Reference: #N152880

18 July 2018

University of Technology Sydney
PO Box 123
BROADWAY NSW 2007

Attention: Ms Deborah Bates (Project Manager)

Dear Deborah

RE: CENTRAL PARK BLOCK 4N TOWER – UTS GRADUATE SCHOOL DEVELOPMENT APPLICATION

An Environmental Impact Statement (EIS) is currently being prepared by University of Technology Sydney (UTS) for a proposed change in land use within the approved Central Park block 4N, from commercial office to educational premises.

UTS commissioned GTA Consultants (GTA) to address the Secretary's Environmental Assessment Requirements (SEARs) related to traffic and transport to support the EIS, which are reproduced and addressed in this letter.

This letter references Architectural Plans prepared by Fosters + Partners, drawing number ARC-AR-DR-BS-00-4100 to ARC-AR-DR-BS-04-4100 dated 30 January 2017, and ARC-AR-DR-BS-00-1000 to ARC-AR-DR-BS-04-1000 dated 28 November 2017.

In the preparation of this letter, consultation was undertaken by telephone with Transport for NSW on 29 June 2018. This consultation confirmed that the analysis approach to address the SEARs to assess the operation of existing and future transport networks to accommodate the change in use is considered acceptable.

Should you have any questions or require any further information, please do not hesitate to contact me in our Sydney office on (02) 8448 1800.

Yours sincerely

GTA CONSULTANTS

N.Vukic.

Nicole Vukic
Director

encl.
Approved Development
Proposed Change in Use
Response to SEARs

VIC | **NSW** | QLD
ACT | SA | WA
Level 16, 207 Kent Street
SYDNEY NSW 2000
t// +612 8448 1800
www.gta.com.au

Approved Development

The Development Application (DA) for the mixed-use development, block 4N tower was approved in August 2015 with subsequent modifications approved in June 2016 and August 2017 and is currently under construction (herein referred to as the approved DA).

It is understood that the development has a site area of 4,111 square metres with a total Gross Floor Area (GFA) of 26,481 square metres comprising the following uses:

- Residential: Located on levels 11 to 16 consisting of 48 permanent residential apartments.
- Retail: 1,236 square metres located on the ground level with frontage to Central Park Avenue.
- Hotel: Located from the ground level to level 18 consisting of approximately 297 hotel rooms.
- Commercial: 6,417 square metres located on levels 5 to 10.
- Childcare Centre: 812 square metres located on levels 3 and 4.
- Existing Australia Hotel and Terraces (Heritage Pub and Terraces): 789 square metres.

The approved DA includes a combined basement below Central Park block 1 and block 4N that accommodates all car parking, bicycle parking, residential and commercial storage, waste handling, back of house facilities, building plant and services. Service vehicle loading is provided via the Abercrombie Street access ramp, and car park access for residents, hotel guests, office, retail and childcare drop-off is provided via Central Park Avenue. The basement accommodates a total of 121 car parking spaces for the proposed block 4N use.

Proposed Change in Use

The proposal is to change 6,417 square metres GFA of commercial space to accommodate a UTS Graduate School, with the UTS Graduate School of Health currently identified for the space. No external works are proposed and there will be no net change to the GFA of the approved DA.

The graduate school is proposed to comprise of the following:

- postgraduate teaching and teaching space
- accommodation for Graduate Research Students and other graduate training
- administration facilities
- a primary health clinic.

Furthermore, the core use population of the graduate school at any one time based on the maximum capacity as per the UTS lease agreement with Frasers Property, which is summarised in Table 1.

Table 1: Graduate school population at any one time

User group	Maximum occupancy (persons)
Staff	120
Higher Degree Research (HDR)	160
Students	282
Clinic staff and patients	78
Total	**640**

The Graduate School of Health currently has 464 students, which is estimated to increase to 650 students by 2020. The proposed modification of use will retain the existing commercial car parking provision of 23 spaces, including two accessible spaces, and two motorcycle parking spaces securely located on basement level 3. It is understood that the car parking provision would be allocated to staff.

Furthermore, the block 4N publicly available drop off car spaces, accessed via Central Park Avenue, will be available for use by staff, students and patients.

Response to SEARs

Requirement

The EIS shall address changes to daily and peak hour vehicle, public transport, pedestrian and cycle movements, and details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips

Response

Mode Share

Mode share splits for the approved DA and proposed modified land use have been estimated based on a review of the 2016 Journey to Work data from the Australian Bureau of Statistics (ABS) and travel survey data collected by UTS and documented in the UTS *Sustainable Transport Plan 2013-2015*. The mode share splits are summarised in Table 2, Figure 1 and Figure 2.

Table 2: Staff and student mode share splits

Population	Train	Bus	Ferry or light rail	Private vehicle	Bicycle	Walking	Other
Staff [1]	53.4%	20.4%	3.1%	15.3%	1.4%	6.0%	0.4%
Students [2]/ patients	52.0%	24.0%	n/a	7.0%	6.0%	11.0%	n/a

[1] 2016 Journey to Work data has been sourced from the ABS for Statistical Area 2 (SA2): Sydney – Haymarket – The Rocks, which is more representative of the expected travel behavior to the site compared with SA2 that UTS and the site fall within, due to the high level of residential land uses within Pyrmont, which is captured in the same Statistical Area (SA2: Pyrmont – Ultimo).

[2] Data sourced from UTS *Sustainable Transport Plan 2013-2015.*

Figure 1: Mode split - staff

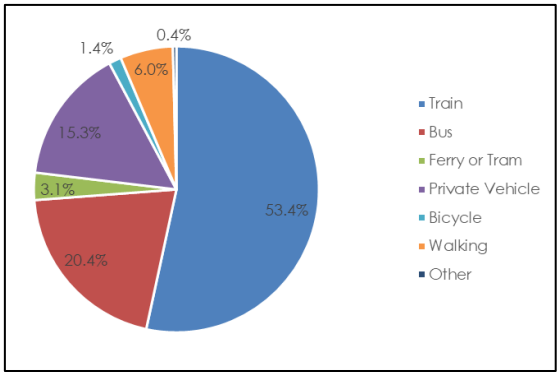
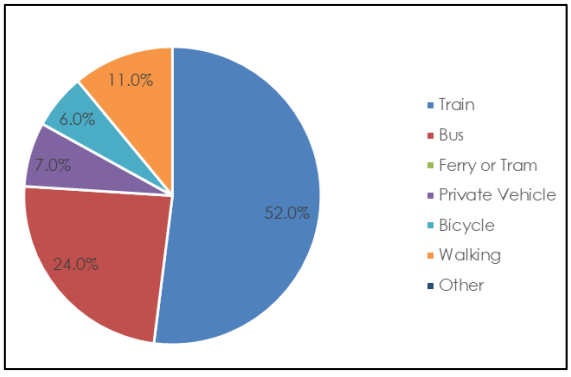


Figure 2: Mode split – students/ patients



Peak hour land use population

The population of the proposed educational facility at any one time is outlined in Table 1, equating to 640 staff, students and patients. The population of the approved commercial office has been assumed by applying a conversion factor of one staff member per 10 square metres GFA, equating to 642 staff members.

Peak hour trip generation per mode

The anticipated travel demand by transport mode has been determined using the respective approved and proposed use populations and student/ staff mode share splits identified in Table 2. The resulting travel demand for all trips during the peak hour is summarised in Table 3. It is noted that to provide a conservative estimate, it has been assumed that the full population arrives in the peak hours, whereas, in reality, arrivals to the site will be spread over a longer period throughout the day.

Table 3: Peak hour trip generation per mode – approved and proposed use

Mode	Approved DA (commercial)	Proposed use (educational facility)				Net change in trips generated by approved DA and proposed use [4]
	Staff	Staff [1][2]	Students	Patients [2][3]	Total	
Train	343	170	147	20	337	**-5**
Bus	131	65	68	9	142	**11**
Ferry or light rail	20	10	n/a	n/a	10	**-10**
Private vehicle	98	49	20	3	71	**-27**
Bicycle	9	4	17	2	24	**15**
Walking	39	19	31	4	54	**16**
Other	3	1	n/a	n/a	1	**-1**
Total trips	**642**	**319**	**282**	**39**	**640**	**-2**

[1] HDR population is considered to be 'staff' since they are expected to attend the facility and conduct research during typical commercial work hours.
[2] To provide a conservative assumption, the 78-clinic staff and patients were assumed to be 50 per cent staff and 50 per cent patients.
[3] Student mode share splits were adopted for patients due to the limited number of parking spaces available near the site.
[4] Approved and proposed use results subject to rounding.

The results in Table 3 indicate that the proposed change in use results in a peak hour reduction in trips made by private vehicles and trains and increase in trips by active travel and buses.

Daily land use populations

UTS provided GTA with four potential clinic scenarios. This data source has been reviewed and the daily land use populations have been estimated based on the following conservative assumptions:

- There is no change to staff population across the day, considering the peak hour estimates assumed all staff arrived during the peak hour.
- The estimated 650 students would attend one class each day.
- A typical graduate school week is represented by Monday to Thursday (significantly fewer classes are currently scheduled on Friday).
- The clinic scenario that results in the greatest number of patient consultations per day is adopted by UTS.

With regard for these assumptions and a review of the available UTS data, the following daily student and patient populations have been adopted:

- 650 daily students
- 392 daily patients.

Daily trip generation per mode

The resulting daily travel demands for all trips is summarised in Table 4.

Table 4: Daily trip generation per mode – approved and proposed use

Mode	Approved DA (commercial)	Proposed use (educational facility)				Net change in trips generated by approved DA and proposed use [4]
	Staff [5]	Staff [1][2][5]	Students [5]	Patients [2][3][6]	Total	
Train	686	341	676	408	1,424	**739**
Bus	262	130	312	188	630	**368**
Ferry or light rail	40	20	n/a	n/a	20	**-20**
Private Vehicle	197	98	91	55	244	**47**
Bicycle	18	9	78	47	134	**116**
Walking	77	38	143	86	268	**191**
Other	5	3	n/a	n/a	3	**-3**
Total Trips	**1,284**	**638**	**1,300**	**784**	**2,722**	**1,438**

[1] HDR population is considered to be 'staff' since they are expected to attend the facility and conduct research during typical commercial work hours.
[2] To provide a conservative assumption, the 78 clinic staff and patients were assumed to be 50 per cent staff and 50 per cent patients.
[3] Student mode share splits were adopted for patients due to the limited number of parking spaces available near the site.
[4] Approved and proposed use results subject to rounding.
[5] Staff and students are assumed to conduct two major daily trips. Small localised trips, such as leaving the facility to buy lunch, is not considered to significantly impact the external transport network and has therefore not been included in the assessment.
[6] Patients are assumed to conduct two daily trips, arrival too and departure from the clinic.

The results in Table 4 indicate that the proposed change in use results in a daily increase to trips by all modes of transport. However, it is noted that these results reflect a 'worst-case' scenario where all 650 students attend one class each day.

Requirement

The EIS shall address details of any proposed end of trip facilities proposed or other means for encouraging active transport modes

Response

The approved development includes the provision of 122 secure bicycle parking spaces for staff and visitors on basement levels 1 and 2. Separated female and male change room and shower facilities and one accessible changeroom and shower facility are also provided on basement level 1.

The bicycle parking requirements for different development types are set out in the City of Sydney Council's Development Control Plan 2012 (DCP). The DCP requires one bicycle space for every 10 students/ staff for tertiary educational facilities. Based on the DCP requirements, the proposed development is required to provide 64 bicycle parking spaces for the educational land use.

For commercial premises, the DCP requires one bicycle space for every 150 square metres GFA for staff and one bicycle for every 400 square metres GFA for visitors. Based on the DCP requirements, the approved use required a provision of 43 bicycle parking spaces for staff and 17 bicycle parking spaces for visitors, equating to a total requirement of 60 bicycle parking spaces for commercial premises.

There is a shortfall of four bicycle parking spaces as required by the DCP. It is noted that there are sufficient bicycle parking racks provided within the wider Central Park precinct, in addition to the streets adjacent to the development, as shown in Figure 3, Figure 4 and Figure 5. In addition, UTS has end of trip facilities in Building 10 of their city campus that is available for students and staff. Therefore, it is expected that any additional demand for bicycle parking could be absorbed by these on-street facilities. On this basis, the existing bicycle parking provisions are considered appropriate for the proposed change in use.

It is noted that the approved development as a part of the Central Park precinct development has created a permeable pedestrian/ cyclist network through the Central Park site. This includes the provision of a shared pedestrian/ cyclist link from Wellington Street to Chippendale Way. The improved pedestrian/ cyclist network will enhance accessibility between Chippendale and public transport nodes such as Railway Square/ Central Station and will help encourage staff, students and patients accessing the site to consider traveling via active modes of transport.

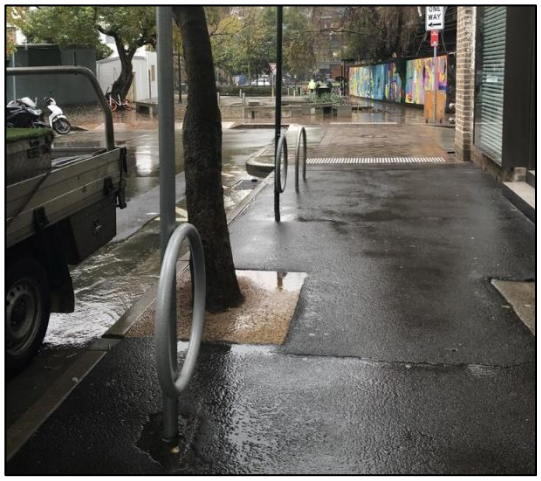
Furthermore, the Sustainability Group is a team at UTS responsible for ensuring the sustainability of UTS's infrastructure and operations. The UTS Sustainability Group has coordinated a number of active travel initiatives. These include:

- Cycling promotion information provided to students during Student Orientation, including a familiarisation video of locations and types of facilities provided on campus
- Cycling promotion information at all staff induction sessions
- Cycling information on the UTS website
- Regular cycling events held throughout the year including free bicycle maintenance workshops, and Ride to Work (UTS) Day.

It is expected that the resources from these active travel initiatives will be made available to staff and students who access the proposed UTS graduate school.

Figure 3: Cyclist facilities along Abercrombie Street, 100 metres south of the site

Figure 4: Cyclist facilities along Balfour Street, 170 metres south of the site



Requirement

The EIS shall address an assessment of the operation of existing and future transport networks including bus network and their ability to accommodate the forecast number of trips to and from the development

Response

The proposed change in land use will result in an increased student population and decreased staff population. As shown in Table 3 and Table 4, this results in a reduced reliance on private vehicles (hence trips generated by vehicles) and an increase in trips by active and public transport modes compared to the approved DA.

It is noted that the UTS Graduate School of Health currently has 464 student and operates within the UTS campus located along Broadway. As such, a portion of trips generated by students should not be considered as 'new trips' as they are already present on the network, rather they would be redistributed from the current campus. In addition, the likely distribution of students' residences across the Greater Sydney Metropolitan region results in the demand for services being spread across the public transport network. Therefore, the increase in daily active and public trips (including redistributed trips from the existing UTS Graduate School) would be accommodated in the existing and future transport network.

Requirement

The EIS shall address the adequacy of public transport, pedestrian and bicycle networks and infrastructure to meet the likely future demand of the proposed development

Response

It is expected that the increase to peak hour bus, cycle and walk trips outlined in Table 3 as a result of the change in land use, would not result in any adverse effects to the existing and future public infrastructure network.

When considering that some of the student trips will not be 'new trips' along with the distribution of students' residences across the Greater Sydney Metropolitan region, the increase in daily trips is

considered acceptable and is not expected to result in any adverse effects to the existing and future active and public transport networks.

Requirement

The EIS shall address the proposed access arrangements and measures to mitigate any associated impacts and impacts on public transport, pedestrian and bicycle networks

Response

No modifications to the approved DA are proposed for block 4N, aside from the tenancy fit out. As such, the approved access arrangements are proposed to be maintained. The approved DA as a part of the Central Park precinct development, included a series of public infrastructure improvements that have since been implemented. These include:

- pedestrian crossing facilities have been provided across all main roads surrounding the site including Broadway, Abercrombie Street and Regent Street
- pedestrian pathways have been provided along both sides of all internal roads within the Central Park precinct
- a shared pedestrian/ cyclist link through the park from Wellington Street to Chippendale Way has been implemented
- a raised pedestrian threshold has been constructed across O'Conner Street adjacent to the main park at the centre of the Central Park precinct.

Newly constructed pedestrian and cyclist facilities near the site within the Central Park precinct are shown in Figure 5 and Figure 6. Furthermore, newly constructed pedestrian facilities along the site frontages to Broadway and Abercrombie Street are shown in Figure 7 and Figure 8.

Figure 5: Pedestrian and cyclist facilities along Chippendale Way

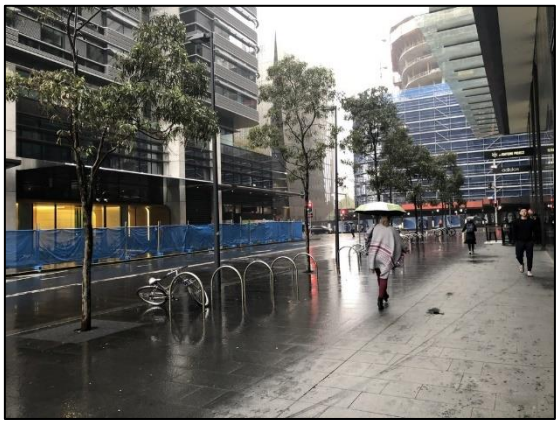


Figure 6: Pedestrian and cyclist facilities along Central Park Avenue

Figure 7: Pedestrian facilities along the site frontage to Broadway

Figure 8: Pedestrian facilities along the site frontage to Abercrombie Street

These pedestrian facilities provide access between the site and the broader public transport network, with the increase in walking trips resulting from the change in use expected to be absorbed in the network given the spread of trips and origins/ destinations across the day.

Requirement

The EIS shall address measures to maintain road and personal safety in line with CPTED principles

Response

No modifications to the approved DA are proposed for block 4N, aside from the tenancy fit out. As such, measures to maintain road and personal safety in line with CPTED principles have been addressed in the approved DA.

Notwithstanding this, the hours of operation are proposed between 8am to 9pm. During these hours it can be assumed that the staff, students and patients of the site will benefit from improved personal safety through passive surveillance from others using the surrounding transport network and pedestrians accessing the adjacent facilities, given the centralised location of the site and proximity to attractors such as public transport nodes.

Requirement

The EIS shall address an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures

Response

No modifications to the approved DA are proposed for block 4N, aside from the tenancy fit out. As such, an assessment of road and pedestrian safety adjacent to the site and the details of required road safety measures has already been addressed in the approved DA.

Notwithstanding this, Figure 5 through to Figure 8 illustrate the pedestrian facilities that surround the site. The design of the pedestrian footpaths has considered road and pedestrian safety through design features such as wide footpaths, clear footpath separation from the road and raised pedestrian crossings within the Central Park precinct.

Requirement

The EIS shall address changes to the demand for car parking in proximity to the development

Response

Time restrictions to on-street parking near the site are expected to minimise commuter and student parking and encourage trips by active and public transport modes. As such, staff and students are not expected to significantly increase demand for car parking near the development.

It is noted that patients accessing the clinic could slightly increase demand for on-street parking. GTA visited the site on 21 June 2018. At the time of the site visit, parking within and near the Central Park precinct was observed to be at capacity. As such, the demand for on-street parking could not be expected to significantly increase as patients are deterred by the limited number of parking spaces available near the site.

The UTS website suggests the following car parking options for visitors of their city campus, which are within acceptable walking distance:

- Interpark, Thomas Street, Ultimo (approximately a two-minute walk)
- Broadway Shopping Centre Car Park, Bay Street, Broadway (approximately a five-minute walk)
- Mercure Hotel Parking, Little Regent Street (approximately a five-minute walk)
- Hotel Novotel Sydney Central, 169-179 Thomas Street, Ultimo (approximately a nine-minute walk).

Each car parking option is paid, with the exception of the Broadway Shopping Centre car park, which has two hours free parking. To avoid staff and students parking within Broadway Shopping Centre, cars that re-enter the car park within an hour of leaving are subject to additional fees and their total time within the car park is accumulated. Staff and students are therefore unlikely to impact car parking supply at this location. It is noted that patients may use this car park when accessing the clinic. Patients are also likely to visit the shopping centre prior to or after their appointment and therefore, is not considered to have an adverse effect on the transport network.