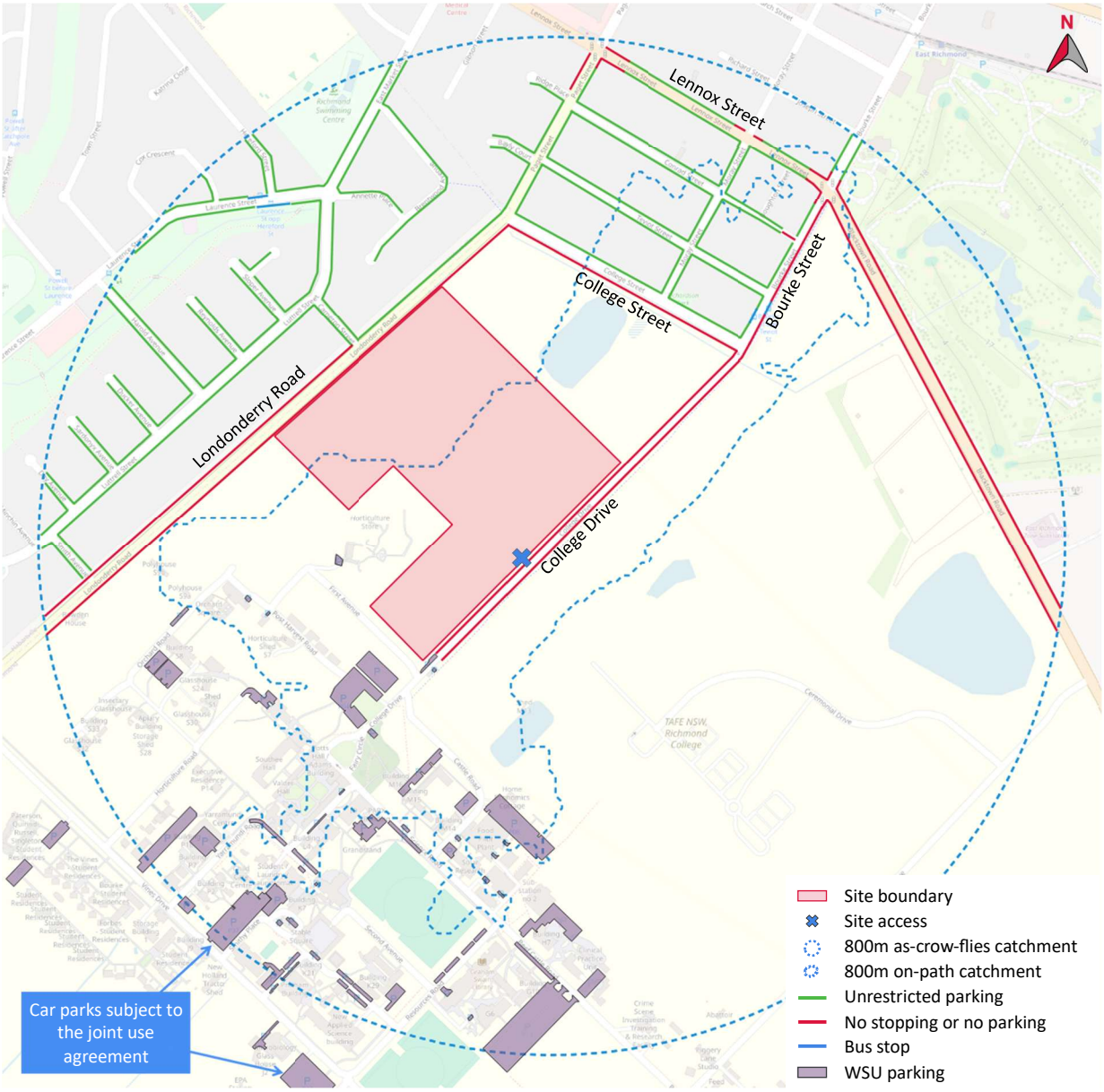


Figure 19: On-street parking restrictions and internal WSU car parks (Sources: OpenStreetMap, westernsydney.edu.au, edited)

3.3 Programs

Subsidised School Transport Scheme (SSTS)

The School Student Transport Scheme (SSTS) provides eligible school students with free or subsidised travel on public transport between home and school, on trains, buses, ferries, light rail and long distance coach services.

If a student lives too close to the school to be eligible, they may still be eligible for a Term Bus Pass which provides discounted travel on buses between home and school for the whole school term.

To be eligible for a free school travel pass the student must be a resident of NSW, at least 4 years and 6 months of age and enrolled as one of the following:

- *an infant student (K –2) regardless of the distance between their home and school*
- *a primary student (Years 3–6) who lives more than 1.6 km (straight line distance) from school, or 2.3 km or more by the most direct practical walking route to the nearest entry point to the school*
- *a secondary student (Year 7–12) who lives more than 2 km (straight line distance) from school, or 2.9 km or more by the most direct practical walking route to the nearest entry point to the school*
- *a TAFE student under 18 years of age at 1st January of the year of application who is:*
  - *enrolled in a full- time TAFE course for a minimum of 20 hours a week*
  - *not employed*
  - *living more than 3.2 km from the college by the most direct practical walking route, and*
  - *attending the college closest to their home where enrolment is available.*

The RAC is a secondary school, thus students may be eligible for the free travel by public transport.

Based on the residential data, 5% of the currently enrolled students live within the SSTS exclusion zone, meaning that 95% of students are eligible for the bus pass (refer to Figure 20 showing the SSTS exclusion zone).

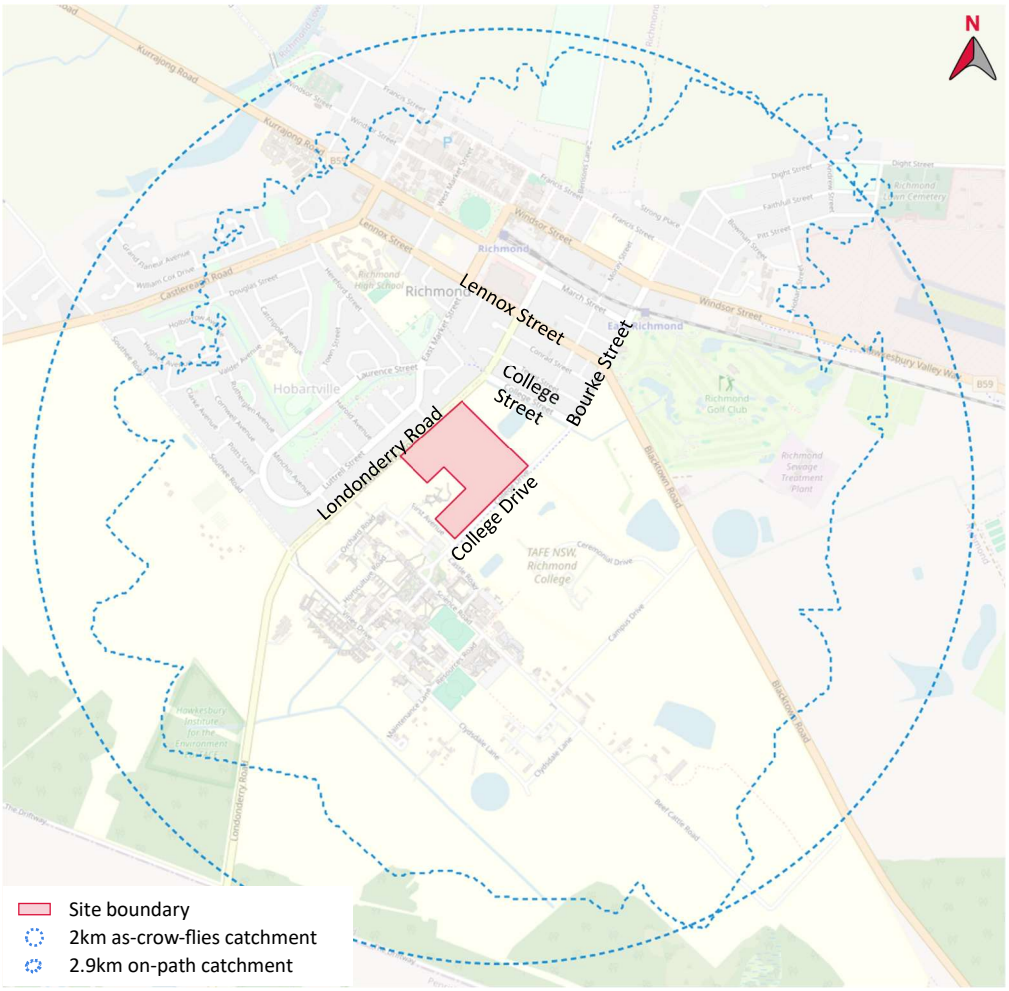


Figure 20: SSTS exclusion zone (Source: OpenStreetMap, TfNSW, edited)

4 Existing travel and traffic data

4.1 Hands-up surveys

A hands-up travel mode survey was undertaken at the existing school on Thursday 12/12/2024. The results from the survey are presented in Table 2. Additional commentary is as follows:

- The survey encompassed a total of 150 students present at the time of the survey, out of 174 students enrolled. 28 staff responded to the survey.
- The RAC currently has only years 7, 8, 9 and a few students in year 10. In the future, years 11 and 12 will also be enrolled at the centre. Years 11 and 12 generally contribute to car trip and parking generation, as many students get their provisional driver's licence during these years. This demand is not captured in the survey results.
- Very few students walk or cycle, which is in line with the analysis of the residential data confirming that only few live in walking & cycling distance.
- No students caught the bus, although some potentially could. It is acknowledged that the bus network is not well developed, though there is also the possibility that parents / students are not aware of the bus options (particularly from the Penrith area). There may be potential for parent / student education about their travel options.
- The main outcomes and opportunities are:
    - Improve bus connectivity from various areas to reduce the reliance on cars. This may include re-routing of buses to Bourke Street and aligning bell times / bus arrival times
    - Improve connectivity between the train station and the RAC

Table 2: Hands-up travel mode survey results

	Base case scenario – %		Base case scenario – numbers	
	Students	**Staff**	**Students**	**Staff**
Walk	*0%*	*0%*	*0*	*0*
Cycle	*1%*	*0%*	*2*	*0*
Active transport	**1%**	**0%**	**2**	**0**
Bus	*0%*	*0%*	*0*	*0*
Train + walk	*50%*	*0%*	*75*	*0*
+ scoot / ride	*5%*	*0%*	*7*	*0*
+ bus	*0*	*0%*	*0*	*0*
Public Transport	**55%**	**0%**	**82**	**0**
Pick-up / drop-off	44%	0%	66	0
(car pool)	*(55% of the above)*	*(0%)*	*(36 out of the above)*	*(0)*
Driver	0%	100%	0	28
Car	**44%**	**100%**	**66**	**28**
Total:	**100%**	**100%**	**150**	**28**

4.2 New students' planned travel

A survey of newly enrolled Year 7 students is conducted each year prior to commencement of the school. One question asks about the planned transport mode for the student in the future. The results are shown in Figure 21. The following is noted:

- A high proportion of students plan to arrive by train, which aligns with the existing travel mode.
- However, it is noticeable that almost a quarter of the students consider bus as an option to travel to and from the RAC, which does not align with the exiting transport mode share.
- The survey results indicate that there is a general acceptance of using a bus; The subsequent lack of use of buses may be related to inconvenient connections or arrival / departure times.
- Consultation with TfNSW is required to improve bus connectivity.
- Another point may be to educate parents and students of options available.

Figure 21: New students' planned travel (Source: RAC)

4.3 Private bus charter

The P&C of the RAC is considering implementing a private charter bus to transport students between the Richmond East train station and the school. Additional routes are being considered too.

A survey was undertaken amongst the school community to determine the potential uptake of a charter bus. The results are presented in Figure 22. The following is noted:

- The number of respondents is 87, but it is unknown what the response rate, and therefore the need & acceptance of a private bus is in relation to the total school population of 150 students. Based on this, there is potential that the results may be biased towards those advocating for a private bus.
- The chartered bus would be paid for by parents.
- While the chartered bus may result in a positive outcome, the project cannot rely on it. Therefore, the transport analysis does not include this option.

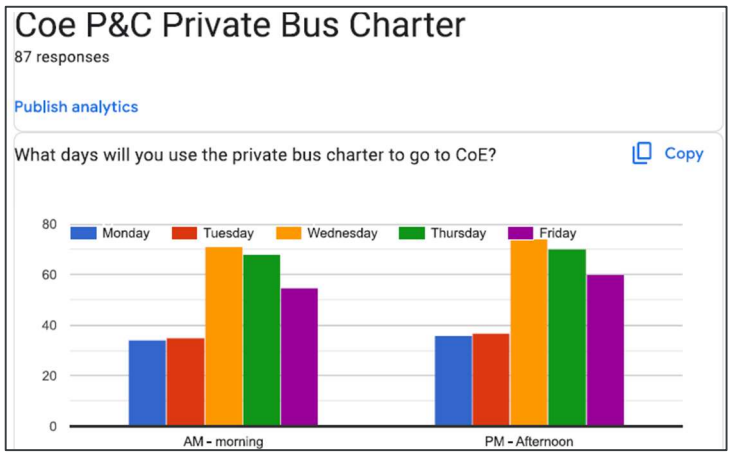


Figure 22: Private bus charter survey (P&C or the RAC)

5 Travel mode share and transport goals

This section provides a summary and an analysis of the following:

- Transport infrastructure in relation to the potential student residential locations
- Outcomes from transport related discussions with relevant stakeholders, i.e. TfNSW, SINSW, the RAC principal, WSU and Council
- Travel demand by travel mode, infrastructure required to meet the highest demands, and the proposed changes to improve travel to and from the school through feasible options providing the highest benefit to the school community.

5.1 Existing travel mode share and the theoretical maximum reach

The existing travel mode – the base case scenario – was determined through the hands-up surveys, as discussed in Section 4.1.

The theoretical maximum reach is the highest non-car-based travel mode share based on student residential data within the walking, cycling and public transport catchments, without considering the existing or potential infrastructure. This should be seen as the upper limit rather than a potential target; outlining this upper limit is useful to understand the maximum possible reach to ensure that travel mode targets do not set unrealistic expectations (e.g. if only 5% of students live within the cycling catchment, it would not be reasonable to target 10% of students cycling to and from school).

The existing travel mode share and the theoretical maximum reach is summarised in Table 3.

Table 3: Existing travel mode share and the theoretical maximum reach

	Base case scenario %		**Base case scenario #**		**Theoretical maximum reach – %**		**Theoretical maximum reach – #**	
	Students	**Staff**	**Students**	**Staff**	**Students**	**Staff**	**Students**	**Staff**
Walk	*0%*	*0%*	*0*	*0*	*0.5%*	*1%*	*2*	*0*
Cycle	*1%*	*0%*	*2*	*0*	*4.7%*	*2%*	*15*	*1*
Active transport	**1%**	**0%**	**2**	**0**	**5%**	**3%**	**17**	**1**
Bus	*0%*	*0%*	*0*	*0*	*25%*	*5%*	*81*	*1*
Train + walk	*50%*	*0%*	*75*	*0*	*50%*	*10%*	*162*	*3*
+ scoot / ride	*5%*	*0%*	*7*	*0*				
+ bus	*0*	*0%*	*0*	*0*				
Public Transport	**55%**	**0%**	**82**	**0**	**75%**	**15%**	**243**	**4**
Pick-up / drop-off	44%	0%	66	0	15%	10%	48	3
(car pool)	*(55% of the above)*	*(0%)*	*(36 out of the above)*	*(0)*				
Driver	0%	100%	0	28	5%	72%	16	19
Car	**44%**	**100%**	**66**	**28**	**20%**	**82%**	**64**	**22**
Total:	**100%**	**100%**	**150**	**28**	**100%**	**100%**	**324**	**27**

The key points from the comparison of the existing travel mode vs. theoretical maximum reach are as follows:

- There is only a small proportion of students living within the walking and cycling catchments.
- There is a stark discrepancy between the current use of buses and the potential reach.

5.2 Consultation with stakeholders

The main outcomes from the consultation with stakeholders are as follows:

- School community (including the principal and parents):
  - The current distance between the existing RAC and the East Richmond train station is too great for some students, and in the summer the temperatures may make it difficult for some to walk this far. However, it is noted that the existing school is located within the TAFE building further south-east of the proposed RAC site, thus the future distance will be reduced to 1.2km.
    It was considered that a bus between the East Richmond train station and the site would benefit some students, and the school's P&C is in the process or organising a private charter. It is envisaged that the charter bus would be paid for by those using it.
  - The existing buses travelling to & from the Penrith are do not stop close enough to the RAC. The school's P&C is in the process of organising a private charter. It is envisaged that the charter bus would be paid for by those using it.
  - Based on the new students' planned travel surveys (refer to Section 4.2), there is a general acceptance of using a bus to travel to and from the school. Although it is acknowledged that the existing connections are not ideal, there may be potential that parents are not aware of the existing options from the north and south of the site.
- WSU
  - WSU does not support regular access via College Drive to the site by large (i.e. 12.5m long) buses. Therefore, any public transport solution needs to focus on the Bourke Street bus stop.
  - There is no support from WSU for RAC students to use their buses on a regular basis, unless the project funds upgrades and contributes to the operation.
    However, in the instance of inclement / extreme weather and students who require assistance would still be allowed to use this bus service.
  - WSU supports and agrees to the RAC visitors to use the "general parking" spaces within the university site. This is captured within the Access and Facilities Agreement between SINSW and WSU. The agreement outlines that specific car parks form part of "Shared Facilities", which "*are to be jointly used by the Licensor and the Licensee*". These car parks have a combined capacity of approx. 260 parking spaces.
- TfNSW
  - Implementation of new bus routes (e.g. from Marsden Park, Ropes Crossing, etc) is not feasible and therefore unlikely to be supported by TfNSW.
  - Although there are a lot of buses servicing Richmond and its surroundings, these are largely at capacity and are unlikely to be able to be re-routed.
  - However, TfNSW supports and has agreed to investigating the following:
    - An extension of the 677 bus travelling to / from Penrith and bus 5546 travelling to Penrith in the afternoon to stop at the Bourke Street bus stop
    - Bus connection between the Richmond train station and the Bourke Street bus stop
  - TfNSW will ensure there is sufficient capacity on the buses to transport the expected student demand.
- Council
  - There are no planned pedestrian infrastructure upgrades near the RAC site planned by Council
  - There are no objections to the use of the Bourke Street bus stop for additional bus services, but Council suggested an upgrade to the bus stop such as a bus shelter
  - Council suggested possible upgrades may be required of the surrounding active transport infrastructure.
  - Council suggested that a Road Safety Audit and subsequent upgrades may be required at the College Street / Bourke Street / College Drive intersection.

5.3 Analysis summary and proposed travel mode share

A summary of the analysis, the proposed approach and the travel mode shift are presented below:

- Due to the characteristic of the RAC being a selective school without a fixed enrolment catchment, not many students live within the walking and cycling catchments. Therefore, the demand for active travel is low, and no upgrades to the surrounding pedestrian infrastructure is seen as required to satisfy the project.
- However, the provision of some bike spaces within the RAC may encourage older students and staff to cycle, so provision of dedicated spaces is recommended and proposed.
- Due to the low active travel demand, the main focus for student travel is on public transport.
- Train is expected to remain the main travel option for students living south-east of the site, i.e. in Marsden Park, Schofields, Riverstone, etc. The East Richmond train station is located 1.2km from the RAC site – a distance which can be expected to be manageable for the majority of students. The following is noted:
    - The footpath between East Richmond train station is continuous, with pedestrian crossing facilities provided where required.
    - Students may wish, and will be encouraged to ride a bike or scoot between the train station and the RAC. Dedicated bike and scooter spaces are proposed to enable this.
    - TfNSW has confirmed feasibility and is investigating implementation of bus connectivity between the Richmond train station and the Bourke Street bus stop. This bus can be used by students who do not wish and cannot walk the entire 1.2km.
    - In the instance of inclement / extreme weather and students who require assistance can use the WSU bus service to travel between the train station and the school.
- Although there are buses servicing south of the site (i.e. Cranebrook, Jordan Springs, Penrith, etc), these buses do not stop near the RAC and are therefore inconvenient for students. Given the proportion of students living in these areas, TfNSW has confirmed feasibility and is investigating extension of bus 677 and 5546 to stop at the Bourke Street bus stop.
- Students living north of the site (i.e. Gross Vale, Kurrajong, etc,) can take (school) buses, but these either terminate at the Richmond train station or go past it to go other places, but none of them go via the Bourke Street bus stop. Therefore, the proposed implementation of bus connectivity between the Richmond train station and the Bourke Street bus stop would provide opportunity for students living in the north to get closer to the RAC.
- Subject to changes in bus routes, i.e. should both bus stops be used by students travelling between the RAC and the train station or the Penrith area, there will be a requirement to provide pedestrian connectivity across Bourke Street.
- In order to provide a seamless pedestrian connectivity between the RAC, the Bourke Street bus stop and the East Richmond train station, a zebra crossing across College Drive is required and will be implemented.
- Given the walking distance from the RAC site to available on-street parking, and that parking is paid at the WSU, the uptake in driving by Year 12 students is expected to be low.
- There is a portion of students who are dropped-off and picked-up by cars within the existing school. Through the implementation of the proposed measures, there is potential to reduce the proportionate car-based travel mode and retain the existing volumes of car arrivals / departures.
- In order to support and promote non-car-based travel options, the RAC will undertake the following:
    - Implement a Travel Access Guide showing bus routes feasible to be used by students. RAC to promote the use of buses.
    - RAC to promote the use of bicycles and scooters, also as part of the journey from / to the East Richmond train station.
    - RAC to monitor and align bell times with any new bus routes or changes to the bus and train timetables. This should take into account the walking time from the bus stops and the train station.
    - RAC to promote car pooling amongst students to reduce the number of cars arriving at the site.

Considering all the above, the proposed travel mode share targets are summarised in Table 4.

Table 4: Proposed target travel mode share

	Base case scenario %		Base case scenario #		Target scenario %		Target scenario #	
	Students	**Staff**	**Students**	**Staff**	**Students**	**Staff**	**Students**	**Staff**
Walk	*0%*	*0%*	*0*	*0*	*0%*	*1%*	*0*	*0*
Cycle	*1%*	*0%*	*2*	*0*	*5%*	*2%*	*16*	*1*
Active transport	**1%**	**0%**	**2**	**0**	**5%**	**3%**	**16**	**1**
Bus	*0%*	*0%*	*0*	*0*	*15%*	*3%*	*49*	*1*
Train + walk	*50%*	*0%*	*75*	*0*	*40%*	*5%*	*130*	*1*
+ scoot / ride	*5%*	*0%*	*7*	*0*	*10%*	*0%*	*32*	*0*
+ bus	*0*	*0%*	*0*	*0*	*8%*	*0%*	*26*	*0*
Public Transport	**55%**	**0%**	**82**	**0**	**70%**	**8%**	**237**	**2**
Pick-up / drop-off	44%	0%	66	0	20%	4%	65	2
(car pool)	*(55% of the above)*	*(0%)*	*(36 out of the above)**	*(0)*	*(60% of the above)*	*(0%)*	*(39 out of the above)**	*(0)*
Driver	0%	100%	0	28	2%	85%	6	23
Car	**44%**	**100%**	**66**	**28**	**22%**	**89%**	**71**	**25**
Total:	**100%**	**100%**	**150**	**28**	**100%**	**100%**	**324**	**27**

With bike parking on site and promotion, some of the older students may choose to cycle to the RAC.

Considering the initial willingness to use buses by students, with changes to bus routes and appropriate infrastructure near the site, there may be potential to increase bus use to 15%.

Train is expected to remain the main transport mode. This transport option can be improved by enabling scooting / cycling between the RAC and the train station (through provision of scooter & bike spaces) and by providing connecting buses.

Reliance on car transport can be proportionally reduced with improvements to bus infrastructure and transport of students between the train station and the site.

** This represents a 1.4 students per car ratio*

6 Policies, procedures and measures

Based on the transport infrastructure analysis, consultation with the stakeholders, the travel mode share targets and the transport goals, the policies, procedures and management measures put in place by the RAC are summarised in Table 5.

Table 5: Travel mode management measures

No.	Measure	Who	Opportunity / constrained addressed	Notes, timing
1. General				
1.1	Provide a Travel Welcome Pack for newly employed staff and newly enrolled students, highlighting alternate modes of transport other than the use of a private vehicle.	School	12, 13, 14, 15	Yearly or as needed
1.2	Prepare a Travel Access Guide (TAG) and review following changes.	School or external consultant	12, 13, 14, 15	See Appendix 1 as an example. To be provided upon commencement of the school. To be updated at least yearly
1.3	Nominate a Travel Plan Coordinator (TPC)	School	2, 3, 4, 7, 9, 10, 11, 14, 15, 16, 17, 18	Can be an internal staff member
2. Walking and Cycling				
2.1	Provide information on the available walking and cycling facilities within the TAG.	School or external consultant	12	See point 1.2
2.2	Promote National Ride2Work Day and coincide with participation in Ride-To-School Day. This provides an opportunity for students, parents, and staff to try riding to school as well as celebrating those that currently utilise bicycles.	School, TPC, DoE		Yearly
2.3	Advocate, provide and maintain safe pedestrian and bicycle facilities to and from the school.	School, TPC, DoE	1, 2, 6	As needed, at least yearly
2.4	In accordance with the cycling mode share targets identified, sufficient secure parking spaces and EOT facilities shall be provided and maintained.	School, TPC, DoE	6	As needed, review at least yearly
2.5	Continue to monitor and review the demand for bicycle parking and end of trip facilities, including showers for staff, change rooms for staff and the need for lockers for staff and students. Seek opportunities to increase supply of bicycle parking and end of trip facilities at the school.	School, TPC, DoE	6	As needed, review at least yearly
2.6	Seek dialogue with Council and TfNSW to improve the walking and cycling infrastructure in Richmond.	TPC, DoE	2, 3, 4, 7	As needed, at least yearly

3. Public transport				
3.1	Provide information on the available public transport travel within the TAG.	School or external consultant	12, 13, 14, 15	See point 1.2
3.2	Seek dialogue with TfNSW to obtain progress updates and to ensure the discussed bus route changes are implemented.	TPC, DoE	6, 9, 14, 15, 17, 18	Monthly in the first year of operation. As needed (at least yearly) after
3.3	Inform students and parents of the free / discounted bus passes – SSTS	School, TPC, DoE	12, 13, 14, 15	Information within the welcome pack, the TAG and regular reminders throughout the year
3.4	Promote the use of public transport for students.	School, TPC, DoE	12, 13	Regular reminders throughout the year
3.5	Ensure that the school bell times are aligned with buses and trains.	School, TPC, DoE	8, 13	As needed, review at least yearly
3.6	Undertake a review to promote initiatives for staff using public transport. This may include a review of potential tax incentives for Government employees that use public transport.	School, TPC, DoE		As needed, at least yearly
3.7	Seek dialogue with TfNSW to implement further bus and train improvements in the future.	TPC, DoE	2, 4, 10, 11, 16, 17	As needed, at least yearly
4. Car share / car pooling				
4.1	Organise potential carpooling matches for students and staff	School, parent group		At the beginning of each year, reminders throughout the year
4.2	Introduce and enforce parking rules within the RAC car park. This can include giving priority to carpooling staff	School, TPC, DoE		As needed, review at least yearly

7 School transport operations

The day-to-day school transport operation is summarised in Table 6. The site layout is shown in Figure 23.

Table 6: School transport operations

Location	On-site	Adjacent to site	Management measures
Site entries	• 1 x pedestrian access • 1 x car park access driveway • 1 x agricultural vehicle access	N/A	• Intercom is located at the gate. The gate is open at bell times. One staff member is present at the gate during the pick-up / drop-off times. • No gate, no management • As needed, operated by school staff.
Pick-up & drop-off	6 x spaces within the internal pick-up / drop-off area	N/A	Pick-up and drop-off operate on-site. Ideally, all parents / guardians would remain in the cars.
Buses	N/A	1 x bus stop at Bourke Street	No management. Students are to use the raised zebra crossing on College Drive to cross the road.
Parking	25 x parking spaces within the on-site car park	Spaces available within the WSU site	On-site spaces are to be used by RAC staff only. Students and outreach visitors are to park within the WSU car parks. It is to be ensured that the loading and emergency bays are not used by unauthorised people.
Deliveries & service vehicles	1 x loading area 1 x fire truck hard stand 1 x loop road for agricultural vehicles	N/A	• Waste collection: occurs outside the school operating hours to minimise potential conflicts. Truck to enter the site, stop near the bin storage area, load the waste, reverse slightly, then move forward around the car park. • Delivery vehicles park within the dedicated loading zone • Emergency vehicles park within the dedicated bay within the car park. • Agricultural vehicles enter the site at the gravel road and use the loop road to turn around. Vehicles are to use the wash bay to remove any soil and debris from the tyres.

Figure 23: Site plan (Source: NBRS architects, edited)

8 Communication plan

The school's communication plan is shown in Table 7.

Table 7: Communication plan

What	How	Who	Notes, timing
Share transport objectives and goals with the school community	Via newsletters and any other channels the school uses	School, TPC	At the beginning of the school year
Inform of travel options via the Travel Access Guide	Include in welcome pack to new staff and students, provide on website and send reminders through newsletters	School, TPC	Distribute at the beginning of each year and with new starters. Update and re-issue as needed, but at least yearly.
Provide information on bus passes	Via the TAG in welcome packs, provide on website and send reminders through newsletters	School, TPC	At the beginning of a year and with new starters. Send reminders at the beginning of each term.
Inform of transport initiatives	Via newsletters and any other channels the school uses	School, TPC	Monthly and prior to a specific event
Remind of appropriate behaviours	Via newsletters and any other channels the school uses	School, TPC	As needed
Communicate travel mode survey results with the school community	Via a newsletter	School, TPC	At the end of each year, or as needed when surveys are undertaken

9 Data collection and monitoring

The data collection and monitoring actions are shown in Table 8.

Table 8: Data collection and monitoring

What	How	Who	Notes, timing
Travel surveys	Undertake an online questionnaire, or at least a hands-up surveys of the modes students and staff use to travel to and from school	School, TPC	2 x in the first year, each year in term 1 thereafter
Review transport options and update the TAG	Analyse and update transport infrastructure and operation, such as new buses, updated timetables, etc.	TPC	Each year in term 1, and as required in between
Review residential data	Undertake an analysis of the student residences in relation to the transport infrastructure and identify infrastructure gaps.	TPC	Once a year
Review program participation	Summarise the level of participation in transport programs, such as "Ride to School" days, bike use, etc.	TPC	Keep track throughout the year, at each event, etc. Summarize each year in term 1
Review and update travel mode share targets and measures	Review the travel mode survey results and the surrounding transport infrastructure. Consider what measures were successful in reducing car use, what measures should be stopped and what new measures could be implemented.	School, TPC, parent group	Each year in term 1, and as required in between
Report findings	Via a newsletter	TPC	Each year in term 1

10 Governance framework

This School Transport Plan shall be reviewed and updated by the Department of Education at least annually, but more frequent reviews may be required or beneficial. Items which may trigger the requirement to update the report include:

- Changes to the number of students and staff
- Transport infrastructure changes, such as additional buses, changed timetables, addition to on-site bike parking, etc.
- Changes to transport procedures on-site
- New travel mode survey results
- Changes to the travel mode management measures (i.e. additional measures, discontinuing of unsuccessful measures, etc.)
- Updated travel mode targets
- Etc.

Appendix 1. Travel Access Guide

[Insert school name]

Travel Access Guide

[Insert date/month/year]

Project overview

Insert project description from project page on SINSW website.

Using public transport to get to school

School buses and public buses

- Include route numbers and nearest bus stop locations.
- Include safety tips for local students.

Trains | Ferries | Light Rail

- Include nearest station or wharf locations.
- Include safety tips for local students.

Apply for a School Opal Card | School Term Bus Pass

- Include information about how to apply for any subsidised public transport programs available for students at this school.
- Student code of conduct
- Include information about expectations for students on public transport, for example offering seats to adults, no swearing or fighting, etc.

Message from your Principal

- Insert text from Principal that lets the school community know they are becoming a public transport school.
- Principal message to include relevant safety information.
- Principal message may include their own commitment to public transport.
- Include Principal photo and signature block.

Message from your P&C President

- Insert text from P&C President that outlines their support for becoming a public transport school.
- P&C message may include information about how changing the way you get to school even one day per week can make a 20% difference to local traffic congestion.
- Include P&C President photo and signature block.

Kiss and drop code of conduct

- Reflect anything agreed in the School Transport Plan.
- Ensure consistency with NSW Education's road safety messaging.

For more information contact:

School Infrastructure NSW
Email: schoolinfrastructure@det.nsw.edu.au
Phone: 1300 482 651
www.schoolinfrastructure.nsw.gov.au

NSW GOVERNMENT

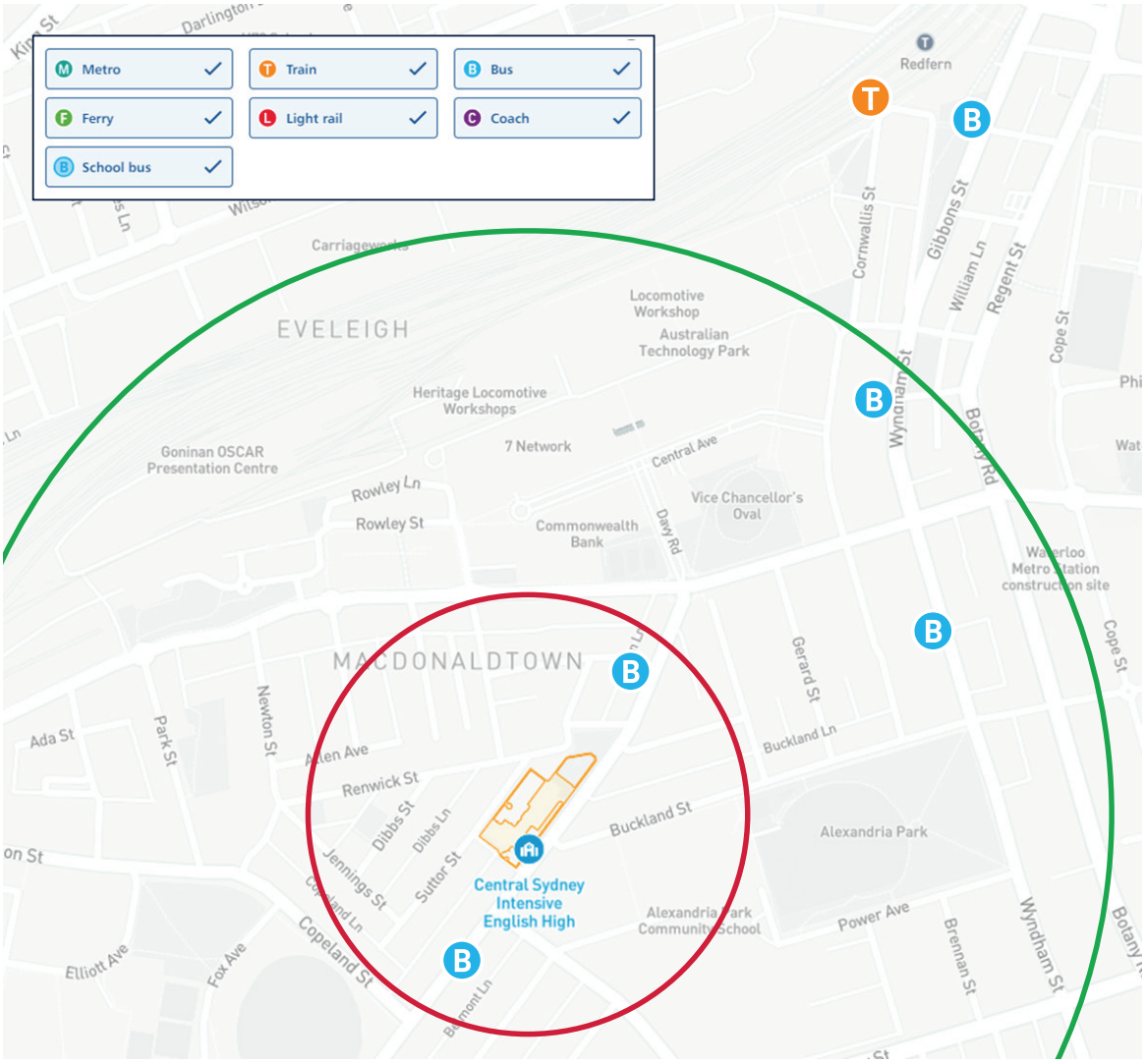
Local map: Public transport

Must be included

- Graphic map of the school, showing all school entry points.
- Use icons to show the nearest bus, train, ferry and light rail stops to the school. Only use Transport for NSW icons for each type of transport.
- Show routes using colours to match the Transport for NSW icon colours, for example, orange for trains, blue for buses.
- Differentiate morning and afternoon stop locations.
- Show the 5, 10, 15, 20+ minute walk to school with single line rings of different colours (not shading).
- Show the walk to school from public transport stops.

Map details

- North is up.
- Include a scale, in metres.
- Emphasise accessible entry points.
- Show steps and stairs that may make entrances harder to access.
- Show bike and scooter parking within the school grounds.
- Include footpaths near the school, on both sides of all roads and near pedestrian crossings.
- Include pedestrian crossings and crossings with signals or Lollipop staff.



For more information contact:
School Infrastructure NSW
Email: schoolinfrastructure@det.nsw.edu.au
Phone: 1300 482 651
www.schoolinfrastructure.nsw.gov.au

NSW GOVERNMENT

Breakout boxes to fill empty spaces

Something broken on the way to school?

Use the Snap Send Solve app or website to report issues to the people who can fix them.

Things like abandoned trolleys, broken footpaths or water leaks can all be reported in the app.

Download it today from the App Store or Google Play. Or visit **www.snapsendsolve.com**

Discounts, offers or initiatives for students and parents

- Include information about bike insurance, discounts, courses or car share pods, as relevant.

Tap on and tap off every time

Use your School Opal card every time you catch public transport to school.

It tells us how many people are using public transport to help us plan buses, trains and ferries to suit you.

Plan your trip to school

You can plan ahead to make sure you get to school on time!

Visit transport.info or download an app to help:

- Trip View
- Next There

For more information contact:
School Infrastructure NSW
Email: schoolinfrastructure@det.nsw.edu.au
Phone: 1300 482 651
www.schoolinfrastructure.nsw.gov.au

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