Submission in response to

SSD 6339 St Catherine's School Campus Master Plan

Prepared with content and advice from SLM Consulting

by Charing Cross Village and Bronte Beach Precinct Committees

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Contents

Recommendations and Executive Summary

The principle role of land use planning is to promote a balance between the immediate environmental, social and economic impacts of developments and the needs of current and future generations. This submission argues that the key elements of the Development Application for St Catherine's School Campus Master Plan (Master Plan) run counter to the principles of sound planning. While claiming social and economic benefits, the Master Plan fails to address the negative social, economic and environmental impacts on the surrounding resident communities and businesses. St Catherine's historical record has been one of increasing activity and development of the site at the expense of the residential amenity of the local community.

Consequently, the Charing Cross and Bronte Beach Precincts jointly recommend that the Master Plan be refused, on the following grounds:

- The current development proposal is an overdevelopment of the existing site with consequential over-intensification of use in terms of numbers of site users, increases in hours of operation into evenings and weekends, and heavier traffic flows and parking demands affecting residential streets surrounding the school
- The scale of the proposed development is disproportionate to the surrounding area and is incompatible with the objectives of the adjoining residential zones
- The density outlined in the Master Plan for the site far exceeds that permissible under the provisions of the LEP
- The Master Plan does not adequately consider the impact of the development on surrounding residential properties
- The Master Plan views the impact of the development in isolation and does not consider the cumulative impacts along with other known developments in the area
- The Master Plan fails to alleviate the current problems being experienced from the school's operation, including traffic congestion, street parking load with attendant safety concerns, noise, and privacy concerns. Furthermore it does not adequately mitigate the worsening of these issues that results from a higher population and intensity of use.
- The Master Plan does not provide for adequate on-site parking for staff members and visitors to the school, nor is there any provision for on-site drop-off and pickup of students
- The school is already in breach of current planning controls or consents in terms of student population, building heights and floor/space ratios. The community has no confidence that this behaviour will be curbed by a new planning consent. The only effective way to constrain the school's growth appears to be to not approve new buildings

- The Master Plan is in reality the development of quasi-commercial facilities and therefore should be assessed as such in line with Waverley's land use planning controls

However if the Department of Planning sees fit to approve some development of this nature, the Precincts recommend and request that such approval follow review of a resubmitted Application containing the following modifications and conditions of consent:

Recommendation 1: That the school population be capped to its existing level of 970 students.

Recommendation 2: That the consent authority requires St Catherine's to undertake a cumulative impact study of its proposed development, including construction works and operational phases, as required by the Director General under Section 78A (8A) of the Environmental Planning and Assessment Act, Schedule 2, issued 29 January 2014, General Requirements that the assessment includes "consideration of potential cumulative impacts due to other development in the vicinity".

Recommendation 3: That the school provide the consent authority and community with a detailed time line for demolition and construction of all stages over the 15 years of the Master Plan.

Recommendation 4: That the use of the Aquatic Centre be limited to St Catherine's students and learn to swim classes, and that its hours of operation be strictly limited to 7:00 am – 6:00 pm on weekdays and 8:00 am – 12:00 pm on Saturdays.

Recommendation 5: That the 500 seat theatre be used for St Catherine's events only and that its hours of operation be strictly limited to 9:00pm finish time with all users and vehicles required to vacate the premises by 9:30pm.

Recommendation 6: That the number of after-hours events held in the Performing Arts Auditorium and Multi-Purpose Hall be capped at the projection included in the Master Plan of 62 events per annum.

Recommendation 7: That any new buildings conform to the existing height control of 9.5 metres.

Recommendation 8: That the Master Plan be revised to provide adequate on-site parking options to accommodate all staff, daily visitors and licensed Year 11/12 students, and address the increased intensity of use of the school theatres and sports facilities and associated quasi-commercial and non-commercial activities. According to the school's traffic consultant's models, this would require on-site parking for at least 200 vehicles.

Recommendation 9: That the Master Plan be revised to provide a one-way on-site drop-off and pickup queue for the Senior and Junior Schools with a capacity comparable to that of the proposed MacPherson Street zone, namely 20 vehicles.

Recommendation 10: That the operational management strategies indicated in the Traffic Report, Appendix I to the Final Environmental Impact Statement for the DA (EIS) be implemented.

Recommendation 11: That the construction plans provide on-site parking for all construction management and workers, including heavy and light vehicles, all subcontractors, their employees and any other trades personnel working on the site.

Recommendation 12: That the school be required to develop a "mode-shifting" transport strategy that encourages the use of public transport and a "walk to school" program in conjunction with a monitoring framework, with a target to reduce the proportion of students being delivered to school by car to 16% by 2018.

Recommendation 13: That the design of buildings and pedestrian circulation proposed in the Master Plan be amended to focus on achieving pedestrian flows to and from the bus transport hub at Albion Street and not on the enlarged drop off and pick up zones on Macpherson Street.

Recommendation 14: That the consent authority ensures that the acoustic performance of the proposed Aquatics Centre will meet the highest applicable noise criteria even with the high intensity use of a swimming carnival.

Recommendation 15: That the Master Plan provide a plan for monitoring noise impacts post-construction, and that the school be required to implement additional mitigation strategies if the noise levels are unacceptable to local residents or are non-compliant with applicable standards for the Aquatics Centre and the Entertainment Terrace.

Recommendation 16: That the Master Plan include strategies for the prevention of light spill from the RPAC facility and the elevated Terrace onto Macpherson Street and into neighbouring homes and gardens particularly on the southern side of Macpherson Street.

Recommendation 17: That the Master Plan include a screening system along the front facade of the RPAC building to ensure that the privacy of neighbours is maintained, particularly those on the southern side of Macpherson Street.

Recommendation 18: That the construction zone on Macpherson Street is moved to a location where there are no street trees.

The causes for concern with the Development Application are summarised below, and elaborated in the subsequent document sections.

Intensification of Use

The proposed built forms, their intended hours of operation, the extra events per calendar year, and their users, including outside visitors and their parents, all contribute to an unacceptable quantum shift in intensity of use on the site with consequent negative implications for the amenity of residents.

The swimming pool facilities at St Catherine's are greatly enlarged (1 pool becomes 3 pools), open the whole year round instead of just the warmer months, and open from very early

mornings into the evening seven days a week. The number of theatres and seating capacity is greatly increased. Any event at the school will have significantly increased capacity.

School Population

The data submitted in the Master Plan demonstrate that over a thousand people currently use the site on a daily basis. The Master Plan gives no indication of daily population flow patterns, does not differentiate between part-time or full time staff, and fails to include volunteers.

The proposed development will result in an intensification of on-site activity which will attract more people than existing events and generate greater impacts on residential amenity.

The Master Plan proposes an additional 230 students on campus over a 15 year period but does not specify the profile of that growth within the period. It reveals that the school is in breach of its existing approval and linked conditions of consent on maximum student numbers. A history of breaches gives the community no confidence that any cap would in fact constrain growth even beyond that proposed in the Master Plan.

Limiting the expansion in accommodation at the school would help to impose real constraints on student numbers.

The population growth of St Catherine's catchment area is used as justification for the project. This growth, projected in the Urbis study (EIS Appendix U), is exaggerated by the inclusion of highest-growth postcode areas from which very few students currently attend St Catherine's. The conclusions on future student demand, and therefore the need for the development, are highly questionable.

Cumulative Impacts

The Master Plan does not consider the cumulative impacts of its proposed development and the duration of its 15 year expansion program in the context of developments in the locality. This is a non-compliance with Director General Requirements.

In fact there are several other developments whose impacts will add to those of the school:

- Child-care centre opposite St Catherine's School at 23 Macpherson Street
- Child-care centre at Bronte Bowling Club in Varna Park at 16 Wallace Street
- Proposed redevelopment of the Bronte RSL at 113 Macpherson Street
- Proposed rezoning and redevelopment of Waverley Bowling Club (withdrawn temporarily)
- Approved redevelopment of Loretto Nursing Home, 363-7 Bronte Road, Bronte

The Master Plan should assess the school development's cumulative effects with these developments and the consent authority should assess the Application with a view to the total impact on the community.

Zoning Conflicts

Although St Catherine's is zoned SP 2 the school site's irregular shape is intermingled with adjoining residential developments zoned R3 Medium Density Residential and R2 Low Density Residential. The Waverley Local Environmental Plan (WLEP 2012) lists a number of prohibited developments for R2 and R3 zones that include commercial premises, entertainment facilities, function centres and major indoor and outdoor recreation facilities. Based on this, the proposed developments outlined in the Master Plan would be prohibited uses and as such, the Master Plan should be refused.

The uses as outlined in the Master Plan are incompatible and in direct conflict with adjoining land uses.

The Master Plan fails to address the objectives of the adjoining residential zones in terms of existing and long-term impacts of the school's activities.

Floor Space Ratio and Gross Floor Area

Existing development on St Catherine's School site already exceeds WLEP (2012) FSR controls by 33%.

The Master Plan proposals go even further, exceeding the controls by 67%.

The community recognises that the school is already in breach of existing FSR controls and that this would be difficult to rectify. However this should not be accepted as a precedent for approval of additional breaches and therefore any additional increase in FSR should be refused.

Building Heights

The height control in WLEP (2012) for St Catherine's School is 9.5m. However, a number of previous developments have breached the existing height controls. The maximum existing building height on the campus is 14 metres. The Master Plan proposal further increases building heights above even the current breaches. The proposed buildings on Macpherson Street rise to nearly 18m in height and the fly tower exceeds 19m. The latter is 100% over the control. Approval of even greater breaches of planning controls would call into question the authority and relevance of the controls.

Vehicular Access and On-site Parking

The current operation of the school generates significant traffic and parking impacts which have never been adequately addressed. For several years, there have been complaints to Council and St Catherine's over the ongoing negative impacts in terms of footpath, road and street safety by parents and students, and unsafe behaviour when dropping off and picking up students. The Master Plan does not address this issue. It fails to provide an on-site drop-off or pick-up area and only proposes measures to increase the capacity of existing modes of access. The proposal continues to shift the burden to residents by taking over additional on-street parking spaces to increase the length of the drop off zone, thus reinforcing the status quo without any improvement to road or street safety and amenity. The provision of larger

on-street drop off and pick up zones with the inherent loss of on street parking for residents is not an ameliorative measure. It is a further impost on residents.

The on-site parking provisions by the school both currently and in the Master Plan are manifestly inadequate for the current and proposed user population that choose to travel by car. It is no longer tenable for the school to be treated differently from commercial enterprises in the requirement to provide adequate on-site parking for their users that arrive by car.

The Master Plan increases intensity of use at conflict points between pedestrians, staff, students, visitors and vehicles accessing the school site.

Drop-off and Pickup

The Master Plan proposes to extend the capacity of both drop-off/pickup zones, thus entrenching the existing behaviours and modes of transport including excessive use of car transport by girls living close to the school. Drop-off/pickup queuing ultimately becomes incompatible with the limited capacity of the arterial suburban streets on the school's perimeter. Irresponsible and selfish behaviour is already prevalent in use of the current zones by parents – occupying spaces for long periods, parking across residential driveways and in disabled zones that are vital to specific residents. The school must take responsibility for the transport choices of its users by providing safe on-site drop-off/pickup queuing.

For such street queuing that remains, it is critical that proposals in the Traffic Report to better manage the drop-off/pickup queues operationally be fully implemented, and this is a necessary condition to the Report's assertion that queue capacity will be sufficient.

It is also long overdue that council and local police enforce traffic and parking regulations against violations caused by queue overflows that back up towards roundabout intersections.

Street Parking Load

The parking studies as part of the Traffic Report were inadequate in their coverage of affected streets and in the sampling of parking availability on single days only, when parking demand is highly variable day-to-day. The conclusion that there is adequate parking available in surrounding streets is therefore unreliable.

The parking studies are based on the school's criteria, namely that adequate parking for any event is available within a 5-7 minute walk of the school. This assumes it is reasonable for the school to appropriate any parking within that 5-7 minute radius, and ignores the impact on residents who wish to park near their homes for example when returning home of an evening.

The Precincts have undertaken their own study (see Attachment 3) which clearly demonstrates that the school generates significant impacts on parking in streets beyond the immediate site, some of which are routinely saturated. These include Pine St, Hooper St, Fern St, Wallace St, Varna St and Douglas St to west and south, and Bronte Rd, Gipps St, Henrietta St and Prospect St to the northeast. The Precincts' study showed that during school

holidays the surrounding streets have ample parking availability, but during the school term, on-street parking is heavily utilised by school teachers, visitors to the school including parents, licensed students and volunteers to the point that residents who are at home during the day are often unable to park on their own street. Services and trade vehicles often cannot park to deliver services to residents.

When the school has special event days large numbers of visitors are attracted to the school and parking conditions become chaotic across a much wider area.

The proposed increase in the school population and proposed intensification of use outlined in the Master Plan mean that alternative options for parking beyond the additional on-site spaces must be sought. It is no longer tenable for the continual expansion of the facilities within the school site to be treated differently from any other commercial enterprise.

The school's Traffic Report predicts additional parking demands of 75 workers' vehicles during the construction phase but does not factor this into the analysis of parking availability. The Master Plan fails to propose any mitigations to the additional load. This is unacceptable.

The Master Plan proposal should be refused until a satisfactory plan of traffic and parking management has been presented that mitigates the impact on surrounding residential streets of existing parking demands, additional future parking demands and parking demands during the construction phase.

Traffic Congestion

The Precincts reject the conclusion in the Traffic Report that there is only a modest increase in traffic congestion as a result of the increased school population and intensification of activities. During peak hours, the two major intersections at the school's perimeter are already seriously congested, and further deterioration by two Level of Service (LoS) grades, as modeled by the school's consultants, is unacceptable.

Need for Transport Mode-Shift

The transport modes survey undertaken as part of the Traffic Report shows a high level of individual vehicle transport to and from the school amongst students, 60% of whom live within walking distance of the school.

The principal aim of the school's access, parking and transport strategy should be to encourage the use of public transport by students and staff accessing this facility, as opposed to individual car-based transport.

Recommendations are to require a mode-shift strategy with a target on the number of students being delivered to school by car to be reduced to 16%, and to focus the design on an assumption of meeting that target, in terms of prioritising pedestrian and public transport flows over vehicular access.

Noise Impacts

The Master Plan suggests that noise mitigation strategies will be incorporated in the built form to alleviate or address some of the significant noise impacts.

The consultant's noise report acknowledges that noise impacts will be substantial.

A major aquatics centre with the capacity to hold swimming carnivals with participants yelling and blowing whistles will result in significant noise impacts for neighbours.

The elevated Entertainment Terrace overlooking Macpherson Street to the rear of the theatre could project noise from users outwards to Macpherson Street.

Assurance is needed that noise performance of the buildings will meet reasonable criteria and that any issues that arise following construction will be remediated.

Light Spill

The likelihood of light spill through floor to ceiling glass in the RPAC facility and from illumination of the elevated Entertainment Terrace onto Macpherson Street is not addressed in the Master Plan.

Privacy Impacts

The Master Plan states that any potential loss of privacy for residents will be mitigated by design factors, but does not acknowledge that there will ultimately be any real loss of privacy on adjoining neighbours.

The community considers that privacy impacts will be significant, given the proposed design of the RPAC facility which includes large glass frontages, and an elevated Entertainment Terrace that directly overlook neighbours in Macpherson Street.

Social and economic impacts

The Master Plan does not substantiate its claims about the potential social and economic benefits associated with the proposed development, both for St Catherine's itself, and for the community.

The potential social and economic benefits associated with the proposed development of St Catherine's School should be discounted until the school provides adequate evidence for its argument, and adequately addresses the negative impacts.

Street Trees

The proposed construction zone requires the removal of large Melaleuca sp street trees. Relocation of the construction zone further to the west, closer to the Dame Joan Sutherland Centre, would eliminate this requirement.

Conclusion

St Catherine's Development Application and Master Plan fails to achieve a reasonable balance between the school's desire for growth, and the negative social, economic and

environmental impacts on the surrounding resident communities and businesses. St Catherine's historical record has been one of increasing activity and development of the site at the expense of the residential amenity of the local community. This is a one-off opportunity to get the balance right, and solve long-standing problems. The Charing Cross and Bronte Beach Precincts urge the Department of Planning and the Environment to critically review the application, and restore appropriate balance to development plans in this area.

1 Introduction

This response to the St Catherine's School Campus Master Plan and EIS has been prepared on behalf of Charing Cross Village and Bronte Beach Precinct Committees[1] by SLM Town Planning Consultant. It addresses the key elements in the proposed St Catherine's School (the school) Master Plan (the Master Plan) and its Final Environmental Impact Statement (EIS).

This submission identifies the key elements of the Master Plan that are of concern to residents and businesses. It also identifies components of the Master Plan which are seen to lack a level of due diligence in regard to research on the associated impacts of the development proposal.

The submission also identifies ongoing cumulative impacts associated with the continual expansion of the school operations and its transition into substantially a commercial facility that includes a Kindergarten, Junior School (Years 1-6), Senior School (Years 7-12), before & After School Program, Holiday Care Program and the hire of its on-site facilities by external groups.

It provides an outline of the historical context, recent development history and the Master Plan proposal, as context for the key concerns of local residents and businesses.

The community feels that the school has already grown beyond the limits of the capacity of its site within a predominantly residential zone.

The community would like to point out that historically the school has breached its development approvals and feels that it operations are no longer compatible with the predominant zonings in the area.

The community perceives that the history of the school is characterised by increased activity, over-development of the site and intensified use, which is always at the expense of the amenity of the local community.

This submission identifies some assumptions in the Master Plan and questions the foundation of the proposed works in terms of desirable environmental, social and economic outcomes for both the school and the general surrounding community and businesses.

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1 Waverley Council supports its precinct system as part of its commitment to community engagement and consultation at the local level. There are currently 13 precincts across the local government area. The Charing Cross Precinct Committee works actively with local businesses to ensure the long-term economic sustainability of the Charing Cross shopping strip.

The principle role of land use planning is to promote a balance between the immediate environmental, social and economic impacts of developments and the needs of current and future generations. This submission argues that the key elements of the Master Plan proposal for the school run counter to the principles of sound planning. While claiming to benefit the school economically the Master Plan fails to address the negative social, economic and environmental impacts on the surrounding resident community and businesses.

2 Cumulative Impacts of Developments

Director General Requirements include that applicants take into account the cumulative effects of concurrent other developments. The St Catherine's Master Plan and its analysis of impacts on the surrounding neighbourhood ignores concurrent developments in the same area. These developments will similarly impact the amenity of the community, in terms of increased intensity of road use, transport and on- street parking. These developments will make competing demands on the same resources , like St Catherine's, will assert their viability. However, the net impact of these multiple developments taken together will be intolerable to the local community.

Each applicant for these developments cites spare capacity in infrastructure and claims this capacity for their proposals. Without an understanding of the cumulative effects, an unsustainable burden on infrastructure will result.

The Plan plays down the effects of the school's 15-year development program and the ongoing disruption, inconvenience and compromised amenity which will result for the local community.

These developments and associated impacts include:

Two new local child-care centres,
- opposite St Catherine's School at 23 Macpherson Street and
- at Bronte Bowling Club in Varna Park at 16 Wallace Street.

These will create additional on street short term parking for pick-up and drop-off, and potential for conflicts between vehicles and pedestrians

Proposed redevelopment of the Bronte RSL at 113 Macpherson Street

Proposed rezoning and redevelopment of Waverley Bowling Club (withdrawn temporarily)

Approved redevelopment of Loretto Nursing Home, 363-7 Bronte Road, Bronte

<u>Additional Cumulative impacts will include:</u>

St Catherine's own 15 year construction period and the associated impact on the residential amenity, exacerbated by parking problems by construction workers

The vehicular and pedestrian impact on the adjoining shopping strips with regard to pedestrian access, parking and traffic flows

The vehicular impact on existing public transport routes associated with the picking up and drop-off of students near bus stops

The Precincts consider that it is critical that the consent authority review the school's application in context of other developments in the area, and require the Plan to be responsive to those.

3 Historical Context

The principal position put forward regarding the Master Plan and the school's ongoing expansion and associated impact is that the school has operated in the area since 1859. In this context it is important to remember that urban Sydney was a very different place when the school was established in the 1850s. For example, school students would not have been dropped off or picked up via individual car-based transport, nor would they have owned their own cars. At its beginning on the Waverley site in 1859, then bushland, all girls were boarders, and the extent of "traffic" was horse and cart buggies, with toll fees collected at Waverley Tollgate at the intersection of Bronte Road and Ebley Street. By 1884, around the time of horse drawn trams and growing commercial activity in Charing Cross, there were still only 14 pupils at the school. Day girls were introduced in 1884, and by 1906, when the electric tram was operating past the school's Albion Street front gates, there were 48 girls. The school's major period of growth in student numbers has only occurred in much more recent history, between 1955 (200 girls) and 1987 (900 girls). Activity in the Charing Cross shopping precinct, which adjoins the school site, would have grown in intensity only slowly in the 20th century, as it was overtaken by Bondi Junction[2].

In the historical context, therefore, the built form of Waverley, and indeed Sydney, has changed dramatically over the past 150 years, as has the school. For the school these changes have seen its ongoing expansion from a small school operating out of a single heritage building, into a modern, enlarged campus complex, now proposing the development of major theatre and sports facilities, and accommodating over a thousand consumers on a daily basis. In addition, the school's ongoing expansion has seen it acquire adjoining residential houses, resulting in significant negative impacts for neighbouring residents.

3.1 Development History since 1999

1999 - Development application (LD44/99) approved by Council in February 2000 to construct a partially underground two-storey gymnasium building, comprising two indoor basketball courts, two full-size tennis courts and seating for approximately 300 spectators covered by a roof within the school grounds (consent for this approval lapsed in February 2005)

2000 - Appeal to the Land and Environment Court by St Catherine's School regarding the gymnasium building approval by Council dated February 2000 modification of development consent (the principal outcome of the appeal was a request for modification to condition 2 requiring St Catherine's to furnish the Charing Cross and Bronte precinct committees with a copy of its yearly calendar events which was granted by the Court)

2004- Modifications to approve alterations and additions to 'Isabel Hall' building

2 http://www.waverley.nsw.gov.au/services/library/local_studies/local_history_fact_sheets

2005 – Review and modification to St Catherine's School construction of 10 hardstand car spaces and bicycle racks

2009 - Approval granted for an Innovation Centre comprising a North Pavilion three-storey building linked via a bridge to the two-storey South Pavilion and associated landscaping at 315, 317 and 319A Bronte Road.

2011 - Refurbish entry and undercroft for Administration Offices at 26 Albion Street and construction of a three-storey Music/Visual Arts Wing and addition to the Innovation Centre at 317-319A Bronte Road.

4 School Population and Intensity of Use

4.1 Student population

The Master Plan states that the total student school population is 970 (2014). It proposes an additional 230 students progressively over the next 15 years resulting in 1,200 students by the year 2020. It should be noted that the Statement of Environmental Effects (SEE) associated with the school's development application (DA-140/2011) approved in 2011 stated that the student population was 930 (approximately). This approval included a condition of consent that: No increase in students or teacher numbers is approved under this consent. The student numbers submitted in the SEE indicate that the school is already in breach of this existing condition of consent by 40 students.

4.2 Future Demand

To project student growth rates and demand for places from the school's catchment area, Urbis Consulting undertook a Demographic Assessment (Urbis -August 2014). The study surveyed over half the school's students (549) in order to identify the catchment area for the school, and concluded that the population of school-age children within that catchment area will grow by 50.8% by 2031. The Urbis study identified 167 other schools within the catchment area that would need to absorb this population growth unless additional schools are built.

The Precincts take issue with the inclusion of the entire Sydney City LGA as part of the school's catchment area. As the fastest growing LGA of the area, it increases the projections, but very few students travel to the school from it. The postcode data from Urbis' survey of the students show that only six (1.1%) of the 525 students surveyed come from postcodes within Sydney City LGA. Moreover, they are only from postcodes at the Woollahra end of that LGA. This area is located approximately two kilometres from the school site and has a high level of accessibility to the school, unlike the rest of the Sydney City LGA.

The Sydney LGA has a major bearing on the growth projections. Quoting from the Urbis report, section 4.2:

- *"The population of the catchment will increase by 34% (equivalent to 165,650 more people) from 487,600 people in 2011 to 653,400 people by 2031*
- *The Sydney LGA will observe the largest growth of 49.2%, or 90,200 residents*
- *Woollahra and Waverley LGAs will have the lowest growth of 19.6% (13,450) and 19.4% (10,950 people) respectively*

…

- *The total school aged child population in the catchment will increase by 50.8% (equivalent to +27,900 more children) from 54,900 in 2011 to 82,800 in 2031*

- *The Sydney [LGA] will observe the largest increase with 75.4% (9,500) more school children by 2031"*

In other words, the Sydney LGA contributes more than half of the population growth in the catchment area identified by Urbis, and more than a third of the student population growth, yet only accounts for 1.1% of the current students at St. Catherine's.

The growth rates for both Sydney City and Botany predominantly relate to the redevelopment of old industrial land around Green Square and Mascot. These postcodes are not in the Urbis survey data and it would be fair to assume that the school will continue to not attract students from these areas.

This unjustified inclusion of the entire Sydney LGA in the catchment area for the school significantly distorts the growth projections. Hence the conclusions drawn in the Urbis report, and quoted in the EIS, on future student demand are highly questionable. This is a serious defect in the DA, because it is central to the school's argument that its expansion is necessary to absorb a large population growth in its catchment area.

4.3 Employees/Staff

The current on-site employee population is 202 (2014), which includes 175 full-time staff and 27 part-time staff. The Master Plan sees an additional 10 employees taking the number of staff to 212. The Master Plan does not differentiate between part-time or full time staff in terms of on-site impacts. Some of the part- time staff may still work five days a week so the associated impacts, eg parking requirements, are hard to quantify.

4.4 Site Volunteers

The school has a significant number of volunteers participating in activities on a daily basis, eg the Deli canteen which has daily rotating shifts of two volunteers per shift, and the Old Girls' Union and the Uniform Shop. The number of volunteers that visit the site has not been addressed in the Master Plan or the EIS.

It is highly likely that parents and others participating in the volunteer programs park their cars nearby in local streets. In order to ensure a high level of transparency in assessing the real traffic impacts of the school's operations volunteer data should be included

4.5 School Events and Participant Numbers

The EIS states that regular on-site events are attended by between 30 to 600 participants. One hundred and twenty annual events are estimated, and an additional twenty five new events are associated with the Master Plan. The Master Plan states that these new events are likely to have five to six hundred participants, but downplays the impact that these visitors will have on traffic flows and parking availability within the area surrounding the school. Section 7.7.3 details specific issues on which the Precinct challenges the conclusions drawn in the Traffic Report attached to the Master Plan.

4.6 Total School Population

The Master Plan proposes an increase from to 1,217 to 1,412 students and staff accessing the site on a daily basis. As indicated above, these data do not adequately reflect the total number of visitors to the school. There will presumably be a commensurate increase in voluntary workers as well as the significant number of external users hiring and using the proposed Aquatics Centre, sports and theatre facilities, all contributing to substantial additional visitors to the site.

The Precincts recommend the consent authority to require that the EIS provide accurate data on how many people currently access the site on a daily basis with a breakdown that includes numbers of students at all levels, staff both full-time and part-time, volunteers, learn to swim program participants and future potential program participants such as the theatre attendees. It should also comprehensively characterise the projected daily typical and worst case movement patterns of this population accessing the school site and its environs.

5 Construction Renovation and Demolition

The Master Plan proposes construction of the following items:

I. Lyric Theatre, a 500 seat performing arts facility
II. Aquatic Centre, requiring the removal of the existing outdoor pool and construction of 250 seat facility
III. Sports Centre, to be connected to the Aquatic Centre
IV. A new car park, adding 19 spaces to the current 56-space car park, to service the new Lyric Theatre, Aquatic Centre and Sports Centre
V. Major arts facility
VI. New research centre
VII. New facilities on existing sites throughout the school campus
VIII. New Junior School entrance off Leichhardt Street
IX. New formal entrance off Macpherson Street
X. Senior student entrance off Albion Street
XI. Renovation of the existing drama facility (the Dame Joan Sutherland Centre).

The Master Plan proposes a fifteen-year construction period for the total development.

The Master Plan states that Items 2 and 3 relate to a previous development approval by the Land and Environment Court, in April 1992. It also states that this approval was for lower scale buildings in terms of height and FSR, comprising a 'Performing Arts Centre' and 'Indoor Sports Facility' along the Macpherson Street frontage.

The Performing Arts Centre was completed in 1994 and is known as the Dame Joan Sutherland Centre. The indoor sports complex did not commence and would have occupied the footprint of the proposed new Lyric Theatre, Aquatic Centre and Sports Centre (referred to as RPAC in the Master Plan).

The Master Plan also proposes demolition of Jane Baker Hall, located on Albion Street, the existing swimming pool and change rooms, located on Macpherson Street, and other minor demolition work throughout the school site as well as excavation for the new pool and theatre complex.

The precincts are concerned that no clear construction program has been outlined for the works proposed within the Master Plan's 15 year time frame. Identifying a staging plan is not the same exercise as preparing a project implementation time line. It is possible that continuous demolition, excavation and construction activities could occur within and around the campus throughout the whole 15 year period, or more. A project implementation plan for all these works should be developed and presented to the consent authority before any approval is considered, given the potential scale of development and on-going disruption to the community (and to the school itself).

6 Built Form and Urban Design

6.1 Zoning Issues

The WLEP (2012) zoning controls for the school are Zoned Special Purpose (SP) 2 Infrastructure (SP2). The objective of this zoning is to provide for infrastructure and related uses, and to prevent development that is not compatible with or may detract from the provision of infrastructure. When the Department of Planning and Environment introduced the Standard Instrument, Principal Local Environmental Plan, it directed that schools should be zoned in line with their surrounding zones, i.e. principally residential. However, due to concerns regarding the loss of public land for schools, and that many private schools had already exceeded many of the surrounding residential height and site controls, some councils argued for schools to be included in the Special Purpose (SP2) zoning category and this is the case with St Catherine's and some other school sites.

Although the school in recent times was rezoned to SP2, the footprint of the school is irregular and intermingled with adjoining residential developments which are zoned Medium Density Residential (R3) and Low Density Residential (R2). The principal objectives of these interrelated residential zones are to provide for the housing needs of the community within a medium to low density residential environment, and to enable other land uses that provide facilities or services that meet the day to day needs of residents.

The WLEP (2012) R3 zone also lists a number of prohibited developments including commercial premises, entertainment facilities, function centres, and major indoor and outdoor recreation facilities. Despite the school's SP2 zoning, its location in a predominantly R3 Zone would see its proposed Master Plan developments as incompatible with objectives of the area's dominant land use zones. In light of the school's intermingling with adjoining zones the Master Plan should address the objectives of these zones in terms of the potential long-term impacts of the development, rather than adopt the stand-alone island position that it currently takes.

6.2 Floor Space Ratio and Gross Floor Area

The Master Plan states that on adoption of the Plan the floor space ratio (FSR) will be 1:1. This is a substantial deviation from the recent strategic planning framework for the area as outlined in WLEP (2012) which sets an FSR standard for the subject and surrounding sites at a maximum 0.6:1.

It should be pointed out that existing development on the school site already exceeds WLEP (2012) FSR controls and far exceeds the strategic planning standards for the area. The Master Plan if approved will set a framework which will exceed the standard even further by proposing additional breaches to the FSR controls.

The FSR controls in WLEP (2012) have been developed to work in conjunction with other planning controls such as building height, setbacks and landscape to provide a guide to the overall bulk and scale of development in order to avoid negative impacts. FSR is also the

principle tool in an LEP used to guide the concentration of development in an area and as such this type of development standard may not generally be varied.

The breaches to the FSR controls in the Master Plan appear to be based on an argument that existing developments on the site already breach the FSR controls so additional breaches should be positively considered. If this is the principal basis and argument for ignoring strategic development standards then one could argue that all development standards are undermined and rendered irrelevant. The community accepts that the school is already in breach of the existing FSR controls, but this must not be accepted as a precedent for the approval of additional breaches. The development proposal should adhere to the existing FSR.

6.3 Building Heights

Building height limits play an important role in ensuring consistency of built form within a neighbourhood. They aim to safeguard against negative amenity impacts such as loss of privacy, increased overshadowing and density intensification. Building heights are agreed to by the whole community after a process of extensive research and public consultation prior to the implementation of a new LEP.

The current height control in WLEP (2012) for the school is 9.5m for all buildings. However a number of previous developments on the school's land are already in breach of the present height controls. The proposed building heights in the Campus Master Plan exceed all the height controls and for Macpherson Street the proposed building plane will go from 16.57m to 19.08m for the fly gallery and rooftop.

The Master Plan states that the developments on the school site are already in breach of the existing height controls and that this creates a precedent for further breaches of the height and FSR controls. This position does not reflect good planning practice and it is highly questionable in light of the more recent WLEP (2012) strategic framework.

In a land use planning context, the principle has been that where existing buildings exceed the permissible height and FSR controls the rule of thumb is that the controls may not be varied. Therefore the Master Plan should not be allowed to exceed the existing on-site building heights and FSR controls.

6.4 Overshadowing

Waverley DCP 2012 requires that direct sunlight to north facing windows of habitable rooms and all the private open space areas of adjacent dwellings should not be reduced to less than 3 hours between 9.00am and 3.00pm on June 21.

The overshadowing report in the EIS acknowledges that the northern elevation of the RPAC building will impact on the current solar access of 4 Macpherson Street and other adjoining buildings owned by the school. It accepts that that adjacent dwelling units will be affected by overshadowing from the Indoor Sports Complex and Aquatics Centre but because they are located in a medium density area, this diminishes any claim to retain sunlight when compared with low density areas. The argument is also made that the school has

development approval for a new Indoor Sports Centre (DA 258/89), that this is technically a commenced consent based on the constriction of the DJSC and the loss sunlight requirements are unenforceable.

This is a "thin end of the wedge" argument and should be rejected.

7. Access, Traffic and Parking Impacts

7.1 Pedestrian Access

The Master Plan acknowledges that the school currently has numerous entries but no clear hierarchy of pedestrian pathways and access points. The Master Plan argues that by creating an access plan this will improve the on-site pedestrian environment. This new internal pedestrian network will be linked to a new entry point for the Junior School from Leichhardt Street and links students to the Senior School entry on Albion Street. It will give parents easier access for collecting Senior and Junior School students from a new single access point. The plan also proposes a new entry point for boarding students.

Regrettably the pedestrian pathway and access points in the Master Plan pays very little attention to how students, staff and visitors interact with external transport corridors located outside the school boundaries. Instead the pedestrian access plan continues to focus on maximising efficacy for the school. This give rise to the issues raised in the following sections.

7.2 Vehicular Access and On-site Parking

The parking provisions in the Master Plan would result in a net increase of just 19 car spaces. The Master Plan proposes three key parking precincts some of which already exist. The parking plan includes:

- An expanded vehicle access driveway from Macpherson to the Lyric Theatre, Aquatic Centre and Sports Centre and its associated carpark linked to the exiting Dame Joan Sutherland centre under croft car park.
- A reconfiguration of the existing driveway and car parking spaces on Albion Street that would include a loading dock and car parking spaces.
- New car drop-off and pickup points on Leichhardt Street for the junior school.

The on-site parking provisions by the school both currently and in the Master Plan are manifestly inadequate for the current and proposed user population that choose to travel by car.

7.2.1 Albion Street Access and On-site Parking

The Master Plan proposes that the existing vehicular entrance and on-site car parking spaces off Albion Street will be reconfigured. There are currently three vehicle access points off Albion Street. Driveways 3, 2 and 1 are linked via a single internal road within the school grounds which can provide separate one-way entry and exit points along Albion Street.

Albion Street Access and Parking Gate 3 - The proposal alters the current car parking spaces and connections to Gates 2 and 1 so as to restrict Gate 3 to being a single entry and exit point. Vehicles would need to reverse within the site to exit, making it quite unsafe as a student/pedestrian-vehicle interface.

There are six marked car parking spaces currently proposed to be located inside Albion Street Gate 3. A site inspection found that there are an additional 8 unmarked car parking spaces currently used between Albion Street Gates 3, 2 and 1 – these additional spaces are not included in the current total of 55 on-site parking spaces. Most of these unmarked parking spots will be eliminated by the proposed development and reduced landscape areas. So the real net decrease in on-site parking will be greater than outlined in the report.

Albion Street Access and Parking Gate 2 - The Master Plan proposes to remove Gate 2 in order to reduce the number of cars crossing the pedestrian pathway along Albion Street. Gate 2 is currently not heavily utilised so this improvement is of limited effect.

Albion Street Access and Parking Gate 1 - The main service vehicle access is Gate 1 from Albion Street. This is maintained in the Master Plan.

Concern re Albion Street Access and On-site Parking

The Master Plan should have given consideration to making the gateways off Albion Street the principal pedestrian access point for students, visitors and staff as it provides the primary direct access to the main bus routes communicating in both directions with Bondi Junction, the City, Randwick and Botany LGAs.

7.2.2 Macpherson Street Access and On-site Parking

New formal access point off Macpherson Street - The Master Plan proposes a new formal access point off Macpherson Street for students and visitors. This new entrance is to be the public interface between the school and the wider public.

Existing access to the Dame Joan Sutherland Centre (DJSC) off MacPherson Street - This facility has a pedestrian access point and a disability access ramp which will be located approximately 50m from the proposed new formal student and visitor entrance point off Macpherson Street.

Existing stairway access off Macpherson Street - The Master Plan proposes to upgrade the stairway access off Macpherson Street which is approximately 20m from the entrance to the existing Dame Joan Sutherland Theatre Centre.

New car park for the Research, Performing Arts and Aquatic Centre (RPAC) - The Master Plan proposes a new car park for the RPAC facility which will be integrated with the existing basement car park and driveway off Macpherson Street. The additional parking will be for school staff during the week, and visitors to the RPAC on weekends.

Concerns re Macpherson Street Access and On-site Parking

The new formal pedestrian access point increases the intensity of pedestrian traffic immediately adjacent to the major vehicle access point to the DJSC carpark and connecting to the new RPAC carpark. The new facilities would provide for hundreds of additional regular users and visitors. We envisage increased conflict between pedestrian and vehicle users accessing the school site from Macpherson Street.

No attempt has been made in the Master Plan to mitigate against impacts associated with increased vehicular and pedestrian movements along Macpherson Street caused by the intensified usage enabled by the proposal.

7.3 Drop-off and Pickup

7.3.1 Macpherson Street Drop-off and Pickup

Macpherson Street is the principal pick-up and drop-off point for parents whose children are attending the Senior School, with significant impact on traffic and parking availability in the street. Signage is located along the 250 metre school frontage on Macpherson Street restricting vehicles from parking between 2:30 and 4:00 pm to facilitate the operation of the drop-off/pickup zone. In effect, the restricted parking signs provide the school with additional on-street parking for about 40 cars outside the restricted hours. Residents, on the other hand, are unable to leave their vehicles in these spaces during the day due to the restricted parking hours.

Parents using the zone behave as though their access is of higher priority than safety and the amenity of local residents. As identified by the school's commissioned traffic report, numerous examples of illegal and dangerous parking occur every day, including across residential driveways on surrounding streets

7.3.2 Leichhardt Street Drop-off/Pickup and Uniform Shop

The Master Plan links the Junior School entrance to the major student pedestrian thoroughfare to Albion Street, enabling parents with both senior and junior school daughters to drop-off/pickup from the single point in Leichhardt Street.

This will increase the drop-off/pickup activity in a mixed-use area. Cars currently park along the street all the way back to the roundabout on the corner of Leichhardt and Macpherson Streets. This creates substantial traffic, parking and pedestrian impacts. As with MacPherson street, parents park illegally across residents' driveways while walking students into school.

There is also a roundabout located at the intersection of Leichhardt Street and Bronte Road. Many parents drive down and around the two roundabouts searching for opportunities to pick up and drop off students, creating traffic congestion and safety impacts.

The Master Plan proposes to relocate the school's uniform shop to Leichardt Street from the centre of campus. It will operate from Mondays and Fridays from 7:30am to 4:30pm weekdays and 3 Saturdays throughout the year.

This change will exacerbate the existing parking and congestion problems. The uniform shop is located on a residential street where parents already park illegally and they will see this as an additional reason to run into the shop and get what they need when dropping off students.

The Master Plan proposes to extend the capacity of of both drop-off/pickup zones, thus entrenching the existing behaviours and modes of transport including excessive use of car transport by girls living close to the school. It is critical that proposals in the Traffic Report to

better manage the drop-off/pickup queues operationally be fully implemented, and this is a necessary condition to the Report's assertion that queue capacity will be sufficient.

7.4 On-Street Parking Impacts in Surrounding Residential Streets

St. Catherine's Development Application is backed by two reports commissioned from traffic management consultants. The perspective taken in the those reports was to show that St. Catherine's implied criteria with regard to parking would be met, namely:

- That parents would be able to drop off and pick up their children to and from the school efficiently and without causing unacceptable congestion and,
- That students, parents and visitors attending events at the school would be able to find parking within a 5 minute walk.

Those criteria focus on the ability of the surrounding roads network to support the school's needs. The Precincts are concerned that the school already generates significant traffic and parking impact on neighbours and surrounding streets, and that the school's criteria can only be met with even greater impact on the local area. That impost has not been identified or considered in any of the school's submissions, nor mitigated in its planning. For example, the total availability of parking over the whole surveyed area was measured to demonstrate that visitors would be able to find parking as needed, within a 5 minute walk from the school. The impact of this "success" on residents returning home from work and unable to find parking in their own street was ignored.

The EIS states that the current utilisation of on-street parking is between 80-90%. The first report by traffic consultant Lyle Marshall and Associates on the availability and utilisation of on-street parking within a 5-7 minutes' walk of the school found that parking capacity was 92.8% utilised at 8am, and that utilisation did not drop below 90% between 8am and 1pm. Therefore the EIS quote of 80 to 90% is a significant understatement of the measurements from the Lyle Marshall report.

Given natural daily variability, a sampled 90% occupancy rate means there will often be complete exhaustion of available spaces. It is the experience of local residents on individual streets (as distinct from measuring availability within a whole 5-minute radius) that they are frequently parked out during peak periods (which can be all morning) that correlate with the patterns recorded by the Lyle Marshall Traffic and Parking Report.

These parking impacts are affected by factors such as seasonal variability and a parking survey in another period may show much higher utilisation. The Precincts are concerned that the EIS traffic report data comprise only single-day samples and are therefore its conclusions are not reliable.

A further concern is that the traffic study did not in fact satisfy its brief, in regard to its scope encompassing a 5-7 minute walk from the school. This criterion was met in relation to streets to the northeast of the school. But several streets to the west of the school beyond Carrington Road and to the south as far as Douglas Street are well within this walking distance, but were not surveyed.

These concerns prompted the Precincts to undertake their own survey of parking availability in the streets within a 5 minute walk from the school. Many of the surrounding streets are dominated by older housing that does not include off-street parking. The primary intent of the Precinct's survey therefore was to quantitatively demonstrate the impact of the school on parking amenity for residents to be able to park in their own streets, and preferably close to their homes. The survey also measured the daily variability of parking levels, in order to assess the validity of the conclusions from single-day measurements taken by the school's studies.

The Precincts' survey is included in Attachment 3. It shows significant parking impact from the school on residential on-street parking beyond its immediate periphery streets. Streets such as Pine St, Hooper St, Fern St, Wallace St, Varna St and Douglas St to west and south, and Bronte Rd, Gipps St, Henrietta St and Prospect St to the northeast are all affected by parking impacts associated with the schools operations. During school holidays the surrounding streets have ample parking availability. But during the school term, on-street parking is heavily utilised by school teachers, visitors to the school including parents, licensed students and volunteers to the point that residents who are at home during the day are often unable to park on their own street.

When the school has special event days large numbers of visitors are attracted to the school and parking conditions become chaotic across a much wider area.

The Precincts' survey also shows quite large (up to 40% or more) differences in parking availabilities between the pairs of days sampled. This confirms that the school's commissioned studies which took only single-day samples of data cannot be relied on the draw conclusions about the parking availability in surrounding streets.

The school's commissioned Traffic Report does however recognise that parents currently park in surrounding streets and that the streets near the school are already saturated by school-related parking. Perversely, it states this as justification for why traffic impacts on streets adjacent to the school may not be as bad as projected. The traffic study completely fails to address the current behaviour of parent and students who park in adjoining streets, and did not survey the surrounding streets in more detail to propose achievable mitigation strategies. This impact on the neighbourhood is the key finding as far as the wider parking impacts are concerned yet no comment is made in the EIS nor are any mitigation measures suggested in response to the identified impacts.

It is unacceptable that the Master Plan makes no attempt to address existing on street parking problems and instead increases utilisation, and instead assumes that St Catherine's School has the right to appropriate all available on-street parking until as late as 9:30pm.

The increase in the school population and the intensity of the school site proposed in the Master Plan means that alternative options for parking must be sought. It is no longer tenable for the school to be treated differently from commercial enterprises in the requirement to provide adequate on-site parking for their users that arrive by car.

7.5 Shuttle Bus as Traffic Mitigation Measure

The school's traffic report suggests that a shuttle bus will reduce the impacts of events at the RPAC. The School currently has a shuttle bus which has not reduced the impact of the school's current activities. This does not appear to be a serious proposal and no detail is provided on how the service would operate.

7.6 School Traffic and Intersection Impacts

The traffic report observes that queuing of vehicles in Leichhardt Street and Macpherson Street during school drop-off and pickup periods currently cause traffic congestion, and the cars often queue into the travel lane, blocking and slowing the path of through traffic. The report argues that the traffic management initiatives and proposed alterations to car lines and bus stop locations will go some way to mitigating these effects. However, the analysis does not demonstrate that the mitigations are sufficient to solve the problems either in terms of current impacts or when the schools operations substantially expand in line with the Master Plan proposal.

The traffic report recognises that the Macpherson Street intersection is already saturated during morning and afternoon peak school periods, and close to saturation on weekends. The report's modeling shows that the Macpherson/Albion Street and MacPherson/Leichhardt intersections will both deteriorate in the afternoons by two (of five) Level of Service levels, if the Master Plan is implemented. However, the report considers these impacts as "modest" and makes no suggestion regarding mitigation initiatives.

This also is unacceptable to the community.

7.7 Aquatic Centre – Traffic and Parking Impacts

The Aquatic Centre is proposed not only for school students but is a high usage quasi-commercial facility that will generate significant traffic and parking impacts with limited parking provisions. The proposal is to run a learn-to-swim and water polo training facility during the week and on weekends. The school also intends to run evening events at the Aquatic Centre.

The EIS traffic study of parking impacts in surrounding streets associated with the Aquatic centre's activities assumes the criterion that all participants and visitors at the Aquatic Centre should find a parking space within a 5 minute walking distance. It assumes that evening events at the Aquatic center will start between 5:30pm and 6:30pm. This time-frame is prior to the time when most residents would have returned home from work or other activities so parking utilisation is low, and the criterion is satisfied. We believe that the traffic study should also have been undertaken from the perspective of parking impacts on residents. Had it done so, it would have drawn a very different conclusion, namely that the school's goal is met only at the expense of parking amenity to local residents.

7.7.1 Aquatic Centre - Weekend Traffic and Parking Impacts

The Aquatic Centre is stated to attract 150 - 250 attendees per hour on Saturdays and Sundays. This is projected to generate 113 vehicle trips of which 79 are new and 66 will

require on-street parking. The report asserts that the additional load due to the Aquatic Centre's operations is within traffic network capacity. The study made these conclusion based on a single Sunday afternoon sample which found parking availability of 150 car spaces. However, parking availability in the area is subject to wide variations such as events at other venues including Queen's Park, and summer impacts associated with people accessing the beach.

The 79 additional cars per hour due to Aquatic Centre demands is also incorrectly stated as a peak hour effect at 12pm-1pm. According to the usage profile, it is an hourly rate of 250 visitors that will in turn generate the additional 79 vehicles. This error is repeated throughout the report in both the conclusion and summary sections (See Traffic Report Sec 6.3.2 and quoted multiple times elsewhere).

The validity of the occupancy rate of 2.0 (persons per vehicle) assumed in the traffic report for visitors to the Aquatic Centre is questionable. Presumably, this is based on the 250 visitors comprising 125 parents with 125 children, who travel to the Centre as two persons per vehicle. However, this ignores the fact that many of the year 11 and 12 student have their own vehicles and drive themselves.

The additional traffic impacts associated with the Aquatic center are downplayed in the EIS. We feel that the potential impact on surrounding residential streets regarding the use of the Aquatic Centre is totally unreasonable and that use of the Centre should be restricted to St Catherine's students only.

We request that a condition of consent be included restricting usage of the Aquatic Centre to students of the school and that the school provide adequate on-site parking for its patrons.

7.8 Performing Arts Theatre Traffic and Parking Impacts

The existing traffic and on-street parking impacts associated with events at the Dame Joan Sutherland Centre from weekend and evening events are already substantial. The proposed expanded Perfoming Arts centre will generate an additional 13 major events and 8 performing arts events on weeknights for up to 500 people. The Master Plan makes the same argument as for the Aquatic Centre, that since most of the events commence prior to the arrival of residents home from work, ample parking will be available. This is deemed satisfactory regardless of the hapless residents attempting to park after their journey home.

Again, the school should be required to build adequate underground parking on-site if it intends to run significant performing arts, theatre and sports training events that frequently attract large numbers of visitors to the school.

7.9 Traffic and Parking Impacts during Construction Phase

The construction periods for the Master Plan will see construction impacts over a 15 year period however the traffic study does not include any mitigation measures for the additional 75 on-street parking spaces required for construction crews. The study dismisses any need for analysis or mitigation measures associated with the heavy congestion impacts during construction stage as short term.

This is in spite of the fact that other parts of the report state that on-street parking close to the school is already at saturation point during peak periods and will be worsened during the construction period that truck movements may peak above the stated 42 trucks per day with 4 during peak hour.

Again the community feels that this is unacceptable. The EIS response to construction generated traffic and parking impacts is unjustified and the school should be required to provide a plan of management that includes mitigation strategies on how to manage a 15 year construction plan and the associated traffic and off-site on street parking impacts.

7.10 No Commitments to Mode-Shift Initiatives

The school's commissioned traffic study found that not a single student or staff member cycles to the school. There was also a very low usage (2%) of the existing car sharing scheme. The traffic study also found that 60% of students are dropped off to school by car and that co-incidentally, 60% students live within 1.5 km of the school and therefore could walk.

The report does suggest that there are opportunities for “mode-shift” to sustainable forms of transport to and from school but there is no commitment in the Master Plan to any such program. A simple “walk to school” program would make the greatest positive impact on both traffic and health outcomes for girls. Any approval of the proposal should include a consent requirement that the school develop and implement a “mode-shifting” transport strategy that encourages the use of public transport and a “walk to school” program in conjunction with a monitoring framework.

The Precincts propose a quantitative target of 16% of students being delivered to school by car. This mode-shift would be readily achievable, based on all students living within 1.5km walking to school or using public transport, and 60% of those living outside the 1.5km radius also using public transport. The social benefits in terms of reduced traffic and parking congestion, reduced pollution and improved student fitness would be significant and desirable.

8 Noise

8.1 Construction Noise

The Noise Report (the report) determined that noise from construction activities during the day will potentially exceed established noise levels. The suggested mitigation strategy is a plan of management associated with construction activities to minimise the impact of construction activities on residents as follows:

- Selection of quietest feasible construction equipment
- Use of rock-saws and ripping in preference to rock-breakers
- Localised treatment such as barriers, shrouds and the like around fixed plant such as pumps, generators and concrete pumps
- Provision of respite periods, particularly on Saturdays
- Trial testing of vibration levels to be conducted where equipment is identified as having the potential to exceed the human comfort criteria.

Residents request that no work is carried out on Saturdays or Sundays.

8.2 Performing Arts Auditorium

The Performing Arts Auditorium will seat up to 500 persons. Musical performances will be performed at the theatre up to 9:30pm several times a year. The report accepts that the events will generate reasonably high noise levels when musical events occur. The principle mitigation strategy is to design the auditorium to control external noise leakage. However, no design materials or development details for the construction of the building are presented in this application.

8.3 Multi-Purpose Hall

The report states that one major night function per year will take place at this facility for up to 600 persons operating up to 10:00pm. The EIS accepts that large groups in this area will generate significant noise levels which will need to be contained within the Multi-Purpose Hall. Again, design is the primary mitigation strategy, with the use of materials with specific noise criteria.

8.4 Aquatic Centre Operation

The new indoor Aquatic Centre will replace the existing outdoor pool area. It is proposed that this area will be used between 6.00am-8.00pm on weekdays and 8.00am-6.00pm on weekends. The report accepts that the loudest noise events associated with the pool area are likely to be shouts and whistles particularly during water polo and swimming competitions. The report argues that whilst the proposed hours of use represent an increase in current hours of operation, noise will be contained within the pool area by the new building design.

8.5 Elevated Terrace

An elevated terrace, also referred to as an “associated outdoor area” is shown in the architectural drawings, adjacent to the Multi-purpose Hall. It is roofed and enclosed on three sides (two of them with sliding doors), and open on the southern side to capitalise on views towards Clovelly from this elevated position. Ideal for entertaining, for intervals from performances in the auditorium and for breakouts from the multi-purpose hall, it is thus a noise generating box that will reflect and project noise from an elevated position southwards towards residents opposite the school. The precincts believe that this could be a significant noise source if not contained, and appropriate noise mitigation measures should be required in any consent.

8.6 Overview

The consultant’s Noise Report acknowledges that noise levels will be substantial. It suggests a number of mitigation strategies in terms of built form to alleviate some of the significant noise impacts. A major Aquatics Centre with the capacity to hold substantial swimming events for children who will be screaming and blowing whistles will surely result in significant noise impacts for adjoining neighbours, notwithstanding containment strategies.

The school should ensure that the acoustic performance of the proposed Aquatics Centre will meet the highest applicable noise criteria even with the high intensity use of a swimming carnival. The development proposal should be refused until the school provides a plan for monitoring noise impacts and it should be required to implement additional mitigation strategies if the noise levels are unacceptable to local residents or non-compliant with applicable standards.

9 Light Spill

The Master Plan does not address directly the matter of light spill through floor to ceiling glass in the RPAC facility and from illumination of the elevated Entertainment Terrace onto Macpherson Street. It should include strategies for the prevention of light spill from the RPAC facility and the elevated Entertainment Terrace onto Macpherson Street.

10 Privacy

The Master Plan states that any potential loss of privacy for residents is mitigated due to the orientation of the central green space that will be used for sport and play activities, the use of fixed windows, and obscure glazing to prevent overlooking from the Aquatic Centre, Auditorium Entertainment Terrace and Multi-Purpose Hall.

The EIS does not acknowledge any real loss of privacy for adjoining neighbours on MacPherson or Leichhardt Streets or to the properties located directly opposite the Aquatic Centre, Auditorium and Multi-Purpose Hall on Macpherson Street.

The proposed design of the RPAC facility which includes large glass frontages that look out directly into the adjoining neighbours' dwellings would indicate that privacy impacts will be significant. The development proposal should be refused until the design includes a screening system along the front facade of the RPAC building to ensure that the privacy of neighbours on the opposite side of the street is maintained.

11 Tree Removal and Landscape Plan

The development proposal includes the removal of some trees and the elimination of small internal landscaped areas for car park spaces and new building construction. It is also proposed to remove street trees to make way for a construction zone on Macpherson Street.

The construction zone should be relocated so that the removal of street trees is not required. There is potential for a construction zone in an alternative location on Macpherson Street, north side, adjacent to the Dame Joan Sutherland Centre.

12 Social and Economic impacts

The Master Plan claims that the development will have positive social and economic impacts. These include improving educational facilities, extending access to the community to the recreation and heated swimming pool facilities, provision of an additional 250 student places and ongoing employment and construction jobs.

The Master Plan lacks research to substantiate claims regarding the potential social and economic benefits associated with the proposed development. Some of the stated positive impacts may exist, but a similar argument could be made regarding negative social and economic impacts such as the school generating additional on-street parking demands in adjoining residential and commercial streets. These impacts may in turn affect the economic viability of the adjoining Charing Cross and Macpherson Street shopping strips, as people avoid shopping in the area due to limited parking opportunities and increased traffic, and social and impacts for people working at home.

Attachment 1 – Current Approved DA

Development application no DA-140/2011

26 Albion Street Waverley (now stage 5 in the Masterplan proposal)

Dated: 7 September 2011

STREET TREE PLANTING - RESIDENTIAL ZONES

The proposed street planting to Bronte Road (species, size and spacing) is to be undertaken in accordance with Council's requirements.

BRONTE ROAD GATE

The Bronte Road gate is only to be used as an emergency exit from the school. The School is to formulate a Management Plan and supply a copy to Council prior to occupation of this building identifying how this will be managed and how complaints will be addressed should the pathway and gate be used contrary to its specified use.

HOURS OF OPERATION

The hours of operation of the classrooms/studio within the addition to the Innovative Centre being restricted to between 8.00am and 6.00pm, Monday to Friday.

STUDENT AND TEACHER NUMBERS

No increase in students or teacher numbers is approved under this consent.

Attachment 2 – Summary of Current School Operations

The school's principal hours of operation for students are between 8.30am to 3.30pm Monday to Friday, however, the arrival and departure activities of students has a one-hour overspill in both directions. In addition to this the school offers a range of before and after-school extra-curricular activities for Senior and Junior students. These include:

- Music, debating, sports, arts, drama, food technology and dance classes,
- A before and after school care program between 7:10am and 6pm,
- An on-site holiday program for both students and non-students,
- An on-site boarding facility that houses 70 students and 7 staff,
- Learn to swim and water polo programs.

On-Site Facilities

St Catherine School also has a number of significant on-site facilities that support both the junior and senior schools as listed below:

1. Nan Hind Centre –This is a state-of-the art junior school specialist building opened in 2011. The building consists of a multi-purpose hall, a science laboratory, technology space with robotics area, art studio, and music room and media studio,
2. Isabel Hall Wing - Originally constructed as a boarding house, the building was extensively rebuilt and re-opened as a classroom block in 2006,
3. Jo Karaolis Sport Centre- This Centre was opened in 2002, provides several different indoor sports courts including an international basketball court, modern gym and training equipment,
4. Dame Joan Sutherland Centre - This was opened in March 1994 and is a music and performance art centre that also includes a chapel and multi-media classrooms,
5. The existing Swimming Pool - The school grounds house an open air swimming pool that is used for water polo, swimming training and carnivals on both weekdays and weekends in the summer months,
6. Boarding House - This occupies the old stone house and is joined to the Lenthall Building by the old library,
7. The Faith Patterson Study Centre - The Centre incorporates science laboratories, the senior library and social science classrooms,
8. Jane Barker Hall,
9. St Catherine's Museum- opened in 1996,
10. Before and after school care - St Catherine's out of school hours care provides a space to play and learn, in non-school hours between 7:10am and 6pm,
11. The Deli School canteen - The Deli is open from 8am to 2pm during term time to purchase breakfast, lunch and snacks. The Deli is run by volunteers on rotating two hour shifts,
12. The Old Stone House- This is the original St Catherine's Structure. This historic building remains a prominent feature of the school today which was completed in 1859, and is now the school's administrative centre.

Additional On-Site Events and Activities

St Catherine's School has a number of regular on-site events and activities which include:

1. Magnolia Fair – this is a yearly event usually in May at St Catherine's (the School's website indicates that around 5000 visitors visited the site for this event in May 2014).
2. Creative Connections includes design, technology, drama, music and visual arts activities at the Dame Joan Sutherland Centre theatre and foyer.
3. NAIDOC celebrations which include guest speakers, dancing, films, stories and a BBQ.
4. Junior School Speech Days.
5. Senior School Speech Nights.
6. Open Days – 3 times a year (Open days include presentations by school staff, questions and refreshments for visitors and school Tours.)
7. Mother's Day breakfast event - this includes mothers, grandmothers, daughters and special guests and is held on the school campus for both the junior and senior schools.
8. Boarding school events.

Attachment 3 – Precinct Traffic Report

Charing Cross and Bronte Beach Precincts' Response to St. Catherine's Development Application EIS Traffic and Transport Assessment

Including Precinct Survey of parking availability impacts

20 November 2014

Contents

1. Introduction and Executive Summary

St. Catherine's Development Approval includes changes to traffic management and parking provisions, and is backed by two commissioned reports by traffic management consultants. The perspective taken in the commissioned reports was to show that St. Catherine's objectives with regard to traffic management would be met, namely:

- That parents would be able to drop off and pick up their children to and from the school efficiently and without causing unacceptable congestion
- That students, parents and visitors attending events at the school would be able to find parking
- To argue that traffic flows in the streets peripheral to the school during and after construction would be acceptable

Missing from those objectives, is any consideration of the amenity to residents of the surrounding neighbourhood. The Charing Cross Precinct is concerned that the school already generates significant traffic and parking impact on neighbours and surrounding streets, and that the school's objectives above may be met, but with even greater impact on the local area. That impost has not been identified or considered in any of the school's submissions, nor mitigated in its planning. For example, the total availability of parking over the whole surveyed area was measured to demonstrate that at the required times, visitors would be able to find parking within a 5 minute walk from the school. The impact of this "success" on residents returning home from work and unable to find parking in their own street was ignored.

The Precinct is further concerned that the school's commissioned traffic studies are inadequate, collecting and presenting quite limited data to build a case supporting its objectives. For example, the multi-street parking survey collected data on one day per street. No consideration of day-to-day variability was made or measured. Parking utilisation in excess of 90% was considered acceptable whereas the Precinct's data shows significant variability, meaning streets at 90% utilisation on one day can easily be saturated on another.

For these reasons the Precinct undertook its own residents' survey of parking availability, comparing the time profiles of availability averaged between two days within term time, with two days during holidays. This clearly demonstrates the current impost from the school, and identifies the streets most under stress that will only increase if the development is approved.

The Traffic Report observes that queuing of vehicles in Leichhardt Street and MacPherson Street during school drop-off and pick-up periods currently causes congestion, and the car lines often extend into the travel lane, blocking and slowing the path of through traffic. The traffic management initiatives and proposed alterations to car lines and bus stop locations will go some way to mitigating these effects. However the analysis does not demonstrate

that the mitigations are sufficient to resolve the problems either on current levels or when the school grows by 230 students.

The objections of the Precinct to the Development Application on grounds of traffic concerns are summarised as follows:

- The streets surrounding the school are already often parked out due to school activities, impacting the amenity to residents, and this will be worsened by the school's population growth, more intense usage, and the additional load during the construction periods
- The school's Traffic Report models peak traffic flows around the school showing significant impacts on congestion, yet dismisses these as "modest" when the situation is already unacceptable in the Precinct's view
- No modelling has been done that demonstrates that those mitigations that are proposed will be sufficient
- The Aquatic Centre will be in continual use on evenings and weekends, increasing the intensity of traffic flows around the school that does impact on local residents even if it is deemed as being within the network capacity
- The school is running a operation at the Aquatic Centre which is comparable to that of a commercial pool, and should be required to provide adequate parking for its users on-site
- Additional 75 on-street parking spaces required for construction crews are not included in the parking analysis. This will exacerbate the impact on parking in surrounding streets throughout the construction period of 15 years
- The Master Plan is focused on supporting as it expands, the current modes of transport to and from the school which include a high level of individual car usage. There is no credible commitment to mode-shift initiatives
- The school's community consultation process has been inadequate

Grounds for these objections, and the Precinct parking survey, are detailed in the following sections. The final section of this document is a detailed critique of the school's commissioned traffic reports.

2. Objections to DA on Grounds of Traffic Concerns

Amenity impacts on residential parking in surrounding streets

The capacity analysis of parking in surrounding streets is from the perspective that all visitors for an evening event and Aquatic Centre users should find a space within a 5 minute walking distance, and concludes that this objective will be met therefore there is not a problem with on-street parking impacts. Viewed from the perspective of residents, it's a different picture. All evening events start between 5:30pm and 6:30pm, prior to the time that most residents have returned home. Therefore the visitors will not be distributed evenly across the 5 mins walk zone, but concentrated closest to school. The same applies all weekend to usage of the Aquatic Centre. In both cases, streets closest to the school will be parked out prior to the residents returning home. This is already the experience of residents in surrounding streets and will be worsened by the increase in school population and usage intensity. It is unacceptable to residents that they cannot park in their own streets until a St. Catherine's event is completed, which is as late as 9:30pm.

During weekdays in term time there is significant occupancy of unrestricted parking spaces in surrounding streets that was not adequately measured by the school's Traffic Report (Appendix I of the EIS). The Charing Cross Precinct traffic committee has measured parking occupancy of streets within a five minute of walk of St Catherine's, including those that were not surveyed at all by the Lyle Marshall and Associates report, and were only sampled on 3 time periods by the Arup survey. None of these times coincided with the peak occupancy period related to the school, which our observations show to be between 9 and 10am. The Lyle Marshall and Associates survey missed the most heavily impacted street of all, which is Hooper St, east of Carrington Road. The primary Arup report nevertheless draws upon the Lyle Marshall data for its key conclusions. The Traffic Report states that current utilisation of on-street parking is up to 90% and therefore concludes there is adequate parking. (Lyle Marshall and Associates actually measured 92.8% at 8am and utilisation does not drop below 90% between 8am and 1pm). The Report further does not recognise that this is on the basis of single-day samples and that there would be substantial daily variation. Utilisation greater than 90% on one day can mean complete saturation on a different day.

It is the experience of local residents on individual streets (as distinct from measuring availability within a whole 5-minute radius) that they are frequently parked out during times that correlate with the patterns recorded by the Report. Residents also report difficulty for delivery, services and trades vehicles accessing their homes due to the shortage of parking spaces particularly in the busy morning periods. There have even been cases of tradespeople being reluctant to accept jobs in the area for these reasons.

This experience is confirmed by both the average parking availability and the variability between the pairs of days in the Charing Cross Precinct survey data. The Precinct measured availability during term time and during school holidays to demonstrate the impact of the

school, and considered where there may be compounding impacts from other sites. The survey is fully presented in Section 3.

Peak Congestion impacts

The school's Traffic Report observes that queuing of vehicles in Leichhardt Street and MacPherson Street during school drop-off and pick-up periods currently causes congestion, and the car lines often extend into the travel lane, blocking and slowing the path of through traffic. Parents show poor discipline and consideration for residents, often parking across private driveways and occupying disabled zones. The Lyle Marshall survey measured length of stays in the drop-off zone as often up to 30 minutes and in some cases as long as 40 minutes. The traffic management initiatives and proposed alterations to car lines and bus stop locations will go some way to mitigating these effects. However the analysis does not demonstrate that the mitigations are sufficient to resolve the problems either on current levels or when the school grows by 230 students.

MacPherson street intersections are shown as already saturated during morning and afternoon peak periods, and as close to saturation on weekends. The MacPherson/Albion intersection will degrade from a Level of Service (LoS) of C to E and MacPherson/Leichhardt degrades from B to D in the afternoons. Why is this considered a "modest" impact? It is dismissed as short-term, and not as bad as the PM commuter peak hour. It is a significant impact to those who need to use the roads at that time.

The additional traffic due to the Aquatic centre does extend through the PM commuter peak hour, as well as right through the AM commuter peak. Again, the impact is downplayed due to use of surrounding streets but this is not assessed.

In short, the DA understates the impact that the expansion of the school will have, and fails to demonstrate that the proposed mitigations, will be sufficient to meet the future demands.

Continual Use Impact

The Aquatic Centre is stated to attract 150 - 250 attendees per hour on Saturdays and Sundays, projected to generate 113 vehicle trips of which 79 are new and 66 requiring on-street parking. The single Sunday afternoon sample found a parking availability of 150 car spaces. This would definitely be subject to wide variations due to other events happening at other venues such as Queen's Park. Although the additional load due to the Centre is asserted to be within traffic network capacity, it is still a significant intensification of use of the area, with impacts on parking availability for residents, noise, traffic hazards to pedestrians and overall stress levels.

High usage quasi-commercial operation with limited parking provisions

The school is using its status as an educational facility to run a learn-to-swim and water polo training facility all weekend, without the obligation to provide adequate parking for its users that would apply to a commercial entity running a similar operation.

The Performing Arts centre will generate 13 additional major events and 8 increased performing arts events on weeknights with 500 people. The same argument applies to the school's operation as a performance venue in the evenings.

The school should be required to build substantial additional underground parking on-site with a capacity of at least 200 vehicles. Even this would be a modest requirement in view of the cumulative effect of multiple activities.

Construction traffic impacts

Additional 75 on-street parking spaces required for construction crews are not included in the parking analysis. This will exacerbate the impact on parking in surrounding streets throughout the construction period of 15 years.

Traffic impact of construction vehicles is dismissed on the grounds that it is less than the incremental impact of school traffic following construction. This is not justified. The traffic impact of construction should be relative to the existing traffic conditions, which are shown in table 15, section 6.4.2 of the Traffic Report to be already in saturation during peak periods and will be worsened during the construction period. A large truck that is stopping to wait for entry to the school creates much greater congestion than a car that is either travelling through or stopping in a designated drop-off point. It is acknowledged that the phasing of the project is unknown therefore the conclusion that traffic impacts of heavy vehicles will be insignificant is unreasonable. It may well peak above the stated 42 trucks per day with 4 trucks during peak hour.

Consultation Process

The EIS documents a community consultation process that is purported as inclusive, however the reality is that little effort was made to actually engage a significant cross-section of the local community. The shaded areas in Figure 1 shows the area that was claimed to be leafleted by the school. Not all streets shaded on the map received leaflets, according to residents that should have received them. This is the same area that was surveyed by the commissioned first parking survey, undertaken by Lyall Marshall and Associates. Figure 1 also contrasts this area with the larger area denoted by red stars placed at terminal points of a 5 minute walk from the school – demonstrating that neither the leaflet drop nor first survey met their brief of consulting and studying parking within that 5 minute radius. There was no further attempt to contact residents even after the second study by Arup adopted a larger area. Finally, the areas of both studies fell dramatically short of the planning industry benchmark of consultation within an 800m radius, indicated by the black circle on Figure 1.

Not surprisingly therefore, the numbers of stakeholders attending the meetings listed in the EIS was low (see Appendix S). This is a consequence of inadequate advertising of the scheduled meetings. Again, streets that were purportedly within the analysis area did not receive letters of invitation. The views of residents have not been adequately sought and obtained by the School.

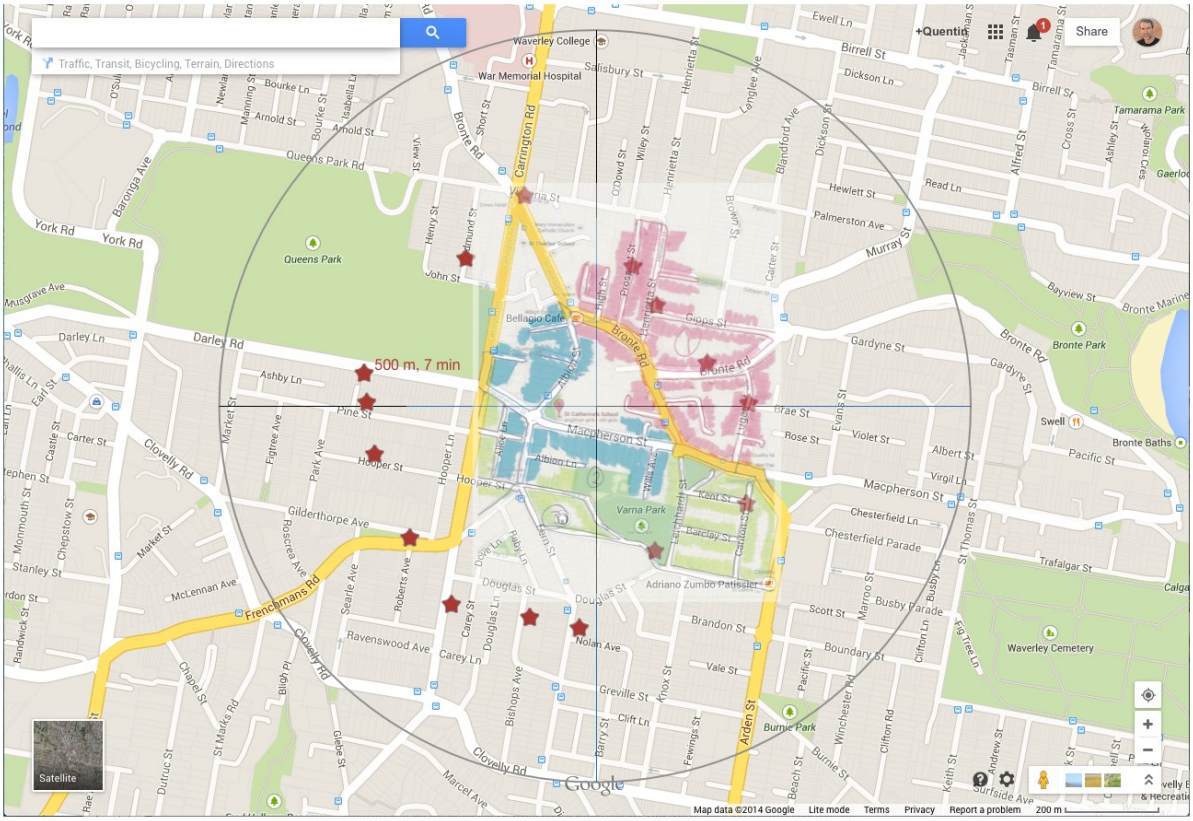


Figure 1 – Leaflet and Lyle Marshall Parking Accumulation Study area (coloured shading), compared to 5 minute walk points (red stars) and 800m radius (black circle)

No Commitments to Mode-Shift Initiatives

60% of students – 600 in number - are dropped off to school each morning; 60% of students live within 1.5 km of the school and therefore could walk. Not a single student or staff member cycles to school. There is very low usage of the existing car sharing (2%) scheme. Therefore there is ample opportunity for "mode-shift" to sustainable forms of transport to and from school but no commitment from the school to any such program. A shuttle bus scheme for events at the RPAC is suggested in the Traffic Report but there is no mention of it in the EIS, and it does not appear to be a serious proposal. A simple "walk to school" program would make the greatest positive impact on both traffic and health outcomes for girls. It would not however mitigate evening impacts.

Practical Issues of Adjustments to kerb extensions and bus stop positions (App. I pg. 38)

From the detailed plans attached to the Master Plan, it would appear that kerb extensions for pedestrian crossings and the drop-off/pickup queues are so close to the new bus stop positions that during peak periods buses will be unable to pull in enough to clear the through traffic lane. If this occurs, traffic obstruction and congestion will be significantly worsened.

3. Precinct Parking Survey

A survey was undertaken by the Charing Cross Precinct Traffic Committee, to measure and present the impact the school has on the ability of residents near the school who do not have off-street garaging, to park reasonably close to their homes and certainly within their own street. This contrasts with the school's perspective of measuring parking availability for school attendees anywhere within a 5 minute walk of the school.

Parking availability profiles were obtained by counting the available spaces in each surveyed street at four times in the morning between 7:30am and 9:00 am (the period during which residents are leaving for work or other activities, and school attendees are arriving), five times in the afternoon from 2:30pm to 4:30pm (the period during which most school attendees depart), and four times in the evening from 5:00pm to 8:00pm (the period during which residents return home).

The variability of parking availability was observed by taking profiles on two days, within a few days of each other.

The current impact of the school is demonstrated by comparing averaged parking profiles from two days in term time, to profiles taken during holiday periods. This impact is then visually apparent from the gap between the two graphed profiles.

All streets studied in the resident's survey are within the 5 minute walk criterion used by the school.

Table 1 - Precinct Parking Survey Results Summary

Street	**Fig.**	Variability **(Hol, Term)**	**Profile summary and comments**
Hooper St. (between Albion and Carrington)	2	20%, 25%	Dramatic impact morning, afternoons and evenings. This street is effectively saturated during school term, but has ample availability during holidays. Note that it is remote from any other school so is the clearest evidence of the impact of St Catherine's alone.
Varna St. West	1	17%, 35%	Significant impact in morning and afternoons. Impact is compounded by 4 parking spaces closest to Fern St on the southern side which are legal, but if used, cause gridlock and safety hazards at the intersection An additional 4 spaces further along the southern side, if used, turn the street into a narrow single lane carrying two-way traffic. Both these conditions, indicated by the red line on the graph, occur during the busy periods.
Varna St. East	1	30%, 48%	Significant impact in mornings and afternoons. Clovelly School would also be a limited contributor.
Wallace St.	2	44%, 50%	Significant impact in mornings and afternoons. Inverted impact in evenings is likely due to the Bowling Club.
MacPherson St.	3	39%, 125%	Significant impact in afternoons. Morning and evening data not collected
Leichhardt St.	3	40%, 73%	Significant impact in afternoons. Morning and evening data not collected
Bronte Rd., Leichhardt to Murray intersections	4	N/A, N/A	Significant impact in mornings. Variability % not available due to single day measurements taken.
Bronte Rd. Bellagios to Leichhardt roundabout	4	N/A, 78%	Low relative impact Likely due to strong influence of Charing Cross shopping precinct
Albion St.	5	48%, 40%	Incomplete data due to roadworks. Evidence of dramatic impact in mornings.

Street	Fig.	Variability (Hol, Term)	Profile summary and comments
Fern St. - Albion to Douglas	5	60%, 14%	Incomplete data but some impact apparent in mornings and quite significant impact in evenings

The average variability percentages for each street are of little significance in and of themselves. The simple point of these measures of the variations between two different days' data is that they are quite large. This means that:

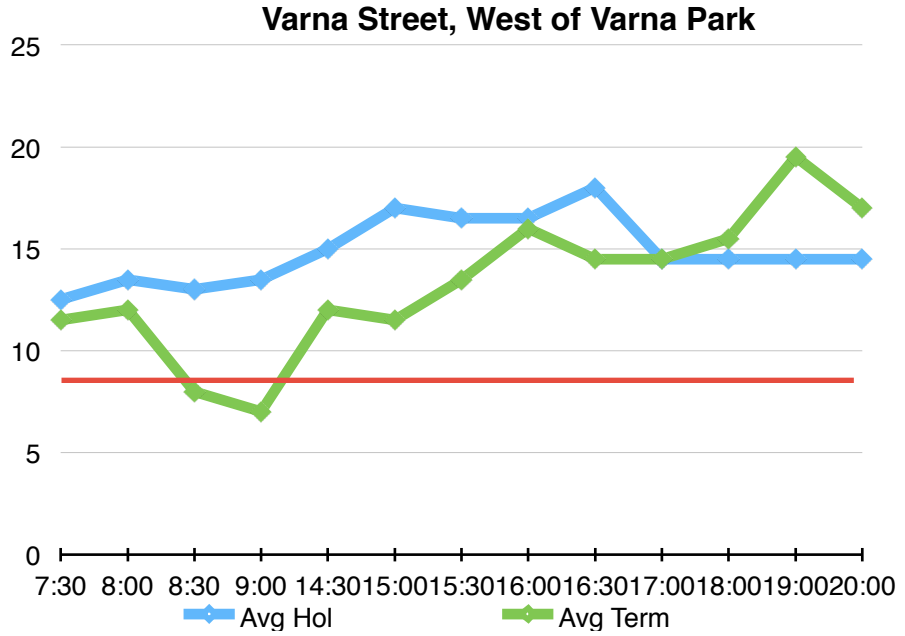
- Parking accumulation percentages of 80-90% and higher in the school's surveys on the single sampled days imply a high probability that on other days, parking will be completely saturated by the demands of the school. This accords with residents' day-to-day experience and is contrary to the school's consultants' conclusions that the surrounding streets have capacity to absorb the additional parking load
- Any other conclusions about parking capacity of the streets studied are not backed by sufficient data as to be reliable

Figure 2 - Residents Parking Survey Results

Parking Vacancy Rates

Varna Street West								
Time	8 July	9 July	15 July	17 July	Avg Hol	Avg Term	Diff Hol	Diff Term
7:30	13	12	9	14	12.5	11.5	8%	13%
8:00	15	14	10	14	15.5	12	7%	55%
8:30	11	15	11	5	13	8	31%	75%
9:00	11	10	10	4	10.5	7	27%	88%
14:30	18	12	15	12	15	12	40%	0%
15:00	19	15	8	15	17	11.5	24%	61%
15:30	17	15	15	11	16.5	16.5	6%	57%
16:00	16	17	16	16	16.5	16	6%	0%
16:30	17	19	15	15	18	14.5	11%	81%
17:00	12	15	15	13	14.5	14.5	7%	31%
19:00	19	15	19	12	14.5	15.5	21%	45%
19:30	15	14	15	20	14.5	15.5	7%	8%
20:00	13	15	15	15	14.5	17	21%	24%
Variability							17%	85%

Varna Street East								
Time	8 July	9 July	15 July	17 July	Avg Hol	Avg Term	Diff Hol	Diff Term
7:30	15	20	12	15	19	19.5	42%	28%
8:00	14	27	15	14	30.5	16	63%	16%
8:30	14	25	4	12	19.5	8	58%	100%
9:00	17	25	5	15	19.5	7.5	56%	100%
14:30	32	25	14	26	25.5	17	13%	35%
15:00	19	23	7	11	20.5	9	34%	44%
15:30	26	21	9	16	20.5	13.5	8%	38%
16:00	22	27	22	12	24.5	17	20%	29%
16:30	25	20	20	16	27	16	15%	25%
17:00	17	22	21	18	19.5	19.5	26%	15%
19:00	16	25	19	16	20.5	16.5	44%	5%
19:30	13	14	8	17	16	13	38%	42%
20:00	15	19	8	15	16.5	11.5	19%	61%
Variability							30%	48%



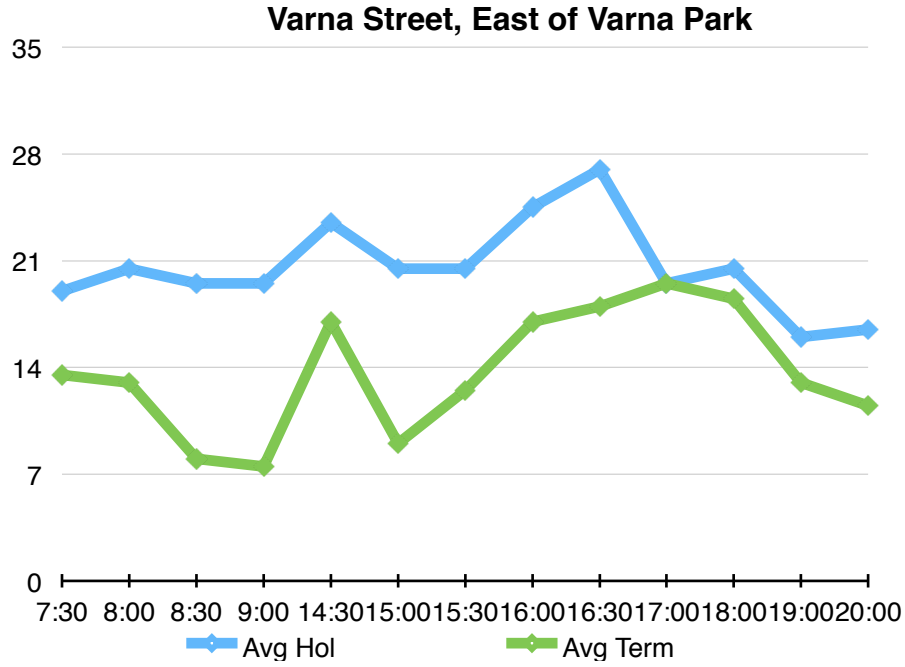
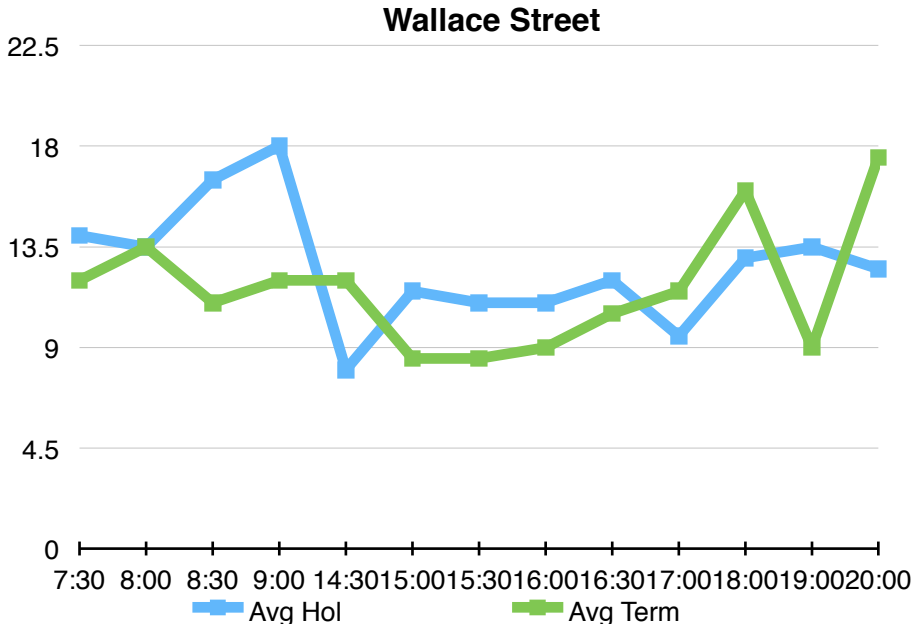


Figure 3 - Residents Parking Survey Results (cont)

Parking Vacancy Rates

Wallace Street								
Time	8 July	9 July	15 July	17 July	Avg Hol	Avg Term	Diff Hol	Diff Term
7:30	14	14	13	11	14	12	0%	17%
8:00	16	11	15	12	13.5	13.5	37%	22%
8:30	20	13	11	11	16.5	11	42%	0%
9:00	19	17	12	12	18	12	11%	0%
14:30	7	9	7	17	8	12	25%	83%
15:00	9	14	6	11	11.5	8.5	43%	59%
15:30	8	14	5	12	11	8.5	55%	82%
16:00	6	16	6	12	11	9	91%	67%
16:30	6	18	7	14	12	10.5	100%	67%
17:00	4	15	10	13	9.5	11.5	116%	26%
18:00	11	15	14	18	13	16	31%	25%
19:00	14	13	1	17	13.5	9	7%	178%
20:00	13	12	20	15	12.5	17.5	8%	29%
Variability							44%	50%
Hooper St. between Albion and Carrington								
Time	29 Sept	30 Sept	7 Oct	8 Oct	Avg Hol	Avg Term	Diff Hol	Diff Term
7:30	11	9	4	4	10	4	20%	0%
8:00	10	11	3	2	10.5	2.5	10%	40%
8:30	9	9	2	1	9	1.5	0%	67%
9:00	9	9	2	1	9	1.5	0%	67%
14:30	19	12	2	3	15.5	2.5	45%	40%
15:00	18	14	1	1	16	1	25%	0%
15:30	18	13	1	2	15.5	1.5	32%	67%
16:00	19	12	0	0	15.5	0	45%	0%
16:30	17	14	0	0	15.5	0	19%	0%
17:00	7	12	0	2	9.5	1	53%	200%
18:00	7	8	0	1	7.5	0.5	13%	200%
19:00	6	6	3	0	6	1.5	0%	200%
20:00	4	5	1	0	4.5	0.5	22%	200%
Variability							22%	83%



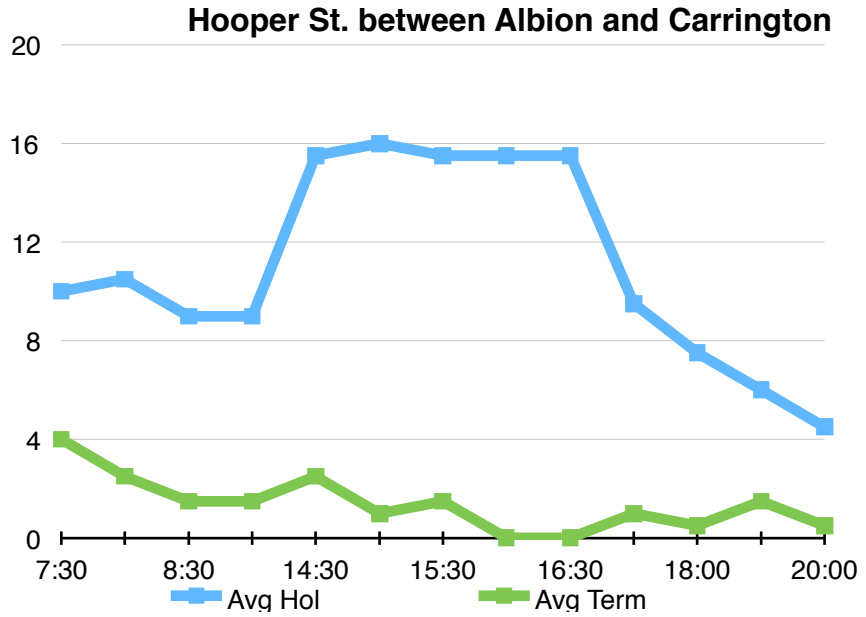
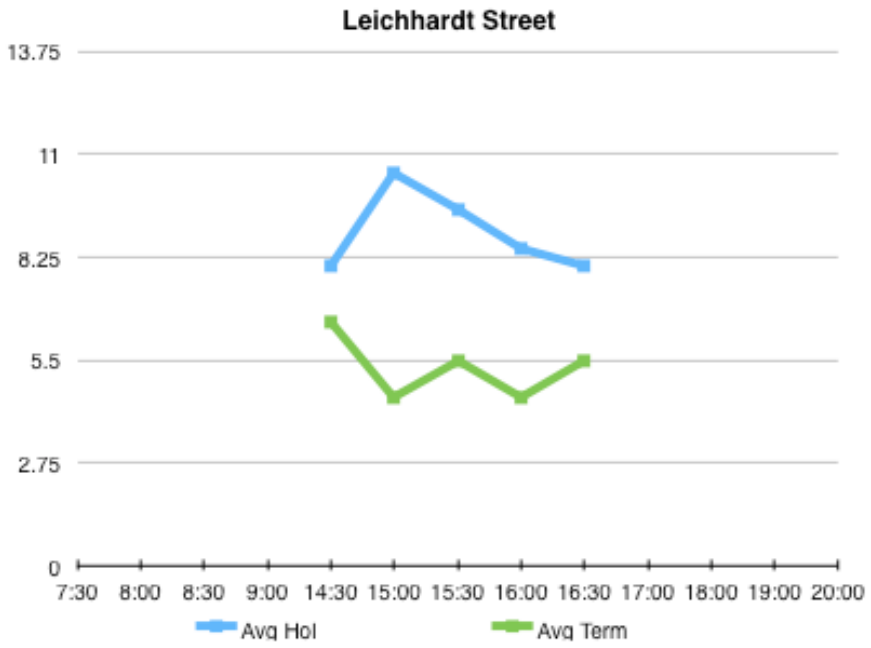


Figure 4 - Residents Parking Survey Results (cont)

Parking Vacancy Rates

Leichhardt Street								
Time	**9 July**	**11 July**	**14 July**	**15 July**	**Avg Hol**	**Avg Term**	**Diff Hol**	**Diff Term**
7:30								
8:00								
8:30								
9:00								
14:30	7	9	9	4	8	6.5	25%	77%
15:00	10	11	8	1	10.5	4.5	10%	156%
15:30	11	8	8	3	9.5	5.5	32%	91%
16:00	7	10	5	4	8.5	4.5	35%	22%
16:30	4	12	5	6	8	5.5	100%	18%
17:00								
18:00								
19:00								
20:00								
Variability							40%	73%
Note:	Afternoon data only							
MacPherson Street								
Time	**9 July**	**11 July**	**14 July**	**15 July**	**Avg Hol**	**Avg Term**	**Diff Hol**	**Diff Term**
7:30								
8:00								
8:30								
9:00								
14:30	22	19	13	3	20.5	8	15%	125%
15:00	14	17	11	2	15.5	6.5	19%	138%
15:30	9	14	11	1	11.5	6	43%	167%
16:00	8	22	18	1	15	9.5	93%	179%
16:30	12	15	12	14	13.5	13	22%	15%
17:00								
18:00								
19:00								
20:00								
Variability							39%	125%
Note:	Afternoon data only							



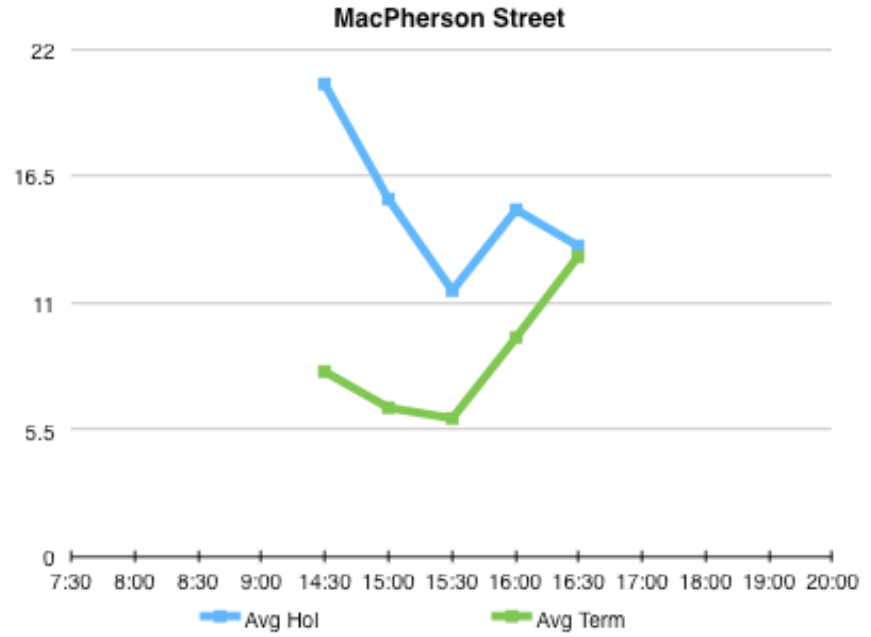
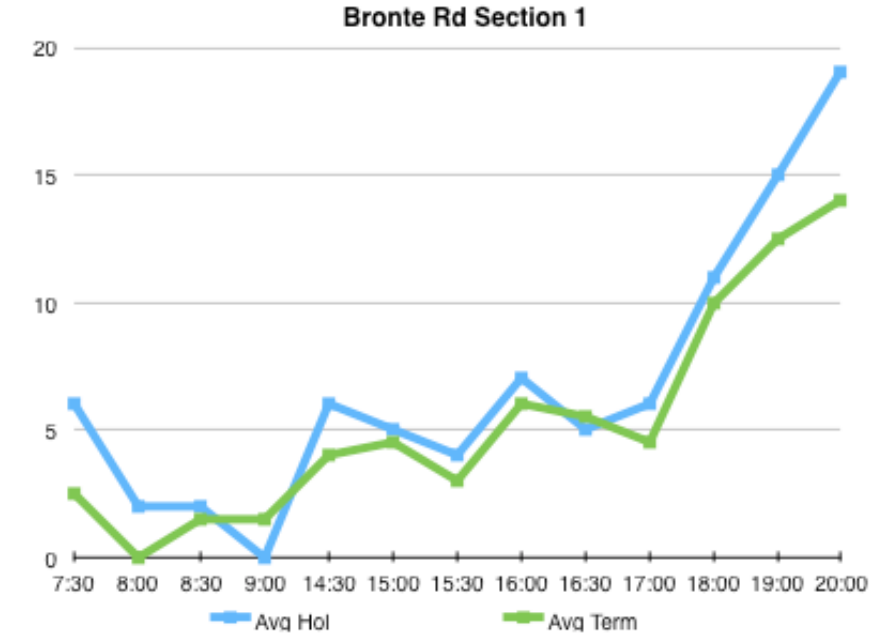
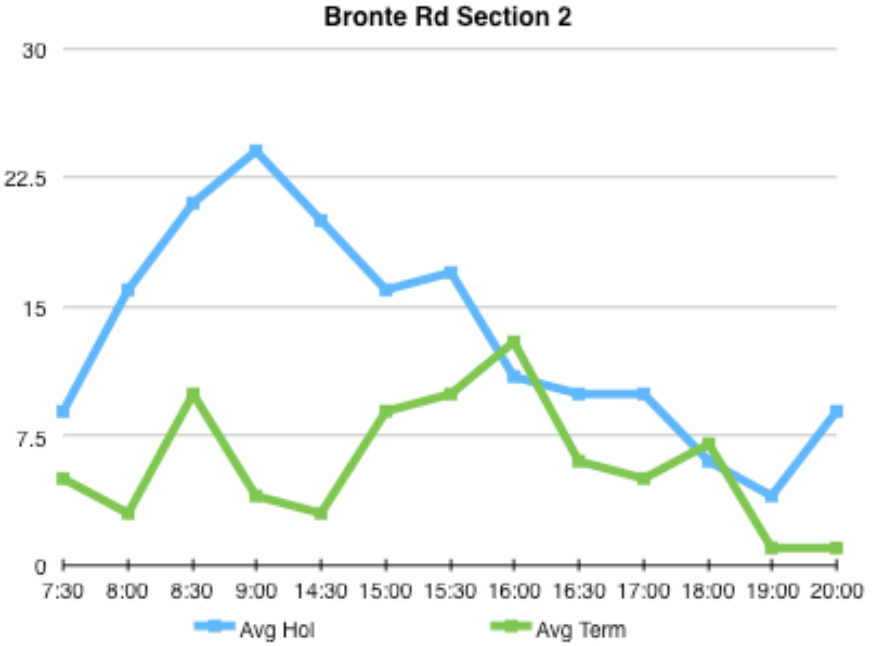


Figure 5 - Residents Parking Survey Results (cont)

Parking Vacancy Rates

Bronte Road between Belagio & CB to Roundabout S.C.								
Time		**3 Oct**	**1 Sept**	**9 Sept**	**Avg Hol**	**Avg Term**	**Diff Hol**	**Diff Term**
7:30		6	4	1	6	2.5		120%
8:00		2	0	0	2	0		0%
8:30		2	2	1	2	1.5		67%
9:00		0	0	3	0	1.5		200%
14:30		6	4	4	6	4		0%
15:00		5	3	6	5	4.5		67%
15:30		4	0	6	4	3		200%
16:00		7	5	7	7	6		33%
16:30		5	3	8	5	5.5		91%
17:00		6	5	4	6	4.5		22%
18:00		11	14	6	11	10		80%
19:00		15	18	7	15	12.5		88%
20:00		19	17	11	19	14		43%
Variability							N/A	78%
Bronte Road, between Leichhardt and Murray Street Roundabouts								
Time		**11 July**	**15 July**	**18 July**	**Avg Hol**	**Avg Term**	**Diff Hol**	**Diff Term**
7:30		9		5	9	5		
8:00		16		3	16	3		
8:30		21		10	21	10		
9:00		24		4	24	4		
14:30		20		3	20	3		
15:00		16		9	16	9		
15:30		17		10	17	10		
16:00		11		13	11	13		
16:30		10		6	10	6		
17:00		10		5	10	5		
18:00		6		7	6	7		
19:00		4		1	4	1		
20:00		9		1	9	1		
Variability							N/A	N/A





4. Detailed Critique of EIS Traffic and Transport Assessment

The Environmental Impact Statement (EIS) for the proposed development at St. Catherine's draws upon a commissioned Traffic and Transport Assessment by Arup (Appendix I of the EIS) which in turn draws upon an attached second report on parking accumulation by Lyle Marshall and Associates. Despite the professional appearance and detail of these two documents, they contain a number of defects such as unsatisfactory data sampling, logical errors, and statements of conclusion that are poorly justified by the data presented. These conclusions are then selectively quoted or further generalised in the body of the EIS such that at the top level, the issues of parking and traffic management are grossly understated.

This section identifies these specific defects, some of which are the basis of the objections stated in this report.

Parking Assessment

Ref: Appendix I Traffic Report Sec 3.6.4 pg. 15; EIS Sec 6.7.2 pg. 73:

- The Traffic Report by Arup states current utilisation of on-street parking at 80-90%, but does not state that this is on the basis of single-day samples and that there would be substantial daily variation. 90% utilisation on one day could mean complete saturation on a different day. Furthermore, the 90% quote is itself an understatement of the measured peak which in the Lyle Marshall report is up to 92.8% and remains above 90% throughout 8am - 1pm. Furthermore, the Lyle Marshall report missed some streets that are within the 5-minute radius of the school which was its brief, including the most heavily impacted street of all, which Hooper Street, east of Carrington Road. Regardless, these questionable data form the basis of the generalization on page 15 that "During the day there is spare capacity for parking with occupancy between 80-90%". There is no further consideration of daytime on-street parking occupancy and the impact of the increased school population throughout the EIS.

Ref: Appendix I, Traffic Report Sec 6.3.3:

- Ironically, the Report does recognise that parents park in surrounding streets, and states this as a justification for why traffic impacts on the streets adjacent to the school may not be as bad as projected. Why do the authors then not consider *why* parents do this? They should acknowledge that the immediate streets are saturated for parking, with the implication therefore that they should have surveyed the surrounding streets in more detail.

Event Parking

Ref: Appendix I, Traffic Report Sec 6.2.3 pg. 44:

- The suggestion of a shuttle bus to reduce impacts of events at the RPAC appears to be a “filler”, and not a serious proposal.

Parking availability for evening events

Refs: EIS pgs. ix, 16; Appendix I, Traffic Report Sec 6.2.2 pg. 42

Commencement times of many evening events are before, and completion times of evening events are later than, the arrival of resident commuters who will be blocked from parking in their streets. Parking availability is consumed radially, not evenly, across the 5-minute walk zone. Therefore the conclusion that there is adequate on-street parking ignores the impact on residents.

Transport and accessibility during Construction Phase

Refs: EIS Sec 3.10 pg. 37; EIS Sec 6.7.1 pg. 72

- Dismissal of heavy congestion impacts as short term is unjustified. It is acknowledged that the phasing of the project is unknown therefore the conclusion that traffic impacts of heavy vehicles will be insignificant is unreasonable. It may well peak above the stated 42 trucks per day with 4 during peak hour.

Transport and accessibility in Operational Phase

Refs: EIS Sec 6.7.2 pg 74; Appendix I, Traffic Report Sec 6.3.2 pg. 47

- Usage of the Aquatic Centre is continual at 113 vehicles per hour, not just at a peak during 12-1pm. According to the Usage Profile, Appendix H, the hourly rate of 250 visitors that generates the additional 79 vehicles is applicable throughout the weekend. This error is repeated throughout conclusion and summary sections (6.6, etc.)

Refs: Appendix I, Traffic Report Sec 6.2.2 pg. 43

- It is questionable whether an occupancy rate of 2.0 (persons per vehicle) is valid for visitors to the Aquatic Centre. Presumably this assumes that the 250 visitors comprise 125 parents with 125 children, who travel to the Centre as two people per vehicle and ignores licensed students who would reduce the occupancy rate thereby increasing traffic flow and parking load.

Ref: Appendix I, Traffic Report Sec 6.3.2

- The projected traffic loads are arbitrarily de-rated by 30% to correlate with the measured current traffic. This proportionally discounts all projections of traffic load and is therefore quite significant to the analysis yet no rationale for the de-rating is provided.

Ref: Appendix I, Traffic Report Sec 6.4.2 - Analysis

- MacPherson street intersections are shown as already saturated during morning and afternoon peak periods, and as close to saturation on weekends. The MacPherson/Albion intersection will degrade from Level of Service (LoS) of C to E and MacPherson/Leichhardt degrades from B to D in the afternoons. Why is this considered a “modest” impact? It is dismissed as short-term, and not as bad as the PM commuter peak hour. It is a significant impact to those who need to use the roads at that time.
- The additional traffic due to the Aquatic centre does extend through the PM commuter peak hour, as well as right through the AM commuter peak. Again, the impact is downplayed due to use of surrounding streets but this is not assessed.

Ref: Appendix I, Traffic Report Sec 6.6 - Assessment

- The analysis is stated as being conservative due to sisters travelling together in the one vehicle. This effect is being double-counted, as it was already generously factored into the car occupancy factor of 1.2 used in Tables 12 and 13.