

5.8 Retail and Services

A key component of Hubs is to ensure that retail and other services are appropriately located to establish the pattern and density of activity envisaged. Retail is considered to include the large range of shops and services that provide for daily life on campus, eg food and beverages, stationery, books, banking, post office, mini market, travel, student administration and advisory services.

The University also has a number of services such as the mailroom and engineering workshops which are essential to the functioning of the campus.

Objectives

1. Ensure that the type and distribution of retail and other services on campus contribute to optimising Campus Experience and the creation and quality of Hubs and related open spaces.
2. Concentrate retail and service outlets in identified Hubs. Limited scattered retail is acceptable to support specific faculty needs or as cafes at contemplative spaces.
3. Ensure that the scale of retail and services focuses on campus users and does not compete with retail located in the nearby town centres of Randwick, Kensington and Kingsford.
4. Expand the range of retail and services on campus, including child care, to maximise their usefulness to staff and students and encourage them to stay on campus longer.
5. Provide a range of facilities targeted to different groups on campus.

Controls

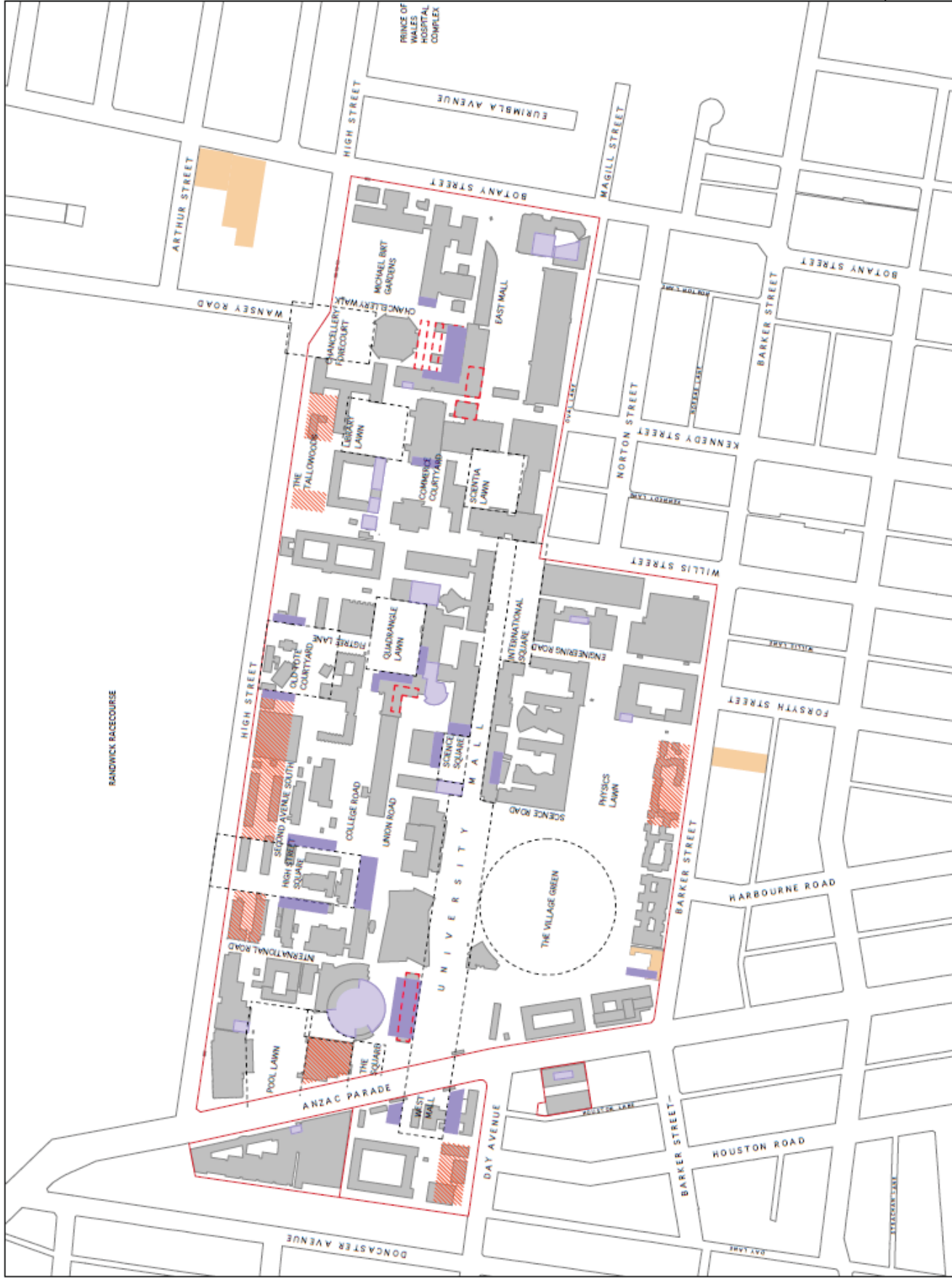
- a. Existing and new retail and services are to be predominantly located in the identified Hubs as indicated in **Figure 5.5** and preferred retail locations in **Figure 5.11**.
- b. When opportunities arise over time, existing inappropriately located retail and services are to be relocated into Hubs and the specific frontages identified in **Figure 5.11**.
- c. Retail is to activate the public domain at Hubs. Retailing enclosed within buildings, in tunnels and in food courts is not to be provided.
- d. Major priorities for restructuring retail and services are (refer Section 5.4):
 - Mathews Tower ground floor, Mathews Pavilions and Arcade
 - Roundhouse, Blockhouse and Squarehouse, and
 - the Quadrangle.

- e. Retain existing successful coffee shops located outside Hubs, such as AGSM Courtyard and Engineering (John Lions Garden), as they provide opportunities for quieter social and academic interaction and contemplation.
- f. New and upgraded child care facilities are to be provided in key locations (refer **Figure 5.11**) which meet locational requirements and timeframes of users, especially longer hours to suit part-time and postgraduate students.

Examples include redevelopment of Kingsford Gate and the High Street housing area, (see also Section 5.4).
- g. Include spaces for staff to meet one another and entertain visitors in a collegiate atmosphere.
- h. The provision of student services, such as student administration, accommodation, counselling, enrolment, travel advice, are to be located to support the principles and the Campus Experience, especially in Hubs.
- i. The location of university functions such as security, mailroom, engineering workshops and maintenance facilities are to be carefully sited in accordance with any Campus Infrastructure and Services Strategy and not prejudice the achievement of the principles and the Campus Experience.

5.11

retail + child care



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5.9 Recreation and Cultural Facilities and Events

UNSW has a large range of recreation and cultural facilities. Their contribution to Campus Experience is clear, often creating the strongest memory of campus life. Recreation and cultural facilities and events also support principles such as sense of place, sustainability, housing and Hubs and Clusters.

Objectives

1. Ensure that the campus has a range of indoor and outdoor recreational and cultural facilities that allow for activities and events beyond academic functions for both UNSW and the broader community.
2. Create an equitable and more flexible system to manage and access the range of indoor and outdoor recreational and cultural facilities to permit both arranged and spontaneous activity.
3. Ensure that some gathering places and connective spaces are able to be used in an informal manner to reinforce links between Schools and Faculties, for informal learning spaces and collaboration, and to enhance the social aspects of the Campus Experience.

Controls

- a. Existing recreational and cultural facilities are to be maintained, particularly those at the identified Hubs (refer **Figure 5.5**).
- b. Additional recreational facilities are to be provided as the recreational needs of the campus population evolve in accordance with any Recreation Study and Management Plan prepared by UNSW.
- c. New or relocated cultural facilities, such as theatres and galleries, are to be provided over time, located in Hubs as public rooms or on the Anzac Parade frontage in accordance with any Recreation Study and Management Plan prepared by UNSW.
- d. The important role of recreation and cultural facilities in bringing the broader community onto the campus is to be recognised in location decisions, and design of facilities and the adjoining public domain.

5.10 Transport and Parking

Making transport more sustainable is one of the key platforms of the Campus 2020 Master Plan. This is to be achieved by improving access to the campus by public transport in preference to private vehicle use. Parking is to be reduced over time, but made more available across the day and night for students, staff and visitors. Other modes of transport such as cycling and walking are also to be made more attractive and safer.

UNSW is the largest single employer in the eastern suburbs and the largest generator for bus passengers in Sydney. It can achieve improvements to its transport systems by economies of scale. The improvements to bus services and bike routes would benefit the local community, not just the University.

The backbone of the **Transportation Strategy** is the agreement to measure transport demand every year to avoid subjectivism and focus on policies and cooperation between UNSW, Council and transport agencies.

Objectives

1. Adopt a sustainable transportation strategy, reducing car dependence.
2. Reduce parking for the University adjusted with any expansion of the University.
3. As the transport, traffic and parking effects of the campus affect the surrounding local area, seek agreement with Council to implement the transport and parking measures outlined in the **Transportation Strategy**.
4. Improve bus services to the campus, including safe night time services.
5. Improve the connectivity, safety and attractiveness of bike routes to the campus.
6. Maintain a spread of parking throughout the campus.
7. Prepare transport management plans to deal with special events on campus.
8. Improve the public domain adjacent to and in the vicinity of the campus in consultation with Council.
9. Implement traffic improvements to address traffic congestion.

Controls

- a. The reduction in car dependence is to be achieved through a combination of:
 - reduction in parking supply
 - public transport upgrades
 - location of university accommodation
 - parking charges, and

- an interactive information system

as set out in the **Transportation Strategy** in **Figure 5.12**.

- b. The total number of parking spaces on campus is to be maintained until such time as it is demonstrated through the annual parking survey that the total number may be reduced without adversely impacting parking on the surrounding streets.
- c. Surface parking within the campus is to continue to be relocated to be under new buildings or within structured car parks (see **Figure 5.13**).
 - New car parking areas are to be constructed under new buildings on western campus and on lower campus (possibly also under new buildings) to replace 300 existing permit and reserved parking as lost due to redevelopment.
 - 100 short-term parking spaces are to be located in lower campus with access from High Street over time as new visitor parking for the campus.
- d. Maintain the provision of Disabled Parking and Loading Zones throughout the campus.
- e. All new DAs (excluding university accommodation) are to include an assessment of whether the proposal involves an increase in staff, student or other visitations to the campus or only a relocation or up-grade of existing facilities in the context of the total campus population and parking trends, as set out in the Transportation Strategy in **Figure 5.12**. Where an increase is proposed, the DA is to be supported by a Traffic and Parking Report which addresses:
 - the potential increase in parking demand
 - the potential impacts on campus parking supply and demand and on-street parking demand
 - achievements in reducing parking demand across the campus, and
 - any specific measures proposed to lower parking demand or avoid potential adverse impacts.

Specific pedestrian, bicycle, public transport or parking initiatives/improvements may be required prior to occupation of specific proposal.

- f. The University is to contribute to the cost of external civil works that relate to specific DAs such as improving/upgrading bikeways and pedestrian footpaths in the vicinity of UNSW.
- g. All new/amended car parking areas, access roadways, internal circulation areas and ramps shall comply with the requirements of AS 2890.1 (2004) and AS 2890.2 (2002).
- h. The location of vehicle access/egress points is to be determined subject to an assessment of the impacts on existing traffic flows.

- i. Parking demand for new university accommodation is to be based on the following minimum rates:

- 1 space per 10 students/staff for accommodation greater than 800 metres from the Campus
- 1 space per 15 students/staff for accommodation at or within 800 metres of the Campus.

Parking generation rates for university accommodation may be reduced through sustainable transport initiatives such as car pool/car club arrangements. Residents in university accommodation are to be excluded from Council's Resident Parking Scheme.

- j. At some time in the future, and dependent on the future growth of the University, the top deck of the existing car parks may be reused as sporting or other facilities.
- k. Opportunities to remove vehicles from the Rupert Myers courtyard are to be investigated.
- l. Consideration is to be given to a dual pedestrian entry into the campus from Anzac Parade being made legible by two pedestrian crossings, one at each end of bus stops.
- m. Public domain improvements such as paving and extended pedestrian crossings are to be introduced at the bus stops at Gates 2 and 8 in High Street with the axis from these stops strengthened, signposted, illuminated and inclusive of evening activity.

	UNSW Transportation Strategy
1	Council and the UNSW agree with the aim to reduce travel by private car by 3% per annum by: • implementing public transport upgrades • reducing parking supply • locating university accommodation on or near the campus • managing parking charges, and • supporting an interactive information system.
2	Travel behaviour to be surveyed annually, including an online survey supplemented with an independent on street survey as appropriate (especially if there is a demonstrated swing) to measure progress in reducing travel by car. Council's Traffic Engineer to review and approve of the methodology of the survey and the analysis. UNSW to fund the survey.
3	Council and the UNSW to enter into an agreement on the Management of Parking and Traffic for a five year period and review progress thereafter. The short term management agreement to include: BUS TRAVEL - Council and the UNSW to work together on preparing a submission to Sydney Buses, through their Regional Board, for additional services to the University. The submission to be based on the transport analysis completed for the Campus 2020 Master Plan. - Council and the UNSW to work together on a management scheme to improve bus operations in High Street. This work to commence with an origin and destination survey to determine the proportion of traffic turning right into Botany Street from High Street (west). Options include banning the right turn into Botany Street thereby clearing delays from High Street and a bus lane from Warney Road to Botany Street thereby giving priority to buses. RAIL TRAVEL Council and the UNSW to work together on preparing a submission for a rail connection to the University. LOCAL STREET PARKING PLAN The University and Council to reach agreement on a parking control plan for the streets surrounding the University. It is anticipated that this plan may have the following objectives. - Provide 50% of kerb space for residents and short term parking (time may vary according to local need) with 50% of kerb space to remain unrestricted. The plan is intended to comfortably accommodate all residential users and their visitors leaving a large proportion of short term spaces unoccupied. Unrestricted spaces will also be used by residential visitors wishing to stay a long time in the area. - Introduce the plan over three years. - Review the plan after three years. SHORT TERM PARKING Consideration to be given to introducing short term parking in streets immediately surrounding the University until such time that 10% of spaces remain unoccupied at 11:00 am on weekdays, which is the peak accumulation of staff and students on campus. Achievement of unoccupied spaces demonstrates that demand has been met by allowing turnover of spaces.
4	In the event of development that would increase the total population of staff or students then the prevailing mode of travel and distribution of parking (as measured in the latest survey) to be used to assess the future travel patterns and parking demand. The additional campus population arising from the development to be considered as the same proportion of the existing peak population (at 11:00 am weekdays) of students and staff to the total number of students and staff respectively.

	UNSW Transportation Strategy
4 (contd)	Development in the next two years (2007 and 2008) that would increase the total population of staff or students to be considered with the same mode of travel as the existing mode of travel: measured in the first survey (or if earlier than April 2007 then from the analysis contained in the Campus 2020 Master Plan). Thereafter travel demand from any expansionary development to take into account the trend in car demand projected two years ahead of the DA. (For example, if travel by car is not varying annually then the future demand for a development will be considered as the unaltered figure regardless of plans to reduce travel by car.)
5	In the next five years all additional staff parking arising from expansionary development to be accommodated on campus, if necessary in temporary parking areas, or in spaces known to be available from the travel surveys.
6	In the next five years all potential additional student parking demands generated by expansionary development at the peak period (11:00 am) to be restricted to the fixed and reducing demand available on surrounding streets (dependent on travel surveys) resulting from the implementation of the Local Street Parking Plan. Hence the parking demand by students as a proportion of the total number of arrivals will be forced to reduce.
7	Parking fees on campus to be increased annually subject to ongoing monitoring. This is not anticipated to have any appreciable impact on on-street parking but will leave the way open to a continued disincentive to driving in the 10 to 15 year period. It will also pave the way to introduce some student parking (including permit parking) onto the campus at a higher fee than staff sometime after the initial five year period.
8	As parking becomes available on campus, as a result of increased use by staff of public transport and increased fees, these spaces to be reassigned for short term and student parking. UNSW to continue to optimise the use of spaces on campus.
9	The short term parking requirements of external users for special events to be accommodated on campus as part of event coordination and parking management. (This will not stop the use of short term parking on the surrounding streets).
10	Bikeways within 3km of the University to be reviewed with the appropriate Councils with the aim of providing more direct access to the University. Bike racks to continue to be placed where a demand occurs at a rate of at least 80 spaces per annum for the next five years. Lockable bike cages to be located near Gates 2, 8 and 14.
11	UNSW in conjunction with transport authorities to set up a procedure by which students and staff living within a range of new transport services or those affected by changes to travel conditions are contacted. The procedure would inform of changes, ask for comment and follow up either modifications to those proposals or questions if the recipients have changed travel behavior.
12	All full time local students to continue to be entitled to a public transport concession while staff to continue to be eligible for a Travel Pass by salary deduction for public transport tickets at cheaper rates.

Figure 5.12: Transportation Strategy

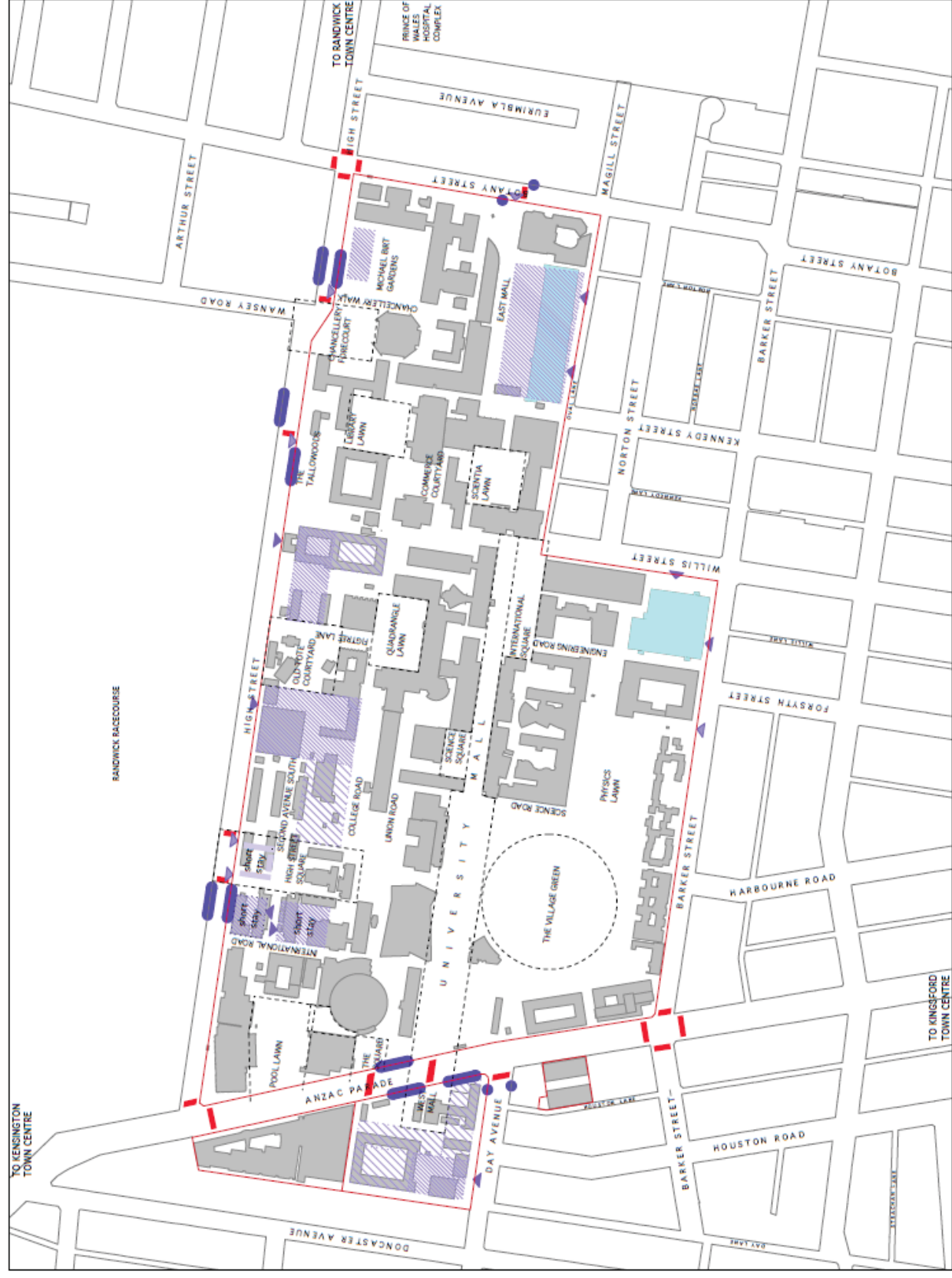
5.13 transport

The Campus Transport Strategy promotes public transport usage.

Intensification of public transport services would focus on Anzac Parade and High Street and associated primary entry points into the campus

There is a need for limited additional car parking on the lower campus, east and west of Anzac Parade.

To enhance on-campus pedestrian amenity access to campus car parks is indicated from perimeter streets, with low speed service and emergency vehicles continuing to use some connective campus spaces.



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6 Design of campus projects

6.1 Architectural relationships and elements

6 The Design of Campus Projects
Campus projects are a primary vehicle for the implementation of Campus 2020.
To encourage design excellence and support the realisation of successful campus projects, this section examines application of specific Campus 2020 Design Principles at the detailed scale of the campus project and outlines considerations for Architectural Relationships and Elements, Campus Building Types and Landscape.

Architectural Relationships and Elements engages with the significant built form legacy of the campus, to promote high quality architecture attuned to the definition and activation of the campus' rich spatial structure, which will continue to contribute toward a positive campus experience.

The architectural relationships and elements are presented with annotated photographs and drawings, predominantly of noteworthy buildings and fine spatial relationships which currently exist on the campus. Where no examples currently exist on campus, examples have been sourced from elsewhere.

Campus Building Types identifies and describes a range of building types appropriate to the Campus and includes design considerations specific to each. While Campus Building Types are predominantly "form based" types, they are led by public rooms which are the focus of activity hubs, a key Campus 2020 Design Principle.

At the scale of the campus project, architectural design is to be informed by the following building types:

- 6.2.1 Public Rooms
- 6.2.2 Courtyard Buildings
- 6.2.3 Slabs
- 6.2.4 Atria
- 6.2.5 Towers
- 6.2.6 Pavilions

They are described in detail in 6.2 Campus Building Types

Landscape Principles identifies high quality open spaces currently existing on campus, and describes how they represent the application of appropriate design principles within the overall intent of Campus 2020.

Design Excellence

In responding to detailed project briefs, successful campus projects would incorporate Campus 2020 Design Principles and demonstrate:

- high quality architectural and landscape character
- high amenity internal rooms and external spaces
- successful integration with the ground plane
- excellent relation to the campus spatial structure and vistas
- sound integration between architectural and landscape strategies
- quality material and detailing
- excellent environmental performance

6.1 Architectural Relationships and Elements

The built component of campus projects has the potential to demonstrate specific Campus 2020 Design Principles - sustainability, sense of place and legibility. At the scale of the campus project, architectural design is to be informed by Architectural Relationships and Elements which follow:

6.1.1 supporting sustainability – Long Life, Loose Fit, Low Energy Buildings

6.1.2 supporting sense of place

- a Relationship to Edge Streets
- b Building Ensembles
- c Multi Use
- d Outward Focussed Ground Floor Uses
- e Engaging Address

6.1.3 supporting legibility

- a Relationship to Connective Campus Spaces
- b Relationship to Vistas
- c Through Building Links
- d Awnings and Colonnades
- e Linking Elements

Long Life, Loose Fit, Low Energy Buildings

Key aspects of sustainability relating to buildings follow. Also refer to 5.1 Sustainability and UNSW Environmental Management Plan.

1. To limit energy consumption and ESD life cycle costs associated with new buildings or building refurbishments:
 - employ appropriate and durable building materials and systems;
 - respond appropriately to solar orientation
 - adopt shading devices appropriate to orientation and controlling solar gain in summer and winter;
2. To maximise natural light penetration, limit the floor plate depth of buildings. Appropriate floor plate depth relates to storey height, and use. As a guide 15-18m deep floor plates, with 3-4m storey height can achieve naturally lit rooms deep in the plan;
3. New buildings should use sustainability appropriate building materials for their construction, use and disposal;
4. Natural ventilation and natural lighting principles should be adopted to substantially reduce reliance on artificial heating, cooling and lighting;
5. Openings to the south should be protected from cold southerly winds which can dominate the autumn and spring university terms;

New development and refurbishment on the campus are emerging with a strong focus on low energy buildings. That is, buildings which employ both passive and active strategies to decrease the amount of energy consumed by a building in its lifetime. The Engineering Building has had operable shading devices added along its north and west façades in order to decrease the heat load on the building. The Institute of Languages building on the Randwick Campus also employs shading devices as a passive strategy to reduce heat gain by the building.



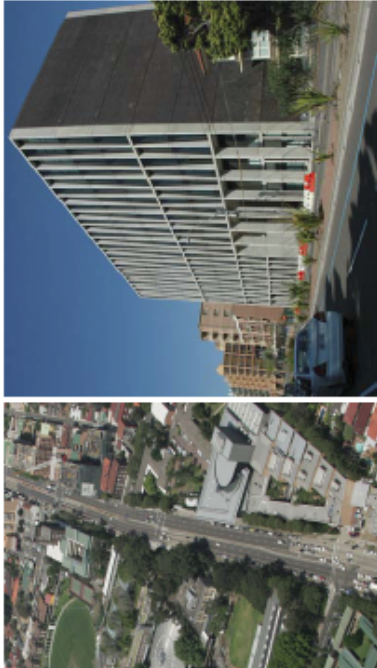
The Red Centre is an example of both passive and active sustainable strategies in practice. The thermal mass actively draws air through the building, ventilating the rooms while expelling warm air. Both the building's strategic orientation to north and its minimal depth allow a high percentage of natural day lighting. Other passive sustainable principles include the protection of west facing glass panels with operable vertical shading devices as well as the integration of thermal mass in the form of terracotta tiles along the northern façade.

6.1.2 SUPPORTING SENSE OF PLACE

A. Relationship to the Edge Streets

- 1. Unify the campus east and west of Anzac Parade by reinforcing built and spatial relationships across the street.
- 2. Address the edge streets and incorporate building entries and generously dimensioned through building links into connective campus spaces
- 3. Incorporate outward focused floor uses in proximity to campus entries;
- 4. Achieve built street address even including locations where the campus level is substantially below street level, as shown for example in Drawing 5.9d Section 5-5.

Also refer to drawings 5.1 Campus image and identity and 5.2 Campus Legibility in the Street Layout



The relationship to Anzac Parade can be bettered by consolidating built, landscape and spatial relationships across the street. The LS building builds to the alignment of Anzac Parade for the entire length and height of the building, matching the scale and height of nearby buildings in Kingsford. It incorporates a public star which moves from Anzac Parade to an upper level courtyard removed from the street. The architectural qualities of its scale, materials and proportions differentiate it from the indifferent nearby buildings.



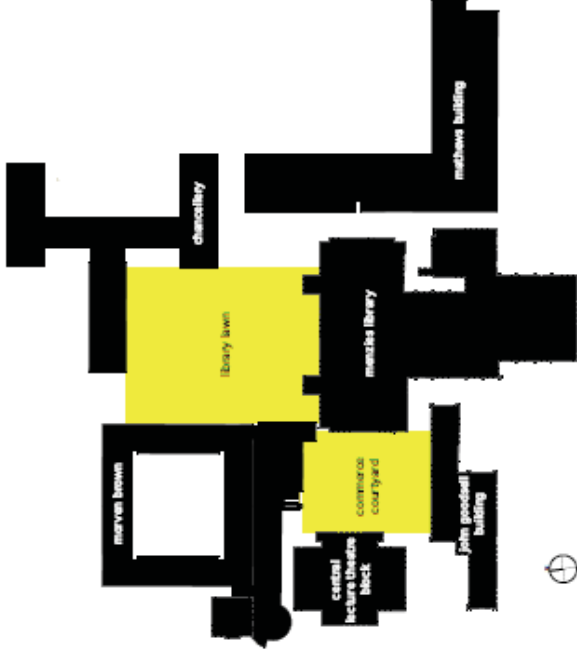
The NIDA building responds impressively to the scale and alignment of Anzac Parade forced with improved services, increased accessibility for pedestrians + includes a public foyer which engages with the street and provides a public space for the building. Inductive housing in Green Square set back from the street behind an avenue of fig trees suggests what may be realised along the lower part of High St.

B. Building Ensembles

Considered relationships between buildings and spaces is a desirable feature of many parts of the campus, such as the ensemble of Science Theatre, Dalton, Heffron and University Mall.

- 1. Consideration of new buildings as part of an ensemble is important in preserving the richness of campus spaces and varied building scales and heights.
- 2. The design of new campus buildings is to include consideration of relationships to existing buildings and spaces. The architectural proposition may reinforce, interpret or transform existing relationships, support the campus spatial structure. Refer to Drawings 5.2 Campus Legibility in the Street Layout and 5.3 Campus Legibility - Gathering and Connective Spaces.
- 3. Generally new buildings are to realise new campus spaces, such as university streets courtyards or squares, which may be in combination with other buildings and landscape elements.

Refer to Drawings 5.1 Sense of Place Image and Identity, 5.3 Campus Legibility - Gathering and Connective Spaces.



The combination of space and building scales around the Menzies Library defines the sense of place attributed there. It is a unique part of the campus and has varied experiential qualities at different locations around this part.



Commerce Courtyard is supported by the relationships between the central lecture theatre block, the John Goodsell building and the Menzies Library building. It contributes to the public domain network, allowing multiple connections into and through the courtyard. A new public way through the Goodsell Building has the potential to improve access southward.

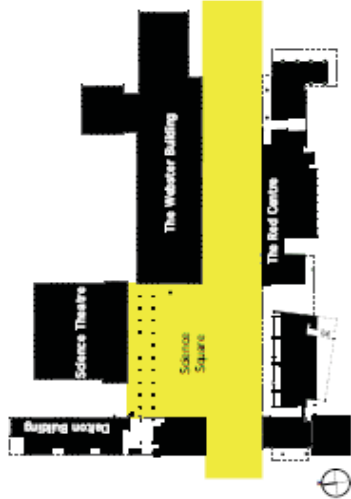


Library Lawn is supported by the relationship between the Menzies Library, the Chancellery, Monwen Brown and Menzies buildings. It also has a considered relationship with the space of Commerce Courtyard

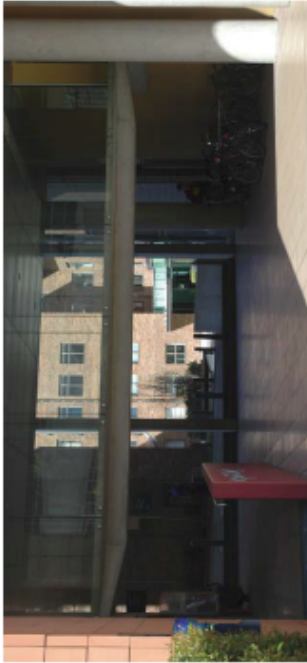
6.1.2 SUPPORTING SENSE OF PLACE

- C. Multi-use
1. Multi-use buildings are encouraged particularly at campus hubs;
 2. To activate the gathering spaces of hubs, multi-use buildings are to include public rooms and outward focused uses at ground floor level;
 3. To promote long life buildings on campus, flexible multi-use buildings are encouraged. These would accommodate a range of changing uses over time, particularly in the lower levels. The design of flexible buildings would need to consider a range of appropriate and compatible changing uses over time, and adopt appropriate floor heights, building depths and structural order;
 4. To enable the flexibility of ground floor uses, the ground floor storey height should usually be 4.0m - 6m, and be appropriate to building depth and use. On sloping sites reduced height may be acceptable for part of the ground floor. More generous ground floor heights incorporating two storey colonnades, mezzanines and the like are encouraged;
 5. Multi-use can be incorporated into each of the form based Building Types.

Refer to Drawings
5.1 Sense of Place Image and Identity,
5.2 Campus Legibility in the Street Layout
5.3 Campus Legibility - Gathering and Connective Spaces
5.4 Important Public Rooms
5.5 Hubs



The architectural composition of Science Theatre, Science Square and the Webster buildings is an ensemble of buildings of differing height, which complement each other, contribute to the successful making of this part of University Mall and Science Square and its sense of place.



The location of the Red Centre building north of the Main Building completes the formation of courtyards associated with the Main Building's form. The integration of the though building links reinforces the activity and definition of the courtyards and adds a rich layer of wellways to the campus spatial structure.



The Main Building/Red Centre courtyards spaces have a sense of place that can be attributed to the scale of surrounding buildings and their combination as an ensemble. The courtyards have a unique, interstitial quality.



The Dalton Building is an example of a successful multi-use building on campus, having been adapted to incorporate retail use at ground floor level.

6.1.2 SUPPORTING SENSE OF PLACE

D. Outward Focussed Ground Floor Uses

- 1. The ground floor levels of campus buildings are to activate gathering spaces associated with campus hubs;
- 2. The ground floor levels of campus buildings elsewhere, are to contribute toward the activity of campus spaces with building entries, and through building links;
- 3. Should ground floor level car parking or service uses be required, the addition of an active on-street with outward focused uses is required at spaces associated with campus hubs, and encouraged elsewhere.



The Menzies Library is an example of the contribution that buildings with active and outward focused ground floor uses can make to hubs throughout the campus. The sequence from the public room to the open space traverses university walls, an important east-west connection. The location of active uses such as coffee carts adds to its vibrancy and the public component, that is the library, is a major contributor to the activity.



The awning, forecourt and public open space associated with the Menzies Library provide a prime and public site for student events.

E. Engaging Address

- 1. Clear and engaging address and access from campus spaces and edge streets is required;
- 2. Provide equitable entry and access for people with different levels of mobility;
- 3. Locate building entries to reinforce activity associated with strategic through building links;
- 4. Integrate building entries with awnings and covered walkways;
- 5. Entry canopies and other architectural elements may be used to celebrate building entries, as is the case with the Sir John Clancy Auditorium and the Library.



Entries to The Scientia and Red Centre buildings are legible, of an appropriate scale and engage adjoining campus spaces in a positive and explicit manner.



Malenarity defines the entry to the Institute of Languages building on the Randwick campus while the sheer scale and decisiveness of the NIDA building engages with the street in an iconic manner.

A. Relationship to Connective Campus Spaces

- 1. Design buildings which define and reinforce the spatial structure of the campus and form the new campus streets;
- 2. Design buildings to articulate spaces, intersections and key vistas;
- 3. Complement the alignments, scale and materiality of neighbouring buildings.



The Red Centre is a positive example of a building with a decisive relationship to its site. The building gives a facade and University Mall address to an otherwise ambiguous Main Building. It communicates with the Webster building in terms of scale and architectural language. It defines the view corridor of the University Mall. It responds to the space of Science Square across University Mall and contains it in a clear and concise manner.



The Quadrangle Building is strategically located at a campus cross roads linking University Walk to High Street and Barker Street, and has a purposeful relationship with connective campus spaces. The courtyard accommodates diagonal movement through the campus, an attribute shared by several campus gathering spaces.

B. Relationship to vistas

- 1. Site campus buildings to acknowledge the presence and creation of views;
 - 2. Define and direct views along University Mall and other street-like campus spaces, as do the Red Centre and Robert Webster buildings;
 - 3. Purposefully respond to the vista at the end of view corridors, as does The Scientia;
 - 4. Purposefully terminate the vista along University Mall at its west end and address Scientia at its east end;
 - 5. Integrate complementary landscape treatments that help define campus vistas.
- Refer to Drawings: S.1 Sense of Place Image and Identity, S.2 Campus Legibility in the Street Layout S.3 Campus Legibility - Gathering and Connective Spaces.



The University Mall is a major urban space in Sydney, one of the few comparable with Hyde Park's axial space. On campus, University Mall is a decisive structuring space. Its deep view corridor from Anzac Parade highlights the address of all buildings along it, giving Scientia a strong axial address to Anzac Parade. Buildings such as Webster and the Red Centre contain the vista and direct it deep into the campus. Scientia terminates this view axis in an architecturally refined and decisive manner while allowing pedestrian passage to the upper campus.



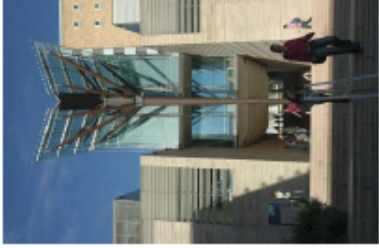
Long view corridors like University Mall, College Road or Engineering Road allows orientation and sense of the university's wider context.

C. Through building links

- 1. Provide strategically located access through buildings, to increase convenient connections between campus spaces;
- 2. Consider the desirability of providing a through building link where a linear campus space intersects a building zone and incorporate if appropriate;
- 3. Locate through building links in the thinner, lower and more transparent parts of a building to increase legibility of the link;
- 4. The scale of openings relating to through building links are to engage with the scale and role of the linear campus spaces they relate to;
- 5. Through building links are encouraged to be generous in height;
- 6. Incorporate through building links into the overall architectural composition of the building;

Refer to Drawings S.2 Campus Legibility in the Street Layout and S.3 Campus Legibility - Gathering and Connective Spaces.

The Scientia's through building link lies along the axis of the University Mall and plays an important role in directing people through the university's most pronounced terrain level change. It terminates the mall and channels pedestrians from a grand ceremonial space to a more intimate space.



The Red Centre's through building links engage Science Square which informs ground floor wall alignments. The relationship to Science Square is interpreted in the composition of large openings in the building's north elevation. At ground level the links also connect with a courtyard and service lane of the Main Building.

6.1.3 SUPPORTING LEGIBILITY

D. Awnings + Colonnades

1. Awnings and colonnades are required for buildings addressing University Walk;
2. Locate awnings and colonnades along campus streets and connective campus spaces;
3. Colonnades may be located along the edges of gathering spaces, to make these spaces more generous;
4. Colonnades should provide continuous connection and should not be obstructed by fire stairs and the like. Generally the ends of colonnades adjoining external spaces should be open and unobstructed.
5. Colonnades are to be higher than they are wide and may be 2 storeys in height;
6. Where awnings and colonnades are proposed, incorporate them into the overall architectural composition of the building and consider them in detail as significant elements which contribute toward the architectural character of the building.



The colonnade of the Quadrangle building expands the extent of the central space at ground level, provides sun and rain protection, and fosters pedestrian amenity. Regular alignments on the inside of the colonnade, excessive depth and obstructions within the space can detract from the function and potential clarity of such a space.



Engineering Road is a fine campus street, providing views and address deep in to the campus. Awnings, although not continuous afford pedestrians some protection from the elements along a strategic campus connection between High Street and Barker Street.

E. Linking elements

1. Linking elements such as covered walkways should edge spaces;
2. Linking elements including covered walkways and bridges may not cut across campus spaces identified in drawing 5.3 Campus Legibility - Gathering and Connective Spaces;
3. Elevated bridges between buildings, if necessary, need careful consideration. They are not to compromise the clarity of existing and future campus spaces and visual connections along them. Any such bridges should generally be as light and transparent as possible.



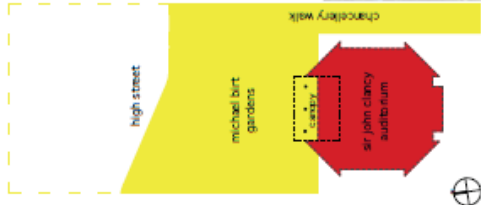
University walk incorporates many and varied linking elements along its entire length. Such elements include the covered way intersecting the Library forecourt and emphasising the connection to Library Lawn.



The design of the roof over Basser Steps precludes possible distant views beyond the campus from the highest elevation of the steps, yet culminates in an enclosed view over the Quadrangle and College Road. Redevelopment of adjoining sites has the potential to recast the current function and form of Basser steps. New access would provide more equitable access for people with differing degrees of mobility, and may include escalators or lifts.

6.2 Campus building types

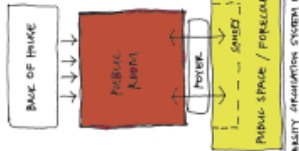
6.2 CAMPUS BUILDING TYPES



The Sir John Clancy Auditorium's architectural sequence includes High Street, Chancellery Forecourt (Michael Bert Gardens), forecourt, foyer and public room. The auditorium makes appropriate use of primary campus spaces and is located close to frequent public transport services, although its bunker-like character lacks the architectural richness and sophistication prompted by these provisions.

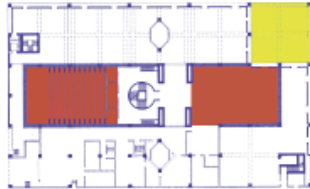


The Sciencia's architectural modelling and materiality celebrates its pre-eminent location and role in the university. It terminates one of Sydney's more memorable monumental linear spaces. This iconic building contributes to the university's image and identity and offers the wider community a magnificent facility.



Public Room Relationships
When placing a public room on campus it is important to incorporate a sequence of architectural elements which support a successful public room. Public rooms are the essential element in campus hubs and play a wider role in community life.

Yale Center for British Art
1969-74; built



Yale Centre for British Art
image source: Louis Khan Houses 2003 by Yulake Sato

The auditorium space is readily accessible at ground level and is embedded within a court of naturally lit rooms. The auditorium is paired with a foyer space at the base of an atrium. Public rooms can realise larger building footprints and adopt the form of any campus building type

6.2.1 PUBLIC BUILDINGS



Public rooms on the UNSW campus at 2005

USES

Important public rooms on the campus may include libraries, auditoria, theatres, community centres, halls, performance spaces exhibition spaces and galleries. Other public rooms which have the potential to contribute to social activity on the campus include bars, sporting clubs and other entertainment facilities.

OBJECTIVES

To realise public rooms which focus social and celebration both for the university and the wider community, and enrich the University's identity both on and off the campus.

PROVISIONS FOR PUBLIC BUILDINGS

Location

1. Important public buildings are most appropriately located on prominent sites such as along or at either end of University Mall, terminating a view corridor, addressing gathering spaces or at "cross roads". Public rooms comprising galleries or exhibition spaces, located in buildings addressing Anzac Parade and University Mall would be high desirable;
2. Entertainment, sport and recreation facilities are most appropriately located in intensively used areas and close to frequent public transport services such as those existing along Anzac Parade or proposed along High Street;

Relationship to site

3. Public buildings are to address (at least) one campus gathering space.

Landscape

4. Landscape character of associated spaces may be garden like or more urban;

Architectural Scale

5. Public buildings are encouraged to have a monumental or ceremonial scale;
6. Public buildings may be equivalent to 1-4 campus storeys in height;

Public Buildings

7. Public buildings are to :
 - have a distinctive architectural character;
 - demonstrate exceptional design and architectural quality;
 - incorporate the most desirable attributes of successful public buildings, be open and welcoming;
8. The functional requirements of theatres, galleries and the like with specialised lighting needs could realise larger floor plates than that promoted by these provisions.

6.2.2 COURTYARD BUILDINGS



Courtyard buildings on the UNSW campus at 2005

USES

Academic and faculty offices, teaching and housing;
Public rooms, theatres, galleries and retail at ground floor level.

OBJECTIVE

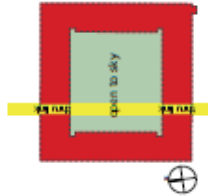
To encourage development which realises primary campus spaces or contemplative spaces
To encourage articulated building forms with extensive perimeter walls which realise predominantly naturally lit interiors.

PROVISIONS FOR COURTYARD BUILDINGS

1. Generally courtyard buildings are to incorporate through building links;
2. Courtyard buildings may address the street layout and / or campus spaces with a forecourt or a building, as do the mechanical and industrial engineering building and the Real Centre, respectively;
3. Courtyards associated with courtyard buildings should be mid winter sun catchers, as realised in part, in the "Naked Lady Courtyard" of the main building;



The courtyard of the Australian Graduate School of Management building is an active and vibrant place secluded from more connective campus spaces. The AGSM courtyard curiously combines detachment with activity, and is one of several types of existing campus spaces.



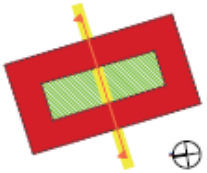
Murver Brown courtyard is part of a sequence of highly used spaces from Commerce Courtyard, diagonally through The Telowoods to High Street



The LS Building has its courtyard elevated from the main entry level at Aztec Parade and is accessed via a generous timber stair. The courtyard is oriented to receive maximum sunlight penetration in the middle of the day.



The Quadrangle building edges three sides of the quadrangle, an archetypal university courtyard. The courtyard accommodates an important campus cross roads, connecting University Walk with High Street and Barker Street.



The New College building incorporates a first floor court above ground floor communal uses. It provides ground floor communal uses with housing above. The courtyard provides circulation and private communal space for residents. The ground floor communal spaces provide access and permeability between the village green and Aztec Parade. The courtyard contributes to a diverse range of communal space within a college environment.



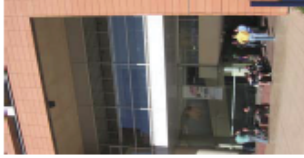
Although the master plan foregrounds the demolition of the Blockhouse, it is a thin cross section building which promotes pedestrian permeability and is supported by these provisions.



The Heffron building is a ribbon like building, oriented broad side to north. It engages with sustainability in an exemplary manner, unlike some campus buildings constructed in the 1970s and 1980s. Unfortunately it provides no strategic through building links. Detached elements such as circulation cores can be added to entangle slab buildings.



The Red Centre is an example of the versatility of simple slab buildings. The building contains the courtyards and service spaces of the Main Building. It incorporates numerous through links between University Mall and Burrows Lane. It makes a highly permeable built edge to University Mall, and has the potential to contribute toward one of the university's most vibrant hubs.



6.2.3 SLABS



Slab buildings on the UNSW campus at 2005

USES

Academic and faculty offices, teaching and housing, public rooms, theatres, galleries and retail at ground floor

OBJECTIVE

To encourage development of thin cross section buildings which define important frontages and support pedestrian connections to campus spaces;

PROVISIONS FOR SLAB BUILDINGS

1. Slab buildings are to be thin in cross-section;
2. Slab buildings are to realise the potential of thin built cross sections including :
 - being predominantly day lit
 - having permeable ground floor levels;
4. Slab buildings are to be oriented, broad side to north and south and narrow ends to east and west for optimum environmental performance.
3. Slab buildings are to spatially define campus spaces;

6.2.4 ATRIA



There were no atrium buildings on the UNSW campus at 2005

USES

Academic and faculty offices, teaching and housing
Public rooms, theatres, galleries and retail at ground floor

OBJECTIVE

To accommodate large footprint buildings which may be required for particular academic and research activities, and meet university sustainability commitments. Allow for intensified usage of restricted sites such as L5.

PROVISIONS FOR ATRIUM BUILDINGS

Landscape

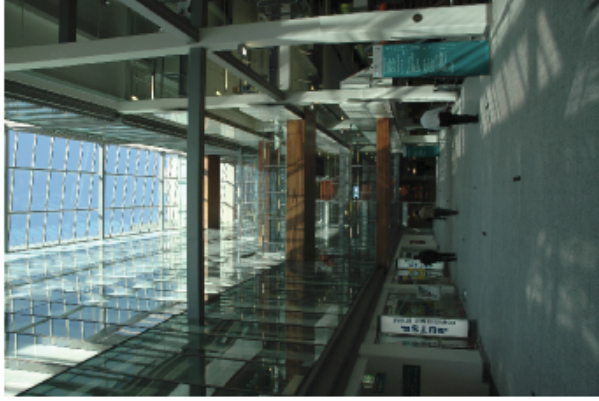
1. Landscaping in atria is encouraged;
2. Landscaping should contribute to the identifiable character and amenity of a large enclosed, day lit space;

Atrium buildings

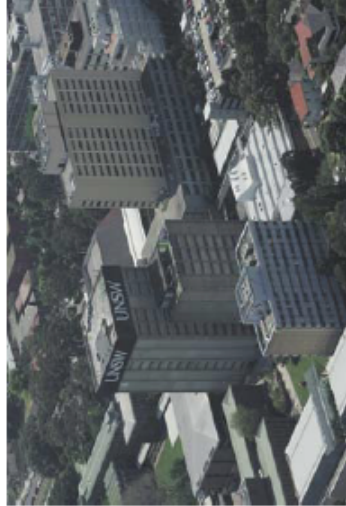
3. Atrium buildings are to promote activity at the base of the atrium and incorporate through building links along their edges;
4. Atrium buildings are to be predominantly day lit, and should incorporate appropriate ventilation;
5. Atria are to be adequately dimensioned and proportioned to realise day lighting of interior spaces;
6. The depth of building floor plates adjoining atria should be appropriate to realise day lighting of spaces centrally on the floor plate.



The UTS Fairfax Building (Bligh Voller Nield Architects) is an example of a successful atrium building in a university environment, connecting two streets and articulating an otherwise oversized building footprint.



6.2.5 TOWERS



Existing large foot print towers, oriented broad side to north, including the Matthews Building, Library Tower and Applied Science, bight nearby campus spaces and are not supported. While their demolition is unlikely, selective demolition could ameliorate adverse noise and wind effects and the general gloom on their south sides. Options should be explored for refurbishment to improve their architectural character and environmental performance.

Towers on the UNSW campus at 2005

USES

Academic and faculty offices, housing, research, Teaching in podium levels;
Public rooms, theatres, galleries and retail at ground floor level.

OBJECTIVES

- To encourage a variety of built form on the Campus;
- To punctuate the predominant campus building height of four to six storeys at strategic locations;
- To realise slender elegant towers;
- To take advantage of the views available.

PROVISIONS FOR TOWERS

Location

1. Comply with the location of towers on drawing 5.8 Building Height;

Relationship to site

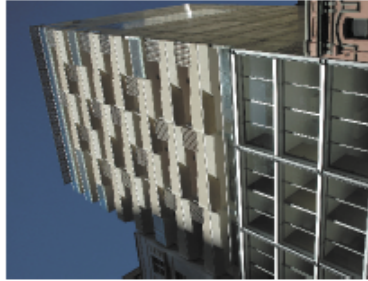
2. Wind and shadowing studies are required to assess the design of the towers, and their impact on the amenity of campus spaces;

Architectural Scale

3. Mediate between the scale of the tower and the public domain with an integrated podium built to 3 campus storeys;

Tower

4. Slender tower buildings are to have a bold and iconic architectural character;
5. Towers are to achieve an exceptional level of architectural quality;
7. The footprint of towers is limited, to moderate overshadowing impacts and achieve building height in a slender form. Tower footprints include balconies but exclude fin walls and sun-shading devices. For 60m high towers, the footprint is limited to 600-750 sqm;
6. In order to further moderate the extent of overshadowing to campus spaces, tower forms are to be oriented with broad sides facing east and west and narrow ends to north and south. As a result external shading devices are to be integral to the design of towers, to limit solar gain;
8. To achieve building height in a slender form, the length of any side is 50%-75% of the tower height;
9. Towers with podium are to incorporate an atrium and through building link/s with the entry to the tower;



Mixed use building on Behurst Street (Candlepas Associates - image above left) and Philip Street tower (Foster and Partners - image above right) demonstrate how the articulation and dramatic qualities of taller buildings, have the potential to engender give a rich architectural character.



6.2.6 PAVILION BUILDINGS



Pavilions on the UNSW campus at 2005

PREFERRED USES

Public rooms including cultural facilities, recreation, club houses, galleries, exhibition spaces, theatres, dance halls + student centres, specialty retail, open stands and structures and gateways

OBJECTIVES

To support and promote a variety of built form for campus buildings, including free standing buildings

PROVISIONS FOR PAVILION BUILDINGS

Location

1. Pavilion buildings are most appropriately located in or beside campus gathering spaces;

Architectural Scale

2. Pavilion buildings may be up to two campus storeys high;

Pavilions

3. The design of pavilions should include consideration of their being diminutive buildings in the round, a counterpoint to the larger buildings on campus.
4. Pavilions are to incorporate the most desirable attributes of successful public buildings, be open and welcoming, having multiple entries, Verandahs and the like.
5. Pavilion buildings can be carefully placed and constructed in proximity to retained trees.



The Sam Craddock Pavilion relates to the open space of the village green and the university mall, and does not compete unduly.



The Whitehouse, Old Tate Building and Fig Tree Theatre are an identifiable ensemble of pavilions on campus, and part of a Heritage Conservation Area identified by Randwick Council;



The Sir John Clancy Auditorium and independent canopy structure successfully addresses Chancellor's Forecourt, otherwise it is a generally weak building in the round.



The Fig Tree Theatre is a humble example of a pavilion related to earlier site uses.



The Science Theatre demonstrates the potential benefits of a building in the round in its contribution to campus activity on the side which addresses Science Square.

6.3.1 SUSTAINABLE

1. Low water and energy requirements in installation and maintenance.
2. Demonstrating sustainability principles put into practice.
3. Supporting comfortable interior building environments.
4. Favouring sustainable materials selection.

6.3.2 USEFUL

1. The landscape supports teaching and research - providing experimentation sites, taxonomic collections and the like.
2. Providing active recreation opportunities.
3. Providing social spaces.
4. Providing places for quiet contemplation and study.
5. Providing adequate space for the servicing, delivery and emergency needs of the university.

6.3.3 IMAGABLE

1. Directing circulation routes to encounter major views.
2. Contributing to the iconic spaces and assemblies of the university.
3. Developing consistency and continuity - not uniformity - throughout the campus.

6.3.4 CLEAR

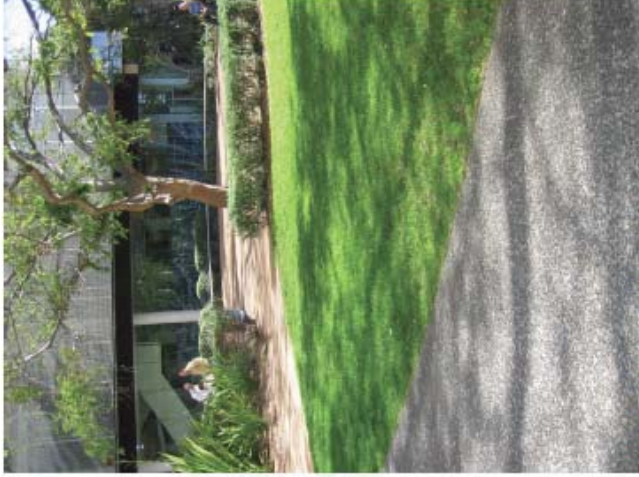
1. Maximising comfort, safety and convenience in the experience of the campus.



Re-cycling an observable function of the site



Taxonomic plant groupings for demonstration purposes



Re-cycling an observable function of the site



Native plants, restricted areas of lawn, robust materials - low water requirements low maintenance



Open treatments to the north of buildings

6.3 Landscape



Social places, with sunlight, shade, seating, activities and facilities



Off main routes, generally smaller and offering enclosure – places for reading and quiet thought



The campus has major space-consuming servicing needs, accounting for a major component of its open space



Providing for fitness and relaxation as part of the campus experience



Landscape is fundamental to the defining images of the university



Celebrate the spectacular places of the campus by including them on important circulation routes



A consistent suite of materials adds continuity to the campus



Long lines of sight, comfortable grades, lighting and a sense of natural surveillance