



Reference: 20.034r01v01

28 April 2020

Sikh Grammar School Australia
PO Box 485
KINGS LANGLEY NSW 2147

Attention: Mr Bhupinder Singh

Re: Sikh Grammar School, Rouse Hill (SSD-9472)
151-161 Tallawong Road, ROUSE HILL
Green Travel Plan

Dear Bhupinder,

We refer to the State Significant Development (SSD) Sikh Grammar School, Rouse Hill at 151-161 Tallawong Road, Rouse Hill and in particular, the need to formulate a Transport and Accessibility plan within the Planning Secretary's Environmental Assessment Requirements (SEARs), which states:

"Details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site."

Accordingly, a Green Travel Plan (GTP) has been prepared for the development, which evaluates the sustainable transport credentials of the development and accounts for the accessibility of the site with respect to active/public transport facilities. This GTP incorporates a Transport Access Guide (TAG) for information purposes only and which could potentially be distributed to staff, students and visitors of the Sikh Grammar School.

It should be noted that the site is located within the North Western Sydney Growth Area, which at the time of preparing this plan, lacks the necessary sustainable transport and active transport infrastructure within proximity of the school. In this regard, this GTP is based on future potential sustainable transport infrastructure as contained within the Riverstone East Precinct Transport Study (Post Exhibition Study Report) prepared by ARUP in 2015; and the SSD Application Traffic and Parking Assessment Report prepared by Positive Traffic in 2019.

As such, it is recommended that this GTP, TAG and associated targets be revisited at a later stage, once the planned increase in demand for public transport and active travel infrastructure has been implemented in the surrounding area.



► Background

Overview

A Green Travel Plan provides a site-specific set of measures and initiatives to promote sustainable transport options such as walking, cycling, carpooling and public transport in order to reduce the dependency of using private cars. This creates a number of social, economic, environmental and health benefits to staff and students of the school, including:

- Promoting the use of sustainable transport modes by increasing awareness of routes and facilities;
- Creating a positive image of the school as innovative and environmentally conscious; and
- Encouraging healthier travel options for staff, students and visitors of the school, such as walking and cycling to promote a healthier lifestyle.

A GTP would typically require the nomination of an individual or team to oversee its implementation, as well as to review and update the GTP to reflect the site operation, changes to public transport services and the achievable modal-split targets for the site.

Site and Location

The Sikh Grammar School at 151-161 Tallawong Road, Rouse Hill is located within the North Western Sydney Growth Area (currently under development) and is approximately 1.4 kilometres northwest of Tallawong Metro Station. More specifically, the site is situated within the Riverstone East Precinct and aims to deliver a new community comprising:

- Approximately 3,500 new homes and higher residential densities near Tallawong Metro Station;
- New community facility on Guntawong Road; and
- Additional local streets and new local road network.

A Location Plan is presented in **Figure 1**, with a Site Plan included in **Figure 2**.



Figure 1: Location Plan



Figure 2: Site Plan



🕒 Description of Proposed Development

The development is proposed to be delivered in stages over a 10-year construction program and will ultimately comprise the following components:

- Primary School and High School with a for 1,260 students and 102 staff;
- Early Learning Centre (ELC) with a capacity for 86 children and 18 staff;
- Student boarding house with a capacity for 110 students and 6 staff;
- Gurdwara and Langar Worship Centre with a maximum capacity for 700 people;
- Construction of surrounding local roads along the northern and southern boundaries of the site;
- Indented bus bays on Tallawong Road that are able to cater for three (3) full sized buses; and
- Total provision for 286 parking spaces within a basement carpark that is accessible via the northern and southern local roads, including:
 - 230 spaces for school and worship centre uses;
 - 11 pick-up and drop-off spaces;
 - 13 residential spaces; and
 - 32 spaces for the ELC.

🕒 Sustainable Transport Options

As previously mentioned, the surrounding area of the Riverstone East Precinct is currently under development and therefore currently lacks the necessary sustainable transport and active transport infrastructure.

Accordingly, it is recommended that the school does not encourage an uptake of the below sustainable transport options until such time that appropriate infrastructure and surrounding residential catchment have been completed in the area.

Pedestrian and Bicycle Facilities

The development proposes to provide five (5) pedestrian accesses, including:

- 2 x main pedestrian accesses on Tallawong Road for the school;
- 2 x accesses along the southern local road for the school administration building and ELC; and
- 1 x residential access from the northern local road for the boarding house.

All students will be required to enter and leave the school through the designated accesses that are proposed to be connected to the pedestrian footpath along the frontages of the school. These footpaths would then in turn be envisaged to provide connections to the future pedestrian/bicycle network and residential catchment in the surrounding area, once completed.

Railway Services

The site is located approximately 2.9 kilometres and 3.1 kilometres from Schofields and Riverstone Railway Stations, respectively. It is noted that the existing bus service (Route 742) provides a regular connection to Riverstone Railway Station. These railway stations are serviced by the following lines:

- T1 – North Shore, Northern and Western Line; and
- T5 – Cumberland Line.



Metro Services

The site is situated approximately 1.4 kilometres northwest of the new Tallawong Metro Station, which accommodate a pedestrian bridge across the rail line, bicycle parking spaces, additional bus services and taxi bays for commuters.

This station currently provides services between Rouse Hill and Chatswood (every 4 minutes during peak periods), with future connections to the Sydney CBD and Bankstown.

Bus Services

The existing closest bus stop is located along Guntawong Road, approximately 380 metres northwest of the site. This bus stop provides a regular service to Rouse Hill Town Centre and Riverstone Railway Station via the 742 route between Marsden Park and Rouse Hill. Accordingly, this existing service provides services to the Rouse Hill Bus Interchange at the town centre, which in turn provides connections to the routes summarised in **Table 1** below.

Table 1: Rouse Hill Bus Interchange Services and Routes

Bus No.	Route	Bus No.	Route
601	Rouse Hill Station to Parramatta via Hills Showground	665	Rouse Hill Station to Parramatta
603	Rouse Hill to Parramatta via Glenhaven	715	Rouse Hill Station to Seven Hills via Kellyville and Norwest
605	North Kellyville to Rouse Hill Town Centre	731	Rouse Hill to Blacktown via Stanhope Gardens
608	Windsor to Rouse Hill	732	Rouse Hill to Blacktown via The Ponds
617	Rouse Hill Station to Kellyville Station	735	Rouse Hill to Blacktown
632	Rouse Hill Station to Pennant Hills via Norwest and Castel Hill	742	Marsden Park to Rouse Hill
633	Rouse Hill Station to Pennant Hills via Kellyville and Castle Hill	746	Riverstone to Rouse Hill Town Centre
641	Rouse Hill Town Centre to Dural	747	Marsden Park to Rouse Hill via Riverstone
651	Rouse Hill Station to Epping via Castle Hill	751	Rouse Hill Town Centre to Blacktown
663	Rouse Hill Station to Parramatta via Kellyville Ridge	752	Rouse Hill to Blacktown via Quakers Hill
664	Rouse Hill Station to Parramatta via Kellyville		

In addition to the above, future district bus routes are proposed to provide services within proximity of the site, including:

- Route D3 – Rouse Hill to Box Hill; and
- Route D7 – Riverstone to Schofields.

Detailed information concerning service frequencies for all services throughout the week may be obtained via the Transport Info web site at: www.transportnsw.info.



Taxi Services

The site is located within 1.4 kilometres of the Tallawong Metro Station that provides taxi bays and commuter facilities. Details of an operator are provided below, to which a pick-up can be arranged:

- 13 CABS by calling 13 22 27 or visiting their website at <http://www.13cabs.com.au/>

Ride Share Services

Details of ride share services are available by utilising the following apps and websites below:

- Downloading the Uber app or visiting www.uber.com/au/en/
- Downloading the Ola app or visiting www.olacabs.com/au

Reference Travel Modes

The reference travel modes for Rouse Hill have been extracted from the Australian Bureau of Statistics (ABS) Census data 2016 (method of travel to work), noting that the 'other' travel mode was distributed evenly for the purposes of this assessment. The Rouse Hill reference travel modes have been summarised in **Table 2** as follows.

Table 2: Reference ABS 2016 Census Data for Rouse Hill

Travel Mode	2016 Census Data	Reference Proportion
By Car (as driver)	65%	68%
By Car (as passenger – pick-up or drop-off)	5%	8%
By Car (as passenger – carpool)	0%	0%
Public Transport – Bus	10%	13%
Public Transport – Train / Metro	4%	7%
Cycle	0%	0%
Walk	1%	4%
Other ¹	15%	0%

¹ – Includes other travel modes such as 'did not go to work' and 'worked at home'.

Upon completion, the Sikh Grammar School will comprise two (2) main components, being the school (including the on-site boarding house) and the Gurdwara and Langar Worship Centre. It should be noted that the ELC was not assessed in this GTP given the nature of the component, i.e. ELC staff would realistically be anticipated to drive, with ELC children being dropped-off and picked-up by their respective parents/carers, given their age.

Accordingly, the reference travel modes and key assumptions for the school and place of worship components have been summarised below.

Primary and High School

The total school staff capacity equates to 108 staff, with reference travel modes anticipated to comprise predominantly of car drivers, given the considerable amount of on-site parking, lack of public transport and minimal residential catchment in the area. Accordingly, the staff reference travel modes are assumed to be 94% car driver (102 school staff) and 6% walking (6 staff residing at the on-site boarding house).



The total school student capacity equates to 1,370 students, with reference travel modes extracted from the ABS Census data 2016 for Rouse Hill in conjunction with the following assumptions:

- 13% bus and 7% train travel modes were extracted from the ABS 2016 data;
- 8% of students are expected to walk (110 students residing at the on-site boarding house);
- As per the ABS 2016 data, 65% of Year 12 students (112 students) are envisaged to drive, equating to 5% car driver; and
- The remaining 67% was applied to car passenger, which is anticipated to be the predominant travel mode for students.

In light of the above, the applicable reference travel modes for school staff and students are summarised in **Table 3** below.

Table 3: Reference Travel Modes for School Staff and Students

Travel Mode	Staff	Students
By Car (as driver)	94%	5%
By Car (as passenger – pick-up or drop-off)	0%	67%
By Car (as passenger – carpool)	0%	0%
Public Transport – Bus	0%	13%
Public Transport – Train / Metro	0%	7%
Cycle	0%	0%
Walk	6%	8%

Gurdwara and Langar Worship Centre

The Gurdwara and Langar Worship Centre has a maximum capacity for 700 people and is not proposed to be open during school hours. The majority of visitors are therefore anticipated to arrive to site via car driver and/or as a car passenger, given the available parking (230 spaces) and nature of this component.

Accordingly, a conservative vehicle occupancy of 2.5 persons was applied and resulted in the reference travel modes presented in **Table 4** below.

Table 4: Reference Travel Modes for Gurdwara and Langar Worship Centre

Travel Mode	Visitors
By Car (as driver)	40%
By Car (as passenger – pick-up or drop-off)	0%
By Car (as passenger – carpool)	60%
Public Transport – Bus	0%
Public Transport – Train / Metro	0%
Cycle	0%
Walk	0%



► Proposed Travel Modes

The proposed travel mode targets of the development are based on long-term aspirational targets, with the aim at reducing private car usage for staff, students and visitors of Sikh Grammar School. It should be noted that these targets are recommended to be revisited once appropriate infrastructure and sustainable transport options are confirmed. Accordingly, the long-term targets of the development have been summarised below.

Primary and High School

The long-term targets for school staff and students are summarised in **Table 5** and **Table 6**, respectively.

Table 5: Long-Term Travel Mode Targets for Staff

Travel Mode	Travel Percentage for Staff	
	Reference	Long-Term Targets
By Car (as driver)	94%	82%
By Car (as passenger – pick-up or drop-off)	0%	0%
By Car (as passenger – carpool)	0%	0%
Public Transport – Bus	0%	5%
Public Transport – Train / Metro	0%	3%
Cycle	0%	2%
Walk	6%	8%

It can be seen from Table 5 that staff of the Sikh Grammar School will have an envisaged long-term target of 82% car driver, with an 8% increase in public transport (bus and train/metro) and 10% increase in active travel (cycle and walk).

These targets are therefore considered achievable, subject to completion of the surrounding infrastructure and residential catchment. As such, a 12% reduction for car drivers are envisaged for school staff.

Table 6: Long-Term Travel Mode Targets for Students

Travel Mode	Travel Percentage for Students	
	Reference	Long-Term Targets
By Car (as driver)	5%	5%
By Car (as passenger – pick-up or drop-off)	67%	53%
By Car (as passenger – carpool)	0%	1%
Public Transport – Bus	13%	20%
Public Transport – Train / Metro	7%	8%
Cycle	0%	3%
Walk	8%	10%



It can be seen from Table 6 that students of Sikh Grammar School will have an envisaged long-term target of 53% car passenger, with a 5% car driver remaining unchanged. Future public transport and school bus services would result in a target of 20% for bus and 8% train/metro use, while active travel (cycle and walk) is targeted at 13%.

These targets are considered appropriate given the future residential catchment in the area, with potential students anticipated to reside within the surrounding area. Accordingly, a 14% reduction of car passengers is envisaged for school students.

Gurdwara and Langar Worship Centre

The long-term targets for school staff and students are summarised in **Table 7** below.

Table 7: Long-Term Travel Mode Targets for Gurdwara and Langar Worship Centre

Travel Mode	Travel Percentage for Students	
	Reference	Long-Term Targets
By Car (as driver)	40%	32%
By Car (as passenger – pick-up or drop-off)	0%	0%
By Car (as passenger – carpool)	60%	66%
Public Transport – Bus	0%	0%
Public Transport – Train	0%	0%
Cycle	0%	0%
Walk	0%	2%

It can be seen from Table 7 that visitors of the Gurdwara and Langar Worship Centre will aim to increase the vehicle occupancy and have an envisaged long-term target of 32% car driver and 66% car passenger by the promotion and encouragement of the carpool travel mode. A 2% increase in walking is also proposed to account for the future residential catchment in the area.

Strategies and Initiatives

There are various strategies and initiatives Sikh Grammar School should consider implementing in order to assist and/or further reduce car dependency, including:

Parking Arrangements

The development provides an extensive amount of parking with a total provision for 286 parking spaces available throughout various carpark areas. As such, car parking spaces could potentially be designated to staff with favourable spaces (close to pedestrian accesses) and assigned to staff based on seniority and staff participating in car pool schemes.

Furthermore, the school could consider reducing the amount of available parking spaces for visitors of the Gurdwara and Langar Worship Centre by only permitting parking at certain carparks of the development during operational hours.

Walking Initiatives

Upon completion of the surrounding residential catchment, a 'walking bus' program could be implemented where a group of students would walk to and from school with one or more adults. This



program would assist in changing the mind-set of students and parents, as well as encourage active travel habits outside school.

Bicycle Facilities

The Blacktown Growth Centres Development Control Plan (DCP) does not specify bicycle parking provisions for the development and hence no bicycle parking was proposed. Accordingly, the school should consider accommodating bicycle parking and associated end-of-trip facilities to assist with encouraging bicycle travel to and from the site, subject to appropriate bicycle routes and infrastructure being completed in the surrounding area.

As a guide, the NSW Planning Guidelines for Walking and Cycling 2004 provides recommended rates of 5% and 10% of the total car parking provision (286 spaces) for staff and visitors, respectively. The school should consider applying these rates, which in turn would result in a bicycle parking provision of 14 staff spaces and 29 student/visitor spaces.

School Buses

Dedicated school buses should be considered to assist in encouraging staff and students to utilise bus travel to and from the school. These school bus services would utilise the indented bus bay along Tallawong Road, with service routes and frequencies to be included within a future GTP and TAG upon confirmation.

Car Pool Schemes

The school could consider implementing car pool schemes for staff and parents/carers of students involving notice boards that would assist to coordinate travel and schedules with their respective colleagues and classmates, where practical. Accordingly, these notice boards will assist in encouraging an alternate mode of transportation to and from the school with the main objective of reducing personal vehicle trips for both staff and students.

Transport Access Guide

To assist in promoting the use of alternative travel modes, a Transport Access Guide (TAG) could be prepared for the development, which would include details of public transport services within the vicinity of the site. Accordingly, a TAG has been prepared and provided in **Attachment 1** for information purposes only, noting that the TAG would be required to be updated once additional public transport services, school buses and walking/cycling routes are completed and confirmed in the surrounding area.

The provision of this information would therefore assist staff, students and visitors of Sikh Grammar School to make informed decisions on how to travel to and from the site based on the available services connecting to or near their place of residence.

Green Travel Plan Maintenance

A monitoring and review process for the Green Travel Plan will be required to be set out once school operations commence to ensure the GTP and TAG reflect any changes or updates to the available public transport network related to the school. A Travel Plan Coordinator would in turn be nominated and designated with the responsibility of maintaining the GTP. This coordinator would also revisit the proposed targets to refine and update the proposed modal-split for staff and students travelling to the school.

Regular review of the success measures outlined in this plan should be undertaken intermittently to determine whether alternative or supplementary measures are necessary. It is recommended that a survey of staff and students be conducted annually by the Travel Plan Coordinator to monitor the



progress of these long-term targets, noting that these targets are primarily indicative and will require on-going evaluation and fine-tuning.

► Summary

In summary, it is considered that this GTP prepared for Sikh Grammar School will assist in encouraging staff, students and visitors to travel to and from site via sustainable modes of travel, thereby reducing the dependency on private vehicles. It is however recommended that this GTP, TAG and associated targets be revisited at a later stage to reflect future infrastructure and transport services in the surrounding area.

We trust the above is of assistance and please contact the undersigned should you have any queries or require any further information regarding the above.

Yours faithfully,

Traffix

Neil Caga
Traffic Engineer

Encl: Attachment 1 – Transport Access Guide

ATTACHMENT 1

Transport Access Guide



CAR

By Car: There are numerous carpark areas available at Sikh Grammar School for staff and student use. These carpark areas are accessible from Tallawong Road via future roads surrounding the school. These parking spaces are ideally placed for your safety and convenience.

By Carpool: Carpooling is a great way to reduce traffic congestion. Please consider your co-workers and friends when attending the Sikh Grammar School to arrange your schedules.

By Taxi: Taxi services are available by contacting the following company: **13 CABS** by calling **13 22 27** or visiting their website <http://www.13cabs.com.au>

By Uber: Offers car rideshare services available through the Uber app on your smartphone or tablet.



BUS

Sikh Grammar School will provide a dedicated bus zone along Tallawong Road with future school bus routes and services to be confirmed at a later date. The closest existing bus stop is located along Guntawong Road, near the Clarke Street intersection, which provides regular services between Rouse Hill Town Centre and Riverstone Station via Bus Route 742. Alternatively, there are various bus stops that operate from the Rouse Hill Bus Interchange, which provide connections to the Sydney CBD, Lane Cove, Dural and Blacktown. Information concerning service frequencies for all services throughout the week may be obtained via the Transport Info website at: <http://transportnsw.info>.



TRAIN

By Train: Train services at the **Riverstone Railway Station** can provide staff and students with an alternative mode of transport along the North Shore, Northern and Western (T1 Line) and the Cumberland (T5 Line).

By Metro: The Tallawong Metro Station is located approximately 1.4 kilometres south east of Sikh Grammar School and provides services along the Sydney Metro Northwest, between Rouse Hill and Chatswood (every 4 minutes during peak periods), with future connections to the Sydney CBD and Bankstown. Tallawong Metro Station will also provide bicycle parking spaces, additional bus services and taxi bays for commuters.

The Riverstone Railway Station and Tallawong Metro Station are both currently accessed via **Bus Route 742**, which provides regular bus connections to and from both stations.



BIKE

By Bicycle and Walking: Once safe and accessible bicycle and walking infrastructure is provided in the surrounding areas (as part of the Riverstone East Precinct), staff and students would be able to take advantage of the various facilities at Sikh Grammar School. As such, additional bicycle and walking routes will be updated as additional infrastructure becomes available.

For alternative cycling and walking routes please visit <http://www.rms.nsw.gov.au/roads/bicycles/cycleway-finder.html> for more information.

ACTIVE TRAVEL

This Travel Access Guide (TAG) provides information to staff and students on how to go to and from Sikh Grammar School by active travel – without a car.

Sikh Grammar School supports active travel as its benefits include:

- Less car use
- Reduced carbon emissions and improved air quality
- Less traffic congestion
- A safer, more pleasant urban environment
- Opportunities for staff and students to be more active



For further public transport information go to www.transportnsw.info or call **131 500**

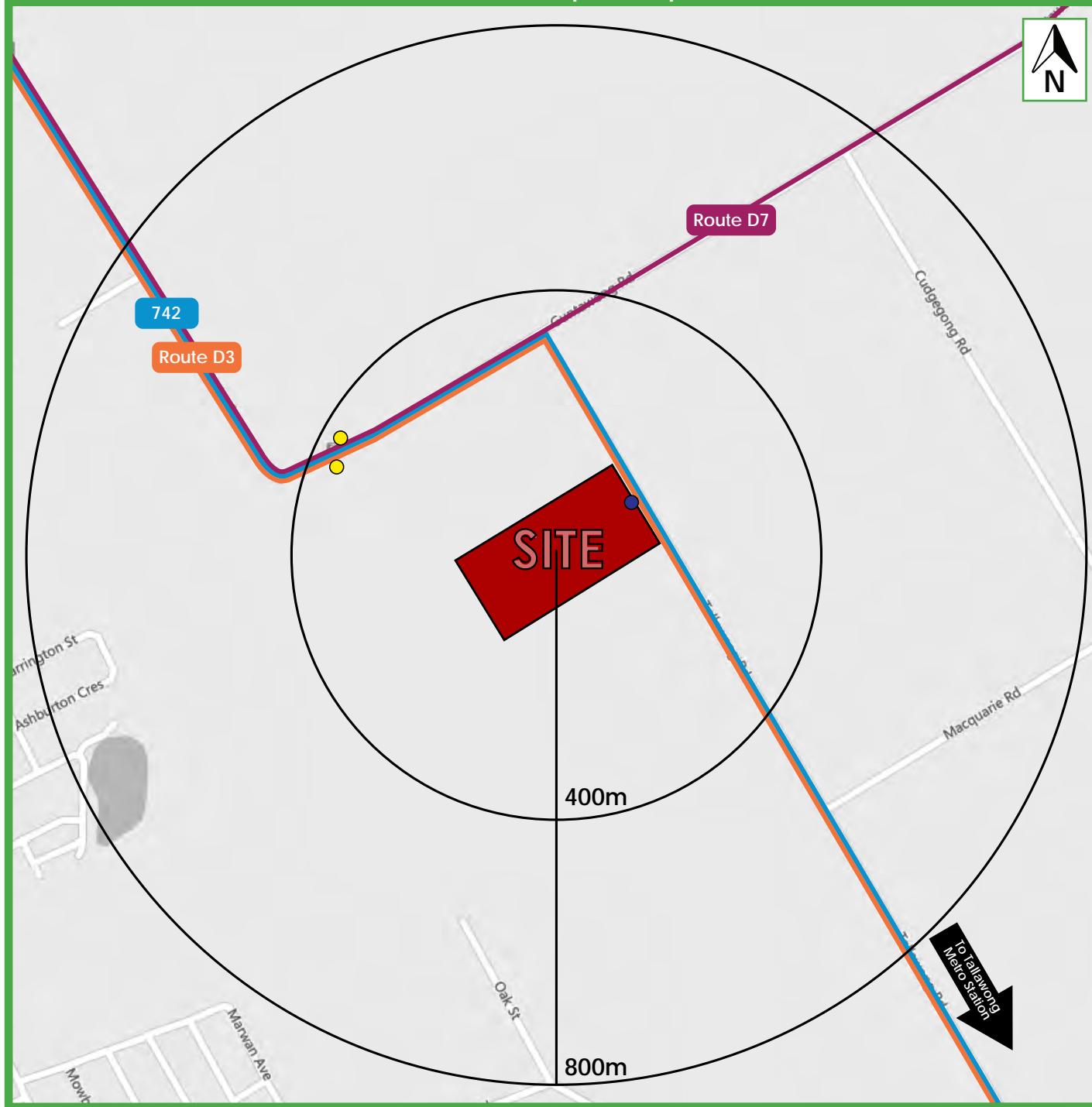
For information purposes only.
Transport Access Guide to be updated as future public transport services, roads, bicycle and pedestrian infrastructure are completed.

TRANSPORT ACCESS GUIDE

Sikh Grammar School
151-161 Tallawong Road, Rouse Hill



Public Transport Map



TRANSPORT ACCESS GUIDE

Sikh Grammar School

151-161 Tallawong Road, Rouse Hill

Existing Bus Service

- Sikh Grammar School Bus Stop
- Bus Stop
- 742 — Marsden Park to Rouse Hill

Future Bus Services

- Route D3 Rouse Hill to Box Hill
- Route D7 Riverstone to Schofields

Alternate Bus Services at Rouse Hill Town Centre (via Bus 742)

- 601 Rouse Hill Station to Parramatta
- 603 Rouse Hill to Parramatta
- 605 North Kellyville to Rouse Hill Town Centre
- 608 Windsor to Rouse Hill
- 617 Rouse Hill Station to Kellyville Station
- 632 Rouse Hill Station to Pennant Hills
- 633 Rouse Hill Station to Pennant Hills
- 641 Rouse Hill Town Centre to Dural
- 651 Rouse Hill Station to Epping
- 663 Rouse Hill Station to Parramatta
- 664 Rouse Hill Station to Parramatta
- 665 Rouse Hill Station to Parramatta
- 715 Rouse Hill Station to Seven Hills
- 731 Rouse Hill to Blacktown
- 732 Rouse Hill to Blacktown
- 735 Rouse Hill to Blacktown
- 746 Rouse Hill to Blacktown
- 747 Marsden Park to Rouse Hill
- 751 Rouse Hill Town Centre to Blacktown
- 752 Rouse Hill to Blacktown