



City of Ryde

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**Submission
Macquarie University Campus
Herring Rd, North Ryde**

October 2006

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PURPOSE

This submission is made by the City of Ryde (CoR) to the Department of Planning (DoP) in relation to the Macquarie University Campus Herring Rd, North Ryde and provides comments on the Planning Study to support amendment to schedule 3 of Major Projects SEPP 2005 by JBA Urban Planning Consultants.

Executive Summary

In September 2005 Macquarie University requested that the Minister for Planning nominate its site at North Ryde as a State Significant Site in Schedule 3 of the State Environmental Planning Policy (Major Projects) 2005.

On 4th April 2006, the Minister of Planning formed the opinion under Clause 6(1) of the Major Projects SEPP that the development, is of a kind described in Schedule 1, Clause 20 – ‘*Development for the purpose of teaching or research (including universities, TAFE or schools)*’, and thus declared it a project to which Part 3A of the EP&A Act applies.

The Minister requested a study to determine:

Whether any development on the particular site should be declared to be a project to which Part 3A of the Environmental Planning and Assessment Act, 1979 applied; and the appropriate development controls for the site.

A planning study was prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Macquarie University; and this submission from City of Ryde comments on this Planning Study.

- Macquarie University is seeking to rezone the site in order to progress development of the University. The University has adopted the Macquarie University Campus Development Plan 2004 (MUCDP) to guide its future development. The key objectives of the MUCDP promote a development to the value of \$160 million which includes:
 - an increase of 20,000 students over the next forty years;
 - an 140,000m² increase in built floor space for academic uses;

- identification and creation of commercial and research precincts totalling 620,000m²;
- residential accommodation for approximately 5000 students; and
- retention of existing open space areas and the playing fields;
- a wider range of uses.

City of Ryde supports the development of the University and believes that:

- there is an opportunity for the University in its 40 year plan to turn the University outward and create a university town which integrates with the local community; with public streets; has shared community uses and facilities and residential development.
- a greater mix of uses on the site conducive to creating a university town and ensuring that Macquarie Park becomes a vibrant energised place and not just a collection of isolated working, shopping and living environments.
- The Macquarie University Campus Development Plan 2004 is not sufficiently well developed to ensure a successful outcome and that it needs to address:
 - the capacity of the site to carry the proposed floor space; the character of the resultant built form and its ability to create a sense of place.
 - the need for a street and block pattern to ensure efficiency of land; optimisation of the parklands; integration within and without the precinct; legibility and coherence.
 - appropriate stormwater management - there needs to be resolution to the issue of contributions; placing agreements and special rate levies so that the development potential is mutually supportive.
- Council recognises the opportunity for Macquarie Park to be a major driver within Sydney's physical and economic structure. An integrated university town with retail, business, residential, and shared facilities will capitalise on the new rail infrastructure and the existing parks and recreation facilities. Council is committed to ensuring this opportunity is taken and believes this can occur most effectively within the existing planning framework.

Introduction

On 16 September 2005, Macquarie University wrote to the Minister for Planning requesting consideration of the Macquarie University Campus to be included in Schedule 3 of the Major Projects SEPP 2005.

On 24 January 2006, the Department of Planning advised the University that on 22 December 2005, the Minister agreed to consider the site as a potential State Significant Site for listing in Schedule 3 under the provisions of the Major Projects SEPP.

The Minister requested that a range of matters be assessed in the planning study for the site.

These included:

- a) *the State or regional significance of the site (having regard to the Draft Guidelines – State Significant sites dated 24 July 2005);*
- b) *the suitability of the site for any proposed land use taking into consideration environmental, social or economic factors, the principles of ecologically sustainable development and any state or regional planning strategy;*
- c) *the implications of any proposed land use for local and regional land use, infrastructure, service delivery and natural resources planning;*
- d) *local and regional economic impacts of permitting additional commercial/research floor space within the adjacent Macquarie Park employment area;*
- e) *impacts on the other identified employment centres including Homebush and Parramatta in relation to shifting economic opportunities;*
- f) *the likelihood of the proposed rezoning achieving the desired outcomes of the State Government proposed Metropolitan Strategy; particularly regarding employment generation;*
- g) *the appropriateness of the Macquarie Campus University development Plan to guide the future of the site;*
- h) *those parts of the site which should be subject to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), with Ryde City Council as the consent authority;*
- i) *the development controls for the site that should be included in Schedule 3; and*
- j) *the means by which developer contributions should be secured in respect of the site.*

On 4 April 2006, the Minister of Planning formed the opinion under Clause 6(1) of the Major Projects SEPP that the development, is of a kind described in Schedule 1, Clause 20 – ‘*Development for the purposes of teaching or research (including universities, TAFE or schools)*’, and thus declared it a Project to which Part 3A of the EP&A Act applies.

A report was prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Macquarie University. It describes the physical and legal context and includes an assessment of the proposal in terms of the matters for consideration as listed under Section 75B of the Environmental Planning and Assessment Act 1979 (EP&A Act), and Clauses 2 and 8 of the Major Projects SEPP.

This submission from City of Ryde comments on that Planning study.

The Submission

This Submission addresses the matters raised in each chapter of the report:

1.0 Description of the Site. (Section 2.0)

Section 2.0 provides a description of the physical characteristics of the site, its location in the region, the existing development, land form, natural environment and accessibility.

Briefly the campus is 127 ha, 17 km North West of Sydney CBD on Herring Rd. Macquarie Shopping Centre is opposite. It contains academic and supporting facilities, a Macquarie University Research Park (MURP), student housing and playing fields. The M 2 Motorway is on the North East and bisects part of the site.

The natural ground is undulating and there is some vegetation. The site is accessed by only four roads. It is served by 750-800 busses and a heavy rail station is planned for 2008 at the Herring Rd entrance.

2.0 State and Regional Planning Significance (Section 3.0)

Section 3.0 addresses issues related to state and regional planning

The minister requires consideration of:

- the state or regional significance of the site with respect to the Major Projects SEPP and the Draft Guidelines;
- any State planning policies and strategies;
- regional land use patterns; and
- achieving the desired outcomes of the Metropolitan Strategy, particularly regarding employment generation.

The aims of the Major Projects SEPP (Clause 2), for state significant sites include:

- (a) identify development under Part 3a of the Act.
- (b) identify critical infrastructure projects under part 3a of the Act.

- (c) facilitate development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State.
- (d) facilitate public services delivery outcomes and development of major sites for public purpose or redevelopment of major sites no longer appropriate or suitable for public purpose.
- (e) make the Minister the approval authority for development of State Significant Sites.

The JBA report states that *'the aims of the Major Projects SEPP would be satisfied by the inclusion of the site in Schedule 3, in particular in relation to sub clauses 2(c) and 2(d). The site is of state significance due to its economic significance, and its inclusion would assist in a key state service delivery outcome for tertiary education'*.

The report then goes on to conclude that:

'Macquarie University's North Ryde Campus is of state and regional significance because:

- *the University is important for delivery of tertiary education for NSW and Australia;*
- *the site is in an identified strategic location within the Macquarie Park Corridor and the Global Arc (Metropolitan Strategy); and*
- *the proposed development of the site will make significant contributions to employment targets and economic growth for the region and NSW as envisaged by the Metropolitan Strategy'.*

Council does not dispute that the University can meet the criteria to be designated as a State Significant Site. Council however believes that to optimise the economic, social and environmental outcomes, the precinct should be planned as a coordinated whole. The impacts from a site as large and complex as Macquarie University are so great that the site needs to be planned within its local and regional context.

This physical relationship of the university and the corridor is highlighted throughout the JBA report:

'Macquarie University / Macquarie Park is unique in being the only strategic Specialised Economic Centre or Business Park which has direct access to the Orbital and will shortly be served by three railway stations'.

'Macquarie University and Macquarie Park form part of the Global Economic Corridor'.

'Macquarie University occupies approximately 1/3 of the Macquarie Park Corridor'.

It is the integration and inherent physical relationship of the two precincts which Council believes requires a fully integrated planning approach.

Metropolitan Strategy, Ministerial Directions and SEPPs

These are set out in Section 3.0 The Metropolitan Strategy; Section 117 Directions and SEPPs. Council comments on those issues which they consider have not been sufficiently considered.

Metropolitan Strategy

Council supports the growth and consolidation of the Macquarie Park Corridor and the development of the University as outlined in the Metropolitan Strategy. It has concerns as to whether however the proposed amendment to the SEPP “ *is based on sound structural Planning (as demonstrated in the Campus Development Plan)and provides for business and enterprise uses on the site*”. There is no adequate plan which illustrates how the required floor space and proposed uses can be accommodated on the site, and in what form. The major issues as discussed later in this report are density and built form; access and stormwater treatment and integration.

The following SEPPs are nominated as being applicable to the site.

SEPPs	City of Ryde Comments
SEPP No 19 Bushland in Urban Areas	A detail assessment may impact on the capacity of the site.
SEPP No 32 Urban consolidation	No information is provided as to how housing can be accommodated and in what form. The area designated for residential is on the northern side of the campus and away from the rail.
SEPP No 55 Remediation of Land	A detail assessment may impact on the capacity of the site or on development costs.
SEPP No 63 Major Transport Projects	Rail Corps requirements are unlikely to have any additional impact.
SEPP 65 Design Quality	No information is provided as to how the requirements can be achieved.

of Residential
Flat
Development

Building
Sustainability
Index SEPP
2004

No information is provided as to how requirements can be achieved but some of these requirements are less dependant on form and relationships than those of SEPP65.

Seniors
Housing SEPP
2004

The highly accessible parts of this site are not designated for residential development.

Draft SEPP No
66 Integration
of Land Use
and Transport

There is no information as to how the density around the station is to be accommodated.

SREPs
Sydney
Harbour
Catchment
2005

Clearly the quantum of development will have an impact on the stormwater management. Successful resolution of this may impact on capacities.

3.0 Local Statutory Planning Framework (Section 4)

Section 4.0 deals with the Local Planning Requirements.

The university falls under the Ryde Planning Scheme Ordinance 1979 (RPSO).

This was amended by Local Environmental Plan (LEP)No. 137 in order to implement the recommendations of the Macquarie Park Corridor Master Plan.

The objectives for the Macquarie Park Corridor include:

- creating a location for globally competitive business;
- reducing car dependency; and
- ensuring a high quality, well designed and safe environment to live, work and study.

The core campus of Macquarie University is zoned special uses. The Macquarie University Research Park (MURP) is zoned by LEP 137 3(h) Business Special (mixed Activity) as are the university sites on Herring Road. These are currently leased.

The range of uses permissible in the Special zoning is extensive and covers all ancillary uses related to a university campus.

Schedule 18 Ryde Planning Scheme Ordinance (RPSO) provides a comprehensive range of objectives for the corridor.

The Macquarie Park Corridor Master Plan 2004

This was adopted by Council in 2004 and set out land uses and development controls.

The JBA report states:

'Importantly, the Master plan and its subsequent planning instruments excluded the vast majority of the Macquarie University Campus.'

The Planning instruments in fact, retained the Campus as special uses and provided guidelines for the development to ensure maximum flexibility. While the development controls in the station precinct (3H) are compatible with those controls around all the proposed rail stations.

Draft Macquarie Park Corridor DCP55

The draft Macquarie Park Corridor DCP55 requires a master plan for sites over 30,000m² or greater.

The objectives for the University precinct are:

- *'to be focus for academic pursuit'*
- *to retain a collegiate built form and landscape setting.*
- *to have a stronger relationship with the rest of the Corridor.*

Development control guidelines are based on a response to the context.

Development Approval Process

In accordance with the provisions of the EP&A Act the University is currently required to submit Development Applications to City of Ryde for development that requires consent under the RPSO or any other planning instrument.

It is also noted that as the University is prescribed by the Crown it can therefore rely on Part 5A of the EP&A Act.

The Macquarie University Campus Development Plan 2004 does not have any statutory weight in the assessment of DAs and has never been adopted by Council.

The Macquarie University Campus Development Plan 2004 is not a substantial planning document. It does not provide clear guidelines for development and is

not considered by Council to have examined and provided solutions for all the issues on the site. The quantum of floor space; built form; access and storm water management are the key issues.

Planning Framework

This local statutory Planning Framework as outlined above is not considered by the University to be appropriate for the following reasons:

Issue

The current Special Uses Zone 5(c) does not provide sufficient flexibility in land uses to allow the University to develop into a 21st century urban Campus;

The Macquarie Park Corridor Master Plan and subsequently the amending LEP 137 only provides expanded land uses and development controls for a small portion of the Campus.

The zone 3(h) boundaries identified on the RPSO zoning map as a result of LEP 137 are arbitrary and do not reflect the site opportunities and constraints;

Some allotments have two applicable zones as a result of the LEP 137 amendment and have very different restrictions/provisions applying. Similarly different height FSR provisions apply to arbitrary areas of the site and in areas immediately adjoining, the height and FSR would be assessed in merit;

It does not formally recognise the Macquarie University Campus Development Plan 2004 and as such it does not provide a long term framework for the development of the Campus;

The draft Macquarie Park Corridor DCP requires the preparation of a site

City of Ryde Comments

The Special Use Zone is flexible in terms of uses and capacities.

The Macquarie Park Corridor Master Plan and LEP 137 ensured that a substantial part of the site was zoned 3(h) with compatible densities to all the stations.

As above, the precinct zoned for 3(h) is also considered as part of the whole Macquarie Park Corridor Precinct.

These differentials are not clear in the drawings but are minor matters.

The Macquarie University Campus Development Plan is not considered to be sufficiently developed to form the basis of a planning instrument.

This is clearly due to the changed legislation. A DCP can provide a

specific master plan which is no longer part of the statutory planning process; similar outcome.

Gaining development consent thorough Ryde City Council at times can be problematic and lengthy. Macquarie University have been approached by highly desirable institutions/companies. However these opportunities are being lost largely due to the uncertainty and limited land uses permissible in the 5(c) zone and the length of time required for the approval process; and This claim is not substantiated.

The Macquarie Park Corridor Master Plan and LEP 137 does not include two parcels of the land which form the Macquarie University Campus. It is not clear why this was not addressed during the extensive consultation period.

4.0 The Macquarie University Campus Development Plan 2004 (Section 5.0)

Section 5 outlines the Campus Development Plan

The principles of the plan are addressed here:

Principles

City of Ryde Comments

Build on the special qualities of Macquarie University;

Totally supported but do not believe that this is demonstrated in the Campus Plan. Council also believes that the existing campus has poor legibility and lack of presence.

Allow development flexibility within the certainty of a structured framework,

Flexibility is available under current planning instruments and the Campus Development Plan does not provide a structured framework.

Optimise development potential to allow the University to leverage from its assets;

Support.

Rationalise and strengthen access and circulation in response to new infrastructure;

Agree but not demonstrated. The lack of a connected street system internally and externally is problematic.

Attract academic and research partners to the University;	Agree.
Maximise efficiency of the future built environment;	Support but Figure 13 Illustrative Master Plan suggests the contrary and a very inefficient use of land.
Maintain the park-like setting and amenity;	Not possible with the proposed floor space ratios. Buildings will need to enclose space and parklands.
Enhance the Campus environment; and	It is not clear what the statement means and how it differs from the first principle.
Engage with the community.	Support engagement and integration with community.

The resultant plan is a requirement for a substantial amount of floor space without any clear structure.

There are no adequate drawings and no testing of floor space and capacities Figure 13 the 'Illustrative Master Plan does not reflect the quantum of floor space.

5.0 Proposed SEPP Amendment (Section 6.0)

Floor Space and Use

Section 6 outlines the proposed amendment to the SEPP.

The amendments include additional floor space and additional uses.

The floor space proposed is:

- an additional 140,000m² GFA in built floor space for academic uses;
- identification and creation of new commercial and research precincts totalling 620,000m² GFA; and
- residential accommodation for a total of approximately 5,000 students.

The amendment also nominates a range of uses which cover many uses associated with a town and not formally associated specifically with a university.

These are:

- business premise; multi dwelling housing; office premise; residential flat building and seniors housing.

Quantum of Floor Space

The amount additional of floor space indicated – a total of 760,000m² plus residential and ancillary is substantial.

The academic allowance can clearly only be measured against the educational requirements; the services provided by the University and the number of students. Obviously that needs to be related also to the total quantum of floor space and the capacity of the site.

The commercial floor space proposed is 620,000m². There is no substantiation for the amount of commercial floor space. Are there appropriate relationships between the amount of research facilities, business facilities and commercial? Does the floor space relate to the quantum of academic facilities?

Macquarie Park Corridor has capacity for 2.5 million square metres of floor space. Of this some 900,000+ square metres has been developed. The location and density is described in LEP 137. The inclusion in the campus of an additional 620,000m² of commercial floor space raises four main issues.

Firstly the impact this would have on the currently zoned business areas in Macquarie Park Corridor. A percentage increase of close to 25% in zoned commercial land may impact on land values and rate of growth on the rest of Macquarie Park Corridor. Of the floor space yet to be developed it is approximately a 30% increase.

Secondly, there is no information to show how the 620,000m² can be accommodated on the university site. A more detailed examination of this is developed in Sections 5.0 and 8.0.

Thirdly the level of Section 94 contributions. The document is remarkably silent about contributions but Section 9.3 of the JBA study states:

'the means by which developer contributions should be secured in respect of the site are to be detailed in a proposed planning agreement.'

This provides no security or consistency of approach for Council.

If there is no parity between Council and the University in terms of the Section 94 contributions, the University could use the planning agreements to reduce the contributions so that initial investment is made on the University lands rather than in the corridor.

Finally the rate levy, Macquarie Park Corridor Businesses agreed to pay a special rate levy for public domain upgrades, employment of a place manager etc.

The planning study makes no reference to the rate levy. Depending on the planning agreement and response to the levy it would appear that some University sites would be in an advantageous position financially relative to the Macquarie Park Corridor sites and yet be gaining the advantages.

Uses Proposed

The additional land uses proposed to be included within the area currently zoned 5(c): are:

- *advertising;*
- *business premise;*
- *child care centre;*
- *community facility;*
- *function Centre;*
- *hostel;*
- *hotel accommodation;*
- *information and education facility;*
- *medical centre;*
- *multi-dwelling housing;*
- *neighbourhood shop;*
- *office premise;*
- *recreation facility (indoor and outdoor);*
- *residential flat building;*
- *restaurant;*
- *seniors housing; and*
- *serviced apartment;*

This approach would appear to create a very uneven playing field for the whole corridor and in longer terms such expediency might result in poor physical outcomes both at the level of the individual site and the University as a whole.

Range of Uses

Some of the uses nominated are already located on the University. These include recreation facilities; child care; restaurants etc. But others are associated with a town and not normally associated specifically with a university.

These are:

- business premise; multi-dwelling housing; office premise; residential flat building and seniors housing.

Clearly in the interest of creating a vibrant environment and minimising travel a mix of uses is an asset to a city. Worldwide and in Australia there are many examples of university uses within towns and cities, University of London, QUT, RIMIT. But these are universities which are integrated into the town.

If the University however wishes to remain as a special enclave along the “campus” model then it is not clear why some of these additional uses are required. Especially those nominated above. Where uses are introduced which are normally associated with towns and which would then sit outside the Local Government planning framework, there are many implications for Local Government. Community facilities; the relationship of university business/residential to the LGA wide business/residential. Clearly all uses need to be considered as a part of the North Ryde Community but particularly the non-educational uses where they are of sufficient scale to impact on the local region. If the University however wishes to locate some of its uses within the Macquarie Park Corridor in the genuine interest of creating a university town, Council supports this approach. Council does not support “a town within a town” and developed under a different planning body.

Development Consent

The greater range of uses proposed raises another issue: That of development consent. The University requests the Minister to be the consent authority and to retain its special status, so that it maintains its powers under Part 5A of the EP&A Act.

‘A consent authority, in respect of a development application made by or on behalf of the Crown, must not:

- a) refuse its consent to the application, except with the written approval of the Minister, or*
- b) impose a condition of its consent, except with the written approval of the Minister or the applicant.’*

This is a supportable concept related to educational facilities but does this mean that non-university related Development Applications would enjoy the surety of knowing that what they proposed could not be refused?

This approach would appear to create a very uneven playing field for the whole corridor and in longer terms such expediency might result in poor physical outcomes both at the level of the individual site and the University as a whole.

6.0 Site Suitability (Section 7.0)

The key issue related to site suitability is management of stormwater.

The construction of new buildings and internal roads proposed in the 2004 Plan and change in the percentage and location of pervious and impervious areas on the site will have big impacts on the existing stormwater systems in both Mars and The University Creek catchments. Stormwater management of these creeks

has been based so far on the development of the Macquarie University as proposed in the now superseded Development Plan 1997.

The Infrastructure Site Analysis Report listed the drainage and stormwater management issues and works which need to be carried out in the Macquarie University Site but has not provide sufficient details as to how these issues will be addressed as was requested by the Minister. The issues include on site detention of stormwater, WSUD and drainage infrastructure. The main reason being that this report was prepared in 2004 a for different purpose. To address the drainage and stormwater management issues the following is required:

Stormwater drainage master plan for the University Creek catchment and be able to demonstrate that the proposed measures in this plan could achieve the outcomes and control of the volume of runoff at the Talavera Road outlet as specified in the report "*Stormwater Drainage Master Plan Development*" prepared by Boyden & Partners in 1998. The issue of blockage of the grated weir outlet structure adjacent to Talavera Road which has caused flooding and closure of the road and flooding of the downstream property also need to be resolved.

Stormwater drainage master plan for the Mars Creek catchment and be able to demonstrate that the proposed measures in this plan could achieve the outcomes and control of the volume of runoff at the Talavera Road outlet as specified in the document "*Macquarie University On-site Detention Plan - Stormwater Management for the Mars Creek Catchment*" prepared by Patterson Britton & Partners in August 2001.

A Water Quality Management Strategy for the site to control impacts of the future development as per the 2004 Plan on the runoff quality from the site.

City of Ryde has recently embarked upon a floodplain risk management study for a number of stormwater catchment areas, including those containing Macquarie University, namely University and Mars Creeks. The purpose of the study is to provide solutions to existing flooding problems in developed areas, and ensuring that new developments are compatible with the flood hazard and do not create additional flooding problems in other areas. This is consistent with the NSW Government's Flood Policy.

The Macquarie Park Floodplain Risk Management Committee will act as both a focus and a forum for the discussion of technical, social, economic, ecological and cultural issues regarding flooding issues for the University, the Macquarie Park corridor and surrounding areas. Its formation is the fundamental step in implementing the NSW Government's *Flood Prone Land Policy*, which aims to better manage the impact of flooding and minimise public and private losses resulting from floods.

Macquarie University is therefore considered to be a major stakeholder in the project, and as such it is intended to extend an invitation to the University to nominate a representative to sit on the relevant floodplain management committee.

The current proposal by the University and any future development proposals should be consistent with the work being undertaken by Council to ensure floodplain risks are adequately considered.

7.0 Implications of Land Use (Section 8.0)

Section 8.0 deals with the implications of the land use under built forms; infrastructure; service delivery; traffic and transport; economic and employment opportunities.

Built Form and Service Delivery

The report states *'Specific development controls can be applied to ensure the future land uses are compatible in scale and location with surrounding development and land uses.*

The Campus Concept Plan will detail development on the site that is generally to the scale provided for by LEP137 ie:

- *4,6,8 and 10 storey development where appropriate;*
- *1:1 – 3:1 FSR where appropriate; and*
- *Comparative car parking rates.*

Furthermore, the site can accommodate commercial premises and medium density housing based on the existing built form, its location in relation to community facilities and open space, and government objectives for identifying sites with potential for increased services, employment and housing density along the Macquarie Park Corridor. In this regard the additional range of permissible uses is considered appropriate'.

Yet none of the above has been demonstrated *'the proposed intensification of uses on Campus is infill development within an established urban area and community. All the required services for new employees and additional residents are provided within the locality and will be augmented over time (40 years) as demand increases. As such there is unlikely to be any adverse implications on services delivery within the locality as the required services will be provided alongside the new development to support the needs of the new population'.* The level of "infill" development is so substantial that it requires an appropriate street and block pattern and building envelop resolution.

The report is not clear as to who is providing the services and facilities. The intensity of development has impacts on schools, park, recreation facilities to

name only a few. Business people and residents are not fully served by the university. What access does the wider community have to the university facilities? Either access by the location, being in the midst of a university or access to use because the high proportion of use by the university? Does the report show a willingness for the university to interact strongly with the North Ryde community?

The report states that there will be limited impact on the local community because all services will be located in campus. With such an increase of students, residents and workforce this does not appear realistic? The impact on the surrounding infrastructure, for example local roads, parks, parking, local shopping areas, libraries, existing childcare facilities will be substantial.

No estimate of daily population is provided but an estimate based on 50,000 students, (50% at one time on site), 10,000 University staff (50% at any one time on site) and 30,000 workforce, the total is 60,000.

Given that under the EP&A Act Section 79c the impacts of a single dwelling must be considered the university proposals are for a town within the existing infrastructure and (Wagga Wagga population 55,000) yet without a clear physical outcome and without an assessment of all the impacts.

Traffic and Transport

Comments on the more detailed proposal in Colston Budd Hunt and Kafes Pty assessment are contained in Appendix B:

Access

The site has very restricted access only five roads – currently one additional access point is proposed, from Culloden Rd and two minor connections from Herring Rd.

This is still a very unconnected site. Comparative drawings with the Sydney CBD approximately 60 hectares showing connections street and block patterns and densities would be enlightening.

Internal Circulation

The plan proposes, primary circulation network will consist of:

- *“An enhanced University Avenue linking Epping and Herring Roads; and*
- *The extension of University Avenue to intersect with Culloden, Talevera and Christie Roads”.*

“Additional secondary and shared access roads will be provided through the site ensuring a good level of permeability and distribution of traffic movements”.

The site is 127 hectares. The ideal walking street block is 80mx80m. For argument sake and mathematical ease let us assume it is 100mx100m=1 hectare.

127 hectares would equate to roughly 127 blocks. Clearly part of the site has playing fields etc so 127 is not achievable erring on the side of caution, let us say 80 blocks would be an optimum number. Macquarie University has 19. This appears to be at least 25% of a conservative optimum number. The JBA report doesn't address this issue. In terms of efficiency these blocks should relate to the proposed building typologies.

Bus Transport

Clearly Council supports the use of public transport. This includes continuation of direct public and bus access through the University, bus interchanges, bus lay-over areas and public transport facilities on the University site in accordance with the requirements of the STA, Ministry of Transport, private bus operators and other relevant Government Departments. Provision should also be made for eastbound buses on the M2 to access the University property from Christie Road.

Pedestrian facilities

Council also agrees in principle with the general intent as included in the Colston Budd Hunt and Kafes Pty report, relating to the provision of these facilities on the University Campus. As well, footpaths and cycle ways are required along existing street frontages where none currently exist. This may involve dedication to Council of appropriate land to form part of the road reserve.

Traffic Impacts

Traffic impacts have been based on 50% take-up of commercial developments. These effects will increase should they be a greater take-up of commercial space.

Council requires the full impacts of traffic to be assessed. The report states "*a range of possible road network improvements have been identified*"

These include connections to the M2, upgrade intersections and widened roads. The physical impacts of some of these proposals in creating a walkable environment is not addressed. The site is located by major road infrastructure use. Accessibility into and through the site is a critical part of the initial planning. Given that the daily population to the site is conservatively 60,000 people realistic solutions are required. Accessibility may be the factor which limits the capacity of the site.

It is worth noting that Sydney CBD is about 60 hectares, has a daily population of approximately 220,000 with a model split heavily in favour of public transport. Depending on the ratio of floor space to workers Macquarie Park Corridor could have an additional 110,000 people. The rail is estimated to deliver 12,000 – 15,000 people per day. Clearly accessibility is a key issue.

Economic and Employment Implications

The planning study states that:

‘the assessment does not identify any negative impacts of the proposal on adjoining or other employment/economic centres. Rather the report concludes that the proposed commercial/research uses of land at Macquarie University will help ease Sydney’s anticipated 695,000 to 1,695,000m² shortage of office space within the next 20 years’.

Even if this were true it does not address the immediate impacts. Veiled threats of *‘without the availability of sites for dedicated office buildings, development and construction activity could be forced to take place outside Sydney and, most likely, outside New South Wales’* are not substantiated and do not help in agreeing on appropriate and mutually supportive levels of development. There are benefits of companies clustering but it should be noted that Macquarie University specialises in environment and management not the medical or scientific/IT facilities. Yet Macquarie Park Corridor is geared towards the IT sector.

“locating employment near existing infrastructure” is a valid approach but the issues of how that employment can be physically accommodated and serviced has not been addressed.

8.0 Appropriateness of the Plan (Section 9.0)

Section 9.0 claims that:

“The 2004 Campus Development Plan is an appropriate planning tool to guide the future development of the site as it:

- *is based on comprehensive site analysis and a clear understanding of the context;*
- *has been developed in response to and to complement the Macquarie Park Corridor Master Plan;*
- *is based on sound planning principles including:*
 - *increased densities around the new railway station;*
 - *peripheral parking and limited vehicular penetration in the Academic Core;*
 - *open space and drainage corridors;*

- *pedestrian linkages with surrounding residential, commercial and retail uses;*
- *a strong planning grid and clear road network; and*
- *wide variety of uses to ensure a viable and sustainable urban environment.*
- *Employs the principles of ecologically sustainable development.*

Notwithstanding the above, the Campus Development Plan is an internal document designed to assist the University”.

Given the size of the site; the range of uses (including the requested broad use base) there is no endorsed public document which is guiding the development. Unlike the University of NSW which has a clear quantifiable design concept for the university, Macquarie University appears to be being developed on an ad hoc, site by site basis. This approach is not recognised as best practice.

The issues for Council are:

- a) floor space proposal compatibility with the densities designated.
- b) Lack of clarification of site densities.
- c) built form outcomes resulting from the densities, their renewal impacts.
- d) the lack of a structural spatial system, street and block pattern to guide development.
- e) the juxtaposition of the two street grids in the Macquarie Park Corridor (a matter not addressed).
- f) lack of accountability of the site and lack of integration.

a) Floor space proposals

The plan provides no information as to whether the capacities of 140,000m², 620,000m² etc are achievable in the areas designated with the specific floor space ratios and if it is achievable in what form. Figures 16 and 17 provide limited information.

b) Clarification of site densities

The plan is also unclear as to whether the densities indicated are site densities or over the whole precinct, so that with the introduction of roads the actual site densities will increase. The roads are about 25% of land area; effectively site densities could increase from 3.0:1 to 3.6:1; 2.0:1 to 2.5:1; 1.0:1 to 1.3:1.

c) Built Form Outcomes

Traditionally the University has been developed as a “campus style” site.

Campus style sites however are distinguished by relatively low density, where building footprints are small relative to the landscaped areas. The density now proposed is for in excess of campus style development densities. The maximum net scale floor space may be 3 – 3.6:1. This equates to residential building of approximately 10 – 12 storeys, commercial slightly less depending on the floor plate. Clearly buildings of this height and density will be urban in character (by way of comparison central Paris is 3.0:1 on a very efficient street and block pattern).

d) At this density a campus plan is required which establishes:

- street and open space structure.
- street and block pattern relative the building typologies (these are quite diverse).
- building envelopes and “build to” lines to establish spatial structure.
- tested floor space, heights and foot prints relative to overall capacities.
- floor space ratios related to envelopes; sites and street typologies and subdivision patterns.

e) **Street grids**

The central street grid of Macquarie University is at 45° to the street grid of Macquarie Park Corridor.

This means that from either precinct the buildings in the other will be very dominant as view corridors will be truncated by buildings at 45° angle and not by space or views to the landscape setting. Clearly it is possible to marry the two grids (Melbourne CBD and its surroundings) but it takes very careful resolution of the spatial structure and built form to do it successfully.

f) **Accessibility and Integration**

The plan does not demonstrate how accessibility throughout the site and to the context is to be achieved. This is an important aspect of engaging with the community and for the University to be part of Ryde. Universities such as RMIT, Melbourne and Adelaide all relate strongly to their local context adding a greater dimension to the University and precinct.

9.0 Conclusion

Macquarie University is an important and strategic asset to the City of Ryde.

It is in the interest of the University, Council, Macquarie Park Corridor and the wider community that all parties work together to optimise the outcome of the university site and the corridor.

Sydney requires a restructuring of its physical environment to accommodate the projected increase in residential and workforce population. Consolidated living and working areas within the city provide the opportunity for an urban lifestyle reliant on good public transport and close proximity to facilities. Macquarie Park and the University provide one of the few opportunities in Sydney for a critical mass to achieve the outcome of an exciting new urban place.

New heavy rail links; a connected street pattern, the mix of uses, and the proximity of Lane Cove National Park makes this possible.

The “ingredients” of the town are all there but careful planning is required to ensure that the area meets its potential.

The sheer scale of the place – at approximately 350 hectares it is six times the size of the Sydney CBD. The projected working/living population of perhaps 150,000 people per day is 75% that of the Sydney CBD.

City of Ryde believes that universities within an urban environment have the potential to provide great economic, social and cultural advantages.

Synergies evolve because of the physical proximity of the university to its surrounding area. Benefits can include:

- g) commercial enterprises allied to university research.
- h) business and tourist opportunities.
- i) cultural activities; theatre; art; exhibitions and cinemas;
- j) student housing.
- k) shared sporting facilities.
- l) provision of restaurants; bookshops; music shops; pubs and other specialised retail.
- m) support for public transport.

These benefits however only accrue if the university is fully integrated with its surrounding area. The co-location of the university and its surrounds in an integrated street and block pattern can ensure the greatest success of all the elements of the town. Many towns around the world owe their continued prosperity to the existence of a university as an integral part of the town.

Macquarie University is currently isolated from Macquarie Park and many of the potential benefits do not and have never flowed into the area as a whole and this is true in reverse.

A more robust planning framework is required to ensure that the whole precinct will work as a desirable destination in the immediate and long term future.

There is the very real danger that all elements will continue to develop in isolation exacerbating accessibility problems and failing to realise the full social, cultural and economic potential.

10.0 Recommendations

City of Ryde recommends that:

- the Minister sets up a working party consisting of Macquarie University, Macquarie Shopping Centre, Macquarie Park Corridor businesses, City of Ryde Council and the Department of Planning to help develop:
 - a strategic coordinated approach to the planning outcomes.
 - a university town which provides mutual benefits to Sydney as a whole and the surrounding precinct specifically.
 - the specific amendment to the SEPP relating to quantum of floor space and range of users be considered as part of the whole Macquarie Park Corridor.
 - further development of the University Campus Plan is required to ensure that the proposed floor space and densities are achievable.
 - There is a clear legible spatial structure for the campus into which buildings of different typologies, styles and time frames can fit.
 - accessibility issues are addressed and greater integration with the precinct is achieved.
 - stormwater management solutions are provided.
 - Contribution plans, planning agreements, and rate levies are mutually supportive.
 - Macquarie Park Corridor and Macquarie University are planned together as a coordinated whole and that City of Ryde is best placed to guide that process.

Appendix A

Stormwater Management

The University Creek Catchment

The existing drainage system comprises a mixture of modified channel sections and four (4) detention basins. This drainage system has been constructed as per the stormwater drainage masterplan prepared by Boyden & Partners. The detention storages and associated structures were sized based on the volume of runoff generated from the catchment as per the pervious and impervious areas from the Development Plan 1997. The new 2004 Plan introduces new development proposals for the site with new percentages of impervious and pervious areas at different locations which will result in volumes of flows which are different from the volumes estimated in the Boyden & Partners drainage masterplan. Construction of the new building and roads proposed in the 2004 Plan will impact on the size of the detention storages and on the associated drainage structures. These site changes basically compromise performance of the existing drainage system so that it can no longer control the volume of runoff from the site as originally designed.

The Infrastructure Site Analysis Report prepared by Hughes Trueman recognises that a number of changes are required on the drainage system to be able to perform adequately. A new drainage master plan, based on the 2004 Plan and which will replace Boyden & Partners plan, is needed. The Hughes Trueman Report is not a drainage master plan as it was not prepared for that purpose.

An additional issue in this catchment is that in 2003 and again this year Talavera Road was flooded and closed for traffic in the sag in the vicinity of the properties 73 and 75. The property 112 Talavera Rd on the northern side was also flooded. This flooding resulted from relatively modest rainfalls and were caused by blockages with leaves, branches and other material of the grated weir outlet structure. The blockage and performance of this outlet structure also need to be addressed.

Mars Creek Catchment

The existing drainage system comprises a mixture of modified channel sections and four (4) detention basins within the University grounds. In 2001 Paterson Britton & Partners reviewed the existing drainage system and stormwater management of the catchment. Their finding was that, with some modifications, the system is capable to perform and control runoff from the site for development planned in the Development Plan 1997.

Similarly to The University Creek, construction of new structures within the detention storages and changes in the volume of runoff caused by the changes

in the percentage and location of impervious and pervious areas proposed in the 2004 Plan compromise the performance of the existing drainage system.

This was acknowledged in the Infrastructure Site Analysis Report prepared by Hughes Trueman which recognises that a number of changes are required on the drainage system to be able to perform adequately. A new drainage master plan is needed for Mars Creek catchment which will replace the management plan proposed by Patterson Britton & Partners.

Appendix B

Traffic and Access

Council's comments on the detailed University proposals related to traffic movement. Funding issues need to be addressed by the University.

Access Across Herring Road – Consideration should also be given to another form of pedestrian facility across Herring Road from the University to the Shopping Centre to cater for the increasing number of pedestrians.

Upgrading of Major Intersections – Further details are required on how increased traffic capacity can be provided at the intersections of Balaclava Road / Epping Road, Herring Road / Herring Road, and Waterloo Road / Herring Road, including relevant input from the RTA.

Proposed Traffic Signals – Council agrees with the proposed provision of traffic signals at the intersection of Culloden and Epping Road. With regard to Culloden Road south of Epping Road, access must be restricted to left-in and left-out, to and from Epping Road to prevent this section of Culloden Road being used by through traffic.

Widening of Eastern Side of Culloden Road – (Epping Road / Waterloo Road) and southern side of Talavera Road (Culloden Road / Christie Road) – on-street parking to be retained.

East facing Ramps at the M2 – East facing ramps to and from the M2 at Herring Road and / or Christie Road are supported by Council, Further work needs to be carried out to determine the validity of both proposals.

Proposed Traffic Signals at Culloden Road / Talavera Road – This proposal is supported in principle, when required by increasing traffic volumes. The cost of this work is to be met by the University.

Reconstruction of Intersection of Waterloo Road / Culloden Road and Installation of Traffic Signals – This proposal is supported and the intersection will be converted to a standard 4-way intersection. The cost of this work is to be met by the University.

Proposed left-in / left-out in Herring Road south of Waterloo Road – It is likely that this intersection will need to be coordinated with the proposed residential redevelopment of the Morling College. In this regard, it is likely that access to this development will be obtained by a set of traffic signals to be installed at the intersection of Herring Road and Windsor Drive with a new entrance road being provided opposite Windsor Drive. The cost of these traffic signals to be met by the University.

Proposed left-in / left-out in Herring Road north of Waterloo Road – This intersection may not be possible due to its proximity to existing traffic signals at the pedestrian entrance to Macquarie Shopping Centre.

Intersection of Vimiera Road / Waterloo Road – Further consideration should be given to the provision of traffic signals at this intersection due to increased traffic from the University development, with the cost to be met by the University.

Additional Carparking – The University be requested to confirm that 5,200 additional carparking spaces are to be provided as part of the future redevelopment.

Proposed New Intersections – Culloden Road, Talavera Road – Appropriate traffic control facilities based on traffic volumes shall be provided with the cost of these facilities being met by the University.

Proposed New Intersection – Epping Road – The proposed left-in, left-out intersection shall meet the requirements of the RTA, with the cost of this work being met by the University.

Public Domain Works – All public domain works on Council roads to be in accordance with Council's detailed plans and specifications which are currently being developed.

Proposed Traffic Signals within University – These traffic signals to be designed so that they have no impact on traffic using the surrounding road network.