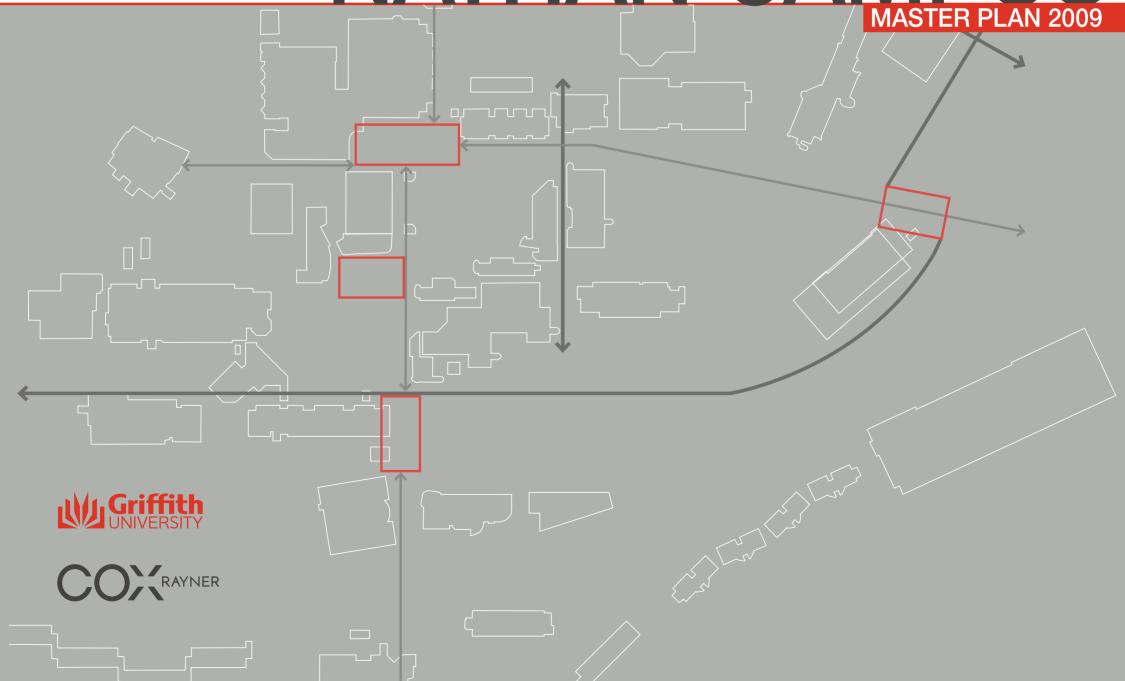
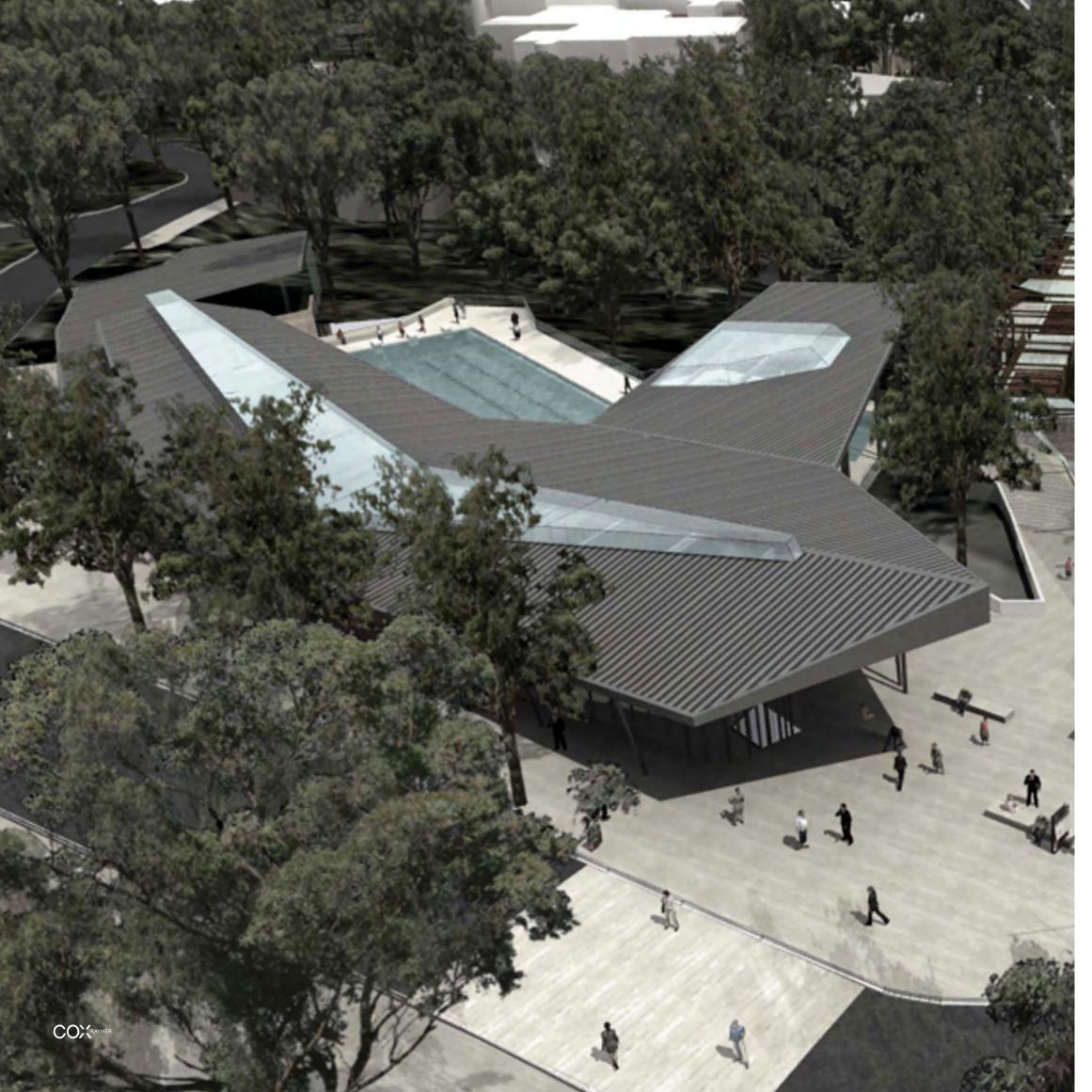
GRIFFITH UNIVERSITY CAMPUS MASTER PLAN 2009





Griffith University Nathan Campus Master Plan Report Cox Bayner Architects 20

Nathan Campus Master Plan Griffith University

June 2009



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Buildability Advisors



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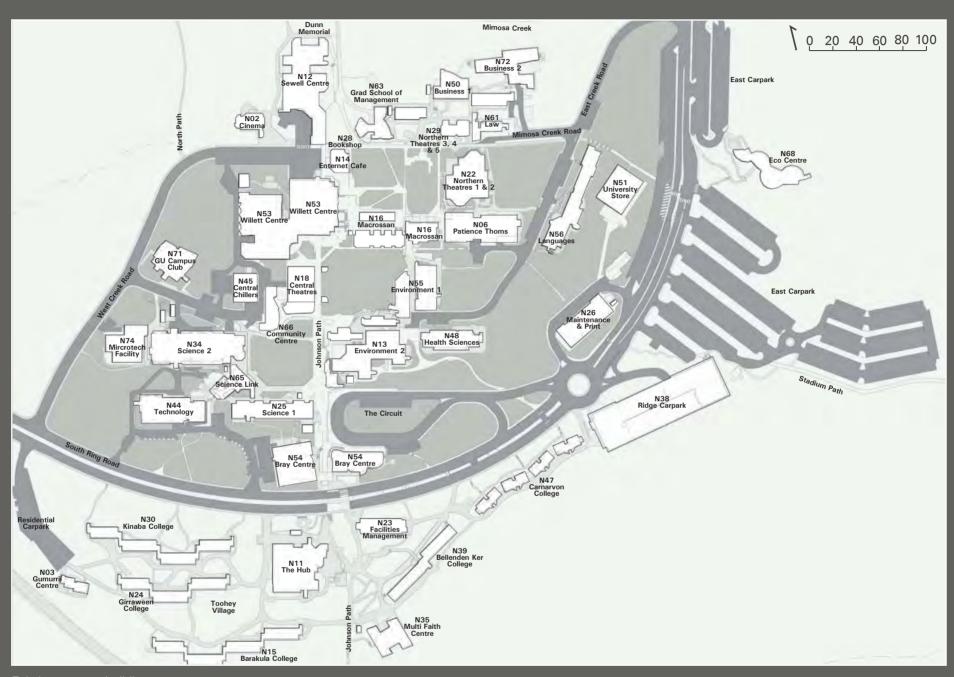
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Existing campus buildings + spaces



Foreword

Located in one of Australia's most dynamic and fast-growing regions, Griffith University has grown from a single-campus university with 451 students in 1971, to more than 36,000 students across five networked campuses.

The Nathan campus is the original home of the university. Its student population now numbers approximately 9000, including a larger proportion of overseas students than any of the other campuses. The Nathan campus also has many academic and research strengths relating to the key global issues of our time.

It is located on a unique bush land site that limits future development, but also provides an opportunity for creating an attractive campus with potential for enhanced community engagement while enhancing sustainability through re-development.

This Master Plan is the third for the Nathan campus and reflects the University's new vision to develop the campus as an integrated centre of knowledge creation, conservation, learning and commercialization, through a co-operative partnership involving different external stakeholders.

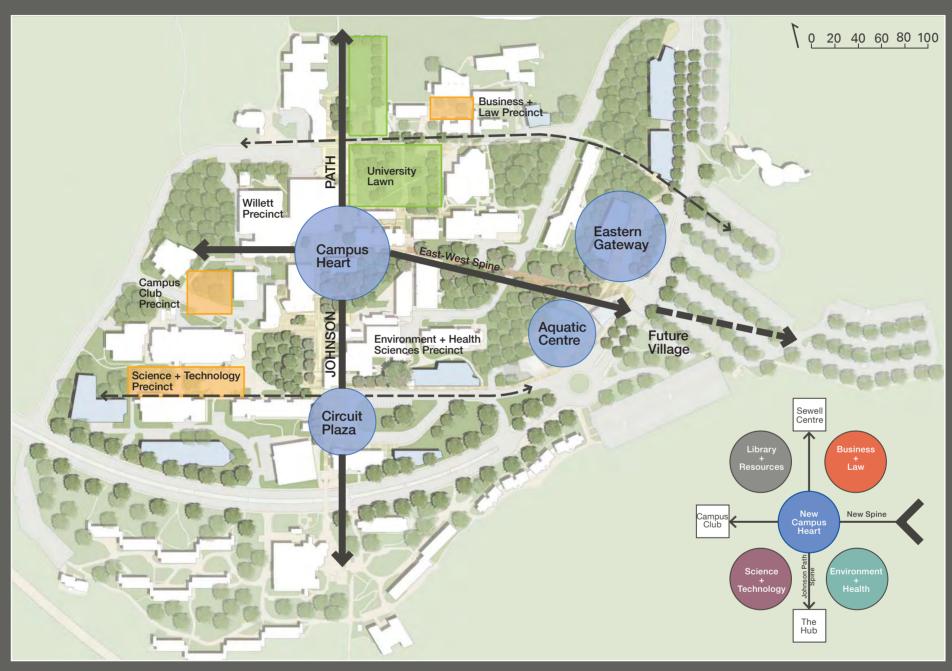
This report, prepared by Michael Rayner of Cox Rayner, articulates an exciting new development plan for the future of the Nathan campus, with the aim of making it more visible, open and accessible.

It is a plan that I believe will enable the University to fully realise the outstanding potential of the campus for the benefit of its students and staff, and for the community.

Professor Ian O'Connor

Vice Chancellor and President

Yan Olomor.



Proposed Campus

The potential of a new 'Campus heart' + movement corridor to reinforce the Campus structure



Introduction

This Master Plan presents a series of actions which can be sequentially implemented to dramatically improve the amenity and attraction of the Nathan campus while building a sound framework for future growth.

The Master Plan seeks to resolve a number of long recognised issues and constraints that persist in the campus, for example, as far back as 1973 when Griffith University Site Planning Report stated: "The site of the University at Nathan offers much, but it poses substantial problems. Some of these, the topography, the existing site works and roads designed for quite a different institution, were inherent problems of the site itself. Some, access and partial isolation, were consequences of the general 1960's beliefs in the values of large, ex-urban sites for new Universities".

The relative isolation of the campus has been recently addressed in the 2008 report 'A Scoping Study for the Creation of an Integrated Nathan / Mt Gravatt Knowledge Precinct'. This report envisages an interconnected series of precincts from the Mt Gravatt campus through a redefined Brisbane Innovation Park to the Nathan campus to the Queensland Sports and Athletics Centre, and via redeveloped campus ovals to the QEII Hospital and the Coopers Plains Food Science Precinct. A key influence of the study on the master plan for Nathan is a shift of emphasis to the eastern side of the academic core for both access and growth.

An internal University study, the 'Report of the Taskforce Reviewing the Nathan campus' (2007), instigated the need for a new Master Plan to enhance the physical and social appeal of the campus coinciding with a number of strategies to reinforce the University's strengths rather than seek to be a "comprehensive campus".

The Master Plan process began with a study of the native landscape environments to determine which areas of the campus should be preserved and which areas can be made available for expansion. This study demonstrates that expansion sites are limited and develops a case for height to compensate for constrained footprint, the height enabling the campus to be more visible in to the surrounding context. A concurrent study examined how through-traffic could be reduced; one of its major conclusions being that a new eastern entrance should be created adjacent the eastern carparks which, in the long term, could be developed for mixed use campus expansion.

These studies, together with other analyses, formed the framework for recommending a range of changes to the planning structure of the campus and of its social settings, including:

- Creating an integrated Campus Heart and Student Centre at the Willett Centre / Macrossan juncture.
- Forming an East-West Spine perpendicular to the Johnson Path and connecting the campus to a new 'Eastern Gateway'.
- Revitalising the Johnson Path as the major pedestrian spine, with a continuous canopy and with continuous retail and social spaces.
- Redefining the grassed area between Macrossan and the Law / Business precinct as an expanded University Lawn.
- Truncating The Circuit to create a vibrant address plaza which, at a future date, could also accommodate a major new arrival building.

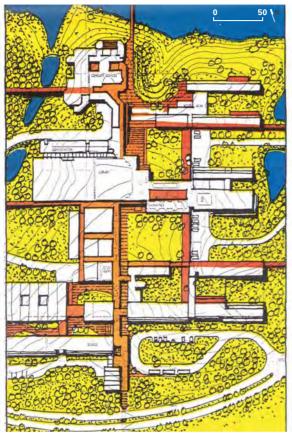
The most significant shift proposed from previous master plans is the formation of the east-west pedestrian spine between the new gateway on the Ring Road and the Campus Club. The eastern gateway is proposed to be a dynamic activity hub, its focus being an **aquatic recreation centre** as a unique feature of Nathan compared to other Australian university campuses. The aquatic centre is conceived as a model of environmental sustainability and natural landscape integration, and as a model of a new campus architectural character moving away from concrete solidity towards lightweight, indoor / outdoor connectivity.

In addition to these primary changes, the Master Plan proposed concepts for the intervening spaces between the buildings, and exemplifies the Science / Technology Precinct, Business Precinct and Campus Club Precinct with much improved social gathering spaces.

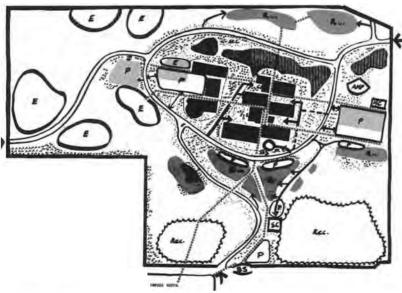
Lastly, the Master Plan illustrates a comprehensive overhaul of campus signage, lighting and furniture which will help activate these spaces and contribute to a unified campus identity with custom-designed elements particular to Nathan.



Section 1: Review of Previous Studies



Academic Zone Site Planning Report, Roger Johnson, April 1973



Development Plan Site Planning Report, Roger Johnson, April 1973

This section briefly reviews the various studies related to the planning of the Nathan campus. These studies are of two main types – previous Master Plans and recent reviews concerning the structure of the campus.

1.1 Griffith University Site Planning Report, 1973

Prepared by architect Roger Johnson, the first site planning study for the campus is revealing about many of the challenges now confronting the University.

The plan essentially imposed an orthogonal layout of buildings and spaces over steeply undulating terrain for which a more organic layout may have been more adaptable. The buildings were distributed along a north-south spine which runs along reasonably gently graded topography; however several buildings and spaces on either side were sited contrary to the contours of the land. Consequently, the open spaces beyond those attached to the spine are often positioned beneath, rather than adjacent to the buildings.

This plan set out the ring road system which still exists around the campus, linked to Kessels Road in the south, and to Klumpp Road on the east, with provision for later connection to the South East Freeway.

An interesting aspect of the plan was the proposal for a substantial lake to the north of the campus along the line of Mimosa Creek. Although never constructed, the lake was regarded as "a most important part of the Landscape Plan" to induce north-east breezes into the campus and for fire-fighting and irrigation.

In today's context such a proposal would be regarded as environmentally insensitive, however the lake would have generated a vastly different campus character than the present, which is dominated by its homogenous bush surround.

1.2 Griffith University Site Planning Review, 1979

This review confirmed the 1973 planning strategies as remaining appropriate, primarily the concept of a spine path, off which buildings and spaces could run perpendicularly to lengths suitable for varying requirements.

It noted the QEII Jubilee Sports Centre was to be built for the 1982 Commonwealth Games, and that Brisbane City Council had indicated that Griffith could utilise the athletics sports facilities. The sports facilities that were not being provided by the QEII Centre, such as the University Oval and Tennis Courts, were located down near Kessels Road as the land was flatter than in the academic core.

No mention is made of the lake that was proposed in the 1973 plan although it appears on the various plans in a reduced form.



Notional Buildings Plan Site Planning Review, Roger Johnson, September 1979

1.3 Griffith University Site Planning Review, 1988

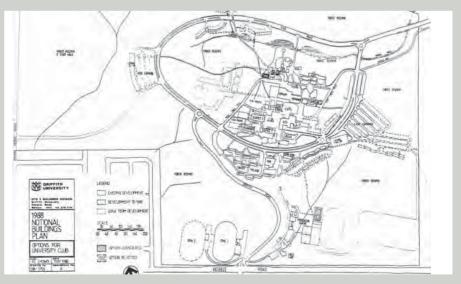
This second review occurred when the campus had grown to 5,300 students. The campus comprised a series of academic buildings with above-ground links enabling flexibility for expansion or contraction of the schools. This strategy was adopted in many universities and has today become much criticised for the resulting lack of activity in ground level spaces.

The review noted disappointment that a north-bound access of the South East Freeway had not been constructed, and that visitors to the campus had "difficulty in finding their way around, in part because of the deliberate intent to segregate pedestrian and vehicular traffic, and because few buildings had street addresses other than service access".

A note was made that "the University lacks a significant point of arrival", and criticism was made of the distance from the recreation centre to the academic core.

The review is particularly interesting for its debate over the validity of the master plan as it was evolving, between whether the campus should develop as originally intended as a series of spaced out buildings set within preserved natural bush, or as a compact, composite group "massed against the bush".

It favoured the latter on the basis that with potentially 8,000 students, there would be "no chance of ever 'losing' the buildings in landscape". A similar issue related to whether future carparking should be at-grade, thus spreading



Notional Buildings Plan Site Planning Review, Roger Johnson, September 1988



into the bush, or concentrated into multi-deck structures, favouring the latter. However, it was decided not to proceed with this strategy and instead to maximize the capacity of the Ring Road for carparking, even though it was admitted this direction would be "visually unattractive and potentially unsafe".

Enlargement of the campus had caused a shift from 'Schools' to 'Academic Divisions', necessitating a compact core of new and existing buildings linked at upper levels.

The 1988 study included the first rigorous evaluation of the natural environment, and recognised that the lake would never eventuate due to the environmental significance of Mimosa Creek. It noted that within the Ring Road, 35% of the site slopes were in excess of 1 in 10, and it identified areas of botanic habitat and aesthetic significance. While envisaging substantial growth of University buildings, it shifted focus from the earlier master plans to one which compacted the campus into areas of buildable slope, infilling rather than spreading buildings out.

1.4 Griffith University Site Planning Review, 1993-1995

Prepared by Daryl Jackson Pty Ltd, this review encompasses the Nathan and Mt Gravatt campuses, and proposes the Gold Coast campus. Much of its content is concerned with Griffith as a multi-campus University.

With respect to Nathan campus, the review lamented that the deficiencies articulated in the previous review had not been implemented, noting in particular:

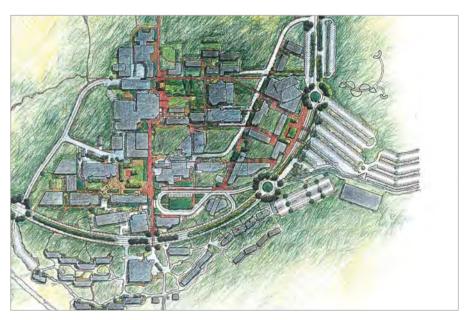
- The bushland, while being the 'redeeming feature', is a cause for 'confusion and disorientation'.
- The connection between the carparking areas and the academic core is 'particularly poor'.
- There is still no identifiable 'front door', and the various entry points lacked visibility.
- Open space amenity had been compromised by recent developments.

It noted that the compact academic core was 'becoming over-crowded'. In recommending solutions to these deficiencies, the review proposed a new formal entry plaza adjacent to the Ring Road where the pedestrian paths from the East Carpark can most directly enter the campus core via new elevated pedestrian spines. This proposal was not implemented.

The review noted that the compact academic core was 'becoming over-crowded' by buildings, and it debated the issue of whether taller, more spaced apart buildings would be preferable to infilling low scale buildings. Yet it noted and recommended that the tree canopy should generally set the height limit of buildings, without concluding the debate.

The review nevertheless proposed an ambitious expansion of the campus particularly of the academic core to the east up to the Ring Road. The East Creek Road was proposed to be a new pedestrian spine linking the University Road to The Circuit, although it is not clear how the steep topography before The Circuit was to be overcome. New east-west connections were also proposed, at least one of these as a bridge over the valley along which East Creek Road runs.

The review generally supported earlier architectural guidelines, delineated concrete, strongly articulated building forms recommended the use of "selective colour treatments" to invigorate the campus.



Landscape Concept Plan Griffith University Site Planning Review, Daryl Jackson, 1995

1.5 Johnson Path Design Report, 2001

This report prepared by Hassell reversed previous reports' commitment for Nathan to be a bush campus, stating that "the National Park image of the campus can now possibly be replaced with a more urban landscape philosophy".

An example of this proposed revised approach is the recommendation to remove all native trees and landscape from the largest open space within the campus (between the Business / Law precinct and Macrossan) and to formalise the space with a ring of pine trees into a 'Great Court'. Such a strategy would today be considered to be insensitive to the natural environment.

The study proposed a reinforcement of the original Johnson Path but lacked an architectural proposal that could be acted upon, and the main concepts were unlikely to be widely supported, such as:

- Planting formal lines of trees through the Johnson Path and either side of The Circuit.
- Constructing an east-west pedestrian bridge in the north of the campus (the Mimosa Creek Road alignment), a location which would mostly only be useful for Business and Law students and staff.
- Creating a 'town square' in the small sculpture / lawn space immediately north of the Central Theatre block; this notion in reality is unlikely to produce more than a secondary courtyard space.
- Replacing the bushland in The Circuit with a large formal plaza lined with rows of pine trees.

The report was the first to suggest the replacement of informal, natural bushland with formal gardens, particularly to strengthen the identity of Johnson Path. This strategy would have entailed the removal of large tracts of bushland and has not been implemented.

1.6 Griffith University East Path Study, 2006

This study, also by Hassell, further developed the idea of an east-west link in the north of the campus.

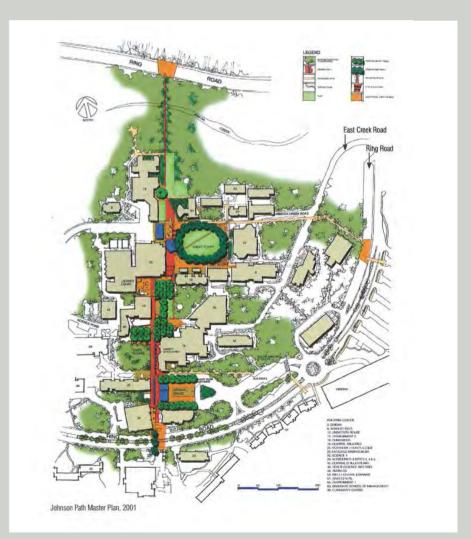
The concept proposed a series of nodes along the path, some of which have since been implemented in minor but successful ways. However, the main initiatives of the strategy – to create a new major eastern gateway to the Nathan campus and to construct a pedestrian bridge – were not implemented.



Great Court, Hassell, 2001



Circuit Area, Hassell, 2001



Griffith University East Path Johnson Path Design Report, Hassell, 2001



The study maintains the 2001 Johnson Path Design Report proposal to remove all native vegetation in the large open space between Macrossan and the Business / Law precinct, forming instead an oval-shaped lawn defined by shade trees. The proposal would have required the removal of many large eucalypts. It is unlikely to have created the grandeur of other Great Courts, such as at the University of Queensland or Sydney University, especially as the land slopes considerably and as few of the surrounding buildings offer interaction with the space.

1.7 Griffith University Nathan Campus Scoping Study of Potential Redevelopment Opportunities, 2006

This study by Urbis-JHD pre-dates the wider Griffith University Scoping Study for a Nathan / Mt Gravatt Knowledge Corridor undertaken by Cox Rayner in 2008.

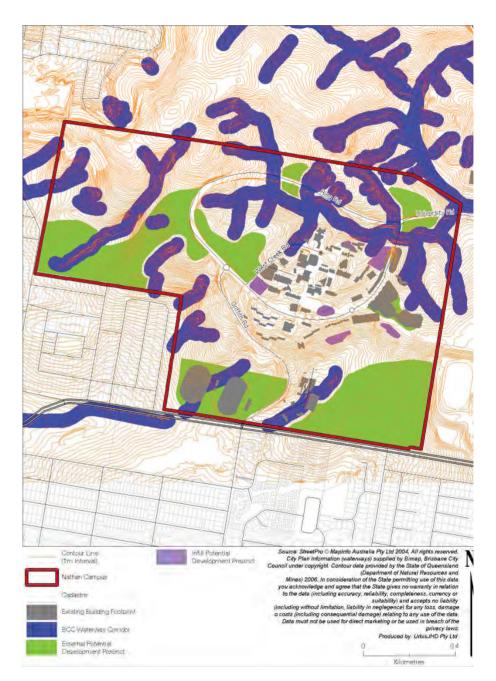
However, it contains a number of considerations as to where future Nathan campus expansion could occur. These were:

- Along Kessels Road to the south of the campus which the study noted "may present arguments for up to 8 storeys in appropriate areas"
- To the west of the existing residential college buildings up to West Creek Road, mainly for residential uses.
- Over the Eastern Carparks, to the north of these carparks along the Ring Road, and on the land between West Creek Road and the Ring Road.

The study is inconclusive in determining suitable development sites, and refers to the significance of the natural environment without reconciling the issues.

It notes various then relevant provisions concerning the heights of buildings in the campus which generally either refer to the canopy line of Toohey Forest as a characteristic not to be dominated by buildings, or to the need to be sympathetic to the surrounding landscape. It should be noted that there are no guidelines which actually restrict height to the canopy line.

The study is not particularly useful in forming a framework for master planning, however it provides considerable technical and regulatory information for consideration.



Relationships to waterway corridors, Urbis-JHD study 2006

1.8 Report of the Taskforce Reviewing the Nathan Campus, 2007

This report gives consideration to the future of the Nathan campus both academically and physically. It affirms the long term goal for Nathan to be the dominant provider of publicly-funded higher education in the Brisbane-Gold Coast Corridor based upon "a critical mass of students and infrastructure developments".

The report recommended the preparation of a campus master plan, with emphasis to be given to the following:

- Nathan not being 'a comprehensive campus' but a campus which focuses on its 'strengths in certain areas'.
- The campus forming part of a Nathan / Mt Gravatt Knowledge Precinct so that it is no longer an isolated bush campus but "an integrated centre of knowledge creation, conservation, learning and commercialisation".
- Priorities for capital expenditure "...to develop commercial activity on campus that will increase numbers coming to, or living on, the campus especially in the evenings and at weekends".
- Arresting Nathan's decline in student attraction and retention.

The report was highly critical of the physical condition of the campus, stating that "the physical fabric of the campus is in poor repair, and existing space is not optimally used; the campus does not provide an inviting or visually stimulating environment for students, and has not exploited new forms of social and online student networking in its physical design".

It continues "There is no central reference point for students; instead, student service points are scattered across the University, with Student Administration, Griffith International, and the Graduate Research School operating from three widely dispersed separate locations, and key student

services operating from a fourth". Equally and validly, it states that "there is no strong sense of connection to local government facilities, or to local communities. The University at Nathan has been seen, and has been, an isolated ivory tower on top of a hill, screened by the bush".

In addition to the wider issues of the report that are addressed in the 'Scoping Study for the Creation of an Integrated Nathan / Mt Gravatt Knowledge Precinct', the following matters were considered to be priorities for the master plan:

- Griffith's founding and current strengths are in areas of current mainstream importance such as Environmental Sciences and Asian Studies, and in those programs that lead to professional and vocational outcomes such as forensic science, aviation, general business, hospitality, tourism and sport management.
- The physical environment can be much improved by creating places that say 'This is Griffith Nathan', including:

A new Campus Heart, including a new central Student Services (comprising the Student Administration, Griffith International and the Graduate Research School), proposed in the report to be in the space bounded by Environment 1, Science 1 and 2, and the existing community facilities.

A 'University Garden', comprising insertions of seating within the large forest space outside the Central Theatres, entailing thinning out of the re-growth forest to regain visibility of the Environment buildings and the Macrossan buildings.

A revised 'Circuit', comprising a new campus entry canopy.

Upgraded Central Theatre amenities (which are already being implemented by Campus Life).



An upgraded Johnson Path from the Science 1 building to the Community Centre aligned with the proposed Campus Heart.

Improved wayfinding signage throughout the campus.

Upgraded outdoor spaces to facilitate wireless laptop connection and improved social engagement.

With respect to Nathan's academic profile, the report noted that Nathan's research strengths are in areas in which there are the steepest declines in student demand, especially in Environmental Science, Science, Asian Studies and the Arts. Current enrolments at the time were strongest in Business, Law and in specialised degrees with clear vocational outcomes such as Forensic Science and Aviation.

Conclusions were made that:

- New programs should reflect traditional strengths while attracting new demand - an example being the Bachelor of Asian Business - and opportunities could exist in linking business with sustainability and climate change, with water and with drug discovery.
- The future 'branding' of Nathan could stem from integrating environmental sustainability into all Nathan degrees, reflecting the campus' "green" setting.

The impacts that these directions might have upon the physical and built environment need to be considered in preparing the master plan. It is noted in the report that the adjoining Macrossan and Patience Thoms buildings are underutilised and many buildings and laboratories require refurbishment, such that before new building developments are proposed the existing campus should be reviewed for functional rationalisation.

The report was undertaken in conjunction with student surveys and focus groups, and in consideration of several staff submissions. The factors most raised which inhibit campus vitality were:

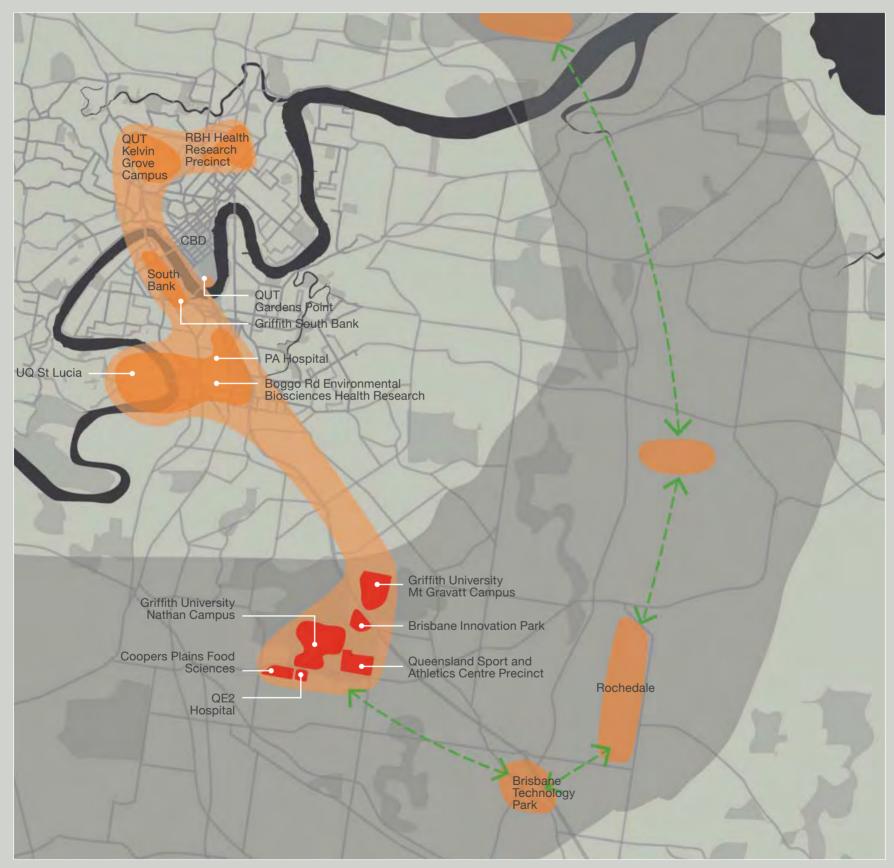
- Dispersed social, recreational, learning and student administrative areas.
- Sight lines impeded by too much forest within the built environment.
- 'Shabby' condition of the buildings.
- Lack of flat social space for gathering and inappropriate settings for social engagement.

Student suggestions for events and activities included:

- Market days
- More band and music events
- Varied social activities
- Various sports activities currently unavailable on campus

Staff feedback also focused upon the provision of sporting infrastructure such as a swimming pool, basketball courts and lawn bowls.

The emphasis upon incorporating sport and active recreational facilities within the campus Academic Zone was made by both staff and students. One staff member noted the disconnect between the Academic Zone and the Kessels Road Sports Centre, and another possibility of a swimming pool for students and staff on campus.



The Nathan / Mt Gravatt campuses in the Brisbane Knowledge Corridor context

1.9 Conclusion

As noted in 'The Report of the Taskforce Reviewing the Nathan Campus', the campus was created to offer an alternative experience to that available in Queensland in the 1970s. This experience was to be academically different in being founded upon theme-oriented schools, and physically different in being a campus that "would hardly be noticed in the surrounding bush".

The development of the campus adhered to these principles, encompassing several master plans through to 1993-5 which sought to reinforce the original 1972 master plan by planner Roger Johnson. Johnson's plan was modelled on a 'spine path' which all buildings would either address directly or would relate to via a secondary perpendicular path.

A review of the campus in 1998 generated a site plan to achieve a site capacity of 8,000 EFTSL, however the configuration remained faithful to the original Johnson Master Plan and it also reinforced the priority on the notion of the unique bush campus.

By 2008, concerns began to arise as to whether the 'bush campus' was a sustainable configuration for attracting students, staff and researchers into the twenty first century. The Taskforce Report noted that Nathan's share of the University student load had declined from 35% in 2005 to 33% in 2007, that the median Overall Position (OP) for Nathan had declined, and that commencing student load had declined since 2005 in Arts, Communication, Asian Studies, International Business, and in all SEET areas except for Aviation and Forensic Science. The Report further noted that the retention rate for Nathan had become by 2008 "the worst of all Griffith campuses".

A range of reasons were identified for Nathan's declining performance, including a very low level of community awareness of what Nathan has to offer and of what its strengths are. Many reasons were identified as being physical campus deficiencies including:

- Nathan's perception as being a hidden 'ivory tower' without connection to its communities, nor to the wider Brisbane context.
- The 'structure' of the University has become dispersed, including the student services and Griffith Research School.
- Nathan has no central reference point or 'campus heart'.
- The campus is in poor physical repair throughout, and both building and open spaces are poorly utilised.

These deficiencies led to a sentiment that Griffith Nathan Campus is a University "whose time has come" which therefore needed:

- A Scoping Study for the creation of an integrated Nathan / Mt Gravatt Knowledge Precinct.
- A Master Plan which seeks to retain the strength of attraction in its natural setting but which also generates a more vibrant, cosmopolitan atmosphere within the campus.

For the Master Plan, it is apparent that significant changes within the campus and to its academic offerings are necessary for Nathan to retain and strengthen its future relevance. Including the various issues raised in previous master plans and site development reviews, resolutions are important to define for the following:

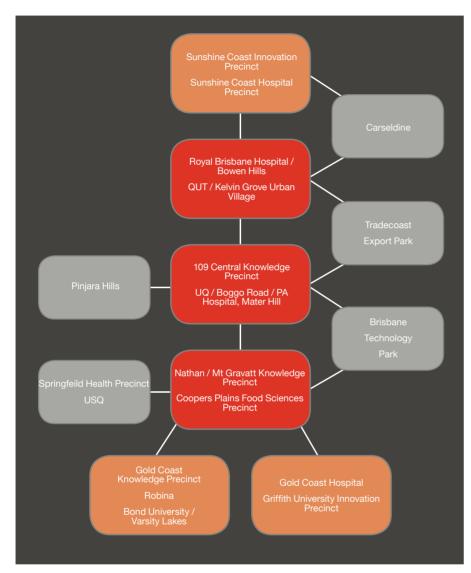
- The extent of forested areas that should be conserved and the way that the campus can expand either by footprint or by height.
- The issues raised in the Scoping Study for the Nathan / Mt Gravatt Knowledge Precinct relating to connectivity with and visibility from surrounding precincts.
- The impacts of through-traffic and issues of public transport and efficiency and accessibility.
- The nature and character of the campus spaces and how they might be more diversified without detracting from the natural environments.

The next section summarises the intentions for creating the integrated Nathan / Mt Gravatt Knowledge Precinct and their impacts upon the master planning of the Nathan Campus, while Section 3 responds to the issues noted above to set a strong framework for the Master Plan.



Interconnecting knowledge, health + wellness with a series of mixed-use villages

Section 2: Nathan / Mt Gravatt Knowledge Precinct



The three potential major Brisbane knowledge precincts + their key linkages

2.1 Overview

The idea of a Nathan / Mt Gravatt Knowledge Precinct was explored in a report prepared in October 2008 by Cox Rayner entitled "A Scoping Study for the Creation of an Integrated Nathan / Mt Gravatt Knowledge Precinct".

This study proposes the interconnection of the Nathan and Mt Gravatt campuses with neighbouring facilities and precincts which have or can have synergies with the University. They include:

- The Queensland Sport and Athletics Centre (QSAC) which could be utilised as Nathan's main sports facility, thereby enabling the two existing ovals to be redeveloped.
- The Coopers Plains Food Services Precinct and QEII Hospital which could be connected with the Nathan campus and with which the University ovals precinct redevelopment could be related.

The study also concluded that the Nathan and Mt Gravatt campuses could be developed to incorporate up to three mixed use 'villages' in the following locations:

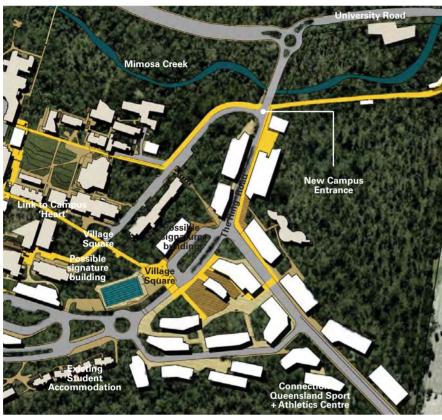
- In lieu of the Brisbane Innovation Park.
- On the area of the carparks and some fields which adjoin the Mt Gravatt campus core.
- On the area of the eastern carparks which adjoin the Nathan campus core.

Due to their proximity to the University busway station and the Pacific Motorway, the first two precincts were considered to be potential Transit Oriented Development (TOD) precincts under the South East Queensland Regional Plan.

The Eastern Carpark precinct at Nathan was considered to be a significant opportunity to transform the campus into an integrated learning, research, living and working 'village' unlike any other tertiary campus in Queensland.



Nathan - Mt Gravatt Knowledge Precinct Concept Plan



Nathan campus eastern carparks - Village concept



Brisbane Innovation Park - Village concept

The combined benefits of creating an integrated knowledge precinct at Nathan / Mt Gravatt are illustrated in the accompanying diagrams. The precinct is considered to have the potential to become one of the three major knowledge clusters in Brisbane, along with the Royal Brisbane Hospital / Kelvin Grove / QUT and Bowen Hills cluster and the UQ / Boggo Road / PA Hospital / Mater Hill cluster.

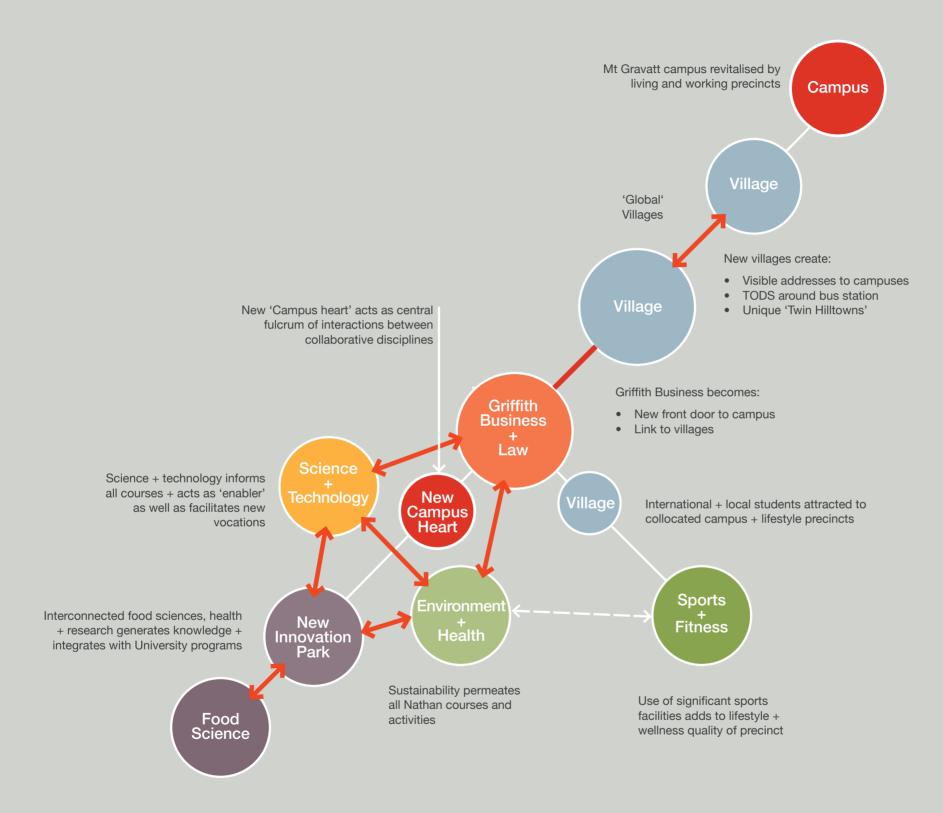
The Griffith Knowledge Precinct is, however, a long term vision which requires the involvement of the Queensland Government, Brisbane City Council and the private sector. Much of the development would require existing carparking to be replaced underground or in parking structures in combination with improved public transport. It would entail minimal loss of vegetation as the areas identified for development are those either already proposed as such or are areas associated with roads and carparks.

2.2 Impacts on Nathan Master Planning

One of the most important factors of the proposed Nathan / Mt Gravatt Knowledge Precinct is the creation of a stronger visual identity for the campuses.

This stronger identity will result mainly from the transformation of the Brisbane Innovation Park (BIP) into a mixed use precinct of office, residential and lifestyle uses in addition to a continued research role. Including proposals to integrate the Main Roads Depot site into the precinct and to construct a pedestrian / cycle bridge over the South East Freeway, the strategy enables Griffith University to gain unmistakable presence from the Pacific Motorway.

The redevelopment of the BIP and the Nathan eastern carparks will revitalise the Nathan campus with working, living, recreational and shopping facilities into vibrant 'town-and-gown' villages. The precincts should attract students, staff, professionals and researchers by enabling them to live and / or work in close proximity to the academic core.



Benefits of the integrated knowledge precinct

The primary influence of these developments on the Nathan campus is the need to reinforce the entry and arrival experience from the Pacific Motorway. Previous master plans have tended to maintain the arrival focus on The Circuit which is toward the opposite end of the campus from University Road and the BIP precinct, primarily due to topography. However, in order for the academic core of the campus to become integral with the BIP precinct, the main address should be reviewed.

The Scoping Study also generated a new structure diagram for the Nathan campus, based upon four quadrants – Business and Law, Environment and Health, Science and Technology and Willett Centre / Sewell building. This diagram suggested that a new Campus Heart should be created at the juncture of the four quadrants. The location was identified as having a possible pedestrian connection to the Ring Road East, where a new main campus address could be logically created. The Scoping Study suggested that this link could be extended to become the major movement spine for the proposed 'eastern carpark' village.

A further outcome of the study was that the academic core of the campus should expand to the east, towards and on the other side of the Ring Road, rather than to the west, unless there is a particular reason to do so (for example, expansion of the Science and Technology precinct). In order to facilitate eastern expansion, the Maintenance & Uni Print (N26) and University Store (N51) would have to be relocated when appropriate to the western side of the campus.

The Scoping Study indicated that building heights may need to increase to levels above the tree canopy in order to facilitate future expansion of the campus without encroachment onto natural bushland. While previous master plans have had a condition of limiting building heights to the tree canopy as a strategy for hiding the campus in its setting, this condition has contributed to the problems that Griffith is experiencing with student attraction and retention due to Nathan's lack of visual identity.

2.3 Summary

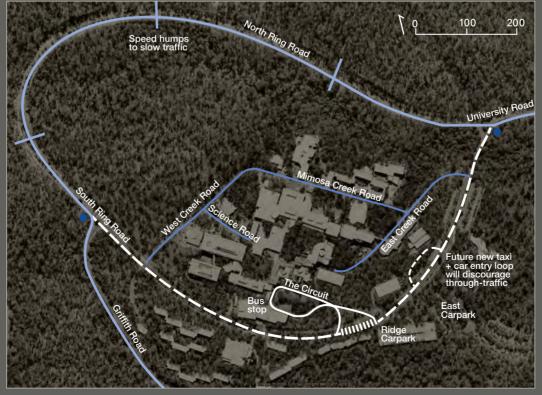
With respect to preparing a new Master Plan for the Nathan campus, the key influences stemming from the Scoping Study for the Nathan / Mt Gravatt Knowledge Precinct are:

- Consider an alternative major address point to the campus closer to University Road than The Circuit.
- Prioritise building expansion to the east and minimise expansion to the west.
- Generate activity along East Ring Road such that the campus looks alive and welcoming rather than hidden in the forest.
- Define a structure for the academic core of the Nathan campus based upon its four quadrants, with the junction point to become the new campus heart.
- Allow buildings to rise above the tree canopy in order to promote rather than conceal visual presence of the campus, and in order to minimize footprint on areas of natural vegetation.

Two further macro-issues considered in The Scoping Study but left to be resolved in the master plan are that of the impacts of campus growth on the surrounding communities, together with that of the prevalent use of the University's ring roads for 'rat-running'. While these issues are considered in the Master Plan, it was noted that the creation of new 'villages' adjoining the campus and on the BIP precinct would provide increased on-site student accommodation, thereby reducing the impact of student housing on the local community.



Existing road heirarchy through Nathan Campus



Proposed changes to redirect through traffic onto North Ring Road

Main through traffic raod

Lesser through traffic

Signage to encourage use of North Ring Road for through-traffic

.....

Proposed narrowed and paved road section to discourage through-traffic



Section 3: Key Issues

3.1 Introduction

As has been identified in the preceding sections, Nathan has several issues that need to be resolved for the campus to progress competitively with other South East Queensland campuses.

This section considers the most critical of these issues, from which a Master Plan for the short and long term future of Nathan can emerge. These critical issues are considered to be the:

- Vehicular and transport network
- Natural environment and habitat
- Topography
- Social and meeting places
- · Pedestrian movement and legibility
- Architectural character

3.2 Vehicular + Transport Network

There are several ways that Nathan's accessibility can be improved such as those proposed in the following recent studies:

- Get to Griffith University Improving public transport access to the Nathan campus (2008) by the Urban Research Program, Griffith University.
- The Nathan campus Ring Road Traffic Review (2007) by Cardno Eppell Olsen

To the recommendations of these studies can be added major potentials, such as extending Brisbane's rail network to Nathan / Mt Gravatt, particularly if the concept of the Nathan / Mt Gravatt Knowledge Precinct (refer Section 2) is embraced by Council and Government.

The Nathan campus experiences a number of problems concerning its accessibility at present, including distance from the University Bus Station on the Pacific Motorway which the Knowledge Precinct strategy seeks to address. Another issue is the through-traffic which uses the Ring Road to bypass the Kessels Road / Mains Road intersection for which a proposal is illustrated opposite. Also proposed is the installation of a new entry circuit on the East Ring Road which will help alleviate the existing 'Circuit', re-orientate the campus towards University Road and discourage through-traffic.

Without dramatically improved public transport accessibility to Nathan, it is difficult to address the dominance of private vehicle access to the campus

and its detrimental environmental impacts. If the University wishes to portray Nathan as having significant environmental sustainability, this issue will need to be considered in the immediate future, as it is contrary to the notion of a 'green campus' fostering conservation of the bushland environment.

3.21 Public Transport

'Get to Griffith – Improving Public Transport Access to the Nathan campus'

The 'Get to Griffith University – Improving Public Transport Access to the Nathan campus' (2009) study identified a number of recommendations to improve public transport access to Nathan. Taking into account the potential to create a wider Nathan / Mt Gravatt Knowledge Precinct, the study recognises that the future of access to Nathan is dependent upon public over private transport.

The study notes that bus services are highly patronized, with high loadings between the Nathan campus and the Griffith University Busway Station. It comments that while carparking demand is likely to increase, conservation management issues preclude expansion of surface carparking at Nathan, entailing either development of (expansive) multi-deck carparks on existing sites or improved public transport.

The SE Busway, it is noted, provides a very high quality access corridor to the Griffith Busway Station, however the connections to the Nathan campus are 'poorly organised'. Out of the eleven bus routes that directly serve the campus, only five also serve the Griffith Busway Station, and these it observes are poorly configured.

It is recommended that all of the recommendations contained in the study are seriously considered, including those toward the end of the report which deal with wayfinding and Bus Stop reallocation at The Circuit.

Cardno Eppell Olsen Study 2009

The Cardno Eppell Olsen 2007 study was followed up in the present 2009 study by analysis of bus operations within the campus.

The study noted that all bus operations currently occur at The Circuit which contains three bus stops (A, B and C), and a University Shuttle Bus Stop as well as taxi drop-off / pick up parking, and some on-site carparking. The study recommended improvements to the configuration of The Circuit, as does the Urban Research Program study, and also recommends the provision of a new 'Second Circuit' further up the Ring Road towards University Road.

Site	Traffic Direction	Period	Average Traffic Volume (vehicles)	Through Traffic Volume (vehicles)	Through Traffic %
	Eastbound	AM	492	218	44%
University		PM	1536	325	21%
Road		AM	1277	165	13%
		PM	767	189	25%
	Eastbound	AM	139	23	17%
West Ring		PM	123	9	7%
Road	Westbound	AM	48	23	48%
		PM	132	56	42%
		AM	1042	142	14%
South		PM	1059	209	20%
Ring Road		AM	518	166	29%
		РМ	1218	269	22%
		AM	426	165	39%
Griffith		PM	1197	189	16%
Road		AM	1158	218	19%
		PM	935	325	35%

Through-traffic study data



Pacific Motorway, Exit 11, at University Road / Klumpp Road / Mains Road



Pacific Motorway, Exit 9, at Gaza Road



Pacific Motorway, Exit 14, at Logan Road

3.22 Through-Traffic

The Cardno Eppell Olsen 2009 study considers ways to address the increasing problem of through-traffic which uses the campus to bypass the often congested Kessels / Mains Road intersection. There are State Government proposals to modify this intersection by grade separation, together with reconfiguration of Kessels Road to increase its east-west arterial role in the city.

It is not yet known whether the changes will increase or decrease through-traffic in the campus. Nevertheless Cardno Eppell Olsen's survey of through-traffic conducted in 2007 (tabled at left) illustrates the severity of the problem to be addressed. Although it may become necessary at some stage to prevent through-traffic by severing the Ring Road, a series of measures is proposed at this time to strongly discourage use of the South Ring Road, allowing through-traffic to use the North Ring Road discouraged to a lesser extent by speed humps (refer diagrams previous page). The proposed measures include:

- Create a narrow, shared bus, pedestrian and vehicular stretch on the South Ring Road using a raised, paved surface.
- Install a second bus entry circuit to increase recognition of the South Ring Road as the campus's busway.
- Use new directional signage at the top of Griffith Road and at the intersection of University Road / Ring Road to direct cars onto the North and West Ring Road loop.
- Add speed bumps on the North and West Ring Road that assist in reducing through-traffic speeds.

The study considers that should these measures prove unsuccessful in deterring or redirecting through-traffic, more severe measures may be required such as the use of bus only transponder boom gates together with a new traffic U-Turn or roundabout.

3.23 Pacific Motorway Access

The lack of access to and from the south on the Pacific Motorway was addressed as a critical issue for Nathan in the Scoping Study for an Integrated Nathan / Mt Gravatt Knowledge Precinct. The deficiency both inhibits vehicular access to the campus and detracts from the identity of the campus.

Access to and from the south can presently only be gained by way of either Exit 9 to the north at Gaza Road which requires doubling back, or by way of Exit 14 to the south using Logan Road. No access to and from the south can be gained via Exit 11, the main exit for traffic arriving from Brisbane southbound. These three exit configurations are illustrated in the accompanying photographs.

Cardno Eppell Olsen's preliminary analysis for the Master Plan indicates that it may not be economically, if physically, possible to construct a connection to the Pacific Motorway for direct southbound exit from the University. The analysis indicates that it may be more feasible to provide an access to the campus from the south via an offramp from the Motorway connecting onto the Mains Road / University Road intersection. Other options considered, such as vehicular bridges and tunnels across the Motorway, would seem less likely solutions.

While the issue of Motorway access does not directly impact upon the master planning of Nathan campus, it is of critical concern for the wider Nathan / Mt Gravatt Knowledge Precinct. It is thus recommended strongly that the University commences discussions with Government and Brisbane City Council to integrate improved access provisions into network planning Nathan / Mt Gravatt.



Natural environment and habitat indicators



1 Johnson Place Reserve. Note remnant is an elevated platform due to excavation of natural ground surrounding the remnant. Also of note is the thinning canopy.



2 One of the few areas where turf interfaces natural areas on the site. Asparagus fern and couch were noted as part of the edge effects in this area.



3 AreasadjoiningCentralTheatres+ Macrossan.Noteunderstoreyshrubs species



4 Eucalyptus planchoniana is found throughout the site. This species is considered of conservation significance due to its limited distribution in South East Queensland.



5 Mimosa Creek Reference site. Note the dominance of Melaleucas and wet species understorey.



6 Drainage line vegetation. Note the disturbance in the canopy and dominance of wet species in the understorey.



7 Eastern Carpark Dry Open Forest. Typical of condition of these remnants on site.



8 Dry forest reference site, West Creek Road. Note species diversity, midstorey density and age classes represented.



9 Landscaped area, typical of the modified remnants utilised as landscaping treatment on site. Note the lack of midstorey compared to image 8.



10 Typical of modified remnants adjacent to roads on site

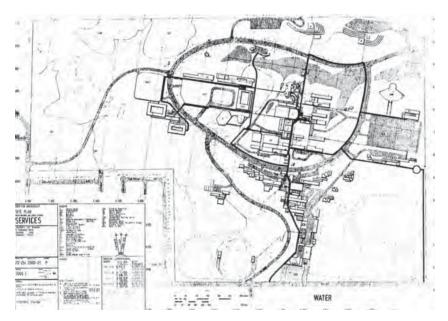


3.3 Natural Environment + Habitat

Previous master plans of the Nathan campus have tended to anticipate growth in development being more limited than was indicated by the original Johnson Master Plan of 1973. In that plan, building sites were shown extending from the present academic core down the eastern side of Griffith Road to Kessels Road, to the west of the Ring Road and to the north of the Ring Road.

The 1995 Master Plan by Daryl Jackson Pty Ltd removed potential expansion from west and north of the Ring Road, and instead created density in the steep zone between the East Creek Road and the Ring Road to the east of it. An elevated bridge-link was suggested to connect this zone to the academic core.

The growth scenarios depicted historically do not seem to have been formulated with analytical regard for the quality of the natural environment and habitats. For this reason, Cox Rayner engaged the environmental consultants Stringybark Consulting, through the landscape architects Gamble McKinnon Green, to prepare an evaluation of the natural environments and habitats in order to assess where future growth might occur.



Notional Buildings Plan Site Planning Review, Roger Johnson, September 1973

The following analysis is aimed at indicating where future campus growth might occur with respect to the natural environment and habitats that exist in and around the campus. The analysis has been undertaken on a visual basis and further assessment should be undertaken as a collaborative process involving input and expertise from within the University. This more detailed analysis should aim to maximise the ecological outcomes of future changes, and to identify any additional rare and threatened species of local conservation significance.

3.31 Methodology

The following is a summary of Stringybark Consulting's analysis and site mapping.

The primary purpose of the analysis was to provide sufficient information for master planning for future development, and therefore further investigations may be necessary for specific projects.

The methodology for analysing the landscape environments within the existing campus was to firstly set a 'baseline' for comparison by investigating four reference sites outside the academic core. These sites were at Mimosa Creek to the north, approximately 50 metres west of West Creek Road, and approximately 50 metres south of Carnarvan College. The site investigation considered the following criteria:

Native vegetation identification, and species spatial arrangements and condition;

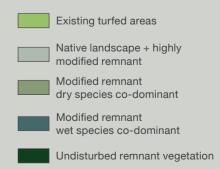
- Patch size, geometry and connectivity;
- Location of scats or tracks;
- Fruit and seed falls;
- Water availability;
- Observed fauna;
- Fallen logs or termite mounds or ground diggings;
- Rock outcrops;
- Nests in banks and trees.

The study also gives regard to the Queensland Herbarium classification of the mapped areas of Toohey Forest as Regional Ecosystem (RE) 12.11.5.

In addition to mapping the surround of the existing developed campus area, the forested spaces within the developed campus were mapped and assessed in order to determine where future buildings or recreational spaces might be best sited.



Landscape and habitat investigation areas and habitat categorisation Stringybark Consulting 2009



3.32 Site Investigation Results

It is considered that the inherently depauperate soils and limited surface water availability, coupled with the University's policy of using local native plants and of incorporating existing remnants in landscaped areas, has provided excellent results in limiting impacts upon the forest. However, structural shifts in the forest arrangement (upper canopy – midstorey-understorey), limitations for succession in some areas, and lack of terrestrial connectivity in some areas, were utilised to identify all vegetated areas in the campus as belonging to one of five categories:

- 1. Existing turfed areas
- 2. Native landscape with highly modified remnant vegetation.
- 3. Modified remnant with dry species co-dominant (as per RE 12.11.5)
- 4. Modified remnant with wet species co-dominant (as per RE 12.11.5)
- 5. Undisturbed remnant vegetation (as per RE 12.11.5)

In principle, the bushland surrounding the developed area of the campus – undisturbed remnant vegetation – should be retained as forest. The exceptions to this guideline are:

- The Eastern Carparks, including those aligning the Ring Road towards University Road;
- Several areas around the residential colleges along the South Ring Road;

These findings are relatively consistent with The Scoping Study for the Griffith Nathan / Mt Gravatt Knowledge Precinct for the development of a mixed use village on the Eastern Carpark area and along the Ring Road towards University Road.

Within the developed area of the campus, those identified as Modified Remnant with Wet Species Co-dominant are considered to be inappropriate for new development, and are generally in the northern half of the academic core. They are also associated with valleys and creek lines.

In the southern half of the campus are several areas of Modified Remnant with Dry Species Co-dominant which may be suitable for new development, and some areas of Highly Modified Native Landscaping which should be considered as potentially developable on a comparative basis, subject to further investigation.

Due to the master plan need to create a new Campus Heart (as identified in the Nathan Task Force Report and The Scoping Study), three courtyards were subject to further analysis. They are identified as Investigation Areas 1, 2 and 3. Due to The Scoping Study's emphasis upon future campus expansion to the east, three further areas were considered, identified as Investigation Areas 4, 5 and 6.

The conclusions are as follows:

Investigation Area 1 (Johnson Place)

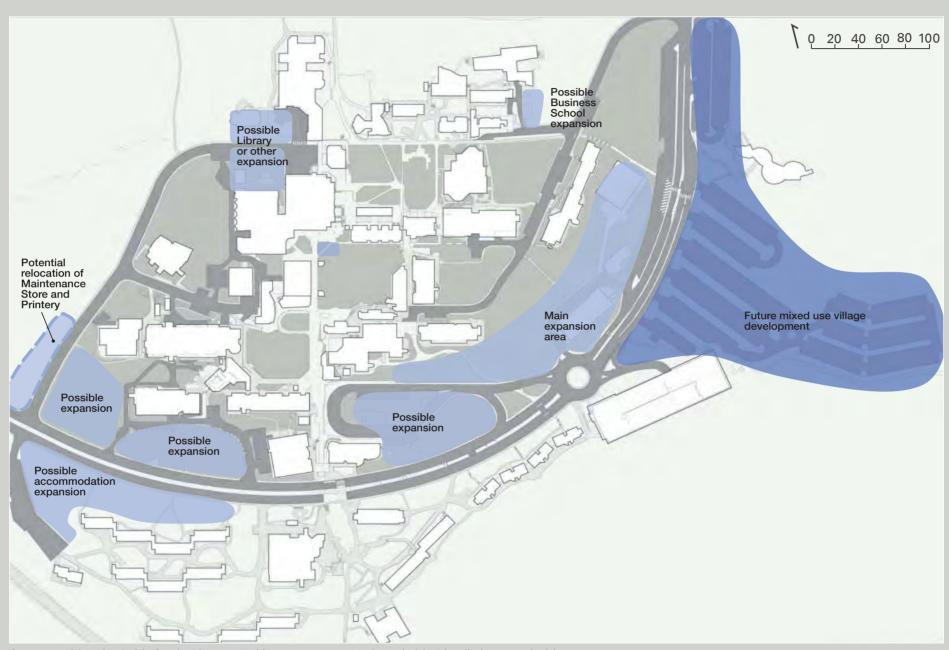
Known as the Johnson Place Flora Reserve, this area lacks successional structure, displays midstorey and understorey thinning, and has limited fauna value. The space could be considered suitable for enlarged courtyard or for building, assuming some of the natural environment is retained.

Investigation Area 2 (Adjoining northern lawn)

Situated east of the Enternet Café (N14) and within the main turfed area on campus, the area also lacks successional structure, (particularly young Eucalypt and Angophora species), and has limited ecological value. It could be developed or re-landscaped.

Investigation Area 3 (Central Theatres + Macrossan)

This larger area adjoining the Central Theatres (N18) and Macrossan (N16) has slightly improved forest structure to Areas 1 and 2, however it has similar values to Area 1. The area could be considered for a building or courtyard expansion over part, but removal of the whole bush area is considered inappropriate.



Areas considered suitable for development with respect to vegetation + habitat (preliminary analysis)

Investigation Areas 4+5 (East Creek Road)

These wet species co-dominant areas are an excellent example of the depth and resilience of floristics available in the RE 12.11.5 description. Area 4 is of slightly lesser value than Area 5 which has more advanced riparian species diversity and is better configured in size and connection to downstream areas. The terrestrial fauna connectivity of Area 5 to downstream remnants is also superior. However both Areas 4+5 displaying a higher diversity value than Areas 1, 2 and 3, and they need to be conserved to protect the drainage lines which contribute to the water quality of Mimosa Creek.

Investigation Area 6 (North East Corner)

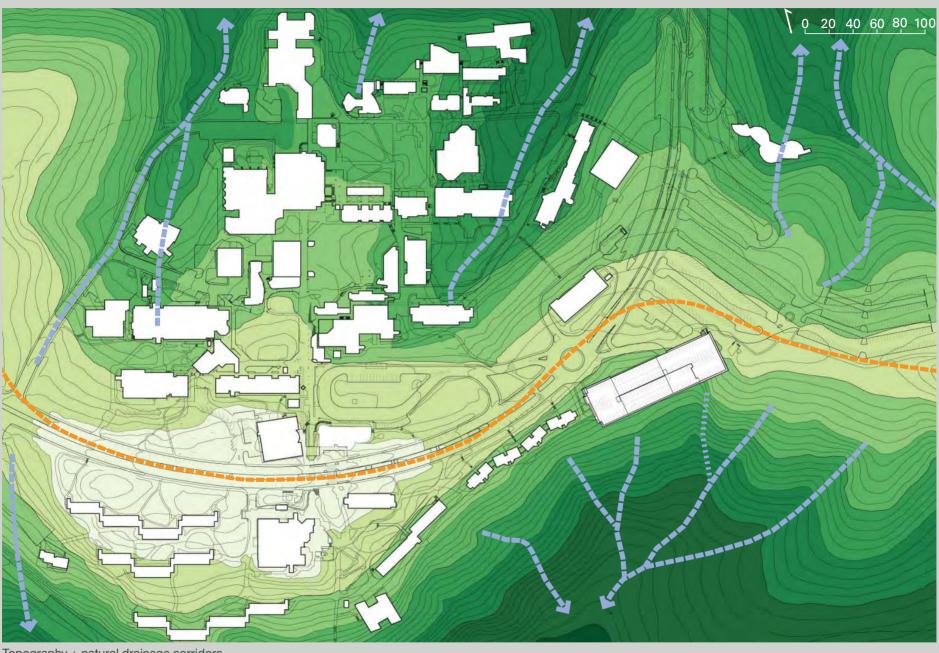
This area to the north east of the campus, between East Creek Road and Ring Road East, consists of dry open forest consistent with the four reference sites and is generally in good condition. Although the area lacks surface water and is limited by roads for terrestrial fauna accessibility, it displays higher value than Areas 1, 2 and 3, and is thus not recommended for building sites other than on the adjoining carparks.

3.33 Conclusion

In contrast to the previous master plans developed for the Nathan campus, the opportunities for campus expansion are severely limited by contemporary natural environment conservation objectives. Based upon the study undertaken by Stringybark Consulting, the following conclusions are made in respect of future development:

- The only substantial areas that are suitable for campus expansion are the Eastern Carparks and the carparks on either side of the Ring Road up to University Road.
- There is very little expansion capacity within the immediate vicinity of the Business and Law Schools.
- Expansion of the Willett Centre (Library) would need to occur northwards, rather than westwards.
- There is some capacity to expand the Science, Environment, Engineering and Technology precinct to its west and south.
- The sites occupied by the Maintenance & Uni Print (N26) and University Store (N51) could be considered as redevelopment sites, together with further expansion of their footprints.
- There is some growth potential for residential colleges to the north and west of Kinaba College (N30).

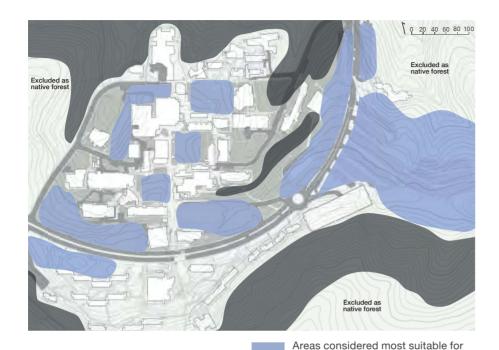
The analysis indicates that most future expansion will need to occur along the South and East Ring Road. This expansion potential is however likely to be limited by further detailed investigation and / or by topographical constraints discussed in the next section.



Topography + natural drainage corridors







development by topography

development

Areas considered too steep for

3.4 Topography + Expansion Capacity

Natural environments and habitats are not the only limiting factors with respect to the future expansion at Nathan campus.

The campus is also heavily constrained by its topography, its steep slopes already accommodating some of the more recent buildings and leaving few remaining sites for future expansion.

The topography also imposes limitations on vehicular and pedestrian movement within campus which impact upon connectivity to future growth areas to the east and north-east of the academic core.

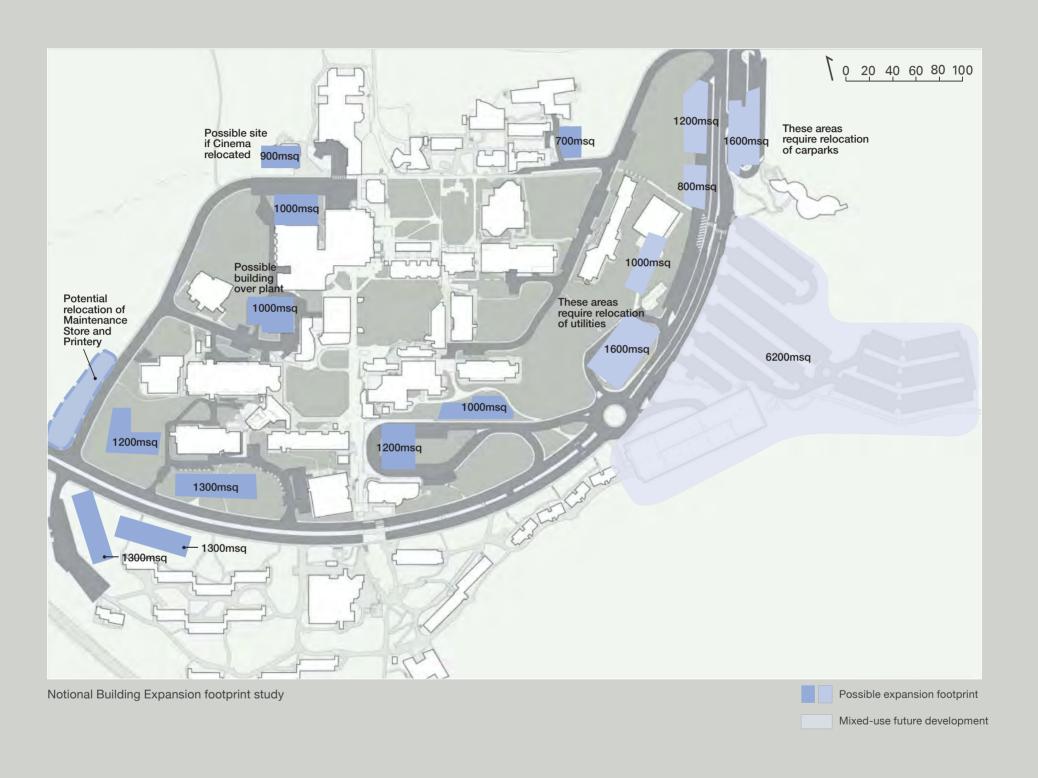
3.41 The Campus as 'Hilltown'

The original Johnson plan envisaged a 'hilltown' campus with panoramic views to the south and views over a series of lakes to the north.

The main east-west-ridge was allocated to the South Ring Road such that buildings did not dominate the skyline. The Johnson Path, the main pedestrian spine, runs perpendicular to the ridge line along a spur, entailing relatively gentle grades through to Macrossan, and steeper falls towards the Enternet Café and Sewell.

The Ring Road curves around from the south along a second spur east of the main spur until it intersects University Road. The original Johnson concept was for the majority of buildings to be sited along the Johnson Path, and perpendicular to it, so that optimum advantage could be taken of northern orientation. However, the imposition of an orthogonal layout on a steeply sloping terrain has generated numerous difficult pathways, poor disability accessibility and several disconnections between the ground plane and building entrances – particularly in the eastern and north-eastern parts of the campus and in the Science and Technology precinct.

A further impact of the 'hilltown' siting of the campus is that there are few undeveloped areas where slopes of reasonable buildability can be found, indicating that in future height rather than footprint may be required for campus expansion.



Precinct	Footprint Area / Floor
Science + Technology	2,500m2
Business + Law	700m2
Environment + Health Sciences	1,000m2
New 'The Circuit' building	1,200m2
North of the Willett Centre	1,900m2
Academic Core subtotal	7,300m2
Residential Colleges	2,600m2
East Ring Road Buildings	6,200m2
Total Potential Footprint	16,100m2

Potential 'footprint' expansion capacity (excluding the Eastern Carparks)

3.42 Expansion Capacity

The topographically easiest areas for campus expansion coincide broadly with those identified in the preliminary assessment of natural environments undertaken in Section 3.3.

Taking into account environmental and topographical constraints together, the accompanying map and table illustrate that there remains a notional 'footprint' in the order of 7,300m2 that could be developed within the existing academic core.

Along the East Ring Road could be a further 6,200m2 of 'footprint', principally by redeveloping the sites of the existing Maintenance & Uni Print (N26) + University Store (N51) and by developing on the linear carparks on either side of the Ring Road. In each of these cases, there would need to be replacement of existing facilities or carparks.

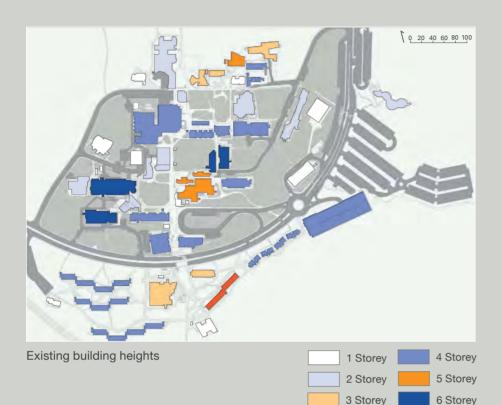
The carparks to the east of the Ring Road are relatively flat and offer substantial expansion potential in the future, providing that carparking can be relocated into multi-deck structures or underground, or carparking demand is reduced by improved public transport services.

However, the eastern carparks are intended to be developed as a mixed use village comprising not only academic and research buildings but also commercial and residential development. Thus, given the limited footprint areas available for expansion, it is recommended that the notional height limit of the tree canopies, set by previous master plans, is lifted to allow for taller buildings.

Excluding the Eastern Carpark area, a scenario of total expansion capacity of the campus, based upon assumed height limits related to their context, is conceivably as follows:

Precinct	Footprint	Notional Height / Levels average)	GFA
Science + Technology	2,500m2	7	17,500m2
Business + Law	700m2	5	3,500m2
Environment + Health Sciences	1,000m2	7	7,000m2
The Circuit	1,200m2	12	14,400m2
North of the Willett Centre	1,900m2	7	13,300m2
Academic Core subtotal	7,300m2		55,700m2
Residential Colleges	2,600m2	6	15,600m2
East Ring Road Buildings	6,200m2	6	37,200m2
Total notional expansion capacity	16,100m2	-	108,500m2

The notional potential capacity of 108,500m2 (GFA) is relatively substantial but assumes that heights are generally greater than existing buildings, particularly for a 'landmark' building fronting The Circuit. The capacity may however be considerably reduced by footprint limitations that may occur due to detailed vegetation analysis, topography, drainage and the need in certain areas to replace existing uses or carparking.





San Gimignano - example of a hilltown with visible height

3.43 Building Heights

7 Storey

The shift in emphasis from footprint expansion to fewer, higher buildings offers a number of benefits to the University, including:

- The conservation of the surrounding natural forest and of forest areas within the campus as per the study in Section 3.3.
- The creation of a more visible campus from the surrounding community, and in particular from the Pacific Motorway, together with the developments proposed in Section 2 for the wider 'Knowledge Precinct', such as for relatively high, dense mixed use developed on the Brisbane Innovation Park.
- The potential for taller buildings to accommodate mixed academic uses that could promote interdisciplinary collaboration.
- A denser, more vibrant campus of courtyards and squares activated by multiple uses.

There are presently on campus, buildings of 6-7 storeys which generally do not appear high due to their 'fit' with topography. It is recommended that building heights of up to 12 levels be permitted in light of the above benefits.

The accompanying picture of San Gimignano in Italy illustrates an excessive use of height in relation to the Nathan campus, however it exemplifies the potential of the forested 'hilltown' to accommodate varied scale, gaining it distinctive character and identity contrasted against the currently 'invisible' Nathan campus.





The Circuit



The Tunnel



Environment 2 courtyard



Environment 1 'street' undercroft



Willett Centre undercroft



The Enternet Cafe



The Hub



Johnson Place lawn



Science / Technology undercroft



Willett Centre courtyard



Lawn and Goanna Lounge



Northern Theatres courtyard

3.5 Social Spaces

As illustrated at left, the majority of the social spaces around the campus lack vitality. The better quality places, such as The Hub and the Campus Club, are on the edge of the campus, while those toward the centre are mostly of a poor standard compared to those in other Universities.

The poor comparative quality is evident in The Enternet Café and the café in The Common, if related to QUT Gardens Point and Kelvin Grove cafes, or UQ's 'Merlo' cafes, and there is a lack of emphasis in these on healthy eating. The lounges – such as the Goanna Lounge and the Collaborative Zone – are popular, possibly more by lack of alternative than quality, and again stark constraints exist with those in the other city universities.

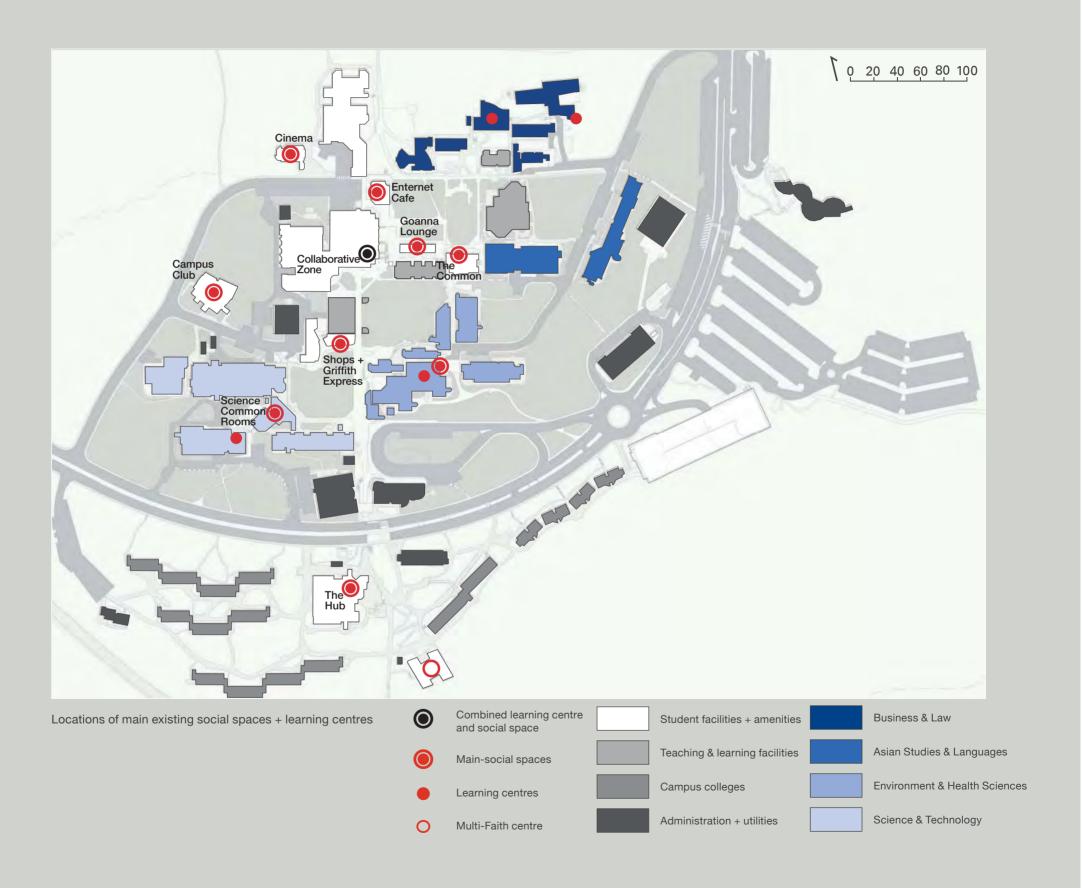
There is equally an evident lack of a 'campus heart', such as exists in the UQ Union or is being created at QUT Gardens Point in its south east precinct development.

Courtyard spaces are particularly inhospitable, such as the undercroft in the Science / Technology precinct and the Environment 2 courtyard which are virtually barren of furniture. Other courtyards, such as those in the Business School, are almost inaccessible, and equity of access provisions do not meet current code requirements in several areas.

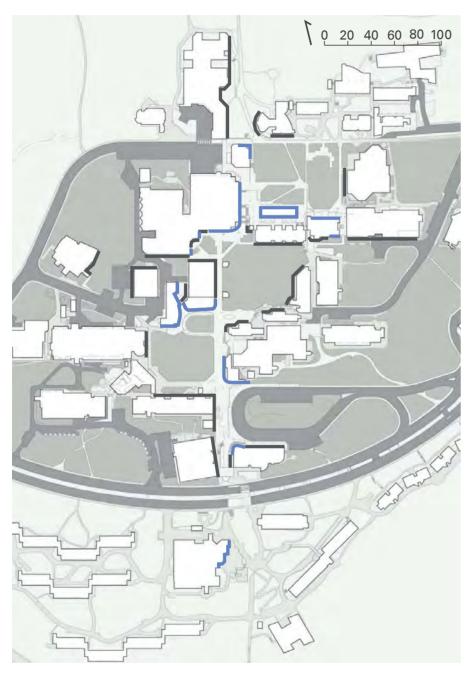
Although the bush can be regarded on one hand as a visual asset permeating the campus, it also generates a sense of tedious homogeneity and stifling dominance in areas within the campus, and rarely invites accessibility for social interaction. There is a persistent lack of canopy to most social spaces, other than via building undercrofts. In addition to the Science / Technology undercroft, others devoid of social amenity are beneath the Willett Centre and within Environment 1.

Student services are haphazardly distributed around the campus and are often difficult to find, and there is a vital need to consolidate these facilities into an integrated Student Centre as, for example, exists on the Griffith Gold Coast campus.

The sense of arrival at the campus is one of social alienation, the first exposure being to tracts of carparking, and the second to The Circuit with its inactive edges, lack of shelter and mediocre built forms. However, possibly the worst exemplar of social alienation is the pedestrian tunnel, this space perhaps epitomising Nathan's social malaise.







Solid/impermeable edges and accessible/transparent edges in central campus

Accessible or transparent edge

Solid or impermeable edge

These deficiencies have resulted in a campus which is badly lacking in social attraction, and the spread of facilities mitigates against any sense of campus unity of integration. This issue is thus arguably the most urgent to address.

The major needs of the campus are:

- Creation of a 'Campus Heart' in the middle of the campus and on Johnson Path, comprising a unified Student Centre and a series of collocated eating outlets.
- Rationalisation of the main courtyard spaces, in particular:
- Macrossan Lawn removing the understorey vegetation to its north to open up views and increase lawn amenity.
- Johnson Place Flora Reserve, installing seating nooks within the bush,
 lowering the adjoining lawn and activating the Environment 2 courtyard.
- The Circuit, increasing the pedestrian realm and providing canopies along the three edges.
- Full refurbishment or relocation of the Enternet Café, and full refurbishment of 'The Common' café.
- Refurbishment of the Community centre shops and 'Griffith Express',
 or relocation of these amenities into the new Campus Heart. There is
 potential also for incorporating some shops in the Johnson Path face
 of the Environment 2, and the security centre should be relocated as it
 generates a poor 'front door' image of the campus.

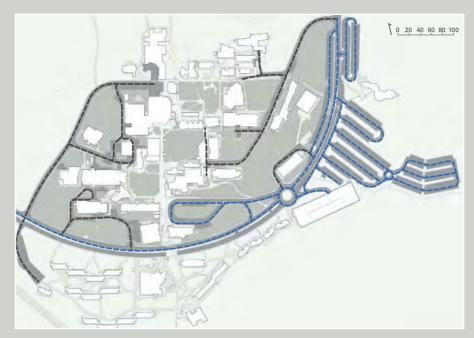
Another contributing factor to the substandard quality of the campus social environment is the design of the buildings which has rarely engaged the outside spaces at ground levels. The accompanying diagram illustrates the dominant character of solid or impermeable walls at ground level in the central portion of the campus. However, there are several opportunities where these areas can be 'opened up' either visually or physically or both. Examples where emphasis should be placed are:

- The Willett Centre (Library) entrance (physical and visual)
- The Macrossan theatres from above (visual)
- The Johnson Path edge at Environment 2 (physical + visual)

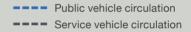


Existing service access and carparking





Existing vehicular access





Existing pedestrian ways

Primary pedestrian circulationSecondary pedestrian circulationPedestrian entry points



3.6 Vehicular + Pedestrian Movement within Campus

The campus topography and its original master plan have dictated that it is predominantly pedestrianised.

Car access and carparking are generally limited to the Ring Road perimeter, with the Eastern Carparks catering for most demand, predominantly at grade. The Circuit is the principal address point for passenger set down, buses and taxis.

Service access is facilitated by two secondary roads, East Creek Road and West Creek Road which follow through the two valleys that flank the campus academic core.

Generally, this system works well with the spine of the campus having no vehicular conflicts, although the quality of the pathways can best be described as utilitarian. The service roads provide good access to the majority of buildings and cater for future building expansion being on the outer edges. However, as a result of these service roads being at lower campus elevations, the associated service courts and short-stay carparks generate poor quality pedestrian environments and connections in most areas beyond the Johnson Path. Several of these areas, such as the space between the Willett Centre and the Campus Club, are dominated by carparking or service yards.

In other areas, the steepness of terrain has led to the use of pedestrian bridges to access buildings from the higher ground levels, such as in the Business Precinct. As a result the courtyard spaces below tend to be unused and the precincts lack vitality. Some areas employ overhead bridges to link upper building levels such as from the Central Theatres to the Willett Centre, and along the eastern edge of the lawn adjoining the Northern Theatres 1 & 2 (N22).

As much as possible in future, buildings should be accessed at grade with suitable provisions for equitable access. The existing overhead bridges should be removed wherever possible unless they are essential for functional reasons.

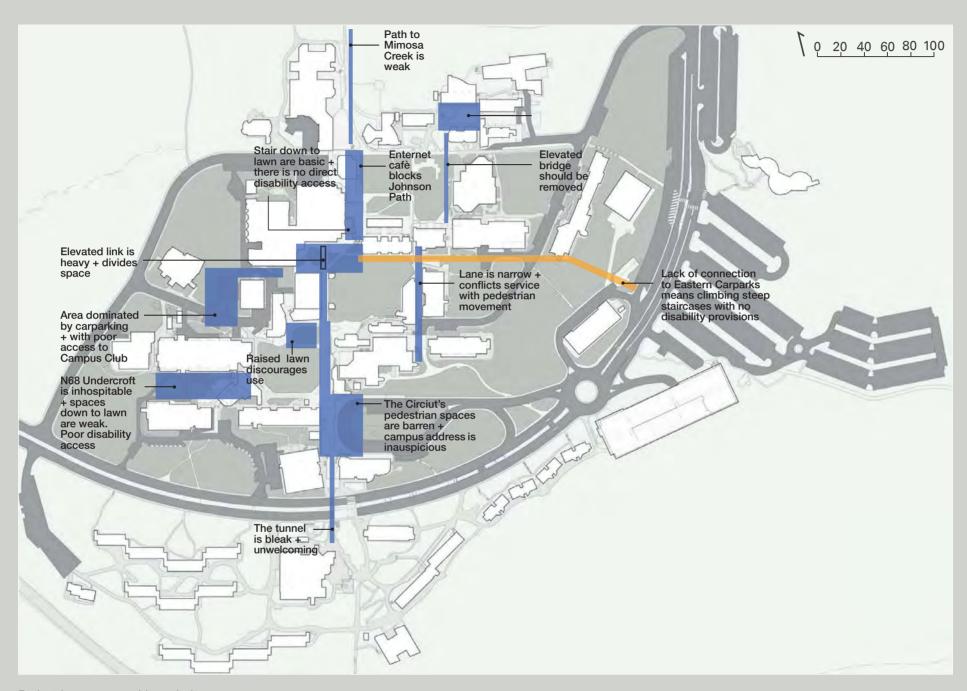
3.61 Pedestrian Movement

Although the Johnson Path is the principal pedestrian spine it is by no means a clear movement corridor. To its south, it becomes illegible where it doglegs around the Willett Centre, and it has no direct disability access to the Macrossan Lawn area. Beyond this space, it again becomes illegible at the Enternet Café and continues down past Sewell as a secondary path to Mimosa Creek. To the north, the Johnson Path tunnel is an alienating experience, and although The Hub is a major destination, the path dissolves past this point.

The campus has expanded such that many secondary pathways are utilised to access buildings. Most of these pathways are of poor surface quality and lack amenity, and several provide no disability accessibility. Particular attention is needed to the following pathways:

- From the Eastern Carparks, there is little clarity as to where to walk. The so-called 'East Path' in the north is a direct route to the Business and Law Schools and should be upgraded. A path around the Maintenance & Uni Print (26) entails steep stairways and / or ramps. Access via The Circuit requires negotiation of the roundabout.
- In the eastern academic core, the north-south path from Macrossan Lawn via Environment 1 (N55) to Health Sciences (N48) and Environment 2 (N13) shares pedestrian movement with service vehicles in a narrow width.
- Within the Science and Technology Precinct, the central space is a steep series of terraces and gardens for which a new pedestrian ramp system is required.
- In the Business School Precinct, the major building access if formed by overhead walkways such that the courtyards are barely accessible.
 Consideration should be given to removing these bridges and reconfiguring entrances.
- To the Campus Club, the access is via service areas, and the large service zone below Science 2 (N34) is particularly unwelcoming.
- Along the edge of the Northern Theatres 1 & 2 (N22), the overhead walkway
 is not well utilised and is unsightly, and should be considered for removal
 altogether.

The Johnson Path is, however, the highest priority for upgrading especially between (and including) the tunnel and the Willett Centre undercroft space



Pedestrian areas requiring priority

adjoining the main lawn. The upgrade should include the secondary paths and spaces immediately off the path, particularly those with scrappy bush edges such as to Environment 1 (N55).

Priority should also be given to a new 'East-West' path linking the academic core to the Eastern Carparks. This path will necessarily entail a pedestrian bridge in order to facilitate 1:20 disability access grades as well as for general amenity.

Spaces and pedestrian ways which could be prioritised for improvement, and for which concept schemes are prepared and illustrated in Section 5.5 are:

- The courtyard adjoining the Northern Theatres 3, 4 & 5 (N29).
- The series of descending spaces between Science 1 (N25), Science 2 (N34) and Technology (N44).
- The area between Science 1 (N34) and the Campus Club (N71).

3.62 Vehicular Movement

As discussed in Section 3.2, most of the vehicular circulation on the campus occurs outside the Ring Road with parking accommodated on the Ring Road, its adjoining carparks and in the eastern carparks.

It is unlikely that there will be any significant changes to this system in the near future, even if recommended improvements by the Urban Research Program to public transport access are implemented, as the campus is reliant upon vehicular access.

In the long term, the proposed mixed use village to be developed on the eastern carparks area will require a combination of multi-deck parking structures and basement carparking.

In the short term, the University should examine how certain staff carpark areas might be reduced or rationalised, such as the Bray Centre. For

example, there may be opportunity to relocate the aforementioned carparks near the Campus Club to perpendicular parking along Science Road in order to create a new courtyard or building site.

However, the major change proposed to the vehicular system at Nathan is the creation of a new 'eastern gateway' circuit north of the Ring Road roundabout, once a pedestrian bridge is built from there into the campus heart and the Maintenance & Uni Print (N26) is relocated.

3.63 Service Vehicular Movement

The major conflict observed between service and pedestrian movement is within Environment 1 (N55) where students move between 'The Common' and Health Sciences (N48). There does not appear to be an obvious solution to this situation other than by improved pedestrian amenities and signage.

However, in principle the servicing system to buildings seems adequate, utilising the East and West Creek Roads to access service yards and docks below buildings and avoiding the need to access across Johnson Path. As most future expansion will need to occur on sites adjoining these two roads, the existing system is likely to remain intact.

3.64 Photographic Survey along Johnson Path



Johnson Path - existing pedestrian experience



1 Multi Faith Centre Good facility with OK access



6 Johnson Path adjoining Environment 2 - Utilitarian + lacks



11 Enternet Café Blocks Johnson Path



2 The Hub Path is uninviting and lacks cover



7 Johnson Path adjoining Johnson Place Reserve - Level change poorly handled



12 Path to Sewell Austere + uninviting



3 Johnson Tunnel



8 Central Theatres
Dark foreboding space



13 Bookshop edge to Johnson Path Bookshop is poorly located



4 Path under Bray Centre Dark, austere space



9 Willett Central courtyard Good scale for upgrading



14 View past Bookshop to loading area - Another oppressive space



5 The Circuit adjoining Johnson Path - Scrappy arrival space



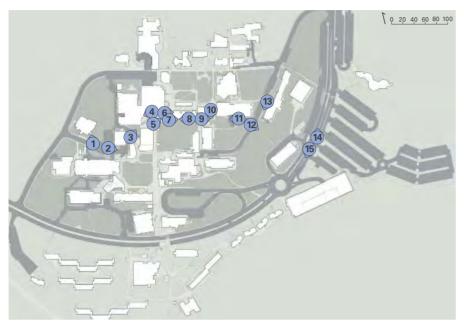
10 Stair between Willett Centre and Macrossan - lacks vitality and



15 Sewell Lawn Lacks legibility



3.65 Photographic Survey along east-west corridor



East / West connection - existing pedestrian experience



1 Campus Club Poor access



6 Macrossan adjoining Willett Centre courtyard - Space is just a



11 Service area to rear of Patience Thoms - Inhospitable space



2 Service zone Lacks amenity



7 Path along Macrossan edge Lacks vitality



12 Stair to Maintanance & Uni Print - Daunting and lacks disability access



3 Service zone behind Willett Centre
Car dominance



8 View back to Willett Centre Uneven ground surfac e



13 Vegetation to front of Languages building - In reasonable condition



4 Willett Centre
OK but could open up to courtyard



9 View to The Common Could be improved



14 Carparking straddling South Ring Road - Gives poor impression of campus



5 Willett Centre courtyard Bridge is imposing



10 Lower level entrance to Environment 1 - Shared service +



15 Pedestrian crossing on South Ring Road - Lacks direction into campus



Multi Faith Centre - N35 (Robinson Designinc)



Bellenden Ker College - N39 (Hayes and Scott)



The Hub - N11 (Hayes and Scott)



Facilities Management - N23 (Les W Jones)



Science 1 - N25 (Wilson Architects)



Technology - N44 (Blair Wilson + Associates)



Science 2 - N34 (Blair Wilson + Associates)



Central Theatres - N18 (Robin Gibson + Partners)



Sewell - N12 (John Dalton + Associates)



Business 3- N63 (Phillips Smith Conwell)



Northern Theatres 3, 4 & 5 - N29 (Denham + Munro)



Law - N61 (Phillips Smith Conwell)



Patience Thoms - N06 (Phillips Smith Conwell)



Macrossan - N16 (Robin Gibson + Partners)



Health Sciences - N48 (Blair Wilson + Associates)



Environment 1 -N55 (Conrad + Gargett)



Bray Centre - N54 (Devine Erby Mazlin)
Illustrations of the major campus buildings



Willett Centre - N53 (Robin Gibson + Partners)



Business 2 - N72 (Woods Bagot)



Environment 2 - N13 (John Andrews International)



3.7 Buildings

The campus is characterised by predominantly raw and white concrete buildings that were typical of many university campuses developed in the 70's and 80's. Other examples include QUT's Carseldine and Kelvin Grove campuses, and the James Cook University campuses in North Queensland.

A number of the buildings were designed by noted architects of the period including The Hub by Hayes and Scott, Environment 2 by John Andrews International, Sewell by John Dalton, and the Willett Centre and Macrossan by Robin Gibson + Partners.

The Report of the Taskforce Reviewing the Nathan Campus (Griffith University) identified that "many buildings are in serious need of refurbishment. However, before refurbishment can take place, there needs to be a clear plan for the optimal use of existing spaces, and priorities for refurbishment. For example, while some work has been done to improve the quality of science laboratories at Nathan, there remain some laboratories that are extremely drab and outdated" (P12).

The report also notes that the campus "is not currently short of space relative to demands for it. The Macrossan (N16) and Patience Thoms (N06) buildings, in particular, are under-occupied."

3.71 Approach

Within the Taskforce report are some staff calls for buildings to be more brightly coloured or reclad to generate vibrancy in what is regarded as a 'grey' campus.

The concern with this approach is that it is difficult to identify where to start and stop the process, and with limited funds, the outcome might be one of 'disintegration' rather than unity and integration.

It is preferred that the buildings generally are left insitu, except for thorough cleaning, and funds when available are expended primarily on interior refurbishments such as to the Macrossan and Patience Thoms buildings noted above. Another priority for internal refurbishment is the Willett Centre as the library should be a campus 'hub' but is outdated and uninspiring. The Environment buildings, Sewell and the Science Laboratories noted above could also be considered as priorities.

The injection of colour and vitality requested by staff would, it is considered, be better provided by landscape elements, in particular:

- New signage throughout the campus, including the use of the University's red colour.
- New pathway and courtyard seating, proposed to be custom-designed for the Nathan (and Mt Gravatt) Campuses, utilising the University red.
- Elements of new structures proposed in the Master Plan (Section 5).
- New lighting integrated with new canopy structures, and removal of all existing fabric structures.
- Special features such as a refurbished Johnson Path tunnel, an electronic notice board featuring events, and one or two large poster boards to contain all campus posters.

This strategy will facilitate a more manageable and stageable method of invigorating the campus, and will preserve the relatively harmonious relationship that buildings of raw materials provide in the forest environment.

It is, however, recommended that a number of unsightly and superfluous structures be removed and some replaced with new well-designed structures including:

- The entry structures on The Circuit. These should all be replaced by a new canopy structure extending as awnings along the north and south edges of The Circuit.
- The overhead bridge in the Willett Centre forecourt that currently links
 the Central Theatres to the Willett Centre but is rarely used and has a
 heavy aesthetic. It could be replaced by a lightweight, elegant structure
 or removed altogether.
- The elevated concrete walkway along the western side of the Northern Theatres 1 & 2.

These proposals should be undertaken in conjunction with the Master Plan implementation strategy.



Learning centres and computer lounges

3.8 Campus Educational Issues

As identified in the Scoping Study for the creation of an integrated Nathan / Mt Gravatt knowledge precinct, the academic core of the Nathan Campus has a basic structure of four quadrants – Business + Law to the north-east, Environment + Health Sciences to the south-east, Science + Technology to the south-west, and Willett Centre (Library / Resources) / Sewell building to the north-east.

The Johnson Path forms a strong delineation between the east and west precincts; however there is only a semblance of legibility between the north and south campus zones.

3.81 Taskforce Report Reviewing the Nathan Campus

The campus structure is not well defined by buildings and spaces, or by signage. The *Report of the Taskforce Reviewing the Nathan Campus* also identified a range of other weaknesses throughout the campus, summarised as follows:

Life on Campus

- Lack of a 'Campus Heart'
- Lack of social facilities other than for eating and lounging.
- Weak definition and amenity of courtyards adjacent to academic areas.
- No central reference point for students

Educational Trends

- Share of student load of Griffith is in decline.
- Median OP in decline.
- Commencing student load in decline in Arts, Communication, Asian Studies, International Business and SEET, except for Aviation and Forensic Science.
- Student retention rate worst of all Griffith campuses.

In addition to creating a wider knowledge precinct around Nathan as described in Section 2, the Report recommended that Nathan:

• Builds upon its particular strengths and specializations rather than being a 'comprehensive campus';



- Improves its connections with surrounding communities and its transport network context;
- Improves its physical environment, in particular by upgrading buildings and outdoor spaces.

In terms of academic profile, the following factors were highlighted as relevant to planning the future academic structure at Nathan:

- Nathan's greatest research strengths are in the areas where there are the steepest declines in student demand, especially in Environmental Science, Science, Asian Studies and the Arts. A challenge is to revive student demand in these areas in order to sustain research intensity.
- Enrolments at Nathan are healthy in Business, especially in B.Bus and B.Bus (THS), in Law, and in specialised degrees with clear vocational outcomes, such as Aviation and Forensic Science.
- SEET and the Griffith Business School have a higher than University average proportion of their Nathan load in post-graduate course work programs. This represents a platform to expand post-graduate course work offerings for domestic students.

The report identified that in planning for a sustainable future, changes that may need to occur at Nathan include:

- Ceasing to offer some programs that are not in strong demand at Nathan.
- Introducing new programs such as Sustainability, Climate Change, Water, and Drug Discovery, as well as programs built from existing strengths but targeting vocational outcomes (such as the recent Bachelor of Asian Business).
- Strengthening the educational identity of Nathan by including course or components in all degrees that deal with sustainability or climate change adaptation and other characteristics for which Nathan could become renowned.
- Focusing upon collaboration between the different areas of expertise for which Nathan is more diverse than other Griffith campuses, especially in the Griffith Business School due to its vocational relevance.
- Increasing the post-graduate profile and course work activity at Nathan, especially in Science, Environment, Engineering and Technology (SEET), and in the Griffith Business School.

3.82 Nathan Campus Educational Overlay, 2009

As part of this Master Plan, Cox Rayner engaged Rubida Research – New Learning Environments (Dr Kenn Fisher) to produce an 'educational overlay' for Nathan that could inform planning and design recommendations.

In relation to future expansion needs of the Nathan Campus, the study provided an overall assessment based upon TEFMA standards as follows:

Current available space 79,592m2

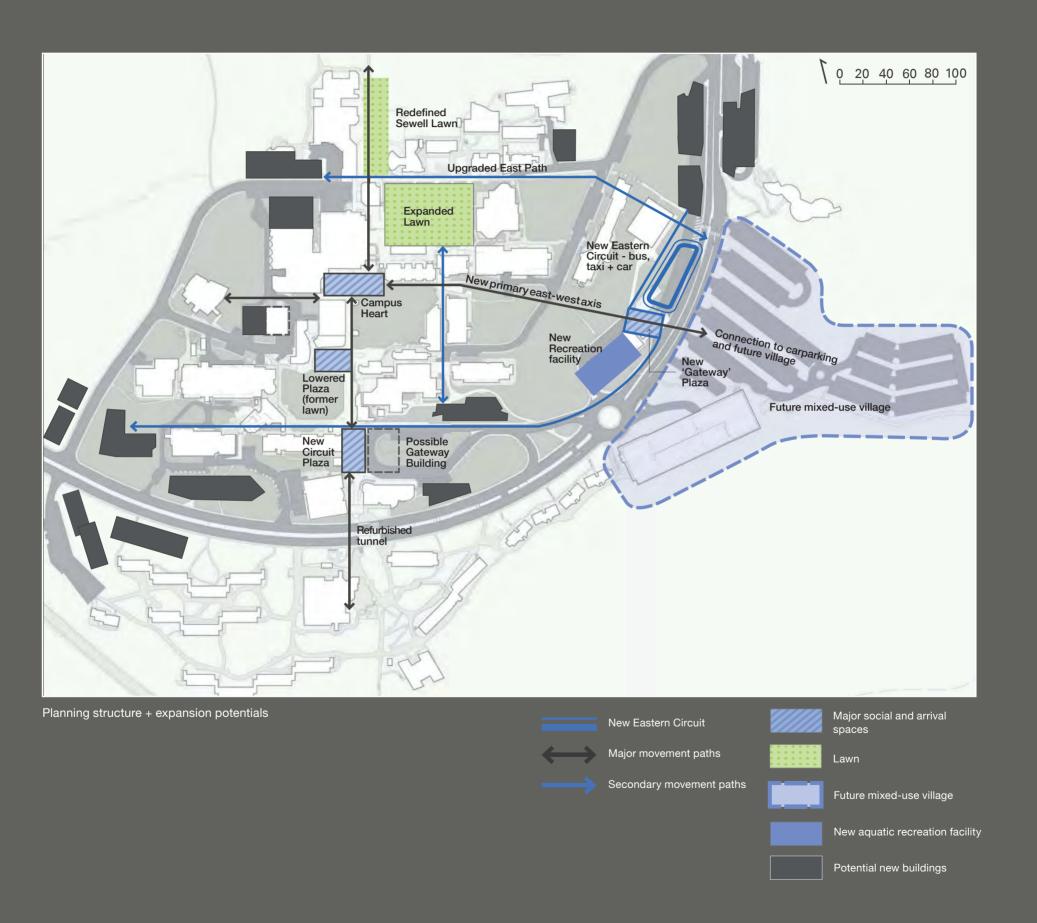
Actual space currently needed 93,409m2

Space required in 2012 96,726m2

Although the figure for current requirement may be questionable, it seems that there is evidence of need to provide in the order of 14,000 – 16,000m2 of new space over the next three years.

Section 3.4 demonstrates the potential for campus expansion of up to approximately 55,000m2 in the academic core, subject to site investigations. However, it may prove that much of the anticipated growth can be accommodated by improved existing building utilisation as noted in the Northern Taskforce Report.

The diagram at left locates the existing learning centres (including computer lounges) spread around the campus. While these appear to be well-utilised, there is an evident lack of design quality in them compared to other universities. Consideration should be given to a program of refurbishment in the older hubs such as in the Science precinct, and to making some external spaces computer-accessible (wired or wireless) such as the Willett Centre courtyard and the spaces recommended for refurbishment in Section 3.61 – the Northern Theatres 3, 4 & 5 courtyard and the Science / Technology courtyards, as the start of a campus-wide program.





Section 4: Planning Structure

The preceding Sections demonstrate that the Master Plan of the Nathan campus needs to generate:

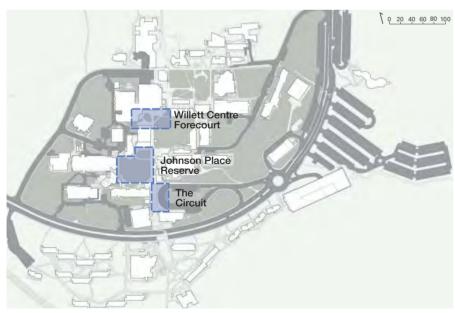
- A structure for future expansion that embraces conservation of the natural environment and provides for the future role of the campus as the heart of a Griffith Nathan/Mt Gravatt Knowledge Precinct.
- A series of integrated revitalisation phases that can be implemented as funding becomes available.

The diagram on the opposite page illustrates the major proposed movement and spatial structure of the campus, the potential building sites available, and the relationship to the future mixed use village that is proposed on the Eastern Carpark area.

This Section describes the primary elements which are proposed to achieve this structure.

4.1 Locating the Campus Heart

The future planning structure of the campus will necessarily be largely determined by the location chosen for the new campus heart.



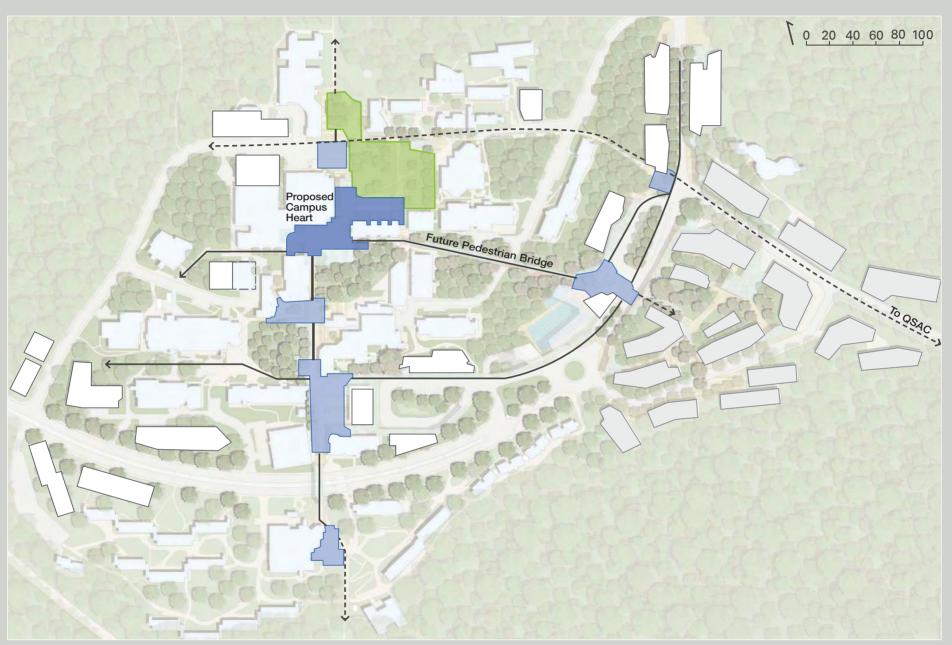
Campus Heart options

A number of options have been considered for this proposed new central amenity including:

- The Circuit which is the existing main entry point and which is in need of major upgrade. This location was, however, rejected as a future campus heart as it was considered too remote from the Business and Law Schools, the Northern Theatres and the Library.
- The Johnson Place Flora Reserve which is closer to abovementioned areas and which is appropriate for conversion into a courtyard space as noted in the natural habitat assessment (Section 3.3). This location was also rejected as the area slopes considerably, lacks activation on its south and west sides, and comprises large above ground natural terrain and rocks that would be difficult to remove. It is also a large space that would be difficult to ensure is continuously vibrant with activity.
- The Willett Centre Forecourt which was identified as having several attributes for a campus heart including:
 - It is the forecourt to the Library (Willett Centre) and thus is highly activated by pedestrian movement to and from all parts of the campus.
 - It is further activated by the Collaboration Zone on its northern side, and by movement to and from Central Theatres.
 - It has spatial proportions which can be easily orchestrated to create a heart equally pleasant with few people or large crowds.
 - It can be readily covered by high level canopy to provide all-weather conditions.
 - It occurs at the only point on the campus where a central east-west path connection to the Eastern Carparks can be formed.
 - It is the space most equitable in distance between the Science and Technology Precinct, the Environment and Health Sciences Precinct, and the Business Law Precinct.

A range of other factors were also considered as favouring the location for the future campus heart including:

- The potential to convert the Collaboration Zone and other parts of the Library into a new consolidated, centralised Student Centre.
- The ability to remove (or replace) the concrete bridge between the Central Theatre block and the Willett Centre as it is seldom used.



Long term structure plan with mixed use village to east





- The possibility of removing a small portion of the bush opposite Macrossan in order to create new café and retail spaces activating the courtyard.
- Detail improvements such as incorporating skylights into the Macrossan Theatres to enhance visibility and vitality of these spaces.
- The need, in any case, to provide a disability access lift to the lower Macrossan courtyard which could be seen as forming part of the campus heart together with the Goanna Lounge.

The preferred location for the new Campus Heart is therefore the Willett Centre forecourt. The main potential components of the Campus Heart in this location, following consultation with senior University personnel and Campus Life are:

- 'Opening up' of the Library to frontage to the courtyard.
- Removal of the overhead bridge or replacement with a lighter structure.
- Incorporation of a new Student Centre into the Willett Centre.
- Construction of a one-two storey café / retail pavilion, possibly also containing student facilities, and possibly with an accessible roof garden overlooking the courtyard.
- Translucent canopy over the courtyard.
- Revised staircase to the lower Macrossan level with refurbished Goanna Lounge.
- New stair down from Central Theatres and new lift from courtyard down to lower Macrossan level.
- Skylights incorporated into the Macrossan theatres from the courtyard.

Although it may not be feasible to construct a bridge link for pedestrians to the East Ring Road in the first stage, provision should be made for this eventuality.

4.2 Identifying Future Growth Opportunities

Sections 3.4 and 3.5 illustrate where future campus development can occur based upon environmental and topographic constraints.

The primary growth opportunities are:

South West

The area to the west and south of Technology (N44) addressing the South Ring Road and one also addresses West Creek Road. These buildings would most likely relate to Science and Technology precinct.

South

To the south of the Ring Road and west of Kinaba College, the land is considered suitable for future residential accommodation as far as Griffith Road.

North West

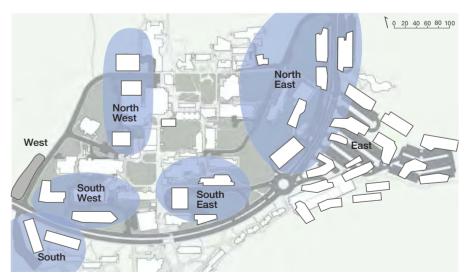
This area has limited potential, primarily by expanding the Willett Centre northwards over the service areas at ground level. There may be some opportunity to the west of Sewell (N12) along West Creek Road if the Cinema were to be relocated to another site, and the carpark east of the Campus Club could be considered with or without building over the external plant unit.

West

The land to the west of West Creek Road is generally regarded as native forest into which major buildings should not be inserted. However, the edge of West Creek Road could be considered for relocating Maintenance & Uni Print along with the University Store, as close as possible to the Ring Road.

North East

There is only moderate expansion opportunity in the vicinity of the Business and Law Buildings due to environmental constraints. Therefore, for expansion of these Schools and any major other expansion of the campus, the University will need to look to the edge along the East Ring Road. Potential sites include the carparks 'strips' along either side of the road towards University Road, and the sites of the existing Maintenance & Uni Print (N26) and University Store (N51), if these were relocated.



Potential future growth precincts



Master Plan

Prior to development of East Village and building on the Circuit precinct

South East

Development opportunities are limited in this quadrant to The Circuit area which would need to be revised to facilitate building siting. Because The Circuit is widely regarded as uninspiring (refer Taskforce Report), a reconfiguration could provide for a major gateway building to straddle over a new University forecourt. There are also possibilities for building between The Circuit and Health Sciences (N48) although the terrain is relatively steep.

East

Most of the building sites mentioned above can be developed with minimal or moderate disruption to the campus, except at The Circuit. However, it is the Eastern Carparks that will facilitate major future expansion especially for mixed commercial, residential and research development as envisaged for the Nathan / Mt Gravatt Knowledge Precinct.

4.3 New Eastern Entrance, Bridge and Entrance Building

The Cardno Eppell Olsen transport analysis, discussed in Section 3.2, recommended the formation of a new second entrance to the campus on the East Ring Road.

A major purpose of this new entrance is to alleviate congestion on The Circuit especially as bus demand increases. However, the second entrance will also afford other significant advantages:

- It offers closer proximity to University Road where the new major 'Knowledge Precinct' Village is planned, as per the 'Scoping Study for the Creation of an Integrated Nathan / Mt Gravatt Knowledge Precinct'.
- It forms a threshold between the academic core inside the Ring Road and this future 'East-Village'.
- It can act with building development to substantially increase the vibrancy of the campus along the East Ring Road in lieu of the continuous carparks and bushland that exist currently.

The new entrance road will need to be formed as a loop road of comparable size to The Circuit to cater for future bus, taxi and vehicular setdown requirements. The most logical location topographically for the loop is in place of the University Store (N51).

The loop could be sited so as to provide for construction of an associated entrance building parallel to Languages (N56).

There are as yet no identified functional requirements for such a building, however, as a research / commercialisation building it could be an architectural 'flagship' for the campus illustrating an environmental design focus.

The new entrance loop needs to be created in conjunction with a pedestrian bridge directly connecting the East Ring Road and Eastern Carparks to the new Campus Heart. This bridge will span over picturesque bushland although it would be desirable to angle the bridge away from the Patience Thoms building, and the satellite dishes would need to be relocated elsewhere.

The bridge should be regarded as a major architectural element of the campus and as a significant part of its 'rebranding' as an innovative, environmentally sensitive campus. When constructed it would form an East-West Pedestrian Spine potentially as significant as the Johnson Path.

4.4 An Aquatic Recreation Centre

The new Campus Heart will form a central focus of social life for the Nathan campus. Together with the existing library – refurbished and 'opened-up' to the forecourt – and a new Student Centre in the Willett Centre, the proposed courtvard will be the campus' most vibrant and active space.

However, the creation of this feature will not necessarily fulfill the deficiencies of a campus being found to lack attraction as a campus of choice, and other University campuses have outstanding social hubs or are in the process of creating them (UQ St Lucia on its Schonell Bridge approach, QUT Gardens Point with its new South-East Precinct for example).

It is proposed to create a recreational swimming lagoon and health / fitness centre as the focus of the intersection of the new entrance road with the Ring Road East. The siting of the aquatic centre to the south of the proposed entranceway allows for a 50 metre pool and for one or more terraced pools into the landscape.



Master Plan

Showing notional East Village Precinct and raised building over The Circuit



The concept proposed is similar to Cox Rayner's Thuringowa Riverway in Townsville which has proven to be an outstanding success in galvanizing its large community, especially by design integration of the pools with the building serving them. At Nathan, the Aquatic Centre could become an 'iconic branding' element of the campus, renowned for its environmental excellence and innovation.

The Aquatic Centre location selected is ideal for access from the proposed future 'East Village' for which the centre could act as a significant development catalyst. The site is also well located for pedestrian access around the Ring Road from the residential colleges.

However, it is the high visibility of the pools, terraces and environmentally evocative building on the main vehicular arrival point to the campus which could be the most transformational ingredient of the Nathan campus. In one sense, the proposed pool and lagoons reflects the original Johnson concept of a lake-based campus albeit on a smaller scale than Johnson envisaged.





Thuringowa Riverway Swimming Lagoons + Pavilion, Townsville

4.5 The Circuit + Johnson Place

The Circuit is an important space as it is the existing main place of arrival at the campus. It was sited in its location in the original master plan such that vehicles could gain access close to the central pedestrian spine (the Johnson Path), which topography prevents elsewhere on the eastern side of the campus. Unfortunately, this siting requires vehicles to travel a substantial distance around the campus from University Road off the Pacific Motorway.

The proposed new 'Eastern Gateway' entrance loop will partially address the distance issue, especially for buses which would be able to stop at both entrances in future. The second entrance will also enable The Circuit to be slightly reduced in road length such that a new entry forecourt can be created in front of the Bray Centre.

The new University entrance forecourt is proposed to feature the following key elements:

- Removal of all existing canopy structures and creation of a new high level translucent entrance canopy, continuing down the Johnson Path to the Campus Heart.
- Reconstruction of broader, gentler steps to the Bray Centre and reconstruction of the foyer and reception within the Bray Centre.
- Lining of the sides of the pedestrian tunnel with back-lit faceted glass and formation of a new vertical skylight 'stack' as a Ring Road marker.
- Integration of shops and cafes into the eastern edge of the Johnson Path (Environment 2) in lieu of existing security and other services.

The Circuit project could be undertaken concurrently with improving the amenity of Johnson Place with pathways connecting new seating courts within this flora and fauna reserve.

In the medium or longer term, it is proposed to construct a major new entrance gateway building between the Bray Centre and Environment 2 (N13). This building could be elevated on 'piloti' to facilitate walking underneath between a further truncated Circuit and the new University forecourt. This building could be a research centre with commercialisation of research and / or an international centre reinforcing Griffith's international links and status.

The potential exists for a further building helping to activate The Circuit along the edge parallel to Environment 2. However, this area has steep topography and would require detailed investigation for feasibility of expanding on the site. A third possible building site exists on the southern edge of The Circuit.

4.6 The Johnson Path

The aforementioned proposals reinforce the need for the Johnson Path to be upgraded, at least from the tunnel at the Bray Centre to the proposed Campus Heart and down to the lawn below.

The proposal for upgrading encompasses the following main elements:

- Unit paving for the full length and width in a high quality natural or reconstituted stone.
- Continuous translucent canopy.
- Signage totems acting as visual markers of the Johnson Path.
- Incorporation of a new stair and lift for disability access to Macrossan's ground level.

These elements are discussed further in Section 5, however the primary aim for the Johnson Path is not only that it is reinforced as the campus pedestrian spine but that it connects the series of key spaces along it.

4.7 The University Lawn, Sewell Lawn + The East Path

A further key priority of the Master Plan is the refinement of the largely turfed space between the Macrossan Building, Northern Theatres, Willett Centre and the path known as East Path.

The proposal is to remove most of the understorey of the forest to the north of the space in order to create an expanded grassed area of the stature of a 'University Lawn'. This proposal allows for the retention of all large trees such that the space acquires the character of a rural landscape rather than of a formal 'Great Court' as has been previously proposed in other master plans.

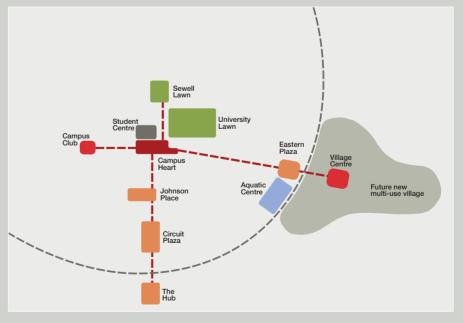
The East Path is proposed to be upgraded and connected across the University Lawn by new unit-paved pathways.

There is opportunity to redefine the space to the east of the Sewell building into a more formal rectangular lawn than currently exists. In this way, the 'Sewell Lawn' will form a legible termination for the Johnson Path which currently dwindles out, and the space will complement the new University Lawn as part of a distinctive character for the lower (northern) part of the Nathan campus. The theatre attached to Business 3 (N63) is proposed to be demolished in order to facilitate improved connections between the University Lawn and the 'Sewell Lawn' if programming of existing theatres can compensate its use.

4.8 Conclusion - The New Campus Structure

The aforementioned master plan elements act to create a legible planning structure of pathways and new development sites which will:

- Re-establish an overall logic for future growth and change rather than the random patterns that have occurred over the past two decades.
- Generate distinctive new amenity 'hubs' particularly the Campus Heart and the Aquatic Centre – which will assist in student and staff attraction and retention.
- Enhance the character of the central spine the Johnson Path as a vibrant, 'cosmopolitan' pedestrian street.
- Establish a new cross-path of potentially equal status to the Johnson Path, this path linking the proposed 'East Village' to the campus and facilitating a new major entrance point to the campus.
- Differentiate the character of each of the major open spaces on the campus from each other, thereby removing the relentless homogeneity of spaces across the campus.
- Incorporate the principles of environmental sensitivity established in this study for the campus.



Primary structuring elements



Section 5: Precinct Designs



The precincts

This section illustrates concept designs for the precincts that are considered most important in realising the Master Plan. The precincts are:

- Campus Central Precinct, including the new Campus Heart and Johnson Place.
- University Lawn Precinct, including the Goanna Lounge.
- The Circuit Precinct, including the pedestrian tunnel.
- Eastern Gateway and Aquatic Centre Precinct.

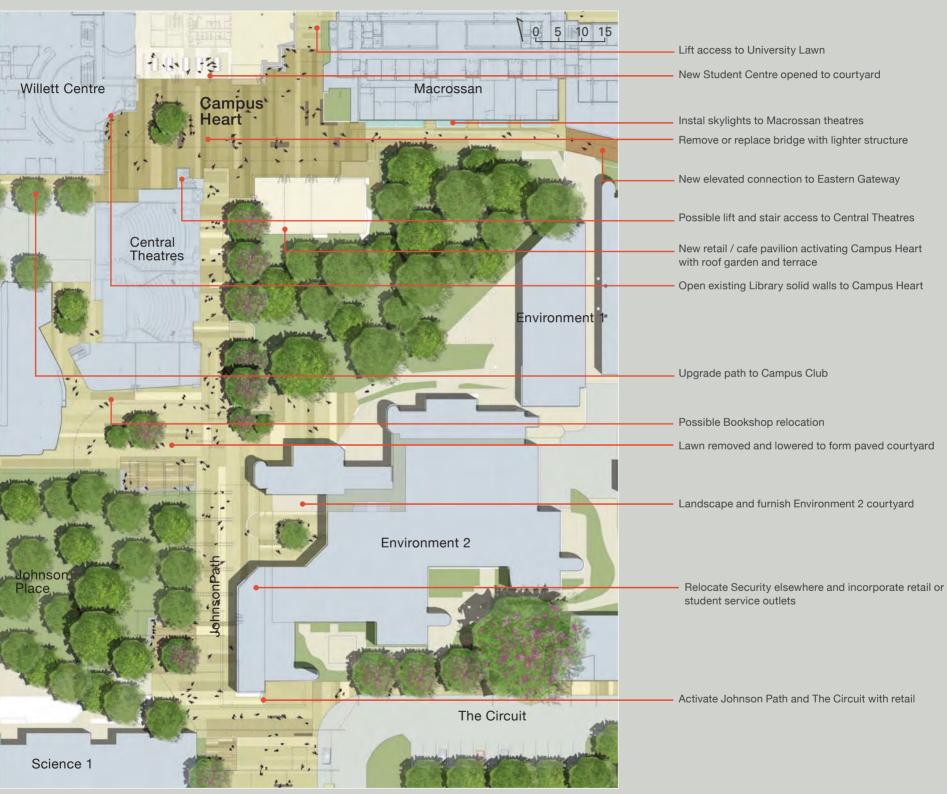
The concept designs are intended to enable the University to proceed into design development as soon as funds are available. Together, the precinct upgrades will create a dramatically enriched campus life, generate a new identity for the campus, and resolve many of the issues and deficiencies identified by staff and students.

Prioritisation of the projects is dependent upon a range of factors including cost, functional disruption, and detailed environmental analysis. High order costing of the projects has been undertaken and is contained in separate documentation.

In addition to these major projects, concept designs have been prepared for a number of other precincts that are considered less critical but nevertheless of importance. They are:

- The spaces between the Science + Technology buildings.
- The area between the Campus Club and Science 2 (Science Road).
- The Northern Theatres 3, 4 & 5 courtyard.

In total, the seven precincts encompass nearly all the spaces and building interfaces within the academic core of the campus. No recommendations are made for areas outside the Ring Road, such as The Hub and the residential buildings, as these are considered to be less critical to the campus upgrading. However, it is understood that the residential precinct is the subject of ongoing reviews.



Campus Central Precinct design - ground level

5.1 Campus Central Precinct (Campus Heart)

5.11 Rationale

The Campus Central Precinct encompasses the proposed Campus Heart, and extends up to The Circuit and to the staircase down to the Willett Centre undercroft.

In one sense, the whole precinct should be reviewed as the Campus Heart, a vibrant series of spaces linked by the Johnson Path in the core of the campus.

Specifically, the 'heart' is the courtyard which is defined by the Willett Centre (Library) entrance, the 'Collaboration Zone' within the Library, Macrossan, Central Theatres and the bushland encased by Environment 1 and 2 buildings.

This courtyard occurs at the sole place where the Johnson Path deviates off its alignment, and hence the Campus Heart can be seen as a gathering point of the two alignments. The courtyard is also at the junction of what could be described as the upper and lower campuses of the University, connected by the Macrossan staircase.

The location of the Campus Heart coincides with the alignment of a proposed new major east-west pedestrian axis out to the East Ring Road. This axis is proposed to be materialised by a footbridge out to a new Eastern Gateway to the campus (refer Section 5.4).

To the south of the courtyard, it is considered equally important to upgrade the Johnson Path up to The Circuit, and to the north to refurbish the Macrossan staircase simultaneous with the courtyard works.

5.12 Canopy

The majority of the courtyard is proposed to be covered by a translucent canopy, supported by a fine steel structure creating an all-weather environment. The canopy is seen as an iconic, dynamic structure extending above the Macrossan building as illustrated in the sections and sketches on pages 61-62.

It is proposed that the canopy comprises layers of translucent material and battens that provide varied light penetration and play of shadows on the ground plane.

5.13 Pavilion

A one storey 'pavilion' building is proposed which forms an active edge along the bush courtyard and reinforces definition of the Campus Heart. The pavilion should primarily comprise cafes in order to 'critically mass' the eating experience on campus, and it may entail the relocation of some existing cafes to this space.

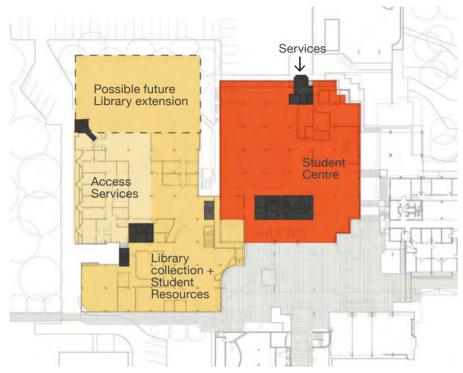
It is proposed as an insitu concrete and timber building to generate a crafted quality, and its roof is proposed to be an elevated, covered garden terrace extended off the upper walkway of the Central Theatres.

The pavilion is the major new ingredient of the Campus Heart, and it is planned to potentially open out both to the main courtyard and to the bush environment.

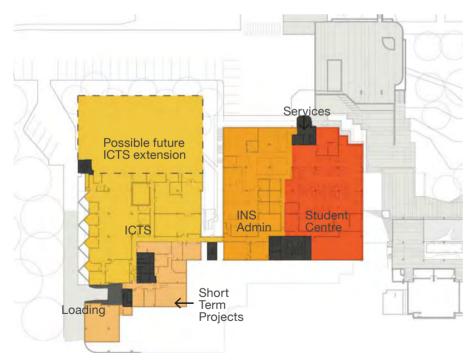


Campus Central Precinct design - canopy plan





Possible Student Centre - courtyard level



Possible Student Centre - level below courtyard

5.14 Student Centre

It is proposed to refurbish the Willett Centre's Collaboration Zone and other portions of the library into a new Campus Student Centre that consolidates all or most of the existing facilities dispersed around the campus.

Creation of the Student Centre at the new Campus Heart will further enliven the central precinct, with the courtyard interface envisaged as a linear reception space openable out to the courtyard.

Preliminary analysis indicates that the Student Centre will require extensive refurbishment of the Willett Centre's east block, and potentially significant rationalisation of the library.

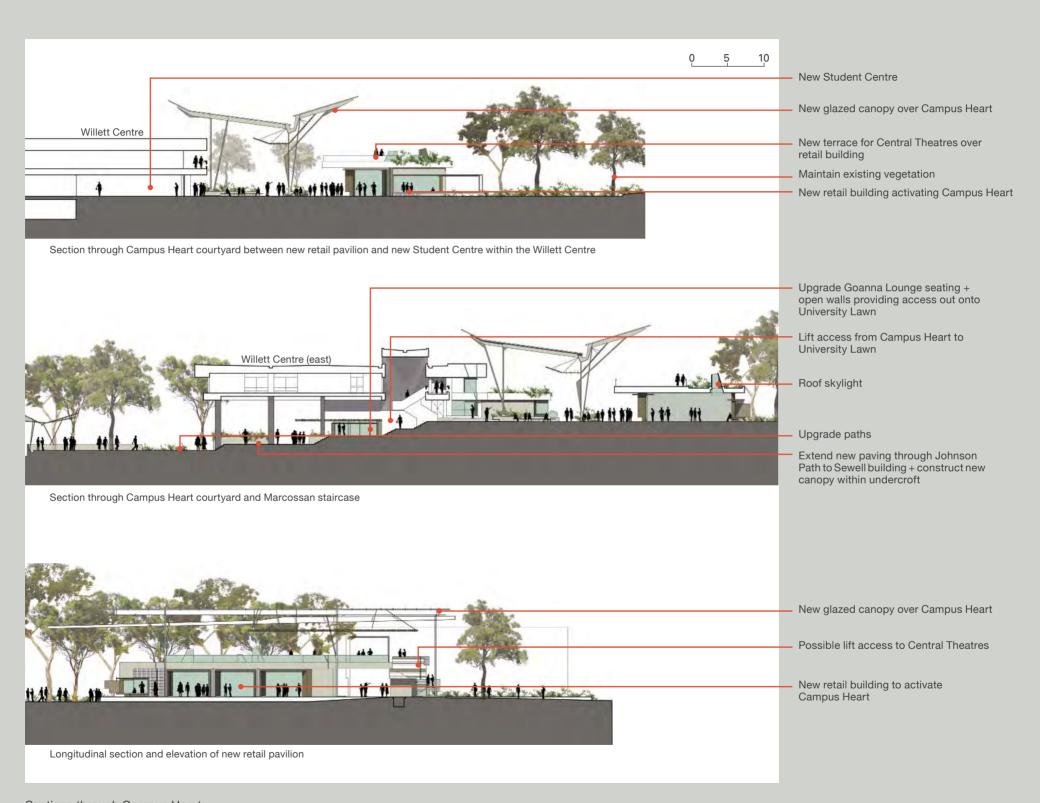
The accompanying drawings illustrate one option for incorporating a Student Centre. This option presupposes that:

- The Library collection and student resources at courtyard (main) level can be rationalised or relocated to facilitate full takeover of this area for the Student Centre. (This rationalisation may entail the Library substantially reducing its stack provisions).
- Approximately half the area below can be allocated to the Student Centre, the other half either remaining as is or occupied by a rationalised INS Administration and Access Services.

This option would potentially provide in the order of 2,400m2 of floor area for the new Student Centre. No assessment has been made of the adequacy of this area or of the impacts upon the Library or other services within the Willett Centre, and the concept is provided as an indication only of an objective to position the Student Centre in this location.

The strategy allows for more than one access level to the Student Centre, with the lower level being at grade with the Enternet Café space. It is likely that a new interconnecting stair and lift will be required.

The Bookshop at the next level could be considered as part of the Student Centre, as this location of the Bookshop is not optimal. A potential new Bookshop location would be in the proposed new Pavilion building adjoining



Sections through Campus Heart



Alongside Macrossan towards the Willett Centre



From proposed new terrace towards new Student Centre



Towards new retail / cafe pavilion from Willett Centre

The strategy allows for more than one access level to the Student Centre, with the lower level being at grade with the Enternet Café space. It is likely that a new interconnecting stair and lift will be required.

The Library Plaza Bookshop at the next level could be considered as part of the Student Centre, as this location of the Bookshop is not optimal. A potential new Bookshop location would be in the proposed new Pavilion building adjoining the main Campus Heart, where it can contribute better to campus life.

5.15 Accessibility Changes

It is proposed to remove the concrete bridge between the Central Theatres and the Willett Centre as it visually subdivides the space. Consideration could be given to replacing it with a lightweight steel bridge.

A new lift would be needed in the courtyard at the end of the Central Theatres upper foyer to provide external equitable access to the upper level unless the existing bridge is replaced with a new bridge.

It is proposed to modify the staircase down to the undercroft by improving the landings and incorporating a lifts to provide equitable access to and from the Macrossan Lawn level. These two lifts are necessitated by the fact that existing lifts inside the buildings do not meet accessibility code requirements for equitable access.



Perspective sketch of Campus Heart courtyard from eastern end looking towards the Willett Centre with cafe pavilion garden terrace on left and new Student Centre on right



5.16 Willett Centre Library Entrance

Currently, the cylindrical space within the library is visually separated by solid wall from the courtyard outside it. It is suggested that this space could be made more open to the courtyard by replacing walls with glazing and potentially transforming the interior space into a reading lounge. This strategy would entail relocating the security point and rearranging the functions around the space. However, it would significantly improve the vibrancy of the library and the proposal should initiate a comprehensive review of the library throughout, most of which appears dated and not expressive of a contemporary resource centre.

5.17 Macrossan Theatres

The Macrossan theatres present solid volumes into the courtyard space. Their height is such that angular glazed roof sections can be inserted facilitating visual penetration between the courtyards and the theatre auditoria. This proposal will significantly improve the building's visual permeability.

5.18 Courtyard Treatment

The Campus Heart courtyard is proposed to be paved in the same unit (stone) paver that is to be used over the rest of the upgraded spaces. It could however, present a difference in geometry or comprise an additional paving treatment to reinforce the space's centrality.

The courtyard is proposed to be extensively furnished including customdesigned seating nooks and café furniture. The canopy should be uplit at night, such that the Campus Heart can be readily identified.

5.19 Johnson Place Flora Reserve

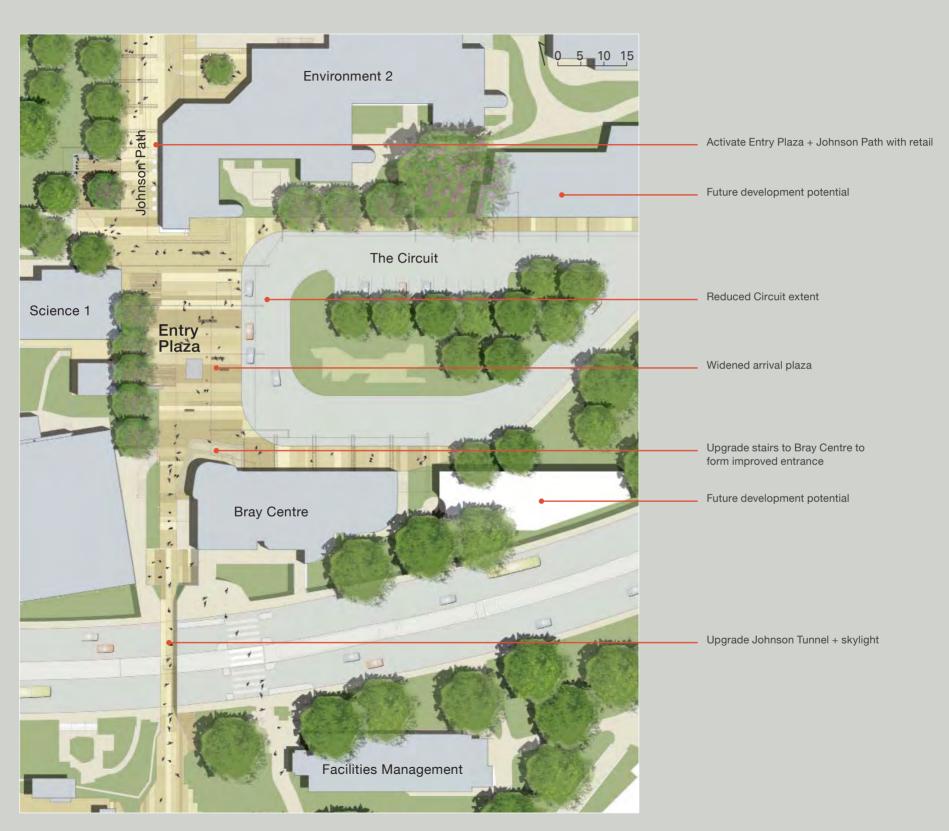
The Johnson Place lawn area is proposed to be lowered to grade and paved to create a more usable courtyard space. The space should be furnished to the same quality and design as the Campus Heart, and be partly canopied for weather protection over the main eating and seating areas adjoining the bush reserve. This canopy will connect with the Johnson Path canopy with weather protection through the Campus Heart courtyard being provided by the Central Theatres building. The new canopy is also proposed to extend through to encompass The Circuit.

The bush reserve is proposed to have some of its under-storey removed and seating 'nooks' inserted along a series of low key pathways. These nooks could take the form of timber pavilions with translucent roofs, which harmonise with the natural setting.

The existing retail outlets all require upgrading and it is proposed to insert new retail outlets along the edge of the Environment 2, necessitating relocation of the security office to a more discrete location. Should this proposal result in a surplus of retail space, an option for relocating the presently subterranean Library Plaza Bookshop (N28) would be in the existing retail area adjoining the Central Theatres off Johnson Place.

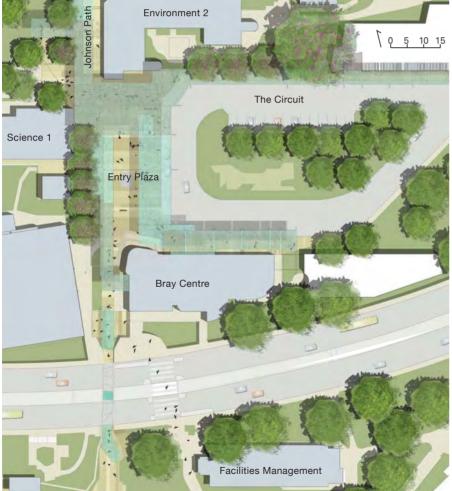
5.20 Environment 2 Courtyard

The courtyard fronting Environment 2 is a particularly bleak space lacking furniture and planting. Although not a large space, it would benefit from a translucent canopy over part of the space, together with incorporating seating clusters, edge planters, new paving and a tree in a raised planter. This courtyard could serve as a test case for the larger Johnson Path spine improvements.



The Circuit Precinct - ground level





Proposed canopy extent

5.2 The Circuit Precinct

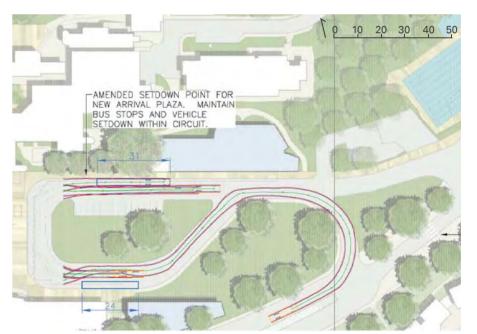
5.21 Rationale

The Circuit Precinct comprises the loop road that acts as the 'front' door to the campus, and extends to the tunnel beneath the Ring Road and to Johnson Place.

There have been several criticisms from staff and others, and was referred to in the Taskforce Report as being "in desperate need of an upgrade to provide a sense of arrival for students, staff and visitors". This included the low roof canopy line "frowns" on the visitor and is an "ugly white roof". A range of improvements were suggested, including:

- A new campus entry canopy structure.
- A refurbished tunnel on the Johnson Path.
- New pavements.
- Bus stops relocated to the north and south with new shelters, seating and signage.

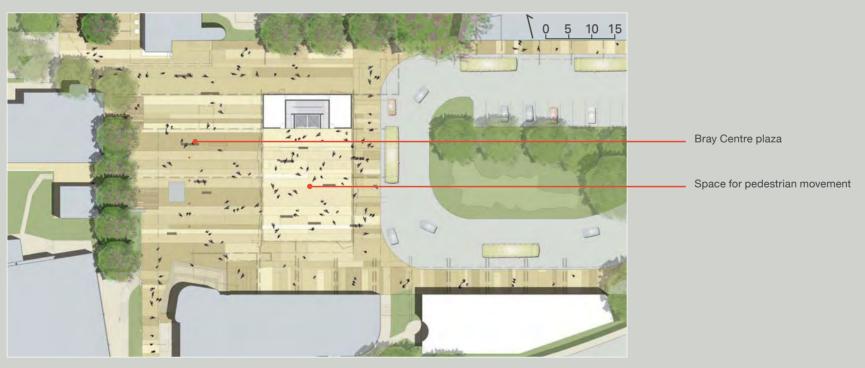
The Master Plan proposal accords closely with these suggestions, however in a more dramatic form than envisaged. This form entails the widening of the paved pedestrian realm, and consequent shortening of the loop road, in order to create a new identity of a people-focused campus.



Cardno Eppell Olsen dimensional diagram of revised Circuit



Upper plan



Lower plan

The potential new gateway building to the campus on The Circuit







Notional section through potential 'gateway' tower at The Circuit with pedestrian movement underneath from kerbside setdown to Bray Centre plaza.

Over the pedestrian realm is proposed a 2 storey high, translucent canopy comparable to that proposed over the Campus Heart courtyard.

Together with some minor upgrades, such as lengthening the Bray Centre staircase and refurbishing its unattractive foyer, the strategy is devised to maximize value and impact so that it can be undertaken in the first stage(s) of the Master Plan implementation.

The strategy importantly provide for a future stage of The Circuit's transformation, entailing the development of a new tower building between the paved plaza and the loop road further truncated.

This building is proposed to be raised on piloti so that visitors can move freely underneath between the loop set down area and the plaza. The tower could be in the order of 12 levels to establish a distinct entry statement, and it translates the plaza into a courtyard defined on each edge by built form. It is understood that the tower would not be developed until there is demonstrated space demand, however it is sited such that the early stage paved and canopied areas would be unaffected by the development.

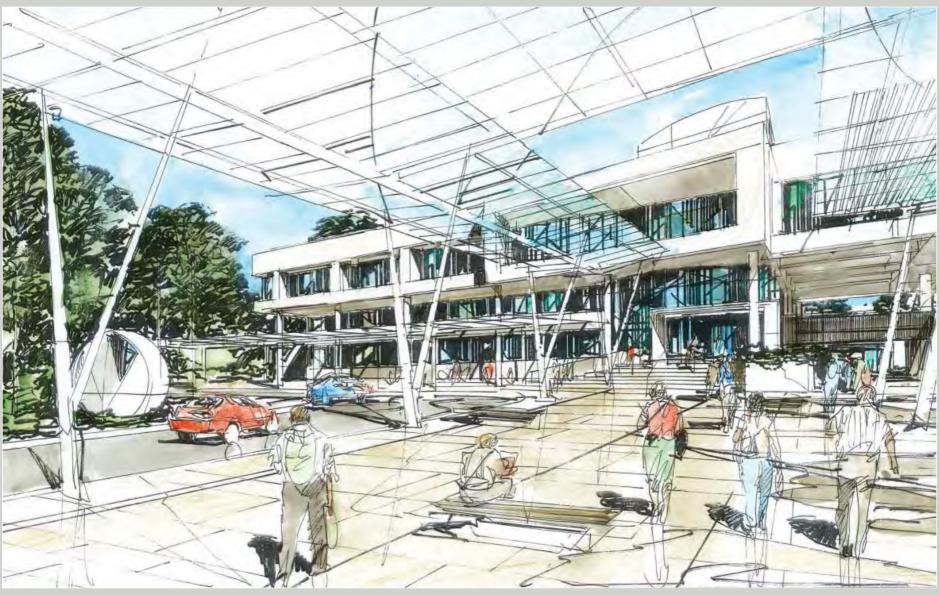
5.22 The Canopy + Entry Plaza

The proposal requires the complete removal of the existing entrance canopies and the construction of one large continuous canopy between the Bray Centre and Environment 2. The design indicates that the canopy is in two linear portions with an open air space in the middle.

The canopy is proposed to be steel-structured with translucent sheeting and timber-battened under-layer in parts. Along the north and south sides are proposed to be lower translucent canopies that provide weather protection to the bus setdown spaces.

The Entry Plaza is created by widening the pedestrian realm, creating a backdrop of formal trees and incorporating commissioned public art. The reduction of the extent of the loop road will not initially diminish the public transport service capacity of The Circuit, however it will necessitate the development of the proposed Eastern Gateway entry loop in the next few years.

Very high quality stone unit paving is proposed to signify the 'front door' to the campus, together with custom-designed seating and with lighting integrated into the canopy structure, and new directional signage.



Sketch of entrance plaza + canopy looking towards remodelled Bray Centre + tunnel

5.23 The Bray Centre

Arrival at the Bray Centre lacks the sence of welcome and civic identity of other university campuses, and it is more comparable to a city fringe office building address.

It is considered important to accompany the new entry plaza with a substantial upgrade of the Bray Centre's public spaces and elements including:

- Removal of the steep existing staircase and replacement with a new more gentle staircase paved to match the plaza.
- Removal and replacement of the low quality glazed surround to the foyer with a higher quality frameless system of glazing.
- Refurbishment of the foyer and reception desk with a 'crafted' character generated by raw materials and custom designed furnishings.

5.24 The Johnson Path Tunnel

The existing tunnel is an extremely poor environment due to the layers of posters, rough concrete walls and wire-protected central skylight.



Illustration of tunnel concept

There are several ways to upgrade the tunnel, however the proposal is to line the sides and soffit of the tunnel with faceted coloured glazing that is softly back-lit to generate a lighter, more vibrant space. The entry plaza paving should extend through the tunnel.

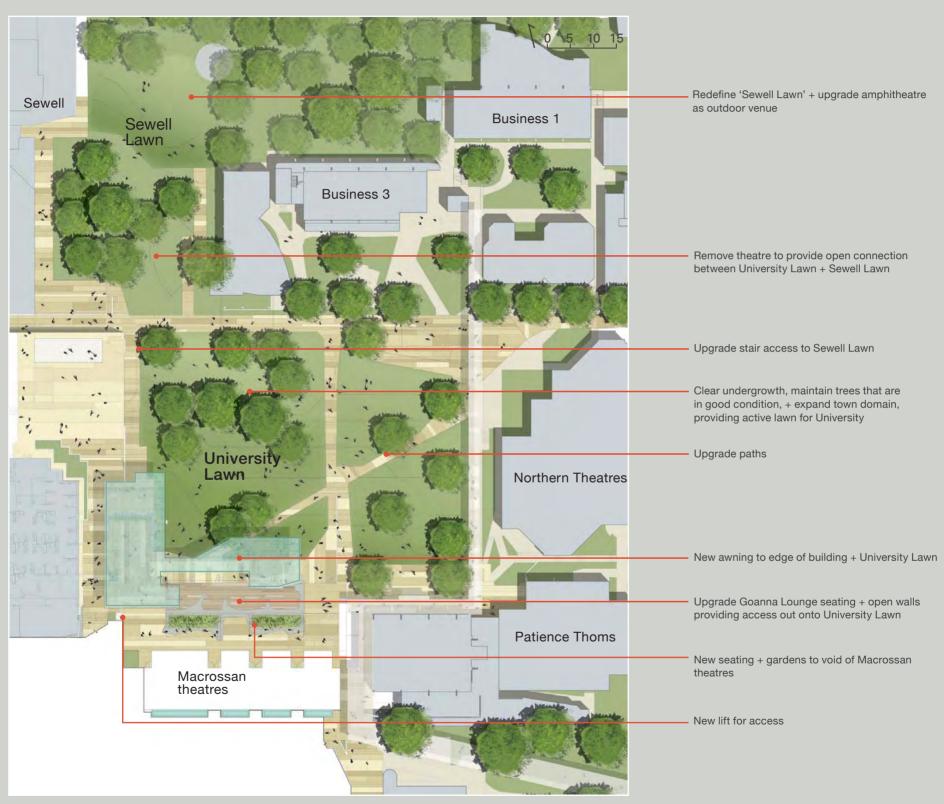
The faceted glazing is intended to discourage poster-billing, and the practice should be prohibited once the upgrade has occurred. It is recommended that in lieu of the existing poster provision, two new structures be erected elsewhere for the purposes of poster-billing. Possible locations for consideration, appreciating they need to be on a major movement route are:

- Integrated into the structure of the new bus canopy that extends along the northern side of The Circuit.
- Integrated between columns in the undercroft walkway between the Central Theatres and the adjoining bush reserve.

Within the tunnel, it is proposed to reconstruct the central skylight as a vertical marker on the Ring Road identifying the Johnson Path alignment. The designs would admit increased daylight penetration into the tunnel space.



Illustration of tunnel entry concept



Proposed University Lawn - Plan



Goanna Lounge opened up



Aerial view

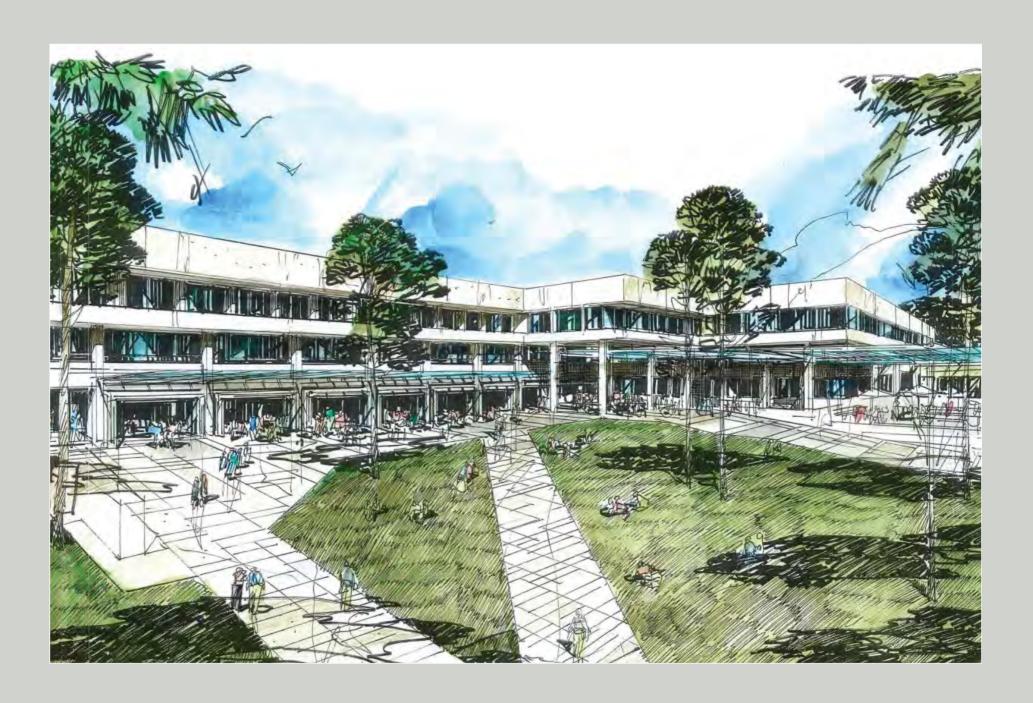
5.3 University Lawn

5.31 Rationale

This relatively large lawn space (defined by Macrossan, the Northern Theatres 1 & 2, the Willett Centre and Business 3), is sparingly referred to in previous master plans – their main focus being upon native bushland landscape. The 1998 Site Planning Review called for "increasing usage of internal grassed, courtyard and open spaces" as being probably the most important factor influencing campus landscape design decision in recent years", however, it was the 2001 Johnson Path Design Report which first focused on the space. In this report, the space was proposed to become the University's 'Great Court'. The report states "This area currently comprises a mixture of paving, lawn, bushland and retaining wall structures. The design intent is to remove these elements and create an open lawn court surrounded by native pine trees". The same concept was repeated in the 2006 Griffith University East Path Report in which it is stated that it "Supports the intent of the Johnson Plan". There appears to be no evidence that the original 1973 Johnson Plan proposed such a 'Great Court' and the 1979 review referred to it as a flora reserve no different than other bush landscapes on the campus.

It is considered that these previous proposals to create a so-called "Great Court" should be abandoned as being both inappropriate in the context of the bush character of Nathan, and incapable of obtaining the stature of other University Great Courts such as at the UQ St Lucia and Sydney University. Moreover, the space lacks the edge activation, flatness and formal interface that are necessary to create such a grand space. It would also require the removal of many substantial native trees that are characteristic of the space.

The intention, however, is to expand the grassed area by removing understorey bush on the northern and eastern sides. This proposal will open up currently blocked views of the Business/Law Precinct from the new Campus Heart and upper campus. The major existing trees would remain and impart to the space and the sense of a pastural landscape, semi-formalised but still retaining its feeling of belonging with the other courtyards and gardens in the campus.



5.32 Proposal

The proposal is to clear the undergrowth to the south of the east of the space, and to replace it with lawn and paved outdoor seating areas around the lawn. An environmental study should be undertaken to determine if any trees should be, or can be removed to open up sight lines across the lawn.

The existing pathways are proposed to be retained and extended as shown on the accompanying plan, and paved to a comparable standard to the campus heart.

A new light weight, translucent canopy is proposed under and extending out from the Willett Centre undercroft to create a more human-scaled experience and for weather protection along the Johnson Path.

The café under Macrossan is proposed to be retained and upgraded, but the retaining wall in the adjoining lawn should be partially removed, opening up the currently blocked vista and utilising stairs or ramps.



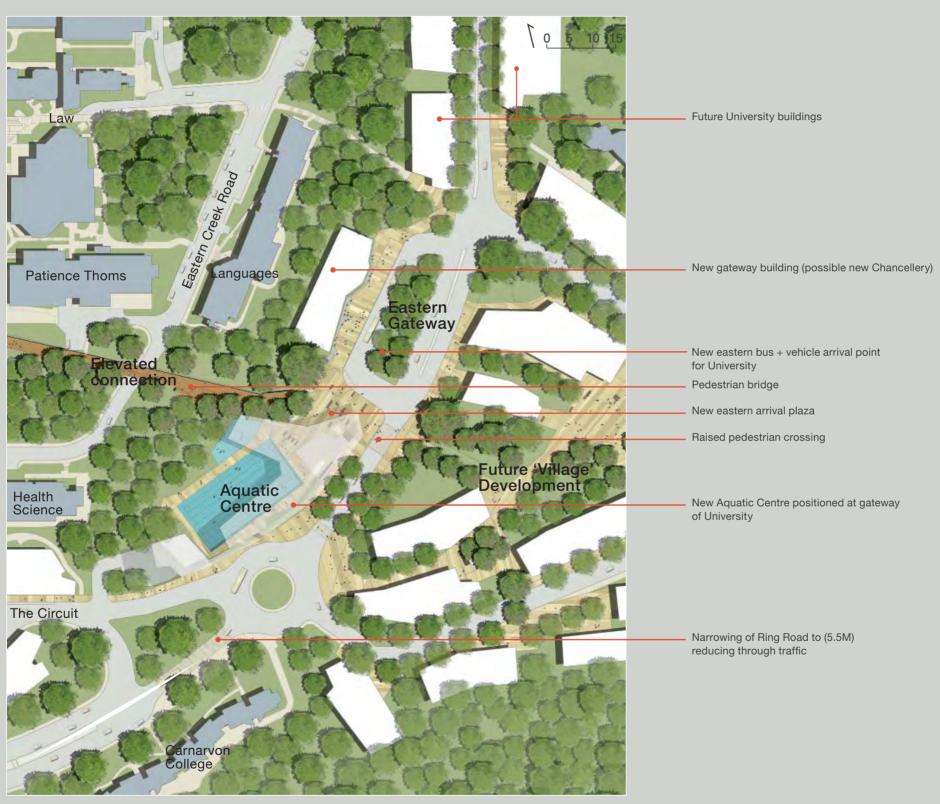
The underutilised walkway bridge on the eastern side of the lawn should be considered for removal as it is unsightly and lacks utilisation.

The East Path and the courtyard to the north of the space entering the Business/ Northern Theatres 3, 4 & 5 Precinct should be regarded as part of the upgrading project, with emphasis upon visual permeability and upon amenable seating areas.

The open space to the north-west of the proposed 'University Lawn', adjoining the Sewell Buildings, offers an opportunity for redefinition as a complementary lawn space. This redefinition would provide a strong termination to the Johnson Path which currently dwindles out towards Mimosa Creek. The proposal entails the following main initiatives:

- Removal of the Theatre adjoining the Graduate School of Management in the Business 3 building, to visually connect the two lawns. Replacement of the Theatre may be necessary, however, discussions suggest that programming of other Theatres could obviate necessity for replacement.
- Rationalisation of the landscape to remove undergrowth, retaining most existing trees and increasing the recreational lawn area.
- Creating improved legibility and amenity for the amphitheatre and planting new native trees to reinforce the essentially rectilinear shape of the overall space.

The existing Enternet Café should be considered for removal as it forms a visual blockage along the Johnson Path to the Sewell Lawn space, exacerbating compass illegibility. It could either be replaced by a new design or reconsidered altogether in the light of the cafes proposed to attract gathering in the Campus Heart.



Circuit precinct - ground

5.4 Eastern Gateway + Aquatic Centre

5.41 Rationale

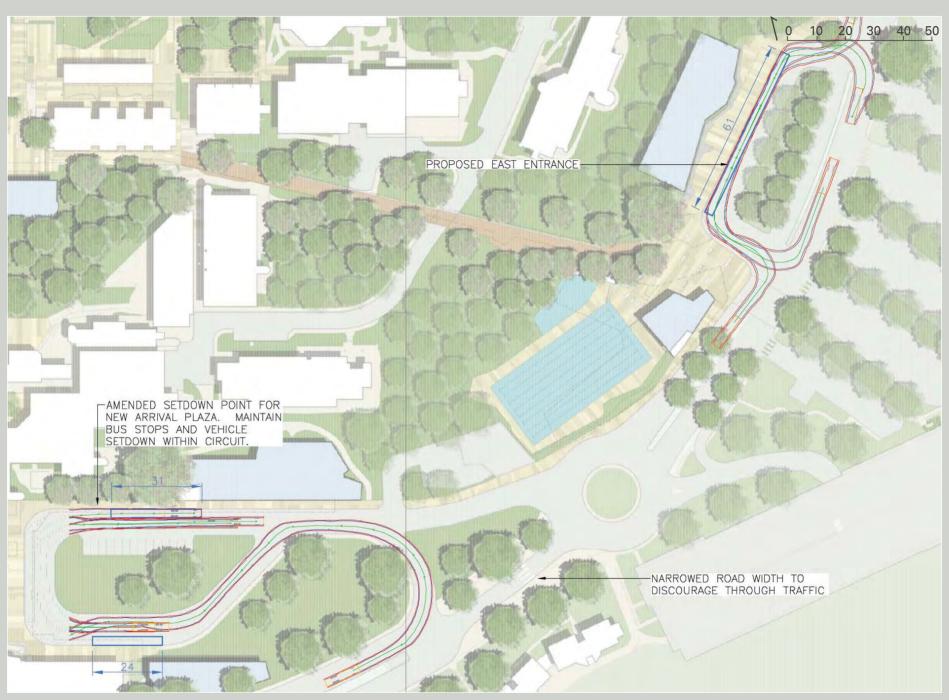
The proposition of creating a new 'Eastern Gateway' to the northern campus was canvassed in the Scoping Study for the Creation of a Griffith Nathan/Mt Gravatt Knowledge Precinct 2008. Its aims in this study were to:

- Create a more proximate entry to the campus from the Pacific Motorway and from a re-defined Brisbane Innovation Park.
- Generate a linkage between the campus and a proposed future mixed use 'Village' on the Eastern Carparks site.
- Alleviate future public transport and setdown pressures on the Circuit by sharing these roles with a second 'Circuit'.

Studies by Cardno Eppell Olsen as part of the Master Plan process demonstrate the desirability of a new Eastern Gateway Circuit, together with traffic-calming measures to reduce the intensity of through-traffic using the East Ring Road. A further significant rationale for the new Eastern Gateway is that it aligns with the proposed Campus Heart into which it can directly connect via a new pedestrian bridge.

The notion of creating a Campus Aquatic Centre stems from a range of motivations including comments contained in the Nathan Campus Taskforce Report such as "a swimming pool on campus would be great for students who live and study here, and for staff as many exercise on campus and are interested in staying fit and healthy" (Mrs Anne Fleet, INS). Other comments pertain to the "disconnect from the sporting facilities and the campus" and just that "sports facilities are lacking".

The proposed creation of a Campus Heart, and an upgraded Johnson Path and other open spaces proposed in this Master Plan, will do much to enrich the campus's social vitality – as similar changes have proven at QUT Gardens Point/Kelvin Grove and UQ St Lucia. Thus, such changes are not unique although Nathan has by design the potential to utilise its bush setting to create its new distinct character. The proposed Aquatic Centre, on the other hand, would create a place of social and physical wellbeing unique in Queensland to Nathan, and would be an extremely powerful "branding" statement for the campus.



Eastern Entry Option - Cardno Eppell Olsen Design

A precedent to the type of facility proposed is Thuringowa Riverway – a city/community multiuse aquatic centre in Townsville which physically interconnects lagoons with a café and cultural facilities. Riverway's lagoons cater for lap and recreational swimming and step down sloping terrain to create different forms of engagement with natural landscape. Roofs of the building pavilions extend out to partially cover the pools for solar protection. The complex has proven remarkably successful and popular in its two years of operation in a city previously lacking sports and recreational amenity, and it is also Townsville's most frequently utilised indoor and outdoor concert and theatre venue.

The design of the Aquatic Centre of Nathan is critical in this rationale, creating a place which integrates with its natural landscape setting and which forms a dynamic new 'front door' expression of the Nathan campus on the main vehicular approach of the East Ring Road. The Aquatic Centre site proposed links directly with the proposed Campus Heart via pedestrian bridge, enabling easy access during tutorial and lecture breaks. It is the combined social and recreational potential of the Campus Heart and the Aquatic Centre which will genuinely transform the Nathan campus into one of Australia's most desirable student and staff environments. Thus, if the possibility arose, the two places should be created simultaneously. The Pedestrian Bridge is conceived as a lightweight connection spanning above the bush adjoining Patience Thoms. The idea of this new east-west elevated connection was raised in the 1995 Griffith University Site Planning Review which proposed

two bridges, one on the proposed alignment. The report noted that they should "be light, elegant, unobtrusive structures demonstrating engineering excellence and innovation. They should not be like the heavy concrete elevated walkway structures that dominate the existing central activity court" (P72).

While these sentiments are agreed in terms of this Master Plan, it is considered that the Pedestrian Bridge and the Aquatic Centre canopies should be both lightweight and iconic of Nathan's new dynamism rather than unobtrusive.

5.42 Eastern Gateway

The Eastern Gateway is proposed to be a new circuit off the East Ring Road to be developed when the Pedestrian Bridge is created into the Campus Heart. It will also require the relocation of the University Store to the western side of the campus.

Cardno Eppell Olsen's study of the requirements for the circuit are:

- Minimum road width 7 metres, minimum radii 8 metres
- Minimum length of kerbside setdown 41 metres based upon estimated frequency of buses, anticipated dwell times and manoeuvring space for buses in and out when other buses are present. The 41 metre kerb length allows for car and taxi drop-off and pick-up, and one University shuttle bustop of 18 metre kerbside length.



Eastern Gateway Circuit, Aquatic Centre and Pedestrian Bridge linked to Campus Heart

A notional configuration based upon a 12.5 metre bus "swept path" is provided in the accompanying diagram.

The Eastern Gateway circuit could be marked by a "gateway" building which provides a canopy to the setdown area and which activates the arrival space, generating improved safety over a "stand-alone" circuit. A use has not yet been identified for the building, although one prospect could be as a new Chancellery and thus "front door" building to the campus. This building would have one or two levels below the circuit level due to the topography which could contain carparking for the building.

5.43 Pedestrian Bridge

The Pedestrian Bridge is considered to be an equally important element of the Master Plan, and is conceived as a steel structure with a lightweight canopy and either timber or precast concrete decking. It should be in the order of 4-5 metres wide and connect the proposed new circuit to a level adjoining the eastern end of Macrossan from which a durability access grade of 1:20 can be obtained up to the Campus Heart.

The bridge will form a prominent statement of accessibility to the academic core and its Campus Heart, particularly to and from the Eastern Carparks. It will become an even more vital element if and when the proposed mixed use Village is developed in this area.

The Pedestrian Bridge could be designed to cater for emergency vehicle access to the Campus Heart. It will require the relocation of the satellite dishes adjoining the Patience Thoms loading docks. No other particular alterations would be necessary at ground levels beneath the bridge, however, a semi-opaque screen could be used to filter views to Patience Thoms and thus focus visual aspect into the bush on the bridge's southern side.

5.44 The Aquatic Centre

As has been noted the Aquatic Centre is potentially the most transformational project in the Master Plan, distinguishing Nathan markedly from any other Queensland University campus. This distinction depends upon the design of the pool(s) and of a building made integral with the water elements.

The concept proposes a sculptural building pavilion with roof canopies cantilevering dramatically out over the pool(s) for solar protection. The form of the building should express the campus as a dynamic, active place in marked contrast to the existing institutional image.

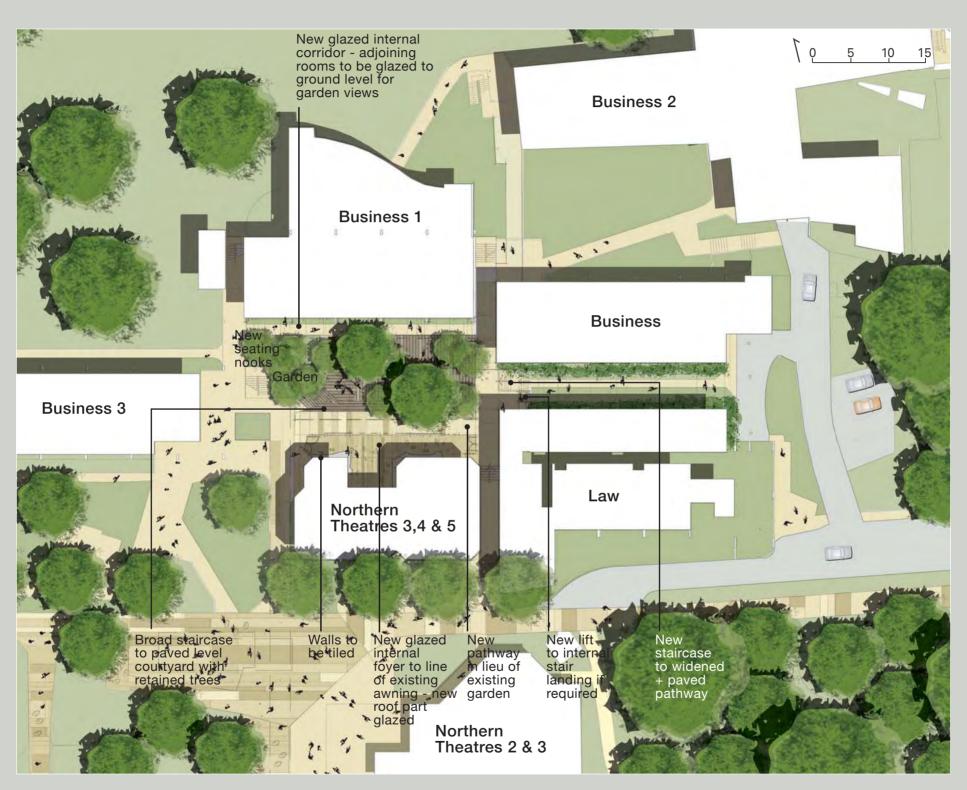
The pavilion should contain a poolside café which can be readily accessed from the Pedestrian Bridge, as well as change rooms, administration and health and fitness centre. It could also contain cultural facilities such as a Nathan campus art gallery and/or a multipurpose theatre or cinema. The latter possibility would facilitate the removal of the existing remote Cinema adjoining the Sewell building.

The combined impact of the Aquatic Centre, Eastern Gateway and Pedestrian Bridge will have a radical impact upon Nathan's accessibility, identity and experience addressing the University's endeavours to assert and reverse the decline of the campus, and thus these elements are strongly recommended for implementation.





Proposed Aquatic Centre design concepts



Proposed Northern Theatres Courtyard - Ground Plan

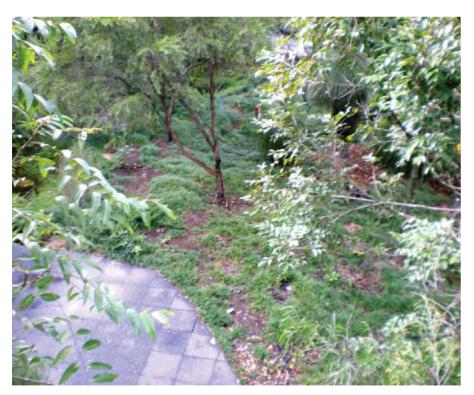


5.5 Courtyards + Landscaping

A fundamental principle of the Master Plan is the preservation of the natural landscape around the academic core and in the major vegetated spaces within the academic core. This strategy, discussed in Section 3.2 and 3.3, entails that there is a limited number of building sites available for future development and therefore, taller buildings may be required to cater for future growth.

Another consequence of the conservation strategy is the need to improve the quality and capacity of the courtyard spaces between buildings for relaxation and social gathering. Several of these spaces are currently relatively inhospitable and should be revitalised in addition to the major precincts illustrated in the preceding sections.

Two courtyards in need of repair are discussed in this section, one between the Science and Technology buildings, and one that fronts the Northern Theatres 3, 4 & 5. As an example of a spatial upgrade that could occur to create a new social environment, the link from the Willett Centre to the Campus Club is also



Existing Northern Theatres Courtyard

addressed. Lastly, an atrium/undercroft type space is examined, this being within Macrossan.

Within the outdoor landscape spaces discussed, and in general around the campus, there will be a need to reinforce some native landscape areas and at the end of this section a notional list of appropriate species is provided.

5.51 Northern Theatres 3, 4 & 5 Courtyard

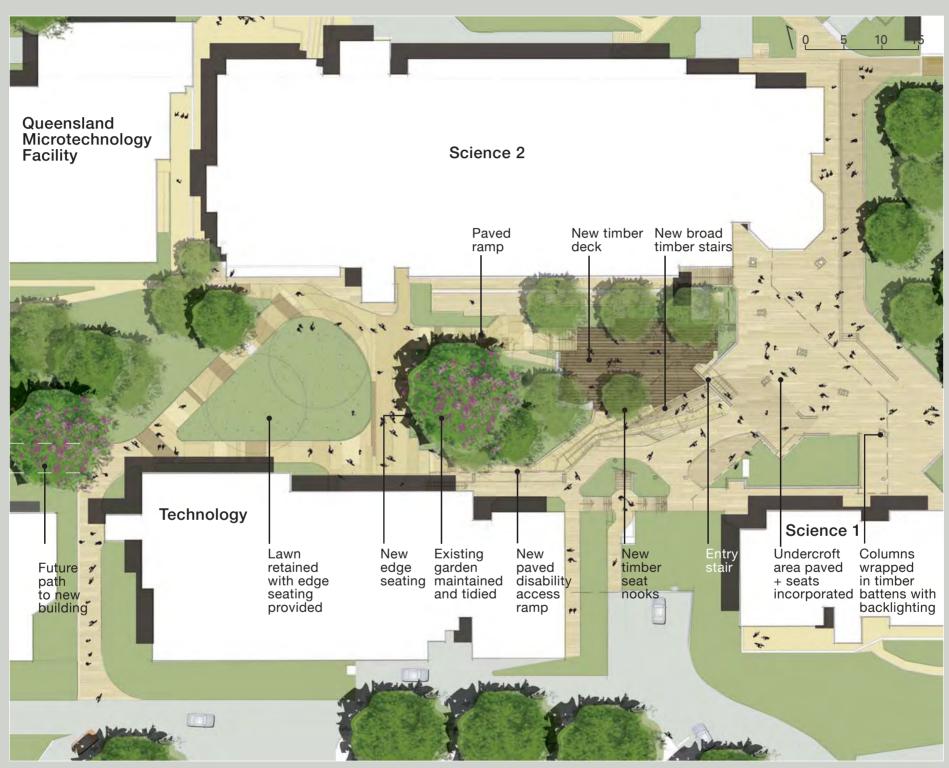
The address to Northern Theatres 3, 4 &5 is extremely unsatisfactory. While the faux Japanese courtyard has some quality, its dense bed of grasses is a refuge for cigarette butts and other rubbish. The courtyard offers no social gathering or seating space, the planted area being solely a visual element.

The proposal is to fully glaze the pathway in front of the theatre block out to the existing awning line. A new partially glazed roof and doors at either end will transform the pathway into a linear internal foyer to the theatres, with full height glazing offering outlook to the courtyard. The foyer can be enhanced by built-in seating and by filing the walls for the full length.

A new path is proposed in the existing garden area, from which a long staircase would provide access and seating up to courtyard level corresponding with the Post-Graduate Centre in the Business 1 building. The courtyard is proposed to be paved except for an area on the western side of the existing garden path which would be re-landscaped. The facing walls of the Post-Graduate Centre should be removed and replaced by full height glazing, providing expansive outlook onto the courtyard.

At the eastern end, the small ramp precludes any access opportunity to the path below. The ramp is proposed to be replaced by a small staircase so that wide stairs can be installed down to this path. Area exists for an external lift to the stair landing in the Law building, should equitable access in this location be necessary.

The new paved furnished courtyard and paved pathways, together with the Northern Theatres 3, 4 &5 foyer will dramatically improve the social amenity of this courtyard.



Proposed Science and Technology Courtyards - Ground Plan





Existing Science and Technology Courtyard

5.52 Science and Technology Courtyards

The space between the Science and Technology buildings is drab, mouldy and lacks spatial definition. Beginning at the barren undercroft at the eastern end, the concrete paved space below is dismal and lacking in furniture. Beyond this is a scrappy bush area with an unrepaired ornamental pool, and beyond are austere paths and a lawn also lacking furniture. The spaces are among the least amenable in the campus.

It is proposed to address the undercroft by wrapping the columns with timber battens and incorporating seating nooks and groupings with integral lighting elements. New stone unit pavers would extend over the ground surface and the concrete block division walls would be tiled.

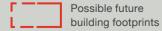
The space below is proposed to be accessed by a new 1:20 ramp on the southern side and the existing bush steps replaced by long timber steps forming seating planks and stairs. The circular block paved area is proposed to be replaced by a rectilinear timber deck creating strong spatial definition, with both built-in and loose seating furniture incorporated to create the major social space in the precinct.

The bush area should be cleaned out of undergrowth and revegetated. The cross-path and lawn space beyond are proposed to be lined by the built-in concrete and loose timber slat furniture proposed in Section 6, together with bollard and standard lighting selected. The seating nooks and tables should be equipped with computer terminals.

This new sequence of more legible and differentiated undercroft, timber deck and lawn spaces will provide students with a wide variety of social and relaxation opportunities.

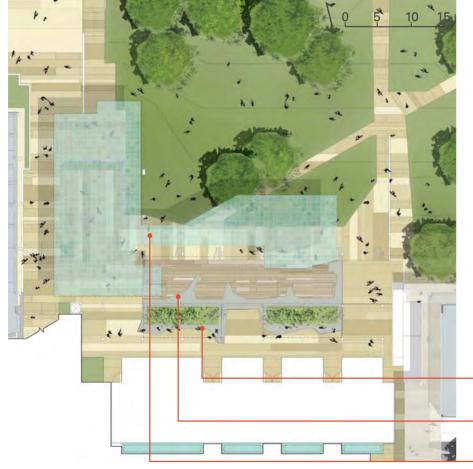


Proposed Campus Club Precinct- Ground Plan





Central Chiller Plant



Macrossan Atrium and Goanna Lounge upgrade

5.53 Campus Club Precinct

This area comprises an indistinct pedestrian link between the Willett Centre and the Campus Club, an exposed unsightly Central Chiller Plant and an area of bitumen carparking adjoining Science Road.

It is proposed to construct an elevated steel and timber boardwalk from the Campus Heart courtyard along the edge of the Willet Centre and through the bush to the Campus Club entrance. The boardwalk would have lighting integrated into the boarding, subtly uplighting the adjoining trees and a built-in seating niche extended into the landscape.

The carparking spaces can be relocated along the edge of Science Road so that this area can be replaced by landscaping, camouflaging the plant equipment. At a future time, the area could accommodate a new building with the plant equipment located underneath, creating an overall footprint in the order of $1,000\text{m}^2$.

5.54 Macrossan Atrium + Goanne Lounge

This linear space behind the Goanna Lounge is another substandard environment that can be dramatically enhanced.

The Goanna Lounge glazing should be refurbished to enable it to be opened up to the atrium by sliding doors. The surface treatment should comprise unit stone pavers and the theatre walls should be tiled, as has been proposed for the Northern Theatres 3, 4 & 5, to interject colour plus reduce maintenance.

The artworks suspended in the voids are badly soiled and should be removed.

Within the atrium space, new seating niches should be provided to provide alternative lounging opportunities to a refurbished Goanna Lounge.

New seating + gardens to void of Macrossan theatres

Upgrade Goanna Lounge seating + open walls providing access out onto University Lawn

New awning to edge of building + University Lawn



Coloured tiling



Stained timber battens

5.6 Building Treatments

Nathan's architecture has been criticised as being grey and drab. However, attempts to 'brighten up' the buildings with paint colours have not proven successful and tend to generate lacklustre outcomes such as in the Macrossan atrium space.

A major problem is that the bush proximity to buildings causes them to be easily stained. A program of replacing lightweight elements such as the white roof projections on the Science buildings should b established, together with a program of cutting vegetation back from building edges.

Much, if not most, of the ground level spaces are in poor condition, with minor attempts to upgrade them generally making the condition worse. The random location of vending machines, poster hanging and signage exacerbates the appearance.

Since it is the ground levels that students and staff most experience, a program of staged upgrading is proposed throughout the campus. This program should not include bright paint colours and instead should prioritise the use of applied finishes, including:

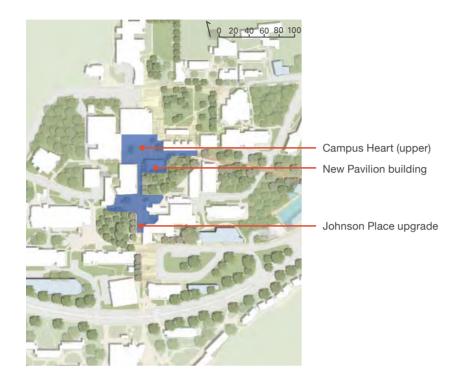
- Coloured tiling
- Stone cladding
- Timber battens stained

Where surfaces are to be repainted, it is preferred that they are limited to a monochrome palette, and generally existing unpainted surfaces should be left raw and cleaned rather than painted.

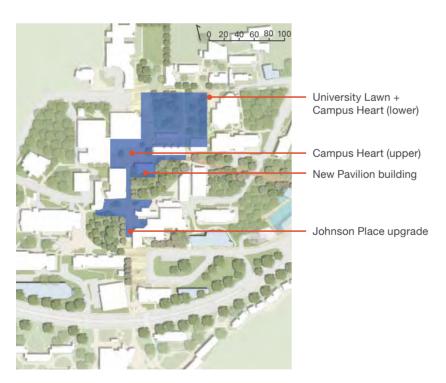
For canopy structures, tensile fabric structures should be avoided throughout the campus, as they are prone to staining in the bush environment – as is evident in existing structures such as near the Enternet Café. The new canopy structures are proposed to be steel-framed with Dampalon or equivalent translucent canopies, with steel or timber batten underlay in parts.

These strategies, including a major external cleaning program, will considerably improve the images and experience of the campus in conjunction with new signage, lighting and external furniture discussed in Section 6.





Option 1



Option 2

5.7 Implementation Options + Priorities

The proposed Precinct Design concepts have been cost estimated, the information being provided under separate cover. The cost studies are based upon a series of options illustrating different individual projects or combinations of projects that could be implemented.

The options comprise the following extents of project. Each option includes any necessary remedial or replacement works such as relocation of Maintenance & Uni Print, Stores and satellite dishes.

Option 1 Campus Heart Upper and Johnson Place

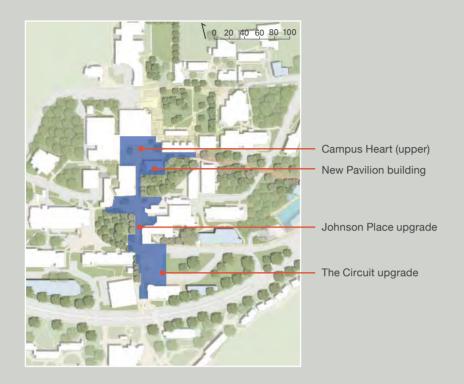
This option is regarded as the minimum initial project and encompasses the Campus Heart Courtyard, the Johnson Path to The Circuit, and the changes proposed to the Johnson Place Flora and Fauna Reserve including lowering the existing lawn area. It does not include the proposed upgrading of the stairway down to the University Lawn nor the Goanna Lounge modifications and canopies which are considered to be important ingredients of the Campus Heart.

Also not included in this option is the proposed consolidated Student Centre in the Willet Centre, which the University is likely to regard as synergistic with the Campus Heart project.

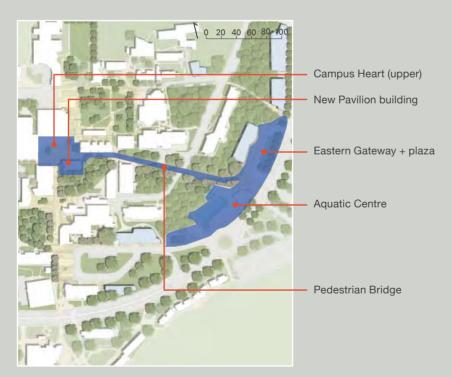
Option 2 Campus Heart, Johnson Place and University Lawn

This option extends Option 1 to include the University Lawn precinct changes up to the East Path. It does not include the proposals for the lawn space adjoining Sewell as these are not considered to be as important in the short term to implement.

The option includes the Macrossan stairway on the Johnson Path and the required durability access lift, and the upgrading of the Goanna Lounge.



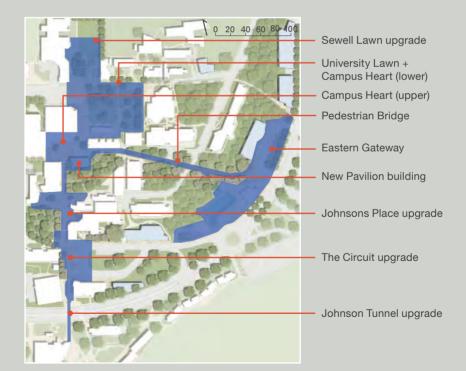
Option 3



Option 4



Option 5



Option 6



Option 3 Campus Heart Upper, Johnson Place, The Circuit

Option 3 includes the upper portion of the Campus Heart, Johnson Place and the proposed revision of the Circuit (excluding the long term prospect of a new Circuit Gateway Building – see Section 5.2).

The option includes most of the proposed Johnson Path redefinition and the proposed changes to enliven the pedestrian tunnel.

It is considered that the University should endeavour to fund this option as the preferred Stage 1 implementation of the Master Plan.

Option 4 Campus Heart Upper, Pedestrian Bridge, Eastern Gateway and Aquatic Centre

Option 4 deletes The Circuit and Johnson Place from the Stage 1 implementation strategy, and as an alternative incorporates the new Eastern Gateway, the Aquatic Centre and the Pedestrian Bridge up to the upper Campus Heart precinct.

The option does not include the Student Centre proposed in the Willett Centre and does not include the possible new Eastern Gateway building. This option does not concentrate on improvement of the Johnson Path as much as the other options, however, it will have a substantially greater impact upon the identity of the Campus, as well as stronger indication of the University's intentions towards a Nathan/Mt Gravatt Knowledge Precinct.

Although it requires relocation of the Maintenance & Uni Print and the University Store, this option has the additional advantage of having the minimum construction disruption to the Campus as a Stage 1.

Option 5 Full Johnson Path Extent and Pedestrian Bridge

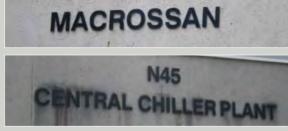
This option includes the Johnson Path and associated spatial upgrades from the Sewell Lawn through to The Hub, and it includes the Pedestrian Bridge in order to at least establish a Campus address on the East Ring Road. It is thus a particularly attractive option in terms of upgrading the existing campus and connecting it to the East Ring Road in preparation for the proposed new East Circuit and Aquatic Centre.

Option 6 As Above Plus Eastern Gateway and Aquatic Centre

This option encompasses all of the major precinct upgrades and new facilities proposed in the Master Plan.



Lack of consistency between major orientating elements within the campus



N16

Lack of signage hierarchy between major buildings and services



Lack of signage clarity + poor design



Overgrown vegetation limits the use of seating



Seating often discourages conversation and interaction



Inefficient and non-directional light poles



Wayfinding tactiles appear to be an afterthought rather than an integrated solution



Inconsistent paving



Numerous types of rubbish bins are used throughout the campus + retro fitted cigarette holders are unsightly

Examples of existing inadequate and inconsistent components

Section 6: Design Components

6.1 Rationale

The quality of signage, lighting, paving and external furniture on the campus is poor, lacking in consistency and contributing little to campus legibility. The campus has relied upon its native bush setting for its image, at the expense of the built environment. Buildings generally are drab and uninspiring and were designed with little consideration to long term maintenance demands.

There have been a number of requests to clad or colour the buildings to impart greater vibrancy to the campus. However, the buildings have a consistency of materials and forms that creates a reasonably distinctive collection of institutional buildings which respond to the original Johnson guidelines for white or light concrete architecture. An approach of cladding over or painting the buildings risks diminishing their harmony with the landscape, demeaning the original architectural integrity, and it would be an exhaustive task to generate substantial impact.

A preferred approach is to embark the campus on a major overhaul of its signage, lighting, outdoor furniture and paving which will inject colour and vibrancy as well as improve legibility of the campus. This approach will be significantly more pervasive and less expensive than building modification and it will enhance the precinct revitalisations proposed in Section 5.

The focus of the strategy should initially be on redefining the Johnson Path, particularly where it loses clarity such as beneath the Willett Centre and at

the pedestrian tunnel to The Hub. The proposal entails, as much as possible, integrating lighting and signage into the canopy structures in order to avoid exacerbating the already cluttered campus ground plane.

Key aspects of the proposal are:

External Seating – a suite of custom-designed permanent and loose furniture unique to Griffith Nathan/Mt Gravatt

Signage – a suite of directing, directional and building signage custom-designed and unique to Nathan/Mt Gravatt, to replace all existing Campus signage at Nathan

Lighting – new proprietary lighting where freestanding from a selected range; integrated lighting wherever possible into canopy structures

Paving – stone unit pavers of small dimension, comparable to those utilised in Queen Street Mall and Brisbane Square

It is proposed to use the Griffith corporate identity colour red through these elements to create a continuous sense of collective identity throughout the campus. The colour should be sensitively integrated so as not to dominate the bush setting.



Johnson Tunnel entrance



Canopy to The Circuit



New Bray Centre entrance + staircase



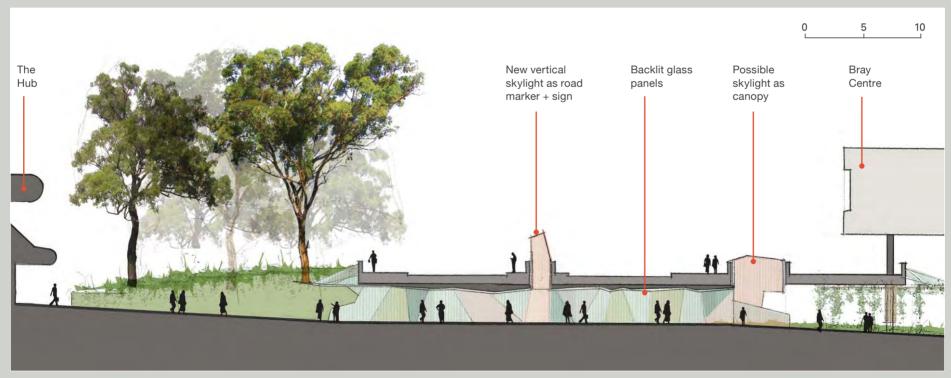
Johnson Path at Johnson Place Reserve



The Circuit with new paved plaza + canopy



Campus Heart outside the Willett Centre



Section through tunnel illustrating backlit glass panels, lightweight canopies at each end, and vertical planting.

6.2 Johnson Path

The Johnson Path is proposed to be dramatically upgraded by the precinct upgrades illustrated in Section 5 and extending from the Bray Centre/Pedestrian Tunnel through to the University Lawn.

The majority of the path is proposed to be covered in a steel-framed, translucent canopy with steel and timber batten and other treatments varying daylight effects. The steel structure provides the opportunity for lighting integration, for example, between twin columns and beams, with in-ground uplighting dramatising the canopy.

The precinct designs also entail changes in level such as to the grassed area in the Johnson Place Reserve, to the Bray Centre steps and to the Macrossan steps. The paved areas are expanded in certain areas such as in The Circuit, the new Campus Heart and adjoining the University Lawn. This provides an opportunity to cover the Johnson Path in a new unit paver that will create a more human scale of experience.

The Johnson Path should be prioritised for new directional signage as it is the University's main pedestrian spine. Signage could be integrated with the canopy structure and/or freestanding as required.

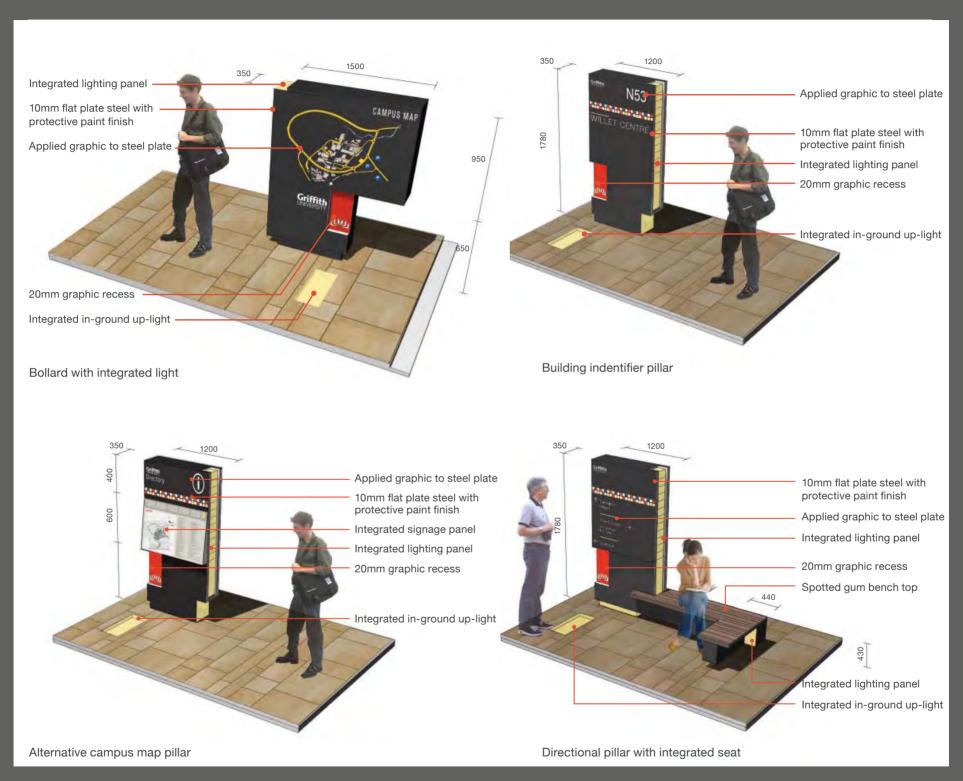
New outdoor furniture should be installed along the Johnson Path. It is proposed to construct permanent seating nooks along the majority of bush edges as a means of reinforcing definition of paths and of enhancing the social vitality of the path.

6.3 Pedestrian Tunnel

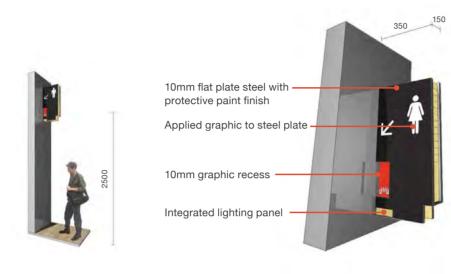
The Pedestrian Tunnel was a key element of the original Master Plan as a means of avoiding vehicular/pedestrian conflict at the South Ring Road. Unfortunately, its installation as a concrete 'tube' has manifest in an alienating space. While there should be places along the Johnson Path for posters, they create an untidy appearance in the tunnel.

The proposal is to line the sides and soffit of the tunnel in a series of back-lit coloured glass panels which are faceted to discourage poster-billing. This strategy will considerately lighten the tunnel experience, with the glass extending up into the central skylight to reflect daylight into the tunnel space. This skylight is proposed to extend higher than the existing structure to form a distinctive marker on the Ring Road.

A dedicated poster board is proposed to be incorporated between the structural posts supporting the proposed new canopy in The Circuit. Should the tunnel alterations precede The Circuit works, a temporary poster structure could be placed, for example, at the end of Science 1. New paving should be installed as part of the tunnel upgrade, particularly to prevent water from pooling inside the tunnel.

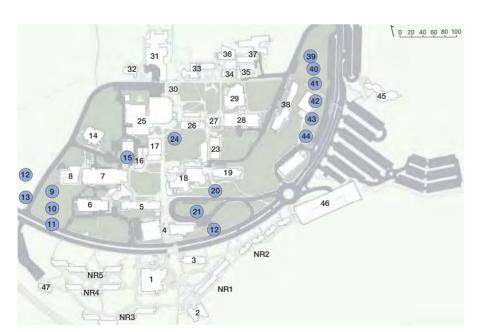


Notional integrated signage system



Place identification on walls

Place identification (detail view) - symbol or number as required



Campus Heart options

6.4 Signage

A vital need of the campus, reinforced by several comments in the Nathan Taskforce Report, is the complete renewal of directional and general signage. The new signage also has the potential to strengthen Campus identify, thus it is proposed that a suite of signage is developed which is unique to Nathan (and if appropriate to Mt Gravatt).

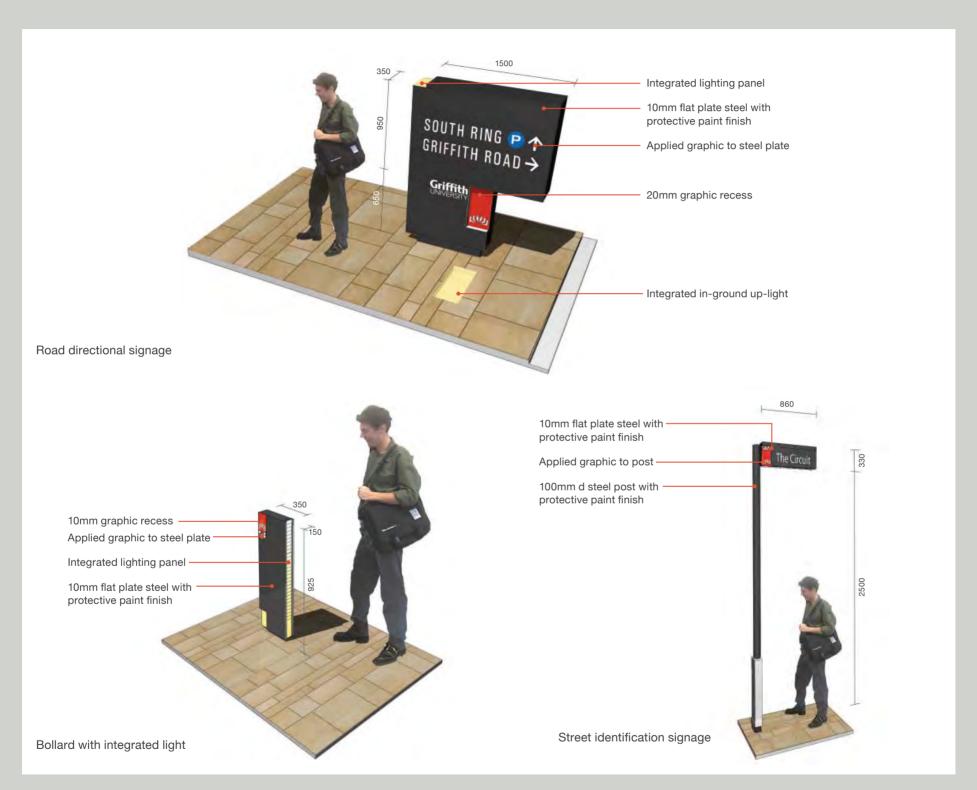
Some comments in the Nathan Taskforce Report referred to the existing building numbering system as being confusing as it is not sequential throughout the campus. An obvious problem in renumbering sequentially is that new buildings and facilities will be created in various parts of the campus which do not accord with the sequence, leading to the same problems that already prevail.

It is evident from the future expansion capacity study that there are a finite number of future buildings that can be built on the campus. An approach could be to renumber the buildings sequentially, leaving out a group of numbers for future buildings (with some flexibility). This approach would at least create some degree of improved 'clustering' legibility, although it risks there being unforesaken buildings being added that confuse the system. An example of such a system is shown at left with the 'spare' numbers shown in blueo.

It is thus proposed that a signage audit be undertaken by the University to determine the preferred strategy.

The accompanying images illustrate a notional suite of signage elements custom-designed to create a distinctive Nathan identity. Key design principles of the suite are:

- A complementary series of forms applicable to all signature types, with the forms unique to the Nathan Campus
- Black-bronze powder coated twin steel or aluminium plates with intervening light boxes and in-ground uplighting where necessary to illuminate signage
- Recessed red niches containing Griffith University logo
- Cut-out letters for main information (street names, building names and numbers) for back-lit illumination



Notional integrated signage system







Example: iGuzzini, iRoad streetoptic

The images are intended to be indicative designs and will need to be subject to more detailed analysis regarding issues such as vandalism, maintenance, equitable access and legibility, however, it is recommended that test examples are fabricated for feedback prior to proceeding. Following this analysis, a comprehensive suite of designs can be developed, together with a sequential implementation strategy.

The signage system is intended to play a role in lighting of the campus paths, thereby reducing the need for independent lighting elements to a minimum.

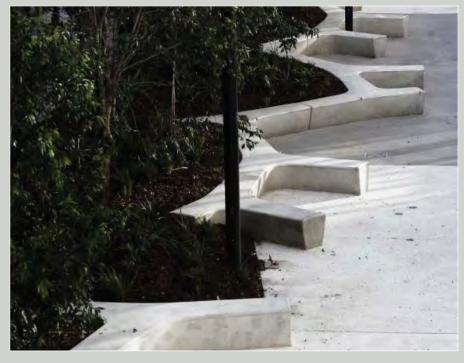
The aesthetic proposed is also intended to form the design basis for rubbish and recycled waste bins.

6.5 Lighting

In principle, it is proposed to integrate lighting within the new canopy structures and signage elements as much as possible, complemented by inground uplighting and low level lighting incorporated into walls.

In recognising that this integration is not possible in all parts of the campus, a new light standard is proposed for vertical elements. The accompanying illustration is of the 'iGuzzini, iRoad, streetoptic' which has an elegant, contemporary form that complements the proposed suite of signage. As shown, the concept incorporates the University red in order to individualise this proprietary system to Griffith.







Highly adaptable Derlot-designed concrete edge seating which will help 'contain' the landscape while forming 'organic' edges.





Derlot-designed campus seating with university 'red' as example



General campus seating type by Derlot as example designs

6.6 Seating

It is proposed to work through the campus with three different types of external seating furniture, eventually to replace virtually all existing furniture. The examples illustrated are adapted from the external furniture designs of Derlot (Alexander Lotersztain). The major seating types proposed are as follows:

Permanent edge seating

From Derlot's 'twig' range, these concrete forms will enhance the organic nature of the campus landscape areas and create opportunities for both individual and group seating. They have the ability to act as retaining walls to elevated gardens as shown, or to stand alone In addition to raw concrete, they can incorporate timber seating battens and to be coloured.

Freestanding seating

The illustrations shown apply the University red to another Derlot series of designs as a means of indicating how a custom-designed series of seats and tables could strongly contribute to campus identity and vitality. It would be proposed that the designer be commissioned to design a custom range of comparable furniture for the Nathan/Mt Gravatt campuses. While this coloured seating should be pervasive around the campus, some variety would be appropriate and a complementary timber batten and steel seat is shown as a potential model.

Seating integral with structures

The third seating type proposed comprises bench seating that can be integrated with signage elements, form fixed surround seating to eating areas and be cantilevered from walls. This seating is proposed to be custom-designed, generally comprising timber batters over 'black-bronze' powder coated plate steel as proposed for the signage structures.

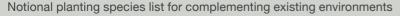
6.7 Bins

It is proposed to accommodate standard rubbish and recycling waste bins within custom-designed sheet steel enclosures which complement the signage forms and finishes.









Adiantum hispidulum Rough Maiden Hair
Blechnum indicum Swamp Water Fern
Breynia oblongifolia Coffee Bush
Daviesia ulicifolia Prickly Moses
Dodonaea triquetra Hop Bush
Doodia caudata Small Rasp Fern
Gompholobium pinnatum Pinnate Wedge-Pea
Hakea florulenta Tom's Blush
Hovea acutifolia Pointed-Leaf Hovea
Melastoma affine Blue Tongue
Myoporum debile amulla Myoporum
Persoonia cornifolia Horn-Leaf Geebung
Platycerium bifurcatum Elkhorn Fern
Pultenaea villosa Hairy Bush-Pea
Xanthorrhoea latifolia Flat-Stemmed Grass Tree
Cissus antarctica Native Grape



















Paving treatment pallette

6.8 Paving + Landscaping Species

Paving is a critical element in revitalising the campus, particularly by replacing the existing poured concrete, with its institutional character, with a unit paver that allows varied patterns and textures.

The preferred paver is a granite unit, of the type used at Brisbane Square, which has proven to withstand staining and vehicular use over time. It is not recommended that paving systems such as the concrete paver in the CDB or the Chinese granite paver used in the Albert Street section of Queen Street Mall be used, as Council is currently in the process of replacing these failed types.

Selection of the actual paver should be undertaken in conjunction with Campus Life to take into account requirements for services access, maintenance and traffic use where required.

6.9 University 'Red'

Griffith University's red colour is widely recognised as intrinsic to its branding, its use ranging from the University logo to building colours, especially at the Gold Coast campus.

Although some use of the red has been applied to buildings at Nathan, it is preferred that its primary use is restricted outdoor furniture, lighting and signage as illustrated in this section. Its application to existing buildings risks demeaning their integrity and converting the campus into a piecemeal graphic.

Some selective use of red could be considered where it has a finite extent and, for example, identifies key places such as entrance facades to general theatres. However, in principle, limitation to secondary elements such as those mentioned above and / or balustrades will create a unifying treatment while maintaining the campus' harmony with its bushland setting.

Conclusion: Australia's Environmental Campus

This Master Plan has been prepared cognizant of the wider potential to transform the Nathan campus into the centre of an interconnected 'Knowledge Precinct' as outlined in the report "A Scoping Study for the Creation of an Integrated Nathan / Mt Gravatt Knowledge Precinct".

Recognising that this collective future will take some time to implement, the Master Plan recommends a series of projects which can be undertaken relatively quickly in order to both initiate the long term transformation and arrest the current decline in attraction and amenity of the campus.

For the first time, the Master Plan responds to a study of the environmental values of the campus landscape, albeit requiring further detailed investigation. The purpose of this study is to ensure that the values are not impaired by future development, so that the campus is considered widely to be synonymous with environmental conservation.

In order to fulfill this objective, it is important that future buildings and modifications to the campus are designed to high standards of environmental performance, and comprise advanced technologies and innovations for which the Nathan campus becomes renowned.

For this to occur, there needs to be a radical shift from the way buildings have been historically procured, such as by 'design-and-construct' methods, to design-led strategies. There should be a new focus upon lightweight buildings that are recyclable, and comprise recycled and natural materials. Alternative energy systems should be sought along with passive energy strategies, rainwater use and grey water re-use, to a set of guidelines and targets that govern all future building design. This set of guidelines should be recognisable as the most rigorous applied to any campus in Australia in order for Nathan to be 'branded' as the country's 'greenest' University campus.

The integration of forest conservation with a campus that embodies the vitality and vigour of Brisbane's more urban universities is a key aim of the Master Plan. This integration will be the distinguishing characteristic of Nathan which has the potential for it to regain its former position as one of Queensland's most desired campuses for its students, and for its teaching and research staff.

