Memorandum – Traffic

Woollahra Municipal Council
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Date	13 August, 2020
File No.	Development Applications: 477/2019/1
To	Mr M Moratelli
CC	
From	Ms E Fang, Mr E Andari
Address	**30 ALMA STREET PADDINGTON 2021**

I refer to the memo from the Planning Department dated 4 August 2020 requesting comments in relation to the above.

Traffic Engineering has reviewed:

1. Response to SOFAC (Traffic Issues) Final, referenced 0410I02v1, prepared by Ason Group, dated 3 August 2020;
2. Local Area Traffic Management Scheme, referenced 0410r06v2, prepared by Ason Group, dated 3 August 2020;
3. Response to SOFAC: Parking Statement, referenced 0410I01v1, prepared by Ason Group, dated 3 August 2020;
4. Green Travel Plan, referenced 0410r07v2, prepared by Ason Group, dated 3 August 2020.

Proposal

First stage of the development of White City for a multi-purpose sports centre and registered club facilities including site remediation.

COMMENTS

Parking Provision

Previous assessment has been taken on the car parking demand with consideration of two different functions of the soccer field/grandstand, including weekday operation for training purposes and major weekend matches. It was found that parking demand would reach its peak level of 234 spaces between 16:00 and 18:00 during weekday operations, and 289 spaces between 12:00 and 17:00 during weekend operations should there be a major sports event. The proposed provision of 269 car parking

spaces would therefore satisfy the parking requirement for standard daily operation, yet result in a shortfall of 20 spaces than the minimum requirement during major sporting events on weekends, refer to TRIM #20/80124.

It is however acknowledged that visitation to facilities would vary during operation hours, leading to variation in occupancy rates and parking demand. It is thus reasonable to adopt a demand-based assessment approach for the subject site, and the assumptions made in the traffic response to Council's SOFAC for occupancy rates, along with the car parking demand of 263 spaces during peak levels, are considered convincing.

It is also understood that most weekend matches in soccer field, except for a few occasions each season, will be for children and juniors, which would not attract large crowd of spectators other than friends and family.

As such, the on-site provision of 269 car parking spaces is deemed acceptable, however should the development be approved, to keep consistency with Council's strategy to provide a convenient, sustainable and low cost alternative to car ownership, and to further address the potential shortfall of parking spaces during major events, applicant should liaise with Council-authorised car share corporate and provide four (4) car share dedicated parking spaces. This matter is required to be referred to Woollahra Traffic Committee for approval and the process can take up to 8 weeks.

Table 1: Motorbike Parking Provision

MOTORBIKE			
	Quantity	**DCP Minimum Requirement**	**DCP Minimum Required Parking**
Car Spaces	289	1 per 10 car spaces	28.9 (29)
Total			**29**

It should be noted that the provision of 28 parking spaces would result in a shortfall of one (1) parking space, as per Council's DCP (minimum requirement of 29 spaces), however such calculation is based on the peak level of car parking demand during major events, which is rare, the marginal shortfall is *thus* considered to be acceptable.

Service Vehicle Parking

A minimum of one (1) loading bay to accommodate Medium Rigid Vehicle (MRV) and a minimum of one (1) bus bay are required as a condition of consent for the previous Section 4.55 application for the subject site.

In response, the proposal includes an at-grade loading bay for main deliveries, and a loading dock in the basement for light vehicles, and four parking spaces are proposed to be utilised for shuttle-buses during major matches.

The loading dock in the basement car park adopts a tandem parking configuration, which would require staff to vacate two spaces while in operation. It is however understood that major deliveries will not occur in this loading dock, and that only passenger vehicles and light delivery vehicles can access this loading dock with a relatively low frequency and turnover rate, the arrangement for staff to move their vehicles when needed is deemed acceptable.

The parking spaces adjacent to the at-grade parking bay are designated for staff use only, which would not affect the overall parking operation along the aisle, and the arrangement to coordinate traffic movements among service and staff vehicles is considered acceptable.

It is understood that, in light of ridership, mode split and car occupancy rate, the proposed Toyota Coaster and Coach during major events would contribute to a reduction of car parking demand by 33 spaces. It is also understood that, given the parking demand at peak levels is 263 spaces, which is 6 spaces under the provision. As such, the arrangement to use four (4) parking spaces for shuttle buses is considered acceptable.

Traffic Generation

Traffic generation has been previously assessed and is deemed satisfactory.

Access Driveway

The proposed location of an access driveway on Glenmore Road has been previously assessed and is deemed satisfactory. Should the development be approved, Glenmore Road Exit shall be restricted to left-out only to reduce the potential interruptions to through traffic on Glenmore Road opposite to the proposed development, modification of the existing concrete median, along with additional signposting and pavement markings to avoid right-turn movements shall be carried out, as proposed in the following LATM schemes.

Local Area Traffic Management

It is understood that, as per conditions of consent for the previously approved DA, a Local Area Traffic Management (LATM) should be developed, funded and implemented in the area bound by Glenmore Road, Lawson Street, Alma Street, Neild Avenue and New South Head Road, 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.

Traffic Section has reviewed the proposed LATM, which includes traffic treatments as follows:

- Glenmore Road Exit Improvement, including: 1) reconstruction of a centre median island, realigning line markings and installation of speed cushions on Glenmore Road; 2) the existing painted median along Glenmore Road past Cambridge Street to Lawson Street be a built up as a raised median;
- Glenmore Road and Cambridge Street intersection work, including kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street, as per Council's upgrade plan;
- Amended drop-off/ pick-up arrangement (Interim & Ultimate), including a two-way easement throughout White City development for the interim, until the new drop-off/pick-up arrangement proposed by the School is in place;
- Alma Street Pedestrian Management, including the installation of proper access signage and crossing management by volunteer/staff member from the School;
- Lawson Street and Alma Street intersection pedestrian crossing upgrade, the existing at-grade zebra crossing be upgraded to a raised pedestrian crossing.

Should the development be approved, the developer is to develop, fund and implement the abovementioned schemes to the satisfaction of the Council's Engineering Services Department.

Operational Traffic Management Plan

It is understood that the OTMP proposes to organise shuttle bus services with a 22-seated Toyota Coaster and a 33-seated coach to transport players and supporters from key transport interchanges during large sporting events, however inconsistent information has been provided regarding the origin/destination of shuttle services, Centennial Park is added to the previously proposed Edgecliff and Bondi Junction. Should the development be approved, more details should be submitted regarding the new destination, such as the proposed routes and service rate.

It should be also be noted that the swept path provided in last traffic report indicates a quite restricted parking manoeuvre to allow the pick-up and drop-off at the proposed porte-cochere due to physical constraints.

As such, a revised OTMP should be provided regarding the new route to and from Centennial Park, and the restricted driving manoeuvre accessing and exiting the proposed porte-cochere.

Construction Management Plan

The revised Construction Management Plan (CMP) has been reviewed in accordance with Council's application criteria and is considered acceptable and supported in principal. Should the development be approved, a separate CMP application should be lodged for Council's Traffic & Transport Engineering section for consideration and approval.

Green Travel Plan

The targets laid out in the Green Travel Plan (GTP) is reasonable and is consistent with Council's overarching strategies to pursue alternative transport modes, and facilitate public transport and active transport. The proposed actions, implementation and enforcement are practical and compatible with the target. As such, the proposed GTP is deemed satisfactory. 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.

On-street Parking Restrictions & Associated Car Park Entry Signage

Should this development be approved, the applicant is to liaise with Council's Traffic Section for the adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage. This matter is required to be referred to Woollahra Traffic Committee for seeking approval and the process can take up to 8 weeks. All works associated with the signage changes shall be carried out at the full cost to the applicant.

RECOMMENDATION

Council's Traffic Engineer has reviewed the application and recommend that the development proposal is satisfactory and the following conditions of consent are recommended:

A. General Conditions

A.5 Approved Plans & Supporting documents

Reference	Description	Author/Drawn	Date(s)
0410I02v1	Response to SOFAC (Traffic Issues) Final	Ason Group	3 August 2020
0410r06v2	Local Area Traffic Management Scheme	Ason Group	3 August 2020
0410I01v1	Response to SOFAC: Parking Statement	Ason Group	3 August 2020
0410r07v2	Green Travel Plan	Ason Group	3 August 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) To keep consistency with Council's strategy to provide a convenient, sustainable and low cost alternative to car ownership, and to further address the potential shortfall of parking spaces during major events, applicant should liaise with Council-authorised car share corporate and provide four (4) car share dedicated parking spaces.
b) The applicant is to liaise with Council's Traffic Section for the adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage. This matter is required to be referred to Woollahra Traffic Committee for seeking approval and the process can take up to 8 weeks. All works associated with the signage changes shall be carried out at the full cost to the applicant.

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.31 Traffic & Transport Management (Special Condition)

Operational Traffic Management Plan

A revised OTMP should be provided regarding the new route to and from Centennial Park, and the restricted driving manoeuvre accessing and exiting the proposed porte-cochere.

Green Travel Plan

Monitoring annual reports should be submitted provding 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.

Local Traffic Management Plan (LATM)

The developer is to develop, fund and implement LATM schemes to the satisfaction of the Council's Engineering Services Department, including:

- Glenmore Road Exit Improvement, including: 1) reconstruction of a centre median island, realigning line markings and installation of speed cushions on Glenmore Road; 2) the existing painted median along Glenmore Road past Cambridge Street to Lawson Street be a built up as a raised median;
- Glenmore Road and Cambridge Street intersection work, including kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street, as per Council's upgrade plan;
- Amended drop-off/ pick-up arrangement (Interim & Ultimate), including a two-way easement throughout White City development for the interim, until the new drop-off/pick-up arrangement proposed by the School is in place;
- Alma Street Pedestrian Management, including the installation of proper access signage and crossing management by volunteer/staff member from the School;
- Lawson Street and Alma Street intersection pedestrian crossing upgrade, the existing at-grade zebra crossing be upgraded to a raised pedestrian crossing.

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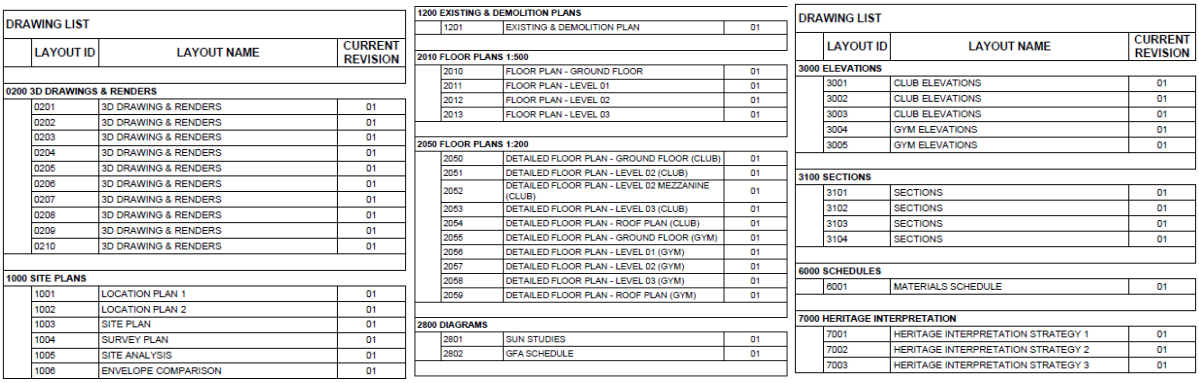
Date	12 May, 2020
File No.	Development Applications: 477/2019/1
To	Mr M Moratelli
CC	
From	Ms E Fang & Mr E Andari
Address	**30 ALMA STREET PADDINGTON 2021**

I refer to the memo from the Planning Department dated 18 December 2019 requesting comments in relation to the above.

Traffic Engineering has reviewed:

1. Revised Statement of Environment Effects, unreferenced, prepared by Sutherland & Associates Planning, dated December 2019;
2. Assessment of Traffic and Parking Impacts, referenced 0410r02v4, prepared by Asongroup, dated 5 December 2019;
3. Road Safety Review, Version V02, referenced 19363, prepared by TTPP, dated 5 December 2019;
4. Construction Management Plan, referenced Q7300, prepared by Richard Crookes Constructions, dated 5 December 2019;
5. Plan of Management, unreferenced, prepared by Projects and Infrastructure (P+I), dated December 2019;
6. Operational Transport Management Plan, referenced 0410r03v3, prepared by Asongroup, dated 5 December 2019;
7. Local Area Traffic Management, referenced 0410r03v3, prepared by Asongroup, dated 5 December 2019;
8. Architectural Plans, Rev J, referenced 0818, prepared by MASQ Architecture, dated 10 December 2019;
9. Architectural Plans, referenced Job No. 5669, prepared by Cottee Parker JPRA Architects, dated 3 December 2019, including:



DRAWING LIST

LAYOUT ID	LAYOUT NAME	CURRENT REVISION
0200 3D DRAWINGS & RENDERS		
0201	3D DRAWING & RENDERS	01
0202	3D DRAWING & RENDERS	01
0203	3D DRAWING & RENDERS	01
0204	3D DRAWING & RENDERS	01
0205	3D DRAWING & RENDERS	01
0206	3D DRAWING & RENDERS	01
0207	3D DRAWING & RENDERS	01
0208	3D DRAWING & RENDERS	01
0209	3D DRAWING & RENDERS	01
0210	3D DRAWING & RENDERS	01
1000 SITE PLANS		
1001	LOCATION PLAN 1	01
1002	LOCATION PLAN 2	01
1003	SITE PLAN	01
1004	SURVEY PLAN	01
1005	SITE ANALYSIS	01
1006	ENVELOPE COMPARISON	01

1200 EXISTING & DEMOLITION PLANS		
1201	EXISTING & DEMOLITION PLAN	01
2010 FLOOR PLANS 1:500		
2010	FLOOR PLAN - GROUND FLOOR	01
2011	FLOOR PLAN - LEVEL 01	01
2012	FLOOR PLAN - LEVEL 02	01
2013	FLOOR PLAN - LEVEL 03	01
2050 FLOOR PLANS 1:200		
2050	DETAILED FLOOR PLAN - GROUND FLOOR (CLUB)	01
2051	DETAILED FLOOR PLAN - LEVEL 02 (CLUB)	01
2052	DETAILED FLOOR PLAN - LEVEL 02 MEZZANINE (CLUB)	01
2053	DETAILED FLOOR PLAN - LEVEL 03 (CLUB)	01
2054	DETAILED FLOOR PLAN - ROOF PLAN (CLUB)	01
2055	DETAILED FLOOR PLAN - GROUND FLOOR (GYM)	01
2056	DETAILED FLOOR PLAN - LEVEL 01 (GYM)	01
2057	DETAILED FLOOR PLAN - LEVEL 02 (GYM)	01
2058	DETAILED FLOOR PLAN - LEVEL 03 (GYM)	01
2059	DETAILED FLOOR PLAN - ROOF PLAN (GYM)	01
2800 DIAGRAMS		
2801	SUN STUDIES	01
2802	GFA SCHEDULE	01

DRAWING LIST

LAYOUT ID	LAYOUT NAME	CURRENT REVISION
3000 ELEVATIONS		
3001	CLUB ELEVATIONS	01
3002	CLUB ELEVATIONS	01
3003	CLUB ELEVATIONS	01
3004	GYM ELEVATIONS	01
3005	GYM ELEVATIONS	01
3100 SECTIONS		
3101	SECTIONS	01
3102	SECTIONS	01
3103	SECTIONS	01
3104	SECTIONS	01
6000 SCHEDULES		
6001	MATERIALS SCHEDULE	01
7000 HERITAGE INTERPRETATION		
7001	HERITAGE INTERPRETATION STRATEGY 1	01
7002	HERITAGE INTERPRETATION STRATEGY 2	01
7003	HERITAGE INTERPRETATION STRATEGY 3	01

Proposal

First stage of the development of White City for a multi-purpose sports centre and registered club facilities including site remediation.

COMMENTS

Parking Provision

Table 1: Car Parking Provision

Facility Component	**Quantity**	**Land Use**	**Parking Rate**	**Source**	**Minimum Required Parking Spaces**
Club (Restaurant and Amenities)	582m^2	Food and drinking premises	7 spaces per 100m^2 GFA	WDCP	40.7 (41)
Club Sports Bar	31m^2	Registered club	20 spaces per 100m^2 GFA	WDCP	6.2 (6)
Fitness Centre	1364m^2	Gymnasium for metropolitan sub-regional centres	4.5 spaces per 100m^2 GFA	TfNSW	61.4 (61)
Level 1 Club / Community Space	348m^2	Community facility	2 spaces per 100m^2 GFA	WDCP	7.0 (7)
Level 2 Club / Community Space	665m^2	Community facility	2 spaces per 100m^2 GFA	WDCP	13.2 (13)
Pool-deck Café	234m^2	Food and drinking premises	-		-
Pro-Shop	276 m^2	Retail	-		-
Multi-purpose Hard Courts	1281m^2	Recreational facility (indoor)	2 spaces per 100m^2 GFA	WDCP	25.6 (26)
Swimming Pool and Deck	880m^2	Recreational facility (indoor)	2 spaces per 100m^2 GFA	WDCP	17.6 (18)
Soccer Field	1 Field	Training on weekdays	-		20
	260 Seats	Matches on weekends	-		75.4 (75)
Tennis Courts	9 Courts	Tennis courts	3 spaces per court	TfNSW	27
Community Space (Southern Stand)	756m^2	Community facility	2 spaces per 100m^2 GFA	WDCP	15.1 (15)
Total Required		Weekday operation for training			234
		Weekend operation for matches			289

It is understood that this application seeks consent of the first phase development of a Stage 2 proposal subsequent to a Stage 1 concept proposal under DA2015/438/1 and its Section 4.55 modification under DA2015/438/2, which have been reviewed and approved, therefore assessment on the on-site parking provision is undertaken in association with the aforementioned DAs. Previous assessments were conducted with certain assumptions made and parking demands for the soccer field were considered under two different conditions, including during weekday operation for training purposes and major weekend matches, thus to keep consistency, the same methodology is adopted to assess parking provision in accordance with Council's *DCP 2015 Chapter E1 Parking and Access* and RMS (TfNSW) *Guide to Traffic Generating Developments*, where some parking rates are not included in Council's DCP.

It is acknowledged that the proposed pool-deck café and tennis pro-shop are incidental to the site activities and will not attract customers other than those making use of the recreational facilities, thus no additional parking demand will be generated.

Consistent with previous assessments on parking demand for the soccer field/Grandstand, a minimum parking rate of 20 spaces per field is adopted for training purposes on weekdays, and parking demand during weekend match peak hours are calculated as: *No. of Seats (260 seats) x Design Capacity (85%) x Modal Split for Cars as drivers (34.1% recreational trips to Woollahra LGA as car drivers based on 2013/2014 Household Travel Survey) = 75 spaces*.

It is acknowledged that due to different operation time of each facility, the parking demand at each period of time might be less than a simple sum of the peak parking demand of all facilities, thus accumulative parking demands on weekday and weekend conditions are assessed separately in accordance with the operation time of each facility.

It is evident from Table 2 and Table 3 that parking demand will reach its peak level of 234 spaces between 16:00 and 18:00 during weekday operations, and 289 spaces between 12:00 and 17:00 during weekend operations should there be a major sports event. The proposed provision of 274 car parking spaces would therefore satisfy the parking requirement for standard daily operation, yet result in a shortfall of 15 spaces than the minimum requirement during major sporting events on weekends.

Council's Traffic & Transport Engineering Section queries the conclusion made in the traffic report, stating that weekday and weekend peak hour parking demands are 219 and 263 respectively. It should be noted that the parking rate for each land use should remain the same during its operation hours, or otherwise justified with proper plan of management or operational traffic management plan (OTMP). The current OTMP does not provide sufficient information to explain the random decrease of parking demand at different periods of operation hours, and the statement that the proposed provision of 274 car spaces would be sufficient is considered unsatisfactory.

Table 2: Accumulative Parking Demand during Weekday Operations

Weekday	Club (Restaurant & Bar)	Fitness Centre	L1 Club/ Community Space	L2 Club/ Community Space	Multi-purpose Hard Courts	Swimming Pool & Deck	Soccer Field/ Grandstand	Tennis Courts	Community Space (Southern Stand)	TOTAL
5:00	-	-	-	-	-	18	-	-	-	18
6:00	-	61	-	-	-	18	-	-	-	79
7:00	-	61	-	-	26	18	-	27	-	132
8:00	-	61	-	-	26	18	-	27	-	132
9:00	-	61	7	13	26	18	-	27	15	167
10:00	-	61	7	13	26	18	-	27	15	167
11:00	-	61	7	13	26	18	-	27	15	167
12:00	-	61	7	13	26	18	-	27	15	167
13:00	-	61	7	13	26	18	-	27	15	167
14:00	-	61	7	13	26	18	-	27	15	167
15:00	-	61	7	13	26	18	-	27	15	167
16:00	47	61	7	13	26	18	20	27	15	**234**
17:00	47	61	7	13	26	18	20	27	15	**234**
18:00	47	61	7	13	26	18	20	27	15	**234**
19:00	47	61	-	-	26	18	20	27	-	199
20:00	47	61	-	-	26	18	20	27	-	199
21:00	47	-	-	-	26	18	20	27	-	138
22:00	47	-	-	-	26	-	20	27	-	120
23:00	47	-	-	-	26	-	-	-	-	73

Table 3: Accumulative Parking Demand during Weekend Operations

Weekday	Club (Restaurant & Bar)	Fitness Centre	L1 Club/ Community Space	L2 Club/ Community Space	Multi-purpose Hard Courts	Swimming Pool & Deck	Soccer Field/ Grandstand	Tennis Courts	Community Space (Southern Stand)	TOTAL
5:00	-	-	-	-	-	18	-	-	-	18
6:00	-	61	-	-	-	18	-	-	-	79
7:00	-	61	-	-	26	18	-	27	-	132
8:00	-	61	-	-	26	18	75	27	-	207
9:00	-	61	-	-	26	18	75	27	-	207
10:00	-	61	7	13	26	18	75	27	15	242
11:00	-	61	7	13	26	18	75	27	15	242
12:00	47	61	7	13	26	18	75	27	15	289
13:00	47	61	7	13	26	18	75	27	15	**289**
14:00	47	61	7	13	26	18	75	27	15	**289**
15:00	47	61	7	13	26	18	75	27	15	**289**
16:00	47	61	7	13	26	18	75	27	15	**289**
17:00	47	61	7	13	26	18	75	27	15	**289**
18:00	47	61	-	-	26	18	75	27	-	254
19:00	47	61	-	-	26	18	75	27	-	254
20:00	47	61	-	-	26	18	75	27	-	254
21:00	47	-	-	-	26	18	75	27	-	193
22:00	47	-	-	-	26	-	75	27	-	175
23:00	47	-	-	-	26	-	-	-	-	73

Table 4: Bicycle and Motorbike Parking Provision

BICYCLE					
Facility Component	**Land Use**	**Quantity**	**Users**	**Parking Rate**	**Minimum Required Parking Spaces**
Club (Restaurant and Amenities)	Shop, restaurant of cafe	582m^2	Employees	1 per 250m^2 GFA	2.3 (2)
			Customers	2+1 per 100m^2 over 100m^2 GFA	6.8 (7)
Club Sports Bar	Pub	31m^2	Employees	1 per 100m^2 GFA	0.3 (0)
			Customers	1 per 100m^2 GFA	0.3 (0)
Fitness Centre	Recreational facilities	6 staff	Employees	1 per 15 staff	0.4 (0)
		130 customers	Customers	1 per 15 customers	8.7 (9)
Community Space (L1+L2+Southern Stand)	Community facility	55 staff	Employees	1 per 10 staff	5.5 (6)
		1769m^2	Customers	2 + 1 per 200m^2 GFA	10.8 (11)
Multi-purpose Hard Courts	Recreational facilities	-	Employees	1 per 15 staff	-
		20 customers	Customers	1 per 15 customers	1.3 (1)
Swimming Pool and deck	Swimming pool	3 staff	Employees	1 per 10 staff	0.3 (0)
		880m^2	Customers	1 per 40m^2 recreation area	22
Soccer Field	Recreational facilities	-	Employees	1 per 15 staff	-
		260 Seats	Customers	1 per 15 customers	17.3 (17)
Tennis Courts	Recreational facilities	5 staff	Employees	1 per 15 staff	0.3 (0)
		36 customers	Customers	1 per 15 customers	2.4 (2)
Total (Employees)					8
Total (Customers)					69
Total					**77**

MOTORBIKE			
	Quantity	**DCP Minimum Requirement**	**DCP Minimum Required Parking**
Car Spaces	289	1 per 10 car spaces	28.9 (29)
Total			**29**

As discussed above, the proposed pool-deck café and tennis pro-shop are characterised as ancillary to the site activities and no additional bicycle parking demand would be generated. The proposed provision of bicycle parking consists of 13 spaces for employees and 88 spaces for customers, which satisfies DCP's minimum requirement and is deemed satisfactory. The development proposes to provide 28 motorcycle parking spaces, resulting in a shortfall of one (1) parking space compared to the minimum requirement, which does not comply with Council's DCP.

Table 5: Accessible Parking Provision

	Quantity	DCP Minimum Requirement	DCP Minimum Required Parking
Car spaces	289	1 per 50 car spaces	5.8 (6)
Total			6

Accessible parking should be provided at rate in accordance with Part D3.5 of the Building code of Australia (BCA), as per E1.9.5 Council's DCP, thus a minimum of six (6) accessible parking spaces should be provided to meet the minimum requirement of 1 per 50 car spaces, as outlined in the 2019 BCA. In response, the development proposes seven (7) accessible parking spaces, which is deemed satisfactory.

Service Vehicle Parking

At least one (1) loading bay is generally required for developments including registered clubs as well as food and drinking premises with a seating capacity of 50 persons, as per E1.4 of Council's DCP. Furthermore, a shuttle bus service is strongly recommended between the venue and other major transport hub to reduce parking demand and traffic generation in the immediate area. As such, a minimum of one (1) loading bay to accommodate Medium Rigid Vehicle (MRV) and a minimum of one (1) bus bay are required as a condition of consent for the previous Section 4.55 application for the subject site.

In response, the development proposes to provide one (1) loading bay in the at-grade car park, and a loading dock in the basement car park. Although the overall provision of loading bay complies with DCP's requirement, it should be noted that a number of design deficiencies have been identified, as discussed below:

1) The loading dock in the basement car park is designed in a tandem parking configuration along with two staff parking spaces, which would require the staff to vacant these two spaces while in operation;
2) The at-grade loading bay is located adjacent and perpendicular to the rear of four parking spaces, which would obstruct the four spaces while in operation and even more while the service vehicles are accessing the site, considering a reverse-in manoeuvre is required and at least seven parking spaces would be affected.

Pursuant to E1.9.3 and E1.14.2 of Council's DCP, such arrangements cannot be supported as:

1) In non-residential developments, use of tandem parking may only be permitted to satisfy long stay parking demand requirements, as opposed to the proposed temporary yet regular service purposes;
2) Loading bays should operate independently of other parking areas.

As such, the design of the proposed loading bay/dock cannot be supported, and alternative arrangement should be provided.

It is understood that the development proposes to utilise four at-grade car parking spaces to accommodate shuttle buses during major sporting events, however it should be noted that such arrangement would further increase the shortfall of car parking provision, and it is strongly recommended that an alternative parking space be provided.

Traffic Generation

It is acknowledged that traffic generation rates for most of the land use components under this development are not included in the RMS Guide to Traffic Generating Developments 2002, therefore it is considered reasonable to assess the potential traffic generation based on first principles, as proposed by the traffic report, which is to calculate future trips based on the capacity of each facility, its intended operating hours, the estimated profile of patrons into and out of each facility, and the anticipated typical vehicle occupancy profile for each activity during each period of the day.

The traffic report calculates the estimated trips for the soccer field/grandstand to be 45 trips during peak hours, with 35 in and 10 out, however it should be noted that during weekend major sports matches, the estimated trips generated should be 260 seats x 85% Design Capacity x 34.1% Modal Split for Cars as drivers = 75 trips entering the site before game, and 75 trips exiting after the game, which is 67% higher than the trip generation calculated in the traffic report. Notwithstanding, it is acknowledged that with the additional trips, the estimated trips generated would still be less than the estimated traffic under previously approved concept proposal for the subject site. It is thus reasonable to anticipate a commensurable level of service would remain for the key intersections around the development further to the previously approved proposal.

Access Driveway

The development proposes to retain the existing driveway at the northern dead-end at Alma Street and a previously approved egress-only access ramp to Glenmore Road proposed to be used primarily by the tennis club users, the operation time of which is between 7am to 10pm. It is acknowledged that such arrangement would divert some exit traffic flow and thus ease the pressure off Alma Street access, where Sydney Gramma Preparatory School is located directly adjacent, with pick up and drop off occurring during peak hours.

Furthermore, it is understood that the frontage road of the proposed Glenmore Road Exit accommodates a no-stopping zone, therefore the proposal would not result in the loss of on-street parking. As such, the proposed arrangement for driveway locations would alleviate the impact on the road network in the vicinity and is thus deemed acceptable.

Notwithstanding, the development proposes to use a boom gate at the end of the ramp, which is considered insufficient to ensure an egress-only access and address potential safety issues, and extra measures should be taken. Given the generally busy traffic conditions on Glenmore Road, it is considered that Glenmore Road Exit shall be restricted to left-out only to reduce the potential interruptions to through traffic on Glenmore Road opposite to the proposed development, which will involve modification of the existing concrete median, along with additional signposting and pavement markings to avoid right-turn movements.

Local Area Traffic Management

It is understood that, as per conditions of consent for the previously approved DA, a Local Area Traffic Management (LATM) should be developed, funded and implemented in the area bound by Glenmore Road, Lawson Street, Alma Street, Neild Avenue and New South Head Road, 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. However it is acknowledged that some arrangements, based on which traffic issues were

previously anticipated and conditions of consent were imposed, have been changed, the assessment is thus undertaken in accordance to the updated arrangement.

1) Compliance with previous conditions of consent

The traffic engineering issues required to be addressed at the detailed design stage are as follows:

i. Glenmore Road Entry Works (redundant)/ Glenmore Road Exit Improvement
Modification is required to the existing concrete median along Glenmore Road and additional signposting and pavement markings generally in front of the proposed child care frontage to provide left-in-left-out access to the pick-up/drop off area.

In response, traffic report considers it no longer necessary as the mentioned childcare has been removed, however it should be noted that, this traffic treatment is enclosed in the conditions of consent for Section 4.55 application for the subject site, where the childcare facility was proposed to be removed.

It is acknowledged that the current design does not include a pick up/drop off area, however it should also be noted that, as discussed above, due to the busy traffic conditions on Glenmore Road, the Glenmore Road Exit is restricted to left-out only to reduce the potential interruptions to through traffic on Glenmore Road, which would still involve modification to the existing concrete median along Glenmore Road and additional signposting and pavement markings, and the condition for the developer to fund and implement the traffic treatments should thus be retained, but the location of the additional signposting and pavement markings should be changed and provided generally in front of the proposed access driveway.

ii. Glenmore Road and Cambridge Street intersection works.
Suitable intersection treatments (in the form of a roundabout or kerb extensions with median island) are required at T-intersection of Glenmore Road and Cambridge Street to calm traffic and allow safer turning movements.

In response, the traffic report regards this treatment to be mainly related to the removed childcare, and that only one single incident has been reported to occur according to RMS crash data, which the traffic report finds irrelevant and not indicative of a systematic issue with the road design, and therefore the traffic report deems such treatment no longer necessary. However, apart from the abovementioned situation that this condition was imposed after the childcare facility was proposed to be removed, it should be noted that Council has constantly been receiving complaints from the local community regarding serious safety concerns at this intersection, especially for students of nearby schools, given the sight distance at the T-intersection of Glenmore Road and Cambridge Street is quite limited due to the curved road geometry, and that an increased speed would generally be accompanied by traffic uphills and downhills. It should also be noted in accordance with Council's Traffic Management Strategy 2014, Glenmore Road was identified in the top ten (10) streets across the municipality that requires the traffic calming measure improvements. This outcome was result of community feedback, traffic speeds and crash data collected during the time of the study.

Furthermore, it should be noted that the development would result in an increase of traffic generation, and in turn would result in an increase in risk associated with the additional turning movements at the intersection. These traffic issues, based on which the previous conditions were imposed, is mainly related to on-site activities other than childcare facility, which would only generate 0.2 to 1.4 trips per child during peak hours, as per RMS Guide to Traffic Generating Developments 2002.

As such, the previous imposed traffic treatment to upgrade the intersection to calm traffic and allow safer turning movements should be retained. Traffic treatments shall include but not limited to:

- Reconstruct a centre median island, realign line markings and install speed cushions on Glenmore Road;
- Kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street.

These traffic treatments should be developed, constructed and funded by the applicant. Any other proposed traffic treatment is required to be referred to Woollahra Traffic Committee for a separate approval.

2) Proposed management options

The traffic management options proposed are reviewed and comments are provided as follows:

i. Amended Pick-up/Drop-off Access Arrangement.

Currently, the only vehicular access to the Sydney Grammar School car park (north to the site) is from Alma Street car park entrance into the White City site and then via an easement along the west of the site. Two-way vehicular access along this single lane width right-of-way is permitted and controlled by a give-way signal system. Pedestrian access is also via the lane in an informal shared zone arrangement. Sydney Grammar Edgecliff Preparatory School also has its pick up/drop off zone located on the eastern side of Alma Street. During school peak hours, up to 250m queues have been observed along the full length of Alma Street and along Lawson Street between Alma Street and Goodhope Street. An increase of trips associated with the proposed development including both the multi-purpose sports centre and the childcare centre will likely exacerbate the existing queues and generate further congestion in the surrounding local road network.

Council's Traffic Section strongly supports the proposal to open the White City site to allow parents to circulate within the site during the pick-up/drop-off period, however deficiencies of the current two options proposed are identified, as discussed below:

- Option 1 of a two-way easement would require additional turning movement within the Sydney Grammar School car park, which would affect the school traffic in terms of safety and efficiency;
- Option 2 of a one-way easement would require a U-turn on the White City Site, which would result in conflicts between school traffic and sports-related traffic, given the physical constraints on the narrow width of parking aisle.

Notwithstanding, it should be noted that the proposal is considered essential to maintain an acceptable level of traffic operation during school peaks in the surrounding network, it is strongly recommended that further research be undertaken to carefully design both vehicular circulation and pedestrian access, and an alternative option be provided to minimise the conflicts between school traffic and sports-related traffic, whilst ensuring safety and efficiency of school traffic. Details on the queuing area including the control point at the site boundary must be submitted to Council's Traffic Section at later stages to demonstrate the queues during peak hours in the surrounding road network can be managed to an acceptable level.

ii. Extended Pick-up/Drop-off Area.

An additional of two (2) car spaces, further the recently added three (3) parking spaces along eastern side of Alma Street, are proposed to be dedicated to school as part of the pick-up/drop-off area. Although such arrangement might alleviate the pressure of school parking during peak hours, it should be noted that a typical weekday in the mentioned area consists a very high parking occupancy rates, the additional loss of on-street parking can lead to increase of illegal parking, cause more traffic weaving as identified and described in the traffic report regarding Alma Street and Lawson Street, and thus impair traffic performance in terms of safety and efficiency in the vicinity, as opposed to the increase of efficiency anticipated in the traffic report. As such, the arrangement of extend pick-up/drop off area with the additional loss of two parking spaces cannot be supported.

iii. Pedestrian Management

It is acknowledged that students and parents would cross the White City access driveway during peak pick-up/drop-off periods, and that students would cross the driveway unauthorised to access the Weigall sporting fields to the west of the White City Development, however deficiencies of the options proposed are identified, as discussed below:

- As discussed in the traffic report, Option 1 of installing Pedestrian (Zebra) Crossing on the footpath adjacent to the White City access outside of the property boundary or mid-block on Alma Street would either fail to comply with the maximum requirement of pedestrians of a Children's Crossing, as per RMS (TfNSW) requirement, or result in a substantial loss of available on-street parking on Alma Street, along with potential sight obstruction due to the existing trees. As such, more investigation should be undertaken to determine as whether or where a more practical location could be proposed;
- Option 3 of introducing a boom gate at the primary access on Alma Street would adversely impact on the efficiency of traffic flow into and out of the site, exacerbating the already much stressed queuing condition along the street, while the effectiveness of such measure to prevent students entering the site is queried. As such this option cannot be supported.

Notwithstanding, Council's Traffic Section agrees with the proposal on the development and implementation of a crossing management, however more details should be explored on the measures taken and the potential effects, etc.

It should also be noted that, apart from the pedestrian crossing issue on the abovementioned location, new/upgraded pedestrian facilities are required surrounding the White City site to improve safety and access, including the pedestrian crossing on Lawson Street near the intersection of Lawson Street and Alma Street, where the development would result in an increased turning movements to access the site. Traffic treatments should include but not limited to:

- Upgrade the existing at-grade pedestrian crossing on Lawson Street, at its intersection with Alma Street, to a raised pedestrian crossing, creating a raised threshold to calm traffic speed and to improve pedestrian safety.

Operational Traffic Management Plan

As discussed above, the current Operational Traffic Management Plan (OTMP) does not provide sufficient information to explain the random decrease of parking demand at different periods of operation hours. Further investigation should be carried out in accordance with the operation hours of each facility to address the undersupply of car parking spaces.

It is understood that the OTMP proposes to organise shuttle bus services with a 22-seated Toyota Coaster and a 33-seated coach to transport players and supporters from key transport interchanges during large sporting events, which would facilitate the use of alternative transport and thus alleviate car parking demand, however a more quantifiable analysis should be undertaken to assess the potential effects like the modal split, shuttle bus ridership, etc.

Furthermore, the proposed arrangement of utilising four parking spaces to temporarily accommodate shuttle buses in the car park would further exacerbate the undersupply of car spaces, considering shuttle bus services are provided during major sporting events when parking demand reaches its peak level. It should be also be noted that the swept path indicates a quite restricted parking manoeuvre to allow the pick-up and drop-off at the proposed porte-cochere due to physical constraints.

As such, a more specific plan, providing alternative bus bay and pick-up/drop off arrangement and more servicing details as how to achieve the anticipated effects, should be developed.

Construction Management Plan

Construction Management Plan (CMP) been reviewed in accordance with Council's application criteria, amendment are required regarding the following issues:

1) Hours of work: Detail that when demolition, excavation and construction works are to be undertaken on school days, all vehicular movements associated with this work shall only be undertaken between the hours of 9.30am and 2.30pm, in order to minimise disruption to the traffic network during school pick up and drop off times;
2) Size of vehicle: state the anticipated size of construction vehicles, and the amount of trips generated by each size during different stage of construction works;
3) Vehicular access: It should be noted that the proposed gate 2 on Glenmore Road are designed to be exit only, and the design requirements are assessed accordingly. Should the development be approved, it is required that a left-in-left-out manoeuvre is taken when accessing and egressing the site, and a proper traffic control plan be developed for all vehicles intending to utilise the access;
4) Access and egress route of construction vehicles: The proposed route of construction vehicles to access and exit the site is not desirable and cannot be supported, as it involves a series of local roads with physical constraints including narrow with, especially with the maximum vehicle size being a 12.5m long heavy vehicle. Council's Traffic Section raises serious safety concerns along with disruption to traffic on the proposed truck route, and the impacts on the surrounding neighbourhood.

Green Travel Plan

The targets laid out in the Green Travel Plan (GTP) is generally reasonable and practical, however Council's Traffic Section raises concerns on the implementation and enforcement of the actions as whether and how such results could be achieved, as one of the most effective strategies proposed, the

promotion of public transportation, are subject to owner/tenant negotiations and incentives. Further research for a clearer and more comprehensive GTP is required to prove the effectiveness of the proposed actions and to ensure responsibility for the implementation.

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.

On-street Parking Restrictions & Associated Car Park Entry Signage

Should this development be approved, the applicant is to liaise with Council's Traffic Section for the adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage. This matter is required to be referred to Woollahra Traffic Committee for seeking approval and the process can take up to 8 weeks. All works associated with the signage changes shall be carried out at the full cost to the applicant.

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 –
    i. A shortfall of 15 car parking spaces during major weekend sporting events than the minimum requirement;
    ii. A shortfall of 1 motorcycle parking spaces than the minimum required parking provision as per Council's DCP;
2. Service Vehicle Parking – Alternative one loading bay and one bus bay be provided on-site, as the current proposed location, design configuration and arrangement of loading bay/dock and bus bay cannot be supported;
3. Access Driveway – To reduce the potential interruptions to through traffic on Glenmore Road opposite to the proposed development, the proposed Glenmore Road access be restricted to left-out only, as the current arrangement of using a boom gate at the end of the ramp is considered insufficient to ensure an egress-only access and address potential safety issues. Given the generally busy traffic conditions on Glenmore Road, it is considered that Glenmore Road Exit shall be restricted to left-out only.
4. LATM –
    i. Glenmore Road Entry Works (redundant)/Glenmore Road Exit Improvement: The developer develop, fund and implement the modification to the existing concrete median along Glenmore Road and additional signposting and pavement markings generally in front of the proposed Glenmore Road access to provide left-out only access, to the satisfaction of the Council's Engineering Services Department;
    ii. Glenmore Road and Cambridge Street intersection works: The developer develop, fund and implement the upgrade the intersection to calm traffic and allow safer turning movements, traffic treatments should include but not limited to:
        a. Reconstruct a centre median island, realign line markings and install speed cushions on Glenmore Road;
        b. Kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street.
    iii. Amended Pick-up / Drop-off Access Arrangement: Further research be undertaken to carefully design both vehicular circulation and pedestrian access, and an alternative option be provided to minimise the conflicts between school traffic and sports-related

traffic, whilst ensuring safety and efficiency of school traffic, as the current two options are not desirable and cannot be supported. Details on the queuing area including the control point at the site boundary must be submitted to Council's Traffic Section at later stages to demonstrate the queues during peak hours in the surrounding road network can be managed to an acceptable level;

iv. Extended Pick-up/Drop-off Area: The proposal of adding two more car spaces as part of the pick-up/drop-off area cannot be supported as it would result in the loss of on-street parking, and an increase of illegal parking and traffic weaving along Alma Street and Lawson Street, thus impairing traffic performance in terms of safety and efficiency in the vicinity;

v. Pedestrian Management:
   a. Option 1 and Option 3 cannot be supported, as discussed in detail in the report;
   b. The development and implementation of a crossing management be supported and more details be explored on the measures taken and the potential effects, etc. to provide a more comprehensive and practical crossing management plan;
   c. The developer develop, fund and implement new/upgraded pedestrian facilities surrounding the White City site to improve safety and access, including the pedestrian crossing on Lawson Street near the intersection of Lawson Street and Alma Street, where the development would result in an increased turning movements to access the site. Traffic treatments should include but not limited to: Upgrade the existing at-grade pedestrian crossing on Lawson Street, at its intersection with Alma Street, to a raised pedestrian crossing, creating a raised threshold to calm traffic speed and to improve pedestrian safety;

5. OTMP – A more quantifiable analysis be undertaken to assess the potential effects like the modal split, shuttle bus ridership, etc., and a more specific plan, providing alternative bus bay and pick-up/drop off arrangement and more servicing details as how to achieve the anticipated effects, should be developed;
6. CMP – A revised CMP be provided containing additional information as per required in the report, and an alternative route for construction vehicles to access and egress the site be provided, as the proposed route cannot be supported given the existing constraints and potential impacts on the road network surrounding the proposed route;
7. Green Travel Plan –
   i. Further research for a clearer and more comprehensive GTP be provided to prove the effectiveness of the proposed actions and to ensure responsibility for the implementation;
   ii. Should the development be approved, follow-up annual reports be submitted 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;
8. On-street Parking Restrictions & Associated Car Park Entry Signage – Should this development be approved, the applicant is to liaise with Council's Traffic Section for the adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage. This matter is required to be referred to Woollahra Traffic Committee for seeking approval and the process can take up to 8 weeks. All works associated with the signage changes shall be carried out at the full cost to the applicant.