

# LA TROBE UNIVERSITY **BENDIGO FLORA HILL** **CAMPUS** MASTER PLAN REPORT

## 5. KEY PROJECTS

PREPARED BY MGS ARCHITECTS  
JUNE 2015

# BUS ROUTE AND TERMINAL

## Design intention

A new public bus route is brought through campus, with a new single centralised bus terminal that serves the heart of the campus. This provides a number of benefits for the campus population including:

- Improves bus user outcomes by directly servicing the campus core.
- Allows for high-quality waiting facilities to be built in a single location.
- The centralised facility improves marketing opportunities for the bus service and is more user friendly.
- A single bus boarding location will significantly improve the bus service levels at La Trobe University without the need for additional services. This is because currently there are multiple bus routes that combine to provide a high level of service, however this is eroded because customers need to 'guess' which stop to go to and they 'test their luck' if the bus is running late. This uncertainty can be avoided if all buses serve a single bus facility on campus, where it is easy to wait in comfort.

## Character

The bus route will be lined with trees to create a sense of arrival to campus. The species of these trees compliment a La Trobe University Bendigo specific arrival experience.

## Supportive elements

- Consultation sessions conducted as part of the Master Plan process with PTV, the City of Greater Bendigo and members of the La Trobe University community showed wide support for this intervention.

- Busway design will include "Bus Only" signage and may require a boom gate or movable bollards to prevent other vehicles from using the busway. A single lane (one-way) bus route is preferred with a layover bay and extended shelter as a continuous series two bay system.
- Bus stop design will provide a shallow curve for buses to negotiate and a 250 mm high kerb to aid with fast loading of passengers.
- The location of passenger waiting facilities will be determined by the direction of travel of the bus services. If the busway is bi-directional, it seems appropriate to organise service routing such that all Bendigo bound services stop on one side of the road.

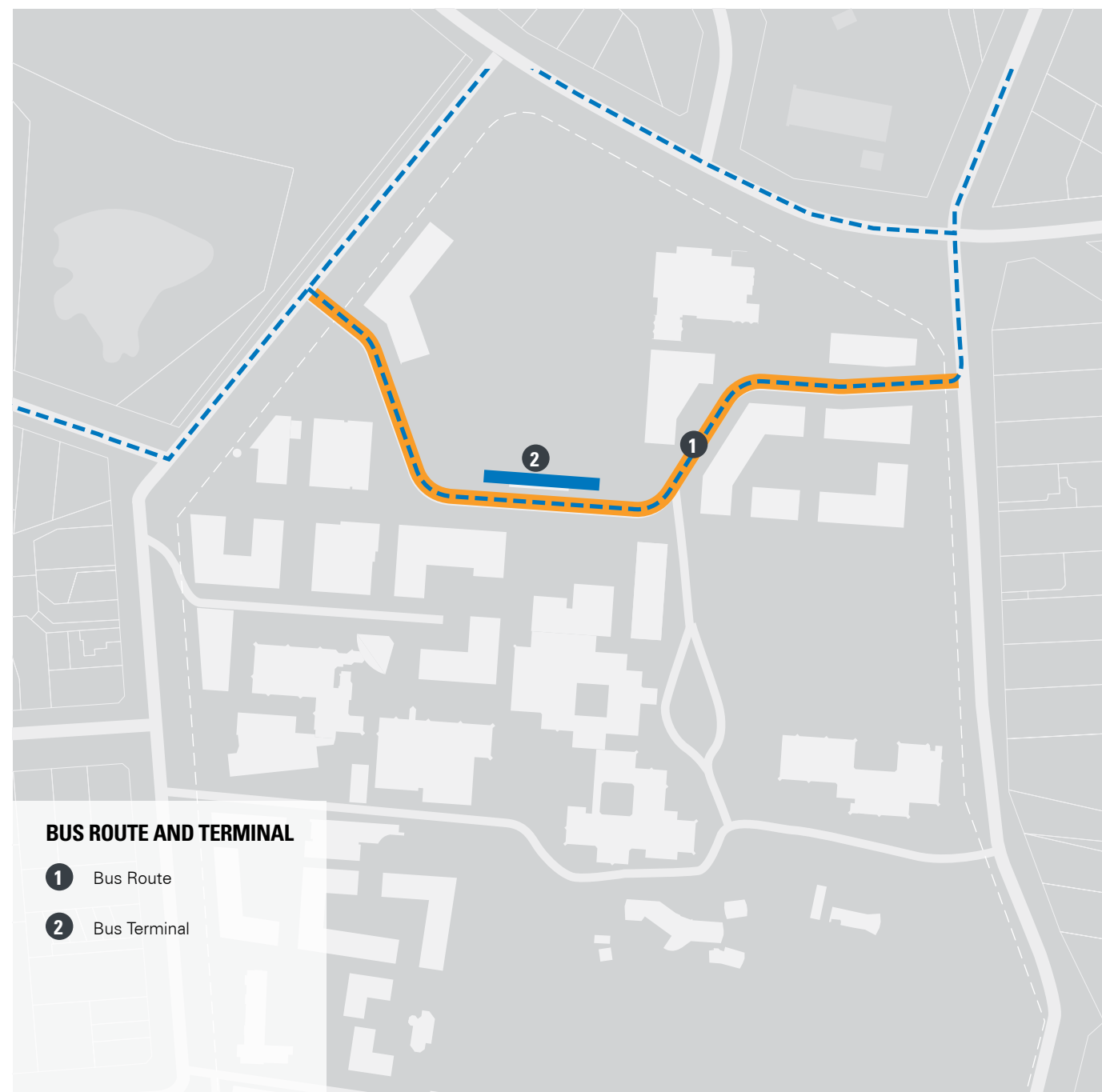
## Barriers to change

- The shuttle bus from La Trobe University to the train station is dependant on government funding. Significantly greater benefit would flow from having three of four bus routes from across Bendigo all continue their journey to the campus. This would eliminate the need for passengers to transfer buses at the train station and reduce the travel time by bus by up to 50%.
- The local bus provider (Christians) should be consulted at an appropriate time through PTV.
- PTV may require the busway to be bi-directional. This would have an impact on the amenity of the area but may be necessary in order to provide for routes that travel beyond La Trobe University (to Strathfieldsaye or Spring Gully).
- Any bus routes that terminate at La Trobe University (such as the proposed shuttle service) will need to have vehicle layover bays provided (preferably at the bus stop (so that passengers can board the vehicle while waiting for its next scheduled departure). This would require a passing lane in the bus stop so that one bus could pass a different bus that is laying over.

New bus shelter at The University of British Columbia offers shelter while still allowing views through the structure.

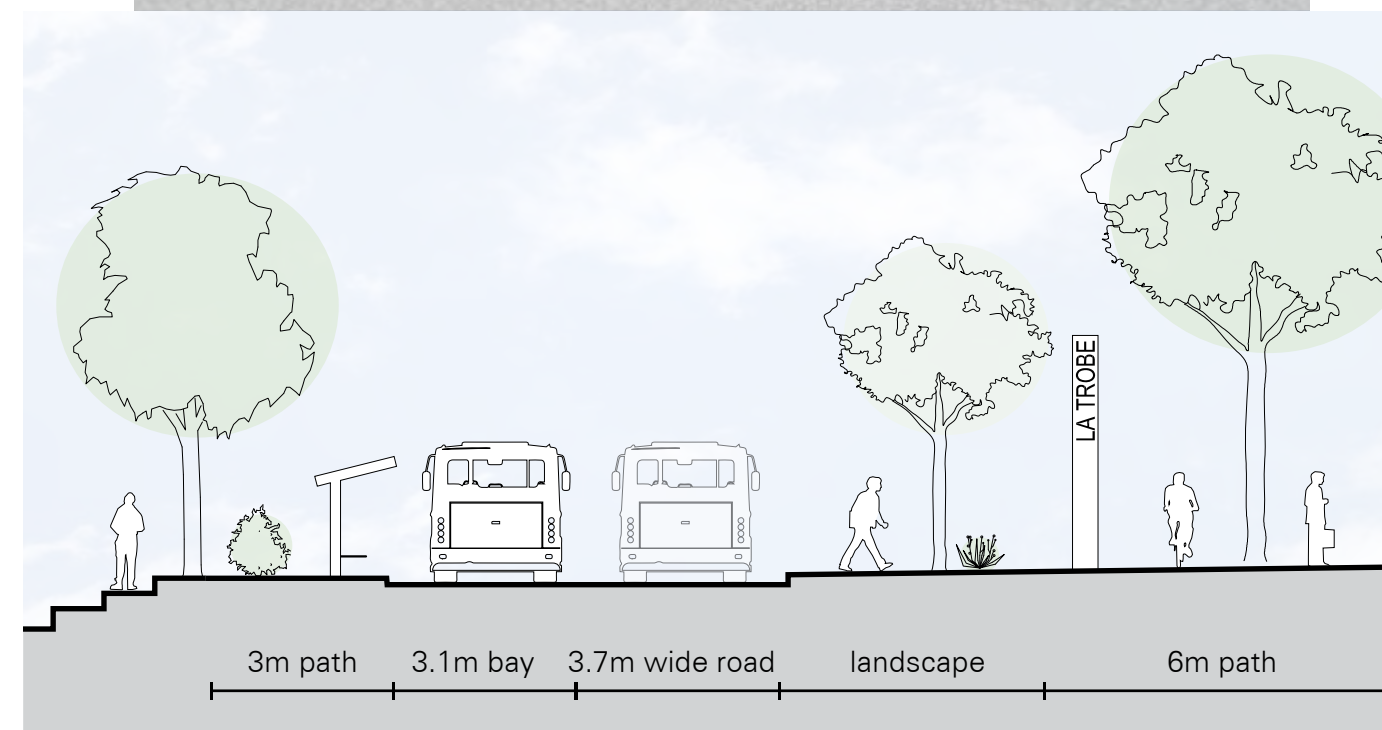
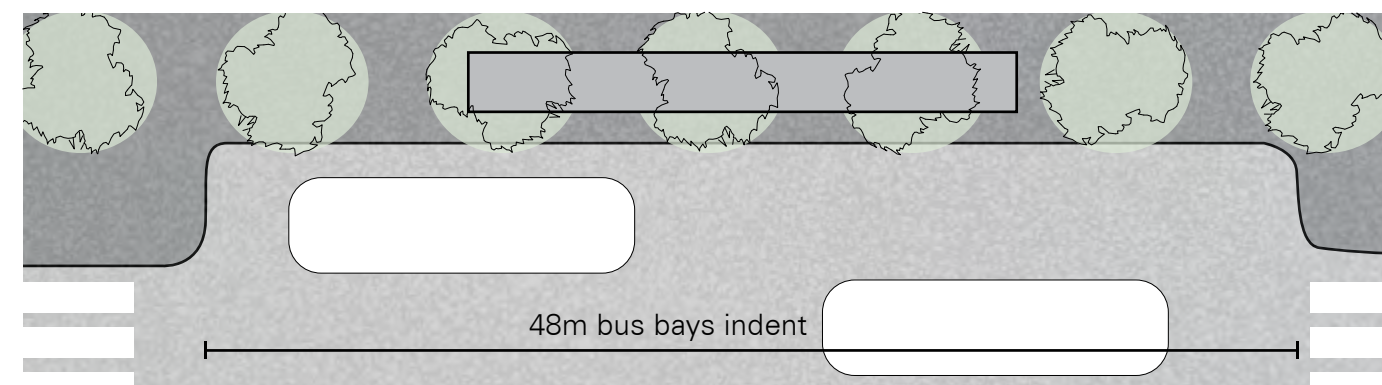




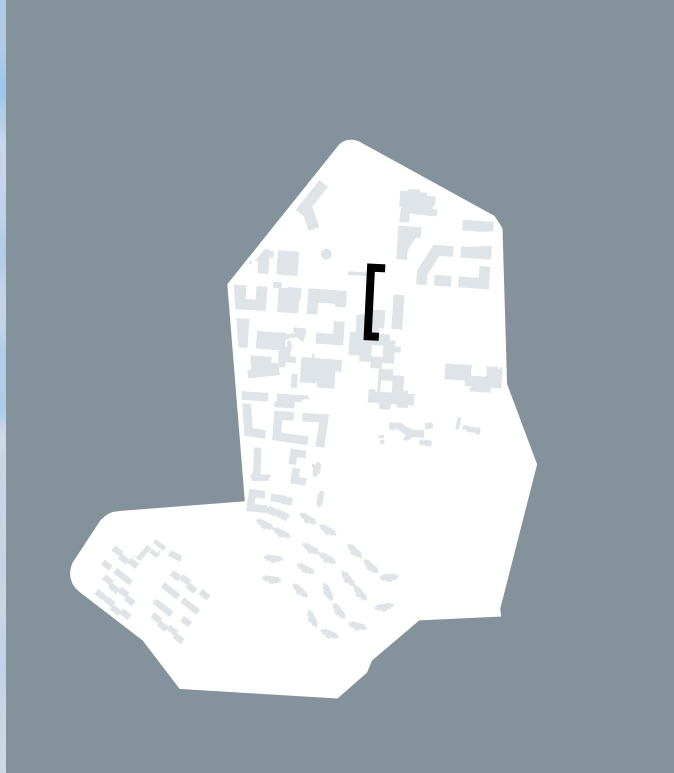


A well articulated bus stop shelter in Southhampton University.

Indicative bus route cross section and plan.







UPGRADED SPORTS FIELD

CAMPUS BUS STOP





**NEW STUDENT UNION BUILDING**

**EXTENDED AND RENOVATED LIBRARY**



# ARRIVAL PLAZA

## Design intention

The arrival plaza will become a high-quality public outdoor space in the centre of the campus, forming an important meeting space and place for activities.

## Character

The arrival plaza will be finished with high-quality, hard-wearing materials and complemented with outdoor furniture, shade trees, interpretive art, lighting and rubbish bins. It will create an appropriate venue for cafes, gathering and large scale events. A significant water feature utilising water from stormwater capture and treatment will give a tranquil and cooling atmosphere to the campus in summer.

## Supportive elements

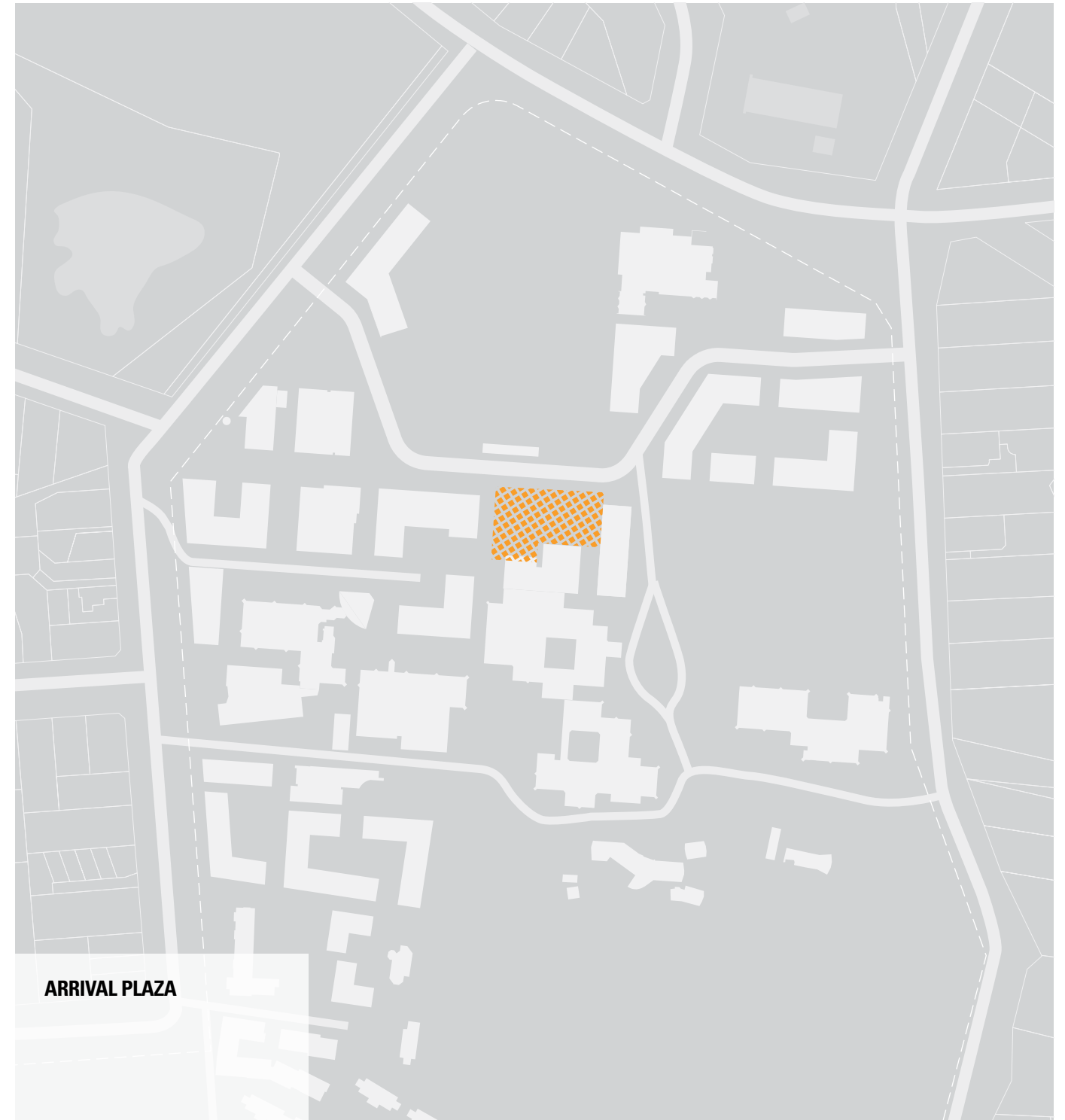
The arrival plaza is well located adjacent the sports field, the proposed bus terminal and the existing library. It is also north facing, providing good solar access.

## Barriers to change

The introduction of the arrival plaza requires the demolition of the existing Engineering Building.



An activated arrival plaza at Harvard University.





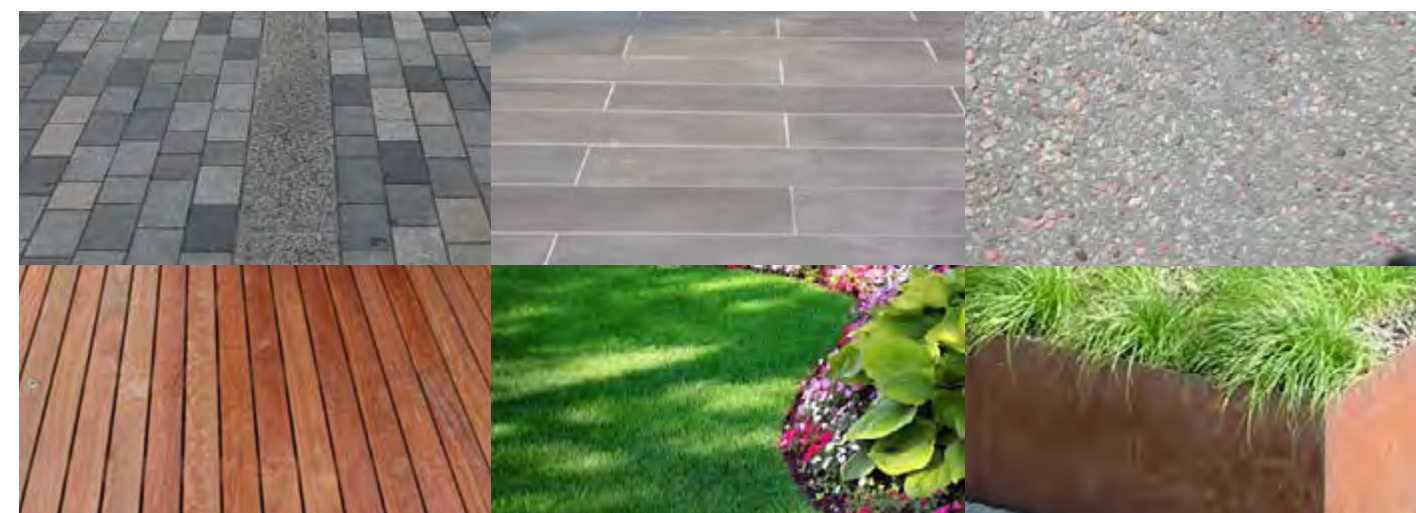


Flexible grassed square  
(Colorado State University).

Landscape palette.

A pedestrian haven (Place  
de la Republique, Paris).

Large event gatherings,  
such as O-Week (Simon and  
Helen Director Park).





# KEY PEDESTRIAN SPACES

## Design intention

The key pedestrian spaces will together form a cohesive pedestrian network across the campus, improving wayfinding, safety and the pedestrian experience.

## Character

They will have a consistent material palette and hierarchy, improving the cohesiveness of the pedestrian spaces. They will be well-lit and provide universal access.

## Supportive elements

The key pedestrian spaces formalise pedestrian paths that are already in use.

## Barriers to change

The pedestrian network will need to be introduced incrementally, taking many years to complete.

## 1 PEDESTRIAN SPINE (PRIMARY)

The pedestrian spines (primary pedestrian spaces) are the main organising pedestrian paths and public spaces in their own right. They will be finished with high-quality, hard-wearing materials and complemented with study spaces, benches, garden beds, interpretive art, lighting and rubbish bins.

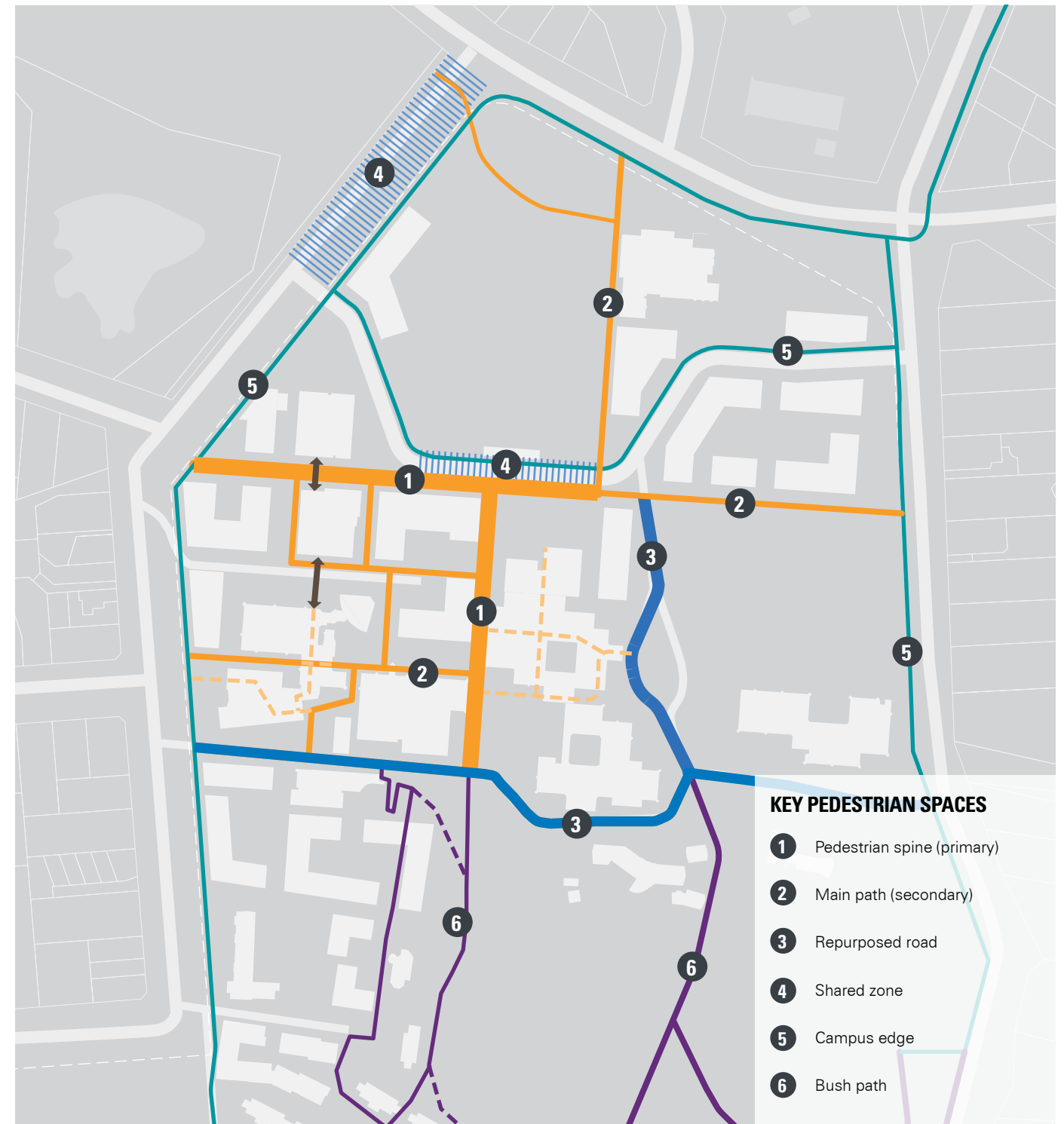
## 2 MAIN PATHS (SECONDARY)

The main paths (secondary pedestrian spaces) support the pedestrian spines and are finished with complementary high-quality, hard-wearing materials.

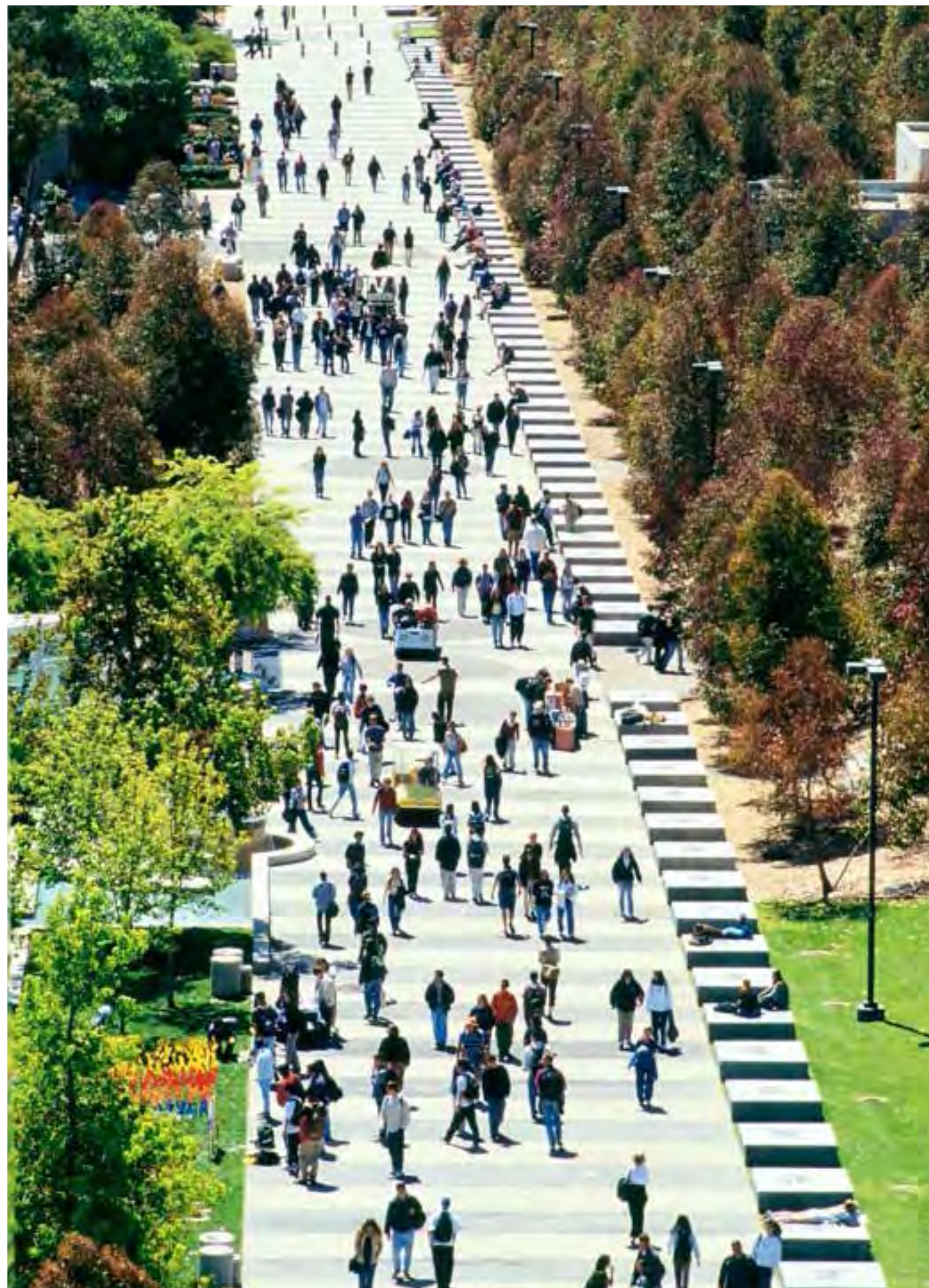


Night time activation  
of pedestrian spines  
(University of Sydney).

Well lit safe space  
(University of Pennsylvania).

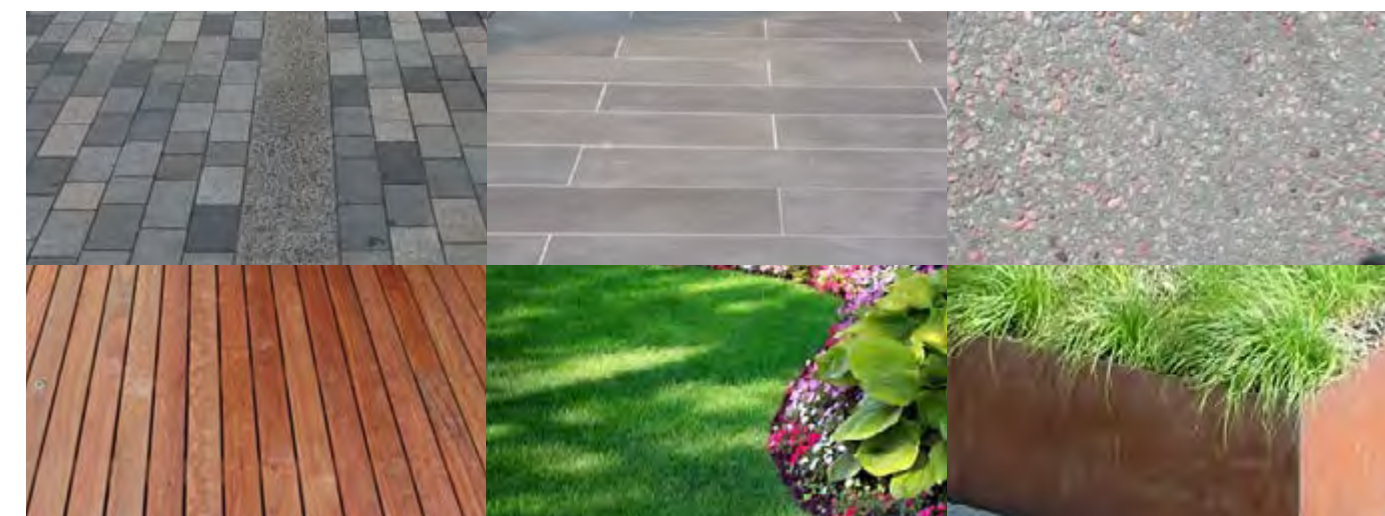
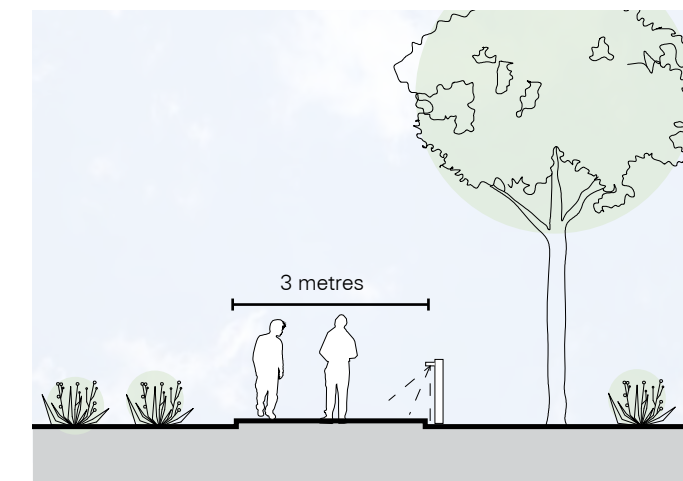
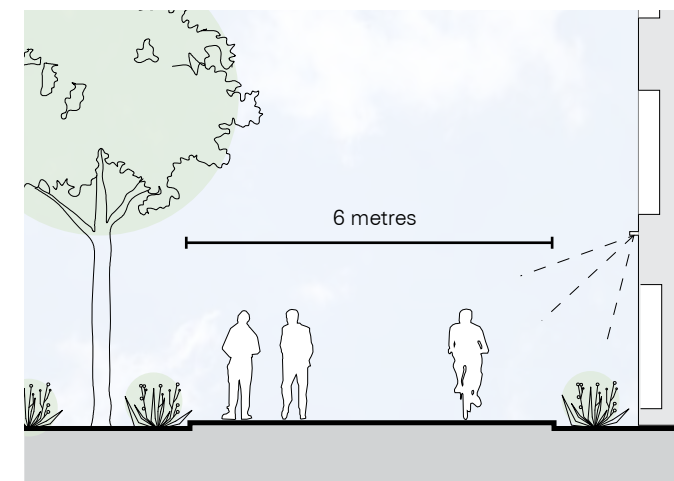






Typical cross-section of the Primary Pedestrian Network.

Typical cross-section of the Secondary Pedestrian Network.



Library Walk, a main pedestrian spine.(University of California).

Pedestrian Network palette.

Reference to the history of the campus (Stanford University).



# KEY PEDESTRIAN SPACES

## 3 REPURPOSED ROAD

Several roads on campus will become closed to most traffic, with movable bollards or boom barriers allowing access for service, delivery and emergency vehicles. These roads will become repurposed as pedestrian spaces.

## 4 SHARED SPACE

The area where the arrival plaza meets the bus route through the campus will become a shared space, providing safe access for both the bus and pedestrians.

Sharon Street, between the new Sports Testing and Community Health Centre and Bendigo South East College will also become a shared space, reducing and slowing traffic in that area to allow improved pedestrian access between the University and the Bendigo South East College.

## 5 CAMPUS EDGE

The edge of the campus will be improved with the addition of consistent landscaping and pedestrian path. This will form parts of the running and walking 'tan' track for informal recreation.

- The campus edge shall be between 7.5m and 20m in width, and extend along Sharon Street, Ellis Street and Edwards Road.
- Shared pathways should be incorporated into the campus edge zone, enabling safe access around the perimeter of the campus, and connecting into the main circulation routes.
- These pathways should be sufficient to create a running and walking 'tan' track around the campus.
- Original vegetation on the northern and western campus edges will be retained and enhanced. Additional native/indigenous ground covers and shrubs will be planted.
- Planting should include visually arresting plants that will give a striking impression of the campus boundary on the approach, and define the site within the surrounding neighbourhood.

## 6 BUSH PATHS

The bush paths will connect through the bushland providing safe access between parking, the core campus and residential areas. They will have a material palette that is respectful of the indigenous vegetation, complemented with lighting and seating. These paths will connect to paths within the One Tree Hill Regional Park.

Shared space  
(Hargreaves Mall,  
Bendigo).

Pedestrian appropriate  
road treatment in the  
Auckland CBD.

Moveable bollards.



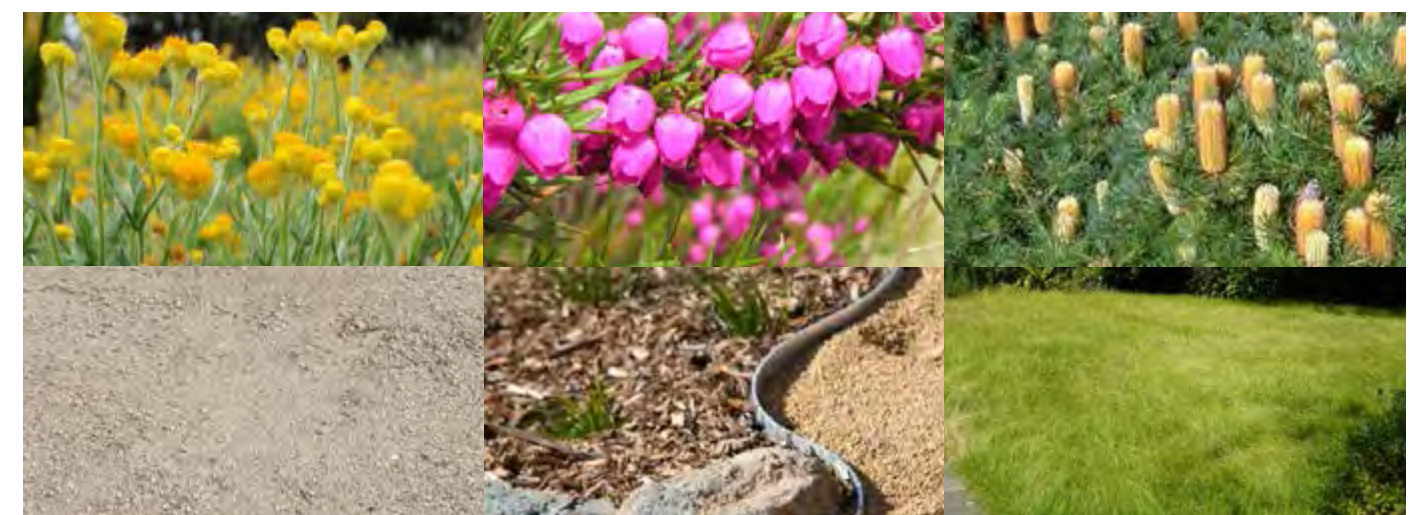
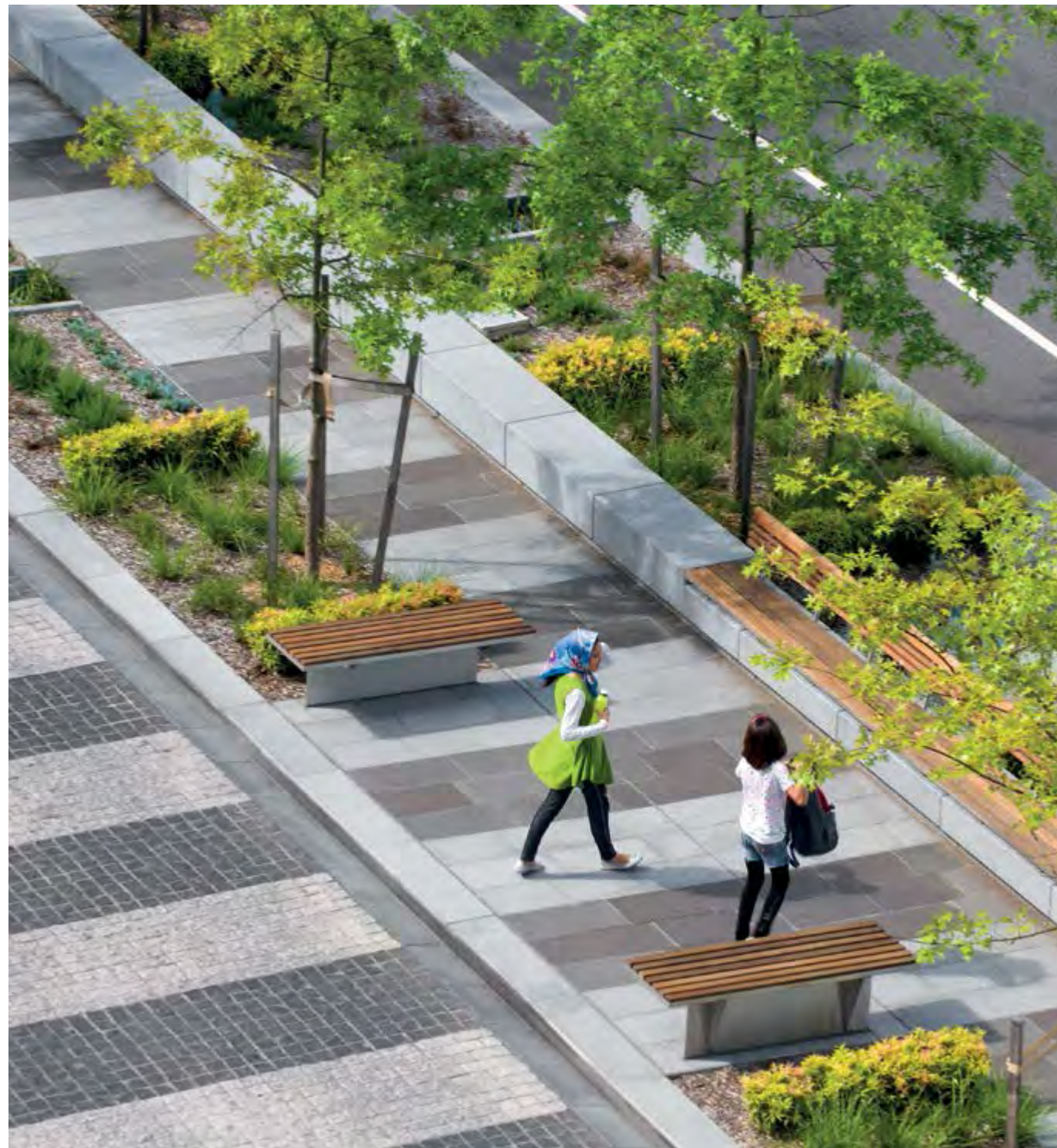


Shared vehicle and pedestrian zones, (Lonsdale Street, Central Dandenong).

Making the bushland character of the campus evident on the periphery.

Edge planting and paths.

A bold landscape pallet that is consistent throughout the campus.





EXTENDED LIBRARY



CAMPUS WALK





SCULPTURE AND SPORTS PLAZA



# SPORT AND RECREATION SPACES

## Design intention

The sports and recreation spaces will open the campus up to the wider community and become a valuable asset for students, staff and visitors. Sporting areas will be managed so that they can be booked and utilised by local sporting groups as well as the University.

## Character

Sporting Areas will be designed to be high-functioning areas able to accommodate informal recreation, but also markets, festivals and events for the local student and community population.

## Supportive elements

- Partnership opportunities exist with both the City of Greater Bendigo and Bendigo South East College for the development of new facilities and the maintenance of existing facilities.
- Sporting facilities, both informal and formal are an excellent way to engage with the broader community.

## Barriers to change

- Connecting to tracks in the national park will require consultation with Parks Victoria.

## 1 SPORTS FIELD

Introducing change rooms, lighting and outdoor seating to the existing sports field will greatly increase possibilities for community use.

## 2 RUNNING AND WALKING 'TAN' TRACK

Introducing a running and walking 'tan' track to the campus will beautify the edge of the campus, improve community access to informal recreation and be a promotional opportunity for the University.

With the campus' proximity to One Tree Hill Regional Park the introduction of a walking and running track will heighten the connection between the park and the campus.

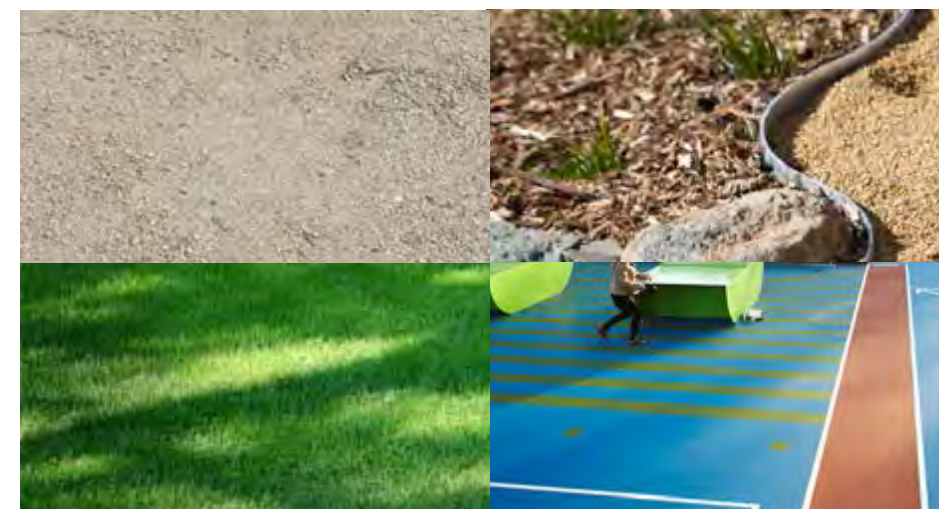
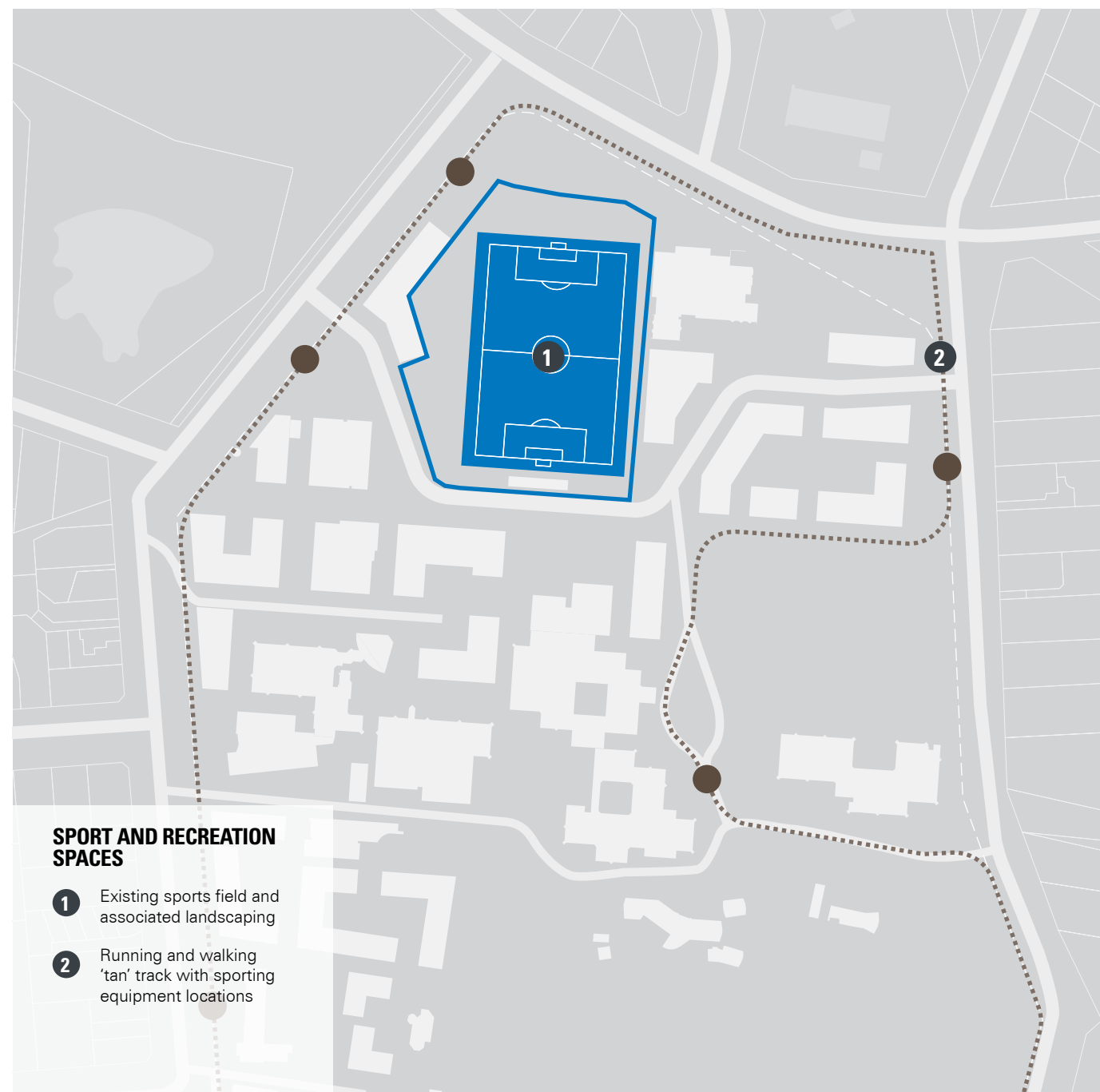


Walking and running track for informal recreation (The Tan, Royal Botanical Gardens, Melbourne).

Recreation spaces including permanent table tennis tables at Darling Quarter, Sydney.

Sports greens that allow informal group fitness training.





Moonlight cinema, Perth - an example of community usage.  
Pedestrian Network palette.



# COURTYARD SPACES

## Design intention

Outdoor courtyard spaces will be distributed throughout the campus core providing an important contribution to the campus fabric. They will encourage a healthy lifestyle by providing outdoor study environments for students.

## Character

They will have a consistent material palette and improve the cohesiveness of the campus landscape.

## Supportive elements

Some courtyard spaces already exist in the campus.

## Barriers to change

Sourcing funding for the installation and maintenance of these spaces could be difficult.

## 1 URBAN COURTYARDS

- The urban courtyard will be characterised by a majority of hard paving, with garden beds, seating and shade.
- Additional urban spaces should incorporate seating and shade amenities, and encourage the use of outdoor spaces.
- Materials and finishes shall be high-quality and of a consistent language across all spaces. A standard furniture and material palette will be applied.
- The urban courtyard will be found in various locations across the campus, and will provide spaces suitable for both winter and summer usage.
- Shade will be an important design feature, and options of both permanent shade structures and trees as shade should be considered in appropriate locations.
- The plant palette for these spaces will be native and indigenous plants.

## 2 GARDEN ROOMS

To add to the outdoor experience, a sequence of garden rooms will be available around campus.

- The garden room will be primarily a vegetated space, with lawn, garden bed and seating.
- It will be a place for quiet contemplation within the University.
- Materials and finishes shall be high-quality and of a consistent language across all spaces. A standard furniture and material palette will be applied.
- The plant palette for these spaces will be native and indigenous plants.



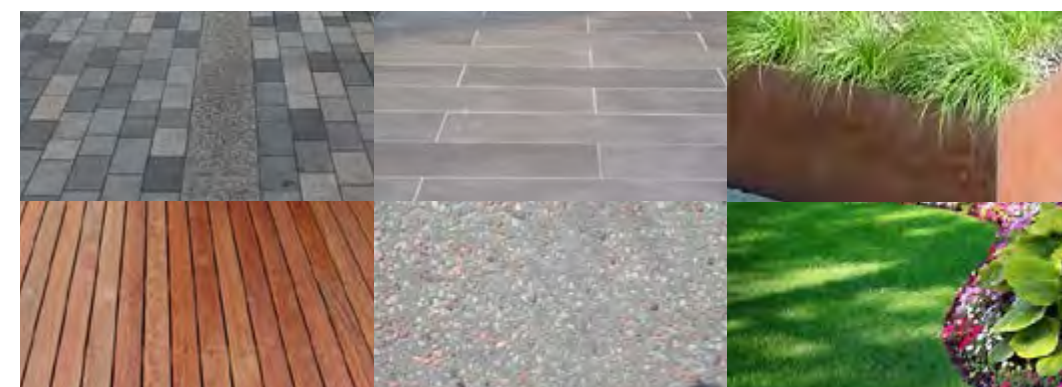
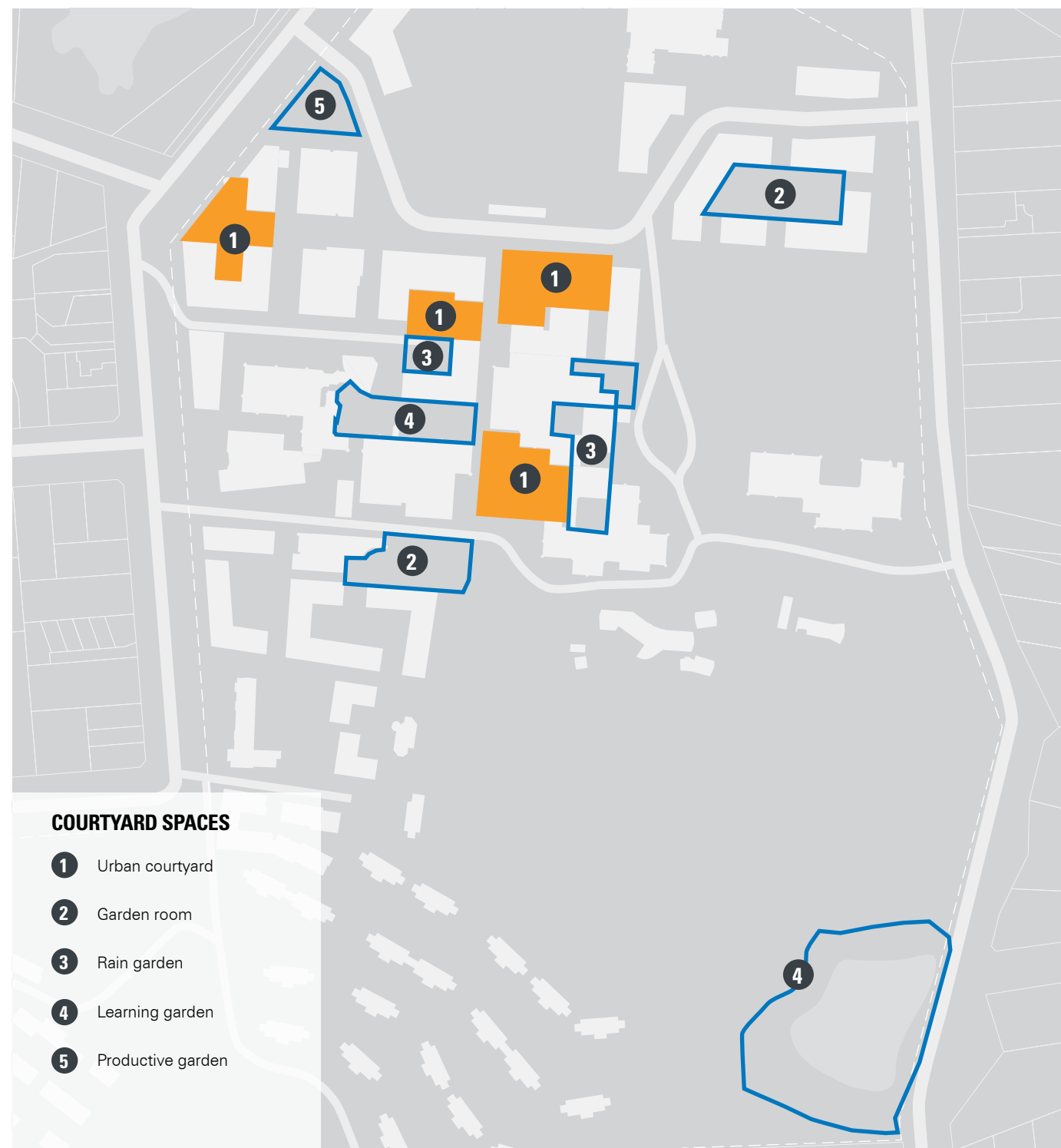
Sculpture Courtyard (MoMA PS1).

Courtyard spaces material palette.

Outdoor seating, an extension of learning spaces (University of Adelaide).







Multi-use lawn spaces for leisure and recreation.  
Landscape palette.



# COURTYARD SPACES

## IRONBARK BUSHLAND

The southern parts of the campus, primarily the residential living areas, are surrounded by native bush, connecting to the green wedge of One Tree Hill Regional Park. This adjacent bushland is a significant asset to the campus.

- Ironbark Bushland will be a landscape characterised by the stands of Red Ironbarks, Red Stringybarks, Yellow Gum and Red Box.
- It will be revegetated to include understory planting of medium and small shrubs including Desert Hakea, Dwarf Sheoak, and variety of Heaths.
- The Ironbark Bushland will be an informal landscape for informal recreational activities such as bush-walking, hiking, bird spotting, cycling and orienteering.
- It will connect the residential living zones to the greater parkland context of Bendigo.
- A series of pedestrian gravel pathways should be provided through the area, to connect University buildings, car parks, adjacent neighbourhoods and the proposed running and walking 'tan' track.
- Future developments within this area should be sympathetic to the bushland quality and aesthetic.

## SUSTAINABLE/LEARNING GARDENS

The sustainable/learning gardens give the University the opportunity to showcase a sustainable story within the local climatic conditions.

- These landscapes should demonstrate the ability for plants to thrive within the Bendigo climate.

- Demonstrate water usage as appropriate to the region, and serve as basis for learning and research.
- Plantings within these areas will include dry climate edibles and orchard species.
- Signage and interpretive strategies will be implemented to enable accessibility of information for students, staff and visitors.
- Partner with City of Greater Bendigo and Bendigo Botanic Gardens to develop appropriate interpretive strategies. Materials and finishes shall be high-quality and of a consistent language across all spaces. A standard furniture and material palette will be applied, with some bespoke signage or furniture as would be consistent with the interpretive strategy.

## RAIN GARDENS

Rain Gardens within the University give a unique opportunity to showcase water reuse, treatment and storage.

- These landscapes should demonstrate ways to incorporate water treatment into campus design.
- Signage and interpretive strategies will be implemented to advise staff and students of the water treatment story.

## GREEN ROOFS AND GREEN WALLS

Green Roofs within the University provide an opportunity to reduce the urban heat island effect.

Green Walls implemented in key locations around campus will provide additional cooling for the buildings and surrounding urban spaces.







Planting from the Whipstick Woodland Heath EVC.

Using the landscape as a research platform through the creating of learning gardens.

Sensitive development which relates to the bushland character.

Habitable roofs gardens (The Burnley Living Roof, University of Melbourne)

A vibrant and consistent landscape palette.

Combining landscape and building; a succulent green wall facade (Jamba Juice, California).





# LIBRARY HUB

## Design intention

Facing onto the arrival plaza, the Library Hub will strengthen its role as the administrative, academic and social heart of the campus. It will be an extended hours location with good accessibility to the new bus terminal.

## Character

The extension to the existing Library building and the new Student Services building will frame the arrival plaza and will have a consistent and contemporary character. The ground floor of both of these buildings will be activated with functions such as retail, hospitality, information services, building entrances, staff and alumni spaces, and bookable study rooms, creating an activity and information hub to service both students and the wider community.

## Supportive elements

- The existing Library and Arts building is already the heart of the campus, and would benefit from having adjacent public open space.
- The Goldfields Library Corporation have expressed interest in sharing programmes and facilities with the La Trobe University Bendigo Library.

## Barriers to change

- Such an extensive renovation will require large capital investment and require the demolition (and relocation) of the Engineering building.

## 1/2 EXTENSION AND RENOVATION OF EXISTING LIBRARY BUILDING

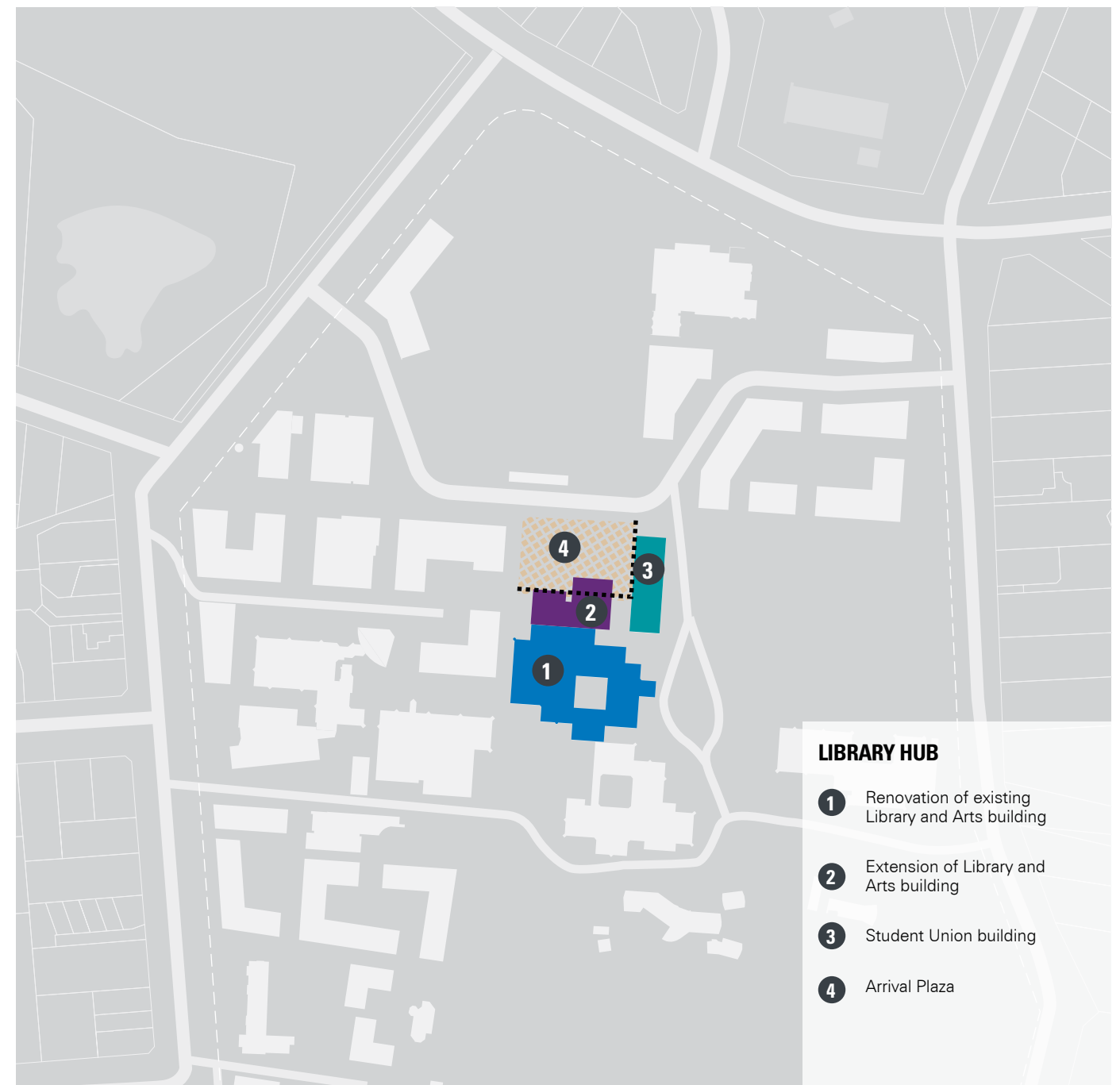
The existing Library will be renovated and extended to open it up to the north and provide a new entry onto the arrival plaza. It will extend its functions onto the existing Student Union floor, with Student Union functions moving to the adjacent building.

The existing Library will be renovated in line with suggestions raised during the consultation process for this Master Plan and those outlined in the *La Trobe University Library Space Review and Future Strategy* (2014). Recommendations include:

- Strengthen the Library's position as a 'one stop shop' for all of the student's needs by locating student services with the Library. This could include a welcome desk, IT assistance, student administration and lockers.
- Make the Library a vibrant place during semester and open it up on the weekends and out of semester. Consider collaborating with the Goldfields Library Corporation to increase accessibility and use for the general public.
- Provide a high-quality open space complete with informal study areas and WiFi.
- Include a greater variety of learning spaces that cater for all Library users such as group study areas, lounge spaces and single carrels. Ensure that such spaces are arranged with acoustics in mind.
- Continue to free up space by moving less frequently used books to an off-site storage location. Investigate a centralised automated storage and retrieval systems (ASRS) building for the University as a whole.

## 3 STUDENT UNION BUILDING

The Student Union building also faces the arrival plaza and plays a supporting role to the Library building. Active functions such as hospitality and study rooms occupy the ground floor with Student Union and administrative functions above. There is also scope for student accommodation to be included on the upper floors to provide extended hour activity and passive surveillance to the arrival plaza.







The library and associated administration and retail buildings become a 'one-stop-shop' for student needs (University of Washington).

The library as an extended hour informal study destination (Superpool Open Library).

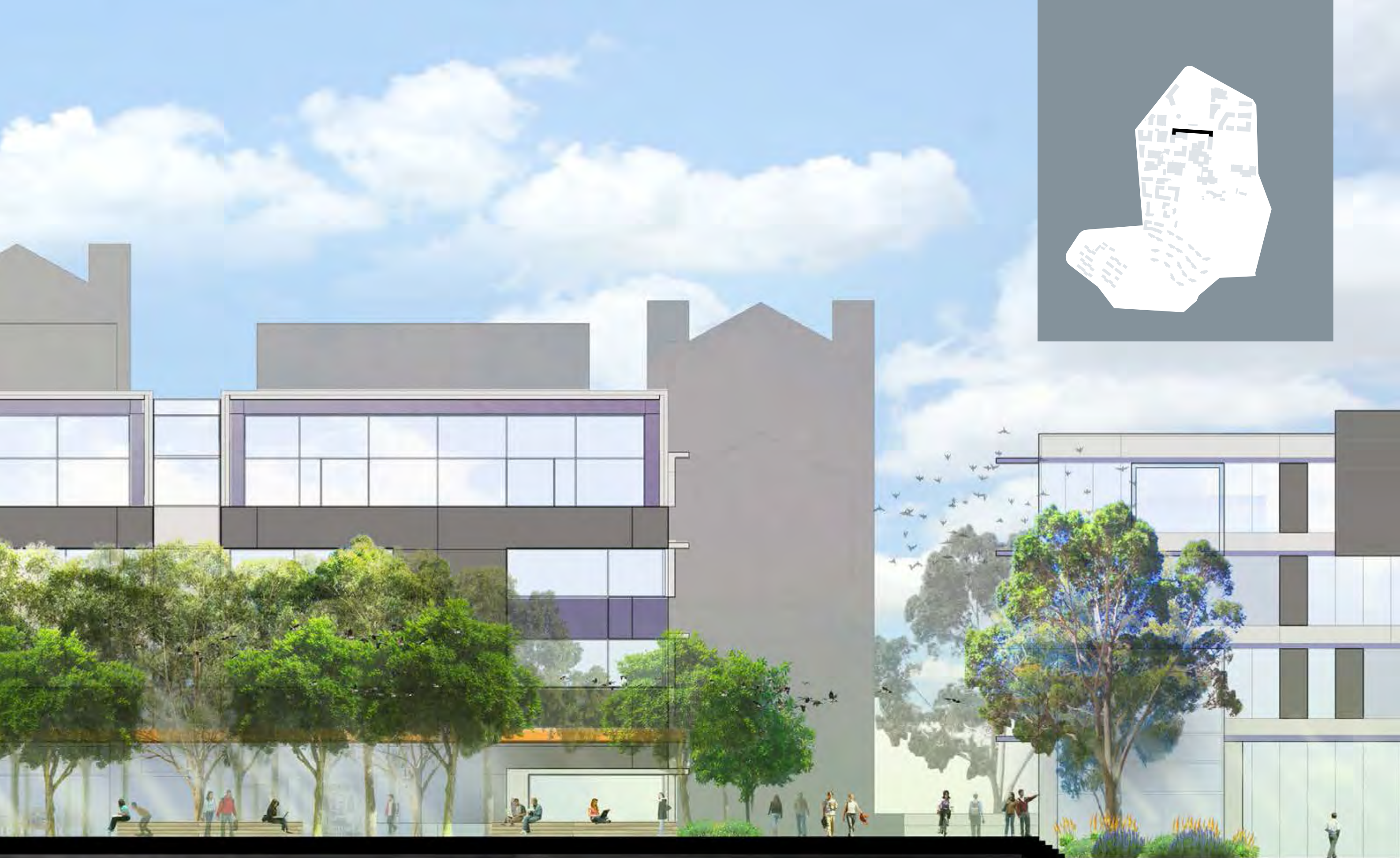
Bringing the library down to the first floor increases its visibility and accessibility (University of Newcastle).





NEW STUDENT UNION BUILDING





ARRIVAL PLAZA

EXTENDED AND RENOVATED LIBRARY

NEW TEACHING AND LEARNING BUILDING



# TEACHING AND LEARNING CENTRE

## Design intention

Facing onto the arrival plaza and the east-west pedestrian spine, and close to the new bus terminal, the Teaching and Learning building is located in a prominent position. The teaching spaces will encourage flexible modes of delivery and collaboration between different faculties through the sharing of facilities. It will have extended opening hours to allow for evening classes and group study sessions.

## Character

The Teaching and Learning building will be a showcase building for the University. It will attract the community and be connected to public events such as the Writers' Festival.

## Supportive elements

- The building can be used for university events and conferences outside of the semester and on weekends.

## Barriers to change

- The campus is currently separated into faculty buildings and sharing facilities would require a behavioural change.
- There is not a strong demand for additional teaching and learning space and it could be difficult to gain momentum for the renovation of existing buildings or the introduction of new buildings.
- The campus currently closes at around 7pm and later opening hours will require a review of timetabling and security measures.



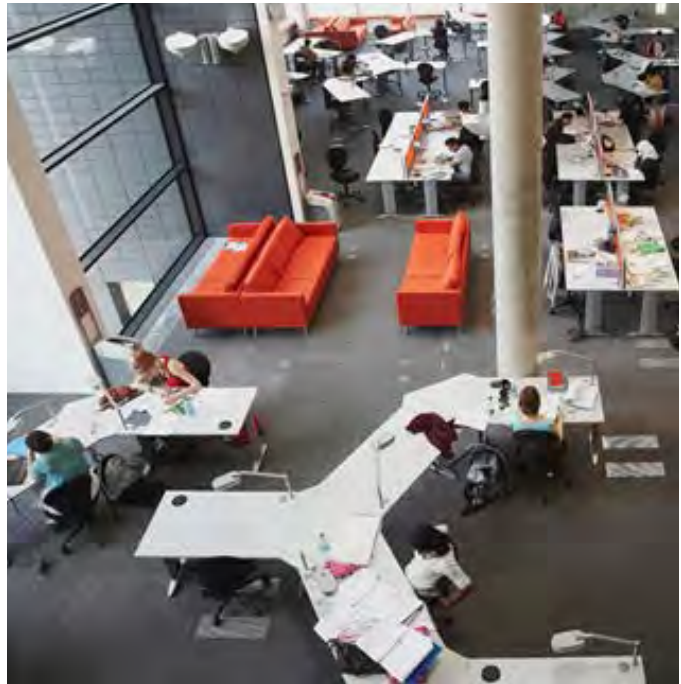




Sustainable learning spaces (La Trobe University, Melbourne Campus).

Modern learning spaces that are flexible for future needs (University of Sheffield).

Lecture theatres that can also be used for public events (George Brown College).





# HOUSING

## Design intention

New housing on the fringes of the campus will blur the boundary between the University and the community and bring activity and passive surveillance to the campus core. It will support a wider range of inhabitants, moving from housing that supports mainly first and second year students to a more diverse and flexible offer.

Housing is combined with community, hospitality or academic functions and acts as an interface between academic buildings and the local neighbourhood.

## Character

Housing on campus will be mid-rise apartment style accommodation. Communal facilities and courtyards will be located on the ground floor. On-campus housing will be flexible to promote different uses.

## Supportive elements

- On-campus housing can be a source of revenue to support other development.
- The existing residences are at capacity and on-campus living has proven to be a viable business model at other universities.

## Barriers to change

- A cognitive shift is required to move from solely college style accommodation to more diverse forms of accommodation.
- A business case will need to be produced to ensure there is a strong demand for alternative modes of accommodation such as short-stay accommodation.

## 1 SHORT-STAY ACCOMMODATION

Subject to demand assessment the short-stay accommodation will be used for visiting staff, conference guests, sporting teams and block learning students. It will be fitted with double beds, mini fridges and other amenities to allow for flexibility of use. Located next to the sports field it will create passive surveillance of these facilities.

## 2 COMMUNITY ORIENTATED HOUSING

Located in a prominent position in the north-east of the campus, this housing area is in walking distance to the Strath Village and Strath Hill activity centre. This community orientation housing could be a result of partnerships and operated by external parties. Accommodation not directly related to the University could include TAFE accommodation, aged care housing or even market housing.

## 3 STUDENT HOUSING

Located between the campus core and the existing student housing in the south, this housing area is well placed to provide independent style accommodation for older students. A new recreation area could be introduced as a hub for all students living on campus.

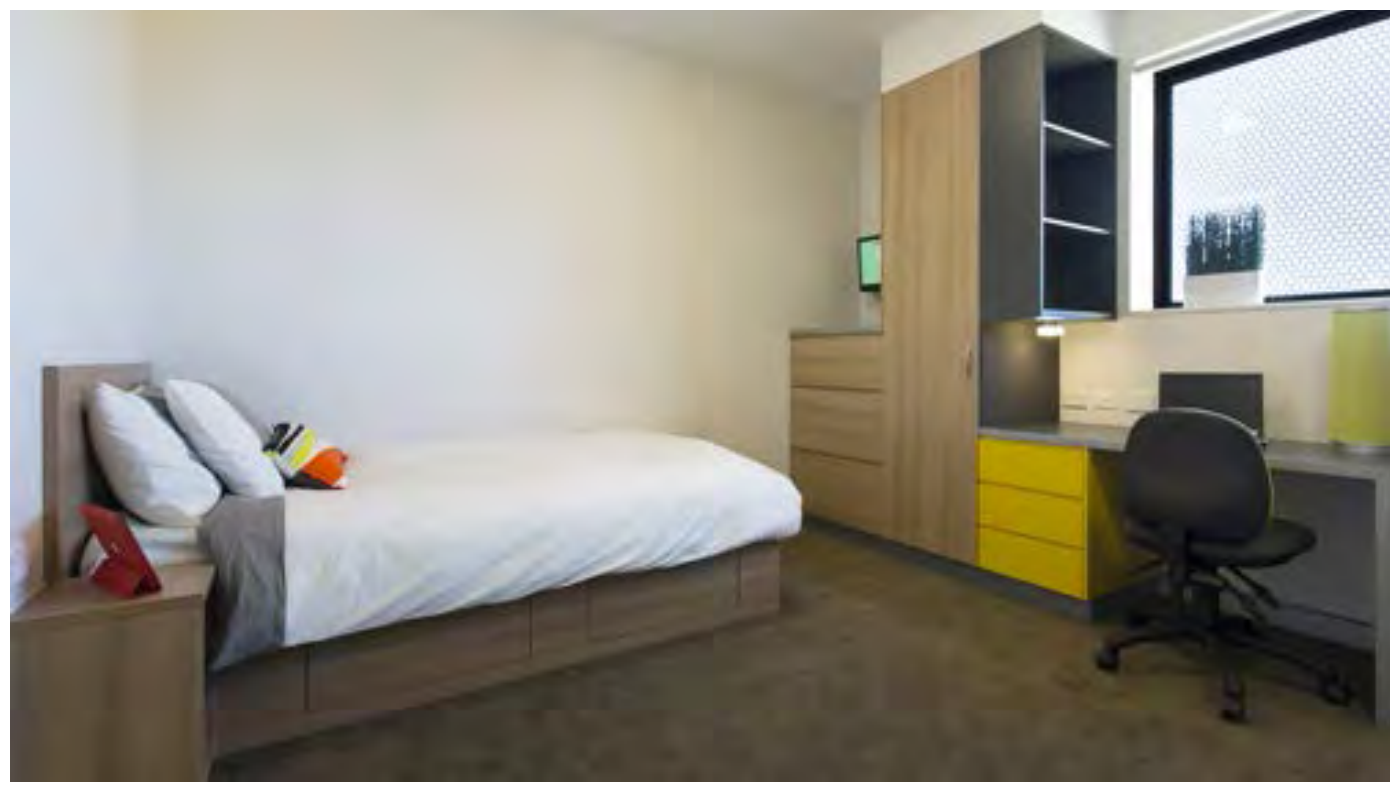
Breakout spaces between residential development (University of Washington).





Short stay accommodation  
for visiting staff, block  
learning students and  
conference guests (UWS  
Village, Penrith).

High-quality residential  
development (John Street  
Apartments, Box Hill).





# SPORTS TESTING AND COMMUNITY HEALTH CENTRE

## Design intention

A new sports testing centre will provide a valuable service to La Trobe University students and staff, regional elite sports teams and the general community. This may be co-located with a community health facility, providing access to allied health professionals, training clinics for students and also support research completed at the University.

## Character

The building will front on to Sharon Street, providing a welcoming face to the University. It will be well connected to the sports facilities on campus and at the adjacent Bendigo South East College. It will also host an underground car park.

## Supportive elements

- External consultation conducted during the Master Plan process saw support from Bendigo South East College and Bendigo Community Health for the introduction of this facility.
- There is a strong focus on sports exercise science, exercise physiology and sports medicine at the campus. This facility can be used to support research and student training at the University.

## Barriers to change

- The introduction of a new sports testing and community health facility is a reasonably large project that may require a local champion/ sponsor for impetus.



Equipment for sports testing  
(Australian Institute of Sport).

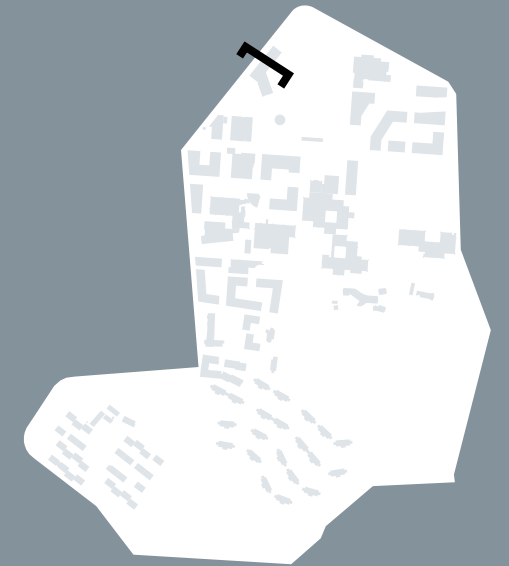
High-quality gymnasium for  
elite athletes.



## SPORTS TESTING AND COMMUNITY HEALTH CENTRE

- 1 Sports testing and community health centre.
- 2 Underground car parking.





**NEW SPORTS TESTING AND COMMUNITY CENTRE**

**UPGRADED SPORTS FIELD**

**BASEMENT CAR PARK**