



St Patrick's College, Strathfield Green Travel Plan

Prepared for:

St Patrick's College

11 September 2020

The Transport Planning Partnership

St Patrick's College, Strathfield

Green Travel Plan

Client: St Patrick's College

Version: Final V02

Date: 11 September 2020

TTPP Reference: 19235

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
Final V01	19/03/20	Clinton Cheung, Santi Botross	Santi Botross	Ken Hollyoak	
Final V02	11/09/20	Clinton Cheung, Santi Botross	Santi Botross	Ken Hollyoak	

Table of Contents

1	Introduction	1
1.1	Background.....	1
1.2	Role of a Green Travel Plan.....	2
1.3	Drivers of the Travel Plan.....	2
1.3.1	Car parking.....	2
1.3.2	Environmental Impacts	2
1.3.3	Health Benefits	3
1.3.4	Social Equity	3
1.3.5	Staff and Student Attraction	3
1.3.6	Education and Leadership	3
1.4	Transport Objectives	4
2	Existing Transport Context	5
2.1	Existing Transport Services.....	5
2.1.1	Public Bus	5
2.1.2	School Bus.....	6
2.1.3	Strathfield Connector Bus	8
2.1.4	Train	9
2.2	Pedestrian and Cyclist Facilities.....	9
3	Mode Share	12
3.1	Existing Travel Patterns	12
3.2	Public Transport and Active Travel Catchment Areas.....	14
3.2.1	Free or Subsidised Public Transport	15
3.2.2	Proximity to Public Transport Stops and Services	17
3.2.3	Walking and Cycling Catchment Areas.....	21
3.3	Mode Share Targets	24
4	Methods of Encouraging Modal Shift.....	26
4.1	Site Specific Measures.....	26
4.2	Off-Site Measures.....	31
4.3	Transport Access Guide	31
5	Management and Monitoring of the Plan	32
5.1	Management.....	32
5.2	Green Travel Plan Working Party	32
5.3	Consultation	32

Tables

Table 3.1: Student Mode Share	13
Table 3.2: Mode Share General Categories	24
Table 3.3: Future Mode Share Targets	25
Table 4.1: Site Specific Measures	26

Figures

Figure 2.1: Local Bus Network Map	5
Figure 2.2: AM Bus Routes.....	6
Figure 2.3: PM Bus Routes	7
Figure 2.4: Strathfield Connector Bus Routes	8
Figure 2.5: Train Routes via Strathfield Station.....	9
Figure 2.6: Local Cycleway Map	10
Figure 2.7: Proposed Local Cycleway Map.....	11
Figure 3.1: Existing Modal Split – Staff and Students.....	13
Figure 3.2: Students Place of Residence	14
Figure 3.3: Staff Place of Residence	15
Figure 3.4: School Student Transport Scheme (SSTS) Exclusion Zones	16
Figure 3.5: School Bus Stop Catchment	18
Figure 3.6: Strathfield Station Direct Train Line Catchment.....	18
Figure 3.7: Public Bus Stop Catchment.....	20
Figure 3.8: Strathfield Station Direct Train Line Catchment.....	20
Figure 3.9: Student Active Travel Catchment Zone	22
Figure 3.10: Staff Active Travel Catchment Zone.....	22

APPENDICES

A. TRANSPORT ACCESS GUIDE

1 Introduction

1.1 Background

The Transport Planning Partnership (TPPP) has prepared this Green Travel Plan (GTP) on behalf of Urbis Pty Ltd (Urbis) to accompany a State Significant Development (SSD) application for the proposed development at St Patrick's College, Strathfield (the site). The site is located at No. 1 & 2 Edgar Street, Strathfield.

The proposal comprises a new Science and Learning Building (STEMM) with a basement parking level accommodating 59 car parking spaces. The works proposed as part of this SSD application are:

- Demolition of five existing tennis courts;
- Construction of a new four-storey STEMM building including an associated basement car park, 2 x rooftop tennis courts, 2 x outdoor tennis courts; and
- New landscaped civic space associated with the College.

The SSD application will also seek to increase the current student population allowing strategic planning certainty for the College and responding to the demands in providing quality Catholic education in the region.

It is proposed to progressively increase the student population of the College to a maximum of 1,790 by the end of 2029. This is based on a seven-year forecast for the College, which seeks to add a new stream of 30 students per year until there are seven streams in each year group. The 1,790 student population target also incorporates a buffer allowing for future variances to this forecast. The future student enrolment forecast is given in Table 1.1.

Table 1.1: Student Enrolment Forecast

	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year 5	185	215	215	215	215	215	215	215	215
Year 6	185	185	215	215	215	215	215	215	215
Year 7	181	182	182	212	212	212	212	212	212
Year 8	180	182	182	182	212	212	212	212	212
Year 9	180	180	180	180	180	210	210	210	210
Year 10	180	180	180	180	180	180	210	210	210
Year 11	175	175	175	175	175	175	175	202	202
Year 12	170	170	170	170	170	170	170	170	200
Total	1,436	1,469	1,499	1,529	1,559	1,589	1,619	1,646	1,676
Annual Increase		33	30	30	30	30	30	27	30

St Patricks College does not operate any before or after school care. Co-curricular activities mainly take place after school comprising small groups of students who participate in sporting activities including basketball in summer terms, and soccer and rugby in winter terms. Afternoon co-curricular activities commence at 3.30pm and conclude before 4.50pm on school days.

1.2 Role of a Green Travel Plan

The purpose of a GTP relating to an educational facility is to encapsulate a strategy for managing travel demand that embraces the principles of sustainable transport whilst recognising the unique context of travel planning for a school. In its simplest form, this GTP encourages travel to and from the school campus using transport modes that have low environmental impacts, for example active transport modes including walking, cycling, public transport, and encourages better management of car use.

Active transport presents a number of interrelated benefits including:

- improved personal health benefits
- reduced traffic congestion, noise and air pollution caused by motor vehicles
- greater social connections within communities, and
- cost savings to the economy and individual.

As assessed in the Transport Impact Assessment as part of the SSD Application, it is estimated that the proposed development would generate in the order of 151 car trips in the AM school peak period and 115 car trips in the PM school peak periods. Managing travel demand in favour of sustainable modes is challenging but would be critical particularly when considering the future development of St Patrick's College.

1.3 Drivers of the Travel Plan

There are a number of social, environmental and economic drivers for developing and implementing a GTP for developments as detailed below.

1.3.1 Car parking

Car parks on campus utilise valuable land resources and impact campus amenity. If the campus continues to grow and there is no modal shift towards non-car transport modes, the car parking demand could increase into the future.

1.3.2 Environmental Impacts

The transport sector (road, rail, air and ship) is Australia's third largest source of greenhouse gas emissions (GHG), accounting for 18% of emissions in Australia in 2015 (Climate Council of Australia, 2016). Mitigating this impact is a key driver of the GTP. Within Australia, the transport

sector has the highest rate of growth of GHG emissions per year having risen by 51% since 1990 with private vehicles responsible for almost half of transport emissions. In comparison, travel modes such as walking and cycling have the lowest emissions while public transportation has significantly lower impact than private vehicles.

1.3.3 Health Benefits

Use of sustainable transport modes can have wide-ranging health benefits due to a corresponding reduction in greenhouse gas emissions and increase in physical activity from walking and cycling. The shift from private cars to sustainable transport “can yield much greater immediate health “co-benefits” than improving fuel and vehicle efficiencies” (World Health Organisation, 2011). The potential benefits can include reduced respiratory diseases from better air quality, prevention of heart disease, some cancers, type 2 diabetes and some obesity-related risks.

1.3.4 Social Equity

Transport has a fundamental role in supporting social equity, that is the equitable distribution of services, amenities and opportunities. The provision of sustainable transport modes can provide a more affordable alternative to car use. As such, it offers better mobility for adults, children, young people, the aged, persons with disabilities and the poor, who have less access to private vehicles, thereby enhancing social equity.

1.3.5 Staff and Student Attraction

Ease of access has a significant impact on choices of work and study. Negative experiences and costs associated with travel can reduce the competitiveness of a school. High quality and efficient transport systems are key to attracting and retaining staff and students. Support for active transport modes is also highly desired by employers and employees, because it improves health and productivity.

1.3.6 Education and Leadership

Educational facilities would have a high number of new people coming through the organisation each year and as such, the organisation would have a unique opportunity to educate students into sustainable travel behaviours. These travel behaviours can help shape long-term travel behaviours that extend long after their completion at the school. Successful travel planning and education can reduce traffic impacts on the road network while potentially supporting a positive influence on local areas by raising public transport service demand and improving amenity.

1.4 Transport Objectives

The following objectives have been identified in order to facilitate a modal shift towards more sustainable transport modes to achieve the vision of the GTP:

Objectives:

1. Improve access, safety, amenity and convenience of sustainable transport modes for travel to/from the campus
2. Establish a culture of active and public transport use by incentivising sustainable transport modes
3. Achieve modal shift away from car usage by limiting convenience of car access and parking within the campus
4. Maximise use of proposed bus infrastructure (e.g. bus bays) to support modal shift away from car usage.

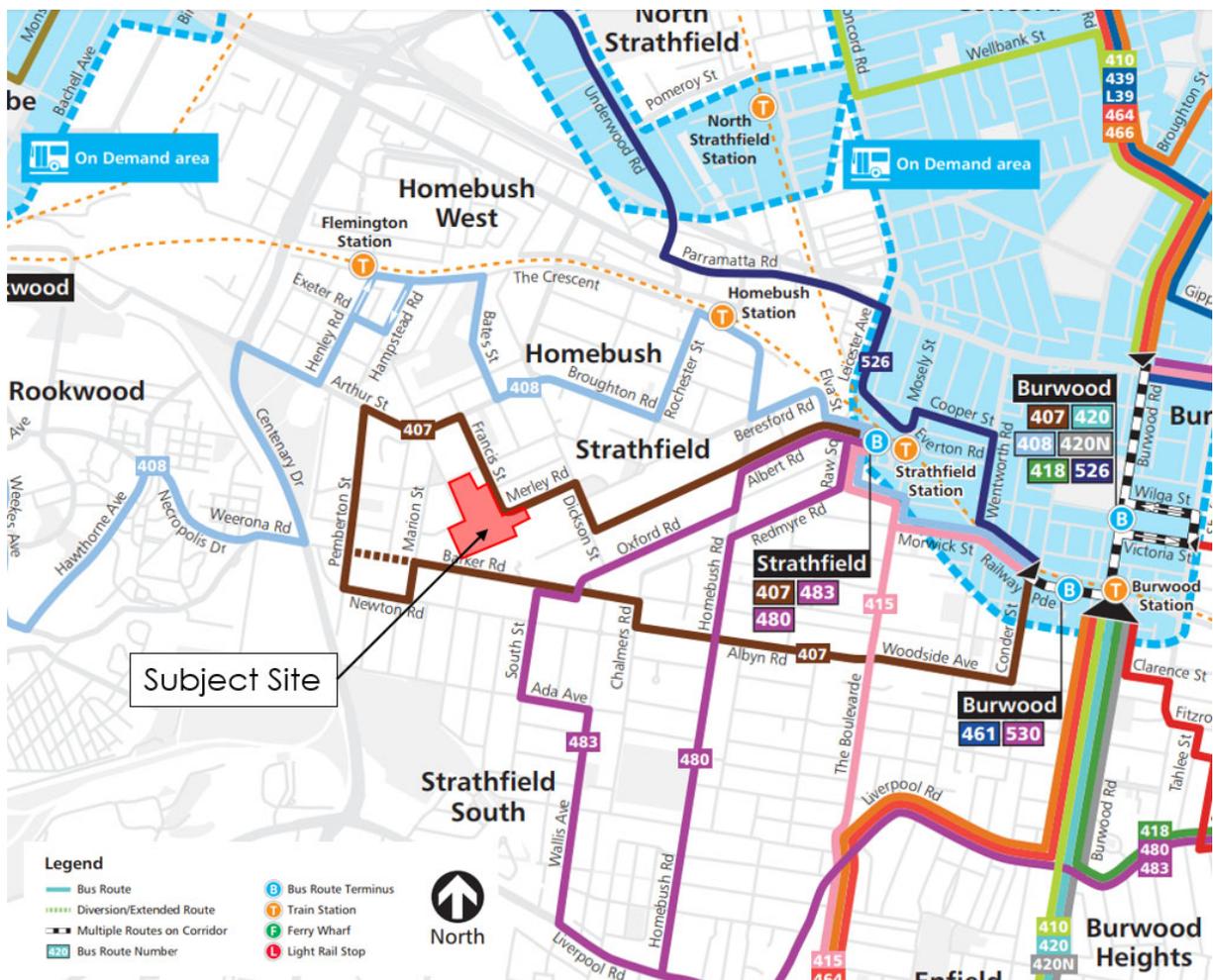
2 Existing Transport Context

2.1 Existing Transport Services

2.1.1 Public Bus

The school is currently serviced by one public bus route, namely bus route 407 which provides connectivity between Strathfield Station and Burwood Station. Bus services arrive/depart along the Merley Road and Francis Street site frontages with services running every 30 minutes during the AM and PM school peak periods and every hour during non-peak periods. The public bus network surrounding the school is shown in Figure 2.1.

Figure 2.1: Local Bus Network Map



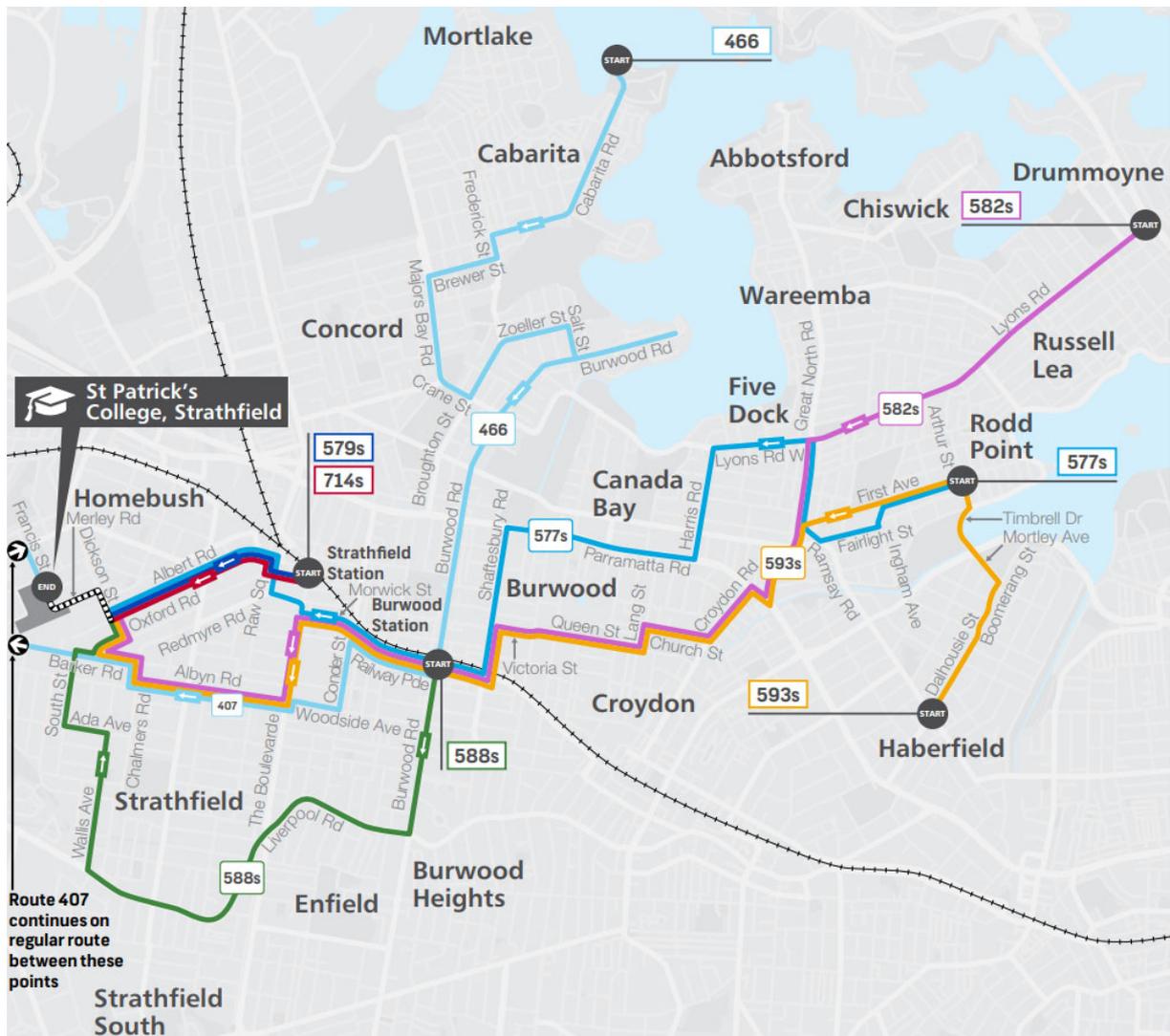
2.1.2 School Bus

School bus services are provided by Transit System for St Patrick’s College during school peak periods. Suburbs serviced by morning and afternoon school buses are illustrated in Figure 2.2 and Figure 2.3, respectively.

Morning school bus routes generally provide one or two services per day with the exception of bus route 579 which provides eight services between 7:52am – 8:37am.

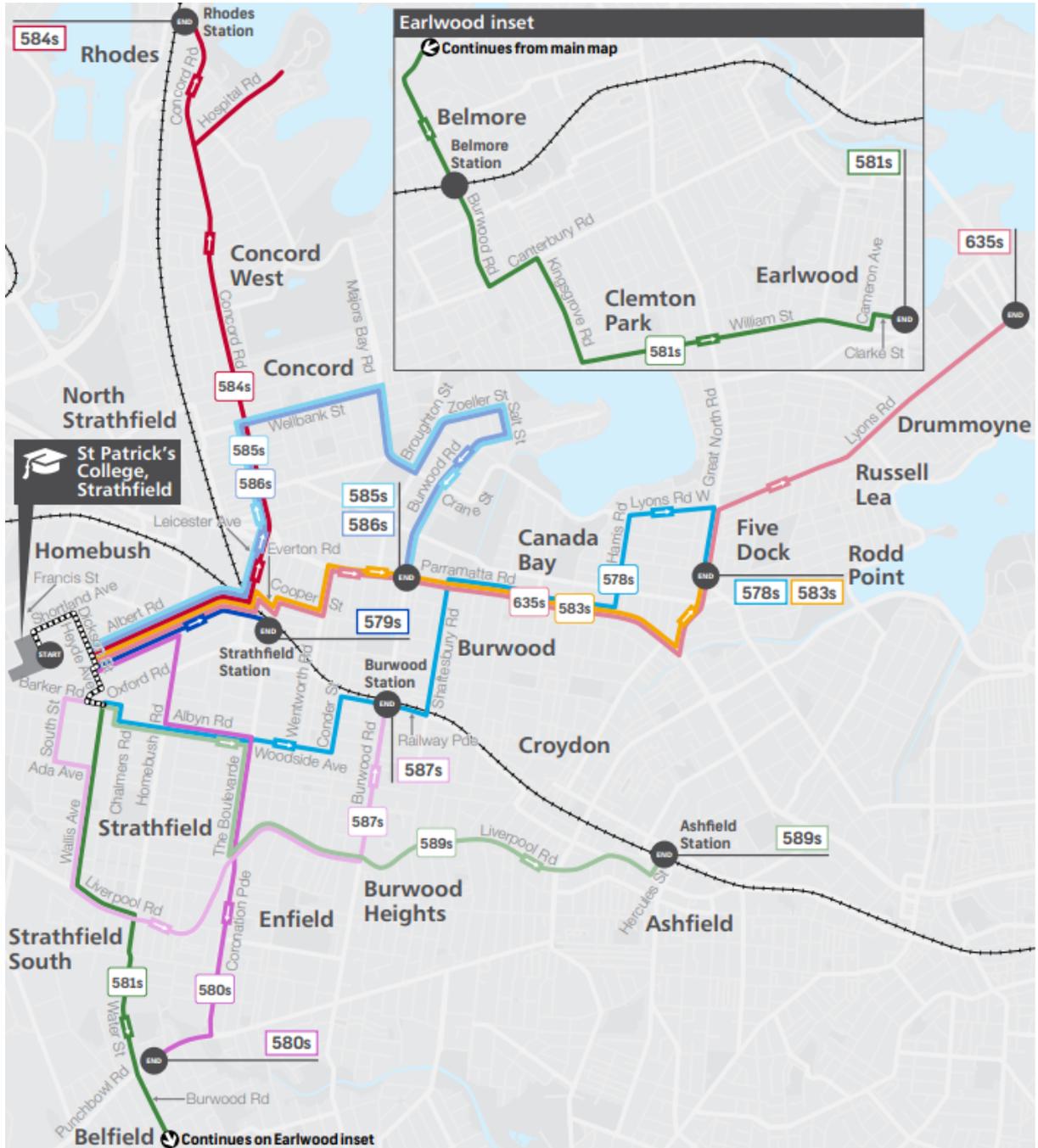
Afternoon bus routes are serviced by one bus with the exception of bus route 579 which provides a direct bus services to Strathfield Station every 5 minutes from 3:20pm to 3:35pm.

Figure 2.2: AM Bus Routes



Basemap Source: Transit System St Patrick’s College, Strathfield Morning Timetable

Figure 2.3: PM Bus Routes



Basemap Source: Transit System St Patrick's College, Strathfield Afternoon Timetable

2.1.2.1 Existing School Bus Occupancy

A school bus occupancy survey was undertaken by the school on 6 November 2019 during the morning drop-off and afternoon pick-up periods. The results of the survey reveal that the average capacity of buses arriving before school is 65% and departing after school is 50%. This indicates that there is additional capacity on the existing school bus network for additional students in the future scenario.

2.1.3 Strathfield Connector Bus

As part of a new community initiative, Strathfield Council launched a free commuter bus called 'Strathfield Connector' in March 2019. The free commuter bus services residents of Strathfield LGA connecting them with local shops, restaurants and businesses. The free bus service operates seven days a week providing two bus routes (blue route and red route) every 30 minutes between 7am – 7pm.

The location of the bus services can be tracked via the Council's website with live updates on bus whereabouts. The red and blue Strathfield Connector Bus Routes are shown in Figure 2.4

Figure 2.4: Strathfield Connector Bus Routes



Source: Strathfield Municipal Council

2.1.4 Train

The nearest train stations are Flemington station, Homebush station and Strathfield station. These train stations are located between 1.5km and 2km walking distance (or 17-24 minutes) from the school site.

Strathfield station is a major interchange on the Sydney Trains network and provides services for several train lines towards Sydney CBD, Western Sydney, Northern Suburbs and South-Western Sydney. Train lines which operate via Strathfield station are given in Figure 2.5.

Figure 2.5: Train Routes via Strathfield Station

T1	Emu Plains or Richmond to City
T1	City to Emu Plains or Richmond
T2	City to Parramatta or Leppington
T2	Parramatta or Leppington to City
T3	City to Liverpool or Lidcombe via Bankstown
T3	Liverpool or Lidcombe to City via Bankstown
T7	Olympic Park to Lidcombe
T7	Lidcombe to Olympic Park
T9	North Shore to Hornsby via City
T9	Hornsby to North Shore via City
BMT	Central to Bathurst
BMT	Bathurst to Central
CCN	Central to Newcastle via Strathfield or Gordon
CCN	Newcastle to Central via Strathfield or Gordon

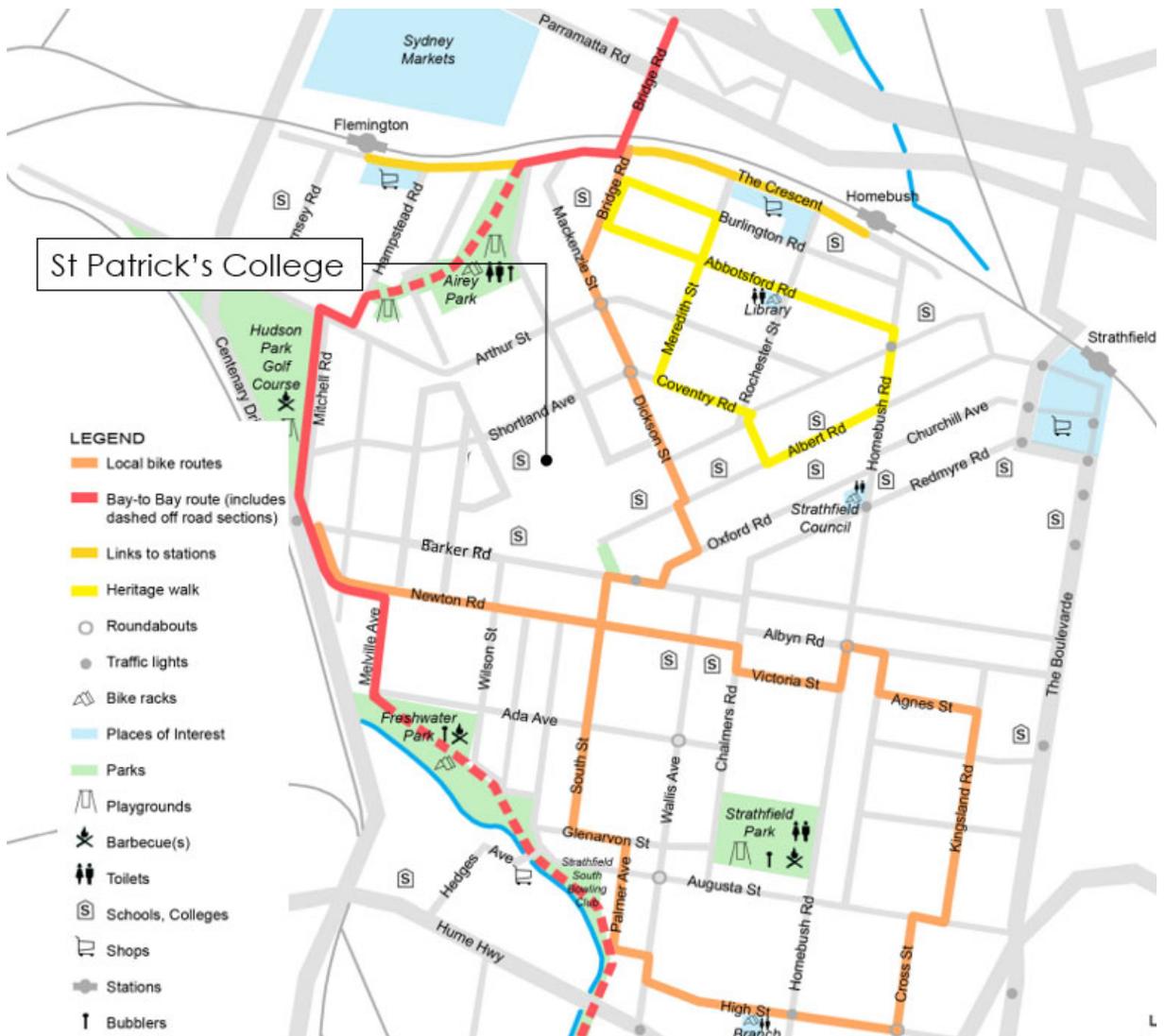
2.2 Pedestrian and Cyclist Facilities

Paved pedestrian footpaths are generally provided on all surrounding streets in the immediate vicinity of the school site providing accessibility to the wider walking network. A pedestrian crossing facility is provided on Francis Street adjacent to the school entrance.

There are a number of local on-road bike routes provided along Dickson Street and Newtown Road to provide good connections to the wider cycle network surrounding the school. The existing bicycle network is shown in Figure 2.6.

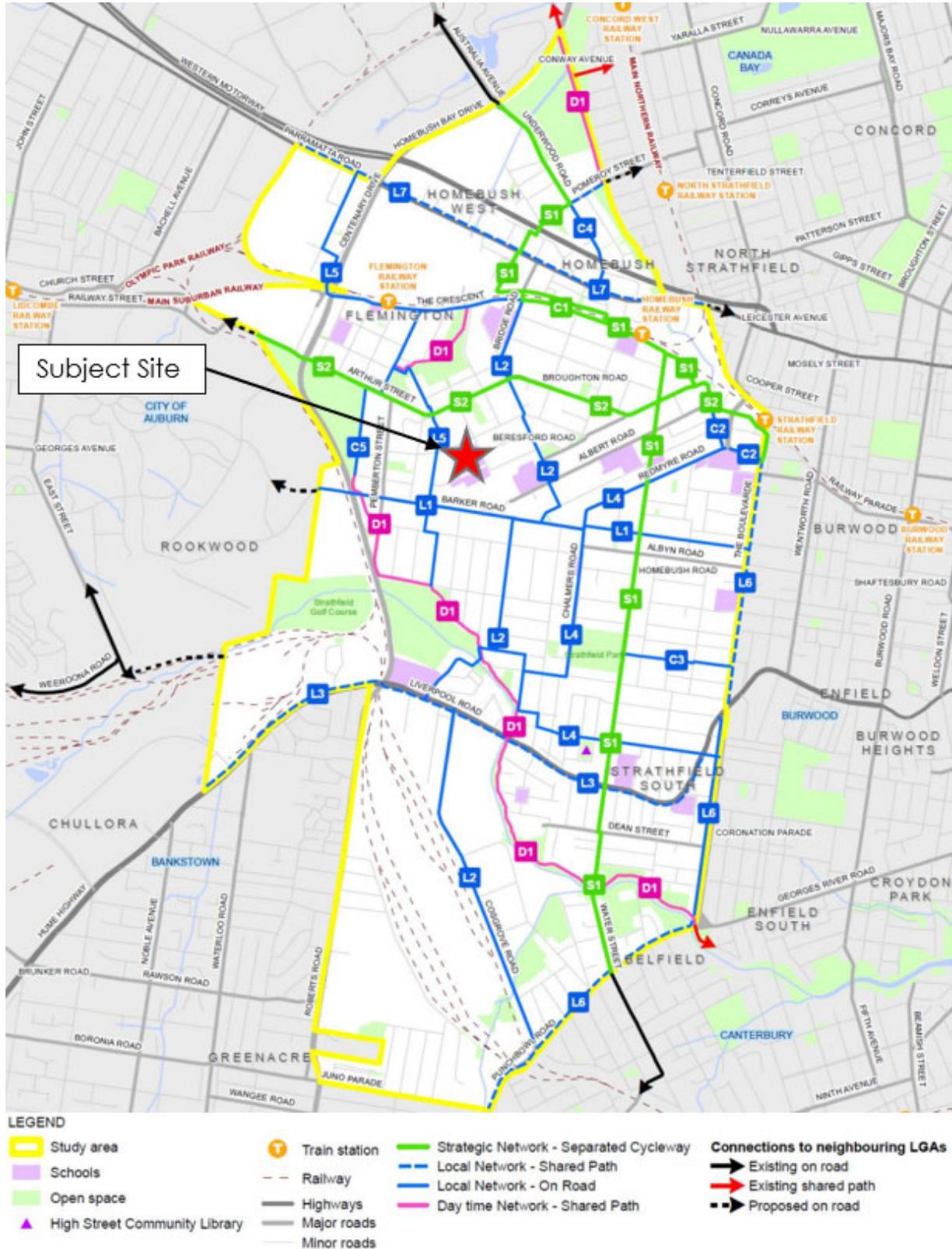
Strathfield Council intends to improve cycling connections in the future as detailed in Council's Active Travel Plan Report and as shown in Figure 2.7. The map shows that separated cycleways are proposed along Arthur Street and Homebush Road providing east-west and north-south routes in the vicinity of the subject site, respectively. A connection between the Homebush Road separated cycleway and Arthur Street is shown to the north-west of the subject site. The future Arthur Street cycleway would provide a connection to Dickson Street and Newtown Road which provides links to the School via on-road facilities along local streets.

Figure 2.6: Local Cycleway Map



Source Strathfield Council Bay to Bay Cyclepath map accessed 18/12/19

Figure 2.7: Proposed Local Cycleway Map



3 Mode Share

3.1 Existing Travel Patterns

All students (Year 5 to 12) and staff participated in an online questionnaire in August 2019. The key objective of the data collection was to understand travel behaviour of students and staff.

The response rate of the Survey Monkey questionnaire is as follows:

- 1,021 of 1,441 students completed responses (71% response rate), of which:
 - 859 were students in Year 5 to 10, and
 - 162 were students in Year 11 & 12.
- 101 of 140 staff completed responses (72% response rate).

Figure 3.1 provides a summary of the existing modal splits for Year 5-10 students, Year 11 & 12 and staff for travel to school. Table 3.1 gives a further breakdown of mode share for students.

Private car travel is the primary mode of travel for staff (92.1%). A small proportion travel by public transport or walk (4% and 3% respectively).

The primary mode share for Year 5-10 students is to be driven by a parent (48.3%) which is almost equal to the population who travel by public transport (46.3%). Year 5-10 students who walk or cycle make up approximately 4% and 0.6% respectively.

Year 11 & 12 students almost evenly travel by private car travel (i.e. as the driver or as the passenger) and public transport (45.7% and 45.1% respectively). Of the senior students who travel by car, those who drive and park at the school make up 14.2%. Year 11 and 12 students who walk or cycle make up approximately 7.4% and 1.2% respectively.

The overall student population who use active travel modes (i.e. walking or cycling) make up approximately 4.5% and 0.7% respectively.

Figure 3.1: Existing Modal Split – Staff and Students

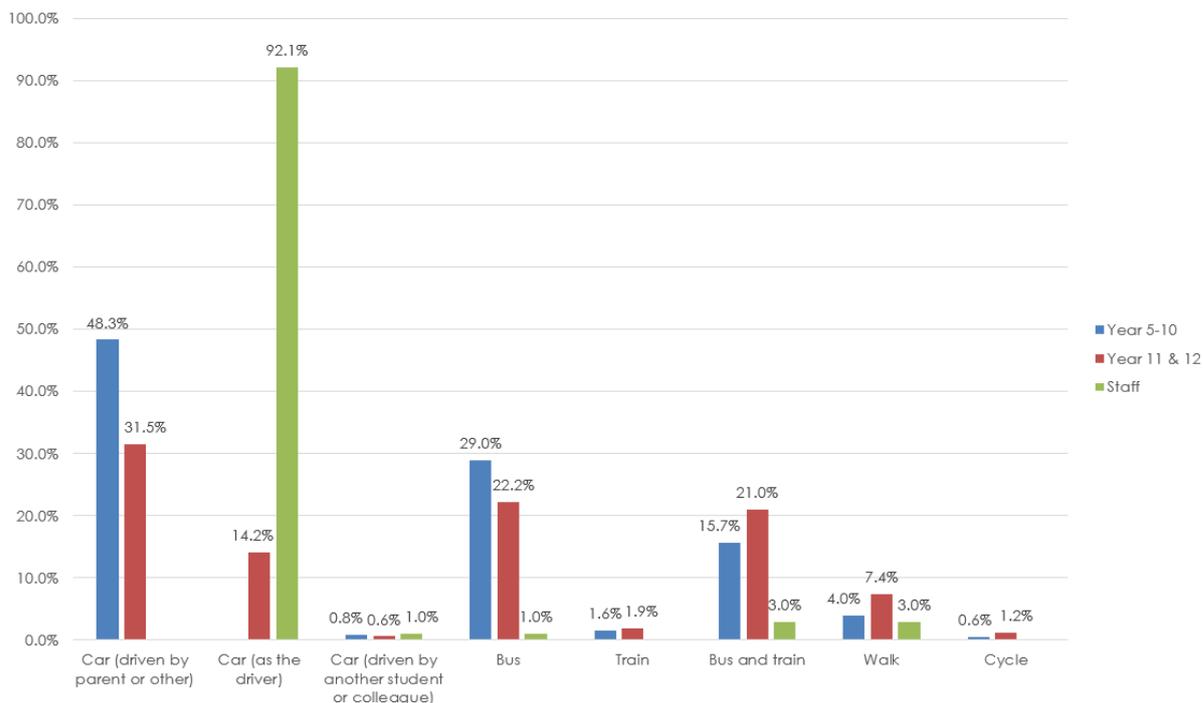


Table 3.1: Student Mode Share

Travel Mode	Year 5 to 10	Years 11 & 12	Overall
Car, dropped off by parent	48.3%	31.5%	45.6%
Car, as the driver (and parked)	-	14.2%	2.3%
Car, driven by another student	0.8%	0.6%	0.8%
Bus	29.0%	22.2%	27.9%
Train	1.6%	1.9%	1.7%
Bus and train	15.7%	21.0%	16.6%
Walk	4.0%	7.4%	4.5%
Cycle	0.6%	1.2%	0.7%
Total	100%	100%	100%

The results indicate a high dependency on car usage for staff while students travel fairly evenly between private car and by public transport. This data suggests that there is opportunity to increase the proportion of students and staff using active transport (walking and/or cycling) and public transport modes.

3.2 Public Transport and Active Travel Catchment Areas

Students who attend St Patrick's College reside in areas spread across the wider Sydney Metropolitan as the College accepts students from all postcodes. This differs to State schools (i.e. public schools) where students typically attend the school within the designated local enrolment area. As such, the catchment area for State schools are typically more concentrated in suburbs immediately surrounding the school compared to private educational establishments such as St Patrick's College which have a wider catchment area. This is illustrated in Figure 3.2 and Figure 3.3, respectively.

Information on students and staff place of residence has been analysed to identify the proportion of those who live within an acceptable distance to utilise public transport and active transport when travelling to/from school. Additionally, the information has been utilised to guide the mode shift target for St Patrick's College as contained in this GTP.

The findings of this analysis are presented in the following Sections of this GTP.

Figure 3.2: Students Place of Residence

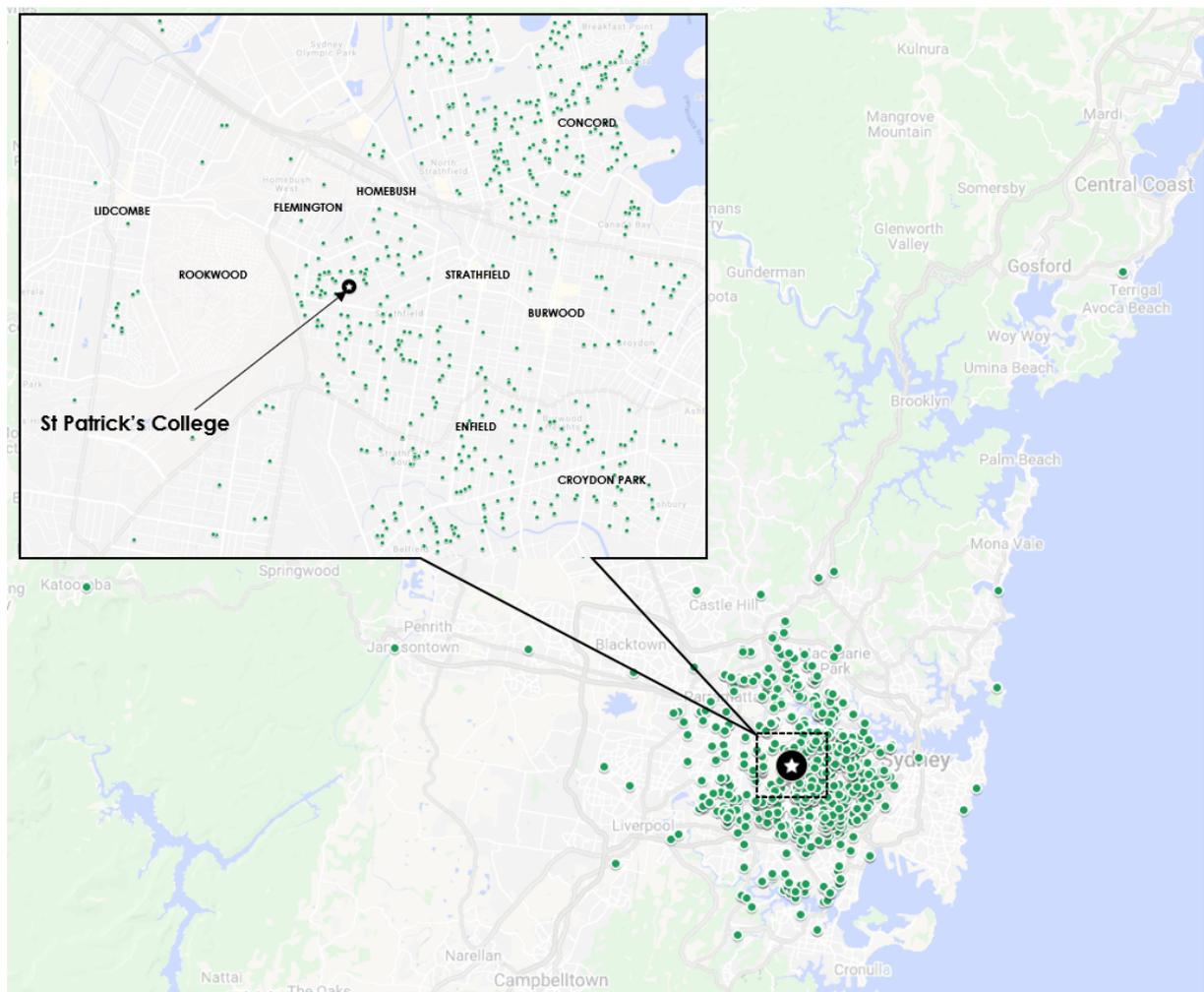
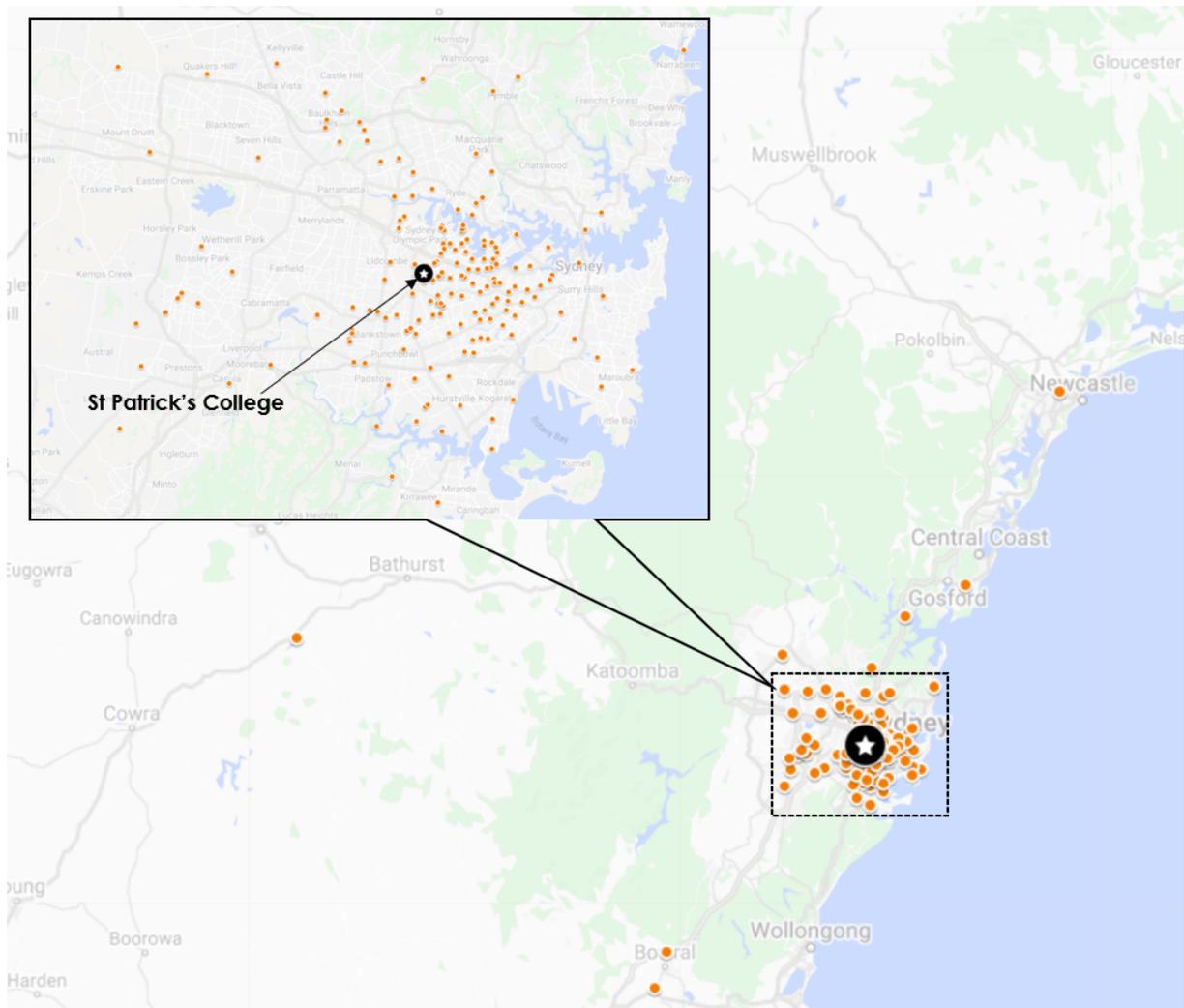


Figure 3.3: Staff Place of Residence



3.2.1 Free or Subsidised Public Transport

Transport for NSW's School Student Transport Scheme (SSTS) gives eligible students free or subsidised travel between home and school on NSW public transport. Students must live a minimum distance from school to be eligible for a free school travel pass. The eligibility criteria varies according to the year/grade, namely:

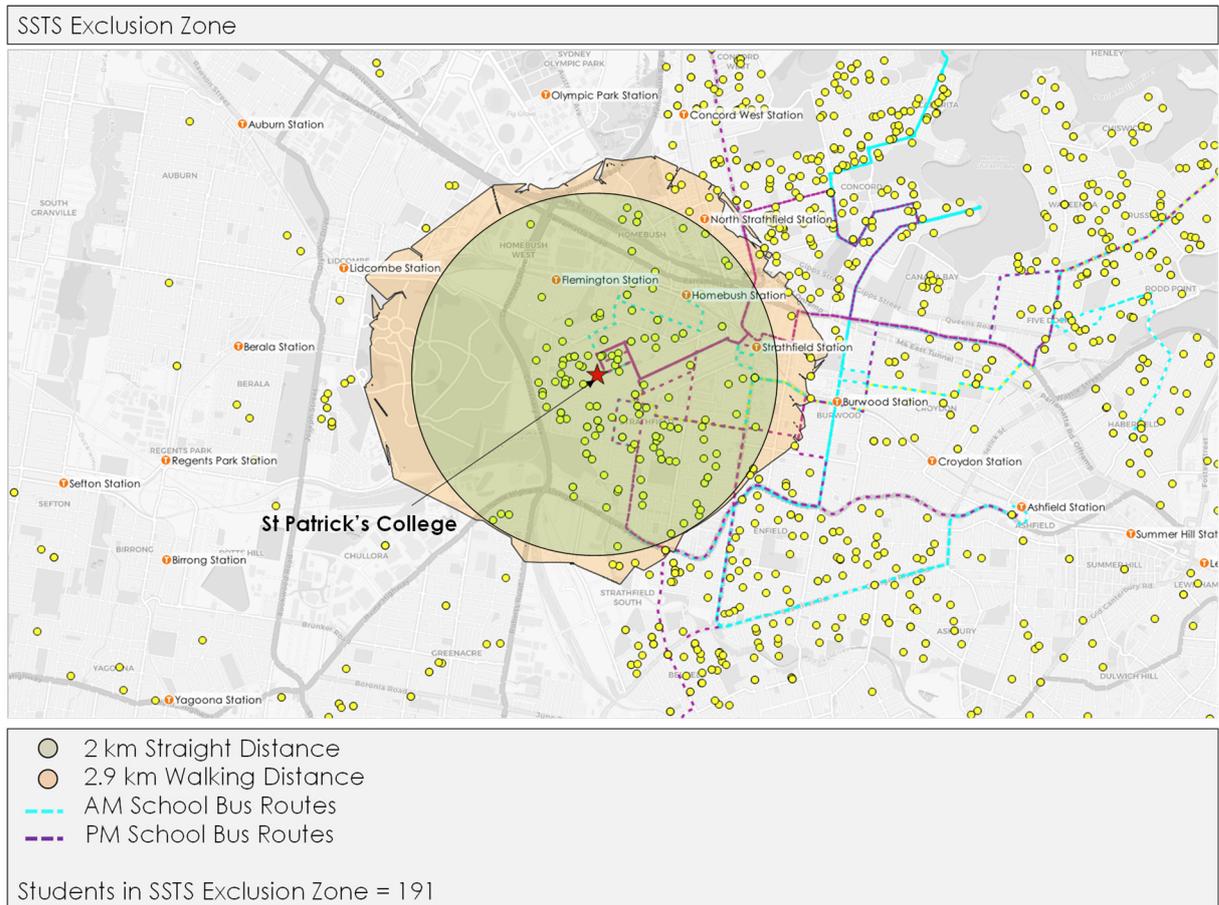
- Students in Years 3-6 must live a minimum of 1.6 km straight line distance or 2.3 km walking distance or further
- Students in Years 7-12 must live a minimum of 2 km straight line distance or 2.9 km walking distance or further.

Whilst the College caters for students in Year 5 to Year 12, student residence information has not been classified into year groups. As such, the following SSTS eligibility assessment is based on the Year 7 to 12 criteria being applied to all students. It is expected that this approach

would have minimal impact on following figures since the student population predominately consists children in Year 7 to 12, therefore capturing the vast majority of students.

The SSTS boundaries for the College are shown in Figure 3.4.

Figure 3.4: School Student Transport Scheme (SSTS) Exclusion Zones



Based on Figure 3.4, approximately 191 students (13% of total student population) live within the 2 km radius and 2.9 km walking distance as shown by the shaded areas. Hence, these students would not be eligible for the free school travel pass. The remaining 1,293 students (87%) would be eligible for the free school travel pass.

The mode share for public transport as a general category as given in Table 3.1 is a combination of bus, train, and bus with train modes. Overall, the public transport mode share for students at St Patrick's College is 46%. Comparatively, just over half of the student population who is eligible for the free school travel pass currently utilises public transport to travel to/from school (46% versus 87%, respectively).

However, the decision to travel using public transport is often influenced by any inconvenience due to changeovers; typically, people are more willing to travel by public transport where the journey requires minimal or no changes between modes or services. This applies to school students and staff as well, hence an analysis on this point has been undertaken and discussed in Section 3.2.2 below.

The 191 students residing within the exclusion zone would be eligible to apply for a School Term Bus Pass which provides discounted travel on buses between home and school. It can be purchased for one or more terms in the school year via the TfNSW school travel website. The current cost is \$55 (including GST) per term and is applicable for use within the Opal network.

Alternatively, subsidised school travel is available for eligible students through the School Drive Subsidy. TfNSW's School Drive Subsidy is available to NSW residents in areas where there is no public transport, to drive an eligible student all or part of the way to school. The subsidy is intended to partly offset the cost of using a private vehicle to drive the eligible student. The subsidy is for driving school students to school or to the nearest transport pick up point, by car or motorcycle. This is an additional measure available for parents to encourage the use of public transport by students at least part of the way to/from school.

3.2.2 Proximity to Public Transport Stops and Services

Often, students and staff will travel by public transport where the journey requires minimal or no changes between modes or services. Therefore, while there may be 87% of students eligible for a free travel pass it could be that a change-over is required while travelling to school or back home. On this basis, an analysis has been undertaken to identify the number of students and staff who live close to public transport with a direct service to the College.

Students living within 500 m of an existing school bus route are shown in Figure 3.5 and those living within 800 m of a train station with a direct line to Strathfield station are shown in Figure 3.6.

Figure 3.5: School Bus Stop Catchment

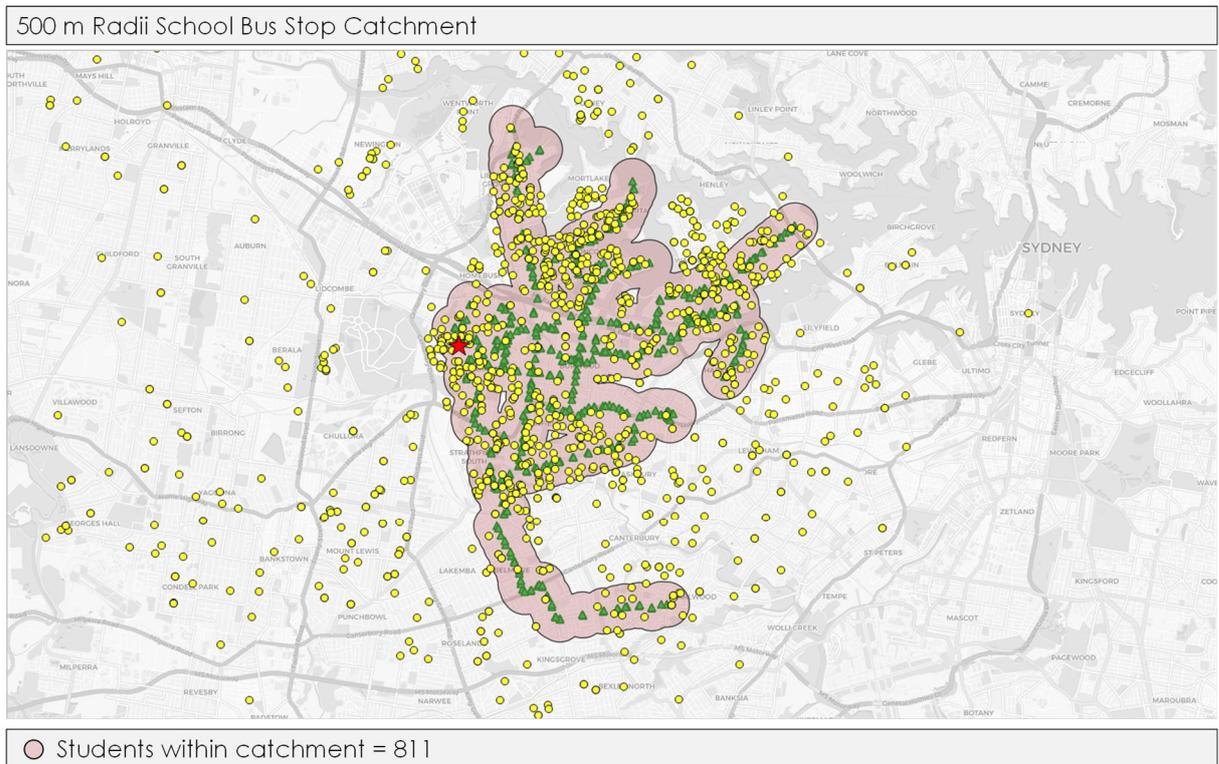
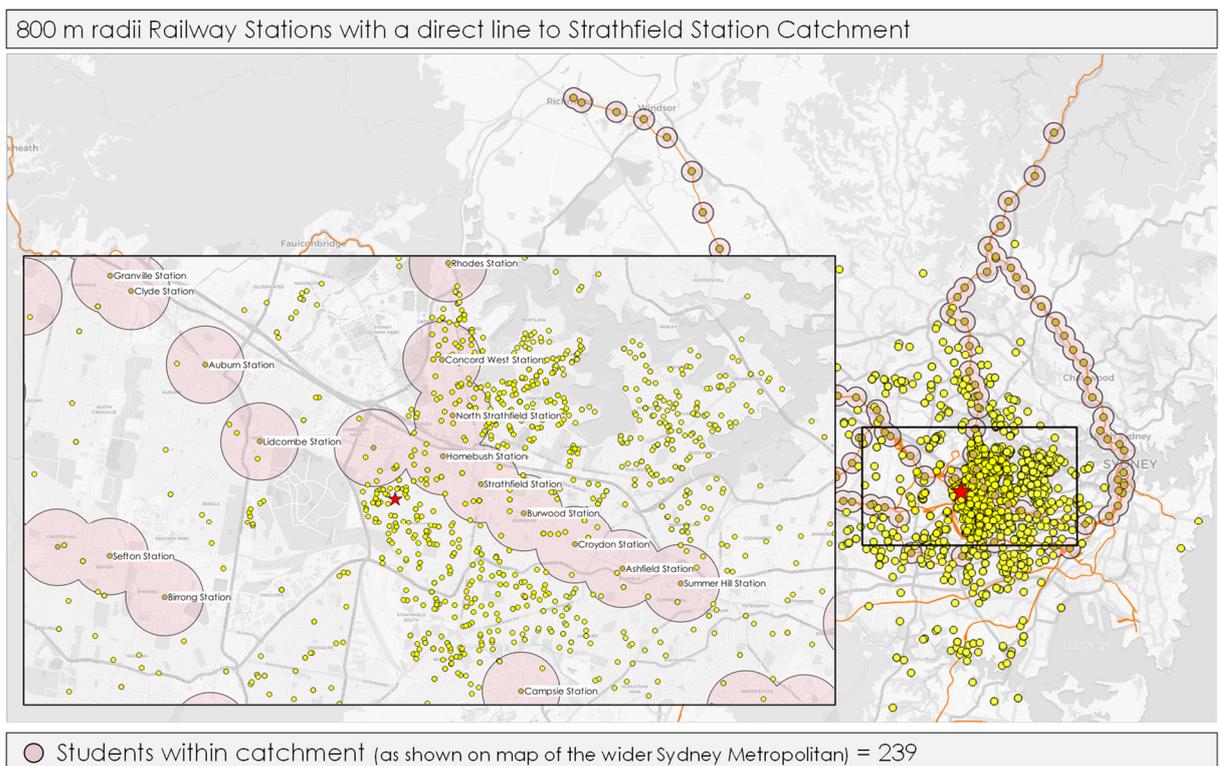


Figure 3.6: Strathfield Station Direct Train Line Catchment



From Figure 3.5 it is shown that there are 811 students (57%) who live close to a bus stop for a school bus service which currently operates to/ from the College. The school bus routes typically service suburban areas having limited or no railway connectivity to the College as shown by the bus route maps in Figure 2.2 and Figure 2.3.

Figure 3.6 shows that there are 239 students (17%) who live close to a train station on a direct line to Strathfield Station. Strathfield station is a major interchange on the Sydney Trains network and provides services for several train lines towards Sydney CBD, Western Sydney, Northern Suburbs and South-Western Sydney.

Collectively, there are 1,050 students (74%) living within close proximity to direct public transport services to the College and Strathfield station. Hence, while 87% of the student population is eligible for a free school travel pass practically only 74% have a 'convenient' method of travelling to school. Notwithstanding this, there is an opportunity to bolster the 46% of the student population who currently travel by public transport.

Similarly, a review has been conducted of staff living within 500 m of a bus stop on the public bus route (route #407) and train lines with a direct service to Strathfield station. The respective catchment areas are shown in Figure 3.7 and Figure 3.8.

Bus route #407 has been assessed as it serves bus stops which are located at the subject site frontage as shown in Figure 2.1 (Stop ID 2135157 and Stop ID 2135154). Bus stops serving other bus routes are located greater than 500 m walking distance of the College which fall outside of the typical walking distance to/from a bus stop. For example, the nearest bus stop served by bus route #483 is located on Oxford Road approximately 750 m from the subject site. Nonetheless, some staff may use such bus routes to travel to/from the College.

Figure 3.7: Public Bus Stop Catchment

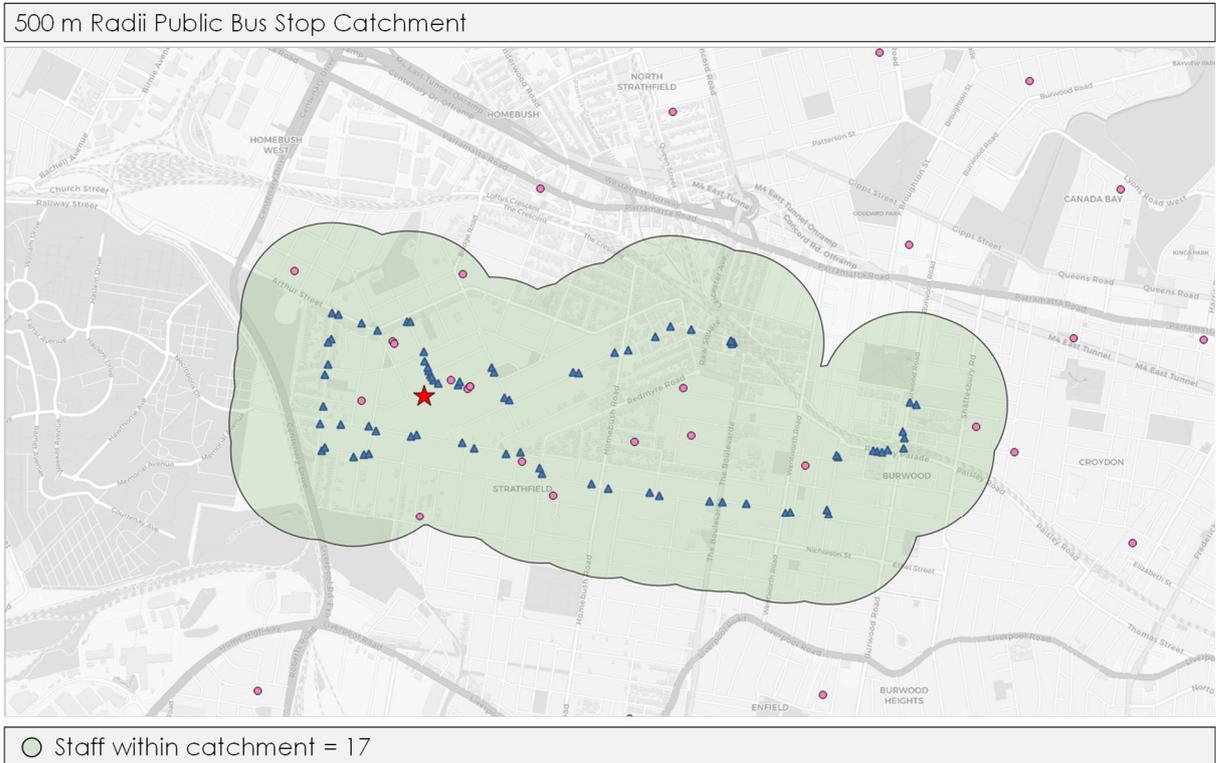
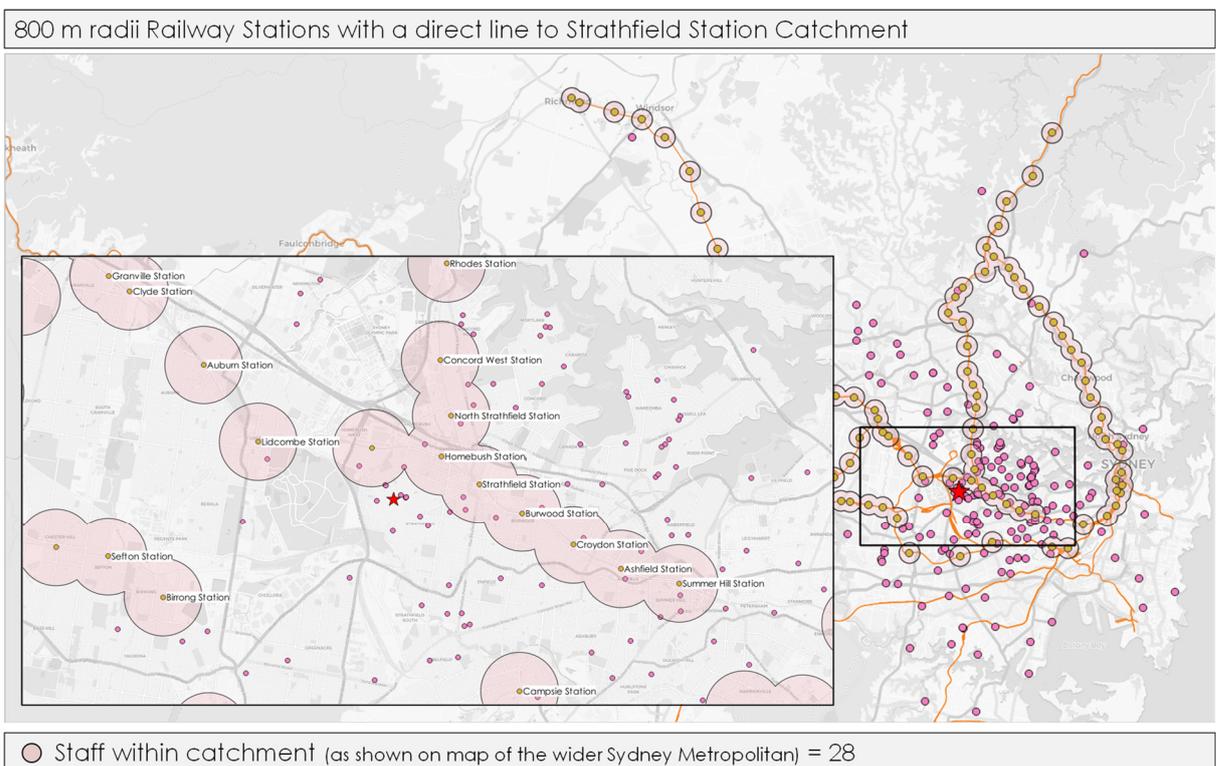


Figure 3.8: Strathfield Station Direct Train Line Catchment



As shown in Figure 3.7, there are 17 staff (9%) who live close to a bus stop for the #407 bus route. Route #407 operates between Strathfield station and Burwood station via Frances Street at the frontage to the College. Journey times from these bus stops to Strathfield station is 6 minutes and to Burwood station is 17 minutes.

Figure 3.6 shows that there are 28 staff (14%) who live close to a train station on a direct line to Strathfield Station.

In total, there are 45 staff (23%) living within close proximity to direct public transport services to the College and Strathfield station. In comparison to the 4% of staff members currently travelling by bus or train, it is evident that there is potential to grow the proportion of staff using public transport.

Although there are direct public transport options, it should be noted that it may not be a 'convenient' method of travel for staff for reasons such as the need to transport teaching material to/ from school or dropping-off/ picking-up children of their own. Measures to overcome such setbacks and encourage more staff to travel by public transport are addressed in Chapter 4.

3.2.3 Walking and Cycling Catchment Areas

The typical walking and cycling catchment areas surrounding a school are walking distance of 2 km and cycling distance of 5 km which is based on an average active travel journey time of 15-30 minutes. Figure 3.9 illustrates these catchment areas for students based on where they live. Similarly, staff walking and cycling catchment areas are shown in Figure 3.10.

It is noted that the cycling catchment areas shown in Figure 3.9 and Figure 3.10 utilise a combination of the existing bicycle, pedestrian and road networks due to discontinuity in the current bicycle network through Strathfield and neighbouring suburbs. Therefore, the cycling catchments in these maps generally depict a more robust catchment area than in reality. Notwithstanding this, there would be opportunities to bolster the number of nearby students and staff who can cycle on-road within local streets, and on footpaths (legally only by students aged 16 or less).

Figure 3.9: Student Active Travel Catchment Zone

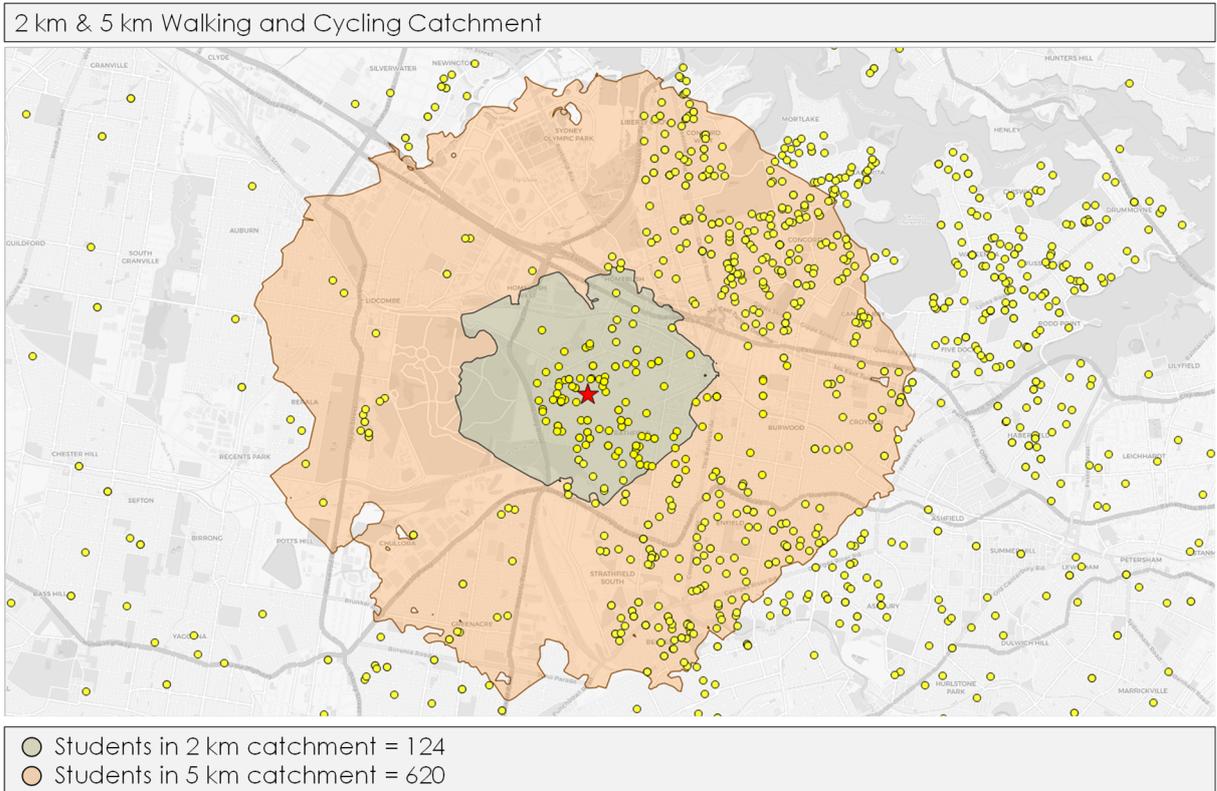
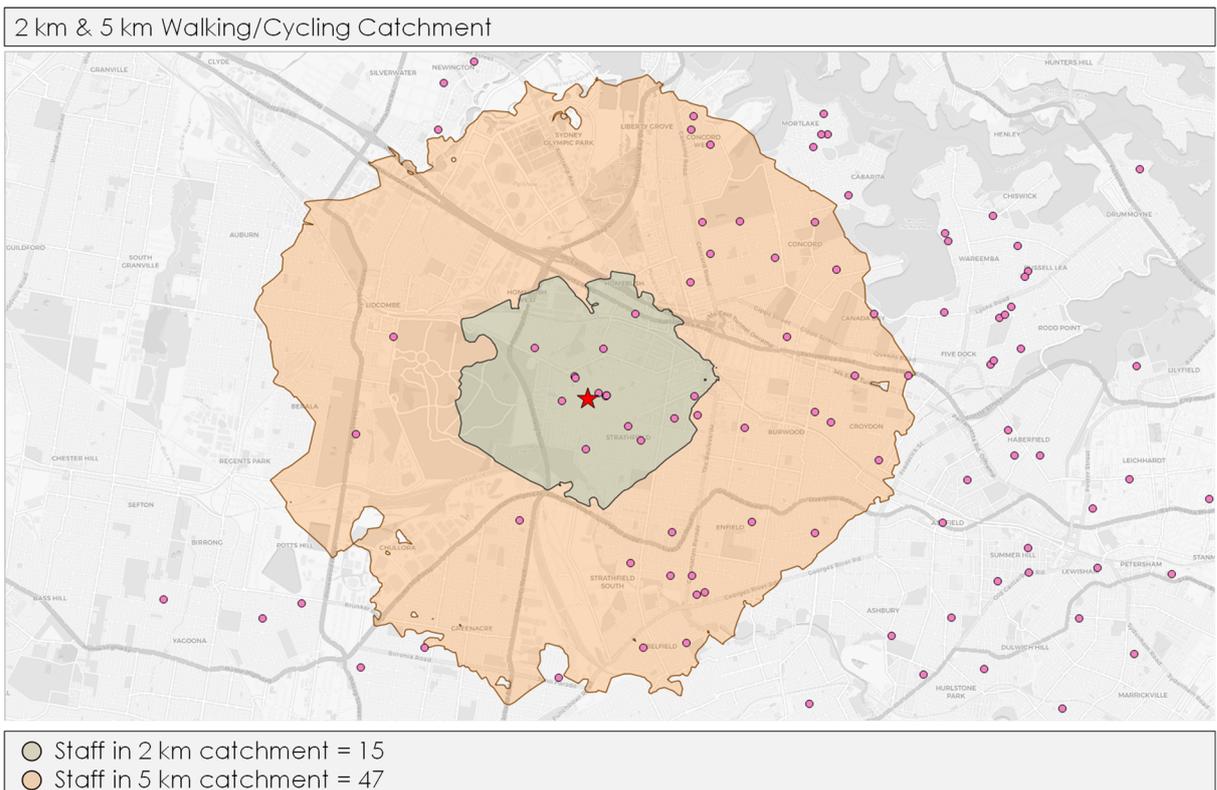


Figure 3.10: Staff Active Travel Catchment Zone



The findings of this analysis indicate that a total of 620 students (44%) and 47 staff (24%) live within a 5 km walking/cycling distance to school. Of those, 124 students (9%) and 15 staff (8%) live within a 2 km walking/cycling distance to school, respectively.

Mode share data (Table 3.1) indicates that 4.5% of the student population currently walks to school which represents half of the student population who live within the walking catchment area (9%). Staff mode share data (Figure 3.1) indicates that 3% of staff currently walk to school which represents less than half of the staff population who lives within the walking catchment area (8%). Therefore, it is clear that there is potential to encourage an uptake in walking to school by both students and staff.

The cycling data is generally more convoluted for the reason described above; the cycling catchment areas shown in Figure 3.9 and Figure 3.10 use a combination of the existing bicycle, pedestrian and road networks due to discontinuity in the current bicycle network through Strathfield and neighbouring suburbs. Therefore, the cycling catchments in these maps generally depict a more robust catchment area than in reality.

Furthermore, assuming that every student living between 2 - 5 km was capable of cycling, there is 496 students (35%) living within the cycling catchment area (the difference between 620 and 124). Applying a similar logic to the staff population, there are 32 staff members (16%) residing within the cycling catchment area (the difference between 47 and 15).

However, this assumes that every person living in the catchment area knows how to cycle, is a rider who is confident enough to cycle in mixed traffic conditions, and/or has access to a bicycle. Therefore, it would unreasonable to directly compare the current bicycle mode share (0.7% of students and 0% of staff) with the population living within this catchment area (35% of students and 16% of staff). Notwithstanding this, there is some potential to encourage more students and staff to ride to school especially those living nearby who would utilise local streets having a low speed and low traffic volumes on the journey to school, as well as those students aged 16 or less who are legally permitted to ride using the footpath.

Aspects that may contribute to the low mode share of walking and cycling amongst student and staff at present could include:

- Proximity to traffic can be noisy and creates perception of reduced safety.
- Lack of information on the available end-of-trip facilities on-site.
- Inconvenience e.g. staff who require to take work to/from school while walking or riding
- Lack of wayfinding signage.
- Parental concerns around traffic danger, the possibility of crime, and potential bad weather.

There is potential to increase the number of staff and students travelling via active modes by providing additional bicycle racks on-site and informing students, parents and staff of the available facilities available on-site (through the School's Transport Access Guide); provision of educational programs to teach students about road safety and stranger danger; provision of information to students, parents and staff on the health benefits of active travel; and, provide information of walking and cycling routes to school from nearby points of interest, such as train stations, shops, local parks and libraries.

The findings of the survey questionnaire and analysis of the origin data have been used as a basis to develop the site-specific measures to encourage a modal shift away from private vehicles. This is further detailed in Chapter 4.

3.3 Mode Share Targets

The aim of the GTP is to encourage modal shift away from private vehicles by implementing measures that influence the travel patterns of staff and students. To ensure that the GTP is having the desired effect, the implementation of the GTP would be regularly monitored, evaluated and updated annually by the appointed Travel Plan Coordinator. The success of the GTP is measured by setting mode share targets and identifying the measures and actions that have the greatest impact.

In order to simplify mode share shift allocation, the modes shown in Figure 3.1 have been collated into three general categories as given in Table 3.2.

Table 3.2: Mode Share General Categories

Mode Share	Students*	Staff*
Private Car ^(a)	49%	93%
Public Transport ^(b)	46%	4%
Active Travel ^(c)	5%	3%
Total	100%	100%

Notes:

*Percentages rounded to the nearest whole number.

(a) 'Private car' comprises car drop-offs/ pick-ups, car as driver, and car-pooling.

(b) 'Public transport' comprises bus, train, and bus + train combination.

(c) 'Active travel' comprises walking and cycling.

The results of the staff and student modal split survey indicate that existing car driver mode share is:

- 93% for staff, and
- 49% for students.

A modal shift between 3-5% is typically considered to be a significant achievement (based on knowledge of local and international GTPs, and as stated by experts in Land Environment Court proceedings).

Notwithstanding this, based on the key findings in Chapter 3 a modal shift between 8-10% could be achieved compared to the stated 3-5% as above.

A summary of the future mode share targets for the school is provided in Table 3.3.

Table 3.3: Future Mode Share Targets

Mode	Student			Staff		
	Current Mode Share	Mode Share with Modal Shift – Low Range ^(a)	Mode Share with Modal Shift – High Range ^(b)	Current Mode Share	Mode Share with Modal Shift – Low Range ^(a)	Mode Share with Modal Shift – High Range ^(b)
Private car	49%	41% (↓8%)	39% (↓10%)	93%	85% (↓8%)	83% (↓10%)
Public transport	46%	51% (↑5%)	52% (↑6%)	4%	9% (↑5%)	10% (↑6%)
Active travel	5%	8% (↑3%)	9% (↑4%)	3%	6% (↑3%)	7% (↑4%)
Total	100%	100%	100%	100%	100%	100%

Notes:

(a) Low Range Modal Shift = 8% modal shift away from private car.

(b) High Range Modal Shift = 10% modal shift away from private car.

Currently, 0.7% of students and 0% of staff cycle to school. As part of the modal shift target of 3-4% for active travel, it is anticipated that the school would be able to achieve an increase of approximately 1.5% in the proportion of students and staff riding to school (remaining 1.5% increase would be anticipated for those walking to school). This would be achieved through measures which are proposed to be adopted at St Patrick's College as described in Chapter 4. Achieving a cycle modal shift greater than this will rely upon improvements to existing cycling connections in Strathfield and surrounding suburbs which Council intends to improve in the future (Figure 2.7) as reported in Council's Active Travel Plan.

Based on the above, the future cycle mode share and populations are anticipated as follows:

- 2.2% of student population cycle mode share = approximately 39 students, and
- 1.5% of staff population cycle mode share = approximately 3 staff members.

On this basis, there would be a minimum of 42 bicycle racks provided on-site for students and staff to use. The location of bicycle racks are shown on the TAG.

Method for encouraging modal shift away from private car use are described in Chapter 4 below.

4 Methods of Encouraging Modal Shift

To achieve the objectives and targets of the GTP measures would be implemented by the appointed Travel Plan Coordinator to influence travel patterns to/from school with a view to encourage mode shift away from cars. The Travel Plan Coordinator would also be responsible for communication of these measures, strategies and plans.

4.1 Site Specific Measures

Table 4.1 outlines measures which will be implemented by St Patrick's College as well as additional measures which would be considered in the future to encourage more sustainable travel to/from school by students and staff.

Table 4.1: Site Specific Measures

Item	Measures for Staff	Measures for Students
1. Travel Plan Coordinator	<p>The implementation of this GTP and TAG will be supported by a Travel Plan Coordinator at the College. The Travel Plan Coordinator will provide a central point of contact to coordinate travel-related initiatives with other partners in the area, Council or TfNSW.</p> <p>With the TAG and GTP, a Communications Plan and Monitoring Strategy will be developed and implemented by the Travel Plan Coordinator to regularly advertise sustainable transport options and evaluate the effectiveness of measures that have been implemented at the College. This would involve conducting annual travel questionnaires to understand the transport mode choices for the journey to school.</p> <p>In 2020, St Patrick's College set up a working party comprising staff and student representatives to begin developing some of the below initiatives. The school proposes to trial the implementation of some measures in Term 3 and Term 4 of 2020 so that the community can begin to experience the benefits sooner.</p> <p>Furthermore, St Patrick's College is seeking to alleviate traffic congestion surrounding the school in the afternoon peak by implementing staggered finish times. By Term 4 of 2020, the school will amend its finish times to 3:10pm for Year 5-6 and 3:30pm for Year 7-12. In addition, the school is seeking to extend the length of the existing Kiss and Ride facility at the school frontage on Edgar Street and Fraser Street. The Kiss and Ride facility is intended to be used by students/ parents who are travelling by car-pooling and those who have limited means for travelling to/from school by public transport or active transport. Currently, the facility operates over-capacity and therefore it is proposed to extend the length of the Kiss and Ride facility to Shortland Avenue south side (west of Francis Street).</p> <p>The effectiveness of these measures will be assessed and monitored by the Travel Plan Coordinator, and regularly reported back to the school community with information on the achievements and goals met by students and staff.</p>	
2. Car Parking	<p>Parking space preferences would be given to those staff outside of a 5 km radius. Those within 5 km would be offered a concession on public transport or encouraged to take other active means of transport in the first instance.</p> <p>The school will offer a subsidised Opal card to staff members who travel by sustainable modes of transport for one whole term in one year or 1-2 days per week.</p> <p>The health and environmental benefits of using active transport and public transport will be communicated to staff through staff development days and/or training sessions. In addition, information on cost benefits for travel by sustainable modes versus car</p>	<p>Senior students will be discouraged to drive and encouraged to travel by public transport or active transport.</p> <p>The health and environmental benefits of using active transport and public transport will be communicated to students through learning programs as part of the teaching curriculum, via posters on noticeboards within the College, via e-newsletters and through the TAG which will be provided to each student at orientation and available via the school's website.</p> <p>Parents will also be made aware of these benefits through the distribution of information at student orientation, via</p>

Item	Measures for Staff	Measures for Students
	<p>would be provided. Such benefits would be reinforced at the start of every term and throughout the year via emails and staff newsletters to continually encourage behaviour change, as well as to encourage behaviour change amongst students.</p>	<p>recurring school e-newsletters and the School's social media channels.</p>
<p>3. Car-share vehicle</p>	<p>The school currently provides a car-share vehicle which is well-utilised by staff members. On average, the car-share vehicle is utilised once every two days. In light of this, there is capacity to increase its usage amongst staff.</p> <p>The Travel Plan Coordinator will promote the availability of the car-share vehicle amongst staff by advertising via emails, staff newsletters and on noticeboards in common areas/ staff rooms.</p> <p>The initiative is predominately aimed at staff members who drive to school so that they are able to run errands during the day using their car. Freely accessible car-share vehicles would allow staff to run errands during the day as required while using sustainable modes of transport to travel to/from school. An easy-to-use online booking system is currently in-place so that staff can check the vehicle availability via the internet or staff portal. This assists staff plan their trip ahead of time and make better decisions about travel to/from work.</p> <p>Use of the car-share vehicle would be monitored by the Travel Plan Coordinator. As the use of the car-share vehicle becomes more popular, an additional car-share vehicle/s would be provided within the school car park.</p>	<p>Not applicable.</p>
<p>4. End-of-trip facilities</p>	<p><u>Bicycle parking</u></p> <p>The number of bicycle racks on-site will be increased to accommodate 42 bicycles by staff and students. This will accommodate the anticipated future uptake of cycling by staff by 1.5%.</p> <p>In addition to the 10 bike spaces currently on-site as indicated on the TAG, the College has added an additional 5 bike spaces in the south-east corner of the site upon acquiring classrooms previously leased to ACU. There is capacity to have more spaces where the current 10 are located and caged facilities in the basement of the new development at the centre of the College for those staff/students who want the added security for more expensive road bikes or e-bikes/scooters.</p> <p>Bicycle parking is to be provided in areas of passive surveillance by people walking around on campus. Visibility of bicycles would also encourage staff and students to cycle to school.</p> <p>It is noted that e-bikes and e-scooters are becoming more prevalent as a mode choice. Therefore, such mode options would be encouraged as well to reduce car trips.</p>	

Item	Measures for Staff	Measures for Students
	<p><u>Lockers, change cubicle and showers</u></p> <p>Shower and change cubicles are to be provided at a rate of 2 showers and change cubicles for 11 to 20 bike parking spaces, and 2 additional showers and cubicles for each additional 20 bike parking spaces.</p> <p>It is noted that there are currently two shower and change cubicles provided at the school (one for each gender) which satisfactorily meets the above requirements.</p> <p>Based on the uptake of active modes by staff, the school would consider providing additional lockers staff members who walk or cycle to school. It is noted that staff currently have lockable storage by way of pedestals at their office desks and shared lockers (unlocked) in current shower facilities.</p>	<p><u>Lockers, change cubicle and showers</u></p> <p>It is not typically required by DCP guidelines and planning guidelines to provide showers as an end-of-trip facility for students who cycle to school. Nonetheless, the existing showers and change cubicles located within the school gymnasium will be made available to students should they wish to use them. The location of the available facilities are indicated on the TAG which will be distributed to all students.</p> <p>It is noted that students are currently provided with their own locker for securely storing their personal belongings.</p>
5. Walking Groups	<p>St Patrick's College would put forward this initiative to the school community to create a walking group. Staff employed at the school would be encouraged to walk by implementing a '10,000 steps per day initiative'. This would involve encouraging staff to use their existing smart devices (mobile phones, watches, activity trackers etc.) that measure the number of steps they have walked. Staff members who have achieved the 10,000-step goal over the school term could be rewarded.</p> <p>A 'wall of fame' could be set-up in the staff room which tracks the weekly status of participants' number of steps, winners and progress updates.</p> <p>A further measure could include the provision of free coffee from the canteen for those arriving to school by walking.</p> <p>Also, the school could encourage students and staff may become involved with already established national initiatives, such as 'Step-tember' (which raises money for cerebral palsy).</p>	
6. Bicycle User Groups	<p>St Patrick's College would put forward this initiative to the school community to create a Bicycle User Group (a BUG). This initiative would promote riding (by bicycle and scooter) and allow students and staff to enjoy cycling with the company of others. This would also teach beginner, infrequent or less-confident cyclists the necessary skills required whilst cycling in public.</p> <p>Working closely with the Travel Plan Coordinator, a staff member who cycles would assist in the oversight and organisation of bicycle events and communication to promote cycling amongst students and staff.</p> <p>Further to this, the group can provide interactive learning opportunities such as workshops to teach students and staff how to care for and service bikes. A provision of a bicycle maintenance station (i.e. tyre pump, tools for fixing bikes) would be considered by the school as it would help facilitate this program.</p> <p>A bike-sharing scheme (also known as 'pool bikes') would be considered where bikes can be stored on-site and be utilised by staff or students who wish to cycle home. The person hiring the bike would sign-in/sign-out when taking/returning the bike. Incentives for persons using the bike-share may be available. For example, a points accumulation system which amounts to a gift voucher to be used a local bicycle shop or Rebel Sports. Interest and future use of the bike-share would be monitored by the Travel Plan Coordinator so as use of the bike-share vehicle becomes more popular, additional bikes or scooters would be made available to the school community.</p>	

Item	Measures for Staff	Measures for Students
	<p>St Patrick's College would participate in cycling events, such as the annual National Ride 2 School Day. To encourage and incentivise participation, a muffin-day or barbeque breakfast would be hosted by the school. The Travel Plan Coordinator would organise more frequent events throughout the year to increase opportunities for cycling, such as the first Friday of the month. Furthermore, the Travel Plan Coordinator would consider fundraisers for the school or charities which involve, for example, riding to school every day for one week.</p>	
7. Public Transport	<p>The school will offer a subsidised Opal card to staff members who travel by sustainable modes of transport for one whole term in one year or 1-2 days per week.</p>	<p>The Travel Plan Coordinator shall provide announcements prior to commencement of each year for students (and their parents) to check their eligibility and apply for the SSTS scheme or School Term Buss Pass.</p> <p>The school will encourage students to use school buses, the free Strathfield Connector bus, and public buses. These services provide frequent connections from the school to Burwood Station and Strathfield Station.</p>
8. School Noticeboards, E-Newsletters, School website, Social media channels	<p>Noticeboards will be provided at key locations and on the school's website to make staff, students and parents more aware of the alternative transport options available.</p> <p>The Travel Plan Coordinator will make announcements via homeroom announcements, e-newsletters and via social media channels to inform students, staff and parents of the Green Travel Plan and its aims and measures. The frequency of announcements would be approximately 1-2 times per term to maintain an active level of interest amongst the school community.</p> <p>The Travel Plan Coordinator will undertake annual travel surveys for both staff and students to evaluate the effectiveness of the GTP measures and develop strategies accordingly. The findings of the survey will indicate future transport priorities for the school that can be addressed by the school or should be raised with Council and/or TfNSW for improved way-finding, road safety etc.</p>	
9. Public Transport Incentives/ Discounts	<p>Posters detailing eligibility for Opal Card concessions, off-peak travel incentives, bus services and other public transport information would be placed on noticeboards within staff rooms and emailed to staff.</p> <p>Information on the cost benefits of public transport (in comparison to car travel) and how traveling outside the peak periods will save money is to be communicated to staff regularly throughout the year. For example, there is a 30% discount which is applied to Sydney Trains trips outside of 7am-9am and 4pm-6.30pm.</p>	<p>Information for parents and students about the SSTS eligibility criteria and how to apply for free school travel or school bus pass will be communicated at the start of the year, at student orientation and for any new enrolments. This information will be made available via the school's website so parents/ students may apply online.</p> <p>The TAG will also contain a link TfNSW's website to apply for the SSTS free or subsidised travel pass.</p>
10. Directional Signage or Decals	<p>The TAG will provide students, parents, staff and visitors the walking/cycling route information to assist with them with their journey planning.</p> <p>The majority of people walking and riding to school would be repeated commuters who would be familiar with the routes after travelling to the College several times throughout the year. However, as an additional measure the school would consider consultation with Council for implementation of directional signage and/or pavement decals from nearby points of interest to the school.</p>	
11. Online car sharing forum/ Mobile app	<p>The school would consider developing a car-pooling forum for staff to reduce the amount of single-occupant car trips. The forum would provide a platform for people travelling on the same route to site to find each other and form groups.</p> <p>In addition to this, social events will go hand in hand with this approach to promote social interaction between staff to reduce</p>	<p>Consideration would be made for adopting the 'Skoolbag' mobile app or similar app to provide more easily accessible information to students and parents. An extension to the mobile app could include a car-pool function and instant messaging service for parents of students using the mobile app to facilitate trip-planning and real-time communication.</p>

Item	Measures for Staff	Measures for Students
	social barriers which may deter staff from carpooling with their colleagues.	
	With the latest COVID-19 pandemic, encouragement and development of car-pooling initiatives would be delayed once the advice from State Government is that such activities are safe to resume for school staff and students.	
12. Awareness and Education Programs	<p>Road Safety Awareness and Bike-Ed programs will be incorporated into the teaching and learning curriculum at St Patrick's College. The school is currently involved with <i>Primary Road Safety and eSafety Workshop</i> which is provided by Sydney Catholic Schools. It is a new workshop on road safety and online safety education as part of the Personal Development, Health and Physical Education K-6 syllabus. Through the workshop, the opportunity will be provided to address the need for a whole-school approach. In light of this, St Patrick's College will develop methods to expand and adapt this program for high school students.</p> <p>Students will be educated on how to walk to school and cross roads in a safe manner, cycle safely and utilise protective gear when riding, and pedestrian behaviour around buses and live traffic. An information pack will be distributed to all students and parents at the start of the year, with frequent reinforcement/reminders throughout the year (e.g. at the start of each school term). TfNSW's 'Keeping our Kids Safe Around Schools' would form the basis of the program and information pack.</p> <p>The Travel Plan Coordinator, with assistance from the working party comprising staff and student representatives, will seek fun and interactive ways to incorporate this information into the classrooms. For example, students may be required to develop a short video on exercising safety around schools.</p>	
13. New enrolment starter pack/ Green Travel Plan brochure	<p>All new student enrolments will be provided with a Green Travel Plan brochure including the Travel Access Guide (TAG). The TAG will include links for public transport passes for students, map of nearby public transport and local cycle routes. Also, the TAG will be provided in every student's diary.</p> <p>Furthermore, the TAG will be added to the starter pack for new employees and the Employee Handbook.</p> <p>The GTP brochure and TAG will be available via the school's website as a measure to continually promote the use of active travel modes.</p>	

Further to the above, the St Patrick's College will continue to operate the Kiss and Ride facility at the school frontage on Edgar Street and Fraser Street. The Kiss and Ride facility is intended to be used by students/ parents who are travelling by car-pooling and those have limited means for travelling to/from school by public transport or active transport. Currently, the facility operates over-capacity and therefore it is proposed to extend the length of the Kiss and Ride facility to Shortland Avenue south side (west of Francis Street).

As an additional measure to reduce traffic congestion surrounding the school during the afternoon peak, St Patrick's College proposes to implement staggered finish times (i.e. 3:10pm finish Year 5-6 and 3:30pm for Year 7-12). The promotion of sustainable transport amongst students and staff, as well as the proposed extension of the Kiss and Ride with staggered finish times would alleviate traffic congestion and safety concerns surrounding the school in peak periods.

4.2 Off-Site Measures

The school shall consult with Strathfield Council with a view to implement off-site measures to improve the transport connections to/from the site including:

- investigations with Council to improve or extend the existing bike routes surrounding the College as shown in Council's Bike Map to better connect the school with the wider cycle network, and
- improved signage and way finding from the surrounding local road network, to improve walking and cycling experience. Signage would include way finding for cyclists on the best and safest route to the school.

4.3 Transport Access Guide

The information provided within the GTP will be provided to students and staff in the form of a package of easy to understand travel information known as a Transport Access Guide (TAG).

TAGs provide customised travel information for people travelling to and from a particular site using sustainable forms of transport – walking, cycling and public transport. It provides a simple quick visual look at a location making it easy to see the relationship of site to train stations, bus stops and walking and cycling routes.

Such TAGs encourage the use of non-vehicle mode of transport and can reduce associated greenhouse gas emissions and traffic congestion while improving health through active transport choices.

They can take many forms from a map printed on the back of business cards or brochures. Best practice suggests that the information should be as concise, simple and site centred as possible and where possible provided on a single side/sheet. If instructions are too complex, people are likely to ignore them.

This TAG is to be available for pick up at various locations within the College such as, at front entrances and noticeboards.

A TAG has been prepared for the site and is provided in Appendix A.

5 Management and Monitoring of the Plan

5.1 Management

There is no standard methodology for the implementation and management of a GTP however the GTP would be monitored to ensure that it is achieving the desired benefits. The mode share targets set out in Section 3.3 are used in this regard to ensure there is an overall goal in the management of the GTP.

The monitoring of the GTP would require travel surveys to be undertaken with a focus to establish travel patterns including mode share of trips to and from the site.

The GTP will be implemented by the appointed Travel Plan Coordinator, who would have responsibility for developing, communicating, implementing, and monitoring the GTP. St Patrick's College proposes to appoint a Travel Plan Coordinator for the school, which will be accompanied by a working party consisting of staff and student representatives.

It would also be necessary to provide feedback to students and staff to ensure that they can see the benefits of sustainable transport.

Once the plan has been adopted, it is essential to maintain interest in the scheme. New initiatives in the plan would need to be publicised and marketing of the project as a whole would be important.

5.2 Green Travel Plan Working Party

In 2020, St Patrick's College set up a committee known as the Green Travel Plan working party to begin researching and developing programs and initiatives to promote increased use of public transport, active transport and car-pooling opportunities. The working party includes staff and student representatives.

5.3 Consultation

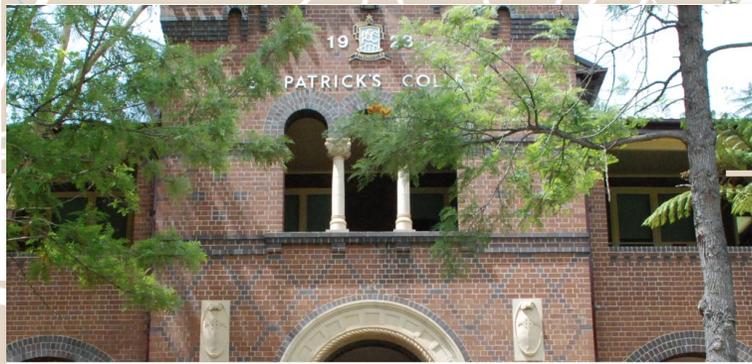
The results of the GTP would be communicated with students, staff and to the wider community via the St Patrick's College website and/or noticeboards and newsletters.

As such, it is recommended that a summary letter is produced presenting the results of the survey every 1, 3 and 5 years. This letter/report can be appended to the GTP.

Communication to staff, students, parents and wider community may be carried out in a similar form by public display of the GTP on the school's website and/or noticeboards. Alternatively, a news article on the matter could be included on the website and/or local news bulletin.

Appendix A

Transport Access Guide



St Patrick's College Strathfield



Use active and public transport to get around!



Public Transport Information

Plan your trip: <https://transportnsw.info/>

Check eligibility and apply for free or subsidised travel:
<https://apps.transport.nsw.gov.au/ssts/home#/>

Free Strathfield Connector Bus:
<https://connector.strathfield.nsw.gov.au/>



Getting Around



Walk



Start walking today to achieve a goal of 10,000 steps per day!

Walk to key locations and attractions in the local area in minutes!



Journey Times

- 10 minutes to Airey Park
- 10 minutes to Hudson Park Oval
- 12 minutes to Freshwater Park
- 13 minutes to Strathfield Library
- 15 minutes to Flemington Local Shops
- 16 minutes to Homebush Local Shops
- 22 minutes to Strathfield Park
- 24 minutes to Strathfield Local Shops



Drop-off/ Pick-up

- Kiss and Ride zone for parents and students is provided along Edgar Street, Fraser Street and Shortland Avenue



Staff Parking

- St Patrick's College Staff parking access via Merley Road, Francis Street, Fraser Street and Edgar Street.



Bus

School Bus and public bus services are available on Francis Street, Dickson Street and Barker Road.

Route	Morning Services
466	From Cabarita
577s	From Rodd Point
579s / 714s	From Strathfield Station
582s	From Drummoyne
588s	From Burwood Station
593s	From Haberfield

Route	Afternoon Services
578s / 583s	To Five Dock
579s	To Strathfield Station
580s	To Belfield
581s	To Earlwood Shops
584s	To Rhodes Station
585s / 586s	To Concord
587s	To Burwood Station
589s	To Ashfield Station
635s	To Drummoyne

For information on school bus routes and timetables, visit:

<https://www.transitsystems.com.au/s/st-patricks-college-strathfield-9xws.pdf>

For information on public bus services, visit:

<https://transportnsw.info/travel-info/ways-to-get-around/bus#/>



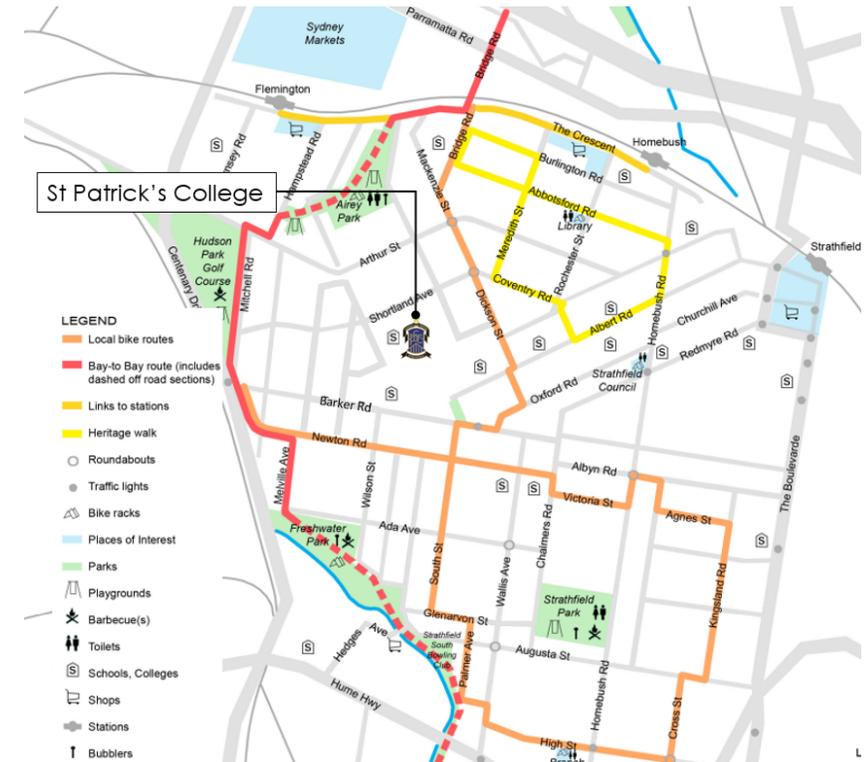
Cycle

Cycleways in proximity of St Patrick's College provide connectivity to North Strathfield, Concord West, and Strathfield South.

For cycling routes in your area, visit:

https://www.rms.nsw.gov.au/maps/cycleway_finder

Cycleways surrounding St Patrick's College include Shared Paths, which are off-road pathways that are shared with pedestrians as shown below.



St Patrick's College provides secure on-site bicycle parking.

Please see front page map for location.

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au