

Memorandum – Traffic

Date 16 December, 2020

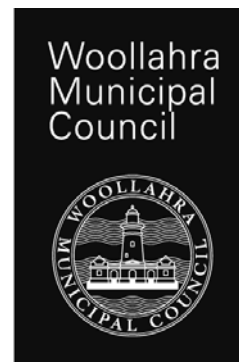
File No. State Significant Development: SSD10421

To Ms P Frecklington

CC Mr E Andari

From Ms E Fang

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I refer to the email from the Planning Department dated 25 November 2020 requesting comments in relation to the above.

Traffic Engineering has reviewed:

1. Environmental Impact Statement, Rev 2, referenced 19049, prepared by Robinson Urban Planning, dated 2 November 2020;
2. Indicative Utilisation Profile, unreferenced, TRIM #20/221359, prepared by Sydney Grammar School;
3. Operational Plan of Management, Rev A, unreferenced, TRIM #20/221360, prepared by Sydney Grammar School, dated 16 September 2020;
4. Traffic Impact Assessment, Issue 3, unreferenced, TRIM #20/221358, prepared by PTC, dated 7 October 2020;
5. Green Travel Plan, Final Issue, unreferenced, TRIM #20/221357, prepared by PTC, dated 7 October 2020;
6. Construction Traffic Management Plan, Rev 1, unreferenced, TRIM #20/221356, prepared by PTC, dated 28 October 2020;
7. Architectural Design Report, Rev A, unreferenced, TRIM #20/221364, prepared by AJ + C Architects, dated 13 October 2020;
8. Architectural Plans, Rev A, referenced Project No. 19096, prepared by AJ + C Architects, dated 2 September 2020, including:

DRAWING LIST

PHOTOMONTAGES

DWG No.	DESCRIPTION	NAME	ISSUE
A001	BUILDING 01: SPORTS FACILITIES BUILDING	PHOTOMONTAGE NEILD AVENUE - VIEW 1	A
A002	BUILDING 01: SPORTS FACILITIES BUILDING	PHOTOMONTAGE NEILD AVENUE - VIEW 2	A
A003	BUILDING 01: SPORTS FACILITIES BUILDING	PHOTOMONTAGE WALDORF ST - VIEW 1	A
A004	BUILDING 01: SPORTS FACILITIES BUILDING	PHOTOMONTAGE ALBION ST - VIEW 1	A
A005	BUILDING 01: SPORTS FACILITIES BUILDING	PHOTOMONTAGE OF MEDICAL SPORTS COMPLEX - VIEW 1	A
A006	MEDICAL SPORTS COMPLEX (BUILDING 01 AND BUILDING 02)	PHOTOMONTAGE OF MEDICAL SPORTS COMPLEX - CARPARK - VIEW 1	A

SITE PLANS

DWG No.	DESCRIPTION	NAME	ISSUE
A100	MEDICAL SPORTS COMPLEX (BUILDING 01 AND BUILDING 02)	LOCALITY PLAN	A
A101	MEDICAL SPORTS COMPLEX (BUILDING 01 AND BUILDING 02)	SITE PLAN	A

DEMOLITION PLAN

DWG No.	DESCRIPTION	NAME	ISSUE
A110	MEDICAL SPORTS COMPLEX (BUILDING 01 AND BUILDING 02)	DEMOLITION PLAN	A

GENERAL ARRANGEMENT PLANS

DWG No.	DESCRIPTION	NAME	ISSUE
A210	BUILDING 01: SPORTS FACILITIES BUILDING	BASEMENT	A
A211	BUILDING 01: SPORTS FACILITIES BUILDING	GROUND	A
A212	BUILDING 01: SPORTS FACILITIES BUILDING	MIDDLEWING	A
A213	BUILDING 01: SPORTS FACILITIES BUILDING	FIRST	A
A214	BUILDING 01: SPORTS FACILITIES BUILDING	SECOND	A
A215	BUILDING 01: SPORTS FACILITIES BUILDING	ROOF	A
A216	BUILDING 02: CARPARK	LOWER/UPPER GROUND	A
A217	BUILDING 02: CARPARK	LOWER/UPPER FIRST	A

ELEVATIONS

DWG No.	DESCRIPTION	NAME	ISSUE
A310	BUILDING 01: SPORTS FACILITIES BUILDING	NORTH AND SOUTH	A
A311	BUILDING 01: SPORTS FACILITIES BUILDING	EAST AND WEST	A
A312	BUILDING 02: CARPARK	NORTH AND SOUTH	A
A313	BUILDING 02: CARPARK	EAST AND WEST	A

SECTIONS

DWG No.	DESCRIPTION	NAME	ISSUE
A320	BUILDING 01: SPORTS FACILITIES BUILDING	01 AND 02	A
A321	BUILDING 01: SPORTS FACILITIES BUILDING	02 AND 04	A
A322	BUILDING 02: CARPARK	01 AND 02	A
A323	BUILDING 02: CARPARK	02 AND 04	A

WALL SECTIONS

DWG No.	DESCRIPTION	NAME	ISSUE
A410	BUILDING 01: SPORTS FACILITIES BUILDING	WALL SECTION	A
A411	BUILDING 01: SPORTS FACILITIES BUILDING	WALL SECTION	A
A412	BUILDING 01: SPORTS FACILITIES BUILDING	WALL SECTION	A

MATERIAL PALETTE

DWG No.	DESCRIPTION	NAME	ISSUE
A410	MEDICAL SPORTS COMPLEX (BUILDING 01 AND BUILDING 02)	MATERIAL PALETTE	A

SOLAR ACCESS STUDIES

DWG No.	DESCRIPTION	NAME	ISSUE
A410	BUILDING 01: SPORTS FACILITIES BUILDING	PLAN EXISTING JUNE 21 SHEET 01	A
A411	BUILDING 01: SPORTS FACILITIES BUILDING	PLAN PROPOSED JUNE 21 SHEET 01	A
A412	BUILDING 01: SPORTS FACILITIES BUILDING	PLAN PROPOSED JUNE 21 SHEET 02	A
A413	BUILDING 01: SPORTS FACILITIES BUILDING	SUN 4TH EXISTING JUNE 21	A
A414	BUILDING 01: SPORTS FACILITIES BUILDING	SUN 4TH PROPOSED JUNE 21	A

Proposal

A new Weigall sports complex for Sydney Grammar School comprising demolition of structures, construction of three-storey and single-storey building. Ancillary works involving landscaping, tree removal, kiosk substation, car parking and signage

COMMENTS

Car Parking Provision

The parking provision for the proposed development has been assessed in accordance with Council's *DCP 2015 Chapter C1 - Paddington Heritage Conservation Area, Chapter E1 Parking and Access* and *Chapter F2 - Educational Establishments*.

While parking generation rates for sports facilities are outlined in Council's DCP and RMS (TfNSW) *Guide to Traffic Generating Developments*, it is acknowledged the requirements do not apply to a multi-purpose sports complex for a school, therefore the proposed approach to calculate parking based on first principles is considered acceptable.

It is proposed that on-site parking spaces are designed to: 1) on weekdays, accommodate staff parking for before and after school trainings and physical education classes during the day, as well as provide circulation space for existing pick-up/drop-offs of Sydney Grammar Preparatory School in Building 2/Car Park Building; 2) on weekends, accommodate sports event/competition participants, spectators and staff.

Students participating in before and after school sports activities will either be picked up and dropped off near Building 1/Sports Facilities Building in a circular manner off Neild Avenue, or arrive and leave via other transport modes. Students participating in sports training during school would be transported from and to main campus in Darlinghurst via SGS buses. It is therefore reasonable to assume that no parking will be required to accommodate students during school days.

Table 1: Accumulative Parking Demand during Weekday Operations

Weekday (Summer)	Time	Monday/Wednesday	Tuesday/Thursday	Friday
	6:30	10	10	8
	7:00	10	12	8
	8:00	10	12	8
	8:40	18	20	16
	15:15	33	35	20
	16:40	31	33	20
	17:00	31	33	20
Weekday (Winter)	6:30	2	7	7
	8:00	2	7	7
	8:40	3	8	8
	15:15	16	15	8
	16:00	14	13	6
	17:00	14	13	6

Accumulative maximum parking demand on weekdays is calculated based on the proposed before and after school training schedules, as well as daily physical education classes. It is clear from Table 1 that weekday peak parking demand occurs before after-school trainings in summer. It is

acknowledged that some staff will leave the site after session ends, and some may access the site through public transport or active transport modes, the actual parking demand would, therefore, be less than calculated. Under the most conservative assumption where all staff stay on site, their parking demand can still be sufficiently accommodated by the proposed parking provision.

Table 2: Accumulative Maximum Number of Students on-site during Weekend Operations

Weekend (Summer)	Time	Water Polo	Basketball	Weights	Fencing	Total
	6:30	64	-	-	-	64
	7:00	64	-	-	-	64
	7:30	64	66	20	10	160
	8:00	64	66	20	10	160
	8:30	64	117	20	10	211
	9:00	64	117	20	10	211
	9:30	64	117	20	10	211
	10:00	64	117	20	10	211
	10:30	64	117	20	10	211
	11:00	64	117	-	-	181
	11:30	64	117	-	-	181
	12:00	64	117	-	-	181
	12:30	64	117	-	-	181
	13:00	-	117	-	-	117
	13:30	-	117	-	-	117
	14:00	-	117	-	-	117
	14:30	-	66	-	-	66
	15:00	-	66	-	-	66
Weekend (Winter)	Time	Volleyball		Weights		Total
	7:30	90		20		110
	8:00	90		20		110
	8:30	162		20		182
	9:00	162		20		182
	9:30	162		20		182
	10:00	162		20		182
	10:30	162		20		182
	11:00	162		-		162
	11:30	162		-		162
	12:00	162		-		162
	12:30	162		-		162
	13:00	162		-		162
	13:30	162		-		162
	14:00	162		-		162
	14:30	90		-		90
	15:00	90		-		90

Accumulative maximum number of students on-site is calculated on the assumption that students will arrive 30 minutes before sessions, and leave the site within 30 minutes after the session ends, as shown in Table 2. In the traffic report, assumptions are also made for other factors, e.g. number of spectators, mode split and pick-up/drop off rate, etc., to calculate parking demand during peak levels on weekends, however several issues are identified in the parking analysis:

- 1) Inconsistent/ambiguous information has been provided regarding number of players and spectator players in Figure 21, 22 and Figure 24, 25;

- 2) It is claimed that basketball functions will not generate additional parking demand, as these participants should already be on-site. While this conclusion is agreed upon, it should be noted that, basketball functions take place between 1:30pm and 2:30pm, before which participants for previous sessions are all calculated as “leave the site 30 minutes after the session”, except for several students staying for multiple games. Therefore, the on-site students should be increased to include those who don’t stay for another session but rather attend the later basketball function, as well as the accompanying spectators;
- 3) It is understood that community use of the proposed facilities remain unclear, and that these users would not have access to car park in Building 2/Car Park Building. It should be noted that these users will require parking spaces, and without on-site provision, an increased demand for kerbside parking would occur. Traffic Section raises concerns on these parking demand in the surrounding area, where high occupancy rate of parking spaces are witnessed.

As such, a revised parking analysis should be submitted for further assessment with clear number of players, spectator players, number of students staying on-site for other sessions and basketball functions, as well as proper consideration to address parking demand for future community uses.

Small Car Parking & Accessible Parking

It is noticed that small car and accessible parking spaces are proposed. Further assessment will be made upon revised parking analysis. It should be noted that, small car parking spaces must not exceed 5% of the overall number of parking spaces, as per E1.9.6 of Council’s DCP, and provision of accessible park should comply with D3.5 of Building Code of Australia.

Pick-up/Drop-off Arrangements, Bus Services & Operational Traffic Management Plan

For pick-up/drop-offs that are only related to the proposed utilisation of sports facilities, assessments are undertaken for before and after school periods to calculate cumulative effects of different activities provided, as shown in Table 3 to Table 6.

Table 3: Accumulative Number of Students Arriving during Before-School Operations - Summer

Weekday (Summer)	Arrive Before	Basketball -Specialty	Swim Squad	Swim Fitness	Water Polo	Weights + Cardio	Total
Monday/ Wednesday	6:30	60	30	-	-	60	150
	7:00	-	-	-	-	-	0
Tuesday/ Thursday	6:30	60	-	-	22	60	142
	7:00	-	-	30	-	-	30
Friday	6:30	60	-	-	-	60	120

Table 4: Accumulative Number of Students Arriving during Before-School Operations - Winter

Weekday (Winter)	Arrive Before	Volleyball	Futsal	Total
Monday/ Wednesday	6:30	20	-	20
Tuesday/ Thursday/ Friday	6:30	20	60	80

Table 5: Accumulative Number of Students Leaving during After-School Operations - Summer

Weekday (Summer)	Leave After	Basketball	Fencing	Taekwondo	Swim Fitness	Water Polo	Weights + Cardio	Total
Monday/ Wednesday	4:40	-	-	20	-	-	-	20
	5:00	60	10	20	20	-	60	170
Tuesday/ Thursday	4:40	-	-	20	-	-	-	20
	5:00	60	10	20	-	22	60	172

Table 6: Accumulative Number of Students Leaving during After-School Operations - Winter

Weekday (Winter)	Leave After	Volleyball	Fencing	Fencing	Taekwondo	Weights + Cardio	Total
Monday/ Wednesday	4:00	-	-	-	30	-	30
	5:00	70	-	60	-	60	190
Tuesday/ Thursday	4:00	-	-	-	30	-	30
	5:00	70	30	-	-	-	100

It is clear from the above tables that Monday and Wednesday afternoon peaks during winter would require the most pick-up/drop-off facilities to accommodate 190 leaving students. With 30% students being picked up by private vehicles and an average 1.2 of car occupancy rate in Sydney Grammar School, maximum number of vehicles arriving at the same time is calculated as $190 \times 30\% / 1.2 = 47.5$ vehicles.

While Traffic Section in principle agrees with the assumed mode splits, average service time and duration of pick-up/drop off period, a more quantifiable queuing analysis should be submitted to demonstrate the proposed on-site pick-up/drop-off circulation area can accommodate 98th percentile queue at peak traffic levels. It should be noted that vehicles must not wait on the footpath or roadway.

For pick-up/drop-offs of the preparatory school, providing on-site circulation inside the proposed car park to accommodate the existing queue would alleviate congestion along Alma Street, and should be encouraged. As discussed above, staff parking demand during weekdays will be relatively low, and given the nature, turnover rates for the occupied spaces will be negligible, it is therefore envisaged that the proposed pick-up/drop-off circulation would not impact adversely on the on-site parking and is deemed satisfactory.

Table 7: SGS Bus Service

	Latest Time of Arrival	Earliest Time of Leave	Total Number of Students	Number of Buses Required (58 passengers)	Number of Buses Required (75 passengers)
Before School Training	6:30am	8:00am	172	3	3
During School PE Classes	8:40am	3:00pm	234	5	4
After School Training	3:15pm	4:40pm	403	7	6

For shuttle bus services provided for weekday trainings to and from the main campus in Darlinghurst, it is understood that seven (7) buses with a capacity of 58 passengers, or six (6) buses with a capacity of 75 passengers will be required during peak time. The currently used bus zone on Neild Avenue has a capacity to accommodate two (2) buses at one time, a staggered approach is therefore proposed to continue to utilise the bus zone and is supported in principle. It should be noted that more detailed information should be provided in light of:

- 1) The earliest time of leave of buses for one stage of training is close to the latest time of arrival for the subsequent stage of training, as shown in Table 7, where the participants may not be necessarily the same. This may cause some overlapping demand for bus parking, especially between 3:00pm and 3:15pm, and thus result in queues exceeding the bus zone backing onto New South Head Road, or occupying parking spaces south of the bus zone;
- 2) Potential conflicts between buses and pick-up/drop-off vehicles, who have to wait and cross the street to access the subject site, and thus impede traffic going southbound;
- 3) Considering the site constraints, with Neild Avenue being a narrow undivided one-way street, the proximity of bus zone to the intersection with New South Head Road, as well as the high occupancy rates of parking spaces along Neild Avenue, Traffic Section raises concerns on the cumulative effects of the above-mentioned potential traffic issues, and the adverse impacts on the surrounding road network.

As such, more information regarding bus operations should be submitted for further assessment, and should be included in an Operational Traffic Management Plan (OTMP) as discussed below.

Pursuant to E1.13.1 of Council's DCP, an OTMP is required for education facilities under Clause 104 and Schedule 3 of *State Environmental Planning Policy (Infrastructure) 2007* or classified as designated development under S.77A of the EP&A 1979, which should be submitted along with the proposal for assessment prior to consent, as per E1.13.1 of Council's DCP. While pick-up and drop-off arrangements have been discussed in concept in the traffic report, more details should be provided to consider:

- 1) Traffic management/staff guiding for the two proposed pick-up/drop-off areas;
- 2) It is understood that the nearby White City has offered an interim pick-up/drop-off easement on-site before the future arrangement is in place for the school, traffic management/staff guiding should be included to manage the temporary change and the transition into later stages;
- 3) Detailed schedule for the proposed staggered SGS bus operation to address the issues discussed above;
- 4) Weekend operations and guidance to separate vehicles performing pick-up/drop-off and vehicles attempting to park, as different areas are provided for these two actions. It should be noted that, with the current proposed car parking provision, all 102 parking spaces will be required at peak levels, coordination between two car parks is also required as separate entrances are provided off Alma Street and Neild Avenue.

Bicycle & Motorcycle Parking Provision

As discussed above, bicycle parking requirement is not specified for a sport complex in a school, first principle is thus adopted for the assessment while reference is also made to Council's DCP and RMS (TfNSW) *Guide to Traffic Generating Developments*.

Table 7: Bicycle and Motorbike Parking Provision during Weekday Operations

BICYCLE				
Facility Component	Quantity	Users	Parking Rate	Minimum Required Parking Spaces
Educational facilities	35 staff	Employees	1 per 10 staff	3.5 (4)
	172 students	Customers	1 per 20 customers	8.6 (9)
Total				13

Table 8: Bicycle and Motorbike Parking Provision during Weekend Operations

BICYCLE				
Facility Component	Quantity	Users	Parking Rate	Minimum Required Parking Spaces
Swimming pool	4 staff	Employees	1 per 10 staff	0.4 (0)
	GFA not provided	Customers	1 per 40m ² of recreation area	-
	64 visitors		mode split unclear	-
Recreational facilities (indoors)	26 staff	Employees	1 per 15 staff	1.7 (2)
	359 visitors	Customers	1 per 15 customers	23.9 (24)
Total (Employees)				2
Total (Customers)				24
Total				26
MOTORBIKE				
	Quantity	DCP Requirement	Minimum	DCP Minimum Required Parking
Car Spaces	102	1 per 10 car spaces		10.2 (10)
Total				10

For weekday operations, Traffic Section does not agree to the statement made in the traffic report that no bicycle parking will be required, as only 30 percent of students are calculated as being picked up and dropped off by private vehicles, it is envisaged that some students will access the subject site for before and after school activities using bicycles, especially some students are from senior school, who are more than capable of riding bicycles with required sports facilities. It is however acknowledged that from above calculations, the post-development bicycle parking demand can be accommodated on-site by the proposed parking provision.

For weekend operations, bicycle generating rate is adopted as 1 per 15 visitors, as per DCP's minimum requirement for indoor recreational facilities. No GFA is provided for the proposed swimming pool area. Even without parking demand for swimming pools, a total of 26 bicycle parking spaces is calculated for weekend operations. Furthermore, 20-39 bicycle parking demand for visitors, as well as 1-2 staff bicycle parking demand is calculated in the traffic report. It should be noted that the lower limit is calculated by using the lowest parking generation rate for all facilities, the actual parking demand would, therefore, be higher than 20 spaces. The proposed bicycle parking provision of 20 spaces for visitors and 2 spaces for staff will result in an undersupply than actual demand.

It should also be noted that, with the proposed green plan target, active transport modes should be facilitated to reduce private car usage, thus on-site parking provision should at least meet the current demand, if not more to cater to future increased needs.

Assessment for motorcycle parking provision will be undertaken upon revised parking analysis.

Traffic Generation/Local Traffic Management Plan

It is understood that surveys were conducted for key intersections in the surrounding road network on Thursday and Saturday, from which peak hours were observed at 8:00am – 9:00am and 4:45pm – 5:45 pm on weekday, and 11:00am – 12:00pm on weekend.

Existing sports facilities are only used for after school trainings and attract 56 students at peak level. Number of vehicles accessing and egressing the site is therefore calculated to be 67 students / 1.2 car occupancy rate = 56 vehicles.

It is also understood that post development traffic, like parking demand discussed above, is influenced by season (summer or winter), day (weekday or weekend) and time (before, during or after school) as different training programs and events are provided, traffic impact is thus assessed accordingly.

Weekday Traffic:

For before school programs, it is acknowledged that students are required to arrive before 6:30am, which is out of morning peak hours, thus the accessing traffic would lay significant impact on the surrounding road network. The egressing traffic occurs after 8:00am and should be considered, it is however acknowledged that these students will be transported back to the main campus by SGS buses upon completion, which is three (3) buses and is considered acceptable.

For during school physical education classes, students will require either five (5) SGS shuttle buses with a capacity of 58 passengers, or four (4) buses for 75 passengers to travel between the main campus and the subject site. It is understood that a staggered schedule will be followed and only two (2) buses can park in the bus zone, however as discussed above, Traffic Section raises concerns on the potential conflicts between the leaving traffic of PE students, the arriving traffic of students participating in after school activities and pick-up/drop-off movements. Further assessment will be made upon submission of OTMP.

For after school programs, seven (7) buses for 58 students or four (4) buses for 75 students are required to transfer student from the main campus to attend the trainings, which will arrive before 3:15pm and is out of afternoon peak hours. Apart from three (3) buses required to transport the students back to the main campus, it should be noted that an increase of 66 students, equivalent of 55 vehicles are calculated in winter days at peak level, instead of 52 students (43 vehicles) in summer indicated in the traffic report, which are all for pick-up purposes.

Weekend Traffic:

Number of players and spectators should be confirmed before further assessment can be made, however SIDRA analysis shows some intersection are already or will perform at level of service “B”, “C” or even “D”, which require attention.

It should also be noted traffic report suggests 10% of students will walk to and from the site, and with children from preparatory school required to walk past the vehicular crossing of White City and use the shared vehicular/pedestrian crossing for Building 2 to wait for pick-ups, safety concerns are raised for pedestrian movements near the school premises.

As such, a Local Area Traffic Management (LATM) should be developed, funded and implemented, to the satisfaction of the Council's Engineering Services Department, and the applicant should make best endeavours to consult with the local schools and community members in the preparation of the LATM. Applicant should also liaise with White City immediately adjacent to the subject site in the development and implementation of LATM.

Green Travel Plan (GTP)

A GTP is submitted for the proposed development, as per E1.12.1 of Council's DCP. While Traffic Section finds the approaches to develop GTP and the initiatives listed generally reasonable and consistent with Council's overarching strategies to pursue alternative transport modes, it should be noted that current GTP focuses more on the physical conditions, active transport availability and principles of the plan, more quantifiable targets should also be provided, as well as more effective measures be developed to ensure these targets are achieved, especially regarding promoting alternative transport modes for staff/trainers, given they are currently assumed to predominantly use private vehicles.

As such, a revised GTP should be submitted to provide information including but not limited to:

- 1) Quantifiable targets of plan for different groups, including students and staff/trainers;
- 2) Strategies, measures and actions that are practical, effective and compatible with the targets;
- 3) Implementation of plan and representative responsible for implementing and enforcing the plan.

Should the development be approved, monitoring annual reports would be required to provide information on the number of people trips, travel modes by time of day, journey purpose and origin/destination of trips for a minimum of 5 years post occupation, as per Council's DCP.

Construction Traffic Management Plan (CTMP)

Preliminary assessment of the CTMP identifies the following issues that need amendment/clarification:

- 1) Hours of work: It is understood that all construction vehicle movements will be restricted on school days between 8:00am-9:30am and 2:30-4:00pm, however it should be noted that after school training ends around 5:00pm, where shuttle buses and pick-ups would also occur on the proposed construction vehicle routes. Applicant should coordinate to ensure construction vehicles movements are also restricted in that time period;
- 2) Access and egress route of construction vehicles: Restricted manoeuvres are identified in the swept path analysis on site and at roundabout of Lawson and Vialoux Avenue. It should be noted that Vialoux entrance is relatively narrow with vehicles constantly parking on the side;
- 3) Cumulative effects with White City Development: With another significant development taking place in the adjacent area, it is essential that applicant liaise with White City regarding in order to minimise the cumulative traffic and parking impacts of the developments;
- 4) Parking spaces near Vialoux Avenue Entrance: It is proposed that a no parking zone should be installed in front of Vialoux Avenue access point, and one (1) 2P parking space should be temporarily removed to accommodate the construction vehicle movements, which will affect six (6) parking spaces. Application to the changes must be lodged by the applicant. This application process is subject to community consultation and approval by local traffic committee.

RECOMMENDATION

Council's Traffic Engineer has reviewed the application and recommend that the development not be supported at this stage until the following issues are addressed:

1. Parking Provision – A revised parking analysis be submitted for further assessment with clear number of players, spectator players, number of students staying on-site for other sessions and basketball functions, as well as proper consideration to address parking demand for future community uses to address issues raised in the report above;
2. Small Car Parking & Accessible Parking - Further assessment will be made upon revised parking analysis. It should be noted that, small car parking spaces must not exceed 5% of the overall number of parking spaces, as per E1.9.6 of Council's DCP, and provision of accessible park should comply with D3.5 of Building Code of Australia;
3. Pick-up/Drop-off Arrangements, Bus Services & Operational Traffic Management Plan –
 - i. A more quantifiable queuing analysis should be submitted to demonstrate the proposed on-site pick-up/drop-off circulation area can accommodate 98th percentile queue at peak traffic levels. It should be noted that vehicles must not wait on the footpath or roadway;
 - ii. More information regarding bus operations should be submitted for further assessment to address the issues raised in the report above;
 - iii. An OTMP be developed to include the information required in the report above;
4. Bicycle and Motorcycle Parking Provision –
 - i. An undersupply of at least six (6) bicycle parking spaces, excluding the pool-related bicycle parking demand, is identified, as the proposed way to calculate bicycle parking by applying the minimum generation rate of one facility/condition to the whole development is considered not reasonable;
 - ii. Further assessment will be made upon submission of a revised parking analysis;
5. Traffic Generation & Local Traffic Management Plan –
 - i. Number of players and spectators should be confirmed before further assessment can be made, however SIDRA analysis shows some intersection are already or will perform at level of service "B", "C" or even "D", which require attention;
 - ii. Safety concerns are raised for pedestrian movements near the school premises;
 - iii. A Local Area Traffic Management (LATM) be developed, funded and implemented, to the satisfaction of the Council's Engineering Services Department, and the applicant should make best endeavours to consult with the local schools and community members in the preparation of the LATM. Applicant should also liaise with White City immediately adjacent to the subject site in the development and implementation of LATM.
6. Green Travel Plan – A revised GTP should be submitted to provide information including but not limited to: 1) Quantifiable targets of plan for different groups, including students and staff/trainers; 2) Strategies, measures and actions that are practical, effective and compatible with the targets; 3) Implementation of plan and representative responsible for implementing and enforcing the plan. Should the development be approved, monitoring annual reports would be required to provide information on the number of people trips, travel modes by time of day, journey purpose and origin/destination of trips for a minimum of 5 years post occupation, as per Council's DCP;
7. Construction Management Plan – A revised CMP be submitted to address/clarify the issued identified in the report above.

Draft Conditions of Consent

Should this development be approved, it is recommended that the following engineering conditions be included as part of the DA consent:

A. General Conditions

A.3 Deferred Commencement - (section 4.16(3) of the Act, clause 95 of the Regulation)

Development consent is granted subject that this consent is not to operate until the Applicant satisfies the Council, in accordance with the *Regulations*, as to all matters specified in this condition:

- a) A detailed Operational Traffic Management Plan (OTMP) be formulated, to the satisfaction of Council's Engineering Services Department, to provide efficient and safe environment for pick up and drop off, and minimise the impact upon on-street parking and local traffic, in compliance with Clause 104 and Schedule 3 of *State Environmental Planning Policy (Infrastructure) 2007*. This plan would take the form of a control document to be implemented in the ongoing operation of the school, and should give consideration to manage pick-up/drop-off activities and bus operations including but not limited to:
 - Traffic management/staff guiding for the two proposed pick-up/drop-off areas;
 - It is understood that the nearby White City has offered an interim pick-up/drop-off easement on-site before the future arrangement is in place for the school, traffic management/staff guiding should be included to manage the temporary change and the transition into later stages;
 - Detailed schedule and arrangements for the proposed staggered SGS bus operation to consider potential conflicts between different stages of transfer;
 - Weekend operations and guidance to separate vehicles performing pick-up/drop-off and vehicles attempting to park, as well as coordination between two car parks off Alma Street and Neild Avenue.
- b) A Green Travel Plan be submitted, to Council's Traffic Engineers' satisfaction, and implemented by the school, as per E1.12 of Council's DCP. GTP should provide information including but not limited to:
 - Targets of plan;
 - Strategies and measures to achieve proposed targets;
 - The implementation of plan, including measures intended to take and representative responsible for implementing and enforcing the plan.
- c) The developer must refer to Council's Traffic Management Strategy 2014, and accordingly develop, fund and implement Local Area Traffic Management (LATM) regarding efficiency and safety in the vicinity, to the satisfaction of the Council's Engineering Services Department. The applicant should make best endeavours to consult with the local schools and community members in the preparation of the LATM. Applicant should also liaise with White City immediately adjacent to the subject site in the development and implementation of LATM.
- d) Application must be lodged for the proposed installation of No Parking Zone and temporary removal of one (1) 2P parking space near Vialoux Avenue Entrance. This application process is subject to community consultation and approval by local traffic committee.

A.5 Approved Plans & Supporting documents

Reference	Description	Author/Drawn	Date(s)
unreferenced	Traffic Impact Assessment	PTC	7 October 2020
unreferenced	Green Travel Plan, Final Issue	PTC	7 October 2020
unreferenced	Construction Traffic Management Plan	PTC	28 October 2020

C. Conditions which must be satisfied prior to the issue of any construction certificate

C.45 Car and Commercial Parking Details

The *Construction Certificate* plans and specifications required by clause 139 of the Regulation, must include detailed plans and specifications for all bicycle, car and commercial vehicle parking in compliance with AS2890.3:1993 *Parking Facilities - Bicycle Parking Facilities*, AS/NZS 2890.1:2004 : *Parking Facilities - Off-Street Car Parking* and AS 2890.2:2002 – *Off-Street Parking: Commercial Vehicle Facilities* respectively.

The plans must satisfy the following requirement(s):

- a) Sight distance requirements must comply with Clause 3.2.4 and Figure 3.3 of AS2890.1-2004;
- b) Other conditions imposed by Development Engineers.

Access levels and grades must comply with access levels and grade required by Council under the *Roads Act 1993*.

The Certifying Authority has no discretion to reduce or increase the number or area of car parking or commercial parking spaces required to be provided and maintained by this consent.
Standard Condition: C45 (Autotext: CC45)

D. Conditions which must be satisfied prior to the commencement of any development work

D.9 Construction Management Plan

D.10 Works (Construction) Zone – Approval & Implementation

E. Conditions which must be satisfied during any development work

E.3 Compliance with Construction Management Plan

I. Conditions which must be satisfied during the ongoing use of the development

I.21 Provision of Off-street Public and Visitor Parking

The owner and occupier, in compliance with AS/NZS 2890.1:2004: *Parking facilities - Off-street car parking*, must maintain unimpeded public access to off-street parking as follows:

Use	Number of spaces
Vehicle Parking	102

Vehicle Parking (Accessible)	2
Bicycle Parking	20
Motorcycle Parking	6

This condition has been imposed to ensure adequate on-site parking is maintained.

Standard Condition: I21

I.31 Operation in Accordance with Traffic Management Plans (Special Condition)

- a) The operation and management of the premises shall be in accordance with the approved OPTM and GTP;
- b) The OPTM and GTP cannot be altered without the written consent of Council;
- c) Monitoring annual reports would be required for a minimum of 5 years post occupation.

Standard Condition: I15 (Autotext: II15)