

TRAFFIC IMPACT STATEMENT

1A HARRIS ROAD, FIVE DOCK (PROPOSED ALTERATIONS AND ADDITIONS TO ROSEBANK COLLEGE)



Date: 29 April 2020

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1. INTRODUCTION

This Practice has been engaged by Midson Group Pty Ltd, on behalf of Rosebank College to undertake an assessment of the likely traffic and parking impacts associated with alterations and additions to the College, located at 1A Harris Road, Five Dock ('subject site'). The subject proposal involves modifications to the existing on-site passenger vehicle parking area & removal of six (6) demountable buildings within the south-eastern corner of the site to accommodate a new classroom building, two (2) outdoor playing courts, a new pedestrian gate and a new undercroft car park.

No increases are proposed to the approved staff and student population of the school.

The purpose of this report is to assess and document the likely traffic and parking impacts resulting from the proposed works and to recommend, where appropriate treatments to ameliorate any such impacts. In this regard, this report undertakes assessment of the following:

- Identify alterations to existing internal vehicular circulation arrangements resulting from the proposed development;
- Suitability and safety of the internal circulation and parking arrangements as relevant to the site and local conditions as well as compliance with AS2890.1;
- The suitability of the vehicular access arrangements with respect to servicing the modified internal car parking area;
- The existing road network conditions, public transport and pedestrian infrastructure facilities within the vicinity of the site; and
- The traffic impact of subject proposal on the surrounding road network, public transport and pedestrian infrastructure in the vicinity of the site.

This report has been prepared pursuant to State Environmental Planning Policy (Education Establishments and Child Care Facilities Clause 57) 2017.

This report should be read in conjunction with the architectural plans prepared by Alleanza Architecture, copies of which are submitted under separate cover.

2. <u>SITE DETAILS</u>

2.1 Site Location

Rosebank College is bound by Queens Road to the north, Harris Road to the east and Parramatta Road to the south, in the suburb of Five Dock. This location is shown in the context of its surrounding road network and local land use in **Figures 1** and **2** below.



Source: www.street-directory.com.au

FIGURE 2 SITE LOCATION – LOCAL LAND USE CONTEXT



Source: Six Maps

2.2 Site Description

Rosebank College has a legal property description of Lot 10 in DP 718237 and a street address of 1A Harris Road, Five Dock. The subject allotment predominantly forms a rectangular shaped parcel of land, providing approximate frontages to Parramatta Road, Queens Road and Harris Road of 122m, 156m and 122m respectively. The total site area is approximately 2.089ha.

2.3 Existing Uses

The subject site currently accommodates the campus of Rosebank College, a coeducational Catholic school, which has a current approved population of 1,300 students between Years 7 - 12. The school campus currently accommodates a number of buildings providing learning and administration facilities in conjunction with onsite student recreation, play and sporting areas.

The College is currently serviced by an off-street at-grade car park within the southeastern corner of the site, containing 54 spaces, which are dedicated for staff. Vehicular access to the off-street parking provision and internal road network is currently facilitated by three (3) separate driveways, with two (2) driveways off Harris Road and one (1) driveway off Parramatta Road being for emergency access only.

2.4 Surrounding Uses

The site is surrounded by the following existing land uses in its immediate vicinity depicted in **Figure 3** below, being an extract of Figure 46 of *Parramatta Road Precinct Transport Report*.



FIGURE 3 EXISTING SURROUNDING LAND USE

Source: Parramatta Road Precinct Transport Report

3. <u>PROPOSED DEVELOPMENT</u>

3.1 Built Form

The subject Development Application (DA) seeks consent for the following works:

- Demolition of six (6) demountable buildings in the south-eastern corner of the site;
- Construction of a new two-storey building providing new classrooms, offices and general amenities;
- Construction of a new undercroft car park, which increases the total on-site parking provision from 54 to 67 spaces;
- Two (2) new outdoor play areas within the rooftop of the new undercroft car park; and
- A new pedestrian entrance at the south-eastern splay which links with the northern Parramatta Road footpath.

The proposed modifications mentioned above are reflected in the architectural plans prepared by Alleanza Architecture.

It is understood that the general operations and approved student/staff population of the school is to remain unchanged as part of the subject proposal. Further, no alterations are proposed to the existing operational vehicular access arrangements connecting the internal car park with Harris Road).

4. <u>ACCESS & INTERNAL CIRCULATION CONSIDERATIONS</u>

4.1 Vehicular Access Arrangements

Vehicular access to the site is currently provided as follows:

- An existing entry only driveway, which provides a width of 5.4m at the eastern property boundary. This driveway services ingress traffic from Harris Road;
- An existing exit only driveway, providing a width of 4.5m at the eastern property boundary. This driveway services traffic egressing the site onto Harris Road; and
- A 9.0m wide exit only driveway servicing egressing traffic onto Parramatta Road at the south-western corner of the site, access to which is restricted to emergency use only with the gates being padlocked at all times .

Access to/from the off-street car park via Harris Street are controlled by gates, which is understood to be open prior to the start of school and closed after the school finishes. No modifications are proposed to this existing access arrangements.

In order to undertake an assessment of the suitability of the existing driveway arrangements with respect to accommodating the revised off-street parking layout, reference is made to AS2890.1. This Standard provides driveway design requirements based on a number of site characteristics such as the land-use proposed, the number of spaces the driveway is to serve and the functional order of the access road.

The following provides a summary of the pertinent characteristics of the subject proposal:

- The off-street parking areas are designed to predominantly accommodate staff parking (User Class 1A);
- The existing driveways are to service a total of 67 off-street car parking spaces; and
- Harris Road performs a collector road function and Parramatta Road performs an arterial road function.

Based on the above characteristics, Tables 3.1 and 3.2 of AS2890.1 specifies, at minimum, a Category 2 type driveway, which requires either a single driveway to provide a combined ingress/egress width of 6 - 9m or separate 3m wide ingress and egress driveways. The existing driveway widths specified above is compliant with AS2890.1 driveway specifications and is therefore considered to be fit for use by passenger vehicles.

4.2 Internal Circulation

The modified off-street passenger vehicle car park comprise rows of 90 degree angled parking rows, being serviced by adjoining parking aisles. The internal circulation of the new off-street parking areas have been designed to accord with the relevant requirements of AS2890.1 and AS2890.6, providing the following minimum base dimensions:

- Standard 90 degree parking space width = 2.4m;
- Disabled 90 degree parking space width = 2.4m (plus 2.4m wide adjoining shared area);
- Standard 90 degree parking space length = 5.4m;
- Additional space width where parking spaces adjoins an obstruction = 0.3m
- Minimum one-way roadway width = 3.0m;
- Minimum two-way roadway width = 5.8m;
- Parking aisle width adjoining 90 degree parking spaces = 5.8m;
- Maximum ramp grade = 1 in 8; and
- Headroom = 2.2m (2.5m above disabled spaces);

The above compliance with the relevant AS2890.1 and AS2890.6 specifications is anticipated to result in safe and efficient internal manoeuvring and parking space accessibility. The proposed internal circulation arrangements are therefore considered to be satisfactory and are a significant improvement compared with the current parking layout, which has a number of non-compliant parking bays which are difficult to access.

5. <u>EXTERNAL TRAFFIC CONDITIONS</u>

5.1 Surrounding Road Network and Conditions

The following provides a description of the frontage roads, which services direct connectivity to the school site:

Parramatta Road is State Road under the care and control of the RMS (now TfNSW). It provides an important east-west arterial function between the City (via Broadway and George Street) to the east and Parramatta to the west.

In the vicinity of the subject site, Parramatta Road provides a six lane divided carriageway providing three through lanes in each direction separated by a raised concrete central median. Traffic flow is governed by a sign posted speed limit of 60km/h, however school zone speed limits of 40km/h apply between 8:00am -9:30am and 2:30pm -4:00pm.

Clearway conditions apply along both sides of Parramatta Road between 6:00am – 7:00pm Monday to Friday and 8:00am – 8:00pm Saturday and Sundays. The recent opening of the east-west tunnel linking Strathfield with Ashfield has however resulted in a significant reduction of traffic flows on Parramatta Road adjoining the site.

Parramatta Road forms a T-junction with Harris Road at the south-eastern corner of the site under traffic signals. An exclusive right turn lane is provided within the eastern Parramatta Road intersection approach. An exclusive right turn lane and a shard right/left turn lane is provided within the Harris Road intersection approach.

Harris Road performs a collector road function connecting Parramatta Road in the south with Lyons Park Road West in the north. Harris Road generally accommodates one through lane of traffic in each direction, with the following parking restrictions applying in the immediate vicinity of the site:

Western side of Harris Road (Order from Parramatta Road to Queens Road)

- 'No Stopping' restrictions for a length of approximately 15m;
- Unrestricted parking for a length of up to six (6) passenger vehicles;
- 'No Parking 8:00am 9:30am and 2:30pm 4:00pm School Days' restrictions for a length of up to two (2) passenger vehicles;
- A bus zone for a length of approximately 50m; and
- 'No Stopping' restrictions for a length of approximately 30m.

Eastern side of Harris Road (Order from Parramatta Road to Queens Road)

- 'No Stopping' restrictions for a length of approximately 20m;
- 'No Parking 6:30am 9:30am and 3:30pm 6:30pm' restrictions for a length of up to two (2) passenger vehicles;
- Unrestricted parking for a length of up to two (2) passenger vehicles;
- 'No Parking 6:30am 9:30am and 4:00pm 6:30pm Monday to Friday' restrictions for a length of up to six (6) passenger vehicles;
- An afternoon school bus zone (3:15pm 4:00pm School Days) 50m long and
- A bus zone for a length of approximately 15m.

Harris Road intersects with Queens Road adjacent to the north-eastern corner of the site under traffic signal control. Right turn movements (with the exception of buses) into Harris Road from Queens Road are prohibited.

Traffic flow is governed by a sign posted speed limit of 50km/h, however school zone speed limits of 40km/h apply between 8:00am – 9:30am and 2:30pm – 4:00pm.

Queens Road performs an arterial road function between North Strathfield (via Gipps Street and Patterson Street) in the west and Five Dock in the east. In the immediate vicinity of the site, Queens Road generally accommodates one through lane traffic in each direction, with opposing traffic flow separated by a double (BB) barrier centreline. 'No Parking' restrictions apply along both kerb alignments of Queens Road between William Street and Harris Road.

A vehicle weight restriction of 3t also apply along this route.

Traffic flow is governed by a sign posted speed limit of 60km/h, however school zone speed limits of 40km/h apply between 8:00am – 9:30am and 2:30pm – 4:00pm.

Observations have indicated that the surrounding road network adjacent to the site generally operates with a good/acceptable (B/C) level of service during peak starting and finish periods of the school. It is noted that this is consistent with the outcome presented in the transport & traffic study for the M4/M5 link project.

5.2 Public Transport & Non Car Travel

5.2.1 Bus

Transit Systems operates the following (public and school) services in the vicinity of the subject site:

- Route 415 Operates between Campsie and Chiswick;
- Route 461 Operates between Burwood and the City;
- Route 530 Operates between Burwood and Chatswood;
- Route 569S Operates between Pemberton and Strathfield;
- Route 679S Operates between Kingsgrove Depot and Domremy College;
- Route 572S Operates between Rosebank College and Croydon Park; and
- Route 576S Operates between Rosebank College and Canterbury Station.

Table 1 under provides a summary of the bus services operating during peak weekday school start/finish periods (8:00am - 9:30am and 2:30pm - 4:00pm), based on timetables obtained from Transport for NSW website.

TABLE 1 BUS SERVICES WITHIN CLOSE WALKING DISTANCE TO ROSEBANK COLLEGE					
	Frequency during morning and afternoon school zone periods				
	(8:00am – 9:30am and 2:30pm – 4:00pm)				
Route Number	АМ	РМ			
Public Bus Services					
415	4	2			
461	10	7			
530	4	3			
School Bus Services					
569S	-	1			
679S	1	1			
572S	-	1			
576S	_	1			

Table 1 indicates that there are 18 buses operating during the morning school zone period and 16 buses operating during the afternoon school zone period within the bus zones/bus stops within close proximity to the school site.

Based on data provided by the school, it is noted that a large number of students (1,221 students) currently travel to/from the school by bus.

5.2.2 Pedestrian Infrastructure

Pedestrians are supported with the following infrastructure in the immediate vicinity of the subject site:

- Footpaths are provided along both sides of Parramatta Road, Harris Road (albeit somewhat narrow on its western side adjoining the school) and Queens Road;
- Signalised crossings over the eastern and northern approaches of the junction of Parramatta Road and Harris Road; and
- Signalised crossings over all approaches of the intersection of Queens Road and Harris Road.

The existing non-car transport options available in the immediate vicinity of the site assists with reducing non-private vehicle trips on the road, which is reflected in the high number of students currently travelling to/from the school by bus.

5.3 Impact of Proposed Development

The subject proposal does not involve any alterations to the approved student/staff population. As such, the proposed development is not anticipated to introduce any additional vehicle trips over and above what is currently approved.

The positive intersection controls in the immediate vicinity of the site (e.g. traffic signals at the intersections of Parramatta Road/Harris Road and Queens Road/Harris Road) is expected to assist with safety and efficiency of vehicles manoeuvring to/from the site in the regular gasps provided in Harris road traffic flows and throughout the precinct.

The new pedestrian gate at the south-eastern splay is expected to provide more efficient pedestrian thoroughfare to the school grounds from the signalised crossings at junction of Parramatta Road and Harris Road. These actions will enable students to avoid unsafe conditions associated with the narrow western footway of Harris Road currently experienced by students.

Further, the proposed increase in the off-street parking numbers from 54 to 67 spaces is expected to reduce the on-street parking demand currently generated by the school, thereby providing more on-street parking opportunities for the general public within the surrounding roads adjacent to the site. The compliance of the modified off-street car park with respect to AS2890.1 and AS2890.6 is expected to provide improved conditions for vehicles to manoeuvre to/from the parking spaces, which is expected to 'encourage' staff to park on-site rather than on the surrounding road network.

6. <u>CONCLUSION</u>

This report details our assessment of the traffic, access and safety considerations associated with proposed alterations and additions to Rosebank College, located at 1A Harris Road, Five Dock. Having regard to the contents of this report, the following conclusions are now made:

- The application involves alterations to the existing off-street parking area & removal of six (6) demountable buildings to accommodate a new classroom building and an undercroft car park with outdoor playing areas provided within the rooftop. Further, the subject proposal involves the provision of 13 additional off-street parking spaces increasing the total site wide parking provision from 54 to 67 spaces;
- No increases are proposed to the approved student/staff population;
- No alterations are proposed to the existing driveway arrangements
- It is noted that the existing car park has a number of parking spaces that are non-compliant with AS2890.1 and AS2890.6, which affects the accessibility of these spaces by passenger vehicles;
- The proposed modifications to the off-street car park, to be compliant with AS2890.1 and AS2890.6 is expected to assist with improving the safety and efficiency of parking space accessibility and internal manoeuvring;
- A new pedestrian gate is proposed within the south-eastern splay to provide connectivity between bus stops on the southern side of Parramatta Road with the signalised crossings at the junction of Parramatta Road and Harris Road and the school grounds;
- Student current use of the narrow footway on the western side of Harris Road will be eliminated with the provision of the new gate as outlined above providing enhanced student safety;
- The immediately adjoining road network have been observed to operate with a good./acceptable level of service during peak school starting/finishing periods; and
- The subject proposal is not expected to introduce any additional traffic on the adjoining road network, thus generating additional impacts on the surrounding road network.

Based on the contents contained within this report, there are no parking and traffic related issues associated with the proposed development which would prevent this Practice from recommending the proposal for Council approval.