

## 5.4 Knowledge Clusters and Hubs

A fundamental link between research, teaching and learning activities and the physical form of the campus is to be achieved through the concept of Hubs and Clusters.

The creation of lively Hubs in specific locations with sufficient density and range of uses, including retail, will form key destinations and activity centres, thereby fostering the informal interchange of ideas and shared learning.

Clusters are encouraged around these Hubs by grouping Schools and Faculties that can utilise synergies and share knowledge. Such Knowledge Clusters of teaching and research will occur over time as different disciplines come together. The DCP does not dictate the location and extent of Knowledge Clusters as it does not seek to differentiate academic uses, focussing instead on the physical form and the location of support facilities.

### Cluster/Hub Objectives

1. Encourage informal and formal interchange of ideas and shared learning by structuring the campus around a series of Hubs and Knowledge Clusters.
2. Co-locate Schools and Faculties in Clusters around Hubs to promote synergies and encourage collaboration in teaching and research, in inter- and multi-disciplinary contexts rather than “learning silos”.
3. Establish sufficient density and range of uses at Hubs to enable them to become key destinations and activity centres on campus with environmental, economic, social and academic benefits.
4. In areas dominated by housing and student association facilities, Clusters may be mainly non-academic but should be diversified where possible to include a range of uses to encourage social interaction.

### Cluster/Hub Provisions

- a. The identified Hubs for the concentration of key activities are documented in **Figure 5.5**. The location of Clusters is to be focussed on the Hubs.
- b. Hubs are to consist of a collection of uses and spaces, including:

- a “public room” such as a theatre, auditorium, hall or exhibition space
- a range of retail outlets, particularly food and beverage as a fundamental economic and social driver
- a gathering space with active ground floor
- at least one major connective pedestrian link
- preferably also an intersection of north-south and east-west pedestrian links
- e-learning spaces
- wireless connectivity
- branch libraries or electronic access to library services
- other student services
- indoor and outdoor ‘free’ seating not associated with retail facilities
- CATS (centrally allocated teaching space) and lecture rooms in close proximity, and
- address points of Faculties and Schools around or in close proximity to a gathering space.

- c. Primary Hubs already exist. These are to be refined with increased diversity of uses, refined layouts, and improved design quality (see also Section 5.8).

#### • **Library/Commerce Courtyard**

The Library/Commerce Courtyard is the acknowledged Hub of the University. It contains most of the features identified above. The proposal for a one-stop-shop student centre for part of adjoining Goodsell Building would support this Hub.

#### • **Roundhouse/Blockhouse/Squarehouse,**

This area could improve its role as a Hub, by adjusting its layouts to its changing context (eg new Law School, new development potential and proposed new open spaces and pedestrian routes), considering the impacts of voluntary student unionism.

#### • **Science Square**

This Hub could be upgraded by increasing the active edges and visual transparency to the academic buildings which define the space, improving the entry to Science Theatre, providing more ‘free seating’ and improving the pedestrian link to University Walk.

- d. Other Hubs are to be consolidated/enlivened or emerge as redevelopment occurs:

#### • **The Quadrangle**

Opening the ground floor of the Quadrangle Building for retail, other services and public facilities to face the Quadrangle Lawn and encourage its use would establish more activity at the intersection of University Walk, College Road and Fig Lane. This Hub could also include an active frontage on the north side of College Road expanding the Cluster to include residential uses and improve the relationship with Goldstein Hall.

#### • **Old Tote Courtyard**

With redevelopment of the High Street edge of the campus, a new public open space characterised by the fig trees and heritage buildings, focused on University and broader community use of the Fig Tree Theatre, and retail and services including a convenience store, could provide a new Hub as a focus for a proposed housing Cluster.

#### • **High Street Square**

With redevelopment of the area around Gate 2, a new Hub is proposed based on a new public open space, a new public room, relocation/retention/replacement of Io Myers Studio, vehicular access to the campus with short-term kerb side parking to help serve the nearby sports facilities, retail facilities and a child care centre. The Cluster around this Hub could comprise academic and housing uses.

#### • **Western Campus**

The redevelopment of western campus, including an extension to “**West Mall**” as a major public space and pedestrian route, student support services, retail and a new “public room” fronting University Mall would be appropriate as another Hub. This Hub could provide a focus for the existing NIDA facility, new academic uses, a possible housing component including accommodation for visiting students, academics and staff of educational institutions and their families.

#### • **Kingsford Gate**

With redevelopment of the area to create a new welcoming entrance to the campus from Kingsford, improved and enlarged child care facilities, retail and other student services would all provide a focus for the housing and recreation facilities within this area.

5.5  
hubs

Future development on the Kensington Campus will be structured around activity hubs, outdoor spaces partnered with public rooms to encourage social activity and the exchange of ideas.

The greater the richness and intensity, the more important the hubs.



Science Square



The Old Tote Courtyard

- legend
- hub
  - primary hub
  - potential aspects of campus hubs : public room, knowledge, retail, recreation, outward focused ground floor activities
  - ▨ existing and potential public rooms
  - campus spatial structure - gathering and connective spaces

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- **Rupert Myers**  
The establishment of the NSW Graduate Research School in this building, which also includes an under-utilised coffee shop, theatre and courtyard, provides an opportunity to create a focus for Physics Lawn, Old Main Building, Rupert Myers Building and the Barker Street housing edge. Reconsideration of the vehicle route through the courtyard would improve this Hub.

- **Mathews Pavilions and Arcade/Michael Birt Gardens**  
With refurbishment of the Biological Sciences and Wallace Wurth buildings and a new building along the High Street edge, the opportunity arises to create a new Hub between the redesigned Mathews Pavilions and Arcade (see Section 5.8) and the edge of Michael Birt Gardens. Such a Hub could contain retail and student facilities, relate to Gate 9 and Sir John Clancy Auditorium, and provide a focus for the bio-sciences and medical disciplines.

e. A subset of Hubs is to be developed as “night time hubs” with activities which have longer hours and that offer safe and direct access to surrounding streets and public transport. The preferred night time hubs are:

- Library/Commerce Courtyard
- Old Tote Courtyard
- Roundhouse/Blockhouse/Squarehouse
- Western Campus, and
- Rupert Myers.

f. All space and building decisions taken by Schools and Faculties are to reinforce the opportunities to create Knowledge Clusters around Hubs expanding the shared learning and teaching spaces, resources and interactions.

### 5.5 Landscape

The quality of the campus landscape will be enhanced by identifying and protecting significant plantings, redefining and improving existing open spaces, re-evaluating campus boundaries and ensuring the landscape character reflects the aspirations of the campus community. This will be achieved by major new open spaces and incremental refinement of existing landscapes.

The landscape design will balance the “greenness” and “urbanity” of the campus with the appropriate provision of hard and soft landscapes. A well distributed range of space types in the public domain is important to the landscape fulfilling its potential:

- busy, urban spaces generally corresponding to gathering and connective spaces
- spaces more associated with active recreation
- quiet, contemplative spaces, and
- spaces primarily associated with service functions.

Landscape design also significantly reinforces other principles, particularly the pattern and treatment of spaces which define campus legibility, campus sense of place, quality of recreation spaces, and appropriate landscapes for housing projects and Hubs.

#### Existing Vegetation

Vegetation of varying quality is scattered across the campus (see **Figure 5.6a**). The most significant elements include various figs (*Ficus* spp), the poplars in association with the figs on the lower part of University Mall, groups of Tallowoods (*Eucalyptus microcorys*), and other eucalypts (*Eucalyptus saligna*, *E. grandis*, *Corymbia citriodora*). The categorisation of trees is based on three groupings of criteria:

- **Compositional** – the role of the tree in the overall composition of the campus
- **Historical** – the tree as a link to stages before and during the development of the campus
- **Functional** – whether the tree performs a function which would be difficult to replace.

Within these categories, trees have been rated Highest Retention Priority or High Retention Priority, as explained in the table below. Despite this categorisation, all trees on site are valued and expertly managed, and careful consideration should be required before removal.

Categorisation of Trees	
HIGHEST	HIGH
<b>Compositional</b> <ul style="list-style-type: none"><li>• The tree is a prominent individual, or member of a prominent group</li><li>• The tree is essential to the traditional definition of the campus identity</li><li>• The tree is part of an early (older than 20 years) purposeful landscape composition, broadly held in high regard.</li></ul>	<ul style="list-style-type: none"><li>• The tree is part of a recent (last 20 years) purposeful landscape composition, broadly held in high regard</li></ul>
<b>Historical</b> <ul style="list-style-type: none"><li>• The tree is associated with a person or event of significance in the development of the University</li><li>• The tree remains from the time before the establishment of the University campus.</li></ul>	<ul style="list-style-type: none"><li>• The tree remains from former usage patterns of the campus.</li></ul>
<b>Functional</b> <ul style="list-style-type: none"><li>• The tree performs an essential function, such as boundary screening valued by neighbours.</li></ul>	<ul style="list-style-type: none"><li>• The tree performs a desirable function, such as shade, erosion control, or screening within the site, or on less sensitive boundaries.</li></ul>

#### Landscape Objectives

1. Ensure that the landscape of the campus is valued and optimised for its role in the Campus Experience of students, staff and visitors.
2. Conserve and promote the landscape character of the campus by retaining and protecting areas of landscape significance (major trees, vegetation and spaces).
3. Develop and manage the public domain to optimise:
  - campus circulation and legibility
  - safety and convenience
  - creation of focal points
  - amenity and comfort
  - visual qualities, including pleasure and delight
  - ecological processes, biodiversity/sustainability
  - universal access
  - landscape areas or assemblages as potential research and teaching topics, and
  - the collection of special character areas on campus.



existing trees

- legend
-  highest retention priority
  -  high retention priority
  -  other existing trees

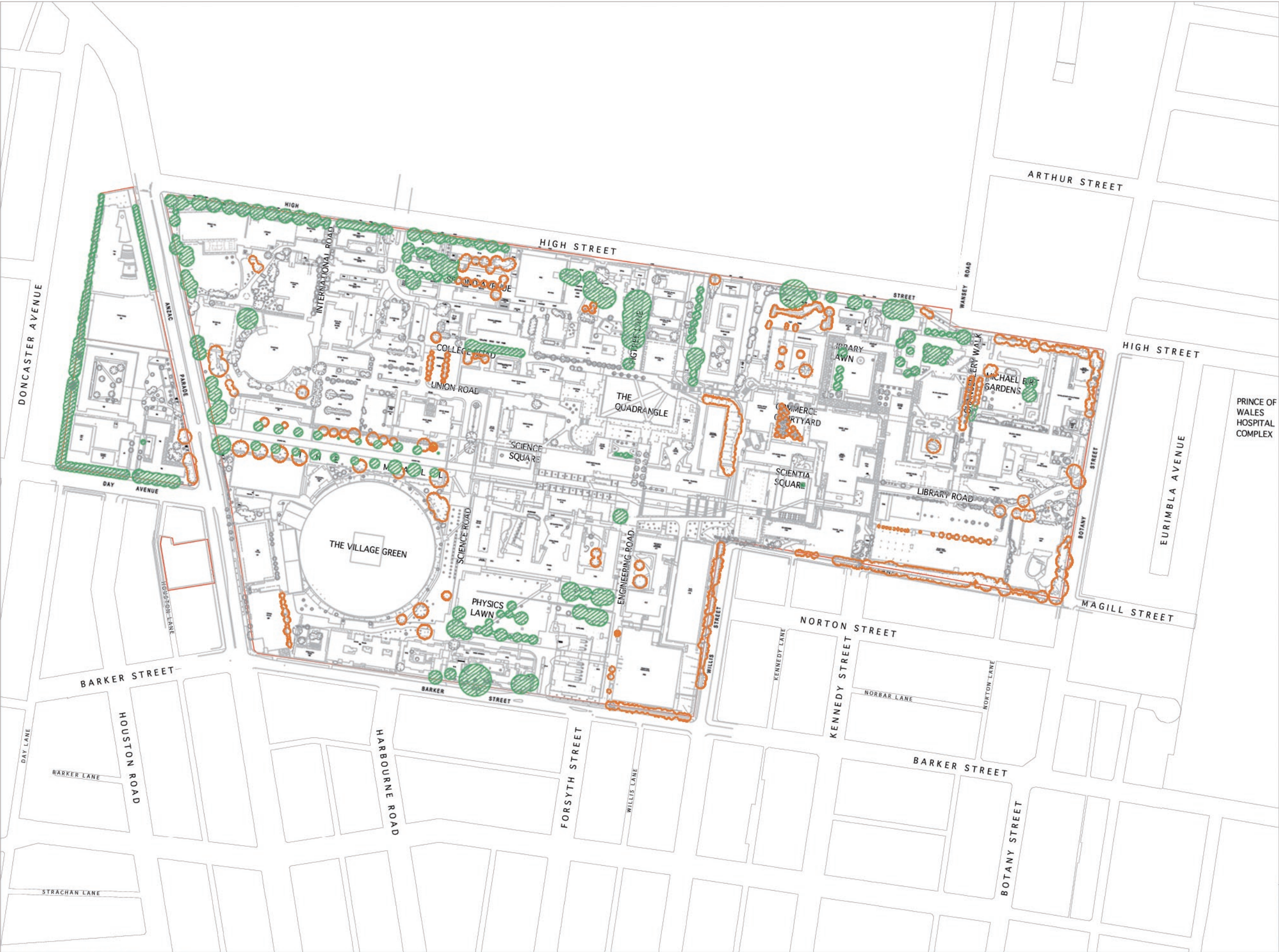


Fig tree near Gate 8, High St - highest retention priority



Tallowoods at Gate 8 - high retention priority

**Note:** Trees and Buildings base current at 2003

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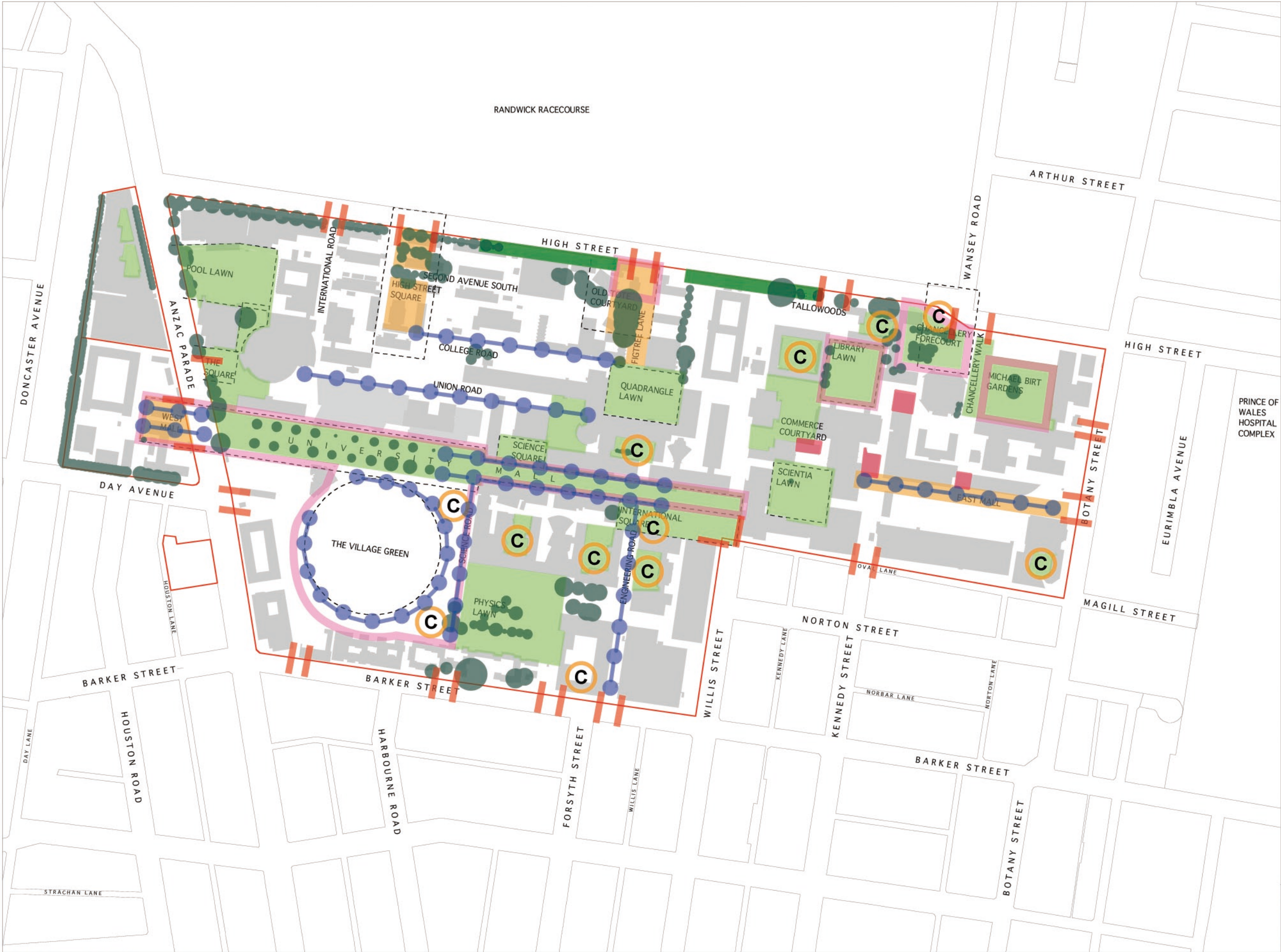
4. Reinforce existing strong streetscape amenity and identities along Anzac Parade, High Street, Barker Street and Botany Street, balancing the campus sense of place and its relationship to its neighbourhood setting.

#### Landscape Provisions

- a. All landscape works and management are to implement the sustainability principles and mechanisms of the EMP.
- b. New buildings are not to impinge on or harm existing significant trees and areas of vegetation identified in **Figures 5.6a and 5.6b**, except as set out below. In these locations the existing vegetation is to form the basis of landscape designs.
- c. Prior to design work for adjoining new developments, the specific root and canopy zone requirements of the vegetation in **Figure 5.6a** is to be assessed and the needs of the vegetation may be a constraint on development. This vegetation can only be removed based on detailed arborist assessments if there is no other design option, and in conjunction with agreed replacement (including advanced trees) or compensation strategies only if the trees are non-viable (due to age or disease) and thus require replacement.
- d. The successful inter-building spaces identified in **Figure 5.6b** and trees within the Old Tote Courtyard HCA are of such quality that they are to be retained and only improved within clear guidelines and/or related to appropriate changes in surrounding buildings.
- e. The important landscape tradition areas of University Mall, Village Green, Library Lawn, Old Tote Courtyard and Michael Birt Gardens/Chancellery Forecourt are to be improved within clear guidelines that retain their design significance in the public domain having regard to contextual changes from surrounding development.
- f. New campus open spaces (see **Figure 5.6b**) are to be appropriately landscaped in accordance with their role and position in the public domain pattern and their specific site characteristics.
- g. Landscape development is to lead toward an optimal distribution of appropriate landscape types. Landscape design is to use successful existing spaces as models for new development.
- h. Contemplative spaces (see **Figure 5.6b**) are to have a landscape design appropriate for their role as quiet, relaxation and “retreat” areas, their specific site characteristics and their adjoining uses.
- i. Landscape design is to be a key aspect of the creation of new entrances (see **Figures 5.1 & 5.6b**).
- j. Garden areas are to be retained or established as a part of all campus residential development, especially along street edges. Along High Street, the garden area could include thinning or selective removal of existing fig trees and paper barks to optimise northern aspect, daylight and direct sun while also maintaining the fig tree character of High Street.
- k. The campus boundaries are to provide openness and entries, or security or definitional fencing.
- l. Landscape design and management is to:
  - optimise safety and security by enhancing visibility and sight lines, and eliminating areas of darkness and places for entrapment
  - provide equal access throughout the public domain implementing the findings of the UNSW Disability Access Audit and service and emergency access to buildings
  - optimise plant growth, including large trees, by provision of permeable surfaces, deep soil areas and drainage to planted areas, promoting water infiltration and aeration (provision of hard surfaces and their drainage to relate to the UNSW **Stormwater Strategy**), and
  - incorporate where appropriate infill planting for increasing habitat diversity, and species and assemblages appropriate for academic research and teaching purposes.
- m. Species selection is to:
  - be ecologically appropriate for the specific site conditions
  - reinforce the dominant fig tree character of the campus
  - incorporate other distinctive species, in particular Tallowwoods, Melaleuca quinquenervia and Poplars, and
  - develop areas of pre-1788 vegetation of the site (eg as Eastern Suburbs Banksia Scrub).
- n. New structural plantings are to be provided in key areas as indicated on **Figure 5.6b**.
- o. Street tree species on footpaths surrounding the campus are to be as indicated in Council’s Street Tree Master Plan.
- p. Expansive areas of pavement are to be permeable in nature wherever possible in order to reduce stormwater runoff, recharge groundwater supplies and to maintain infiltration rates to the root zones of established trees.
- q. The landscape design of spaces shown in **Figures 5.3 and 5.6b** is to accommodate informal activities to extend learning areas.

landscape

- legend
- successful inter - building spaces - retain within guidelines
  - significant trees
  - landscape tradition areas - preserve within guidelines
  - new or reworked emphasized entry point
  - structural planting
  - existing building - consider demolition or alteration to allow through-link public space
  - major new landscape space
  - contemplative space
  - north - facing garden spaces associated with residential redevelopment



SCALE 1:4000 @ A3 0 50m





## 5.6 Buildings

Current campus buildings present a range of quality, forms, architectural styles and functions. Some contribute to the existing sense of place and/or are of architectural significance. In places the ensemble of buildings is more important for quality and legibility of the campus than individual buildings. In recent years new buildings and major refurbishments have made significant contributions to the quality of the campus and its image.

All buildings on campus should excel in terms of sustainability, their urban design role in the campus structure and form, architectural quality, contribution to campus identity, and creation of optimal learning environments.

### Building Objectives

1. Ensure that buildings are exemplars of excellent design for a university, benefiting all students, staff and visitors, optimising Campus Experience, and teaching by example to the broader community.
2. Adopt whole-of-life cycle approach for buildings, optimising sustainability and allowing for flexibility and adaptation to accommodate new approaches to teaching and research.
3. Optimise design quality of buildings through:
  - alignments, heights and scale which contribute to the overall campus built form and public domain pattern
  - heights that:
    - create campus edge conditions compatible with the desired future adjoining built form
    - relate to the scale, use and optimal amenity of campus public domain
    - relate to the desired sense of place for the campus
  - orientation which facilitates passive solar design
  - footprints/bulk which relate to their function, internal amenity, efficiency and optimal energy performance
  - “safety by design” principles
  - transparent and activated facades, especially on the ground floor, and
  - visible through routes.
4. Ensure that buildings define and interface with the public domain in a manner which is appropriate for the specific functions of the building and public space, particularly at Hubs.

5. Ensure that new buildings and refurbishments value the significant architecture and existing character of the campus.
6. Achieve equity of access to all buildings with dignified routes for people with disabilities.
7. Ensure that internal design of buildings fosters interaction and learning, and optimises comfort, pleasure and delight, adding to Campus Experience.

### Building Provisions

- a. New buildings are to be located within the building location zones identified in **Figure 5.8** subject to the additional provisions set out below.
- b. New buildings or extensions to existing buildings are to be located behind the key building alignments identified in **Figure 5.7** and the existing alignments set for University Mall, Science Square, the Quadrangle, Library Lawn, Commerce Courtyard, Chancellery Forecourt, Union Road, Engineering Road, College Road and Chancellery Walk.
- c. The precise position of other building alignments are to be subject to detailed design studies of both the proposed buildings and adjoining public domain including consideration of at least:
  - tree root and canopy requirements
  - heritage conservation requirements around the Old Tote Courtyard Hub
  - appropriate building footprint sizes to meet the requirements of proposed uses and energy performance of buildings
  - appropriate dimensions of new gathering and connective spaces
  - the design of new or upgraded entrances
  - solar access requirements of adjoining open spaces and buildings, and
  - residential amenity performance of new campus housing.

These matters are to be addressed in DAs for new and refurbished buildings.
- d. Campus boundary conditions are to be achieved as indicated in the building alignments in **Figures 5.7** and the sections in **Figure 5.9**.
- e. Maximum building heights are to be as specified in **Figure 5.8**. Heights are defined as wall heights allowing for appropriately articulated upper levels and roof forms.

Areas above the wall height may include plant and equipment only, which is not to occupy more than 50% of the building footprint.

- f. Floor levels of all new habitable and storage areas are to be a minimum of 300 mm above any adjoining 1 in 100 year ARI flow path/ponding depth.
- g. Design of campus buildings is to respond positively to the architectural relationships and elements set out in **Section 6.1**.
- h. Campus building types are to conform to the details set out in **Section 6.2**.
- i. Building design is to contribute to the creation of the special places indicated in Sense of Place (Section 5.1) and the creation of Hubs (Section 5.4).
- j. Any new works on the buildings and spaces within the Old Tote Courtyard HCA on High Street are to be guided by the statement of heritage significance. DAs for such works are to include a Heritage Impact Assessment and Plans of Management as required.
- k. Equal access to buildings is to be achieved through implementation of the findings of the UNSW Disability Access Audit, and compliance with the Building Code of Australia and Disability Discrimination Act.
- l. Service access to buildings is to be appropriately located in relation to access needs and include required loading docks sited and designed to optimise the aesthetics of ground floor levels and safe and comfortable pedestrian movement.
- m. Buildings and structures to house infrastructure, plant and campus services are to be in accordance with any Campus Infrastructure and Services Strategy and located adjacent to but not within gathering and connective spaces, be integrated with other buildings and comply with the design quality provisions of the DCP.

## 5.7 building alignments

A memorable campus attribute is its landscaped setting which includes strong groupings of tree plantings along perimeter streets. Buildings set back from the street are often screened by foliage.



High Street.

Campus buildings would generally continue to be setback from street alignments, and be screened by major tree plantings.

Buildings which define the space of University Mall as it crosses Anzac Parade, would have higher visual prominence.

Building alignments along other streets would be punctuated by breaks in the built wall including building entries, through building links, forecourts and the like.

On campus, building alignments would reinforce identified campus spatial structure of gathering and connective spaces.

The exact alignment of buildings north and south of the University Mall in proximity to Anzac Parade would be determined by a future detailed study of the geometry of University Mall and the preservation and consolidation of existing structural plantings along it. Approximate dimensions of the width of this space are indicated on Section 1 - 1/5.9.

Potential future built form is represented on five campus sections in 5.9 Potential Sections. They are referenced on this drawing in red.

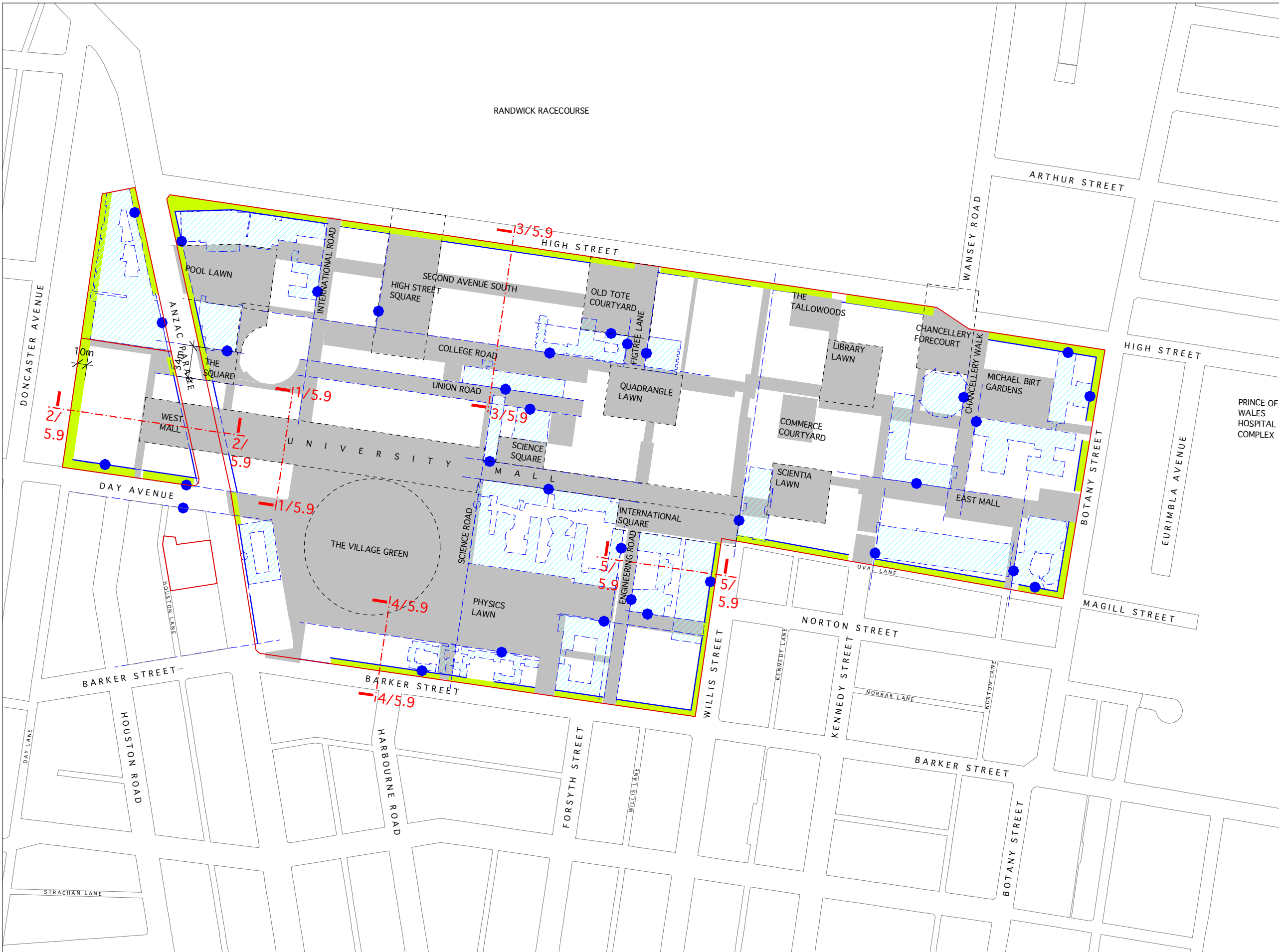
**Legend**  
— building alignments along edge streets would generally retain existing setbacks. Identified significant tree plantings to be retained, may increase this setback or introduce a secondary building alignment

— regulating alignments along specific building outlines existing in 2005 and street boundaries

— tree planting zone

— Campus spatial structure - gathering and connective spaces

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## 5.8 building height

Building heights on campus vary from single storey to 15 storeys. The predominant heights between 4 and 6 campus storeys, appear to be most suitable for campus buildings and the amenity of their adjoining spaces. Campus storey heights are generous, varying from about 4-6m. Building height expressed in campus storey height may be able to accommodate additional storeys when residential storeys of 3m are proposed.



Predominant campus building heights of between 4 and 6 campus storeys



Large footprint towers oriented broad side to north blight adjoining southern spaces. Limited footprint towers are proposed in groupings, on upper campus and Anzac Parade, set well away from boundaries to neighbouring buildings.

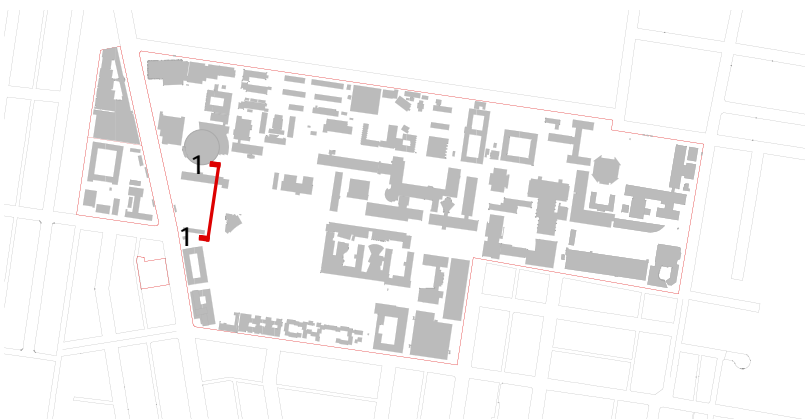
### Legend

Building height is based on generous campus storeys for the lower levels.

- wall height up to 14m - 3 campus storeys
  - wall height up to 18m - 4 campus storeys
  - wall height up to 24m
  - wall height up to 60m - future slender tower zone, limited floor plate size - refer to campus building types
  - campus building footprints existing at 2005
  - building exclusion zone - exact location subject to detailed design
- The arrangement of buildings and height needs to preserve solar access to some identified campus spaces.
- generously sunlit campus space at mid winter
  - partially sunlit campus space

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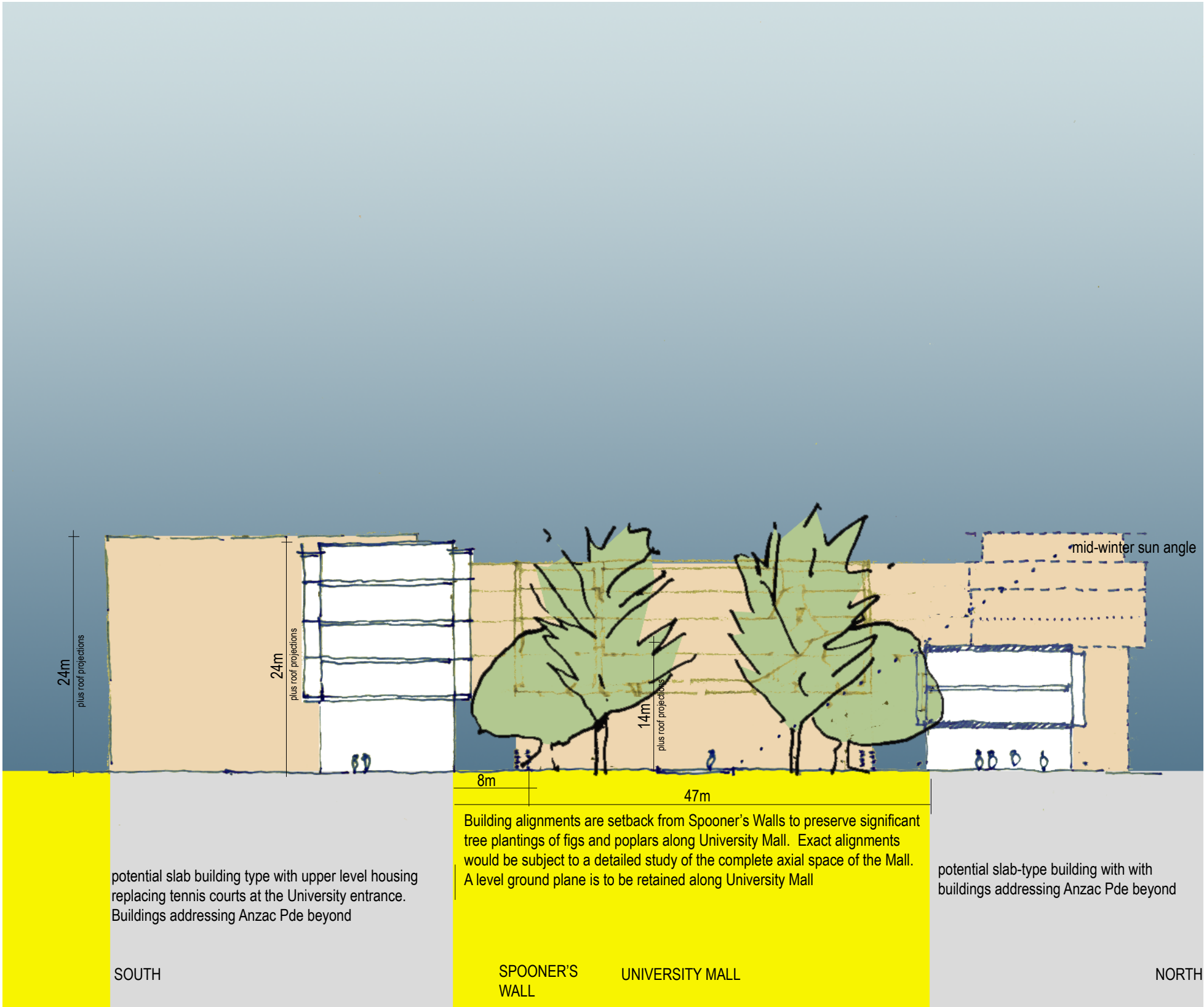


SECTION 1-1 THROUGH UNIVERSITY MALL

The following Campus sections indicate potential future built form on likely development sites.

Where building heights are above 14m, the sections indicate the desirability of ensembles of buildings of varying height and extent, the creation of sun trap courtyards and consideration of mid winter sunlight penetration to campus spaces.

- section 1 - 1 cuts through University Mall
- section 2 - 2 cuts through Anzac Parade
- section 3 - 3 cuts through College Road and High Street
- section 4 - 4 cuts through Barker Street
- section 5 - 5 cuts through Engineering Road and Willis Street



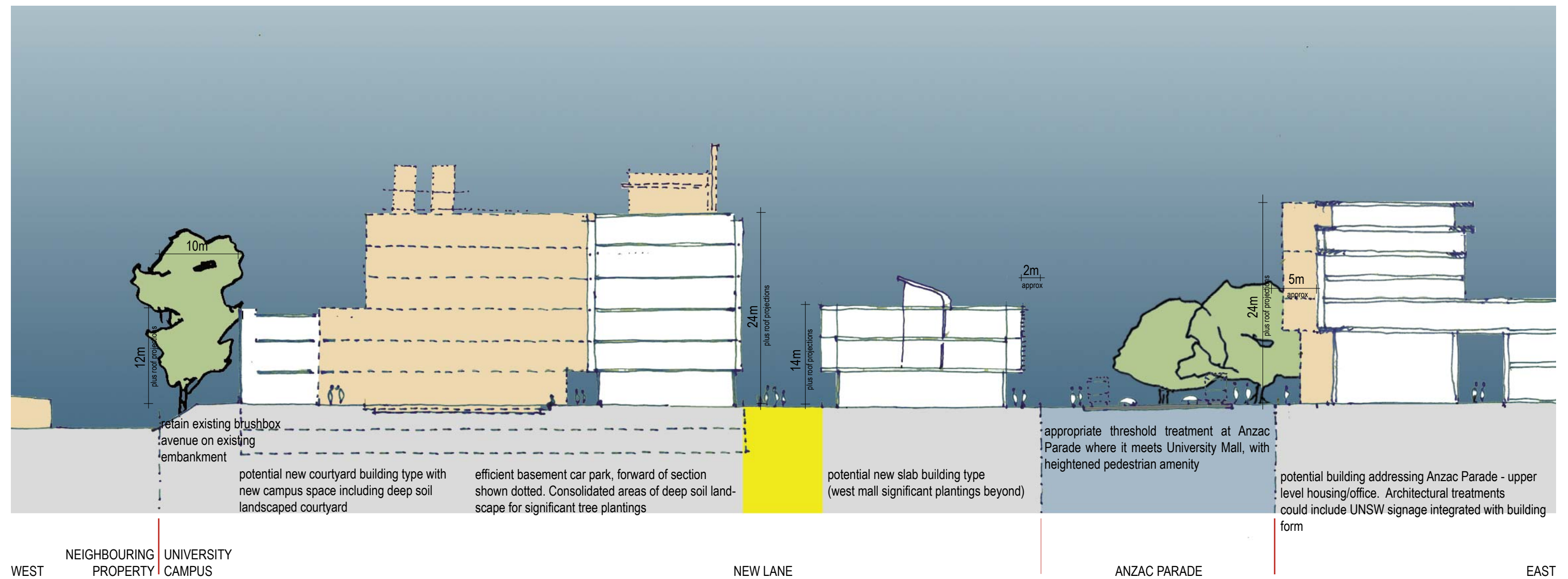


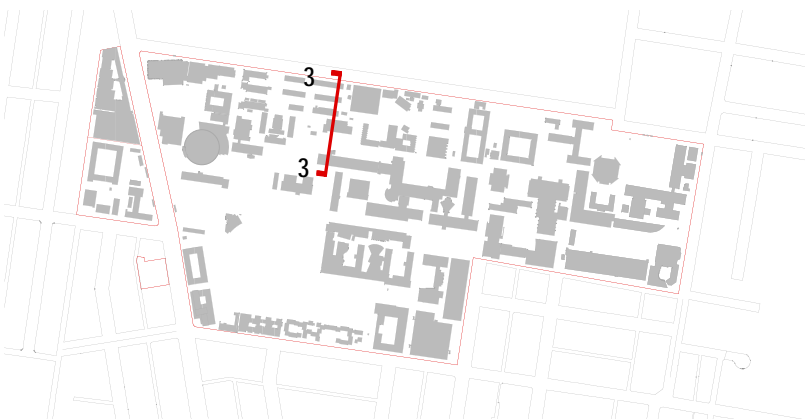
## CAMPUS DESIGN PRINCIPLES AND PROVISIONS

## 5.9 POTENTIAL SECTIONS

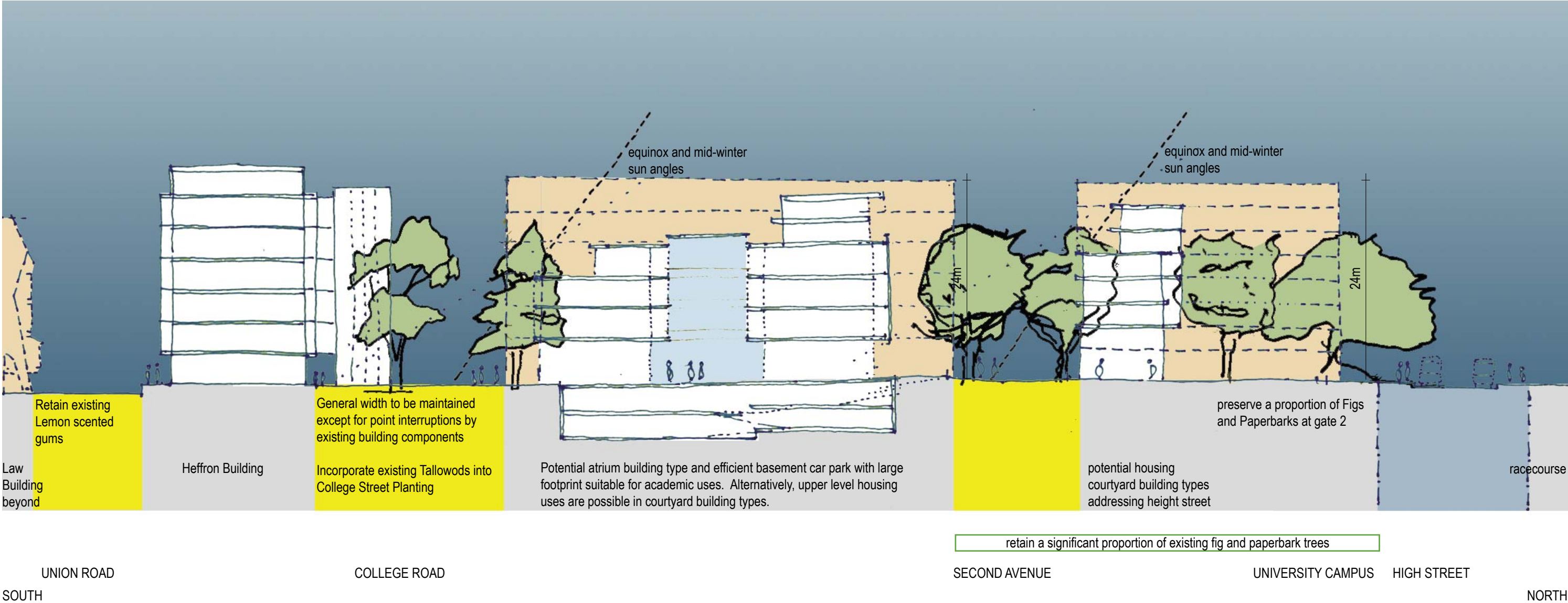


SECTION 2-2 THROUGH ANZAC PARADE

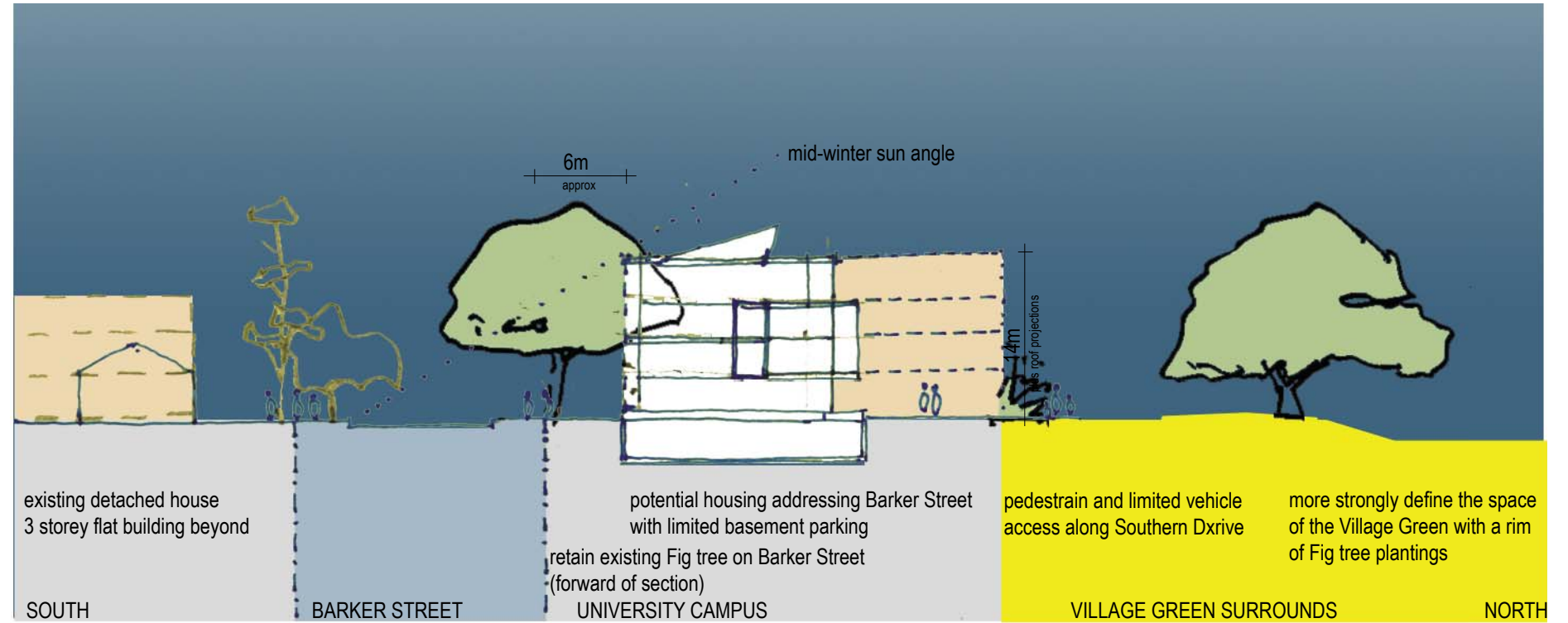




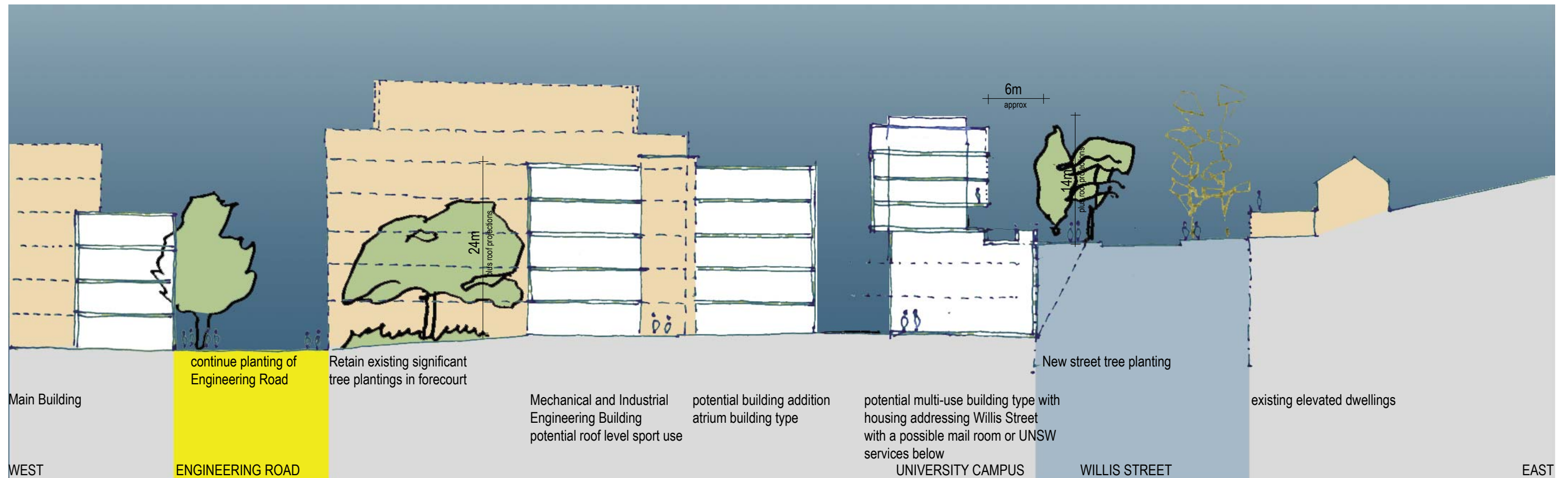
SECTION 3-3 THROUGH COLLEGE ROAD AND HIGH STREET







SECTION 4-4 THROUGH BARKER STREET



SECTION 5-5 THROUGH ENGINEERING ROAD AND WILLIS

- n. DAs for buildings on western and lower campus greater than 20 metres in height above existing ground level are to be accompanied by an urban design analysis, which includes a view impact assessment demonstrating the proposal's relationship with the public domain of the surrounding streets in addition to any impacts on nearby residential development.
- o. DAs for buildings on upper campus greater than 40 metres in height above existing ground level are to be accompanied by an urban design analysis, which includes a view impact analysis demonstrating the proposal's relationship with the public domain from significant vantage points around the campus.
- p. All DAs for buildings greater than 15.24m Above Existing Ground Height (AEGH) are to be referred to Sydney Airports Corporation Ltd for approval, as required by the Civil Aviation (Buildings Control) Regulations.
- q. Minimum setbacks of 6 metres from the street alignment are to be provided for buildings adjoining a residential precinct, to preserve solar access and privacy to residential properties adjoining the campus.
- r. All buildings on western campus are to be setback 10 metres from the western boundary of the campus. In addition to the 10 metre setback zone, a maximum height of 12 metres applies to all buildings within 25 metres of the western boundary. This requirement is to preserve an appropriate scale of development when viewed from the adjoining residential precinct of Day and Doncaster Avenues.
- s. Solar access to living areas and principal landscaped spaces of adjoining residential development is not to be reduced to less than 3 hours per day throughout the year. If 3 hours per day is not currently achieved, new development must not reduce this further.
- t. In mixed use residential and university use buildings, a secure separate entry is to be provided for residents, to prevent unrestricted public access to private residential areas.

## 5.7 Housing

Providing housing for students, staff and visitors on or near the campus has been identified as being of critical importance to optimising the Campus Experience and achieving sustainable transport outcomes. Housing is now a core need of the University. UNSW has a long tradition of residential colleges on the High Street, Barker Street and Anzac Parade edges. Recently other university housing forms have been provided in Randwick. In total approximately 1,500 beds exist.

### Housing Objectives

1. Increase university housing on and near the campus to support sustainability principles, liveliness of campus, sense of community and increased affordability within the high cost Sydney housing context.
2. Establish concentrations of housing with support services on the ground floor to enable a sense of community and to contribute to a vibrant campus.
3. Enable mixed use buildings above major pedestrian routes or activity areas with broad university uses (including teaching, research, academic, e-learning areas or public rooms) and housing support uses on lower levels to activate the ground level and related public domain, and residential uses on higher levels for improved residential amenity.
4. Design university housing to suit contemporary needs of students and staff, including a range of housing types, catering for undergraduates, postgraduates and visitors to UNSW, sensitive to the special needs of international students, families and others.
5. Explore innovative funding and delivery mechanisms for university housing.

### Housing Provisions

- a. Approximately 3,000 additional beds, the target for new university housing on the campus or within walking distance (1.5 kilometres), are to be provided over the vision of the Campus 2020 Master Plan. The initial priority is 1,000 additional beds.
- b. On campus housing is to be located as indicated in **Figure 5.10**.

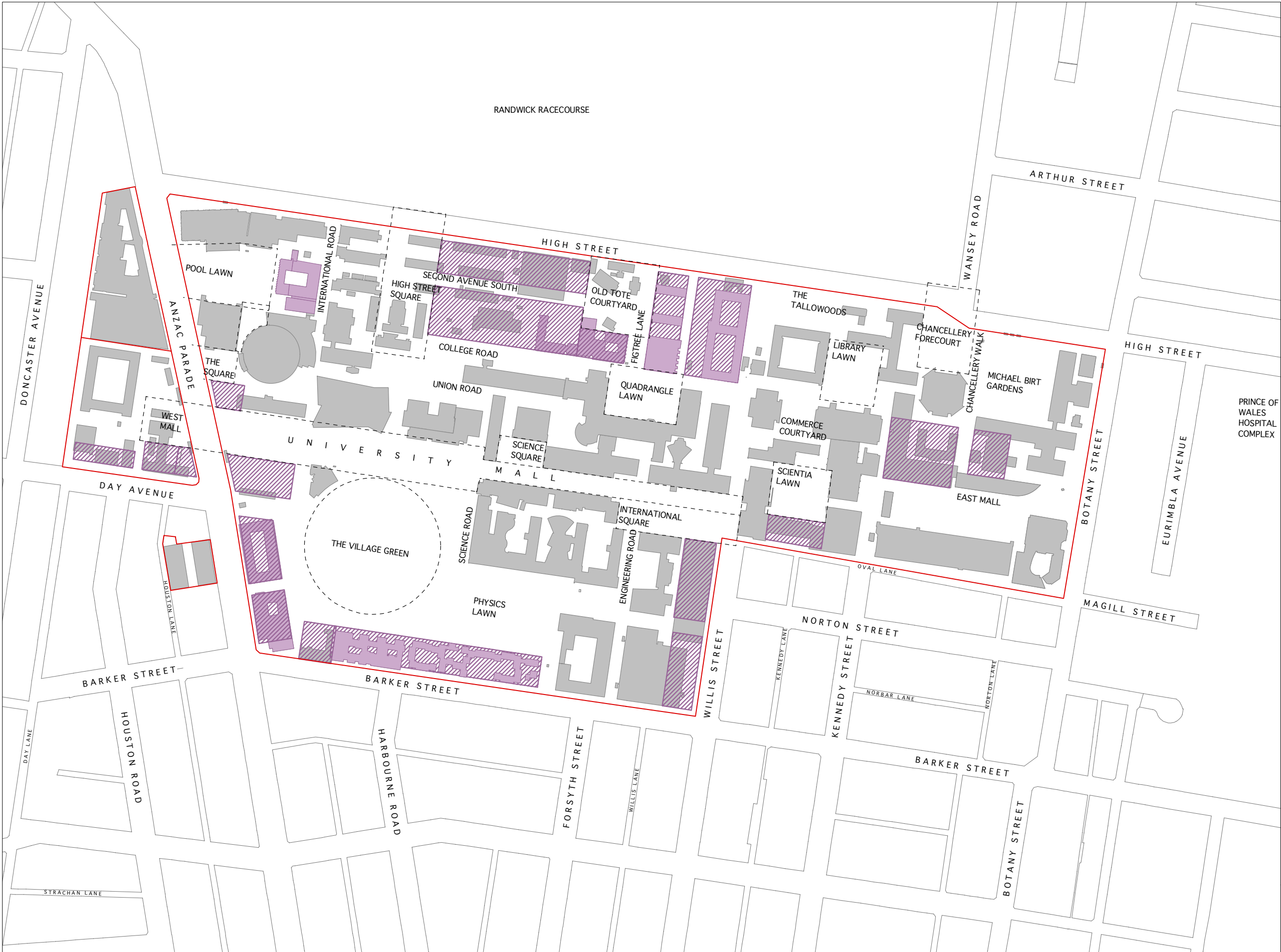
- c. New housing is to be focused on or near a Hub with activities and facilities to meet student needs well beyond 9:00 am-5:00 pm.
- d. The ground levels of new accommodation buildings are to be activated with retail and services, such as child care and e-learning spaces to provide active edges and passive surveillance of the public domain. In some locations quiet enclosed garden areas for residents are appropriate.
- e. Conversion of upper level existing towers (Mathews and Applied Science buildings) for residential uses is to be investigated, as they currently offer poor academic and teaching areas but may offer good amenity to residents.
- f. Amenity and sustainability of new housing is to be achieved through compliance with State Environmental Planning Policy No 65–Design Quality of Residential Flat Development and State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004, where applicable.
- g. Accommodation for visiting students, academics and staff of educational institutions and their families is to be investigated for the campus to widen the range of housing for campus visitors. Preferred sites are the development opportunities identified with frontages to Anzac Parade or High Street.



5.10  
housing

Campus housing has the potential to add to the life and safety of the campus and its perimeter streets, when it includes outward focussed uses at ground floor level.

Campus housing, should incorporate multi uses : residential support uses, public rooms, retail, child care academic uses and the like at ground floor level.



- legend
- existing housing
  - proposed campus housing

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## 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.

### Retail/Services 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.

### Retail/Services Provisions

- 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.

## 5.9 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.

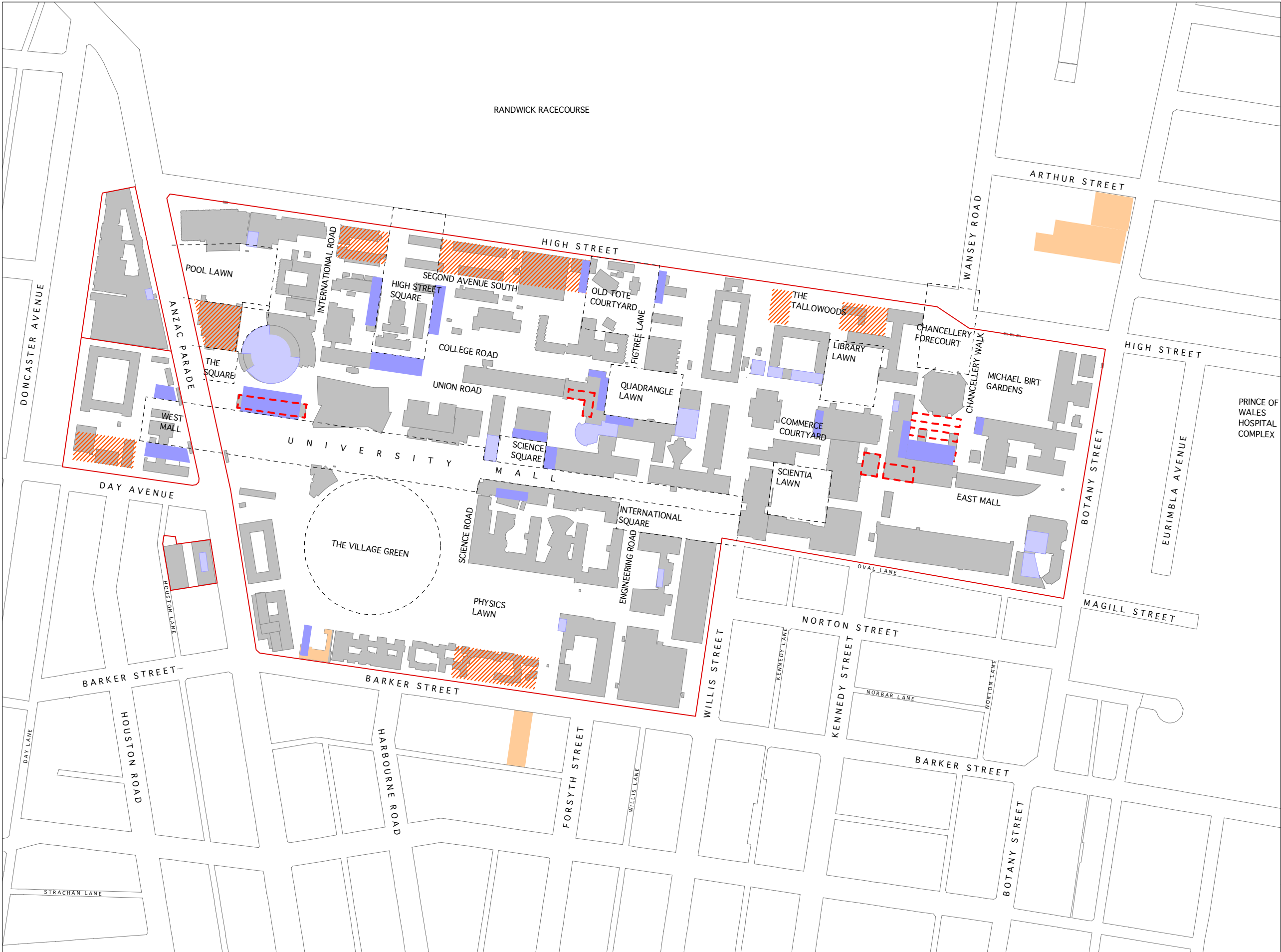
### Recreation/Cultural/Events Objectives

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.

### Recreation/Cultural/Events Provisions

- 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.





- legend
- retail
- existing retail
  - existing retail to be relocated
  - desirable location for future retail
- child care
- existing child care
  - potential location for future child care

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## 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.

### Transport/Parking 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.

### Transport/Parking Provisions

- 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: <ul style="list-style-type: none"> <li>• implementing public transport upgrades</li> <li>• reducing parking supply</li> <li>• locating university accommodation on or near the campus</li> <li>• managing parking charges, and</li> <li>• supporting an interactive information system.</li> </ul>
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: <p>a) BUS TRAVEL</p> <p>(i) 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.</p> <p>(ii) 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 Wansey Road to Botany Street thereby giving priority to buses.</p> <p>b) RAIL TRAVEL</p> <p>Council and the UNSW to work together on preparing a submission for a rail connection to the University.</p> <p>c) LOCAL STREET PARKING PLAN</p> <p>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.</p> <p>(i) 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.</p> <p>(ii) Introduce the plan over three years.</p> <p>(iii) Review the plan after three years.</p> <p>d) SHORT TERM PARKING</p> <p>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.</p>
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

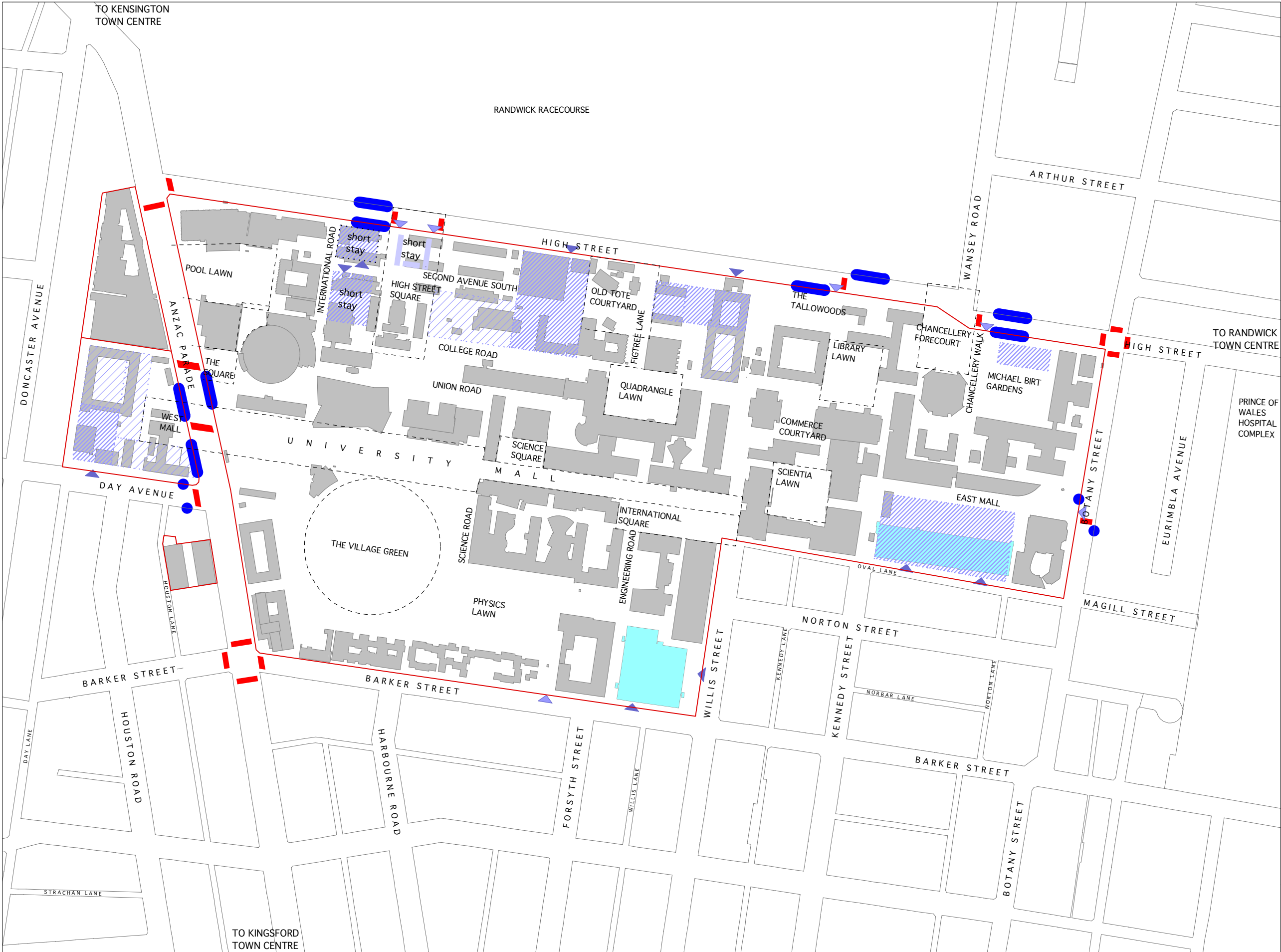
## transport

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 pedestrain 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.



- legend
- transport
- preferred location of transport stops to reinforce campus thresholds
  - preferred location of pedestrain crossings
- existing car parking
- multiple level
- potential car parking
- temporary surface
  - short stay surface
  - not occupying ground level preferred location
  - not occupying ground level alternate location
- vehicle access
- preferred access to car parking within structures
  - predominantly service and emergency vehicle campus access

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