



# wee hur student village

## 13-23 gibbons street, redfern





image by Virtual Ideas

Figure 01: View from Gibbons reserve to North\_3D visualisation

AJ+C  
ALLEN JACK+COTTIER

 **WEE HUR CAPITAL PTE LTD**  
(Wholly Owned Subsidiary of Wee Hur Holdings Ltd)

Date	Revision	Status	By	App.
10 Jan 2019	A	For DA Submission	CD/SC	BM

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deliver a landmark project that is creative, sustainable and innovative in conceptual, technical and economic terms.

## design statement

Weehur Redfern Student Housing is designed to be a high quality managed student residence which provides for the expressed need for affordable housing for students, both domestic and international, within the vicinity of the urban campuses of central Sydney.

In addition, through the use of urban, architectural, landscape and artistic design, the proposal aims to revitalise and enhance the urban and social context of the site to the benefit of both the students and the wider Redfern community acknowledging at all times the importance of Redfern to the indigenous community.

Informing the design was a rigorous process of research in a number of areas including but not limited to:

- + Site Context
- + Student housing case studies
- + Sustainable Design methods
- + Wind studies
- + History and Heritage
- + Community consultation

The design consists of 3 main elements, a brick podium with activated street frontage housing student common spaces and public retail topped with outdoor landscaped terrace, through site link extending William Lane with a combination of hard and soft planting and a setback accommodation tower with a lively elevation employing a number of contextual elements

The report is structured to match the 7 objectives of the “Better Places” document in order to demonstrate that proposal achieves “Design Excellence”.

## site description

The site is identified as SP 60485 and is 35-38m wide, east to west, and 34-35m long north to south with a land area of 1,365.5m<sup>2</sup>. There is currently a four to five storey brick residential flat building, with basement parking, covering almost the entire site. It is proposed that this existing building will be demolished and the basement largely retained. There is a minor fall from the north-western corner to the south-eastern corner of the site.

The approval authority is NSW Department of Planning & Environment. Planning controls identified are the SEPP (State and Regional Development) 2011, Redfern Waterloo area. The proposal is classified as a State Significant Development as it has a project value of more than \$10million.

The site is adjoined by an 18 storey future development to the north, service station to the east, 5 story residential building and St Luke’s Presbyterian Church to the south, and Gibbons Street Reserve to the west.

# design excellence principles

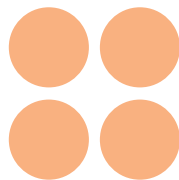
The following design excellence principles have been drawn from the Government Architect’s Design Guide. These principals have been followed by Allen Jack and Cottier to ensure Wee Hur Village Housing is better placed in every aspect.



**better fit**  
contextual, local and of its place



**better performance**  
sustainable, adaptable and durable



**better for community**  
inclusive, connected and diverse



**better for people**  
safe, comfortable and livable



**better working**  
functional, efficient and fit for purpose



**better value**  
creating and adding value



**better look and feel**  
engaging, inviting and attractive

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image by AJC

# 1 . better fit

contextual, local and of its place



***The design of the built environment must seek to address growing economic and social disparity and inequity, by creating inclusive, welcoming and equitable environments. Incorporating diverse uses, housing types and economic frameworks will support engaging places and resilient communities***

## **1.1 objective: responding to urban grain, scale, and form**

1.1.1 Promote sustainable and active travel solutions to the local and wider community.

1.1.2 Enhance and promote connectivity through the site to promote street activation.

1.1.3 The podium and tower forms respond to the existing site context.

## **1.2 objective: celebrating existing cultural and natural assets**

1.2.1 A detailed analysis of the existing cultural and heritage items has informed the design response.

1.2.2 Integration of aboriginal cultural heritage into a public artwork.

1.2.3 The built form, materials, colours, textures, tones and finishes reference the indigenous and more recent history of Redfern.





1.1.1 promote sustainable and active travel solutions to the local and wider community.

urban context

Redfern is undergoing rapid change due to an increase in population density, partly due to the influx of students and young professionals. The Redfern Waterloo Authority has promoted the gentrification of older building types and construction of new cafes, restaurants and bars. The opportunities and constraints resulting from these developments are as follows:

opportunities

- + Direct access to public green open spaces
- + Direct access to public transport
- + Accessible pedestrian walking routes and crossings
- + Dedicated cyclist lanes
- + Access to university campus'
- + Vibrant Redfern lifestyle, restaurants and retail
- + Vibrant Redfern community
- + Direct access to significant community facilities

constraints

- + Limited onsite parking
- + Gibbons street is a one way, 50km/h road with clearway restriction
- + Noise from Gibbons Street and Regent Street
- + Close access to efficient and affordable public transport are key in attracting and retaining the student population. This provides the opportunity to promote sustainable and active travel solutions. The proposal encourages the use of active transport modes that have low environmental impacts. with many benefits including:
- + Improved personal health benefits
- + Reduced traffic congestion, noise and air pollution
- + Greater social connections within communities
- + Improved access, safety, amenity and convenience of sustainable transport modes for travel to and from the site.
- + Cost savings to the individual and community.
- + Educates students on long-term sustainable travel behaviours

Please refer to 'Green Travel Plan,' and 'Transport Impact Assessment,' reports by the The Transport Planning Partnership for more information.





1.1.2 enhance and promote connectivity through the site to promote street activation.

immediate context

The immediate context at street level between Gibbons Street and Regent Street is also quickly changing with a number of new buildings recently completed and under construction. Pedestrian walkways are well established along both Regent Street and Gibbons Street to provide access to an active retail streetscape: The opportunities and constraints related to these developments are as follows:

opportunities

- + Across from Gibbons Street Reserve
- + Sealed pedestrian footpaths along Margaret Street
- + Existing footpath, pedestrian crossings
- + Existing cyclist path connects to Redfern Station, future Waterloo Station, and commercial offices to the north-west and south-west
- + Existing active street frontages and access to shops along Gibbons Street and Regent Street
- + Continuation of street activation on ground level from neighbouring street scape

constraints

- + Service station located to the east
- + Limited pedestrian access to William Lane
- + Limited street parking, loading and unloading services and vehicular access

The proposal seeks to promote and enhance public engagement with the social activities of the site in particular through the following ways:

public artwork

Publicly accessible through site link with vibrant landscaping and public domain implementation Active street frontages with public access to retail and bike repair

street context plan





views to and from site





view 1 - gibbons street looking south to site



view 5 - view south-east from behind Redfern Station



view 2 - gibbons street looking north to site



view 6 - gibbons street looking south



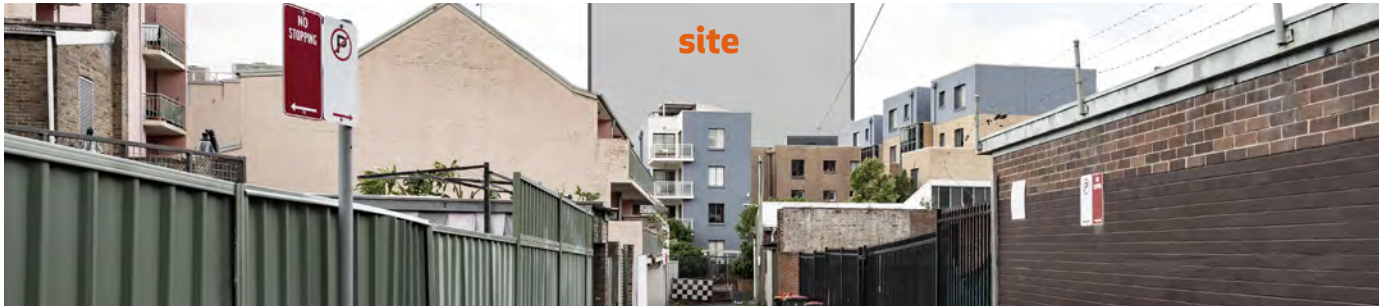
view 3 - regent street looking west to site



view 7 - from site looking south-east at St Luke's Church



view 4 - margaret street looking west to site

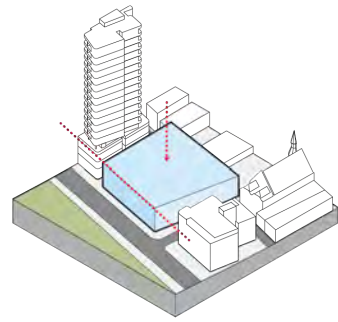


view 8 - marian street looking north to site



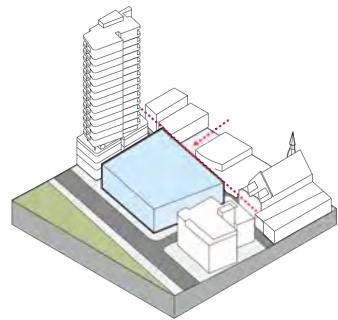
### 1.1.3 the podium and tower forms respond to the existing site context

#### podium



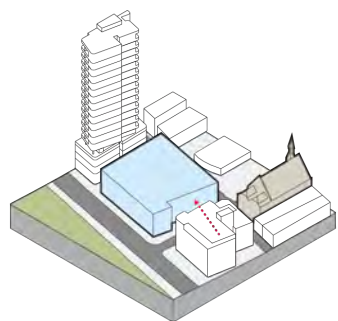
#### podium massing study; design move 1

- + 3 storey podium to align with adjacent 11 Gibbons St (future development)
- + podium is intentionally lower than #1 Margaret St apartment to protect it from overlooking



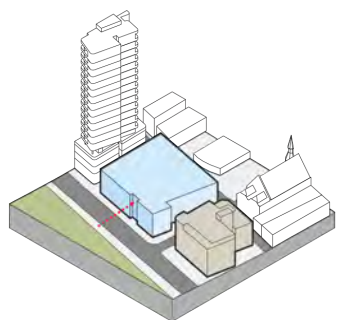
#### podium massing study; design move 2

- + Extension of William Lane to connect with Margaret Street
- + podium has been pushed back from Eastern boundary away from heritage-listed St Luke's church



#### podium massing study; design move 3

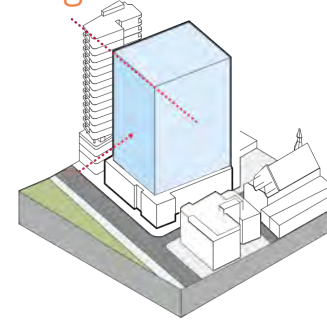
- + Margaret street corner is angled to offer a glimpse to St Luke's Church Spire
- + spatial relief for Margaret St



#### podium massing study; design move 4

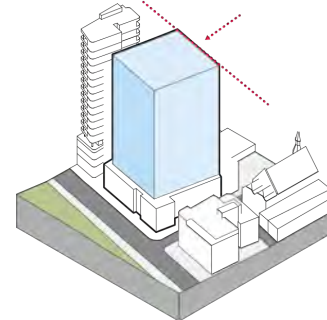
- + Parapet line aligns to 1 Margaret Street Opposite
- + The building has been further stepped back to break the massing down, allowing for a defined building entrance

#### tower massing



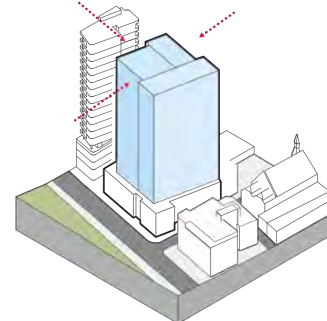
#### tower massing study; design move 1

- + Tower stepped back from Gibbons to align with neighbouring tower



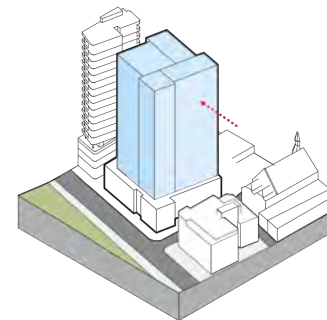
#### tower massing study; design move 2

- + Tower stepped back from Eastern boundary to allow 'through site link,' extension of William Lane



#### tower massing study; design move 3

- + Tower kept as slender and efficient as possible to minimise overshadowing



#### tower massing study; design move 4

- + Tower form articulated into smaller blocks facing east, west and south
- + Corner of tower form stepped to articulate the bookend, to the Redfern-Waterloo zone





proposed street character and open space diagram  
redfern student village design excellence report

### 1.1.3 the podium and tower forms respond to the existing site context

#### podium

The historic urban grain of Redfern is characterised by shops, pubs and industrial buildings built up to the street boundary. Residential terrace houses are sometimes built to the boundary with projecting balconies or have a small setback with blade walls and balconies extending up to the street boundary. Buildings were traditionally built in groups of two or three, united by a common parapet or roofline that would step down with the landfall.

Retail and commercial buildings along the high street feature large openings on ground floor with smaller, generally vertically proportioned windows above. The parapets lend the upper levels a solid appearance, with a high solid to void ratio and an overall height approaching three stories. The upper levels windows have often been modified and adapted over time to suit later uses, giving each building a unique appearance despite being part of a repetitive group.

Corner buildings often hold the edge of the street around the corner and step up in height to mark the corner. Corner terrace houses typically continue the geometry of the primary street, and do not always align to side streets where they are not perpendicular to the primary street.

The podium form responds to the historic urban grain of Redfern by aligning to the street boundary along Gibbons Street and aligning the extension of William Lane with neighbouring buildings. The Margaret Street corner is right angled with Gibbons Street to open up the corner and offer a glimpse of St Luke's church spire. This change in geometry allows us to increase the setback across Margaret Street, which is currently barely wide enough to allow two cars to pass and has narrow footpaths. The parapet line varies in response to conditions; aligning to the proposed three storey parapet of #11 Gibbons Street to the north and stepping up at the Margaret Street corner to acknowledge the corner condition and respond to the stepped parapet of #1 Margaret Street opposite. The higher parapet at the corner offers the roof terrace protection from prevailing southerlies and protects the apartments in #1 Margaret Street from overlooking from the podium roof terrace.

Consistent with the context, the ground floor facade has wider openings to provide views into and out of the retail spaces and common areas. An awning provides weather protection and amenity to pedestrians. Upper level windows are proportionally smaller with a higher solid to void ratio. These openings exhibit subtle variations within the proportional rules – as if they have been modified over time – to add variety and interest.

#### tower

The tower is clearly a new element in contrast to the podium. A distinct break between the two is created by the common areas on top of the podium, with strip of full height glazing and an awning for weather protection forming the break.

The tower form has been articulated into four slender masses which step in plan to follow the site geometry and internal planning. The masses step in height to mark the corner and the site's position as the bookend to the Redfern Waterloo zone. The Gibbons Street mass is set higher to conceal roof top plant and as a reference to the tall parapets of the historic shops.

The tower form has been kept as slender as possible in the east-west direction to minimise overshadowing of areas to the south. The majority of the rooms in the tower face east, west or north to achieve good solar access, with as few south facing rooms as possible. Due to the lower height control to the south, these south facing rooms will benefit from sweeping district views down to Botany Bay and beyond.



### 1.2.1 a detailed analysis of the existing cultural and heritage items has informed the design response.

In recent decades strong working and social networks were built within the Redfern and Eveleigh Railway Workshops, with the Eveleigh complex becoming pivotal in the Australian Labour Movement. In addition to this, due to the close proximity of the La Perouse reserve, Aboriginal People had found employment within the factories of Chippendale, Waterloo, Alexandria and Redfern with the Eveleigh Workshops being no exception.

There was a steady migration of Aboriginal people from rural centres due to reasonable rent and employment opportunities of the area (Anderson 2000:130-143). Redfern became a centre for activism by the mid-twentieth century and the first aboriginal Football Club – the Redfern All Blacks – was established in 1944 have an important effect on the community. By 1960, the Aboriginal population in Redfern was estimated at 12,000, swelling to 35,000 in the 1970s. It was during this time that the Aboriginal Housing Company was formed to manage the grant known as ‘The Block’ (Anderson 2000: 130 – 143).

#### historically significant items

While there are no heritage items within the site, there are significant heritage items in close proximity. These include:

- + St Luke’s Presbyterian Church (figure 01)
- + Terrace House, 128 Regent Street (figure 02)
- + Redfern Estate Heritage Conservation Area (figure 03)
- + Redfern Railway Station Group (figure 04)
- + Eveleigh Railway Workshop (figure 05)

The proposals relationship to St Luke’s Presbyterian Church has been well considered. In order to soften the relationship between the two structures the proposed tower will be set back from the eastern boundary to provide more distance between them. Also the integration of long vertical windows on the podium structure, slanted window sills and a prominent arched window on the corner will provide visual cues back to the church’s characteristic architecture.

Please refer to the ‘Statement of Heritage Impact’, for more information.



Figure 02: View of 'St Lukes Presbyterian Church'



Figure 03: View of 'terrace house, 128 Regent street'



Figure 04: View of 'Redfern Estate Conservation Area'



Figure 05: View of 'Redfern Railway Station'



Figure 06: View of 'Eveleigh Railway Workshop'

#### regent street heritage



images taken by AJC



1.2.2 integration of aboriginal cultural heritage, values and stories into design development

aboriginal cultural and natural history

Of the Eora clans, the Gadigal people occupied the land closely associated with the study area for at least 20,000 years prior to European arrival in 1788. After European occupation, the Gadigal people were displaced from their homes. Despite this the area around Belmore Park and Central Station continued to be an important meeting place for aboriginal people.

As part of the Design Excellence Program, the Government Architects NSW panel required that the developments integrate the heritage and stories of the area. In order to fulfil this, an Aboriginal artist has been engaged to produce an artwork as part of the public open space. Additionally, discussion of other heritage interpretation options was included as part of the ACHAR consultation process.

The artwork named *birla bundara*, by Nicole Monks was chosen from a few others. The concept was developed with the guidance of Local Gadigal Elder and Artist Charles Madden who has worked and lived in the area all his life.

Indigenous Australians have interpreted objects and shapes in the night sky for tens of thousands of years. In Australia, the evidence suggests early Aboriginal people observed the stars and composed stories handed down by their ancestors through songs and dance and images of the sky recorded on bark and rocks. The more accurately they knew the position and movement of the Sun, Moon and stars, the better they could predict when to hunt, harvest and come together.

The Emu in the sky has featured in Aboriginal stories for thousands of years is composed of the dark spaces in the Milky Way. From the East to West coast across Australia different language groups have their own interpretation and stories that have different meanings, the rising of the celestial emu at dusk can inform the observers about the bird's breeding behaviour (when to collect emu eggs) to that of culture heroes.

Many Aboriginal groups have stories about the "Coalsack" – the famous dark cloud next to the Southern Cross. Some see it as the head of a lawman, or a possum in a tree, but

many groups tell stories of a great emu whose head is the Coalsack, and whose neck, body, and legs are formed from dust lanes stretching across the Milky Way. It's easy to make out the emu in a dark autumn sky, and once you've seen it, the Milky Way will never look the same again.

Along with the artwork, the choice of indigenous plant species, relevant Aboriginal names for elements within the building and an interpretive panel focusing on the Aboriginal history of the area will be integrated within the design. The incorporation of Redfern's historical culture will enhance the character of the proposed student community.

The "emu in the sky", consists of dark clouds in the Milky Way, stretching from Scorpius to the Southern Cross, features in many Aboriginal cultures and storytelling for thousands of years right across Australia.

Many different language groups have their own interpretation of the Emu's heavenly fate, along with a rich and diverse range of stories about mallee fowl, parrots, fish, stingrays, hunters, men, women, girls and boys.

For WA artist Margaret Whitehurst, the emu in the sky is a sign to go hunting for emu eggs: "As children, it was always a competition to see who could find the first nest and the most eggs. Then we went home where mum always made a cake out of the first egg and the others were made into omelletes. The emu egg is like gold to our people."

The 'STARS SKY' Artwork looks at the shape and form of the milky way, the local story and connection of this place across Australia and world, creating community, unity and strength with connected knowledge and storytelling.

Information provided by Nicole Monks. Please refer to the 'Integration of Aboriginal cultural heritage values into development design,' and report for more information.

References

- + <http://emudreaming.com>
- + <http://www.abc.net.au/science/articles/2009/07/27/2632463.htm>
- + <http://aboriginalastronomy.blogspot.com/2014/03/the-kamilaroi-and-euahlayi-emu-in-sky.html>
- + <http://www.amalfipublishing.com.au/wp/2012/01/25/dreamtime-dramas-written-in-the-stars/>

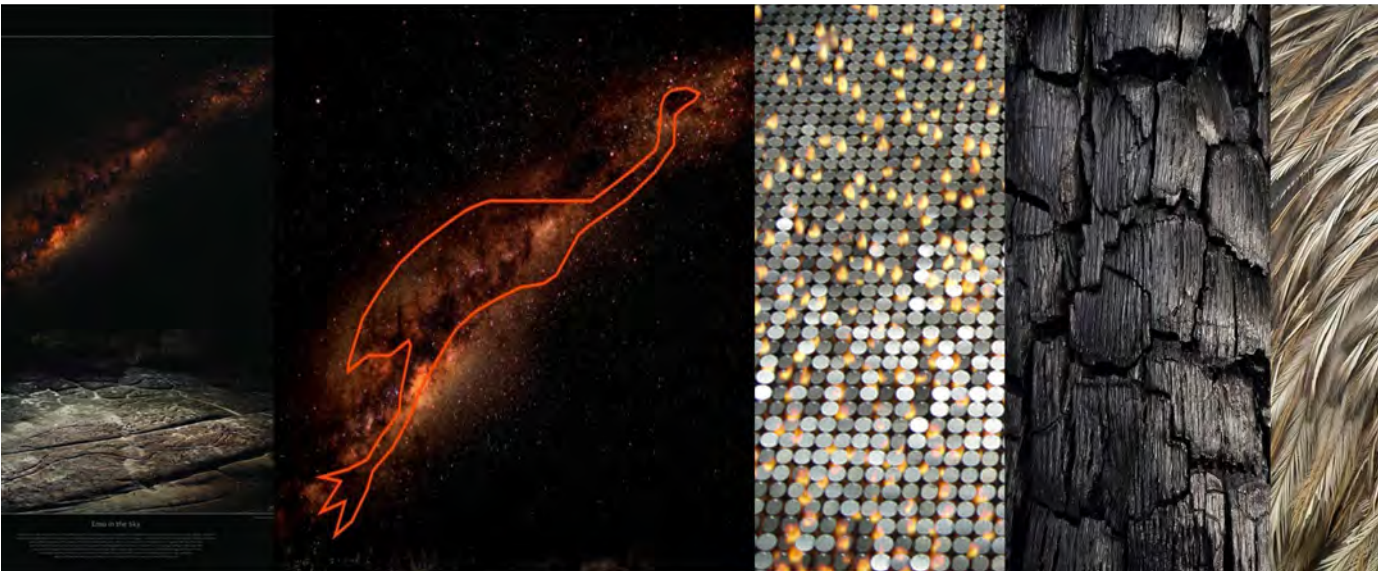


Figure 08: image by artist Nicole Monks



Figure 07: Gugurmin - the emu in the Wiradjuri night sky. Wiradjuri artist Scott 'Sauce' Towney.





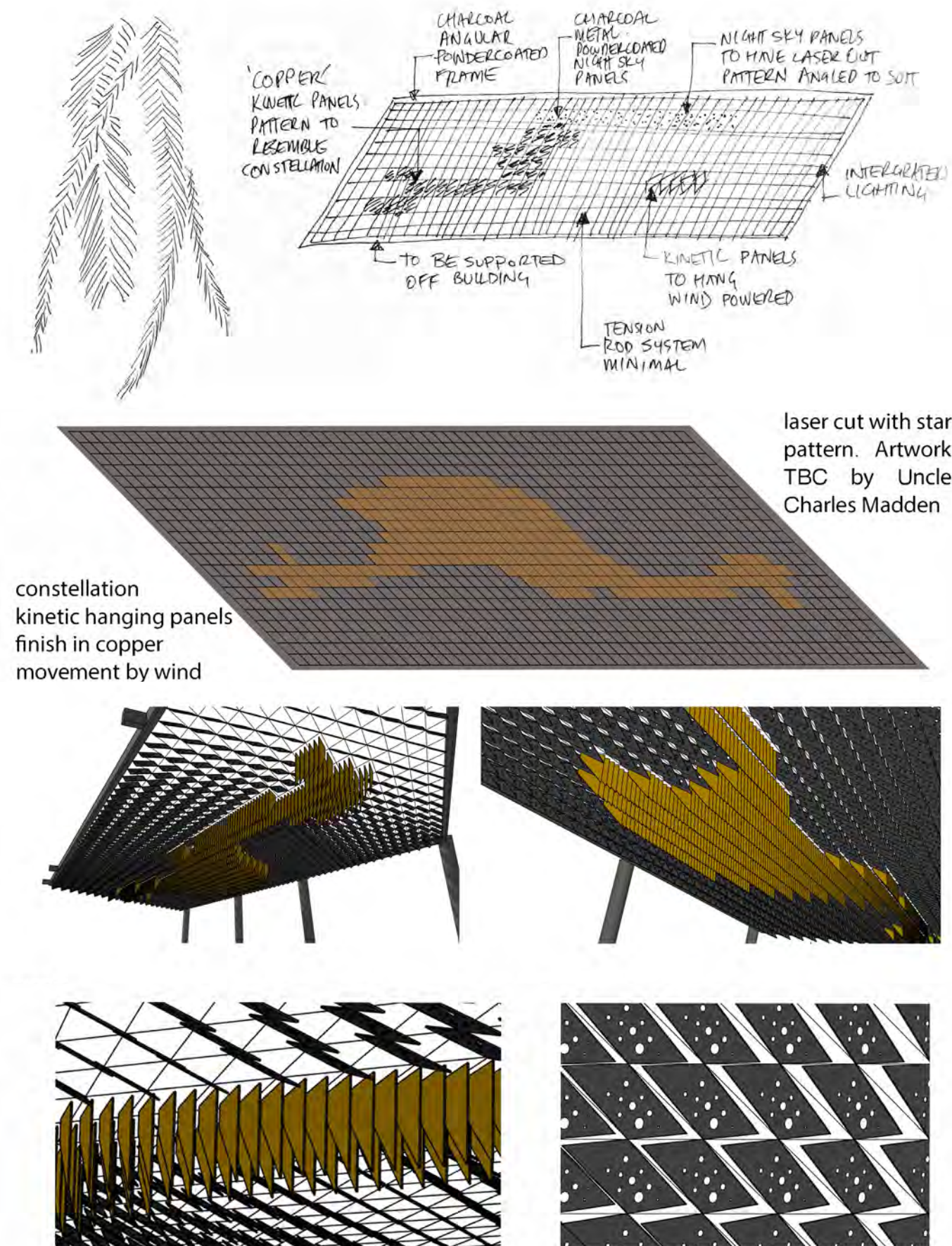
Figure 09: Nicole Monks by Pru AJA

The proposal incorporated the *birla bundara* design by artist Nicole monks into the 'through site link,' along with a statement outlining her concept.

### artist introduction

Nicole Monks is a trans-disciplinary artist of Yamatji Wajarri, Dutch and English heritage. Living and practicing in Redfern, Monks is informed by her cross-cultural identity and her work takes its focus from storytelling, as a way to connect the past with the present and future. Her designs take a conceptual approach, often embedded with narratives, and aim to promote cross-cultural understanding and communication.





### outline of concept

The Gibbons St project will be developed in consultation and collaboration with Local Gadigal Elder and Artist – Charles Madden (Uncle Chicka). Charles has worked and lived in the area his whole life. He is currently involved with the Sydney lands council and has welcomed many high profile people to these lands.

Charles has spoken of Aboriginal astronomy being special to Aboriginal peoples and having a direct connection with rock art, he is happy to see these stories within the public domain. Aboriginal astronomy is very important as it connects all Aboriginal people across the land, as they would have all experienced and connected with the stars of the night sky. It also connects us all into the past and the future.

An artwork of stars drawn by Charles Madden will be represented on the night sky panels, these will be finished in charcoal/black to represent the night sky.

The integration of First nations art & design throughout the public domain and foyer creates a unique and culturally aware statement to students, staff, the local and wider community and international visitors, developing an understanding of social-cultural awareness.

The external and possible internal work would incorporate a kinetic element having an elemental connection to the sky as it gains its energy and movement from country. The materials would be metal and have some reflective/matt surfaces possibly copper and will resemble the twinkling of the stars.

The tension rods are to be bespoke and worked up to evoke the nature of the feather and stars. Integrated lighting will also be developed to further enhance the stars in the sky, the nature of this work is to be viewed from below. The framework gives a sense of security and cocooning and once the gabion wall is removed will still well define the space. It will also work as partial shade element, and some information developed with community may be integrated into the space.

I envisage a gabion wall with integrated seating picking up on some of the angles of the framework and architecture. An articulated entry would be worked up to suit accessibility requirements.

The flooring would be developed to further layer the concept by bronze inserts into the concrete finished flush and/or burnt elements into the timber flooring.

I also envisage a hanging kinetic internal sculpture with similar kinetic shapes to resemble a star, this would intersect through the void and connect the external and internal spaces.

Please refer to the 'Integration of Aboriginal cultural heritage values into development design,' report for more information.





Figure 10: View to public domain



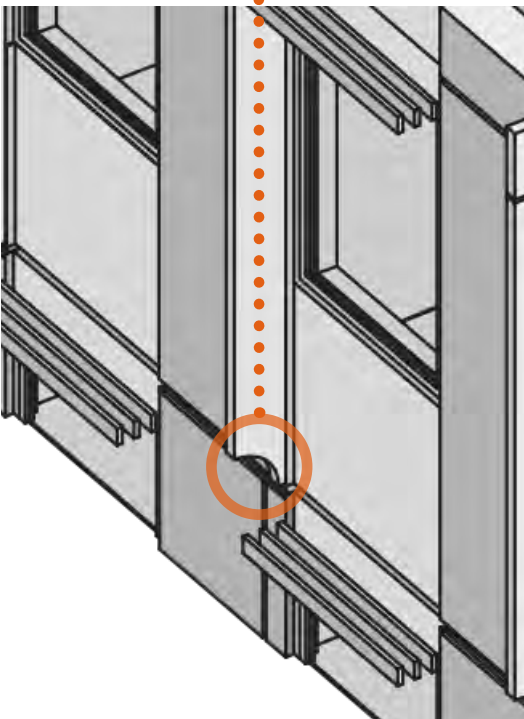


Figure 11: Curved shades

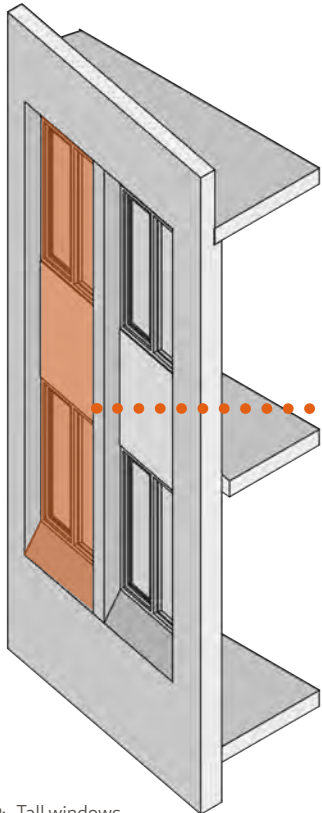


Figure 12: Tall windows

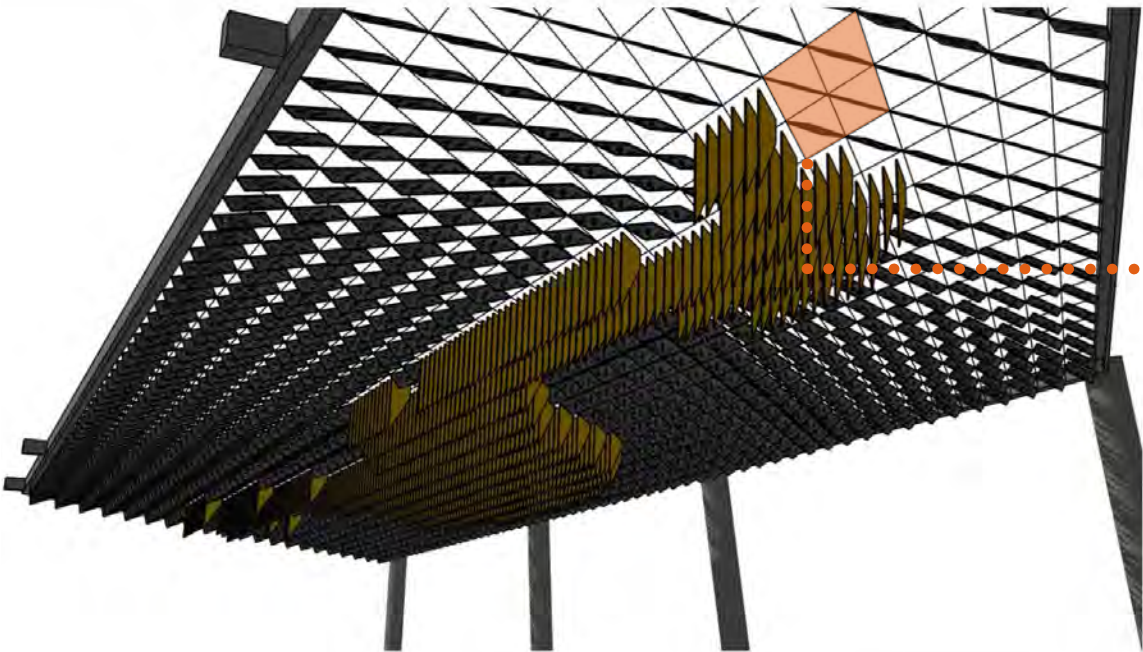


Figure 13: Diamond pattern (Public Art Work)



**1.2.3 the built form, materials, colours, textures, tones and finishes reference the indigenous and more recent history of Redfern**

figure 17: vertical fins profile:

- + We have nominated vertical fins that have a curved profile. to make reference to the church's arched windows.

figure 18: window shapes and sills

- + Drawing inspiration from the tall vertically proportioned windows.
- + Slanted profile on the window sills.

figure 19: reference to window pattern

- + Repeated diamond pattern of church window replicated in public artwork.



image taken by AJC





Figure 14: View from Gibbons Street to South West corner of proposed building, 3D visualisation

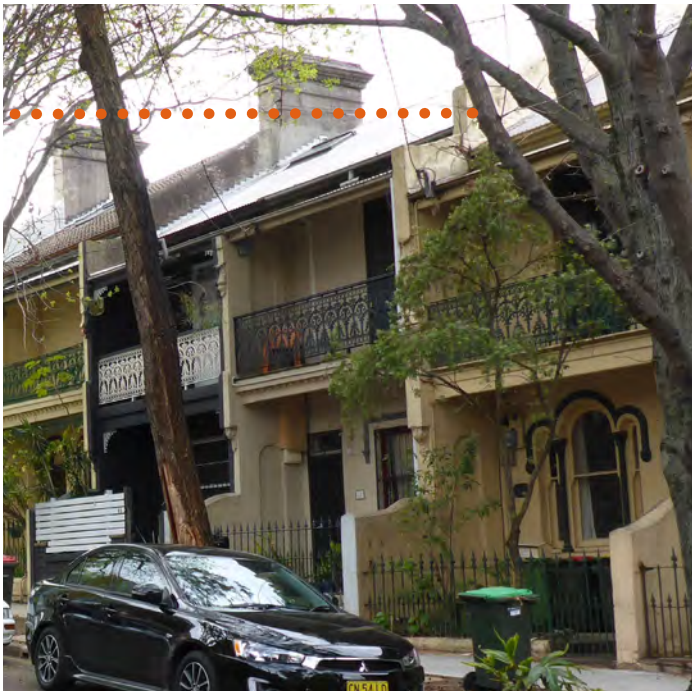




Figure 15: Proposed Tower Facade



Figure 16: Proposed Power Facade)



The proposed material palette of brick, yellow and grey precast concrete panels have been taken from the Redfern Estate Conservation Area





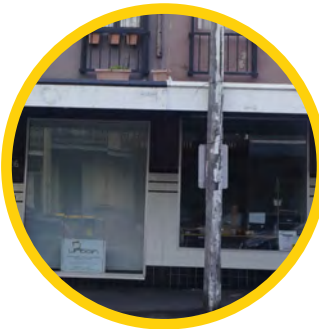
126 regent street



Strong parapet element with brick detailing.



Upper Floors have smaller windows which have been modified over time.



Larger ground floor openings typically full width of lot/building.



Parapet height approximately 9m.

image taken by AJC



Multiple terrace block



Regular blade walls.



Building form and parapet line steps with slope.

image taken by AJC





126 regent street



Rythm and variation in form.



Overhead balcony shades interior.



Articulation to facade openings.

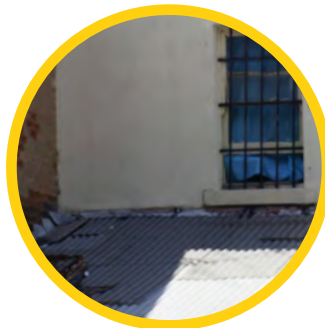
image taken by AJC



Brick



Rendered



Corrugated iron profile

image taken by AJC





image taken by AJC

## 2 . better performance

sustainable, adaptable and durable



**Environmental sustainability and responsiveness is essential to meet the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, whole of life design.**

### **2.1 objective: The design seeks to implement ESD initiatives to address Better Performance**

2.1.1 Preparation of green travel plan for the project. No car park is proposed to promote alternative modes of transport

2.1.2 The proposed development will incorporate passive and active energy saving measures such as operable windows to enhance natural ventilation throughout the buildings, where appropriate;

2.1.3 High levels of natural light and solar access exposure especially for upper levels;

2.1.4 Incorporation of thermal mass throughout the development. External wall, structural internal walls and slabs of the proposed development are considered to be predominantly concrete;

2.1.5 Landscaped elements proposed on ground floor, level 02 and level 04 and to increase green spaces;

2.1.6 Incorporation of low water demand and low maintenance plant species in all areas to reduce mains consumption and fertiliser contamination of drainage water;

2.1.7 Energy efficient VRV air conditioning system with heat recovery system;

2.1.8 Three boilers connected to the proposed cooling towers to provide space heating;

2.1.9 The proposed space heating boilers are connected into the water cooling system to provide free domestic hot water during colder periods;



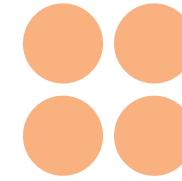


image taken by AJC

## 3 . better for community

inclusive. connected and diverse

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***The design of the built environment must seek to address growing economic and social disparity and inequity, by creating inclusive, welcoming and equitable environments. Incorporating diverse uses, housing types and economic frameworks will support engaging places and resilient communities***

### **3.1 objective: places for social exchange , working with the community and attracting people**

3.1.1 Create social intimacy through seating pockets.

3.1.2 External community hub  
provide a space for gathering.

3.1.3 Provision of greening through tree planting  
and gardens and public artwork to attract people



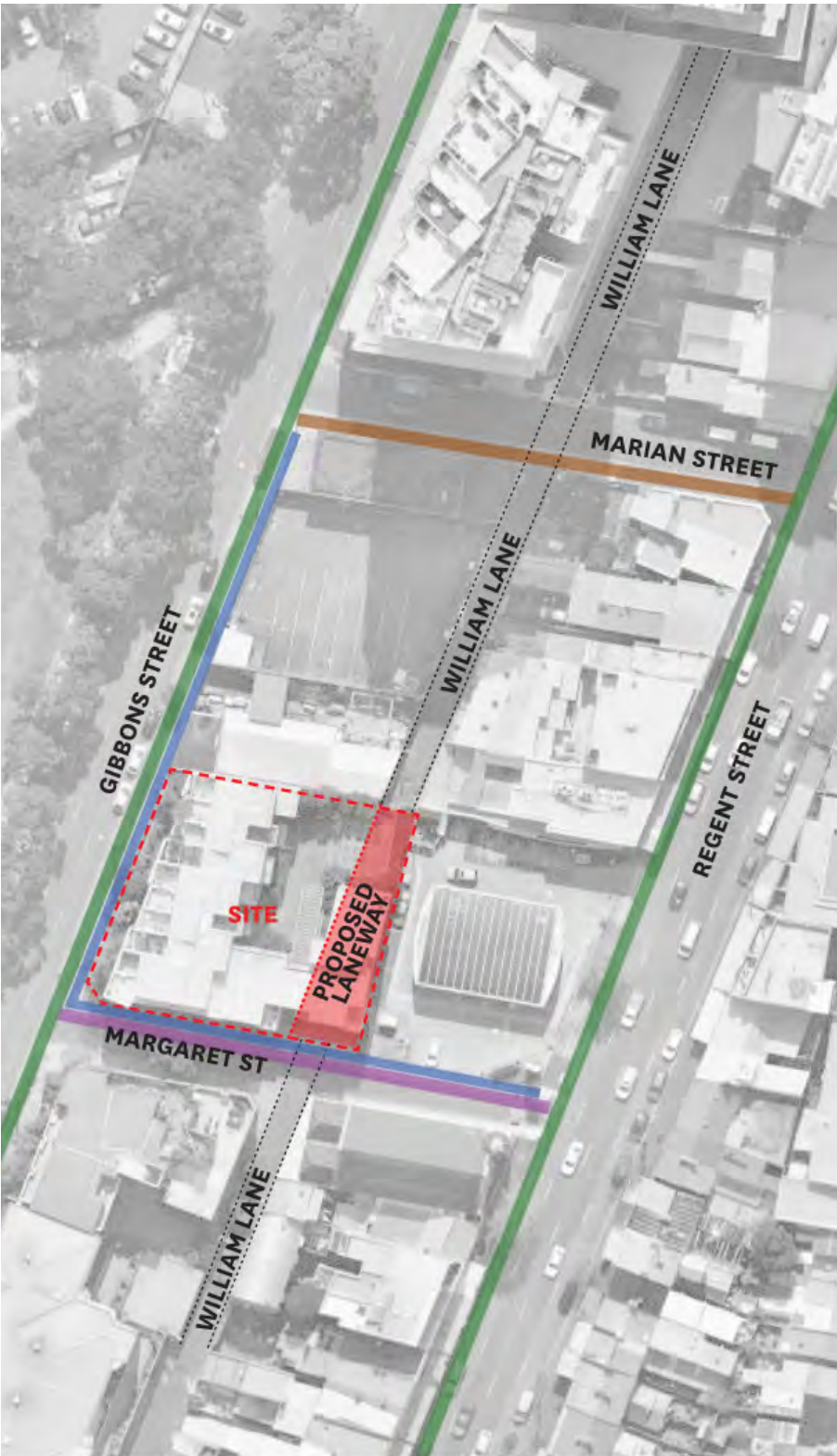
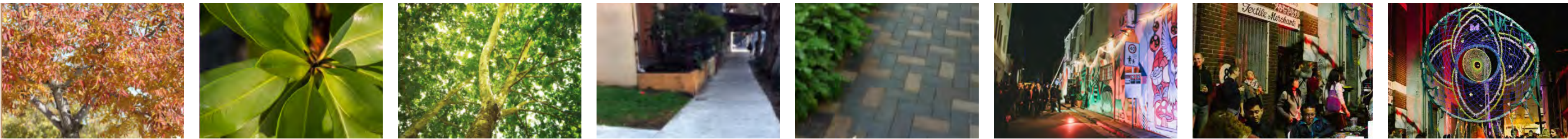


Figure 17: accessibility plan by turf



Figure 18: Public domain\_3D visualisation

**3.1.1 create social intimacy through seating pockets.**

**3.1.2 external community hub provide a space for gathering.**

**3.1.3 provision of greening through tree planting and gardens and public artwork to attract people**

William Lane connection will provide a publicly accessible recreation space incorporating elongated seating bench for gathering, opportunity for F&B, landscape to green the space, a tall temporary 'green screen' to mask the adjacent architecturally crude petrol station and spill lighting, and a new public art offering by a local aboriginal artist connecting with local cultural heritage. the artwork will become a 'destination' artwork that would be part of the Redfern art walk and attract wider community.

Please see 'Landscape DA Report' prepared by Turf for more information





image by Wee Hur

## 4 . better for people

safe, comfortable and livable



**The built environment must be designed for people with a focus on safety, comfort and the basic requirement of using public spaces. The many aspects of human comfort which affect the usability of a place must be addressed to support good places for people.**

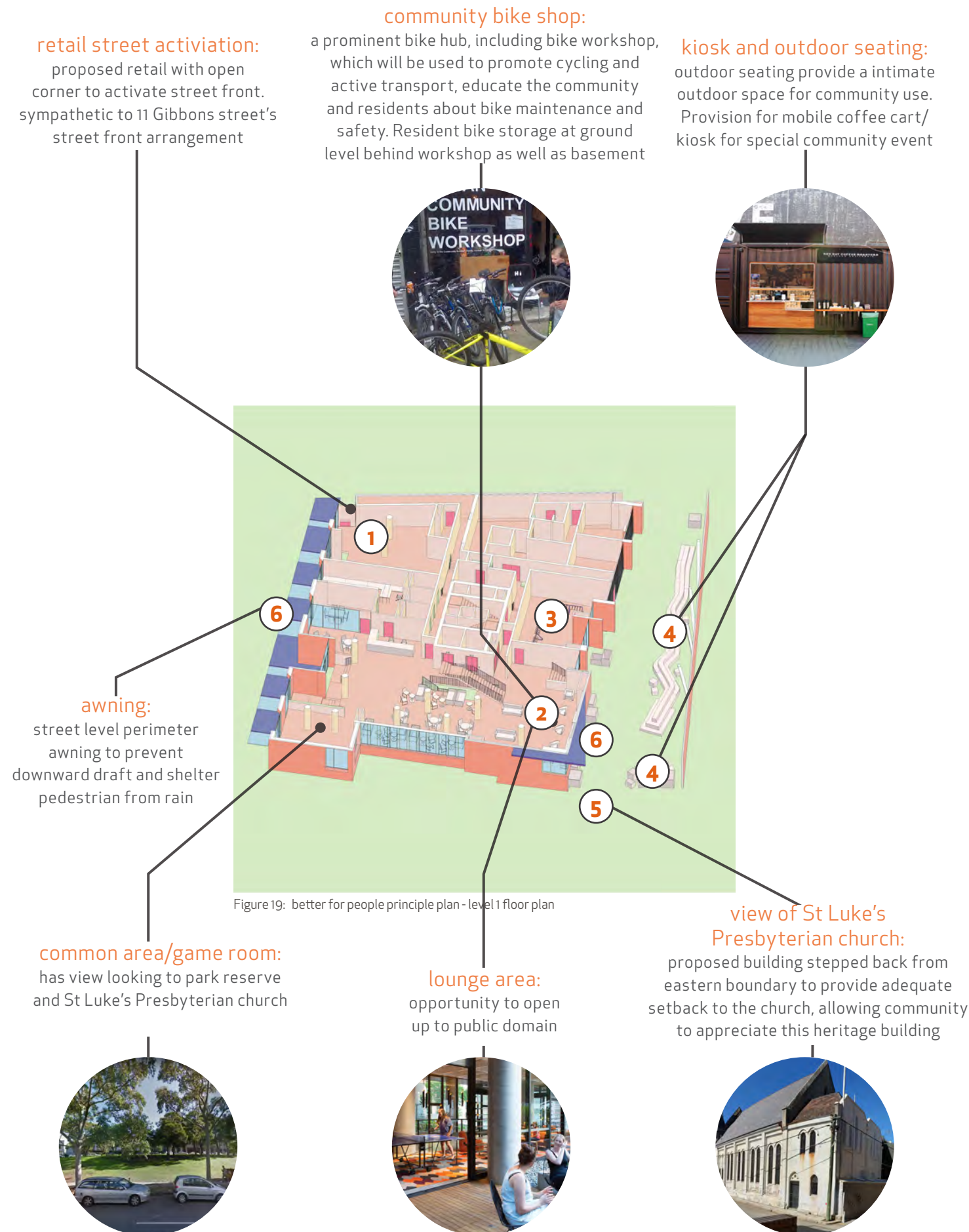
### **4.1 objective: security and safety**

4.1.1 Implementation of Crime Prevention Through Environmental Design (CPTED) to the development

### **4.2 objective: healthy and liveable neighbourhoods**

- 4.2.1 Acoustic
- 4.2.2 Wind
- 4.2.3 Natural Ventilation
- 4.2.4 Solar





### 4.1.1 implementation of crime prevention through environmental design (cpted) to the development

Crime Prevention Through Environmental Design (CPTED) principles have been affected in the public domain and building design as follows:

#### territorial reinforcement

The design encourages a sense of ownership of the public domain by locating the major common spaces around the perimeter of the site. This will be reinforced by formal and informal events that are intended to take place in the new laneway such as outdoor studying, socialising and relaxing. The public realm design is legible and assists wayfinding and thus engenders a sense of confidence while navigating through the site. The laneway is clearly delineated as different from the surrounding public realm of streets and footpaths, using different materials and having different programs; this establishes the laneway in a relationship to the student housing. A series of thresholds have been created around the building to give environmental cues on ownership and territoriality; e.g. the 'verandah' to the ground floor common space is raised up compared to the rest of the laneway, which mediates between the public realm and the building interior.

#### surveillance

Locating the major common spaces around the perimeter of the site will ensure that there are 'eyes on the street' throughout the day and night, offering passive surveillance of the public realm. The retail tenancy on Gibbons Street has been designed to wrap around the corner and integrate with the proposed setback to the driveway of #11 Gibbons Street, ensuring that the retail space has good visibility from the street and that no hidden corners are created. By connecting the laneway to the local street network, pedestrian flows through and past the site will offer further passive surveillance.

#### access control

The buildings have access control to the common areas and lifts ensuring that the internal areas are secure. The main building entry has an airlock which will help control 'tailgating' and the reception desk is located immediately inside allowing oversight of the building entry. The design of the street edge has reduced the incidence of hidden or unsupervised places, with generally straight facades and clear sight lines. Vehicular access to the public domain on the side of the building will be controlled by gates which will allow emergency egress/ access and access for waste removal but will otherwise be locked.

#### space and activity management

Wee Hur's facility management will assist to engender a sense of ownership by residents of "their" local streets and thus responsibility for and familiarity with the environment by building relationships with local businesses and assisting new residents to navigate through the area, e.g. with free maps. Regular maintenance will ensure that the buildings and surrounding spaces are free from graffiti or vandalism, which will in turn discourage misuse





site analysis plan

### 4.2.1 acoustic

The site is constrained acoustically with significant road noise to the west from Gibbons Street and to the east from Regent Street. Noise impacts have been addressed in the design through the incorporation of additional solid elements and double glazing where required by the acoustic modelling. It is recommended by acoustic and mechanical engineer that the bedrooms be mechanically ventilated with the air drawn from the corridor when the bedrooms are occupied and allow the windows to be openable when the bedroom occupant choose to during periods of low traffic noise. (refer to Acoustic Report for Development Application' by Northrop for further information)

### 4.2.2 wind

Part of the design response included detailed wind modelling of the façade and built form. The outcome of the modelling drove the design outcome in a number of ways. A continuous awning along the Gibbons street façade is proposed to ensure safety and comfort levels are maintained to pedestrians. This protection is also required along Margaret Street where we have proposed a mixture of street trees and awning for wind mitigation. The wind tunnel testing showed that high localised winds occur at the north and south corners of the open Level 4 Podium area facing west. Noting that these areas will be exposed to winds with both a horizontal and vertical component, we have extended the proposed canopies over the corner areas and retention of provided planters and landscaping (Refer to 'Environmental Wind Tunnel Test' by SLR Consulting for further information)

### 4.2.3 natural ventilation

There is a direct conflict between the acoustic constraint on Gibbons street and the need for natural ventilation. Essentially openable windows will negate the acoustic requirements. the outcome of the discussion with mechanical and Acoustic engineer is that the proposal looks to address acoustic issues through a mechanically assisted system. Units will still have openable windows to allow in fresh air.

### 4.2.4 solar

The site is subject to limited solar access from the north due the future development of 11 Gibbons Street. However there is opportunity to take advantage of easterly and westerly solar access



gibbons street diagram

All accommodation and common areas have access to natural light and the majority of units will have direct solar access from the east and west in summer. However the development to the north blocks the sun path during the middle of the day.

The arrangement of access corridors from north to south take advantage of summer morning breezes from the south and summer afternoon breezes from the north-east. Therefore adequate cross ventilation will flow through circulation corridors. Downward drafts caused by the tower will be blocked by an awning on the terrace level and ground level to allow use of outdoor open spaces.

Planting and vegetation on the podium rooftop level will soften the hard rooftop and allow a comfortable seating area.

Sustainable building materials including pre-cast concrete panels and podium façade brickwork with high embodied energies slow the temperature change throughout the building's interior.

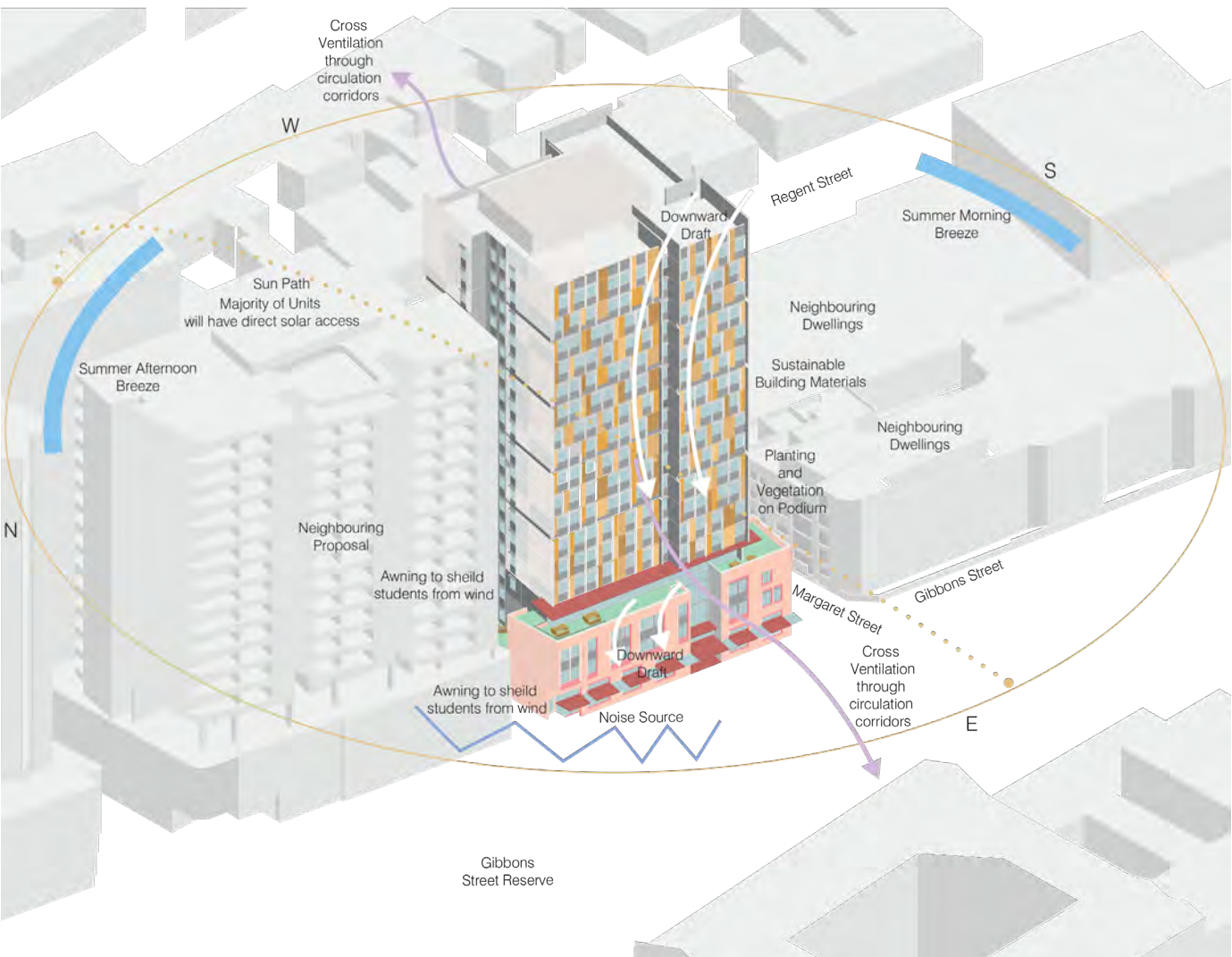


Figure 20: better performance diagram looking from gibbons street

regent street diagram

All accommodation and common areas have access to natural light and the majority of units will have direct solar access from the east and west in winter. However the development to the north blocks the sun path during the middle of the day.

All ensuite rooms and studios will be fitted with operable windows to allow natural ventilation to flow through when the street is quieter. During traffic peak hour when the window has to be closed for acoustic reasons. A mechanical exhaust can be triggered to start drawing air from the corridor space.

An acoustic barrier will be established on the eastern site boundary adjacent to reduce Noise impact from service station and Regent Street traffic noise and headlights. A detailed consideration of wind and acoustic impacts within and around the building has been considered (refer to wind report).

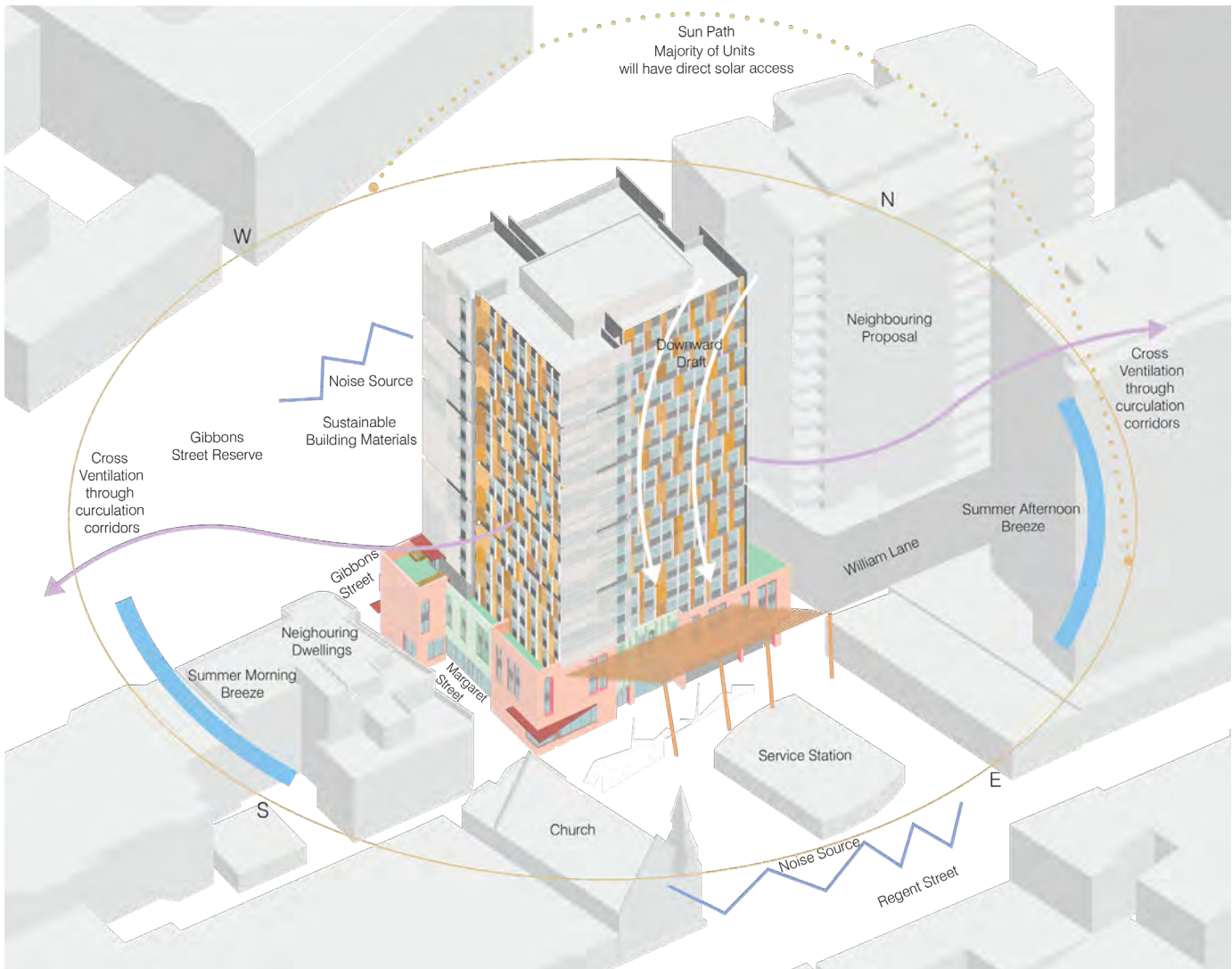


Figure 21: better performance diagram looking from regent street



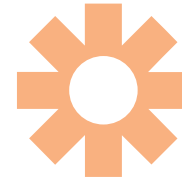


image by AJC

## 5 . better working

functional, efficient and fit for purpose

---



***Having a considered, tailored response to the program or requirements of a building or place, allows for efficiency and usability with the potential to adapt to change. Buildings and spaces which work well for their proposed use will remain valuable and well-utilised.***

### **5.1 objective: form and functionality**

5.1.1 Residents common rooms are built on inter connectivity and efficiency of sharing of common amenities

5.1.1 Landscape terraces/courtyards have difference spatial format for different purpose

### **5.2 objective: design robustness**

5.2.1 Common area tailored to suit desirable social activities and lifestyle

5.2.2 Common area facilities tailored to suit desirable activities

5.2.3 Room facilities tailored to suit the need and budget



5.1.1 residents common rooms are built on interconnectivity and efficiency of sharing of common amenities

A large active common area at the ground entry level are inter connected to the common area in basement and level 2 and 3 and 4 of the podium. These common room provide fully activated function such as cooking areas, dining areas, lounge, gaming room, cinema, to more quiet area such as common study area as well as individual study pods, all the facilities expected of an established student housing.



Figure 24: better working principle plan - level 1 floor plan

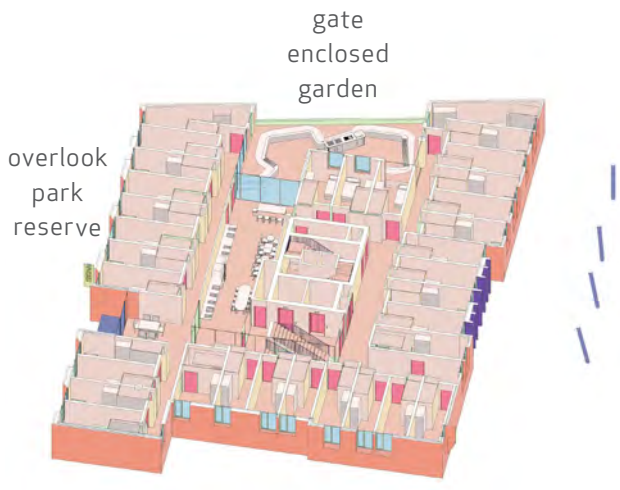


Figure 22: better working principle plan - level 2 floor plan

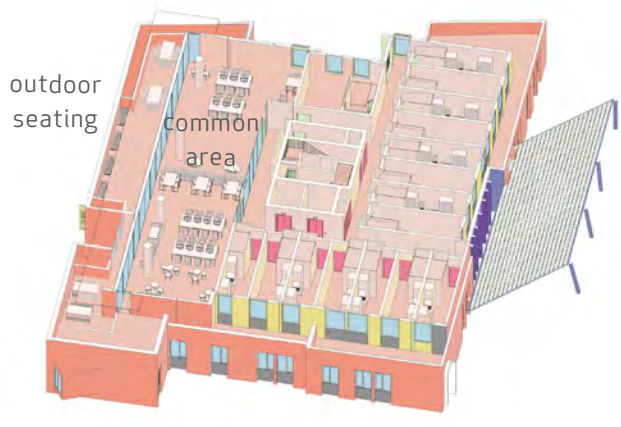


Figure 23: better working principle plan - level 4 floor plan

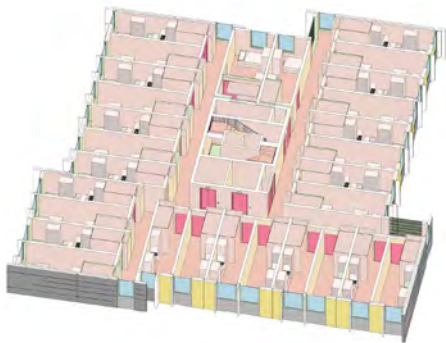


Figure 25: better working principle plan - typical tower floor plan



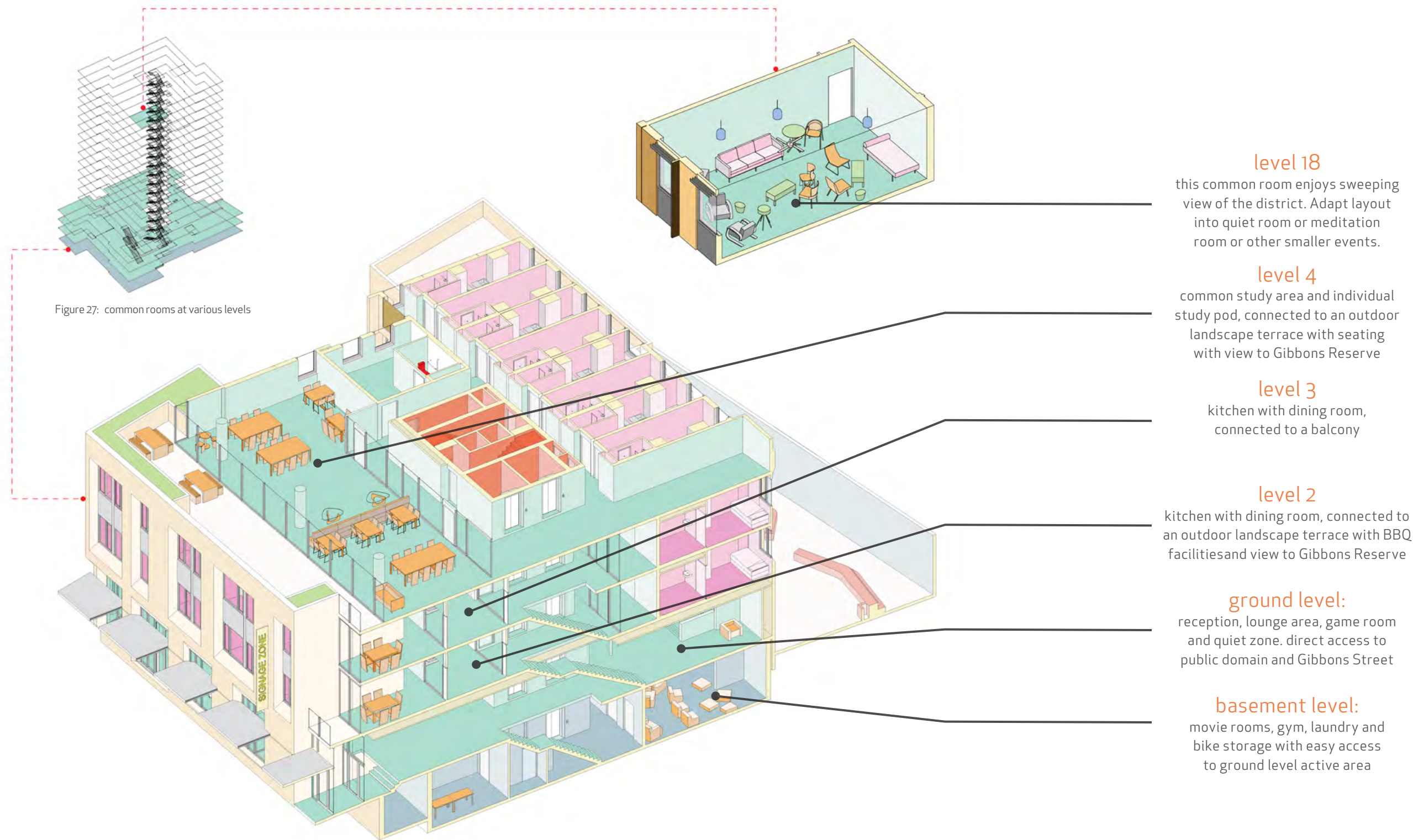


Figure 26: common rooms connectivity diagram





Figure 28: ground level landscape plan by Turf Design



Figure 29: level 2 landscape plan by Turf Design



Figure 32: laneway render by Turf Design



Figure 30: level 4 landscape plan by Turf Design



Figure 31: laneway render by Turf Design



Figure 33: northern terrace render by Turf Design

### 5.1.2 outdoor landscape terrace attached to common space

Common cooking activities, seating and facilities are expandable to outdoor usage.

#### ground level public domain and william lane connection

William Lane connection will provide a publicly accessible recreation space incorporating elongated seating bench for gathering, opportunity for F&B, landscape to green the space,

#### level 2 - summer retreat

The summer retreat is an intimate external space framed by landscape. Lush planting provides a buffer to the north (future development). It offers shaded respite to small groups in the warmer months, and includes BBQ facilities.

#### level 4 - communal terrace

Complementing the summer retreat, the communal terrace enjoys great view towards west, with elevated views of Gibbons St Reserve. Walls and planting combine to create a green space with comfortable microclimate. Planting assists with spatially framing a series of 'rooms' along the terrace







5.2.1 common area zoning tailored to suit desirable social activities and lifestyle

activity

- + Common areas are seperated into zones for recreational activities e.g. Cinema, Gaming, pool table, connection to laneway

socialise

- + Create social connections through lounge areas and seating pockets for both small and large groups
- + Quiet areas encourage reading and studying

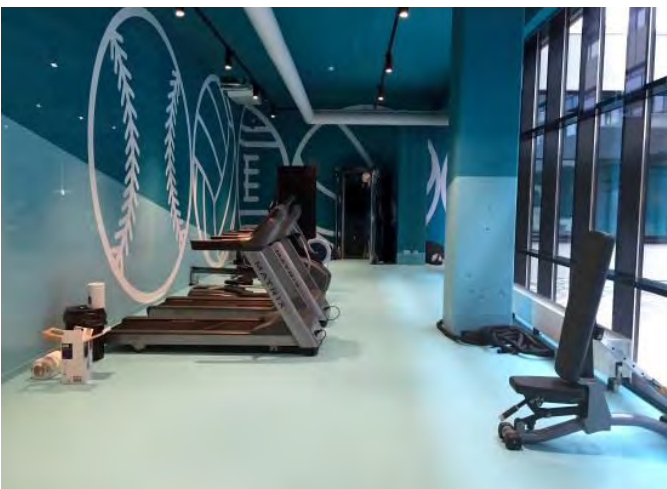
lifestyle

- + Outdoor areas are maximised with interactive and contemplative zones, including BBQ area, sunlounge terrace and garden spaces



Figure 34: precedent images for common area





5.2.2 common area facilities tailored to suit desirable activities

convenience

- + In house facilities like a Gymnasium and laundromat are added for convenience and sponsor interaction

study

- + Large study area for individuals, small groups and larger meetings
- + Soundproof rooms for intimate meetings, small study nooks and large workstation spaces invite Students to study in the communal areas and avoid isolation

interact

- + Shared kitchen and dining areas promote group interaction and healthy living

Figure 35: precedent images for common area



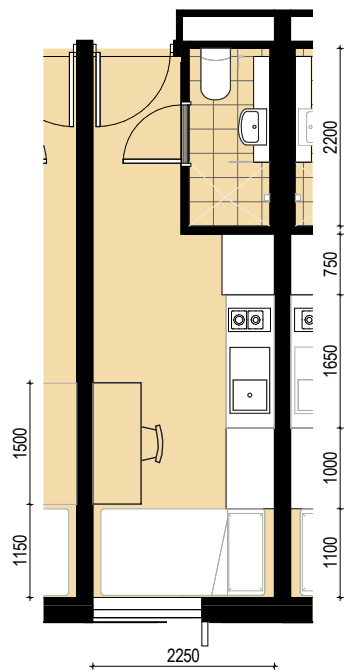


Figure 36: studio room plan

5.2.3 room facilities tailored to suit student needs and budget

studio room typical layout

The following equipment is included in a studio room:

- + Stove cooktops with range hood
- + Microwave
- + Preparation sink
- + Upright refidgerator with freezer



Figure 38: studio room axonometric render

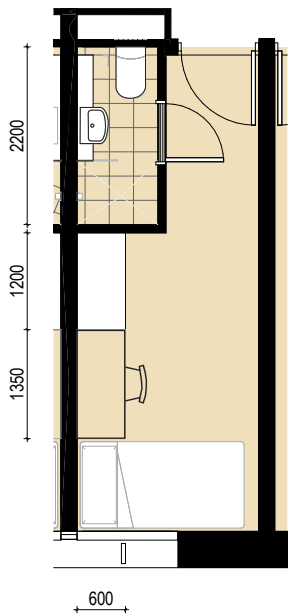


Figure 37: ensuite room plan

ensuite dorm room typical layout

The following equipment is included in an ensuite room:

- + Stove cooktops with exhaust
- + Microwave
- + Preparation sink
- + Bar fridge



Figure 40: ensuite room axonometric render



Figure 39: studio room render



Figure 41: ensuite room render

mix of beds

We propose aspirational but affordable student rooms, with a commercially viable number and mix of beds.

- + Studio Standard = 405
- + Studio DDA = 15
- + Single Ensuite = 64
- + Single Ensuite DDA = 4
- Total Number of beds is **488**





## 6 . better value

creating and adding value



***Good design generates ongoing value for people and communities and minimises costs over time. Creating shared value of place in the built environment raises standards and quality of life for users, as well as adding return on investment for industry***

### **6.1 objective: Combined ESD initiatives are estimated to provide significant cost savings for building overall**

6.1.1 Preparation of green travel plan for the project. No car park is proposed to promote alternative modes of transport

6.1.2 The proposed development will incorporate passive and active energy and operating cost saving measures such as operable windows to enhance natural ventilation throughout the buildings, where appropriate;

6.1.3 High levels of natural light and solar access exposure especially for upper levels;

6.1.4 Incorporation of thermal mass throughout the development. external wall, structural internal walls and slabs of the proposed development are to be predominantly concrete;

6.1.5 Landscaped elements proposed on ground floor, level 02 and level 04 and to increase green spaces; the proposed public domain will be publicly accessible, which will increase the variety and quality of public space in the area.

6.1.6 Incorporation of low water demand and low maintenance plant species in all areas to reduce mains consumption and fertiliser contamination of drainage water;

6.1.7 Energy efficient VRV air conditioning system with heat recovery system;

6.1.8 Three boilers connected to the proposed cooling towers to provide space heating. The proposed space heating boilers are connected into the water cooling system to provide free domestic hot water during colder periods;

### **6.2 objective: Durable materials for external finishes which require low maintenance**

6.2.1 Precast concrete offers a well finished, high-quality, durable finish to the building as well as being rapidly buildable and non-combustible.

6.2.1 Clay bricks are affordable, readily available, mass-produced, modular building components. Their relatively high mass results in desirable acoustic and thermal properties. They require little or no maintenance and possess high durability and loadbearing capacity.





## 7 . better look & feel

engaging, inviting and attractive



***The built environment should be welcoming and aesthetically pleasing, encouraging communities to use and enjoy local places. The feel of a place, and how we use and relate to our environments is dependent upon the aesthetic quality of our places, spaces and buildings. The visual environment should contribute to its surroundings and promote positive engagement.***

### **7.1 objective: promote good spatial quality**

7.1.1 Hard and soft landscaping, and street furniture provide an inviting, softer sensory experience

7.1.2 Opportunity for intimate spaces to provide a destination within the city-scape

### **7.2 objective: materials and detail**

7.2.1 Building finishes will be selected to maintain an aesthetic which is complementary to the context and sensitive to the manufacturing process

7.2.2 Colour palette complementary to the local context





Figure 42: precedent images for landscape Spaces



Figure 43: precedent images for public domain

**7.1.1 hard and soft landscaping, and street furniture provide an inviting, softer sensory experience**

urban greening

- + Use of vegetation to soften hard elements and provide contact with nature.

building community

- + Opportunity for student to gather and commune in external spaces, including food, seating, work and study, reading.
- + Utilise varying building spaces to provide a range of recreational opportunities across the building e.g. summer shade, winter sun 'hooks', exposed views and hidden retreats etc.

**7.1.2 opportunity for intimate spaces to provide a destination within the city-scape**

active and diverse

- + Provide diverse uses and recreational opportunities for resident students from the global community.





**7.2.1 building finishes will be selected to maintain an aesthetic which is complementary to the context and sensitive to the manufacturing process**

### tower facade materiality

- + The tower facade is intended as a clearly modern element with contemporary fenestration patterns. Good-sized windows are desirable to the bedrooms, with well-considered sun shading providing protection to the glazing and a finer layer of detail to the facade.
- + Precast concrete offers a well finished, high-quality, durable finish to the building as well as being rapidly buildable and non-combustible.
- + Roof top plant areas will be concealed with screening.



### podium facade materiality

- + Redfern has a strong tradition of brick residential, retail and industrial buildings. Buildings are typically built to the street alignment, or with a small set back in the case of residential terrace houses. Retail buildings have large openings to the street, but above street level openings are relatively small with high solid to void ratios.
- + The form and materiality of the podium continues this tradition, using the depth of the facade to provide a degree of protection and privacy to the openings facing Gibbons Street.
- + Retail buildings traditionally have awnings over the footpath which provide civic amenity and protection from sun and rain.

Figure 44: precedent images for tower facade materiality



7.2.2 colour palette complementary to the local context

Precast concrete panel type 1 - **Dulux Soft Straw**



Precast concrete panel type 1 - **Dulux Soft Chamois**



Precast concrete panel type 3 - **Dulux Reckless Grey**



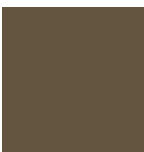
Precast concrete panel type 4 - **Concrete**



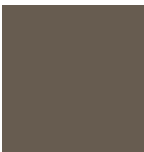
Brick Cavity Wall - **Dry Pressed Belmerino Blend**



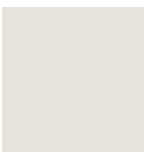
Verticle aluminium fin type 1 - **Dulux Electro Brilliance (flat)**



Verticle aluminium fin type 2 - **Dulux Electro Medium Bronze (flat)**



Verticle aluminium fin type 3 - **Dulux Electro Durate Zeus Talc (Satin)**



Vertical aluminium fin type 4, Doors and Window Frame, Plant room louvres and awning - **Dulux Electro Duratec Zeus Eternity Titanium Pearl**

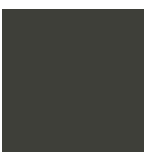


Figure 45: Artist Impression . View to North from Gibbons Reserve to proposed building





## 8 . appendix

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**wee hur company profile**



## wee hur company profile

### wee hur company profile (the trust company (australia) limited atf wh gibbons trust )

The history of the Group dates back to 1980 when Mr Goh Yeow Lian, our Executive Chairman and Managing Director established 'Wee Hur Construction Co' with his brothers, Mr Goh Yeu Toh, Mr Goh Yeo Hwa, Mr Goh Yew Tee and brothers-in-law, Mr Sua Nam Heng and Mr Cheng Kiang Huat. The partnership company was subsequently incorporated as 'Wee Hur Construction Pte Ltd' in 1988 to cater to its growing business.

Through the years, the company grew from strength to strength, handling construction projects of higher values and greater diversity and complexity. In 2008, the company underwent a restructuring exercise to list on the Mainboard of the Singapore Stock Exchange as Wee Hur Holdings Ltd. Our core business has since expanded from Construction to include Property Development, Dormitory, Purpose Built Student Accommodation and Funds Management.

In 2014 we ventured beyond Singapore to Australia acquiring three parcels of land in inner Brisbane. On one of the parcels, we have built Australia's largest purpose-built student accommodation, consisting of two towers with 1,578 beds, twelve commercial tenancies for shops and restaurants on the ground level and an expansive student communal area at the podium level. Construction commenced in second half of 2015 and completed in second half 2018. This development marks the Group's first foray into property development in Australia. In 2016, Wee Hur PBSA Master Trust was established to develop a portfolio of purpose-built student accommodation in Australia. Since then we have secured a total of 5 sites in the capital cities of Brisbane, Adelaide, Melbourne and Sydney.

The Group was selected to be among Forbes Asia's 200 Best under a Billion for 2013 and 2015. We made it into this prestigious list, alongside just a few other companies from Singapore. This accolade serves as a testament to our strong growth and financial performance through the years. We were also selected to be among the top 100 Singapore brands from 2012 to 2016 by Brand Finance.



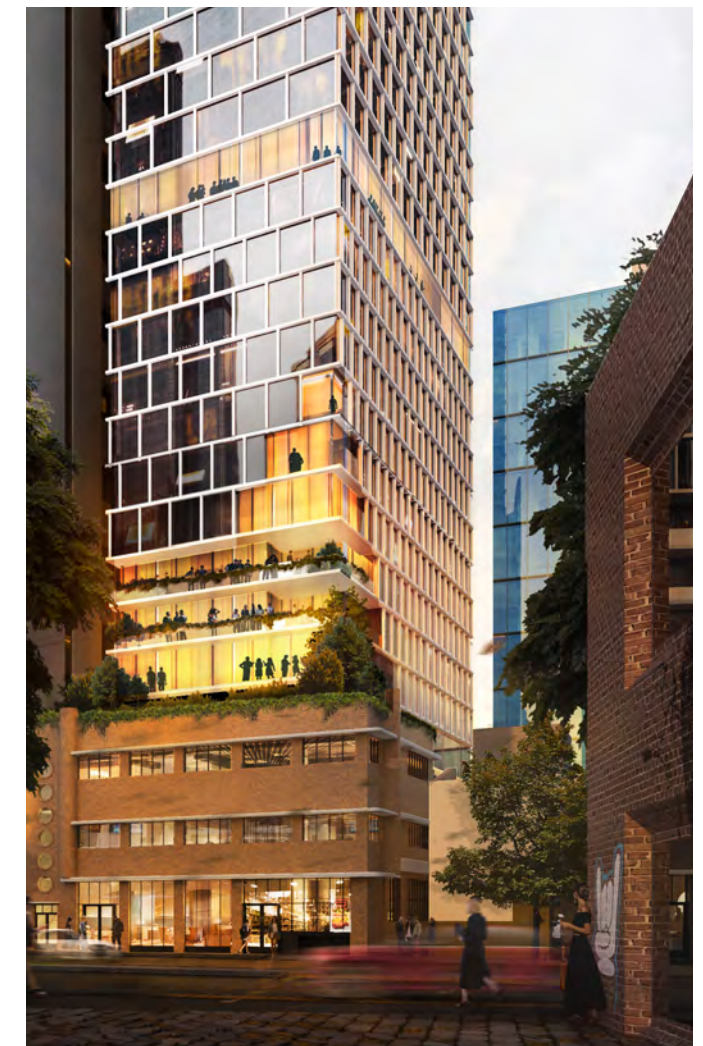
unilodge park central, brisbane

Fully completed in October 2018, UniLodge Park Central is the largest student accommodation in Australia at 1,578 beds, spread over 2 towers. The first tower, Metro Tower (437 beds), was launched in July 2018, while the second tower, Sky Tower (1,141 beds), will launch in January 2019. The Group has appointed UniLodge as the facility's operator.



grey street, adelaide

The land parcel was acquired in August 2017 for A\$5.45 million. Development Approval for this 772-bed PBSA was obtained in November 2017. Construction work has commenced in November 2017 and is expected to complete in first quarter of 2019.



beckett street, melbourne

The acquisition of this A\$35 million property was completed in March 2018. There is already a development permit granted on this site for the development of residential apartments. The Group has submitted an amendment to the existing permit to develop a PBSA of approximately 900-bed. Subject to getting the relevant authority approvals, the Group is on track to commence construction of the PBSA by the last quarter of 2018.





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