



WEE HUR STUDENT HOUSING 90-102 REGENT STREET REDFERN

DESIGN REPORT

WEE HUR STUDENT HOUSING 90-102 REGENT STREET REDFERN

DESIGN REPORT



Allen Jack+Cottier Architects Pty Ltd
ABN 53 003 782 250

Principals + Nominated Architects
Michael Heenan 5264
Brian Mariotti 9451
John Whittingham 7030

Sydney Office
79 Myrtle Street Chippendale
NSW 2008 AUSTRALIA
tel +61 2 9311 8222
fax +61 2 9311 8200

architectsajc.com

Date	Revision	Status	By	Checked
09.10.20	01	Development Application Submission	RP	BM

01 DESIGN APPROACH	5	07 ENVIRONMENTAL ANALYSIS	59
DESIGN PRINCIPLES	5	ENVIRONMENTAL RESPONSE	60
DESIGN OBJECTIVES	6	SUSTAINABLE DESIGN METHODOLOGY	61
DESIGN EXCELLENCE STRATEGY	7	SOLAR STUDY	62
02 SITE ANALYSIS	9	08 FACADE DESIGN	66
URBAN CONTEXT	10	PASSIVE SOLAR DESIGN	66
IMMEDIATE CONTEXT	11	FACADE DESIGN - MATERIALITY	67
VIEW ANALYSIS	12	RESPONSE TO CONTEXT - KEY ITEMS	68
ENVIRONMENTAL CONTEXT	13	RESPONSE TO CONTEXT - STREET LANGUAGE	69
ENVIRONMENTAL RESPONSE	14	PODIUM DESIGN - SCALE, RHYTHM & STREET PATTERN	71
WIND MITIGATION	15	PODIUM FACADE DESIGN - WILLIAM LANE	72
KEY DESIGN CONTROLS	16	PODIUM FACADE DESIGN - REGENT & MARIAN STREETS	73
03 URBAN DESIGN	17	MATERIALITY & RHYTHM - PRECEDENT	74
FIGURE GROUND ANALYSIS	18	FACADE MODULE	75
CONTEXTUAL SECTIONS & ELEVATIONS	20	ELEVATIONS	76
CONTROL & PROPOSED ENVELOPE	22	MATERIALITY	77
SOLAR STUDY - CONTROL MASS IMPACT	30	09 INTERIOR DESIGN	80
04 BUILDING DESIGN	32	DESIGN CONCEPT - BEDROOMS	80
DESIGN DIRECTIONS	32	DESIGN CONCEPT - COMMON AREAS	82
COMMUNAL SPACE DISTRIBUTION STRATEGY	34	DESIGN CONCEPT - COMMON FACILITIES	83
PODIUM DESIGN STUDIES	35	BEDROOM LAYOUTS	84
GENERAL ARRANGEMENT PLANS	36	CONCEPT SKETCH - BEDROOMS	86
GFA DIAGRAMS	46	10 SOLAR ANALYSIS	88
05 LANDSCAPE DESIGN	47	SHADOW DIAGRAMS	88
GROUND LEVEL	48	SUN EYE VIEWS	90
LEVEL 2	50	11 SUMMARY	97
LEVEL 3	54	AREA SCHEDULE	97
06 PUBLIC ART	55	AUTHORITY COMMENTS & RESPONSES	98
ABORIGINAL CULTURE + HERITAGE RESPONSE	55		
ART STRATEGY	56		

SEARS REFERENCE SCHEDULE

Item	Reference
SEARS dated 27 November 2019; SSD-10382	
Design Excellence Strategy The EIS shall include a design excellence strategy prepared in consultation with the NSW Government Architect, demonstrating how the proposal will achieve design excellence. This strategy shall identify:	Refer page 7
· the process to ensure that design excellence is achieved	Refer Section 10, page 98-100
· process of engagement with the State Design Review Panel (SDRP) Pilot including post approvals	Refer Section 10, page 98-100
· how comments from NSW Government Architect have been addressed	Refer Section 10, page 98-100
Built Form and Urban Design The EIS shall:	Refer Section 03 and Section 04
· provide an urban design analysis with consideration of the proposed building form, height, bulk and scale, setbacks and interface of the proposal with the surrounding development and public domain.	Refer pages 18-21
· address the design quality of the proposal including consideration of building articulation, materials and finishes and street activation	Refer Section 04; pages 22-29; Section 04; pages 34-45
· assess environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility, for both occupants of the building and occupants of neighbouring developments, noting the size of the site and the fact that the land to the immediate west of the site is not a public road	Refer Section 05; pages 47-54
· consider opportunities for public art in area visible from the streets or accessible to the public.	Refer Section 06; pages 55-57
Building Use The EIS shall provide:	
· a table identifying the proposed land uses including a floor-by-floor breakdown of gross floor area (GFA), total GFA and site coverage.	Refer Section 11; pages 97
Amenity The EIS shall:	
· demonstrate any potential overshadowing onto the adjoining open space and neighbouring residential properties with shadow diagrams, with the portions of the building creating any non-compliance to be identified and adequately justified.	Refer Section 10; pages 88-89
Signage The EIS shall provide details on the location, size and content of any proposed signage and consider any signage as part of the overall built form and urban design of the development.	Refer Architectural Drawings; DA3001-DA3004; DA5300
Public Domain and Public Access The EIS shall:	
· detail the scope of public domain improvements, street activation, key pedestrian linkages with and between other public domain spaces, existing and proposed buildings and surrounding areas	Refer pages 47-54; Refer Landscape Design Report



CONTEXT

- social • historical • cultural



ESD

- innovative solutions for better environmental practice

01 DESIGN APPROACH

DESIGN PRINCIPLES



ACTIVATION

- all 3 street frontages



QUALITY + AMENITY

- well designed • curated spaces



SOCIAL SUSTAINABILITY

- creating a community
- safe • caring • encouraging

01 DESIGN APPROACH

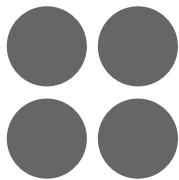
DESIGN OBJECTIVES



1. BETTER FIT
CONTEXTUAL, LOCAL AND OF ITS PLACE



2. BETTER PERFORMANCE
SUSTAINABLE, ADAPTABLE AND DURABLE

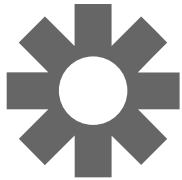


3. BETTER FOR COMMUNITY
INCLUSIVE, CONNECTED AND DIVERSE



4. BETTER FOR PEOPLE
SAFE, COMFORTABLE AND LIVEABLE

The Government Architect’s Better Placed design objectives have been followed by Allen Jack+Cottier to ensure the proposed purpose-built student housing is better placed in every aspect. These objectives provide the framework for this document.



5. BETTER WORKING
FUNCTIONAL, EFFICIENT AND FIT FOR PURPOSE



6. BETTER VALUE
CREATING AND ADDING VALUE



7. BETTER LOOK AND FEEL
ENGAGING, INVITING AND ATTRACTIVE

DESIGN EXCELLENCE STRATEGY

+ The design team met with the SDRP on five occasions during preparation of the Development Application:

Pre-Briefing	14 January 2020
SDRP #1	12 February 2020
SDRP #2	22 April 2020
SDRP #3	03 June 2020
SDRP #4	26 August 2020

+ The design evolved and changed significantly following comments from the Panel including an improved response to wind conditions, an enhanced ESD strategy, increased setbacks, reductions in building height, number of bedrooms and FSR.

Detailed responses to each issue are documented in Section 11 of this report.

The project team will engage with the SDRP post lodgement of the SSDA to:

- + Integrate and respond to stakeholder and authority comments arising during exhibition of the SSDA.
- + Review changes arising through design development to ensure that the design quality represented in the SSDA is maintained and realised.
- + Review design responses to Panel comments from the last SDRP, namely:
 - i. Management of potential privacy and acoustic impacts on bedrooms adjacent to the communal roof terrace on Level 2; ensuring that the bedrooms have adequate amenity,
 - ii. Visual and acoustic treatment of the proposed mechanical plant on the southern roof on level 3; ensuring that this plant is adequately screened from the public domain,
 - iii. Interface between the proposed and existing street trees and the proposed street awnings on Regent and Marian Streets; allowing for tree growth while ensuring adequate protection of pedestrians from wind and weather,

- iv. Design resolution of the brick podium where noted; ensuring a consistent level of detail and coherent expression to all of the podium facades,
- v. Development and integration of the artwork,
- vi. Ensuring reasonable wind impacts to the environment around the building and review of the Wind report submitted with the SSDA

It is proposed that the same project team will develop and deliver the design following Development Approval to ensure that design integrity is maintained throughout the development process. This will include:

- + Representing the project in meetings with the community, authorities and stakeholders, as required
- + Preparation of drawings and specifications for contract documentation, and construction certificate and
- + Maintaining continuity during the construction phases to the completion of the project.





02 SITE ANALYSIS

02 SITE ANALYSIS

URBAN CONTEXT

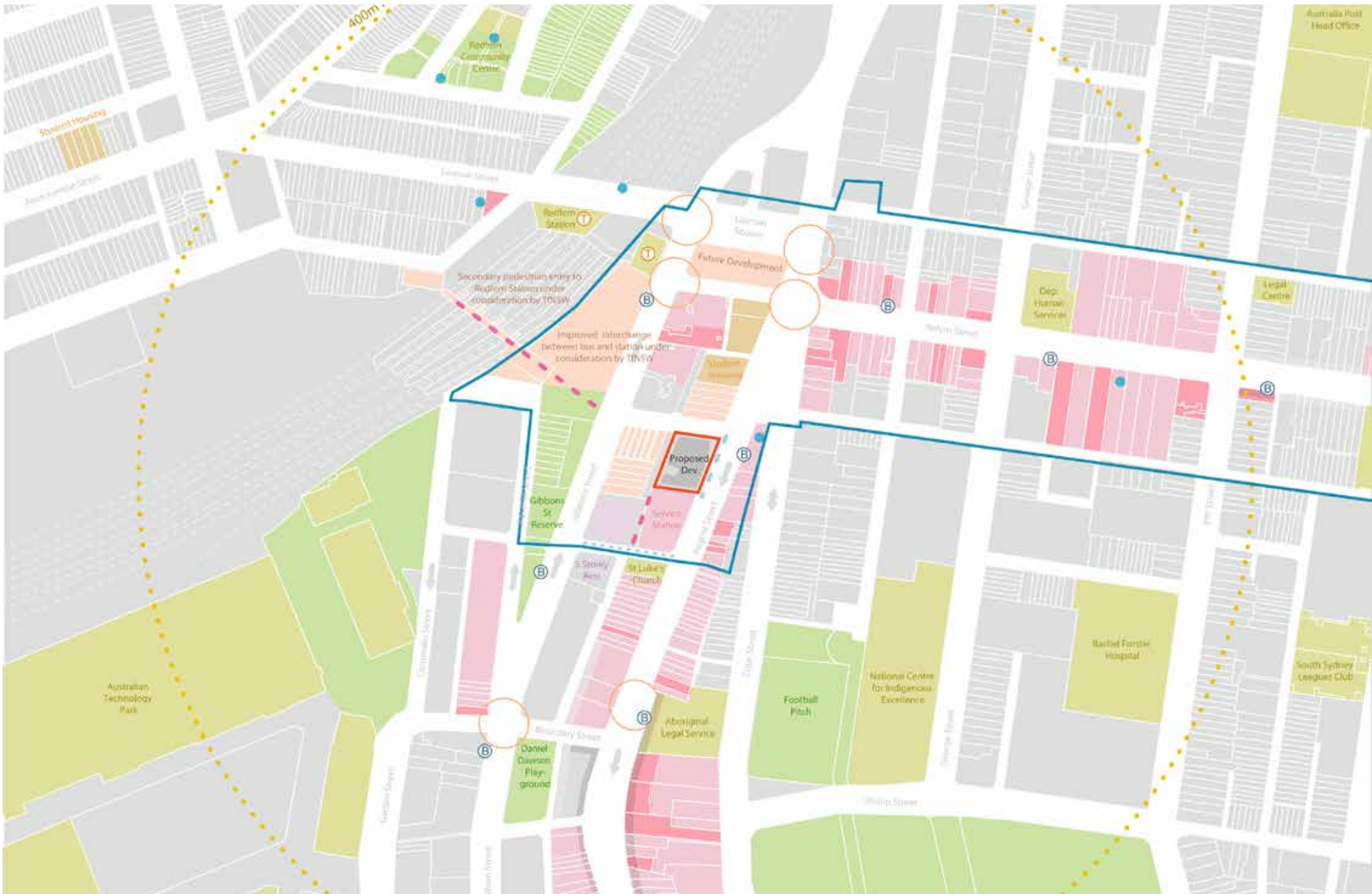
Redfern is undergoing rapid change due to an increase in population density, partly due to the influx of students and young professionals. The Redfern Waterloo Authority has promoted the renewal of older buildings and construction of new cafés, restaurants and bars. The opportunities and constraints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

OPPORTUNITIES

- + Proximity to public green open spaces and community facilities
- + Proximity to public transport and cycle routes
- + Accessible pedestrian walking routes and crossings
- + Access to University of Sydney and UTS campuses
- + Vibrant Redfern lifestyle, restaurants and retail
- + Vibrant Redfern community

CONSTRAINTS

- + Limited on-site parking
- + Regent street is a very busy one way street, 60km/h road
- + Noise from Regent Street and Gibbons Street
- + Two 18 storey developments to the north and to the west limit solar access
- + Wind tunnelling between tall buildings to the north affects the street frontages
- + Low levels of passive surveillance especially to William Lane





Redfern is experiencing significant change. Several buildings in the immediate vicinity of the site have commenced or completed construction throughout the course of the project.

OPPORTUNITIES

- + Extension of active frontage along Regent/Gibbons Streets
- + Possible future south entry to Redfern Station would reinforce Marian St pedestrian link and access to retail streetscape
- + Reinforcing existing Regent/Gibbons Street Pedestrian link as part of the established pedestrian network
- + Future development of 13-23 Gibbons St proposed site link to join William Lane to promote street activation
- + Visual links to Jack Floyd Reserve across Regent Street
- + Visual links to Gibbons St Reserve along Marian St
- + Proximity to existing and future cycling paths connecting to Redfern Station and future Waterloo Station

CONSTRAINTS

- + Significant noise from Regent and Gibbons Streets
- + Noise and light spill from service station to south 24/7
- + Limited pedestrian access to William Lane.
- + Limited street parking and loading/unloading areas.

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

- + Active street edge and connectivity to local network
- + Public artwork and local streetscape appreciation
- + Easy access to local retail services
- + CPTED design
- + Widening of pedestrian footpaths at Marian St & William Ln
- + Minimise BOH frontage to William Lane

02 SITE ANALYSIS

EXISTING FABRIC

The following site photos focus on assessing the visual impact of the proposal on the existing buildings and public domain to the north and to the south. Although the retail buildings to the south of the site present a predominantly low and medium scale built form; the taller 18 storey proposed building causes minimal additional impact due to the presence of other tall buildings around the site.

Refer to the View Impact Analysis submitted with the SSDA.



①



④



⑦



②



⑤



⑧

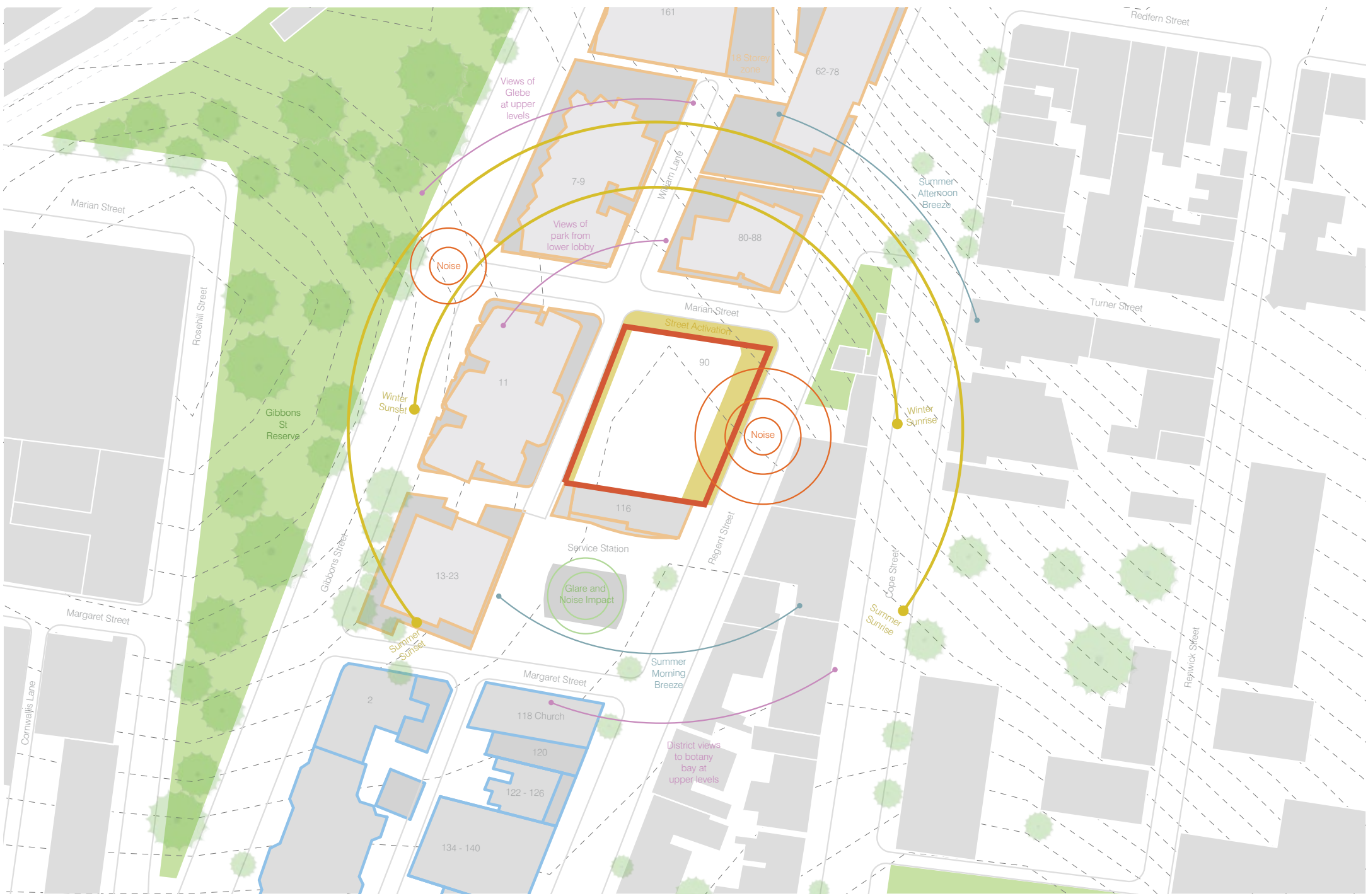


③



⑥





ACOUSTIC

Acoustic impacts are likely to arise from Regent and Gibbons Streets. Noise impacts have been assessed though an acoustic report and addressed in the detailed design. Design responses to acoustic impacts will include insulation, thicker or performance glazing or careful location of rooms and spaces in and around the site.

WIND

The design response includes detailed wind modelling of the facade and built form. Design responses to potential wind impacts include awnings along the street frontages, and setbacks to the building form. Wind impacts are likely to be most pronounced at corners and between taller building forms. In a careful study of key locations through our wind tunnel assessment, half of the locations tested for peak gusts shows the proposed development providing an improvement to that of the existing buildings. The inclusion of awnings, planting, and openings in our podium have contributed to this result.

VENTILATION

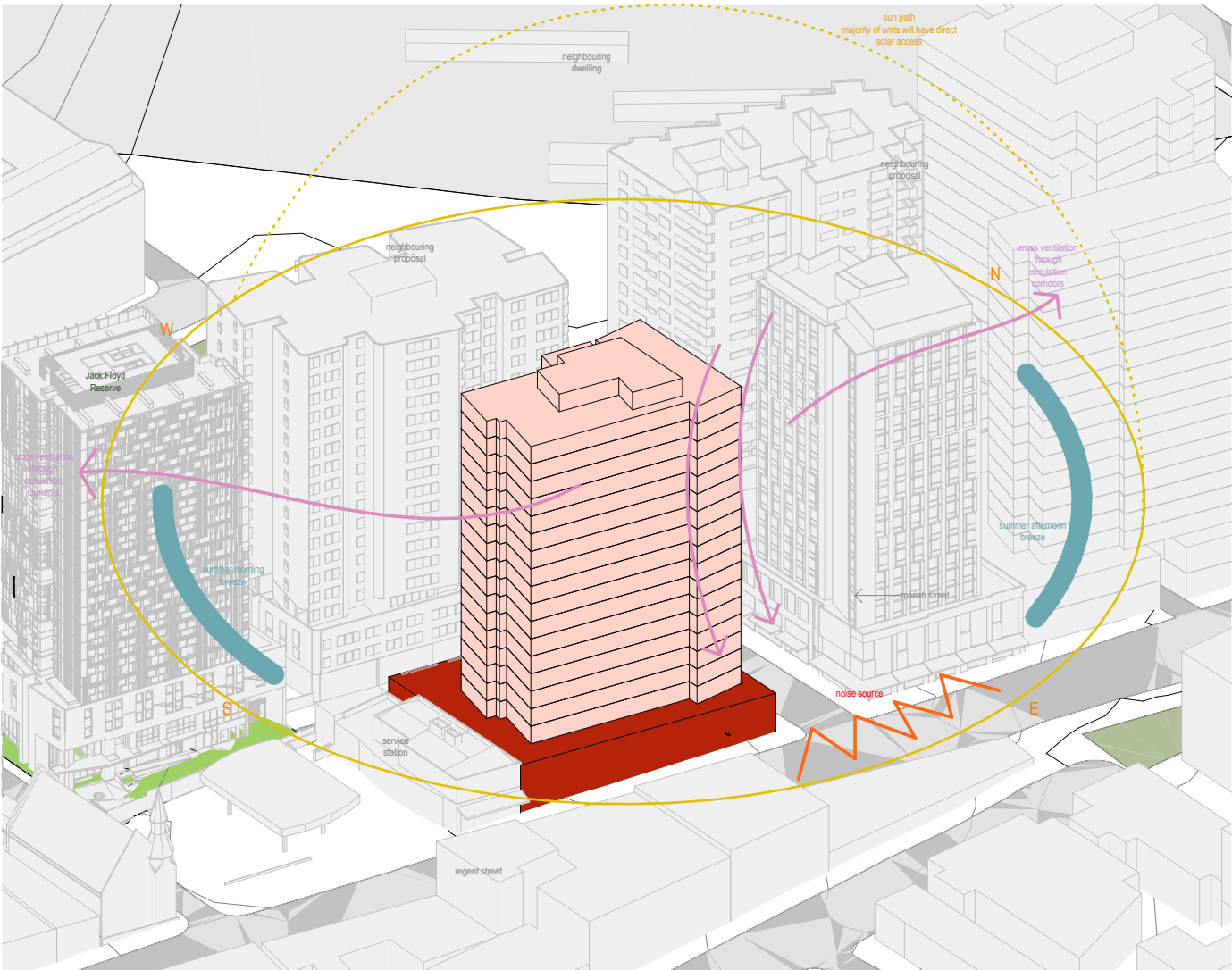
Initial investigation has revealed that there will be a direct conflict between acoustic insulation and natural ventilation requirements, especially in bedrooms. Strategies to resolve this conflict have been investigated and implemented in the design. In Chapter 3.8, results from a detailed CFD modelling demonstrate favourable outcomes regarding age of air within each SOU. Each unit has the ability to take in natural ventilation from operable windows, as well as benefit from a mechanical supply system and passive make up air from the corridors

SOLAR

The site is subject to limited solar access from the north due to the future development of 80-88 Regent Street and the future development of 11 Gibbons Street to the west. Cognizant of these constraints, we have planned common amenity areas to the most optimal areas of the site; namely the east, north, and western 'linked terraces'. Similarly the facade design incorporates an alternating assembly of clear glazing, pattern glazing, as well as solid panel to balance the effects of UV gain, while providing optimal solar amenity to the residents.

02 SITE ANALYSIS

ENVIRONMENTAL RESPONSE



Better performance diagram looking from Regent Street

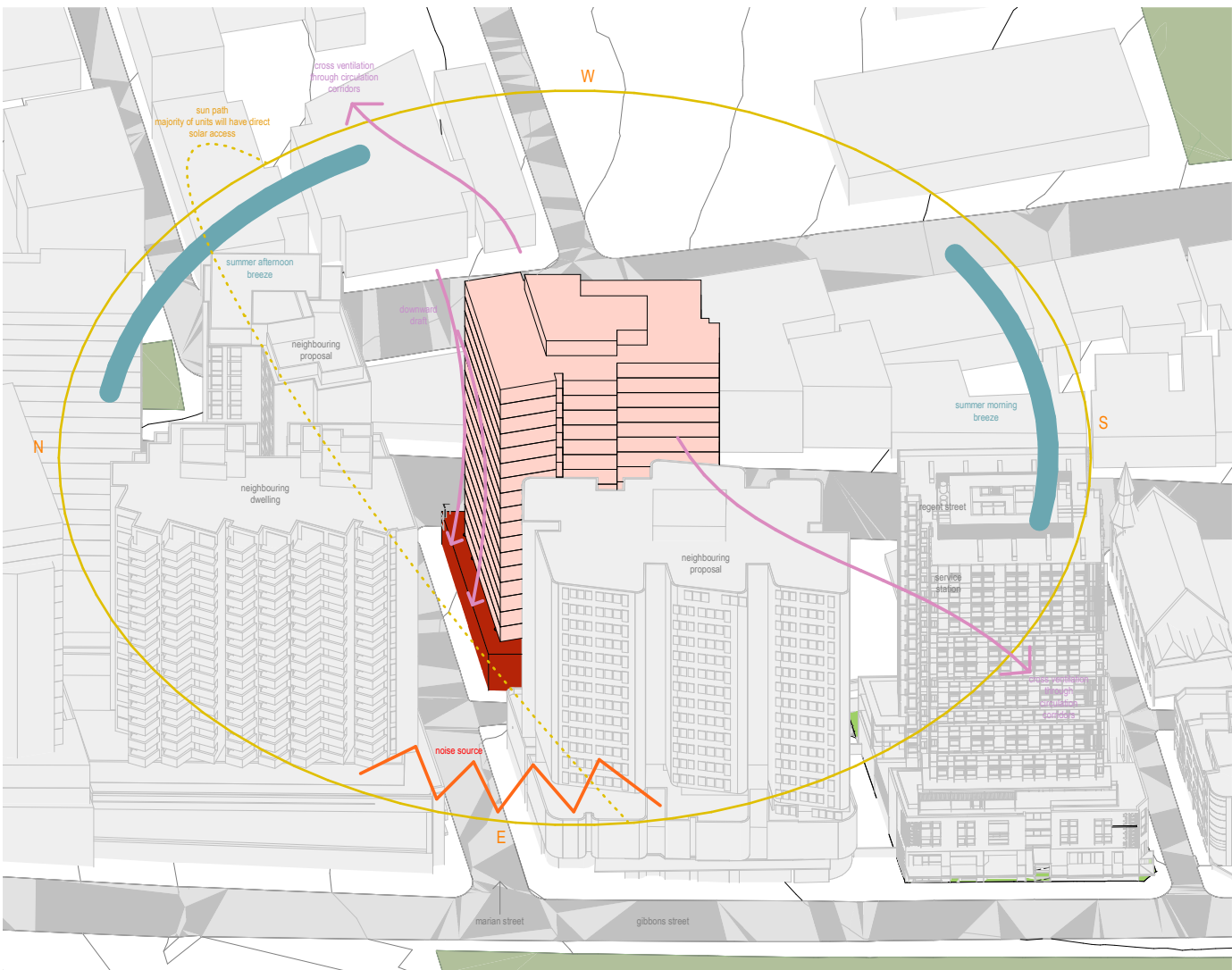
REGENT STREET

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 some of the sun path during the middle of the day.

The arrangement of access corridors from north to south, and east to west allow natural light into and views out from the circulation spaces. Downward drafts caused by the tower will be blocked by an awning on the terrace level and ground level to allow use of the surrounding public domain and outdoor open spaces.

Planting and vegetation on the podium rooftop level will assist in mitigating wind effects and soften the hard rooftop reduce the urban heat island effect, and create a comfortable outdoor environment.

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.



Better performance diagram looking from Gibbons Street

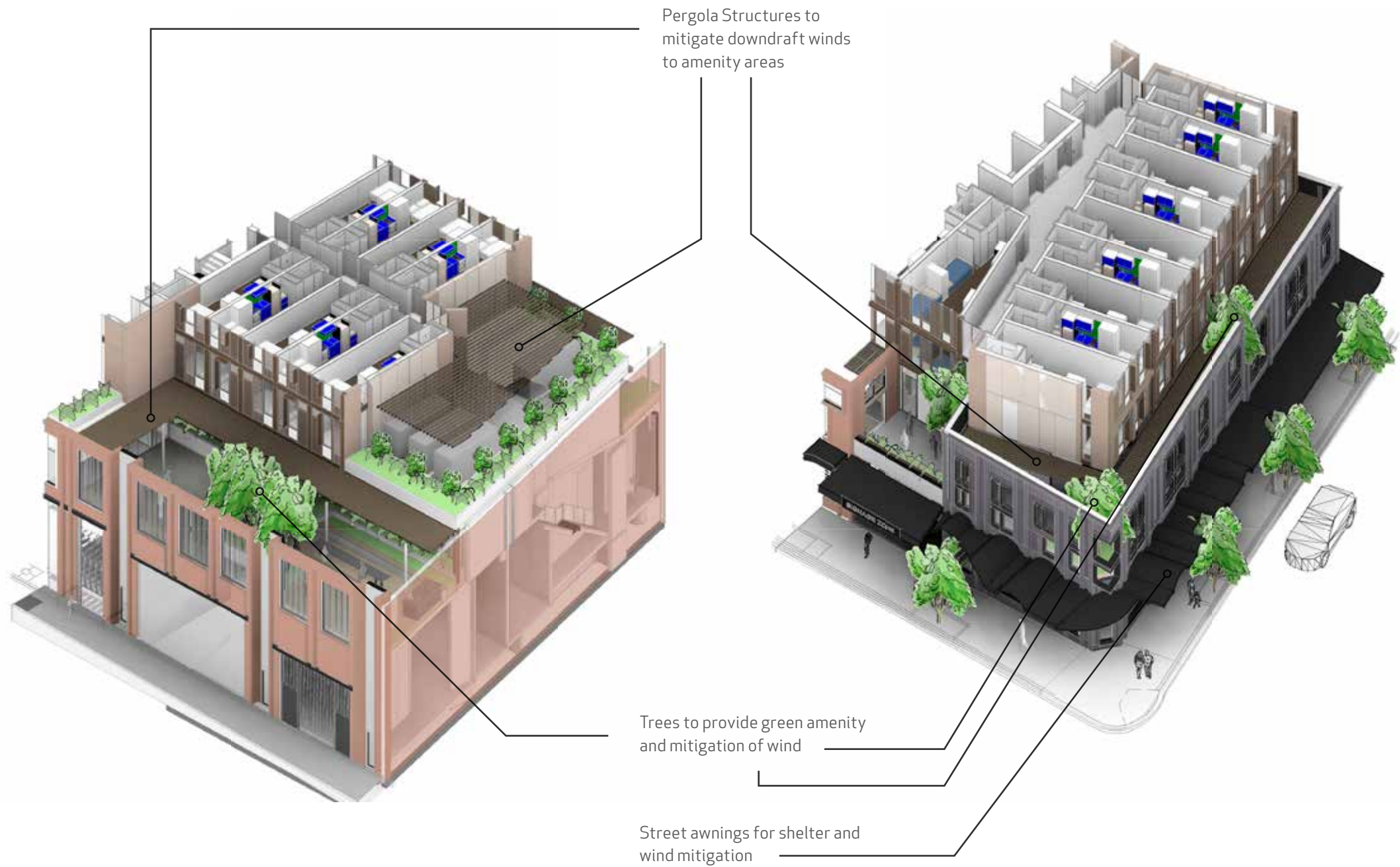
MARIAN AND GIBBONS STREET

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

All en-suite 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 the window needs to

be closed for acoustic reasons. Alternative ventilation systems such as mechanical ventilation are proposed to provide fresh air while the windows are closed.

A detailed consideration of wind and acoustic impacts within and around the building have been considered as part of the Development Application. See Section 3.7, Appendice X Acoustic Report and Appendix X Wind Tunnel Assessment.



The wind tunnel testing showed that the existing situation experiences high localised winds occur at the north-northeast areas along Regent Street and Marian Streets. Additionally, downdraft winds will potentially impact the quality of amenity spaces at the Level 2 western, eastern and northern terraces.

Wind mitigation in these areas includes awnings sympathetic to the architecture, as well as beneficial to the users. Vertical screens, planting and some native trees are also proposed to help ameliorate detrimental effects of wind. As a result, the L2 terraces achieve the sitting criteria in many areas, and the standing criteria which ensures a useable environment for outdoor common spaces

At street level, awnings run along the Regent Street shop front, main entrance, and around the podium at Marian Street to William Lane. There are breaks to incorporate canopy growth of proposed and existing trees. As a result, the surrounding streets achieve the standing and walking criteria in almost all locations, appropriate for a retail high street. A limited number of areas in the existing situation achieve the safety criteria; the proposed development results in very similar predicted wind conditions in those locations.

Refer to the wind report submitted with the SSDA.

02 SITE ANALYSIS

KEY DESIGN CONTROLS

The Redfern Centre Urban Design Guidelines high-rise Development controls apply to the site:

BUILDING HEIGHT

- + 18 storey height max.
- + 2 storey height max. on Regent Street
- + 3 storey height max. on Marian Street and William Lane

BUILDING SEPARATION

- + 18m for buildings in excess of 8 storeys between non-habitable rooms

PODIUM DESIGN

Podiums are to be provided to all towers (built form over 6 storeys). The following setbacks apply:

Provide a nil setback at the street level to reinforce the containment and activation for commercial uses unless otherwise specified below:

Front setbacks to Marian Street

- + 1.5m for footpath widening to an average width of 3m

Side boundaries to all development

- + Nil setback. Development should abut each other to reinforce the street wall

Rear boundaries to William Lane

- + 0.8m to provide the opportunity for footpath widening

ABOVE STREET WALL

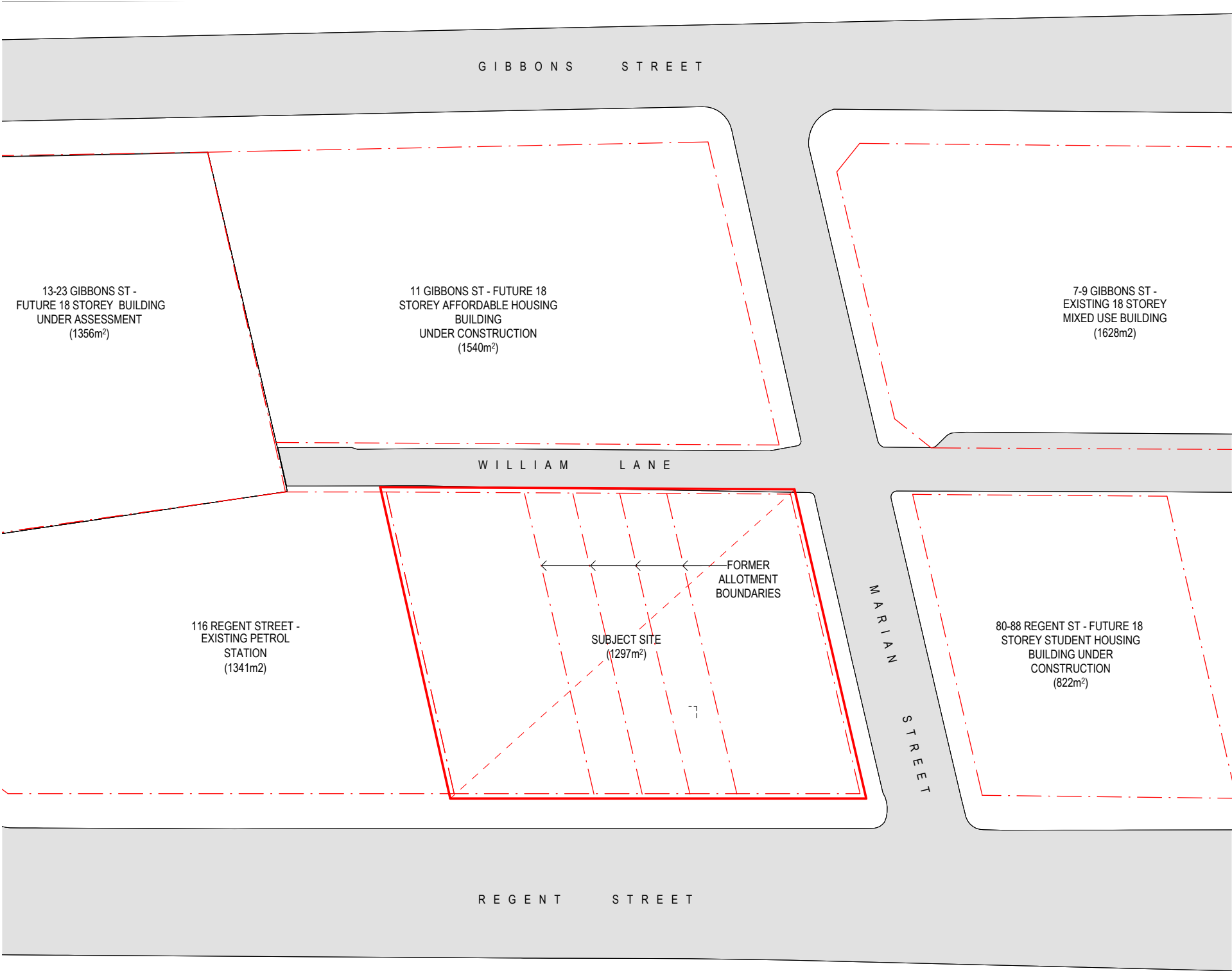
According to Redfern Centre Urban Design Guidelines mid-rise development the following controls are applied to the site:

Above 2 storeys on Regent Street

- + 8m and following the existing building line **or the setback of adjacent buildings**

Above 3 storeys on Marian Street

- + 4m and following the existing building line **or the setback of adjacent buildings**



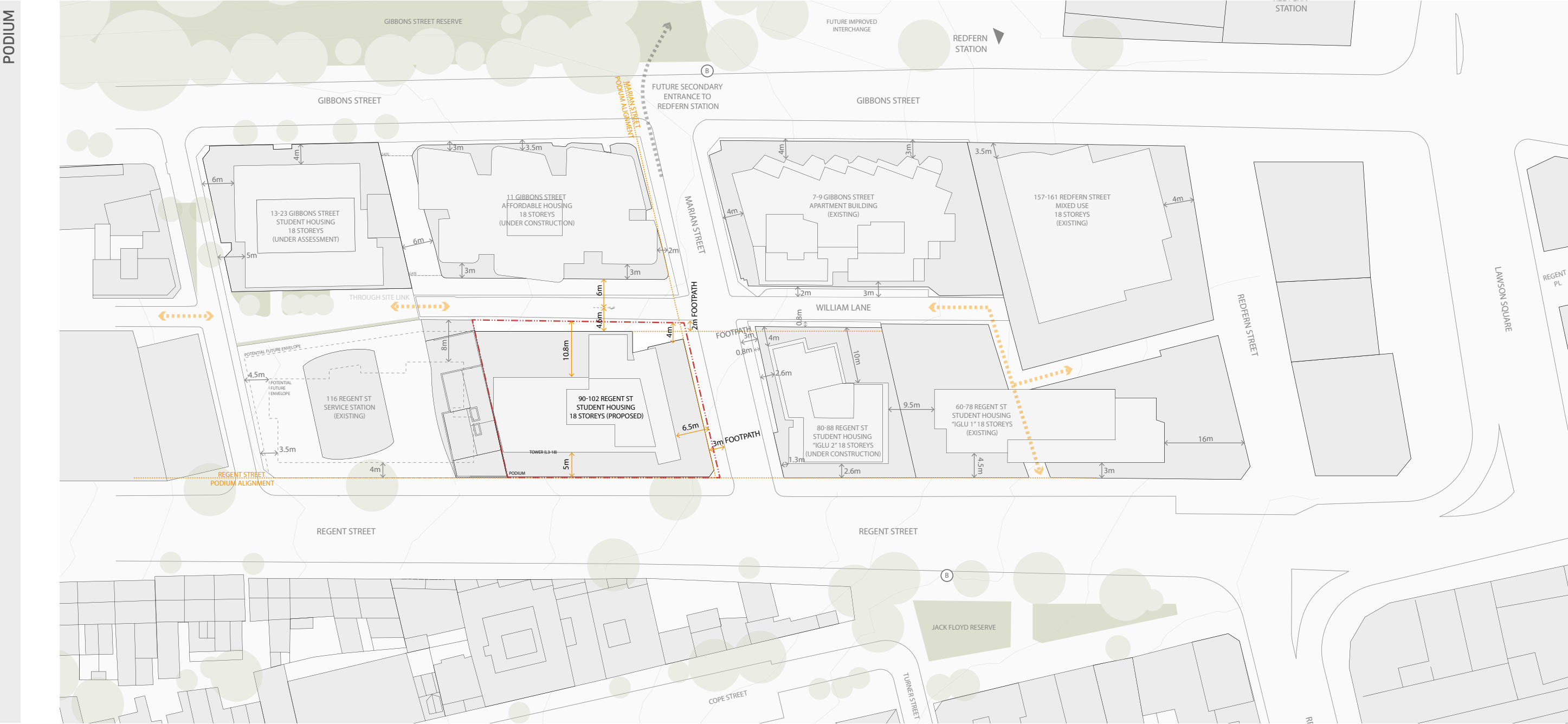
03 URBAN DESIGN

View from NW showing through site link
and upper level common rooms

FIGURE GROUND ANALYSIS

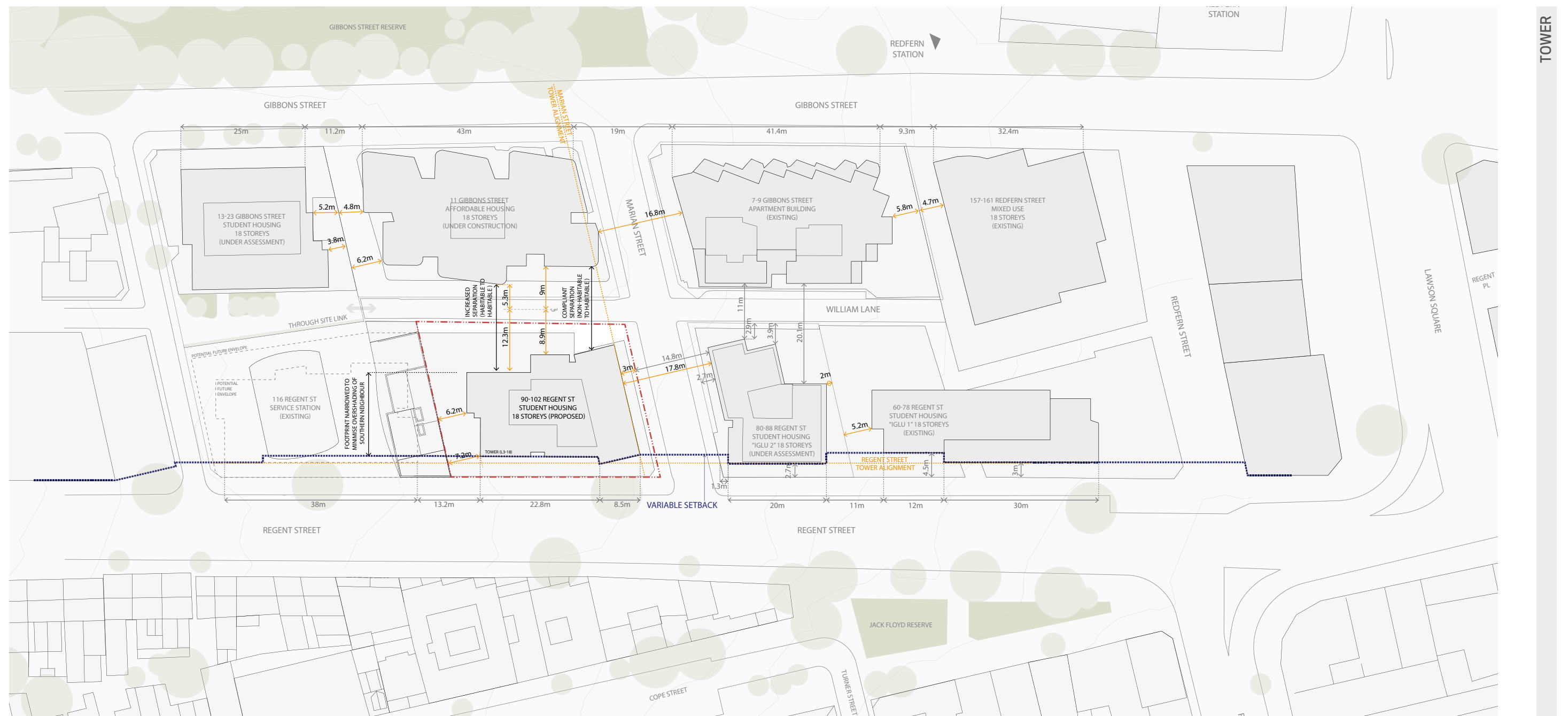
- + During consultation with the Government Architect, the urban design approach was peer reviewed by GMU Urban Design, the authors of the Redfern Urban Design Guidelines that apply to this site.
 - + GMU's review assisted the design team to respond to SDRP comments through a precinct wide urban design analysis of the existing, emerging and likely future built form.
- PODIUM LEVEL**

 - + AJ+C have prepared figure ground diagrams at podium level to illustrate how the proposal has adopted relevant contextual setbacks.
 - + Podium setback to William Lane look to mirror similar setbacks to the eastern edge of the 11 Gibbons Street development. This will create a better considered throughsite link to further developments to the south.
- + Laneway podium design has been developed to incorporate services as well as small congregation points in the bike store, outdoor seating points, and access points for fire egress. These areas are used to structure the western facade.
 - + Significant openings along the west podium facade include only the bike store at ground level.
 - + Podium setback to William Lane look to mirror similar setbacks to the eastern edge of the 11 Gibbons Street development. This will create a better considered throughsite link to further developments to the south.
- + The northern setback along Marian Street is 800mm, and is consistent with surrounding developments, as well as the Redfern Design Guidelines.
 - + The eastern setback along Regent Street incorporates 0m setback, also consistent with the adjacent setbacks to the surrounding developments.



TOWER LEVEL

- | TOWER LEVEL | | |
|--|--|---|
| <ul style="list-style-type: none"> + The proposal achieves 13.2m setback from the potential of development at 116 Regent, which is greater than the other building side separations in the precinct. + Southern windows have been incorporated on the southern facade providing additional amenity to southern corner bedrooms. These have angled blades that direct views east and west to preserve visual privacy for a future development on 116 Regent Street. | <ul style="list-style-type: none"> + The western setback increases from 8.9m to 12.32m from centreline of William Lane to maintain an 18m building separation from 11 Gibbons Street, which encroaches on the required setback in the middle of the site. + Tower form is setback further than 9m, supporting appropriate building separation guidelines. + The northern setback at Marian Street is 3m, and is consistent with surrounding developments. | <ul style="list-style-type: none"> + The tower is setback from Regent street by predominantly 4m, which is consistent with the prevailing setback from Regent Street. The corner of the tower at Regent and Marian Streets marks the corner with a slightly reduced setback which is consistent with the built form pattern in the precinct. |



03 URBAN DESIGN

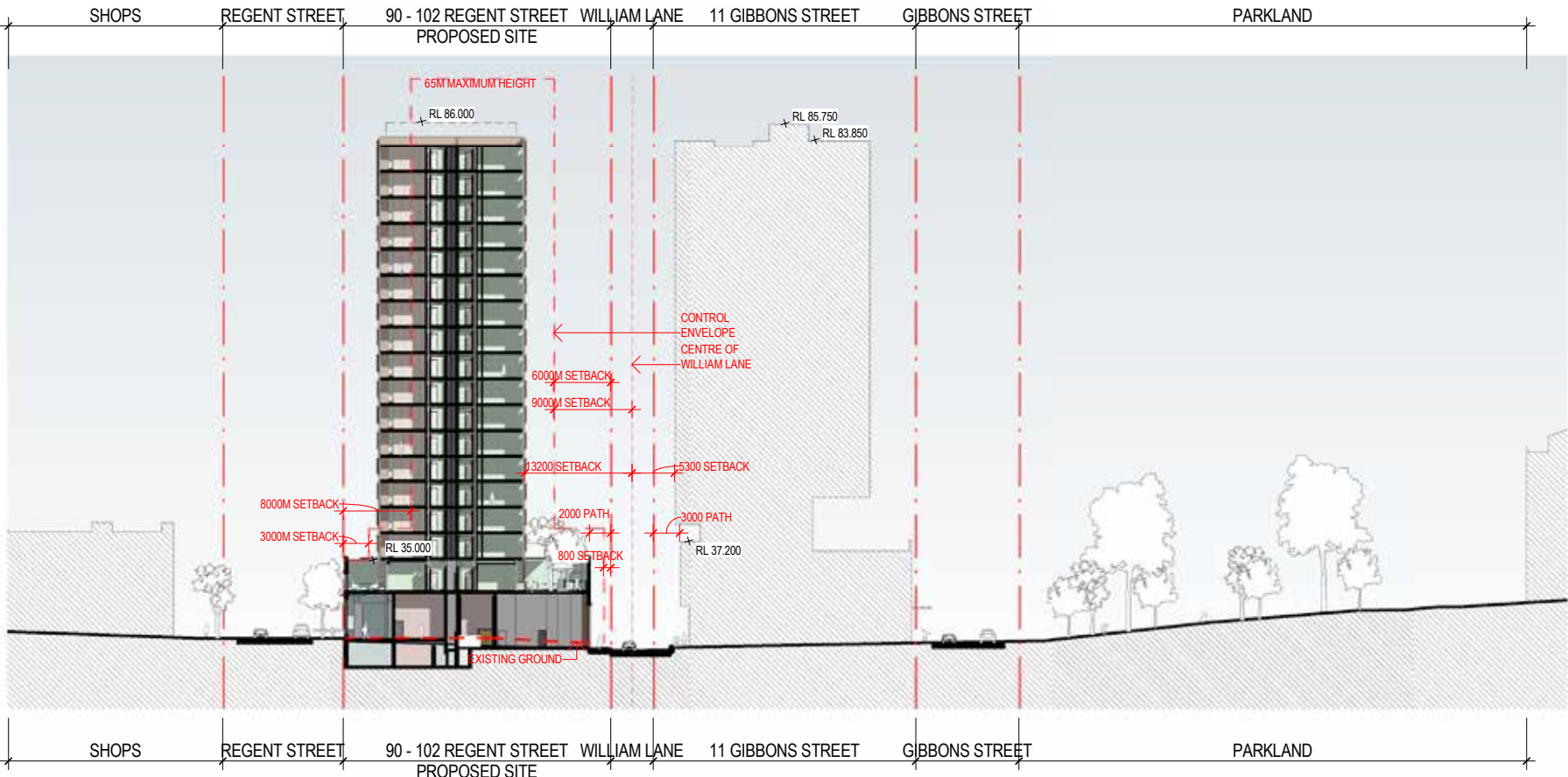
CONTEXTUAL SECTIONS & ELEVATIONS

BUILDING HEIGHT

The design of the Podium reflects the heights of the existing built fabric, reinterpreting Redfern’s urban ecologies in materiality, and language. Detailed urban design reflects careful consideration of surrounding developments in regard to parapet podium heights and sightlines. The overall building heights are consistent with the existing and emerging context of 18 storey buildings in the block.

The building is set back more then the minimum 9m from centreline of William Lane to maintain the 18m required under the Redfern Design Guidelines for building separation from the residential building at 11 Gibbons St.

The setback to Regent St is consequently 4m, which is consistent with the existing and emerging built context along Regent St, instead of the required 9m



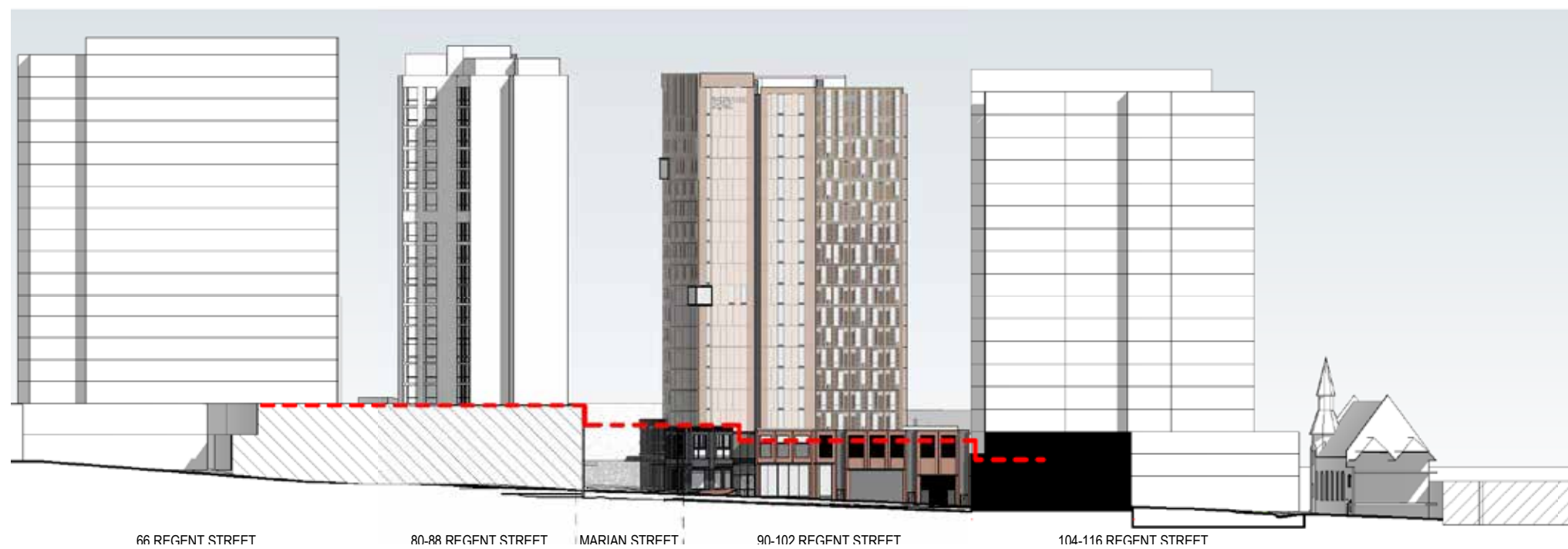
SECTION THROUGH WILLIAM LANE LOOKING SOUTH



ELEVATION ALONG MARIAN STREET LOOKING SOUTH



Street Elevation - Regent Street



Street Elevation - William Lane



CONTROL & PROPOSED ENVELOPE



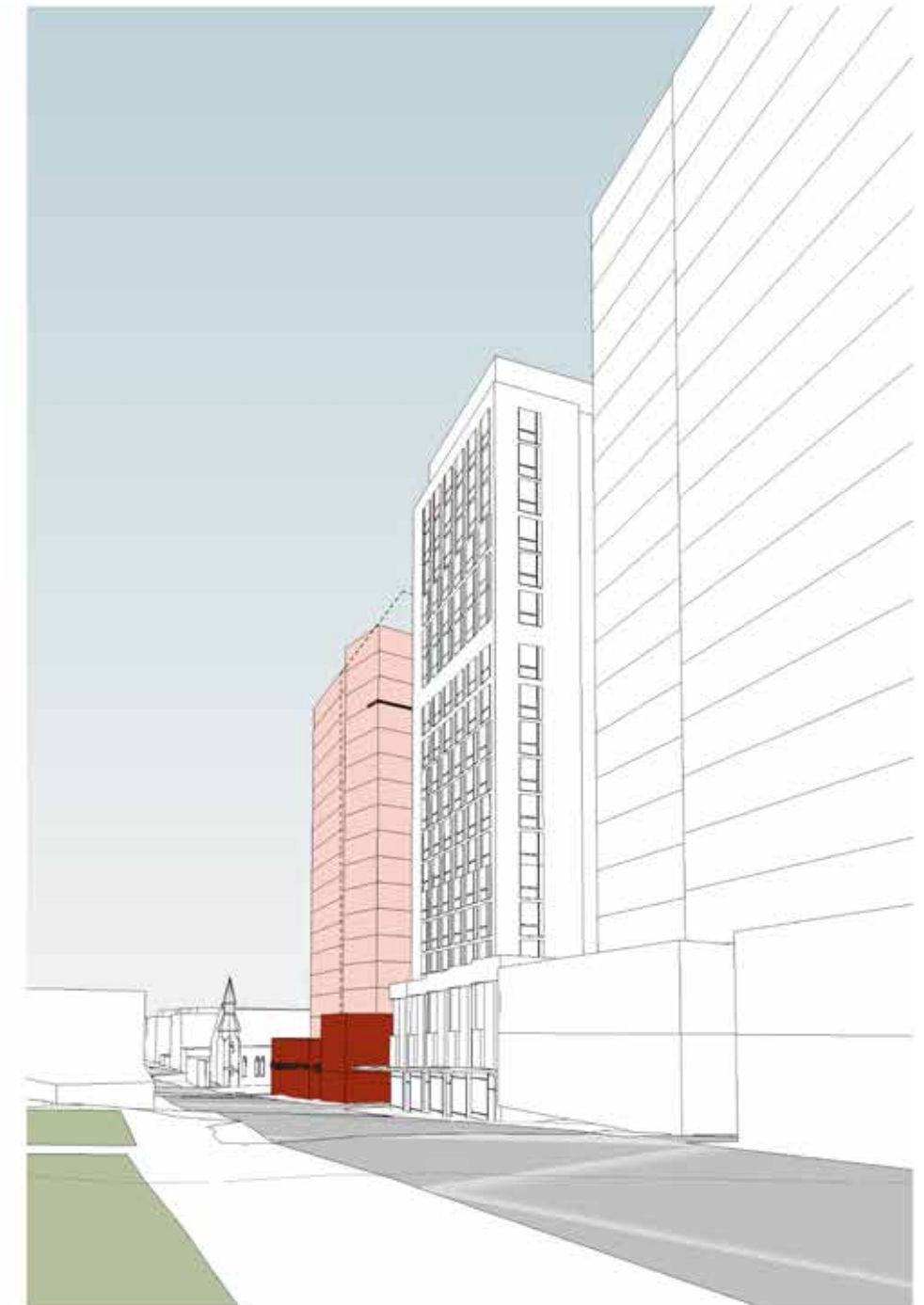
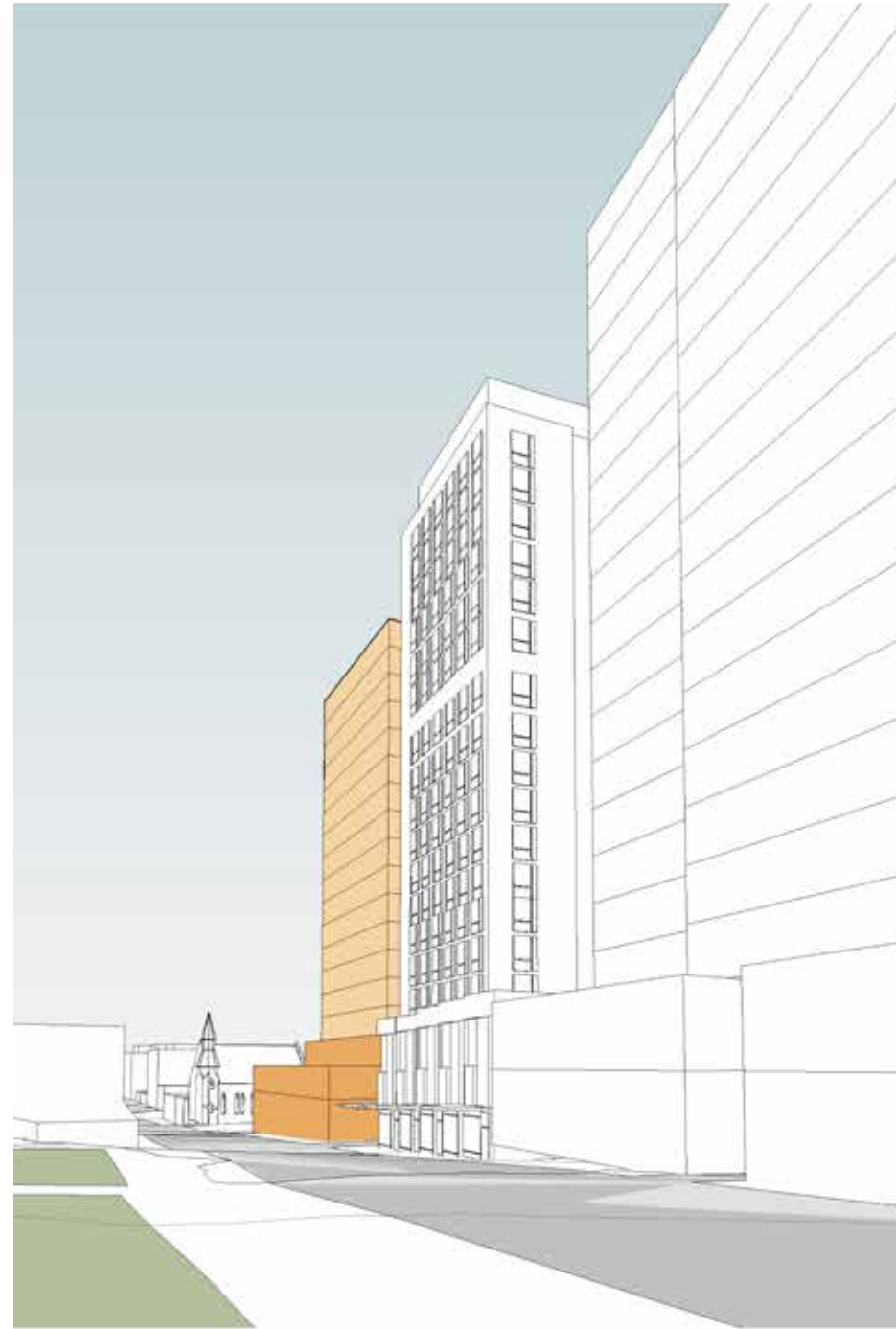
CONTROL VS. PROPOSED ENVELOPES

The following massing studies illustrate the visual impact of the proposal compared to the existing and control envelope.

When viewed from Regent St, the proposed 4m setback is consistent with the existing and emerging built context along Regent St, and visually almost indistinguishable from the built form with the required 9m setback

Regent Street from North

- Control Envelope
- Proposed Envelope



03 URBAN DESIGN

CONTROL & PROPOSED ENVELOPE

CONTROL VS. PROPOSED ENVELOPES

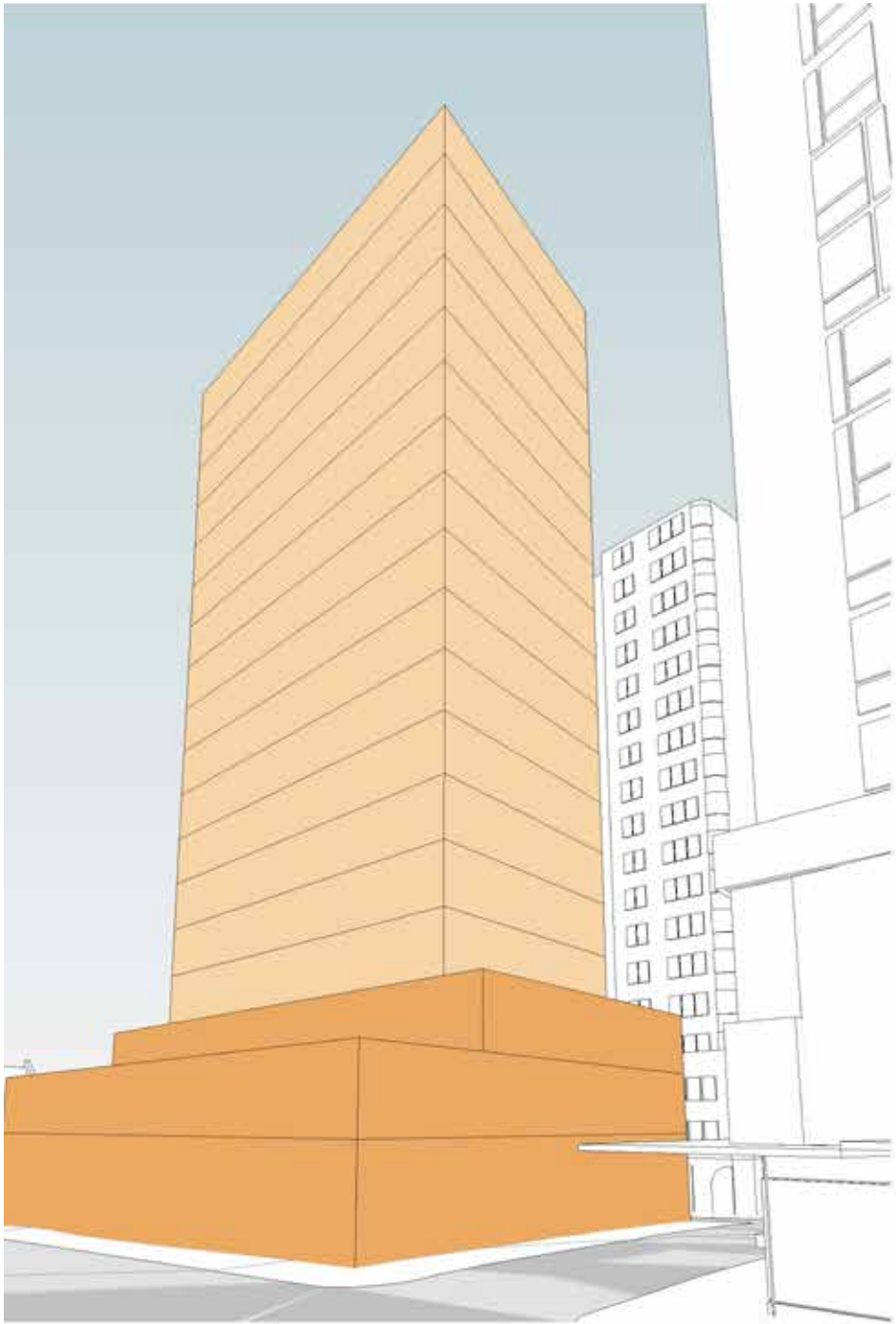
The control height of podium is 2 storeys to Regent Street and 3 storeys to Marian Street and William Lane.

This results in an incongruous podium form; the proposed podium height of 2 storeys matches the existing and emerging built context along Regent St.

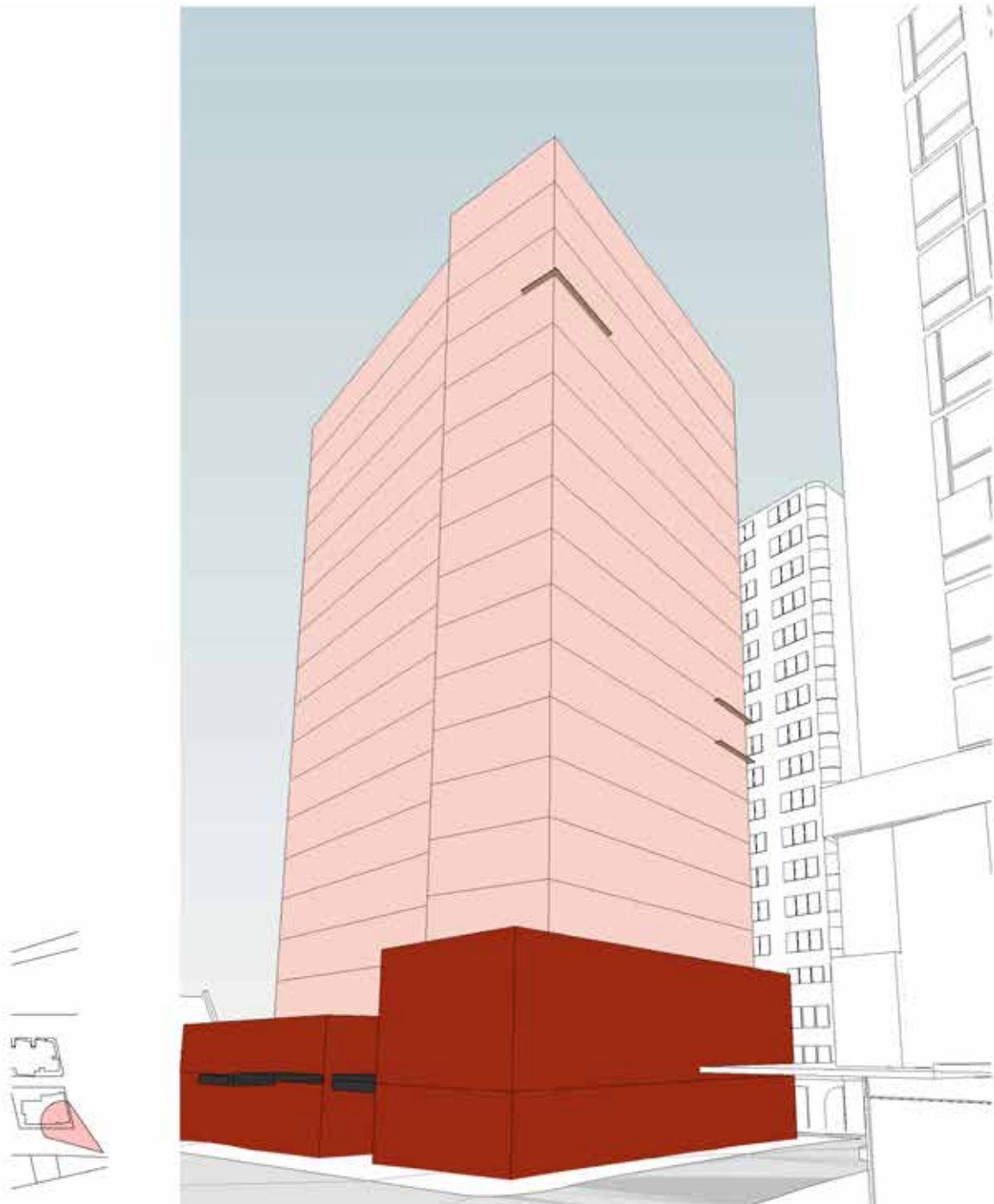
The floor to floor heights in the podium are scled for retail and communal spaces, therefore the effect is a 2 to 3 storey height, consistent with the tall parapets of the existing shops along Regent St.

Regent Street from North-East

- Control Envelope
- Proposed Envelope



Looking North to Regent Street Complying Copy 1



1 Looking North to Regent Street Copy 1

CONTROL VS. PROPOSED ENVELOPES

When viewed from Regent St south, the proposed 4m setback is consistent with the existing and emerging built context along Regent St, and visually almost indistinguishable from the built form with the required 9m setback.

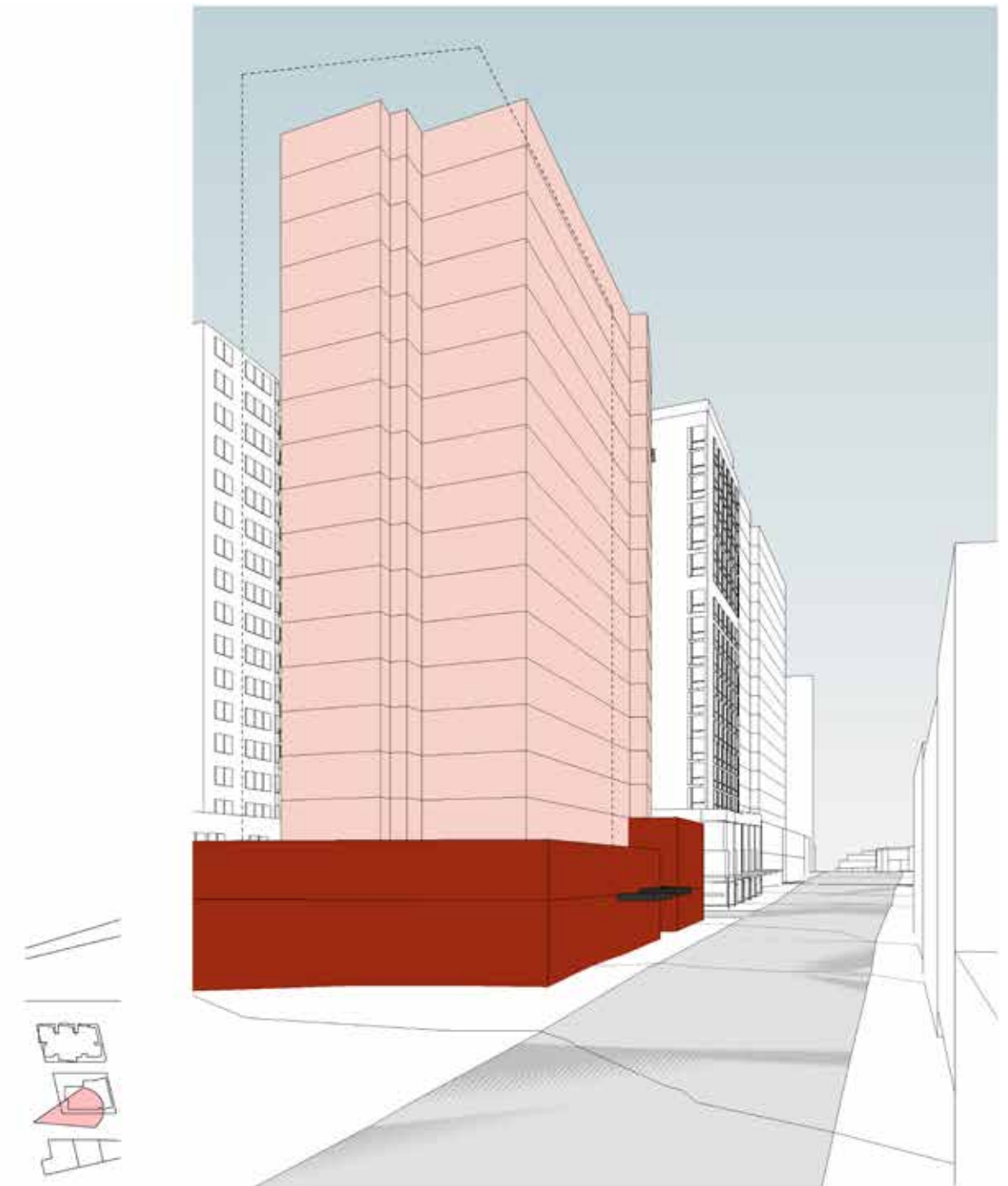
The proposed podium height of 2 storeys matches the existing and emerging built context along Regent St.

Regent Street from South

- Control Envelope
- Proposed Envelope



② Looking North to Regent Street Complying



① Looking North to Regent Street

03 URBAN DESIGN

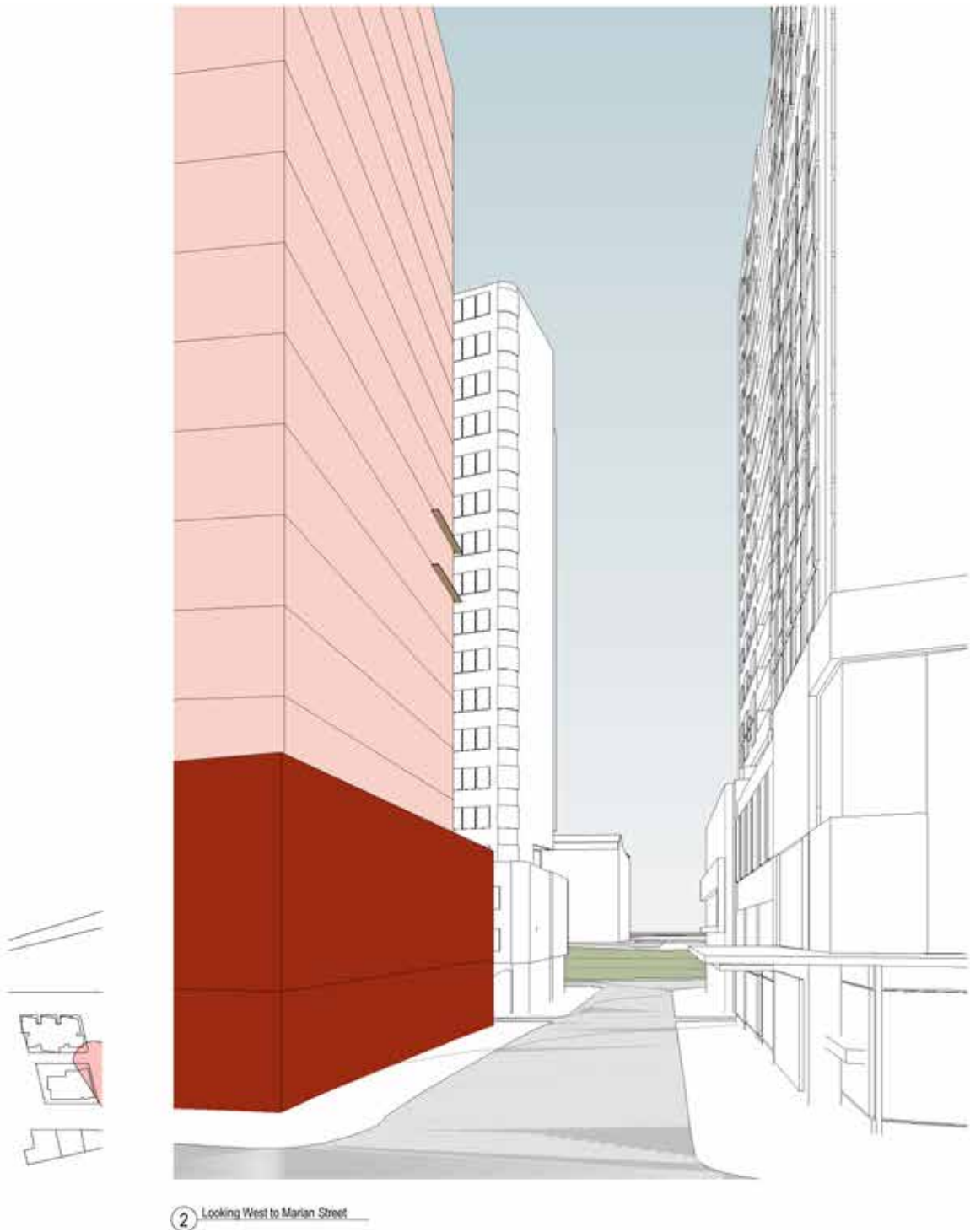
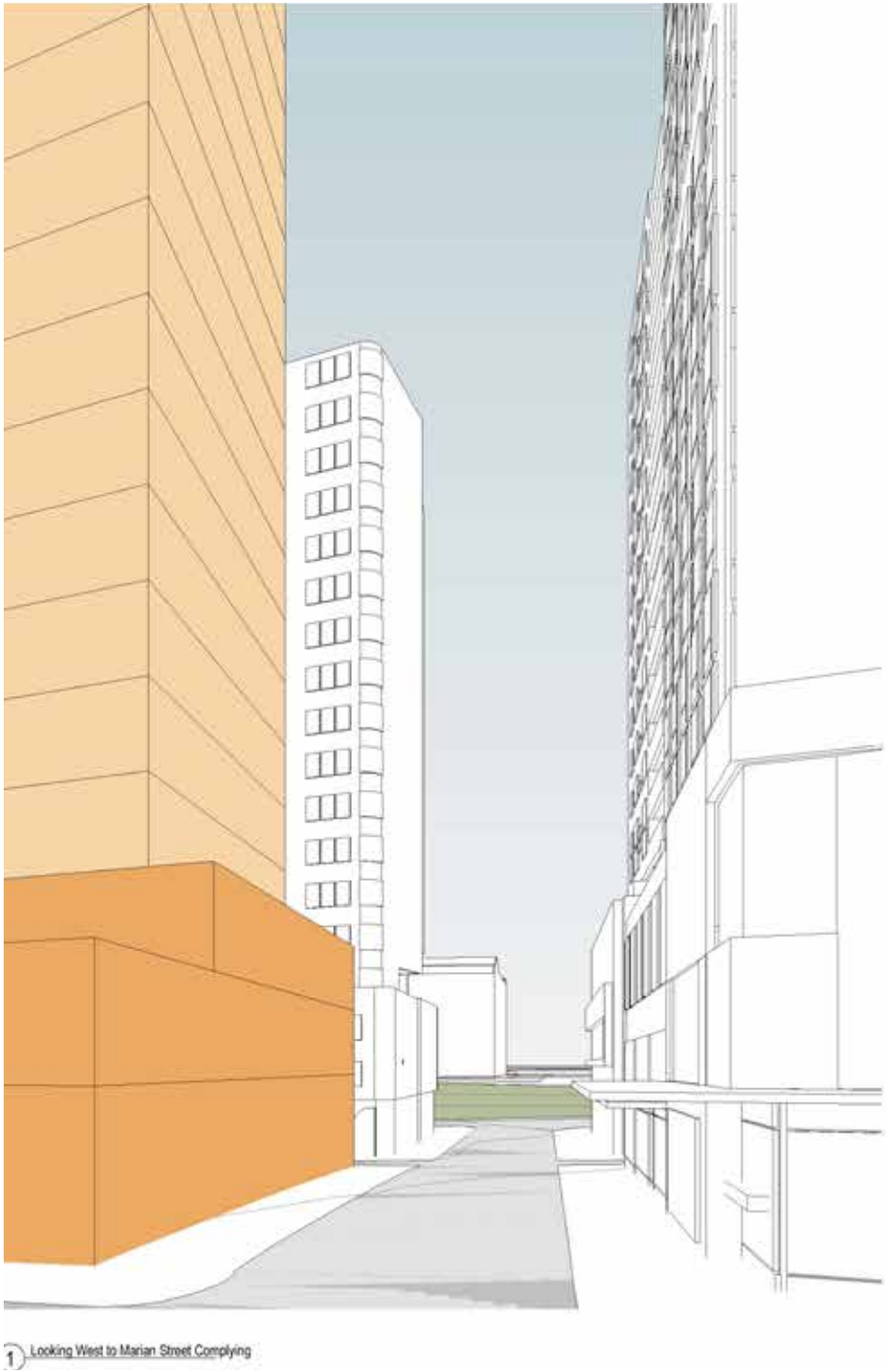
CONTROL & PROPOSED ENVELOPE

CONTROL VS. PROPOSED ENVELOPES

When viewed from Marian St, the proposed 3m tower setback is consistent with the existing and emerging built context along Marian St.

The proposed 0.8m setback to the podium and street wall height of 2 storeys matches the existing and emerging built context along Marian Street, allowing for the podium forms to step down the hill following the topography.

- Marian Street from East
- Control Envelope
 - Proposed Envelope



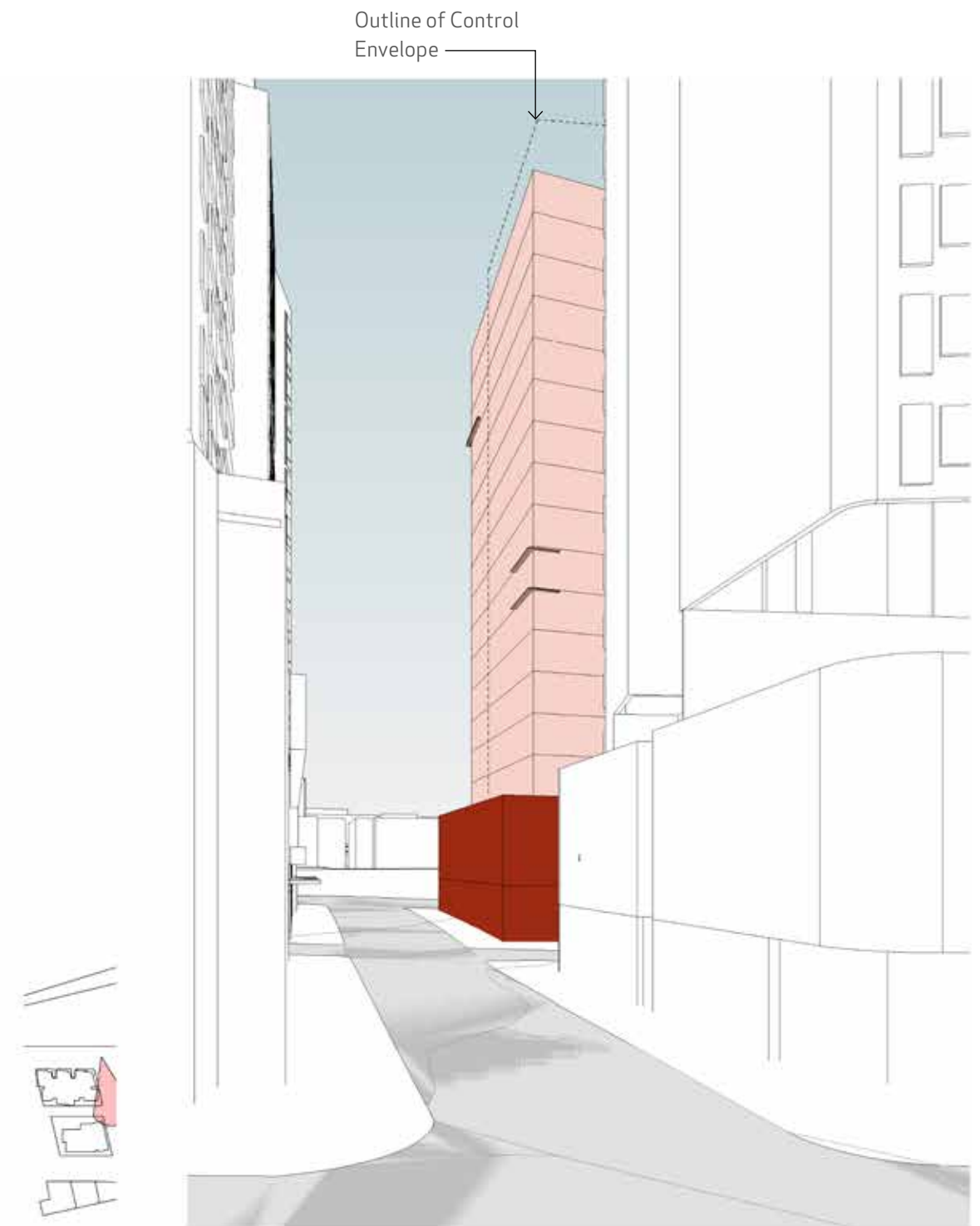
Marian Street from West

Control Envelope

Proposed Envelope



Looking East To Marian Street From Gibbons Complying



② Looking East To Marian Street From Gibbons

03 URBAN DESIGN

CONTROL & PROPOSED ENVELOPE

CONTROL VS. PROPOSED ENVELOPES

When viewed from William Lane, the proposed 9m and 12m tower setback is a distinct improvement over the control envelope, allowing more view of the sky from and solar access to the lane.

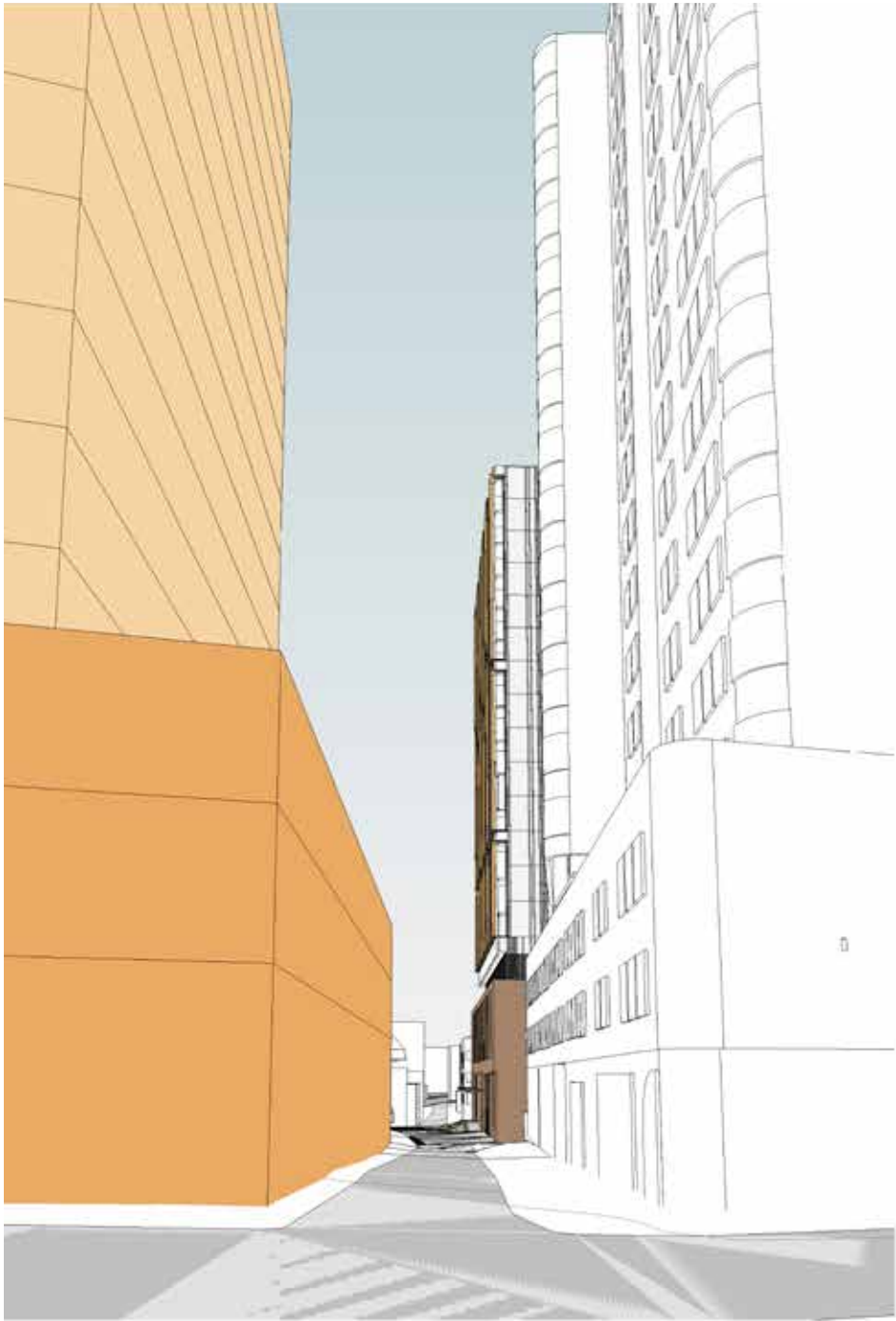
The proposal creates as well scaled and generously proportioned laneway, connecting to the through site link in the approved student accommodation development at 13-23 Gibbons Street.

The proposed 2m setback to the podium and street wall height of 2 storeys matches the existing and emerging built context along William Lane, allowing for the podium forms to step down the hill following the topography.

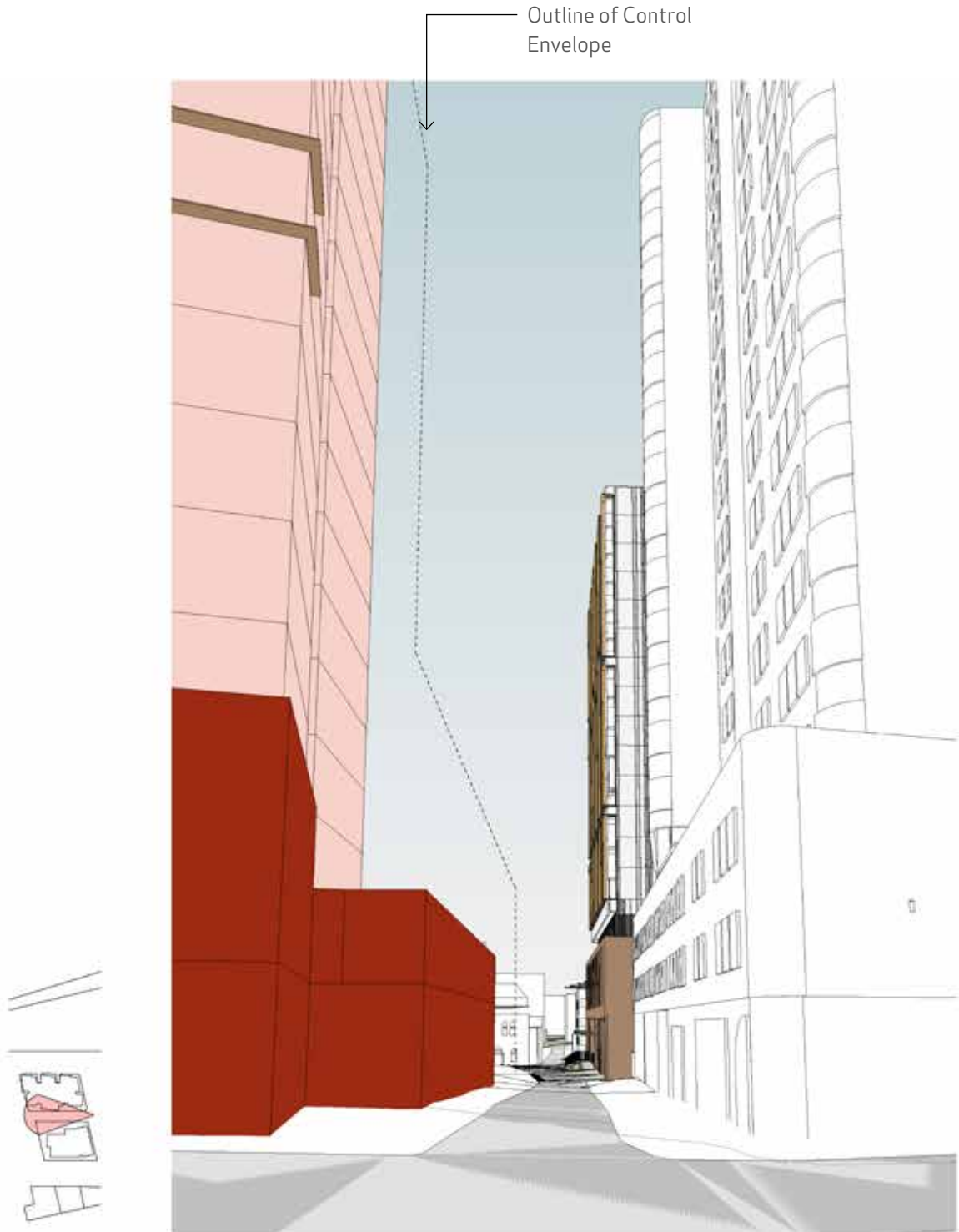
William Lane from North

Control Envelope

Proposed Envelope



2 Looking South down William Lane Complying



4 Looking South down William Lane Proposed

William Lane from South

- Control Envelope
- Proposed Envelope



03 URBAN DESIGN

SOLAR STUDY - CONTROL MASS IMPACT (116 REGENT STREET)
WINTER SOLSTICE

SOLAR AMENITY

Careful analysis of solar impact of our proposed development has been undertaken to assess the feasibility of surrounding developments, specifically the site south at 116 Regent Street.

The site shares similar development potential to 90-102 Regent and surrounding sites. As our site sits directly north of 116 Regent Street, we investigated the impact of solar amenity to the adjacent sites northern facade.

In our analysis, we tested the impacts of a control envelope, as well as the proposed mass. Our studies demonstrate that our development would allow very similar solar access and would have only marginal detriment to 116 Regent Street than would be of a control envelope's impact.

PLANNING

As the proposed building mass is shifted towards Regent Street compared to the control mass, it allows more solar access to the north facing apartments in 116 Regent Street, the through site link in 13-23 Gibbons Street and to William Lane.

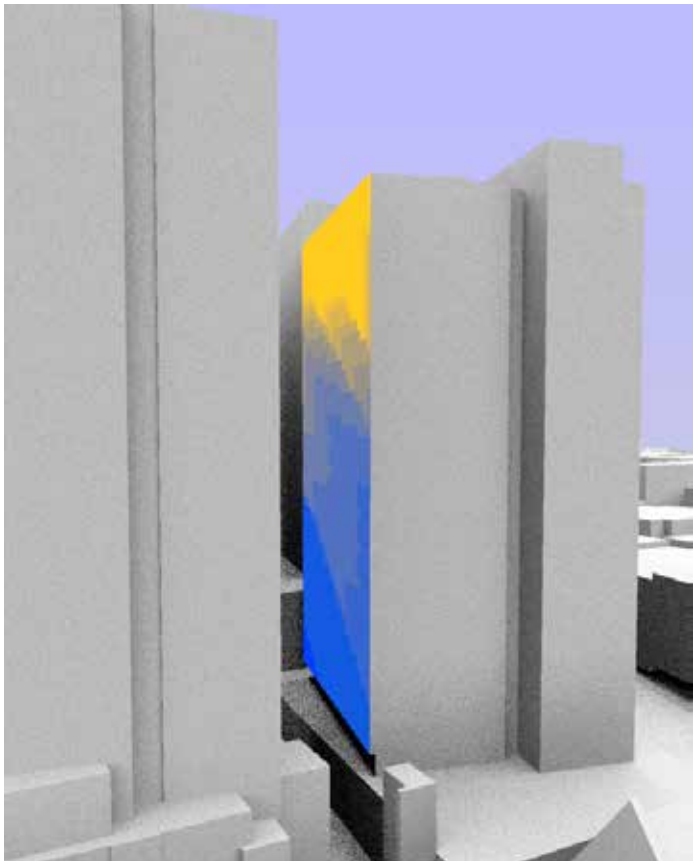
Additionally, we tested the potential of 116 Regent Street's planning through a high level test fit plan. See adjacent page. Our results show than 80% of the apartments are still able to achieve the necessary solar amenity prescribed under ADG guidelines (70%).

All apartments facing east would achieve the required ADG solar access, while north and west facing apartments on upper levels would achieve the required ADG solar access.

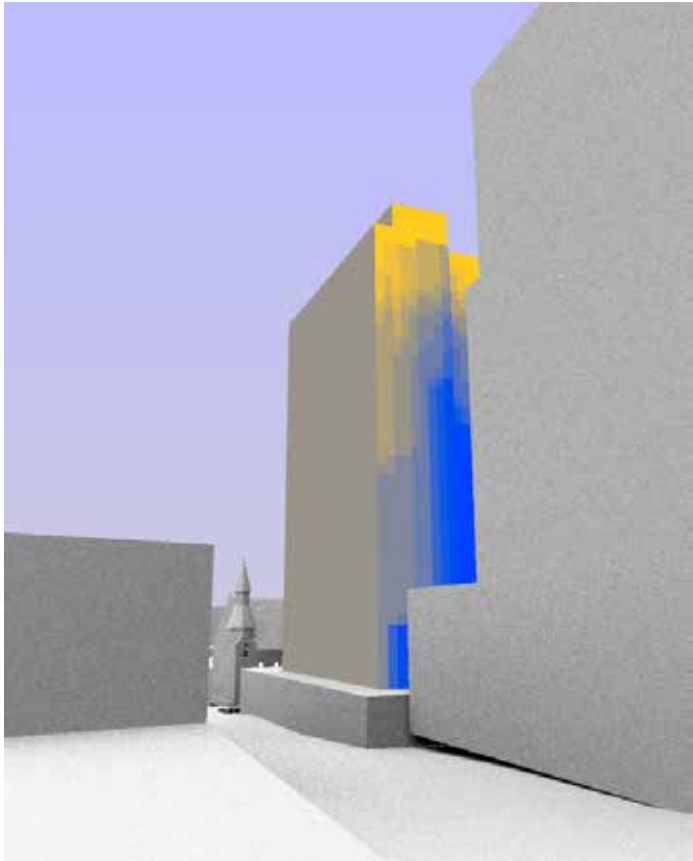
21 June - 9:00am - 3:00pm

Sunlight Hours Analysis

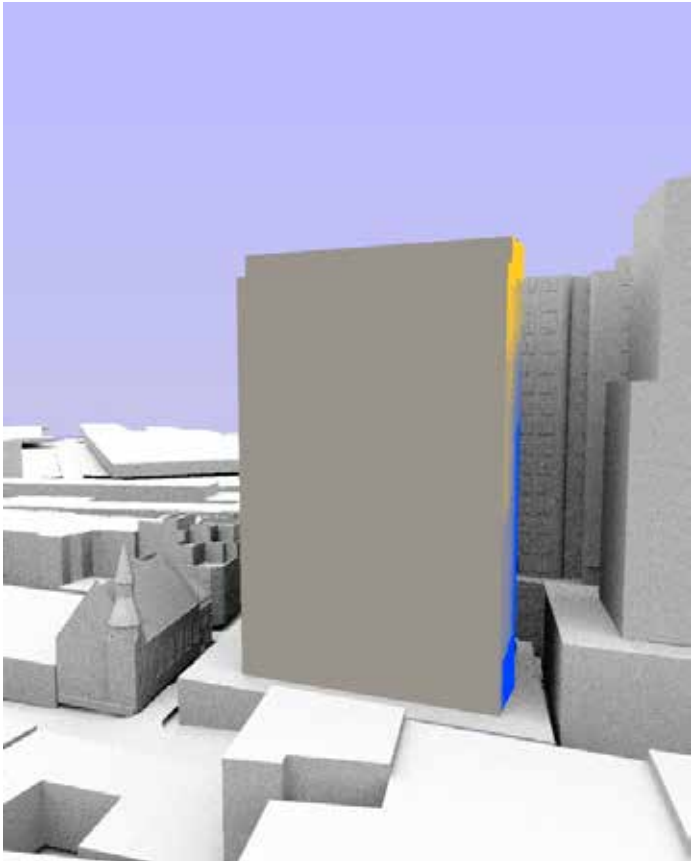
- Surface = More than 2 hours
- Surface = Between 0 and 2 hours
- Surface = 0 Hours



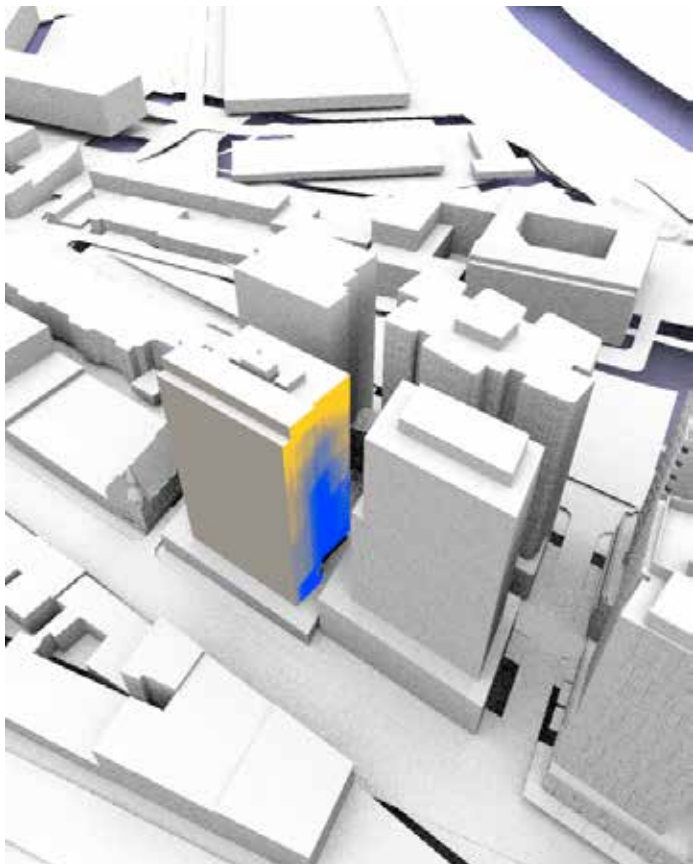
View of 116 Regent St from SW - looking at west facade



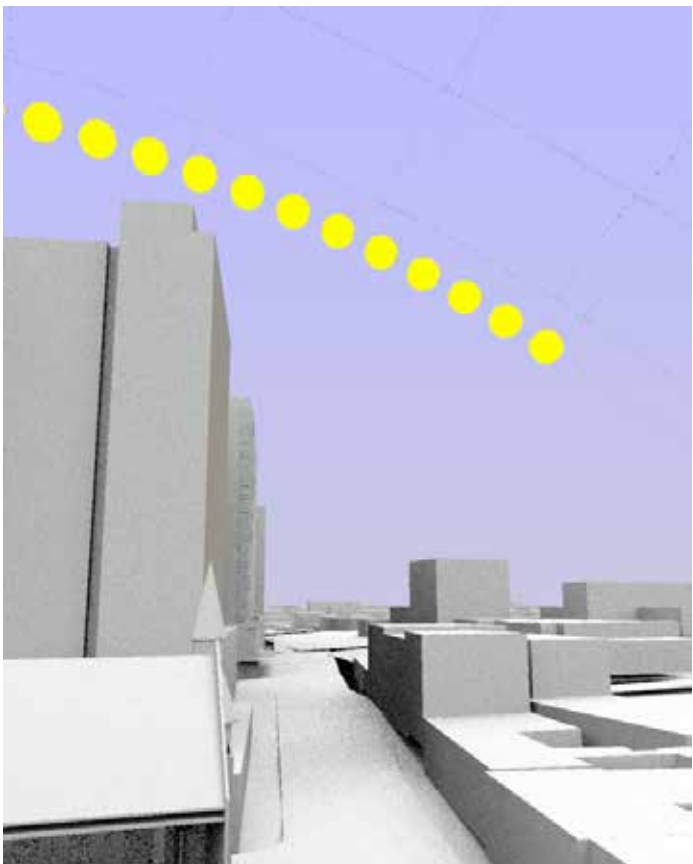
View of 116 Regent St from NE - looking at north facade



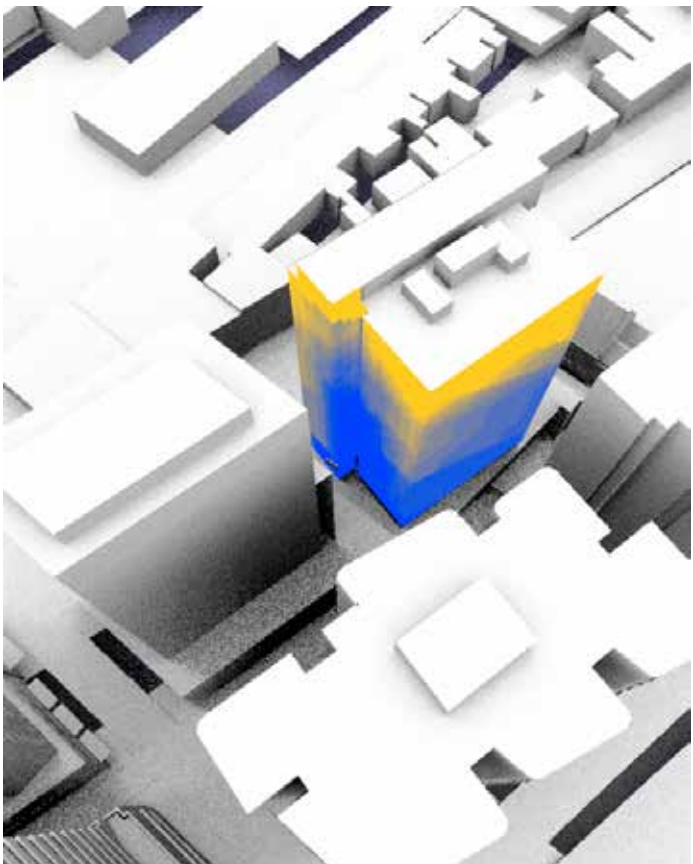
View of 116 Regent St from E - looking at east facade



View of 116 Regent St from NE - looking at north facade

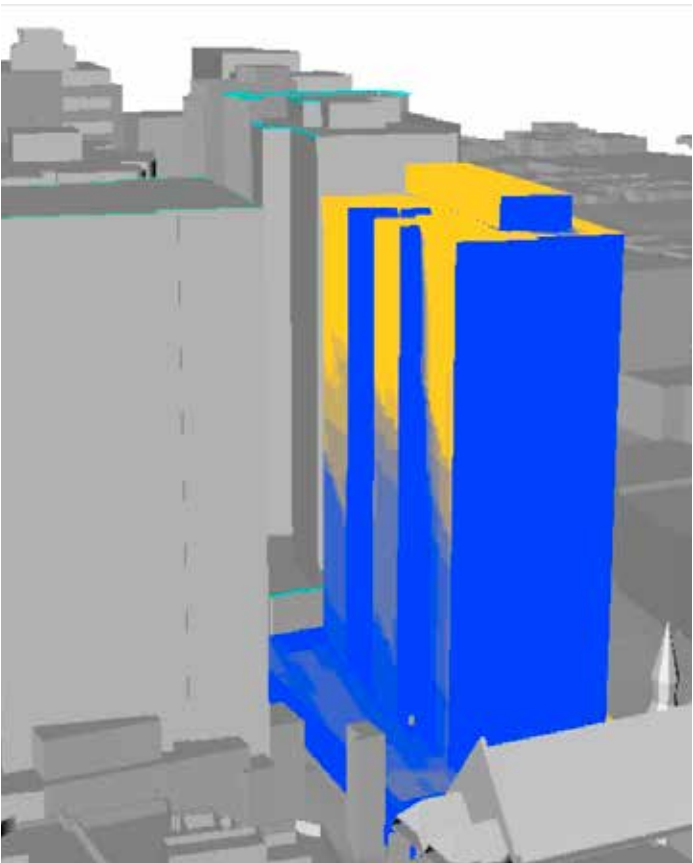


View of 116 Regent St from SE - looking at south facade

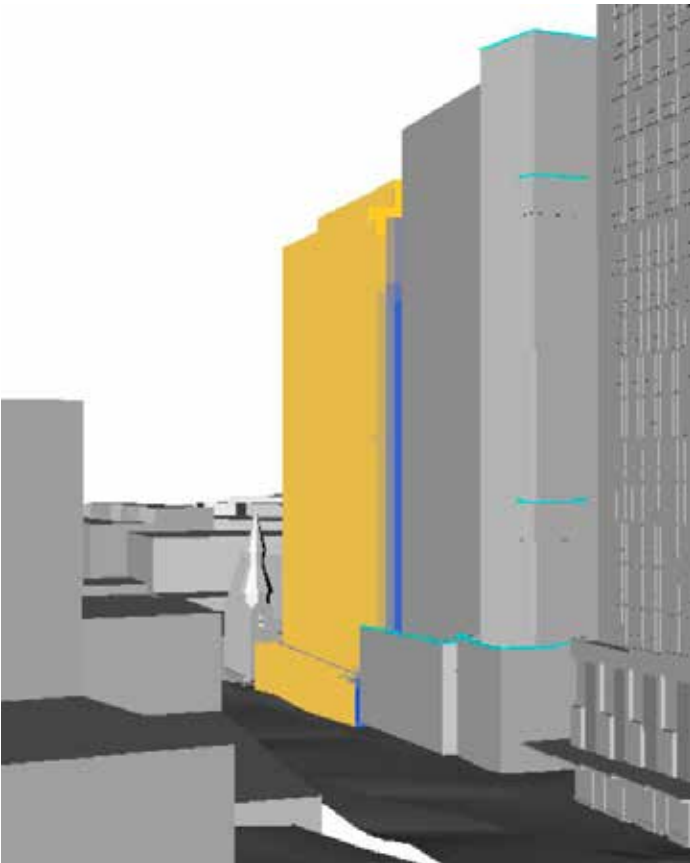


View of 116 Regent St from NW - looking at north & west facades

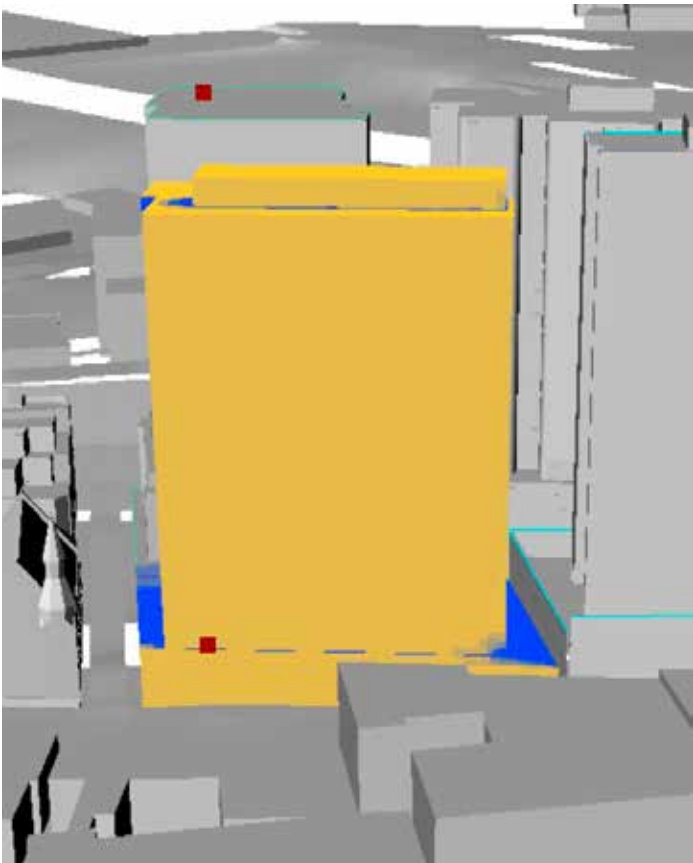
SOLAR STUDY - PROPOSED MASS IMPACT (116 REGENT ST)
WINTER SOLSTICE



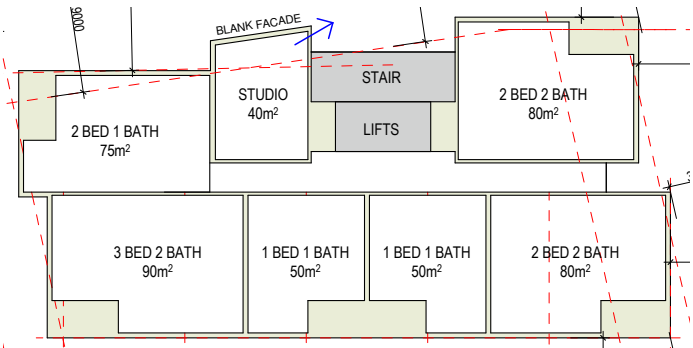
View of 116 Regent St from SW - looking at south & west facades



View of 116 Regent St from NE - looking at east & north facades



View of 116 Regent St from E - looking at east facade



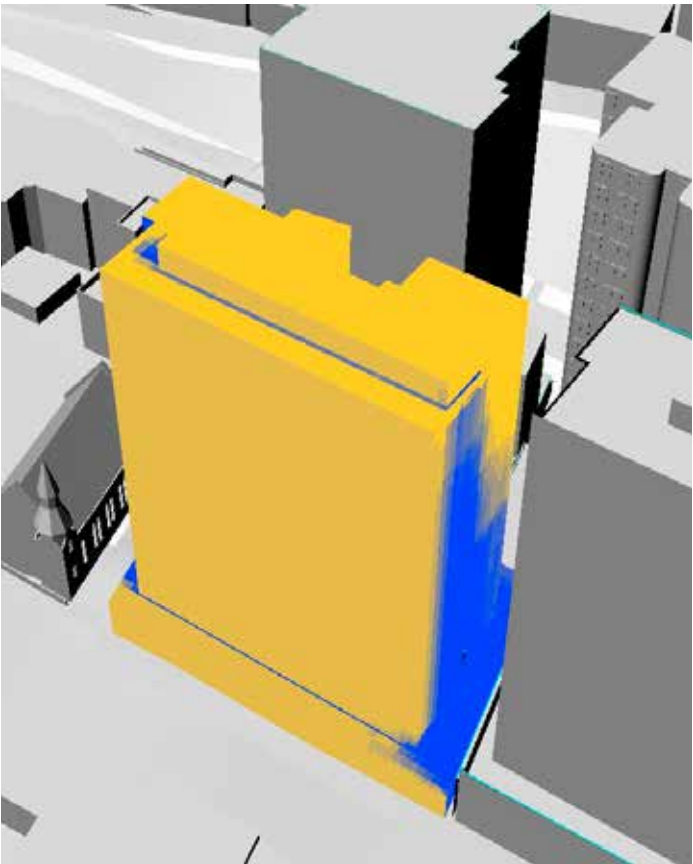
116 REGENT STREET ADG ANALYSIS

LEVEL	APARTMENT	SOLAR	X-VENT
L1(G)	7	5	5
L02	7	5	5
L03	7	5	5
L04	7	5	5
L05	7	5	5
L06	7	5	5
L07	7	5	5
L08	7	5	5
L09	7	5	5
L10	7	5	5
L11	7	5	5
L12	7	5	5
L13	7	5	5
L14	7	5	5
L15	7	5	5
L16	7	5	5
L17	7	5	5
L18	7	5	5
TOTAL	126	102	90
		81.0%	71.4%
REQUIRED		70%	60%

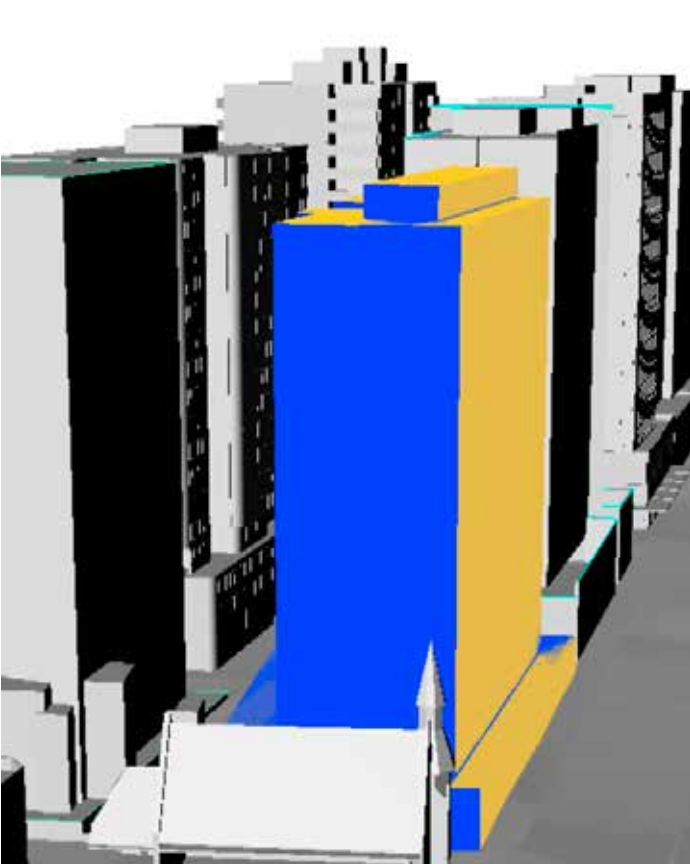
21 June - 9:00am - 3:00pm

Sunlight Hours Analysis

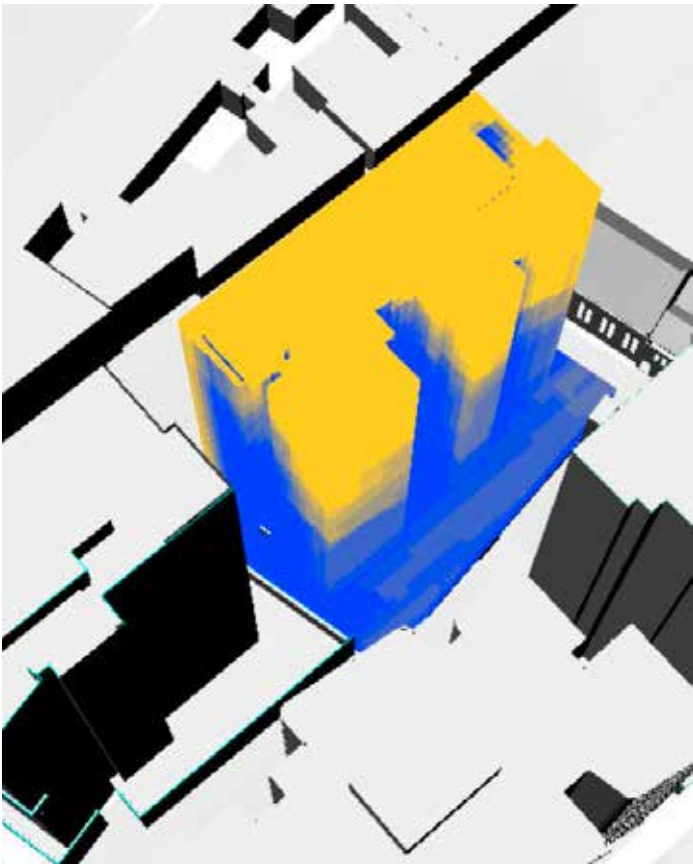
- Surface = More than 2 hours
- Surface = Between 0 and 2 hours
- Surface = 0 Hours



View of 116 Regent St from NE - looking at north & east facades



View of 116 Regent St from SE - looking at south & east facades



View of 116 Regent St from NW - looking at north & west facades

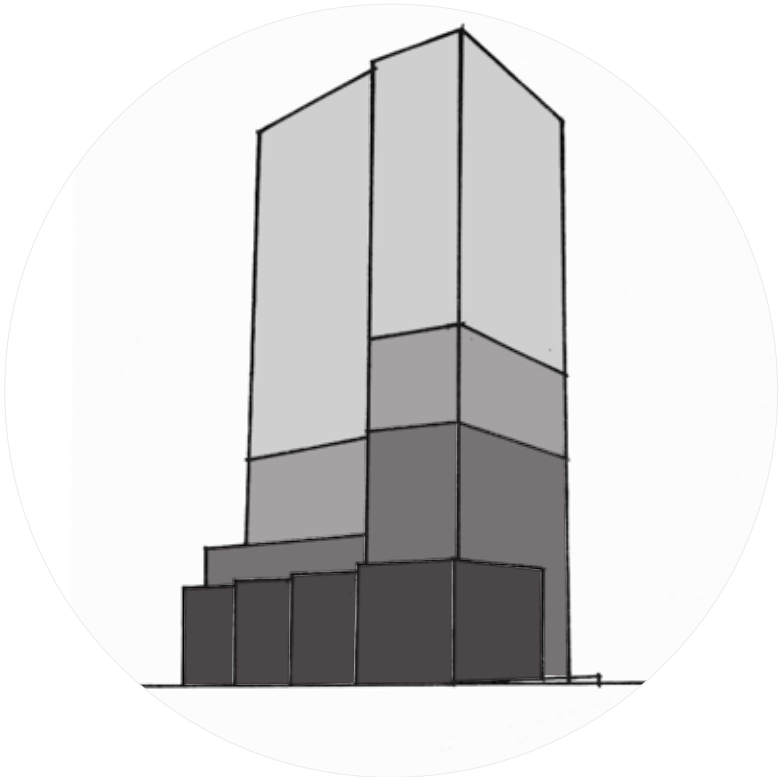
04 BUILDING DESIGN

DESIGN DIRECTIONS



VARIETY + ARTICULATION

- tower of towers



TRANSITION

- from podium to tower



REAPPROPRIATION

- repurpose the familiar



STREET ADDRESS

- podium as a continuation of the eclectic patchwork of Regent St



RESPONSIVE FACADE DESIGN

- responding to contextual environmental conditions



MATERIALS AND DETAILING

- considering context and high quality design

04 BUILDING DESIGN

04 BUILDING DESIGN

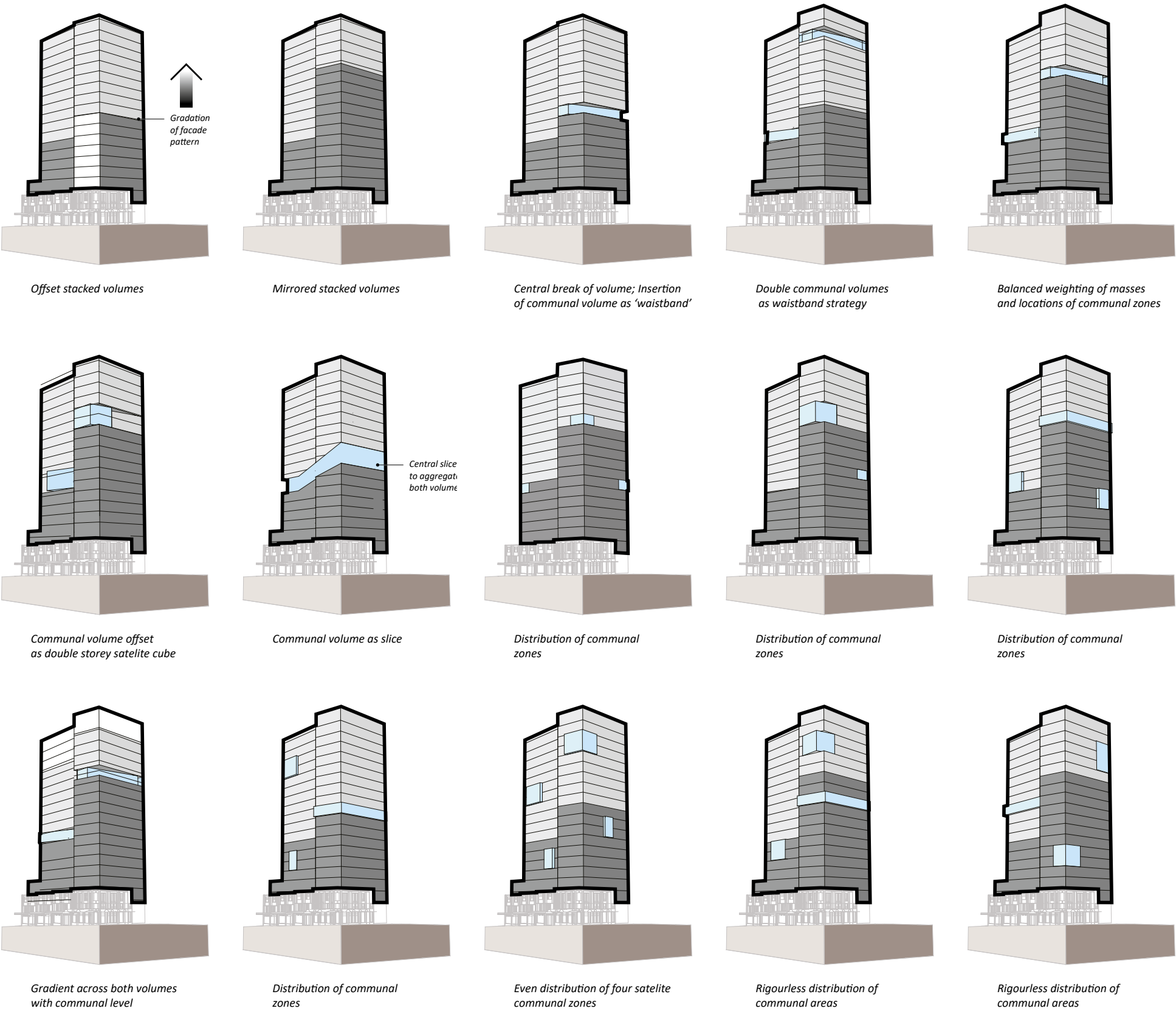
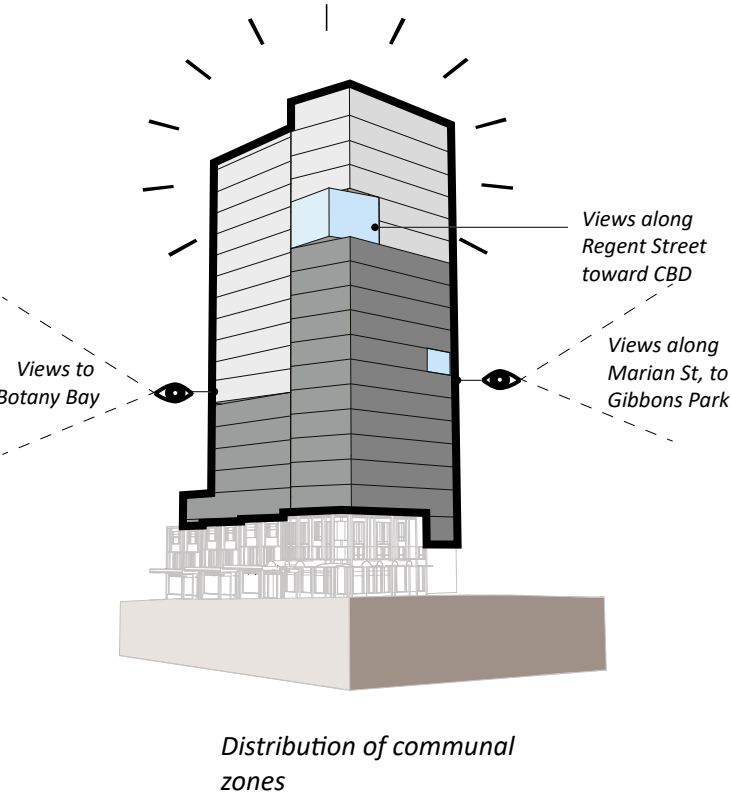
COMMUNAL SPACE DISTRIBUTION STRATEGY

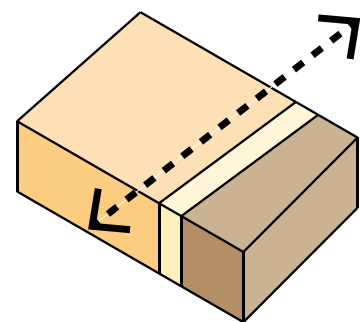
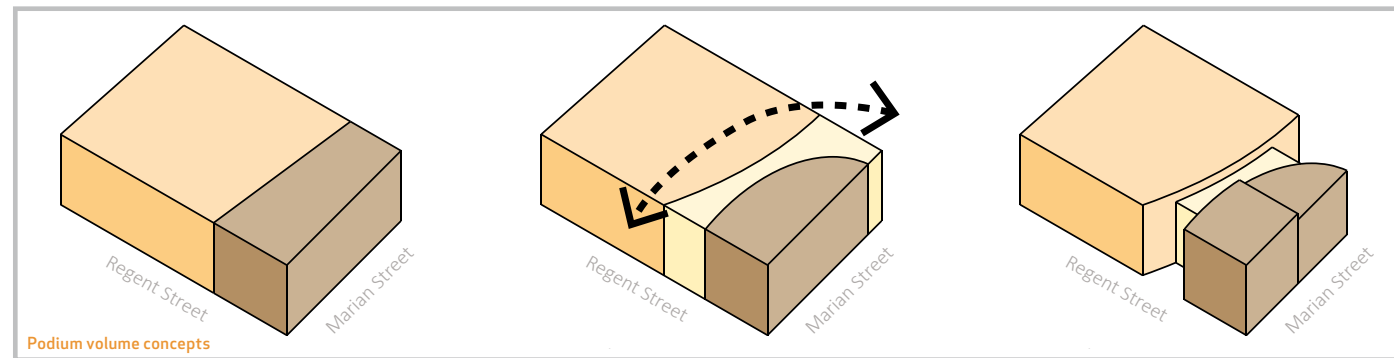
TOWER COMMUNAL SPACE DISTRIBUTION STRATEGY

Our study of communal space distribution focused on (1) Access from each level of the building, (2) Key vantage points from the site, as well as (3) Size and differentiation of the spaces.

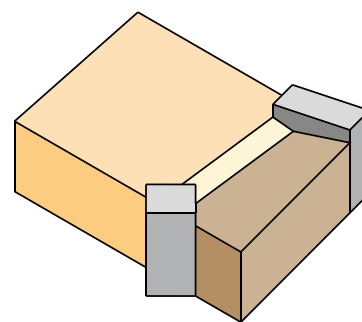
From the communal spaces at ground and mezzanine level, we sought to offer community spaces in the ‘lower-middle’ portion of the tower along Marian Street, as well as the ‘upper-middle’ portion of the tower at the corner of Regent street and Marian Streets.

The upper level takes advantage of views back up Regent street towards Sydney CBD, while the Marian street space offers views towards the future earmarked corridor looking west towards future train station amenities and the University of Sydney beyond.

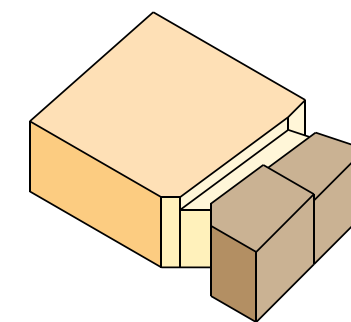
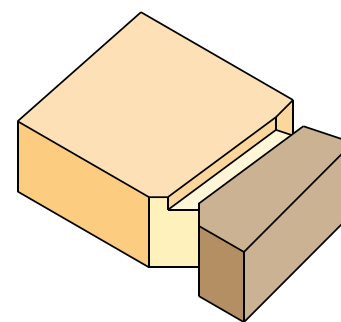




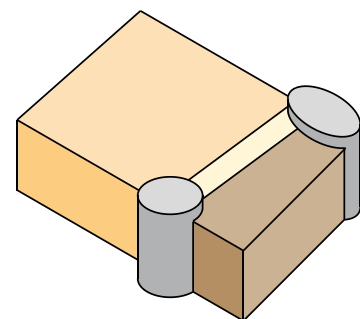
Volume split



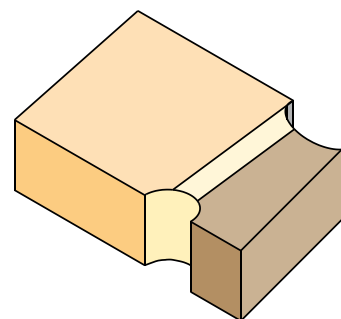
Unorthogonal cut-outs



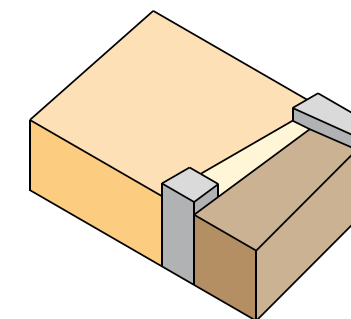
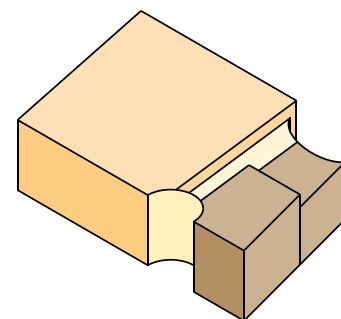
Stepped corner volume



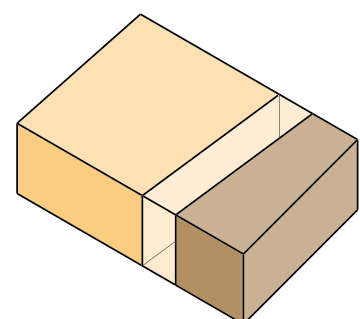
Circular cut-outs



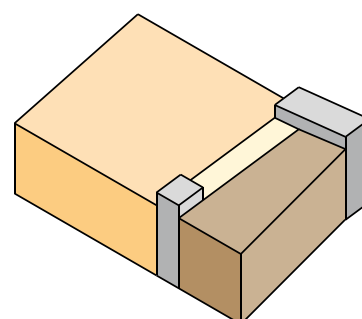
Welcoming curve



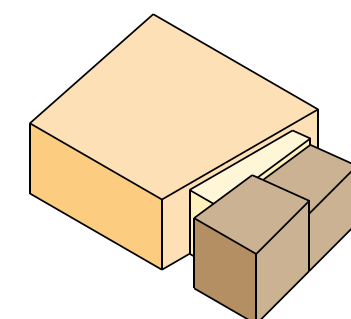
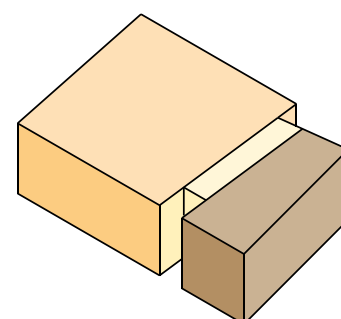
Orthogonal cut-outs



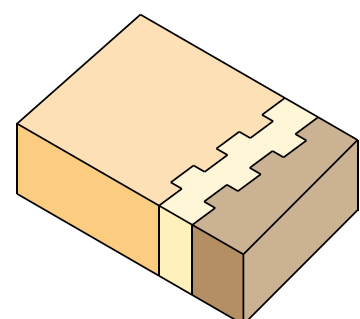
Overlapping (venn diagram)



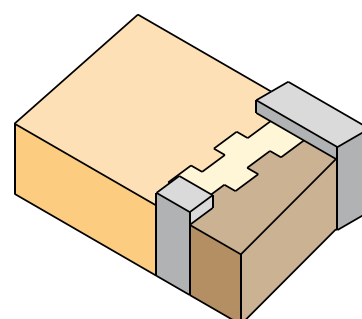
Orthogonal cut-outs



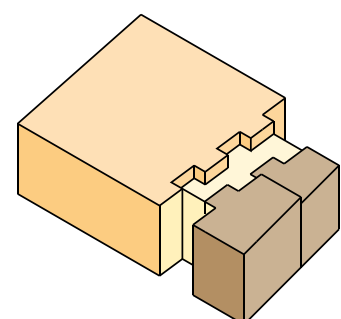
Wedge shaped 'internal street'



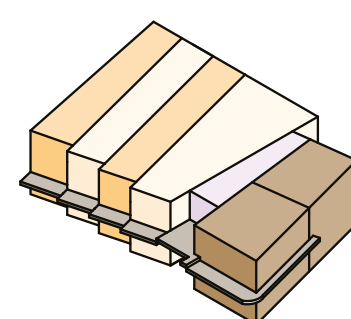
Interlocking 'internal street'



Orthogonal cut-outs



Stepped corner volume

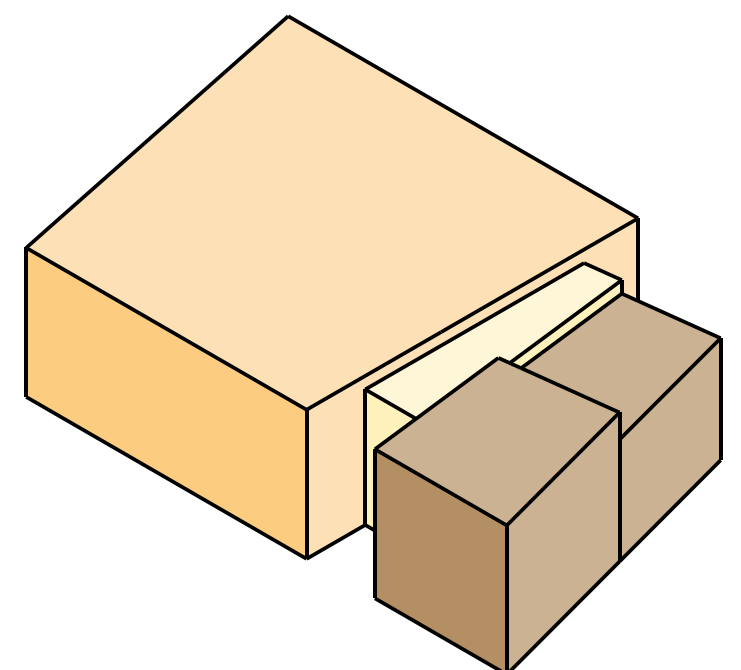


PODIUM

The study of the podium zones focused on distilling the mass into it's distinct elements: (1) The Shop fronts, (2) The Pub, (3) The Entrances, which form the (4) Internal Street.

The diagram series sought to experiment with each element, starting with an understanding of the 2 dominant masses, the 'split', various iterations on the spatial arrangements of the entrance, and subsequently how the user experiences the 'Internal Street'.

We arrived at an arrangement that references the historical plots on the site, demarcating the primary Regent Street entrance over the William Lane entrance, which formed our 'wedge' shaped street splitting each volume



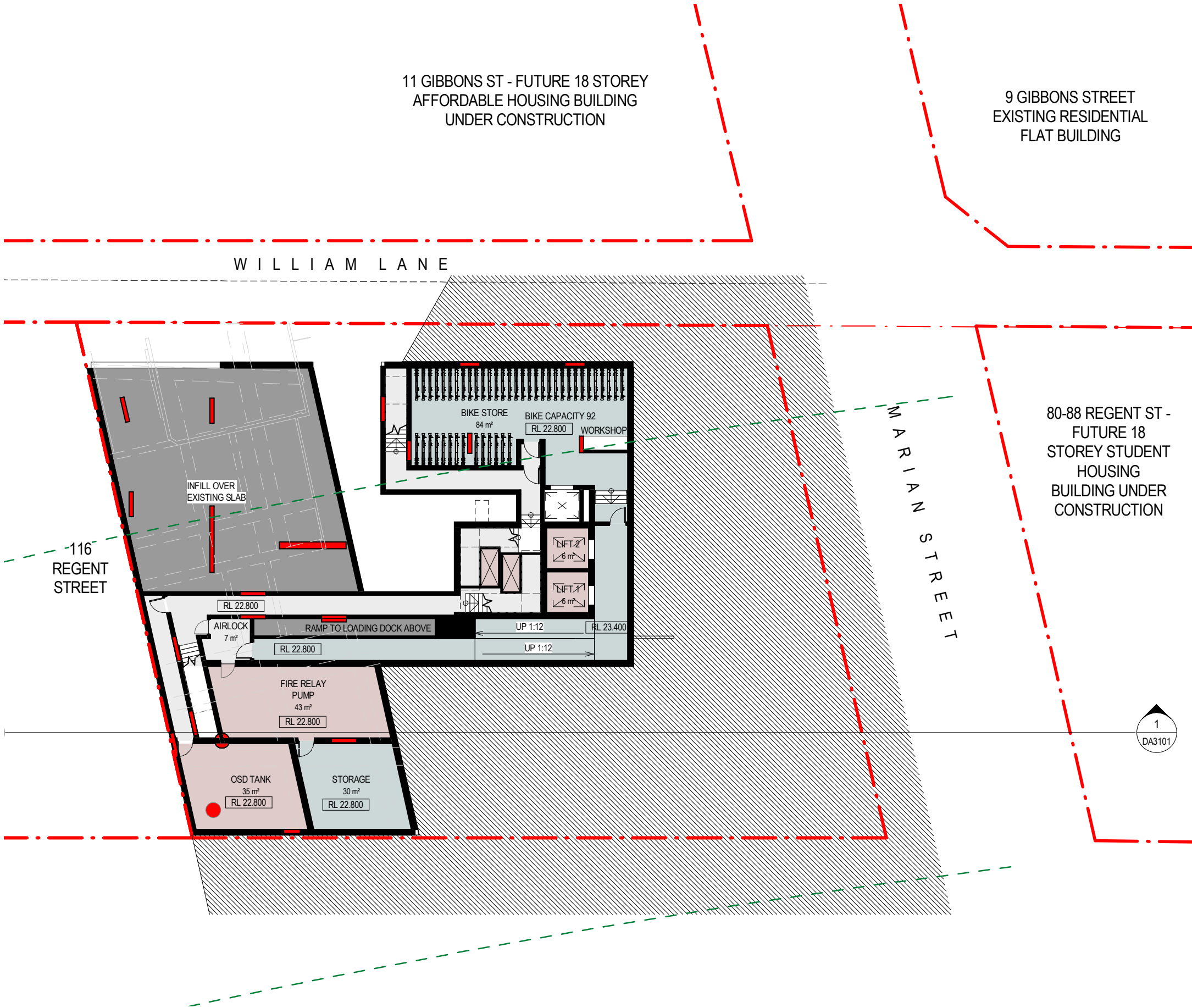
Wedge shaped 'internal street'

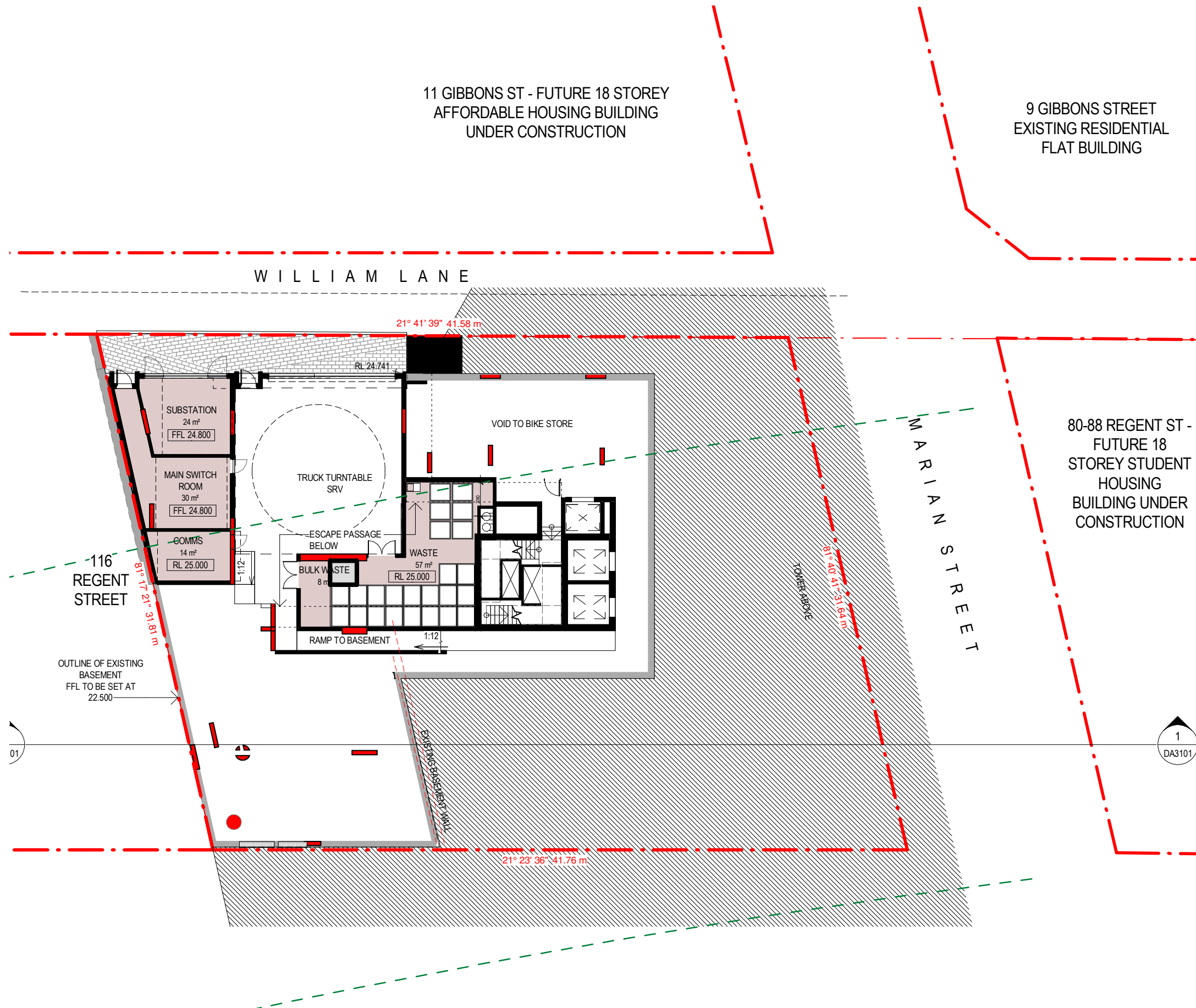
04 BUILDING DESIGN

PLAN - BASEMENT LEVEL

The existing single level basement and retaining wall to the southern boundary is largely retained and used for services and store rooms.

An additional area of basement is proposed to provide the balance of bicycle parking and lift access to the loading dock via a ramp to allow efficient and convenient servicing of the building.





A 2m wide footpath is proposed to William Lane to create a pedestrian friendly street and provide adequate building separations to the residential apartments at 11 Gibbons Street.

Service areas have been minimised as much as possible to promote an active street front and enhance security and visual surveillance of the public realm.

A compact truck turntable is proposed to ensure that vehicle movements across the William Lane footpath are forward in, forward out to ensure pedestrian safety. The turntable proposal also minimises the amount of space on the ground floor devoted to vehicle maneuvering to deliver more communal and retail space.

The student accommodation basement lift lobby and back of house service areas have direct ramped access to the loading dock for ease of servicing.

04 BUILDING DESIGN

PLAN - GROUND LEVEL

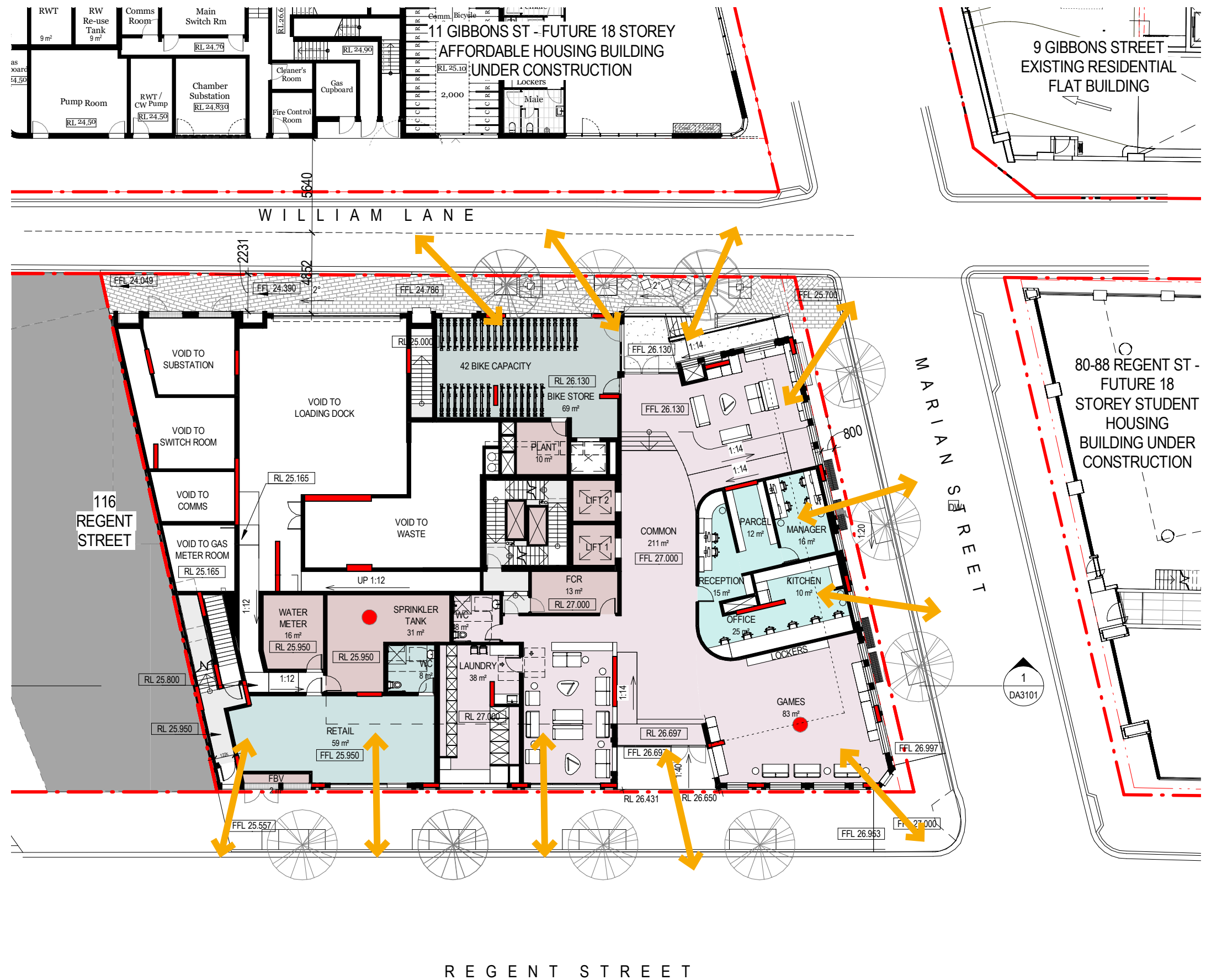
The ground floor has entry lobbies, retail spaces and communal active uses to 78% of the three street frontages to help activate and provide passive surveillance of the public realm.

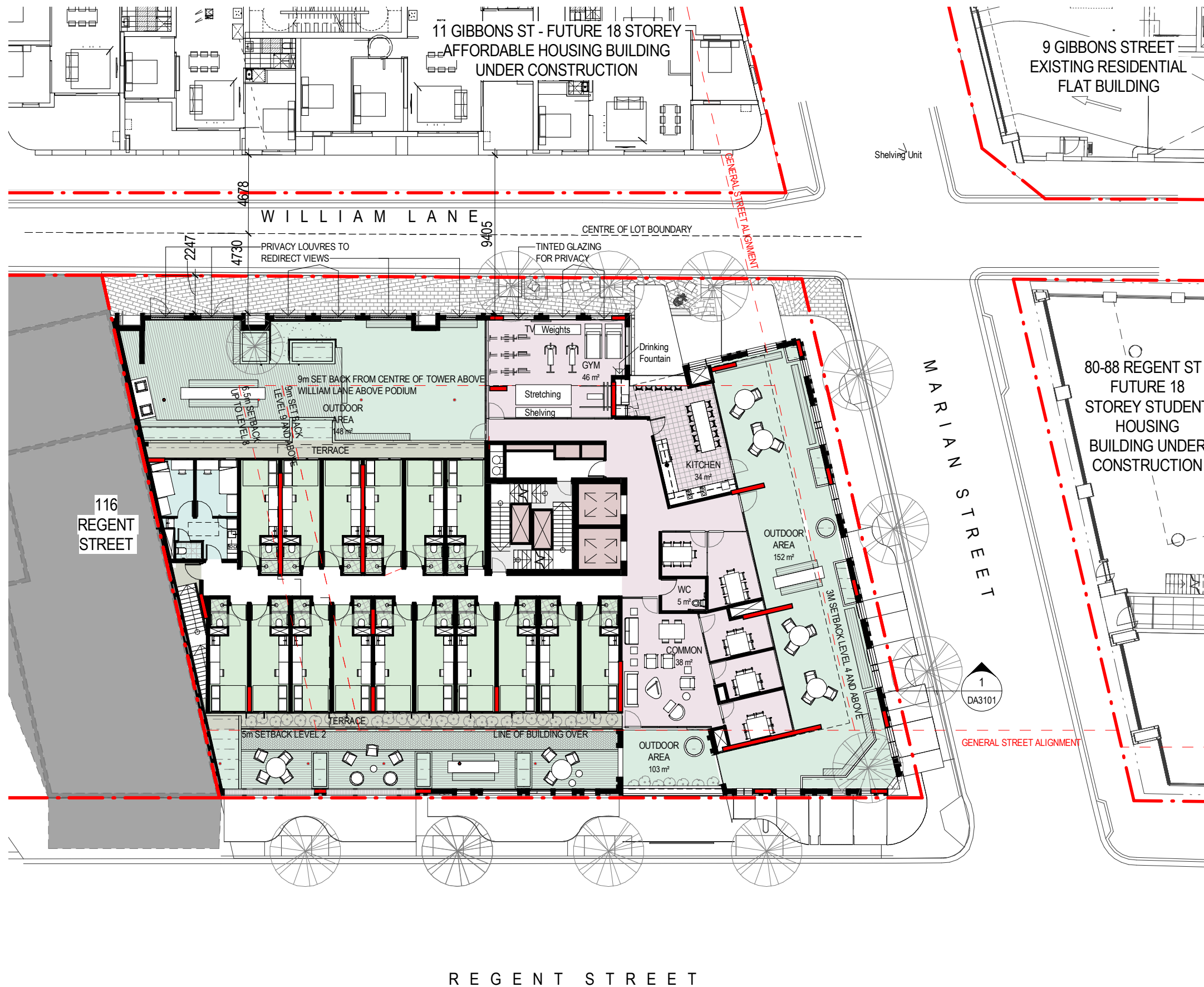
There are two public entries to the building; one facing west which will serve the desire line to Redfern Station and Sydney University beyond, and one on Regent Street which will connect to the shops and services of Redfern.

The two entries are connected by an internal street flanked by communal spaces with the office and reception in the middle opposite the lifts to visually control access to the rest of the building. This creates an open, welcoming feel while ensuring resident security.

The bike hub is located in a prominent position on William Lane, which is a developing pedestrian and cycle link through the suburb, to promote and facilitate active transport.

The retail space and student accommodation back of house service areas have direct ramped access to the loading dock for ease of servicing.





Level 2 includes some bedrooms and further communal spaces connected to the communal outdoor spaces.

The outdoor spaces are screened behind the podium parapet to provide visual privacy from the street and wind protection.

The eastern and northern outdoor spaces benefit from good solar access year round, while the western terrace has less solar access and offers an alternative well shaded space such as during hot summer days.

Planting and landscaping provide visual buffers between the bedrooms and the eastern and western outdoor spaces, with time management of the paces ensuring privacy to the bedrooms.

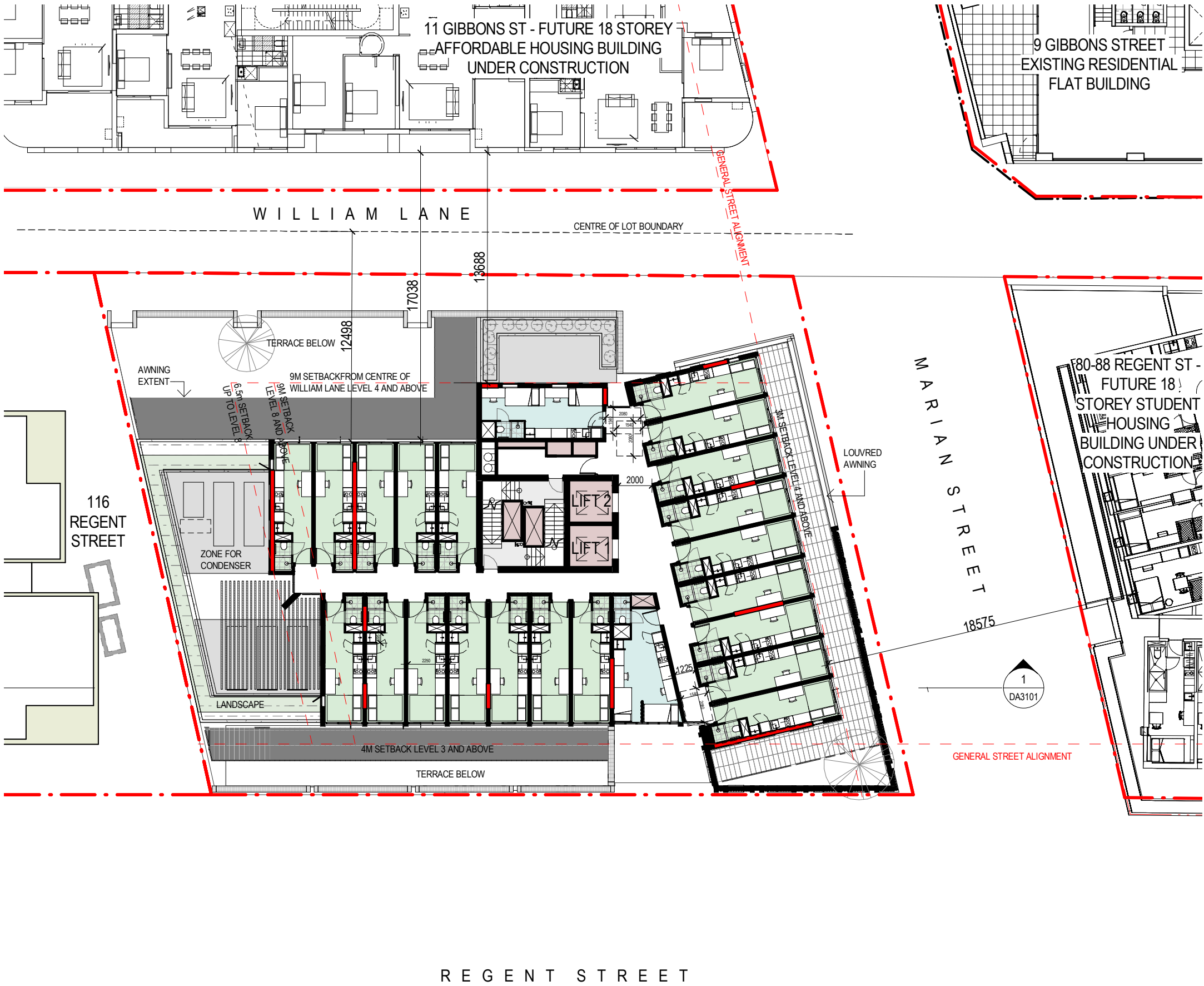
Refer to the landscape section for further detail.

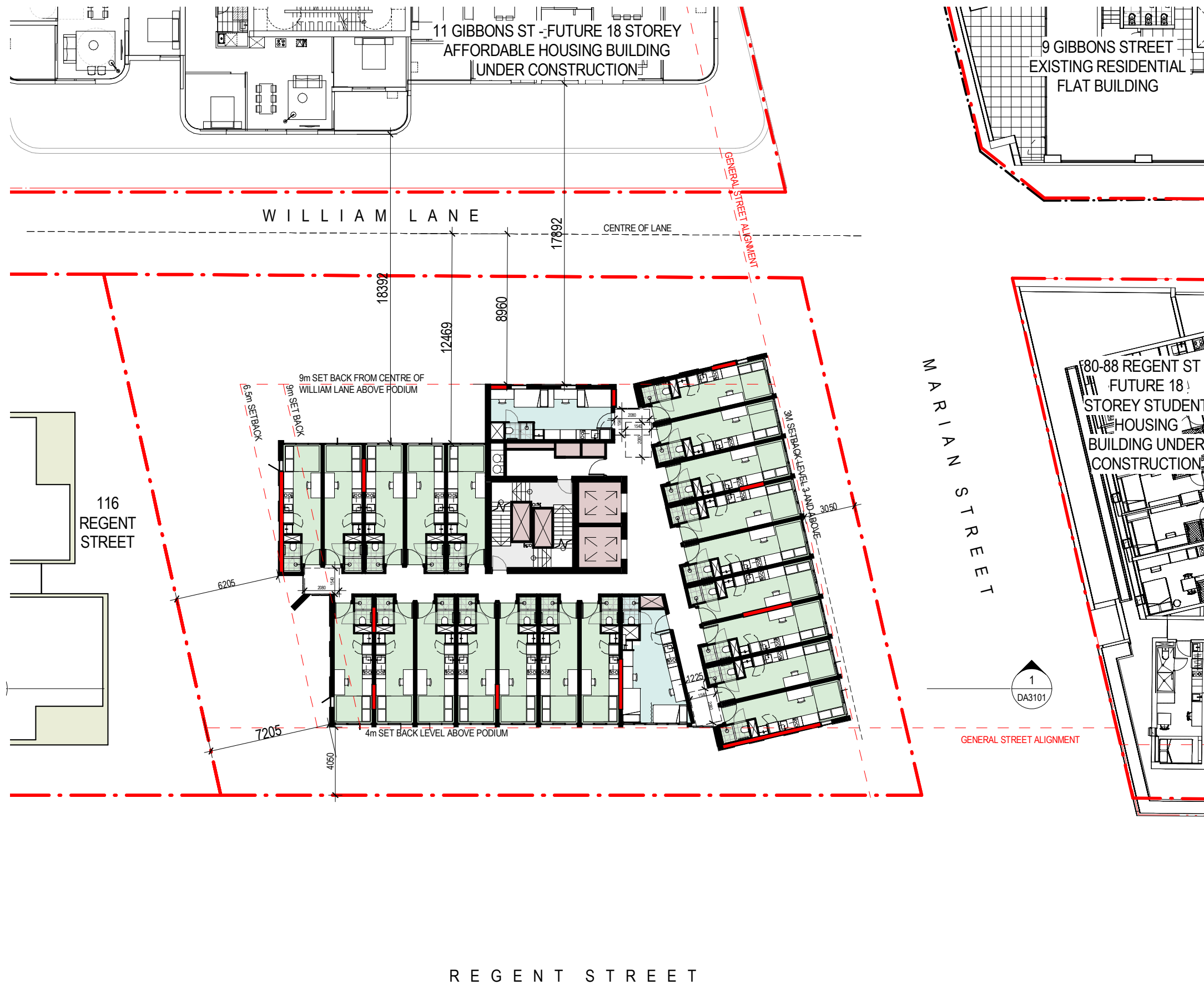
04 BUILDING DESIGN

PLAN - LEVEL 3

The Level 3 plan will begin the lower typical floor plan. With the roof to the south over the extended Level 2 SOUs, there will be some dedicated plant spaces, well hidden with a perimeter planting bed and a pergola structure above.

Similarly above the western, eastern and norther terraces, there are proposed pergola structures , which help to ameliorate downdraft winds from the tower. These have been considered thoroughly and will be sympathetic to the architecture of the tower and podium.





The typical tower levels maintain the predominant existing setback lines to Regent and Marian Streets, and set back from William Lane to deliver the 18m building separation required in the Redfern Urban Design Guidelines and ensure adequate visual privacy between the bedrooms and the apartments in 11 Gibbons Street.

The angled northern block marks the corner of Regent and Marian Streets with a reduced setback, consistent with the existing and emerging pattern of variable tower setbacks to Regent Street.

The bedrooms face north, east or west to maximise solar access and views, while the southern facade is largely blank to preserve visual privacy to a future building on the site.

Circulation spaces have windows for natural light and views

04 BUILDING DESIGN

PLAN - LEVEL 9 COMMON ROOM

Common rooms are located at mid levels on the north east and north west corners.

These look out over Redfern to the east and back towards Redfern Station to the west, forming visual markers and features in the facade design.

Each common room is a 2x typical module wide, allowing for adequate space for lounge and study areas for students.

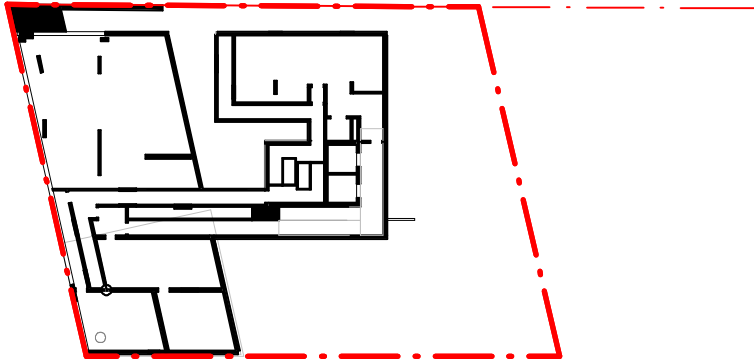




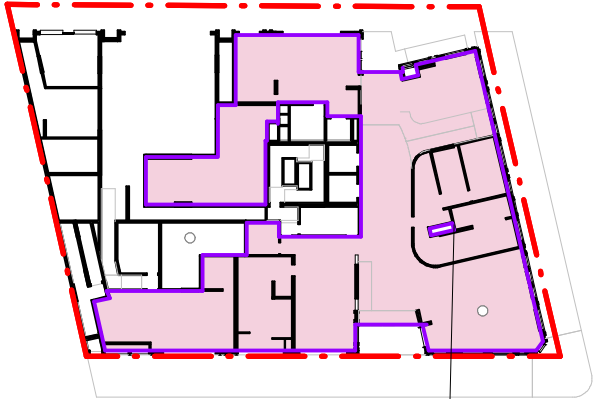
04 BUILDING DESIGN

PLAN - UPPER TYPICAL, L13-18





6 BASEMENT 1 : 500



Area
638 m²

1 LEVEL 1 (GROUND) 1 : 500

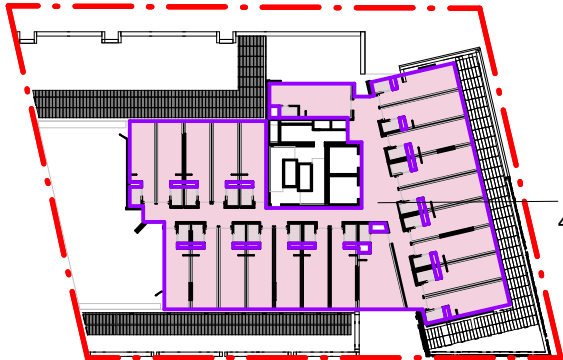


Area
541 m²

2 LEVEL 2 1 : 500

GFA

Level	Area (m²)
Basement	0
Ground (Level 1)	571
Level 2	541
Level 3	489
Level 4	489
Level 5	489
Level 6	489
Level 7	489
Level 8	489
Level 9	492
Level 10	489
Level 11	489
Level 12	489
Level 13	490
Level 14	490
Level 15	493
Level 16	490
Level 17	490
Level 18	490
Total	9,015
FSR	7:1



Area
489 m²

3 LOWER TYPICAL 1 : 500



Area
490 m²

4 UPPER TYPICAL 1 : 500



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 students to gather and socialise 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 'nooks', exposed views and hidden retreats etc.
- + Seating and gathering places next to the Marian St entry which is on the main desire line to Sydney Uni and Redfern Station.

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.



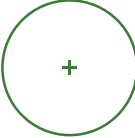
05 LANDSCAPE DESIGN

LANDSCAPE - GROUND LEVEL

KEY

- 1. William Lane entry and breakout space. Sandstone seating blocks under new trees & edge seating beside staircase.
- 2. Regent St entry. Gently sloped walkway between street footpath and entry.
- 3. Bench seating along Marian St against external facade to activate street edge.
- 4. William Lane to connect to Margaret St through 13-23 Gibbonst St's through site-link.

Tree Strategy

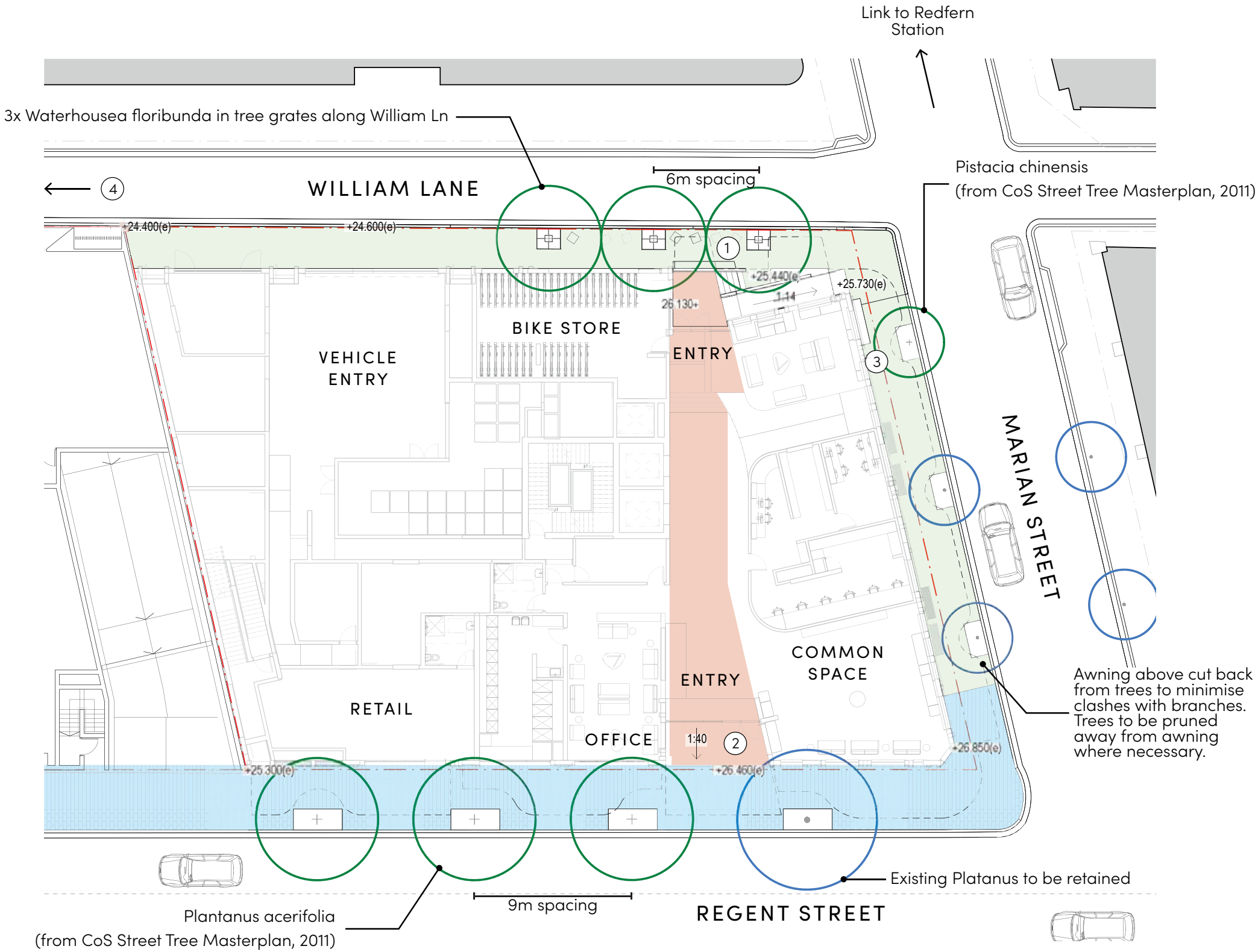
-  Existing Trees to be retained
-  Proposed Trees

Paving Strategy

-  Concrete unit paving (Council's Street Design Code)
-  In-situ concrete paving (Council's Street Design Code)
-  Internal Street connection (refer arch drawings)

NOTE

All tree grates in accord with CoS standards (William Lane).
All building entrances to meet existing street levels.





William Lane Entrance



Activated Entrance with Seating and Planting

LEVEL 2 | LANDSCAPE PLAN

KEY

- 1. Outdoor Cinema with informal beanbag seating.
- 2. Alfresco amenity including BBQ, long communal table, variety of seating opportunities on a raised timber deck.
- 3. Adaptable open space, astro-turf & concrete perimeter paving.
- 4. Raised planter with climbing wires as barrier providing visual privacy between private rooms and communal terrace. See section on pg.11 for details.
- 5. Seating and outdoor studying opportunities with views over Marian St.
- 6. Eastern Terrace, with recessed seating offerings and low free standing planter boxes.
- 7. Raised planted edge providing visual privacy between private rooms and communal terrace.

 Timber Decking

 Concrete finish

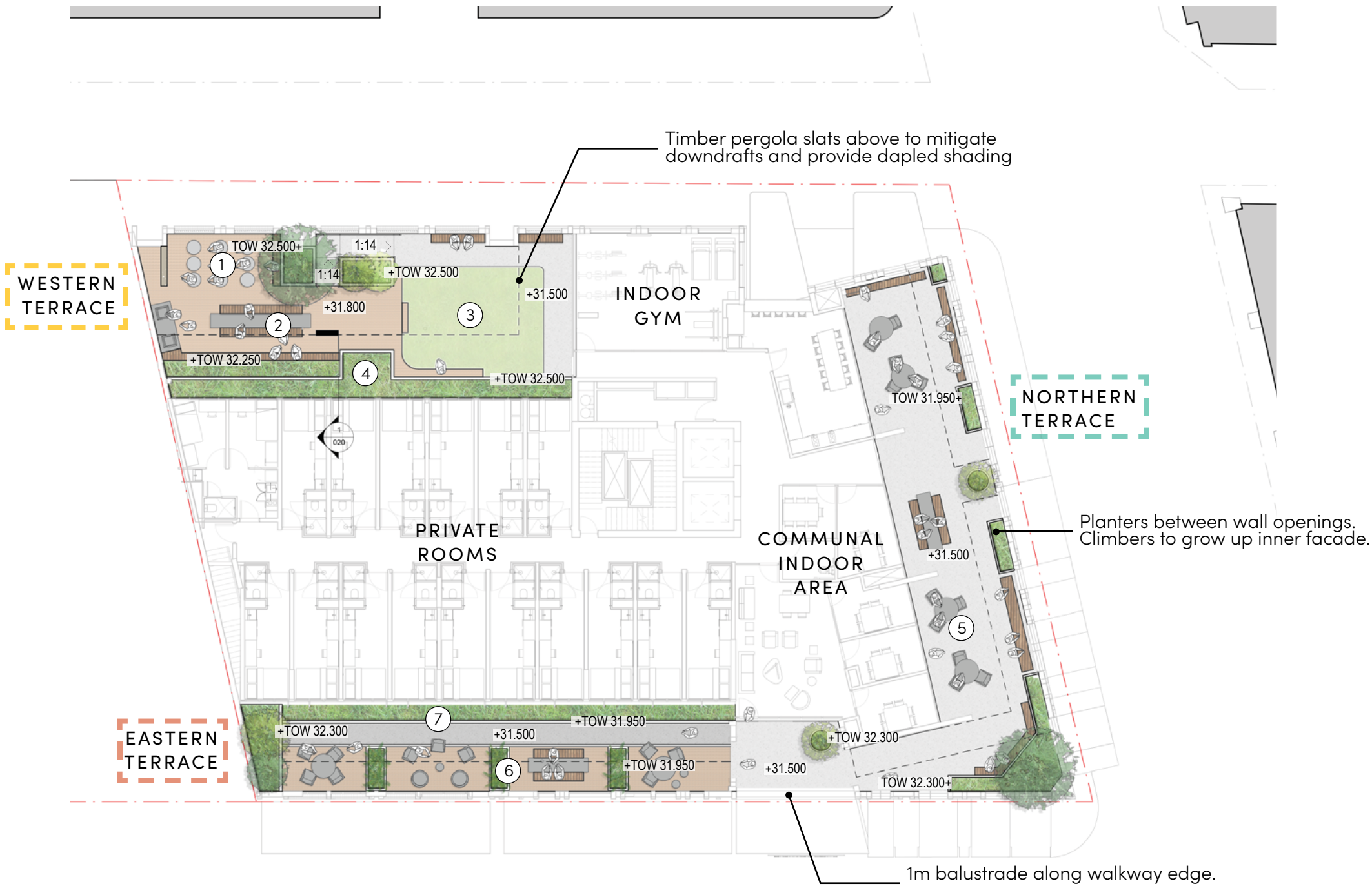
 Paved banding

 Astroturf lawn

 Planting

NOTE

Designed in collaboration with Turf



1:250@A3 N

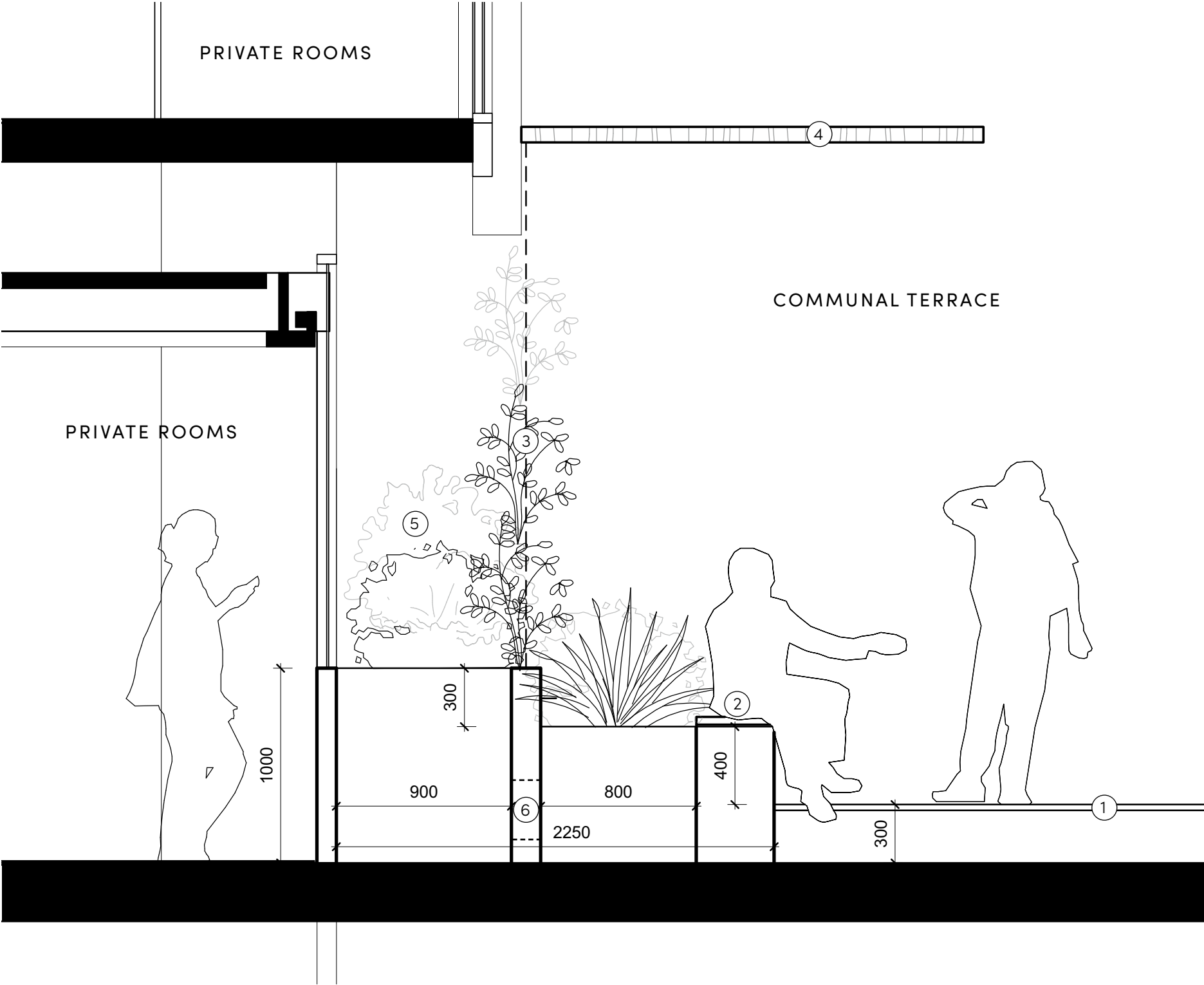
LEVEL 2 | PLANTING BUFFER SECTION

KEY

- 1. Raised timber deck.
- 2. Seating edge to lower planter
- 3. Climbers to grow up wires to increase visual privacy for internal rooms.
- 4. Awning protecting outdoor spaces from downdraft winds.
- 5. Plants give green outlook from internal rooms & act as visual barrier.
- 6. Cut-outs through retaining wall for shared root volume between planters.

VISUAL AND ACOUSTIC PRIVACY

While common amenity areas are planned adjacent Level 2 SOUs, we have provided an extensive planting zone to mitigate visual privacy concerns. Further, the western and eastern terrace are also time operated to provide to allow residents along these terraces to enjoy similar levels of privacy after hours. Our acoustic report shows that residents will not be adversely affected by noise from the terraces, within certain reasonable capacity limits.



NOTE

Refer page 14 for location of section cut.

Designed in collaboration with Turf

1:250@A3

05 LANDSCAPE DESIGN

LANDSCAPE - LEVEL 2



Level 2 Western Terrace



Adaptable space at L2 Western Terrace



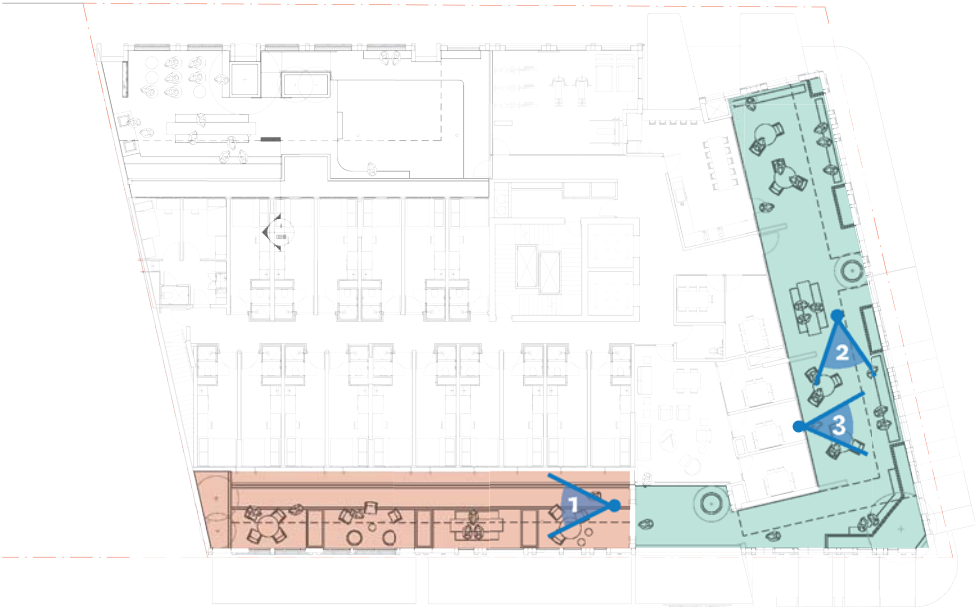
Designed in collaboration with Turf



Level 2 Eastern Terrace



Level 2 Northern Terrace



Designed in collaboration with Turf

05 LANDSCAPE DESIGN

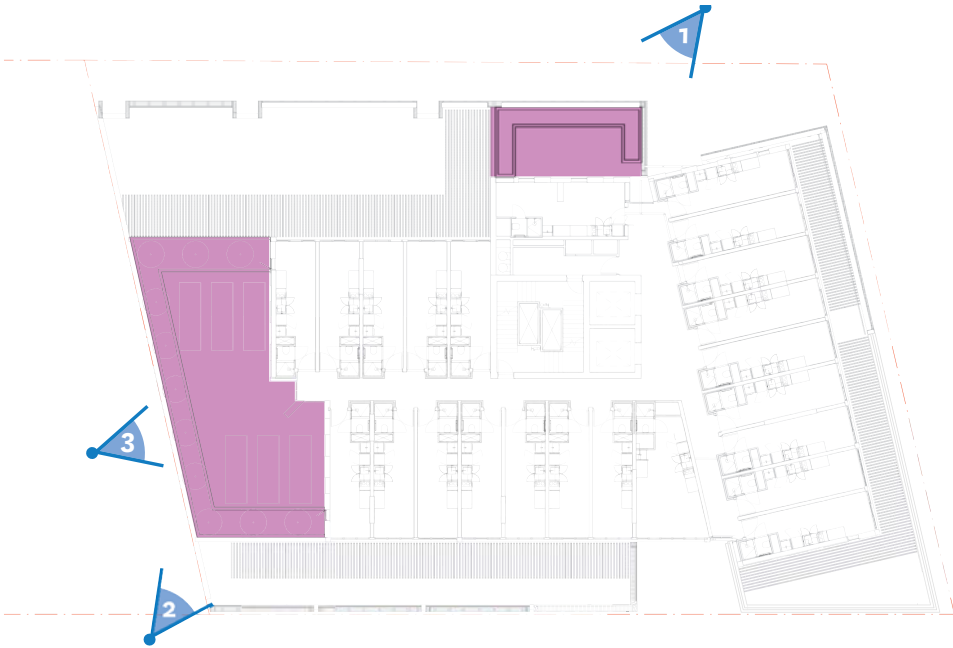
LANDSCAPE - LEVEL 3



Level 3 Western Rooftop Planting



Level 3 Southern Rooftop Planting



ABORIGINAL CULTURAL HERITAGE ASSESSMENT

The Aboriginal Cultural Heritage Assessment (ACHAR) that accompanies this SSDA will:

- + provide an assessment of the archaeological and cultural significance of the site,
- + describe background information obtained from Aboriginal Heritage Information System searches
- + include a summary of relevant legislation
- + involve a site visit with the Metropolitan Local Aboriginal Land Council
- + undertake consultation with the Registered Aboriginal Parties, and
- + propose mitigation measures and recommendations as to whether further assessments (e.g. archaeological test excavations) and approvals are required.

Refer to ACHAR accompanying the SSDA

HERITAGE ASSESSMENT

The Statement of Heritage Impact (SOHI) that accompanies this SSDA identifies:

- + heritage and archaeological constraints/considerations for the proposed development site
- + provide an impact assessment in relation to historical heritage and archaeology, and
- + provide advice on designs and recommendations for mitigation measures.

Refer to Statement of Heritage Impact accompanying the SSDA

HERITAGE INTERPRETATION STRATEGY

Based on the findings and recommendations in the ACHAR and the SOHI, a Heritage Interpretation Strategy has been developed for Aboriginal and non-Aboriginal heritage elements.

The strategy will identify key themes and suggested elements/methods of interpretation, this could include a combination of several items including: public art elements, wall features, landscape elements, installations or interpretive panels.

Consultation with the Aboriginal community and with the Registered Aboriginal Parties is a key part of this process. A Heritage interpretation Strategy would be likely to recommend the engagement of an Aboriginal artist/designer, who has links to the area, to work with the architects to integrate Aboriginal cultural values within the project's design. As possible artist that has worked in the area and consulted with local community groups is Nicole Monks.

Refer to Statement of Heritage Impact accompanying the SSDA

ARTIST

Award-winning artist, Nicole Monks (b. 1981, Subiaco WA) is an artist of Yamatji Wajarri, Dutch and English heritage who lives and practices in Redfern. Monks' work is transdisciplinary, combining art and design across varied media. She also works as a collaborative artist and is the founder of blackandwhite creative.

I combine the past, present and future into all my work.

Nicole Monks



WANGGAJIMANHA (TALKING TOGETHER) - NICOLE MONKS' CONCEPT FOR THE NEIGHBOURING DEVELOPMENT AT 13-23 GIBBONS STREET

"The external and internal work would use words as a way of storytelling, and possibly include local language words. This graphic element will be developed into a screen that is possible to read if you take the time and slow down and sit with the work while also being aesthetically interesting. [...] The stories would include local history, oral histories and future aspirations from a First Nations perspective. True and positive stories of First Nation resistance and resilience."

Excerpt from concept text for Wanggajimanha

06 PUBLIC ART

ART STRATEGY

ART STRATEGY PROPOSAL

Celebrating the continuous connection of First Nations people to this land, the water and the skies. The continuing custodians of the unceded land at 90-102 Regent St, Redfern are the Gadigal. As water people local mob spent much time on the water fishing, hunting and gathering. This location is near the Alexandria Canal, a midden site and where a dugong skull was found, making this a place of significance. Aboriginal water stories hold knowledge that has been passed down since time immemorial.

For Aboriginal and Torres Strait Islander peoples, fishing is as natural and as necessary as breathing. It forms part of the deep cultural and spiritual connection many communities have with their waters and marine resources, whether saltwater or freshwater. Fishing is a matter of cultural practice, and is informed by traditional knowledge.

<https://aiatsis.gov.au/exhibitions/brief-history-indigenous-fishing>

muding magura is a wonderful opportunity to create a landmark that celebrates the diverse and vibrant Aboriginal community that are connected to Redfern. As most of the Alexandria Canal now covered over this will create a sense of pride for the local community, an understanding of place and start conversation for many.

Three works are proposed:

- 1. a stylised three-dimensional spear, fixed to the north eastern corner of the tower.
- 2. stylised fish embossed into the cladding of the north eastern corner of the tower.

The work is scaled to suit both landmark and human scale, connecting us with the site from distance but also at ground level as the layers the site unfold from different vantage points. We envisage a soft side illumination of the evening to highlight the artwork.

- 3. graphical overlays to upper floor common room and ground floor glazing representing first nations hunters looking out over the city.

The artwork will be developed in consultation and collaboration with Gadigal and the local community.



ART STRATEGY PROPOSAL

Nicole Monks has lived and worked within 3 blocks of the site and maintains multiple connections. Luke Russell is a worimi man (Newcastle) currently working to enliven traditional tool making practices, which have similarities along the east coast. Luke is the closest person to the Gadigal. The workshop would be an exchanging of knowledge and practice and would see the local mob have a hand in making the final artwork.

The original Fishing Spear will be made from:

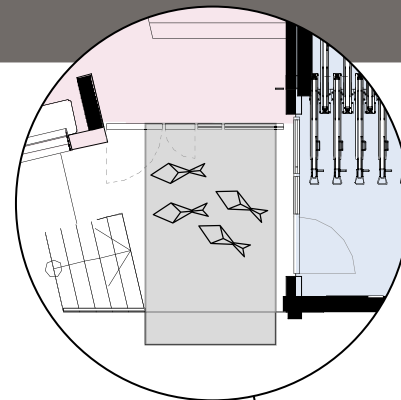
- + Iron Bark
- + Grasstree and gum
- + Sinew
- + GyMEA Lily (Approx 3m long)

The art strategy, together with the public art in the approved development at 13-23 Gibbons Street will form an art laneway along the Through Site Link between 90-102 Regent Street, and 13-23 Gibbons Street.

**Notes:**

1.

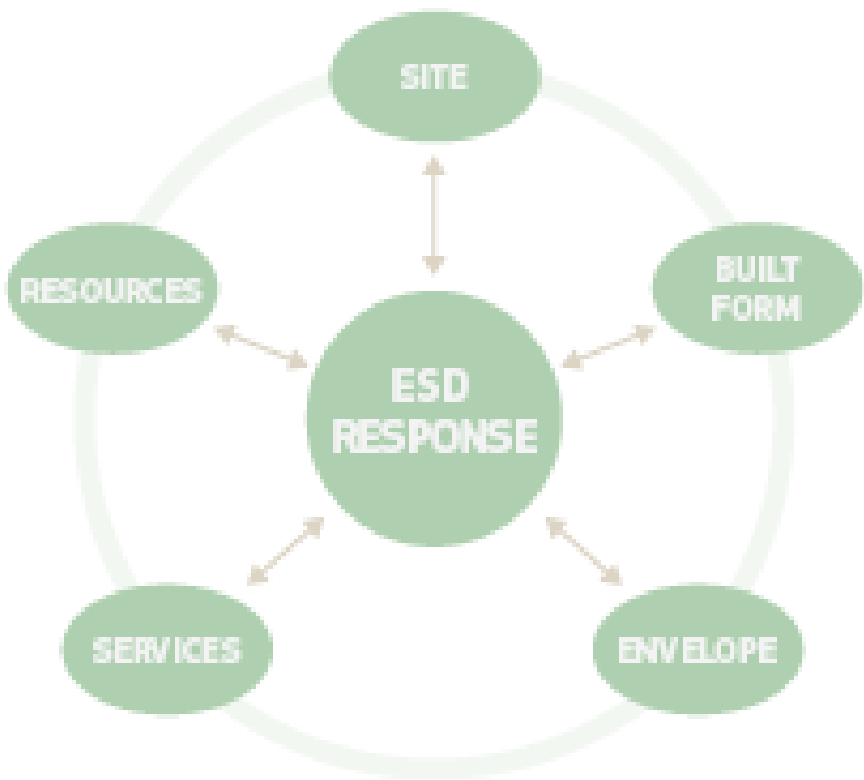
Backlit illuminated fish mounted to underside of canopy
Material/Finish **TBC**



Canopy Underside
Scale 1:50







Load Reduction (minimising the need for energy, water and material consumption)	Passive Design
	Building fabric improvements, Glazing and Insulation improvements.
Optimising energy, water & material consumption	High efficiency ventilation, air-conditioning & control
	High efficiency lighting and lighting control
	High efficiency water fixtures
	Waste minimisation during construction and operation
Use of renewable resources and material re-use where possible	Solar PV (i.e. Electricity Generation)
	Rainwater Harvesting
	Material re-use and conservation
Indoor Environmental Quality (IEQ) Initiatives	Acoustic comfort
	Visual comfort
	Glare reduction
Materials	Reusing existing building structure
	Reusing existing building materials
	Specifying building materials with high recycled content
	Specifying certified timber
	Ensuring comprehensive separation and recycling of demolition and construction materials.
	Minimise use of Ozone Depleting materials
	Minimise materials with PVC content
	Where possible, specify materials with high recycled content
	Participation in waste minimisation training for contractors and sub-contractors;
	Waste minimisation plan to reduce site waste to landfill.
Land use and Ecology	Maintaining and improving the ecological value of the land
Emissions	Insulation products with low Ozone Depletion Potential
	Refrigerants with Ozone Depletion Potential of zero
	Light Pollution: No light beam will be directed upwards or outside the building.

The principles of Ecologically Sustainable Design (ESD) will be an integral consideration throughout the design development of the student accommodation. The sustainability targets for the development will be achieved in an integrated and staged approach through minimising the need for energy, water and material consumption (via passive measures) and then consumption optimisation (energy & water efficiency) and use of renewable resources where required.

INTEGRATED DESIGN APPROACH

Environmental sustainability will be considered in accordance with the following ESD principles:

- + Reducing greenhouse gas emissions and consumption of vital resources through passive building design, efficient services and renewable energy generation;
- + Maximising indoor environmental quality (IEQ) factors such as internal air quality, light and comfort;
- + Resources conservation and management;
- + Careful selection of materials to maximise recycled content and reduce environmental impacts;
- + Minimising natural resource consumption, waste, pollution and toxicity during the refurbishment and operation of Hermes.

The integrated design process is a process by which all of the design variables that affect one another are considered together and resolved in an optimal fashion. Often referred to as holistic design, it looks at the development as a whole with the emphasis on integrating the different aspects of building's design.

The sustainability approach and considerations are summarised in the adjacent table.

07 ENVIRONMENTAL ANALYSIS

ENVIRONMENTAL RESPONSE

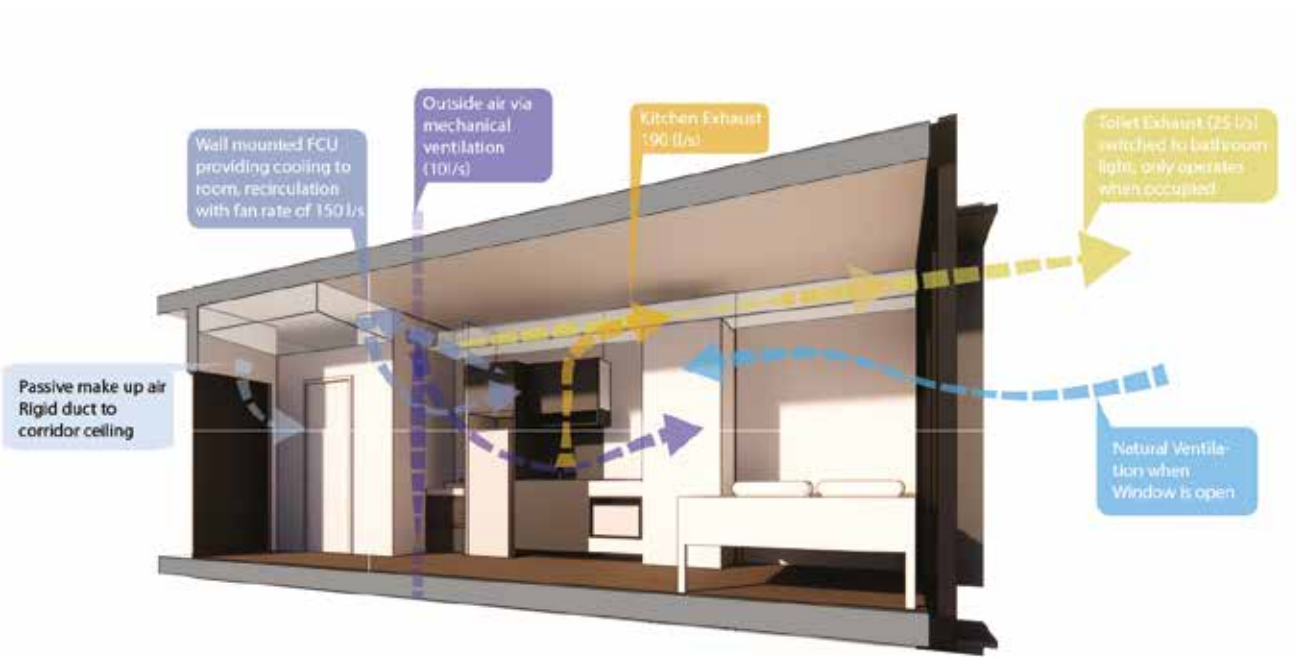


NOISE + VENTILATION

This site is subject to significant noise impacts from neighbouring major roads. Noise impacts have been considered throughout the design and mitigated partially through screening and insulation.

Each room has an openable window in accordance with the NCC. However, due to the noise and pollutants from traffic on Regent and Gibbons Streets, windows may need to be closed. In this event, fresh air intake is drawn from the rooftop and supplied to every room via risers. This ensures fresh air provision even if the windows must be closed due to excess noise.

This has been designed in collaboration with our acoustic and mechanical engineers with consideration of the City of Sydney's Draft Alternative natural ventilation of apartments in noisy environments: Performance pathway guideline



Detailed Airflow Diagram

	Without Ventilation	With Ventilation	Improvement (%)
Heating (KWh p.a. for all tested units)	135.3	931.4	
Cooling (KWh p.a. for all tested units)	2779.4	1540.8	
Total (KWh)	2914.75	2472.13	↑ 15.2%
Energy Per Conditioned Building Area (KWh/m2)	31.96	27.11	↑ 15.2%
Fraction Operation Hours between 21-24 degrees (%)	98.8%	99.1%	↑ 0.3%
Fraction Operation Hours PMV with between -1 and 1 (% Thermal Comfort)	98.1%	98.3%	↑ 0.2%

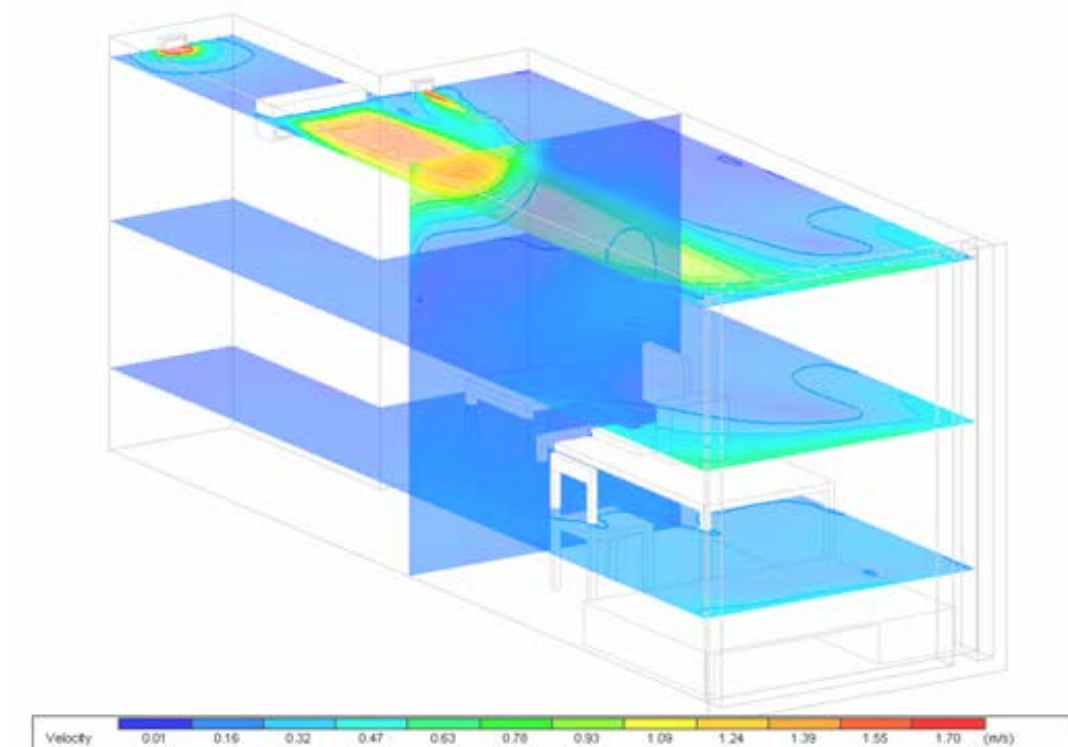
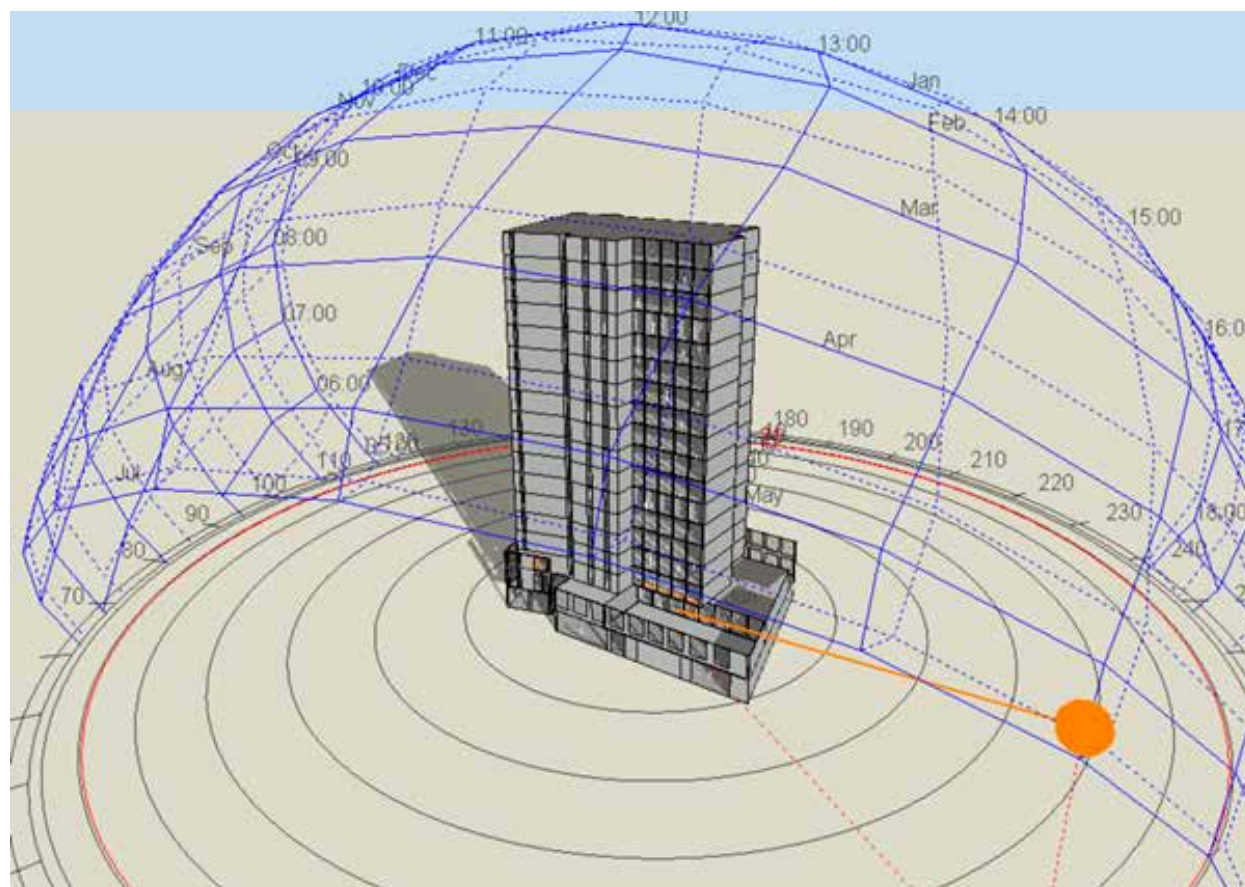
CFD MODELLING

The following contour shows the Age of Air in seconds. The proposed ventilation system improves the Age of Air to a maximum of 2,771 seconds as shown below.

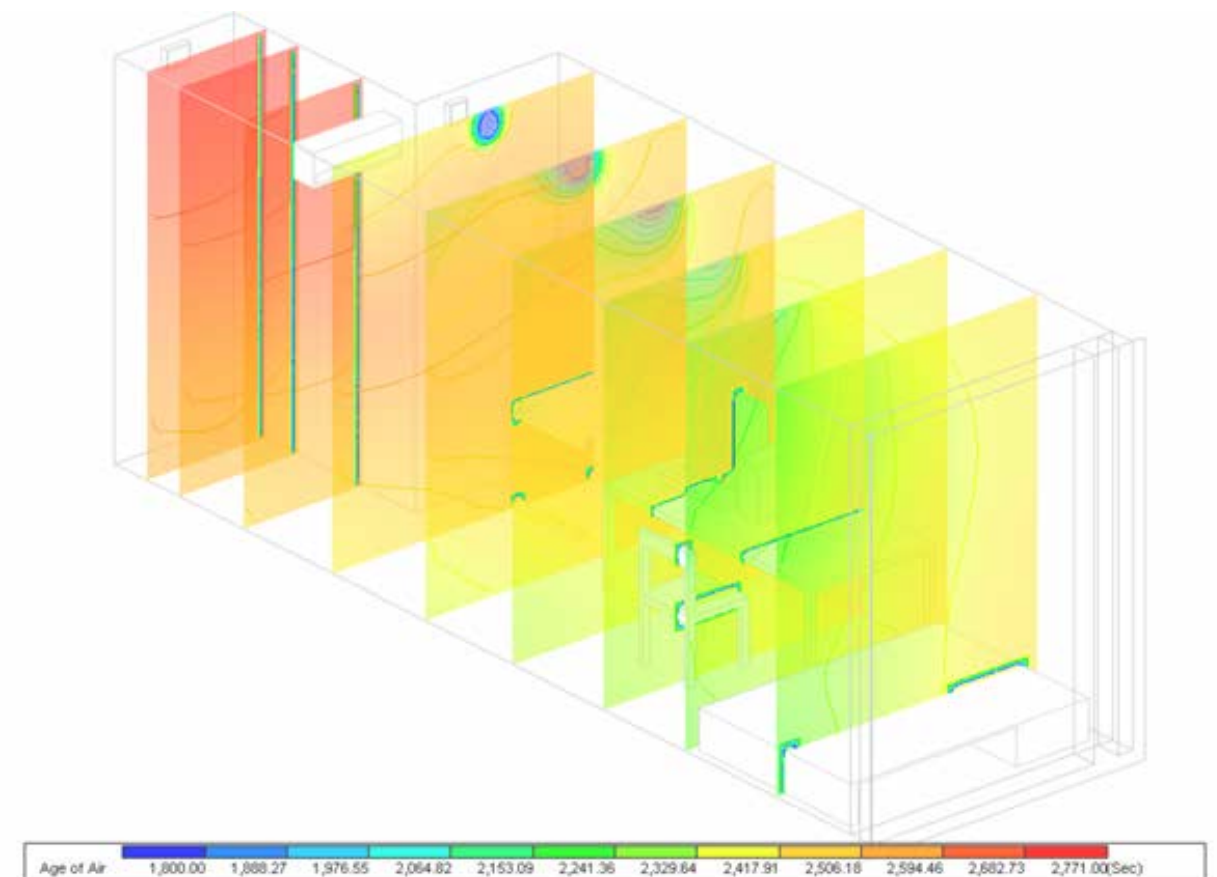
Improvements:

The simulation has demonstrated that the ventilation will result in the following improvements:

- Overall energy efficiency
- Thermal Comfort (i.e. PMV)
- Age of air (freshness of the air)



Air velocity contour



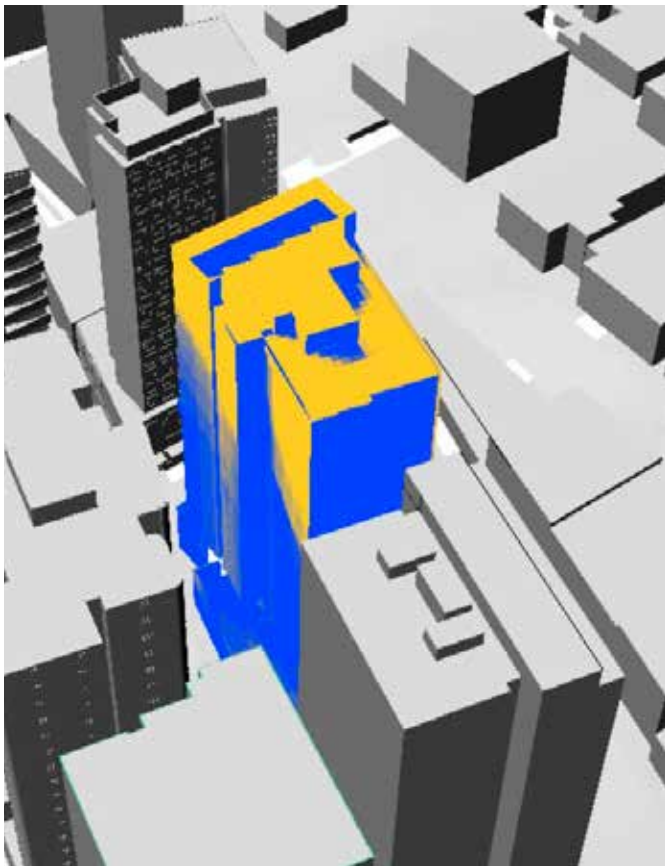
07 ENVIRONMENTAL ANALYSIS

SOLAR STUDY - PROPOSED MASS
WINTER SOLSTICE

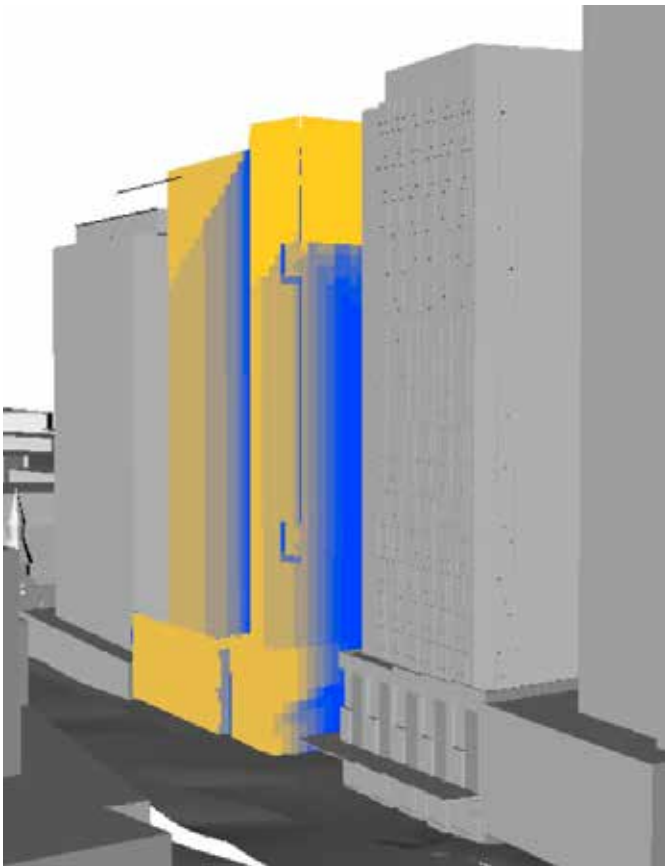
The facade design strategy has been developed through consideration of the solar load on the various facades. During winter and equinox, and to a certain extent in summer, much of the northern and western facades receive little direct sunlight, so window and shading design aim to maximise solar access to these areas.

The eastern facade receives good solar access year round, with a portion of the facade shaded in winter, and to a certain extent around equinox, after approximately 11am; this portion of the facade is designed to maximise solar access.

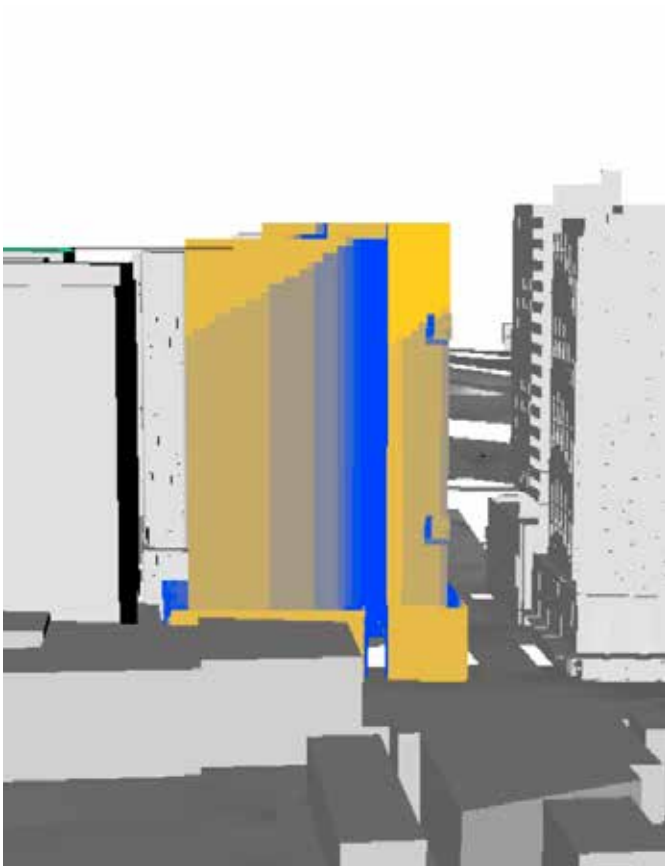
These areas have been grouped and averaged into distinct zones which are expressed on the facades with changing patterns and densities of shading.



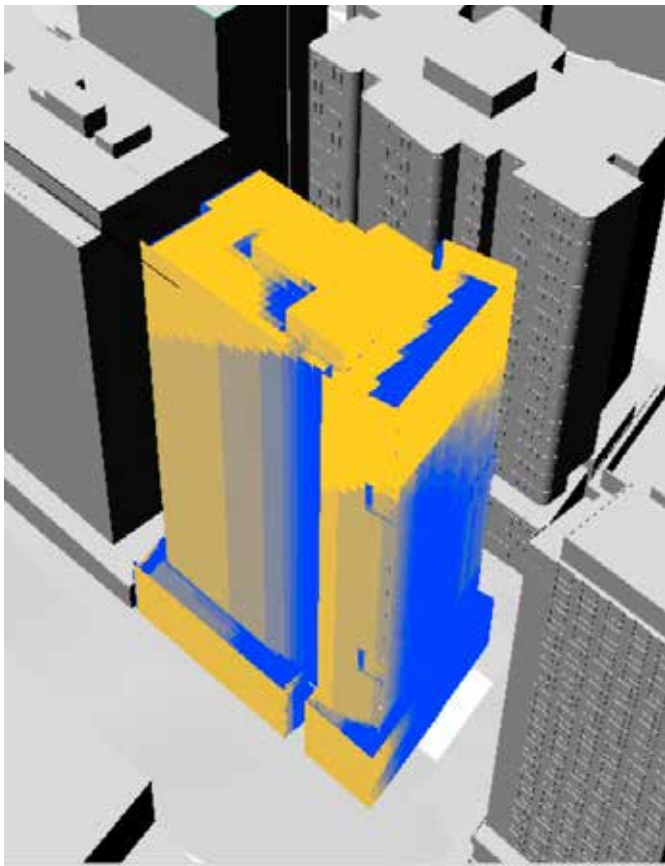
Aerial View of Proposal from SW - looking at south & west facades
Winter Solstice



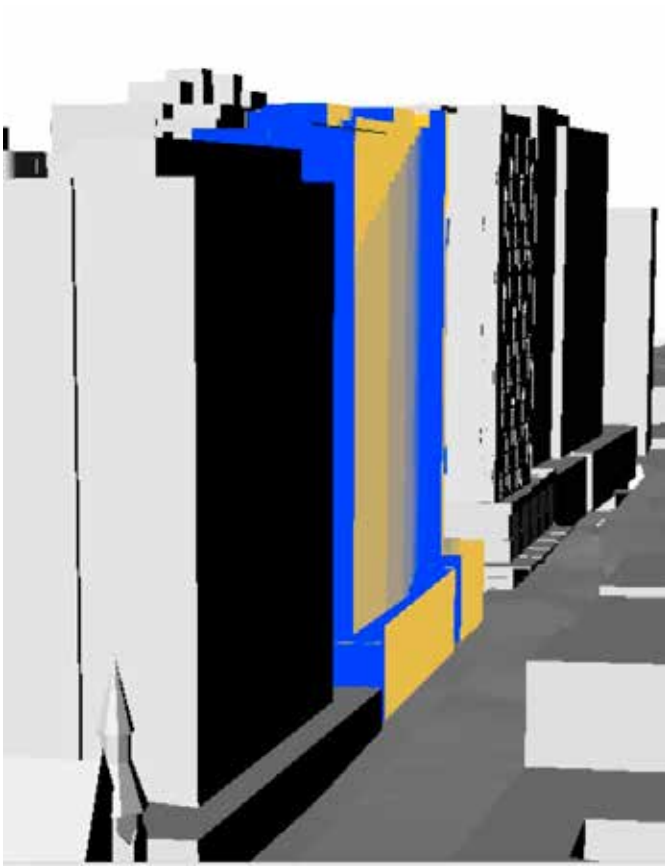
View of Proposal from NE - looking at north & east facades
Winter Solstice



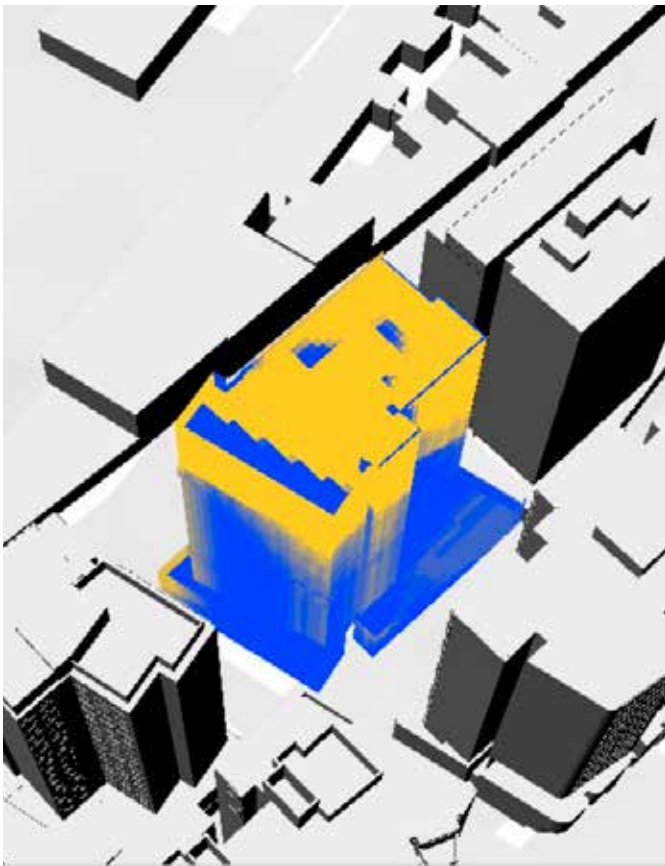
View of Proposal from E - looking at east facade
Winter Solstice



Aerial View of Proposal from NE - looking at north & east facades
Winter Solstice



View of Proposal from SE - looking at south & east facades
Winter Solstice



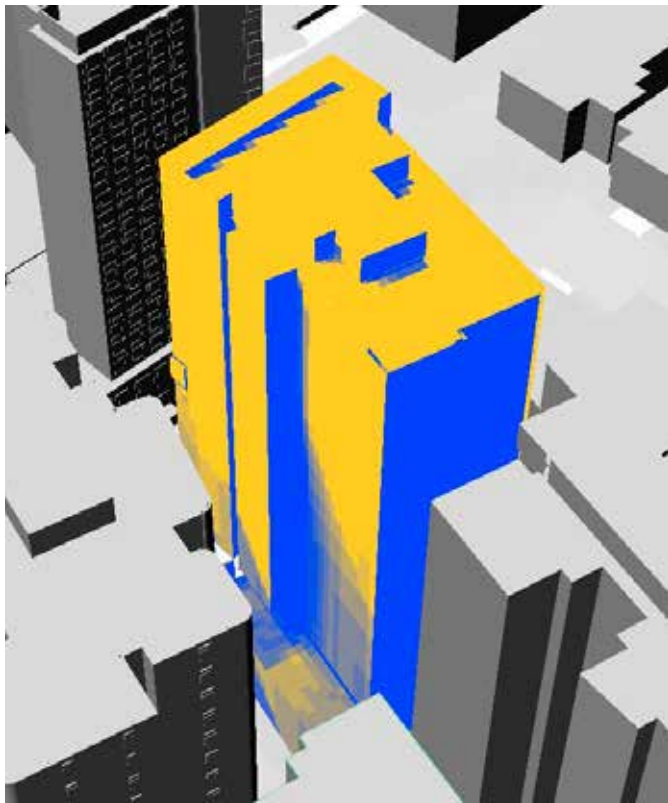
Aerial View of Proposal from NW - looking at north & west facades
Winter Solstice

21 June - 9:00am - 3:00pm

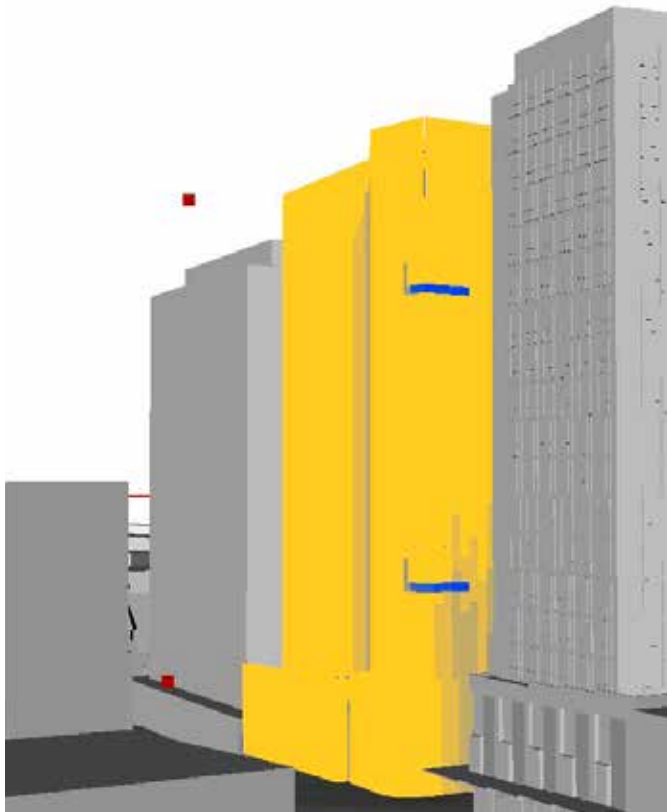
Not receiving solar 71%
Receiving solar 29%

Sunlight Hours Analysis

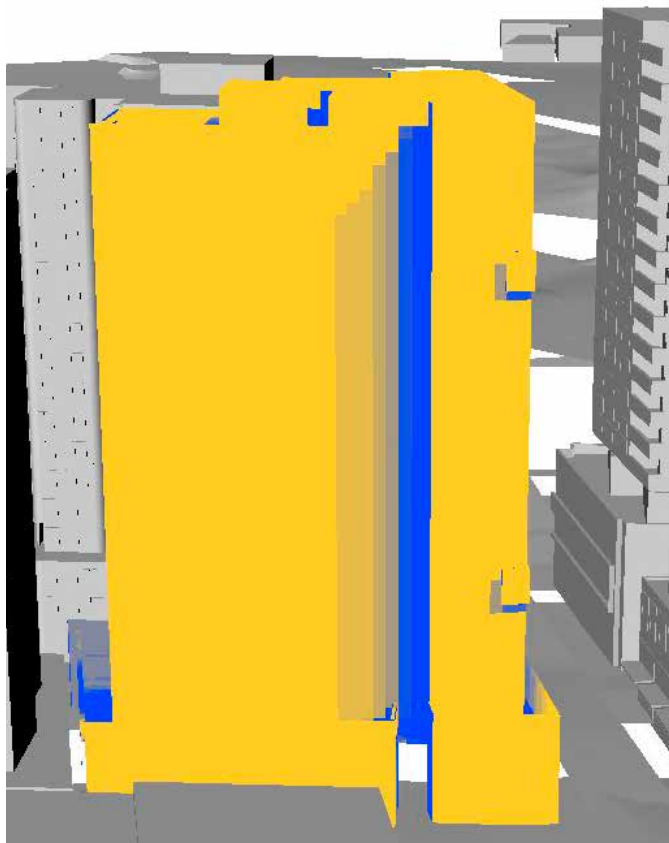
- Surface = More than 2 hours
- Surface = Between 0 and 2 hours
- Surface = 0 Hours



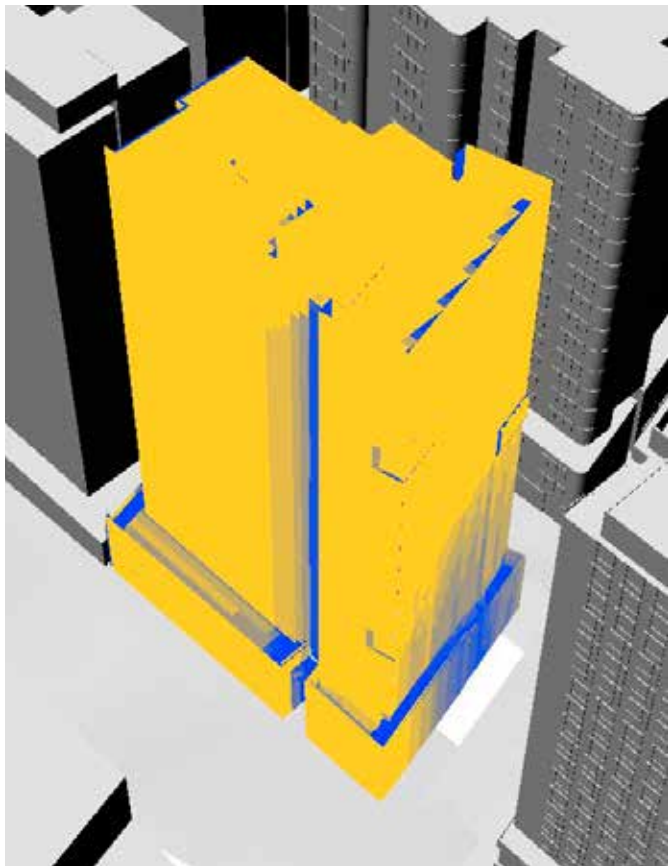
Aerial View of Proposal from SW - looking at south & west facades
Summer Solstice



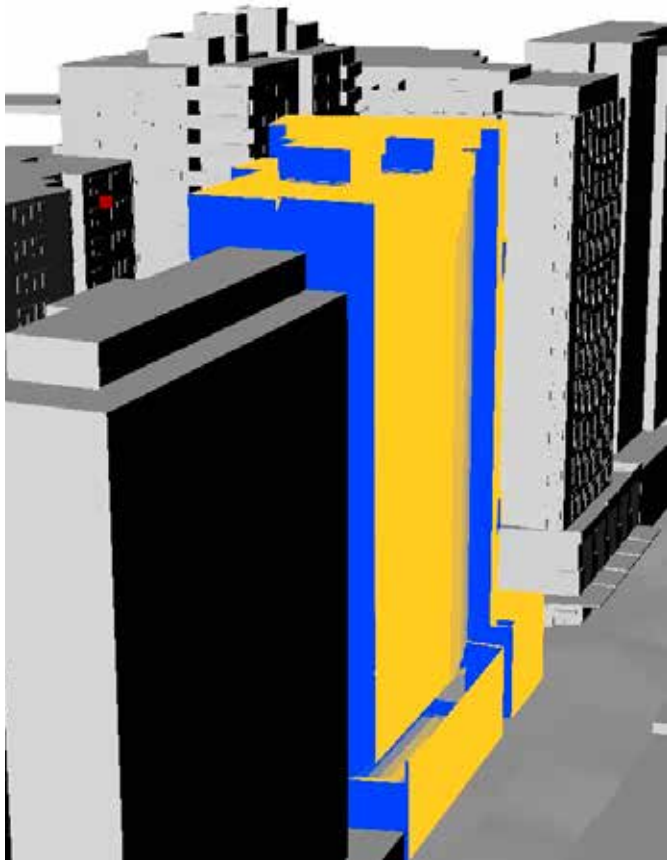
View of Proposal from NE - looking at north & east facades
Summer Solstice



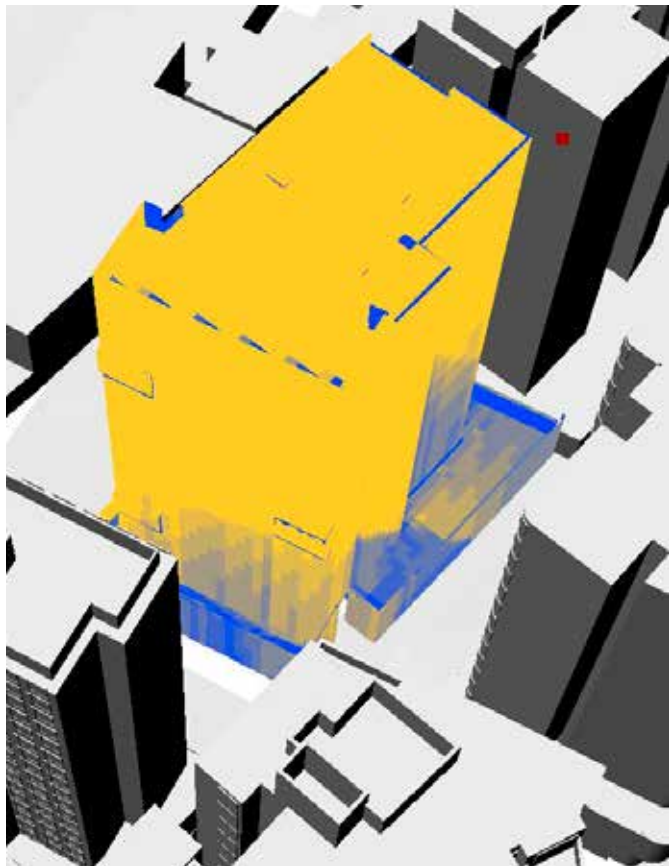
View of Proposal from E - looking at east facade
Winter Solstice



Aerial View of Proposal from NE - looking at north & east facades
Summer Solstice



View of Proposal from SE - looking at south & east facades
Summer Solstice



View of Proposal from NW - looking at north & west facades
Summer Solstice

21 December - 9:00am - 3:00pm

Not receiving solar 23%
Receiving solar 77%

Sunlight Hours Analysis

- Surface = More than 2 hours
- Surface = Between 0 and 2 hours
- Surface = 0 Hours

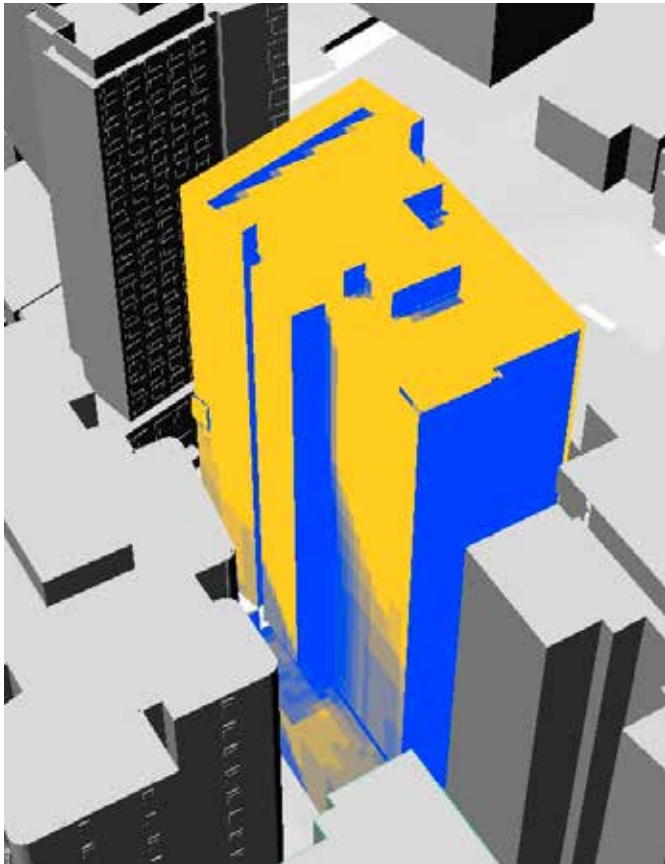
07 ENVIRONMENTAL ANALYSIS

SOLAR STUDY - PROPOSED MASS
EQUINOX - MARCH

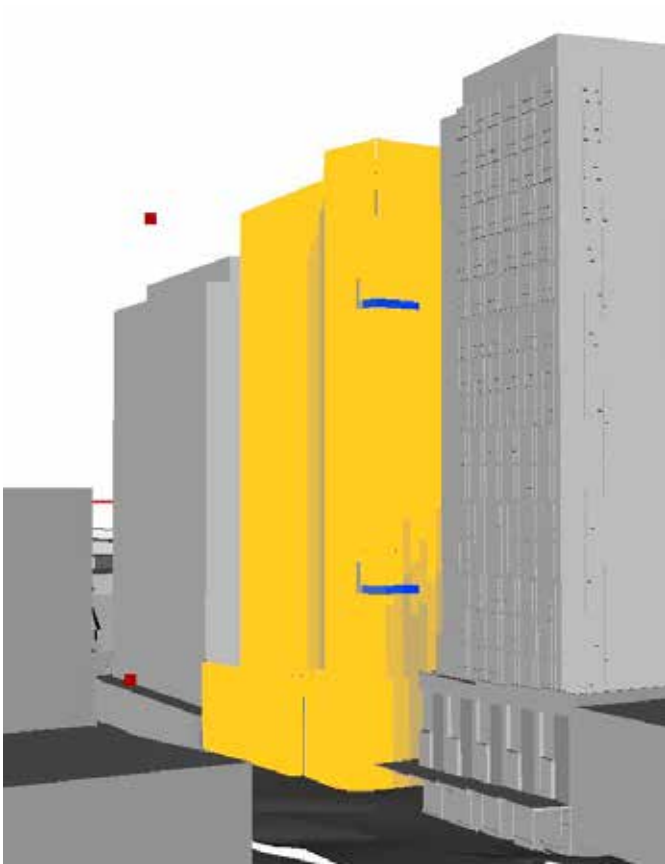
The facade design strategy has been developed through consideration of the solar load on the various facades. During winter and equinox, and to a certain extent in summer, much of the northern and western facades receive little direct sunlight, so window and shading design aim to maximise solar access to these areas.

The eastern facade receives good solar access year round, with a portion of the facade shaded in winter, and to a certain extent around equinox, after approximately 11am; this portion of the facade is designed to maximise solar access.

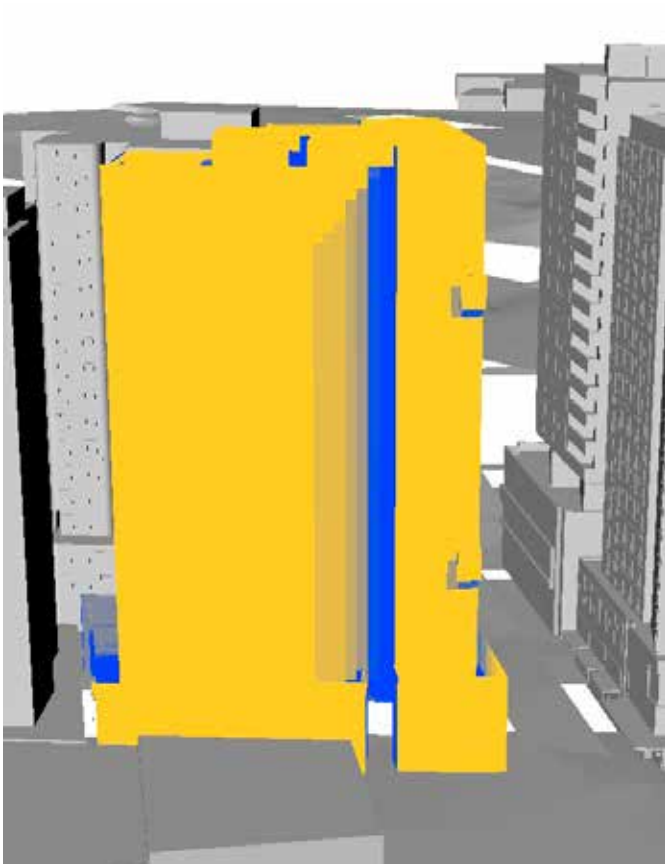
These areas have been grouped and averaged into distinct zones which are expressed on the facades with changing patterns and densities of shading.



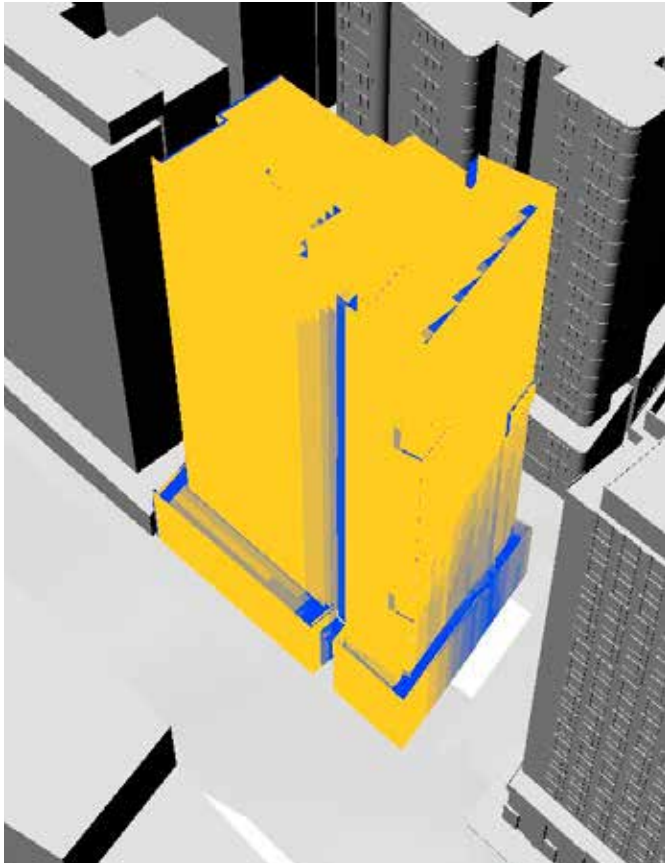
Aerial View of Proposal from SW - looking at south & west facades
Equinox



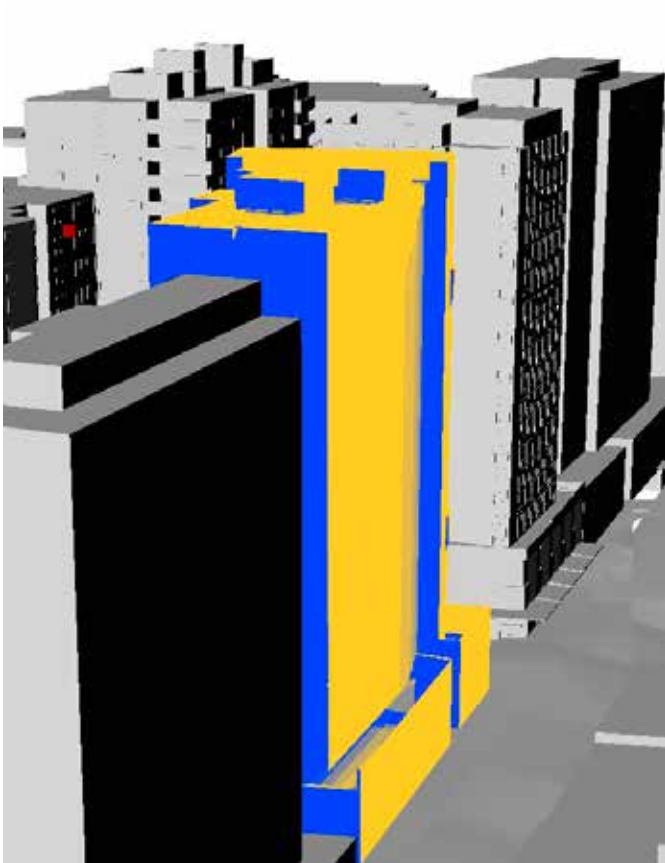
View of Proposal from NE - looking at north & east facades
Equinox



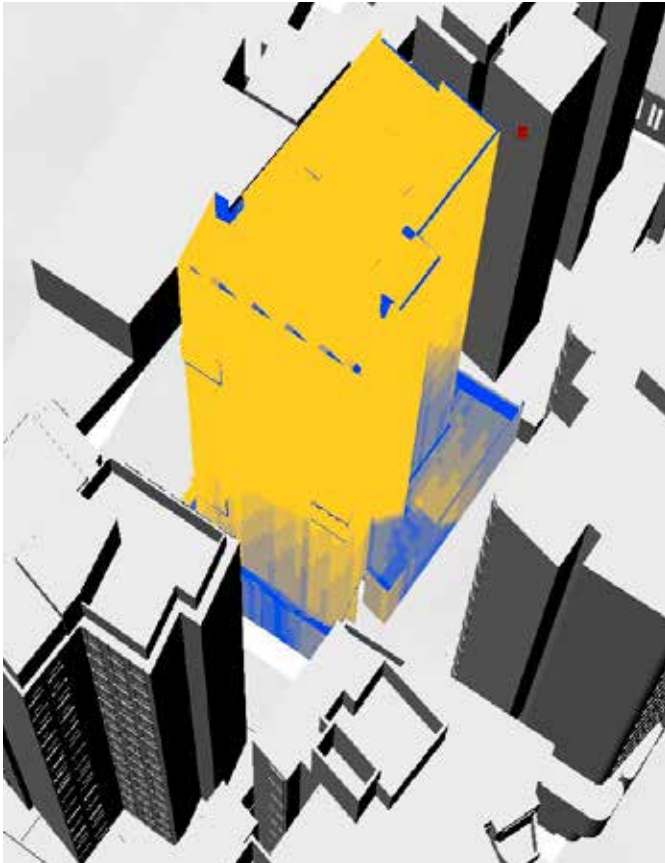
View of Proposal from E - looking at east facade
Equinox



Aerial View of Proposal from NE - looking at north & east facades
Equinox



View of Proposal from SE - looking at south & east facades
Equinox



View of Proposal from NW - looking at north & west facades
Equinox

21 March - 9:00am - 3:00pm

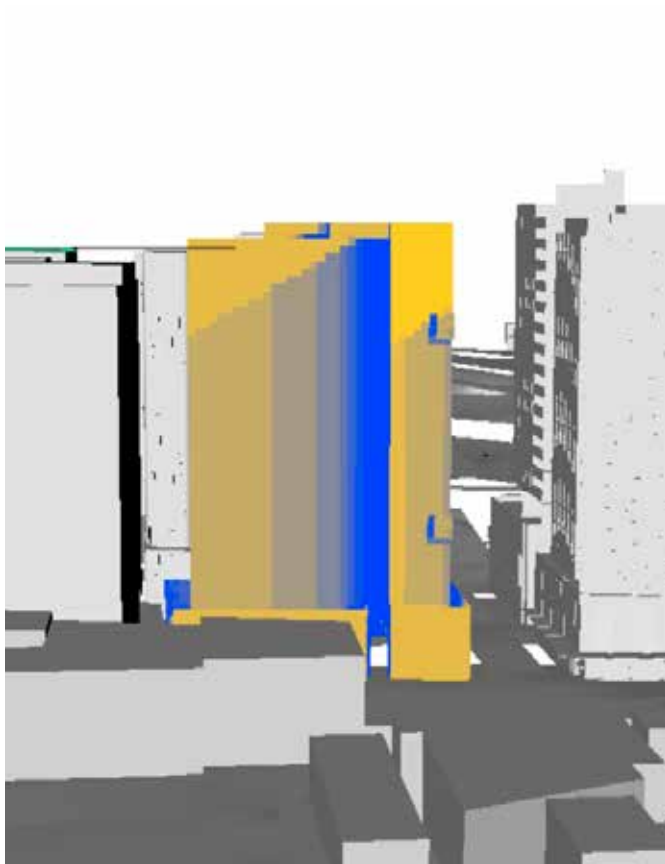
Not receiving solar 42%
Receiving solar 58%

Sunlight Hours Analysis

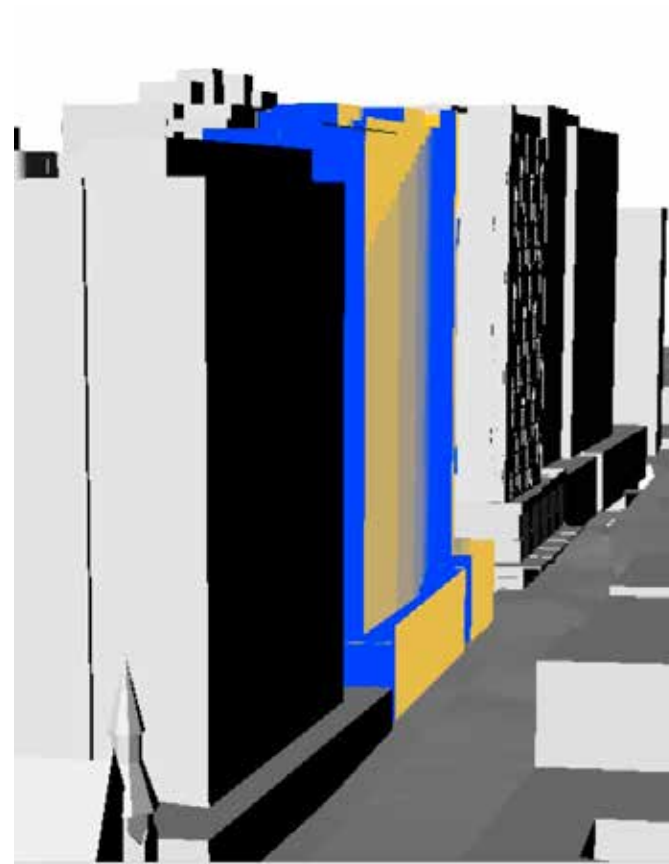
- Surface = More than 2 hours
- Surface = Between 0 and 2 hours
- Surface = 0 Hours

07 ENVIRONMENTAL ANALYSIS

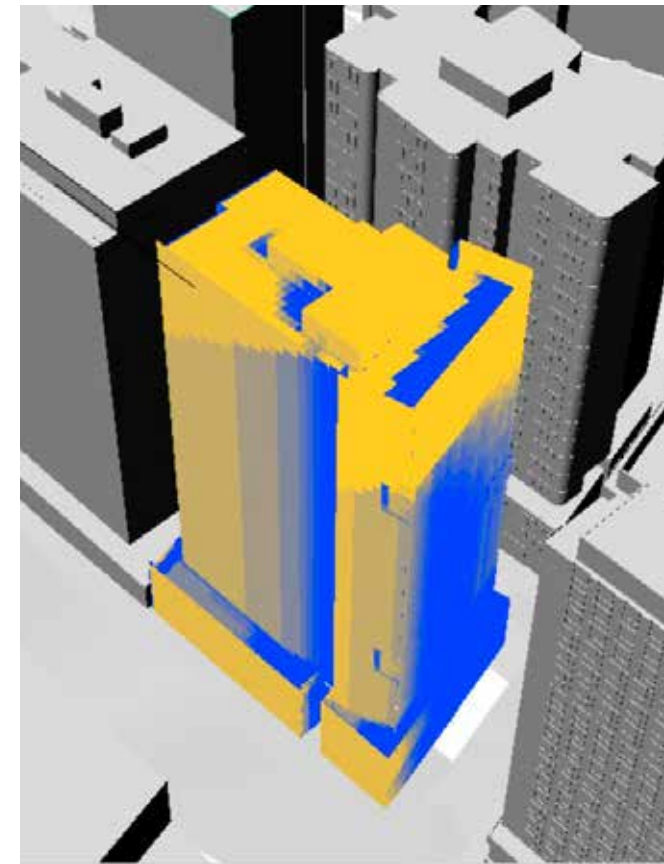
SOLAR STUDY - PROPOSED MASS FACADE ANALYSIS



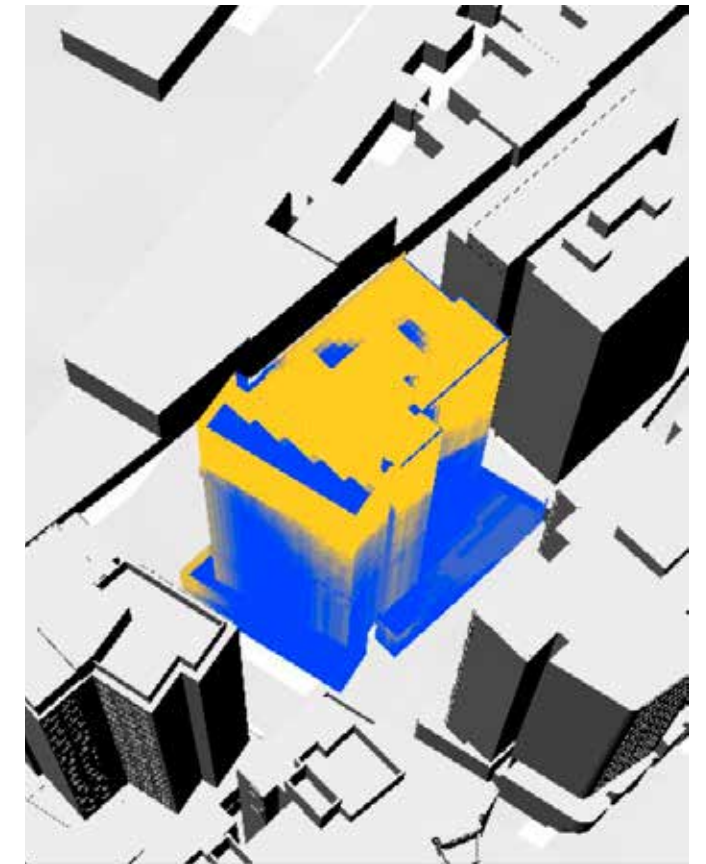
North East Corner - Equinox



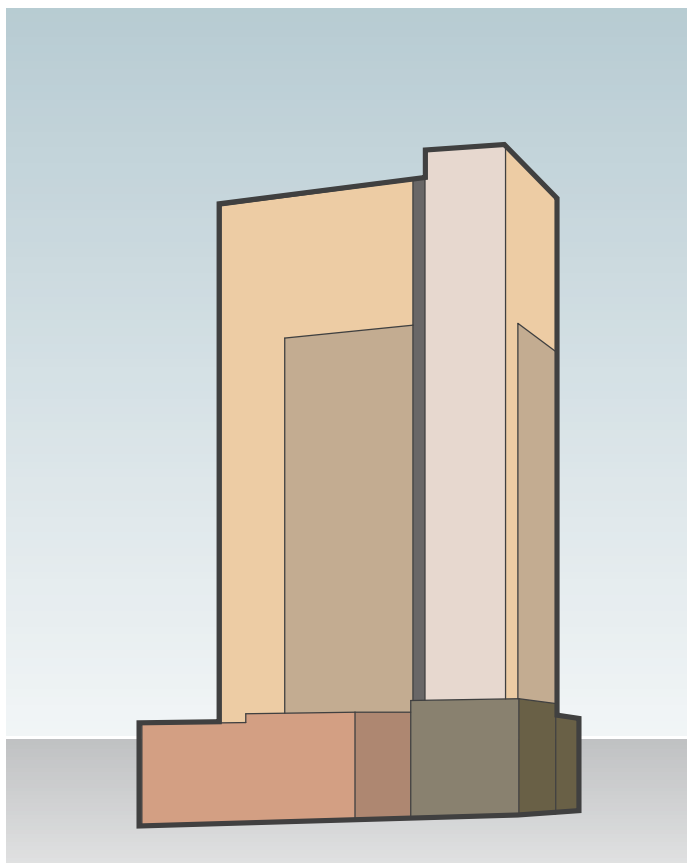
South East Corner - Equinox



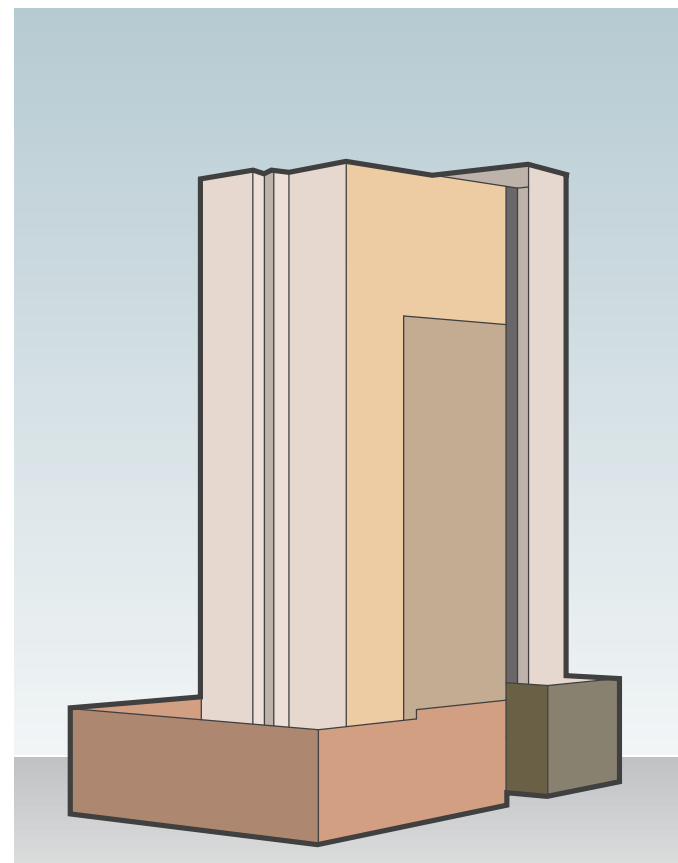
North West Corner - Equinox



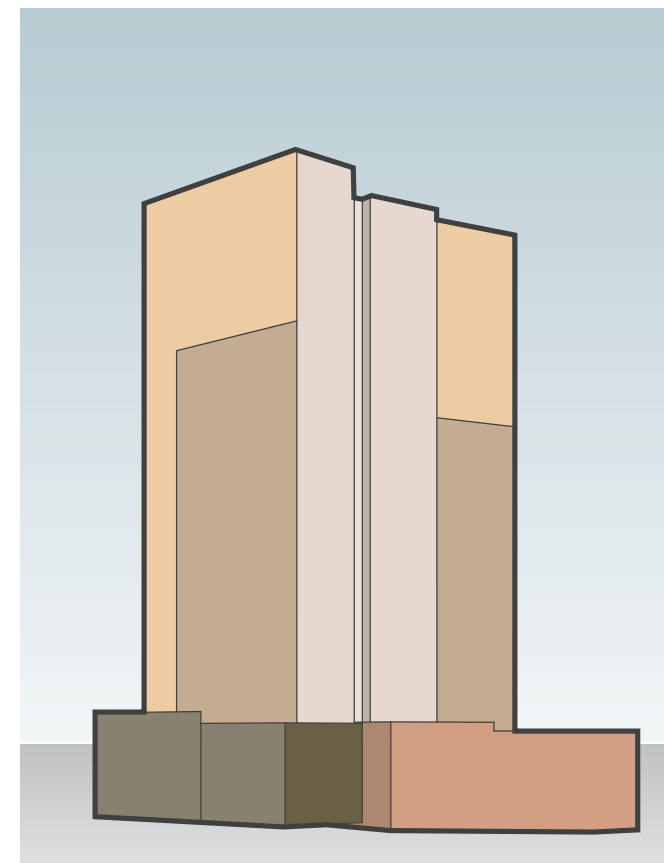
Sourth West Corner - Equinox



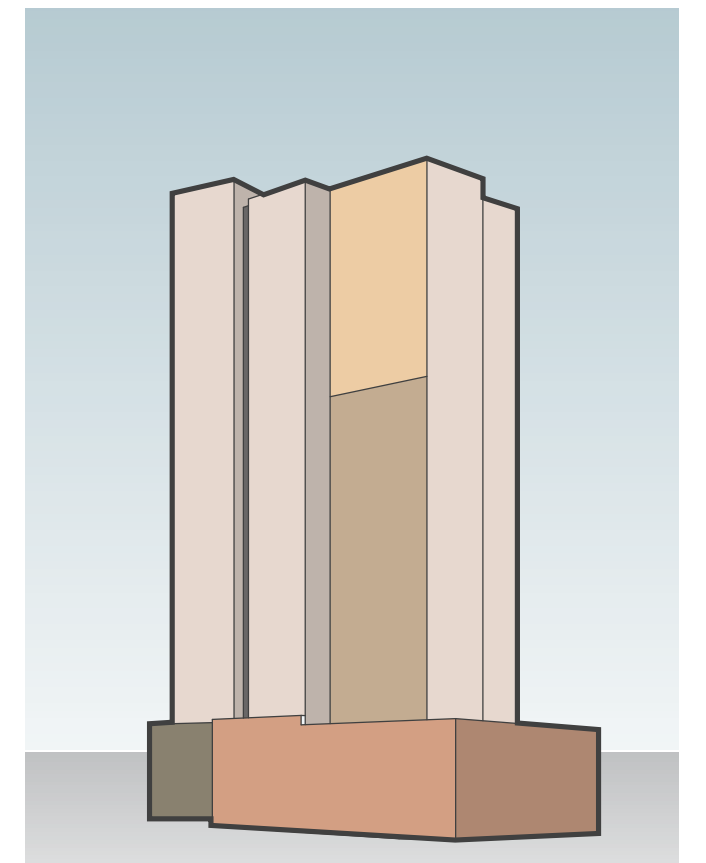
North East Corner - Facade & massing analysis in relation to solar study



South East Corner - Facade & massing analysis in relation to solar study



North West Corner - Facade & massing analysis in relation to solar study



South West Corner - Facade & massing analysis in relation to solar study



TYPICAL FACADE MODULE

- + Each facade module comprises a series of 3 panels - clear glazing, pattern frit glazing, and aluminium panel. Each panel offers a different level of transparency allowing the SOUs to receive balanced light.

MARIAN STREET - AWNING

- + Awning to glazing on ground level is solid to control solar access to the common area
- + Openings help to activate key street frontages on Regent Street and Marian Street.

SOLAR FINS

- + Following solar amenity studies, solar fins have been proposed in key areas on each facade. These provide additional shading to each SOU. These areas are from the mid-tower level upward.

REGENT STREET - PODIUM

- + Openings at the Regent Street podium service to provide maximum solar access into the Level 2 amenity and SOUs. Glazing has been considered as an acoustic barrier to the noise from the road below.
- + Brick pillars and courses and patterns reflect a similar rhythm to the Redern urban ecology.

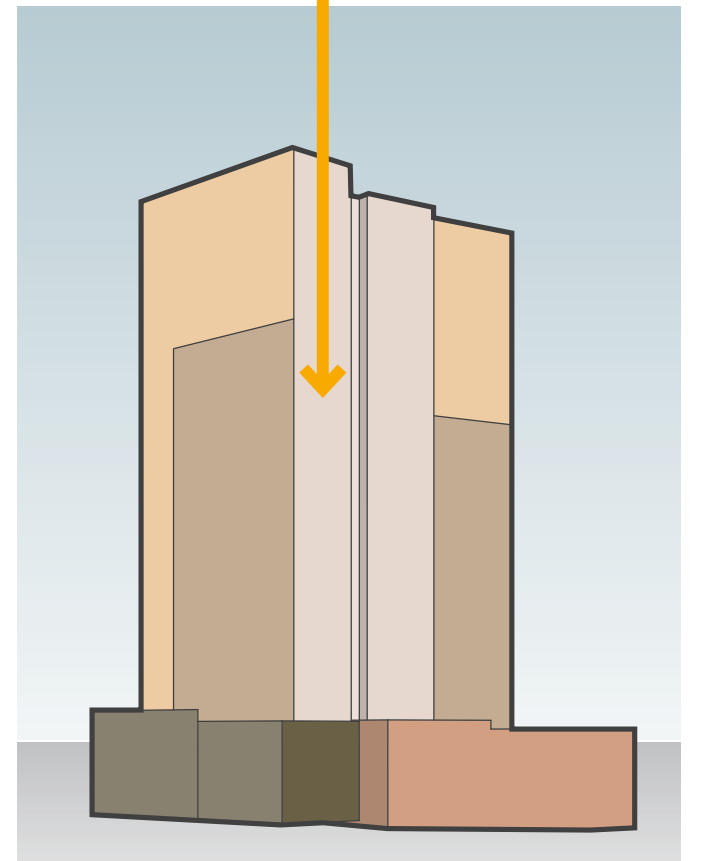
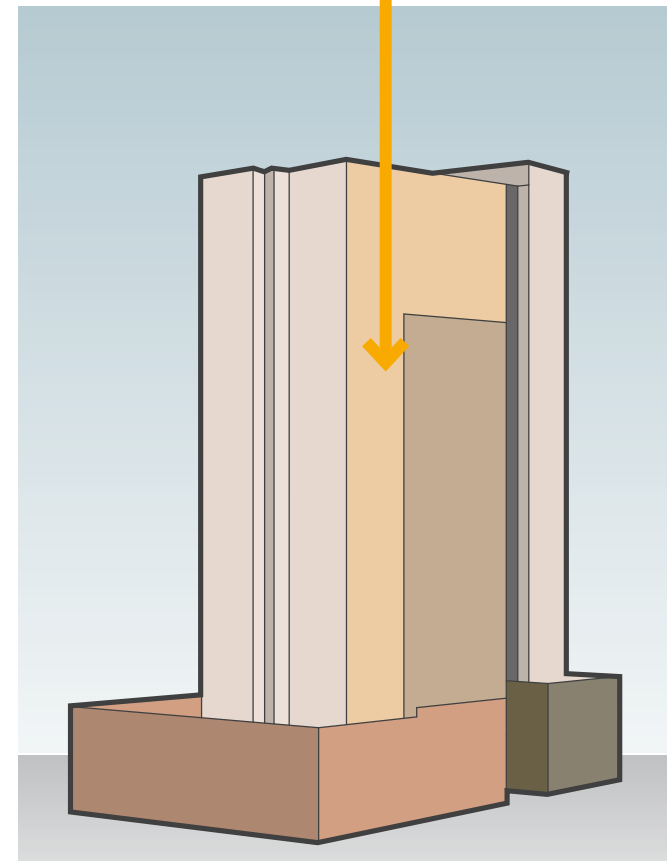
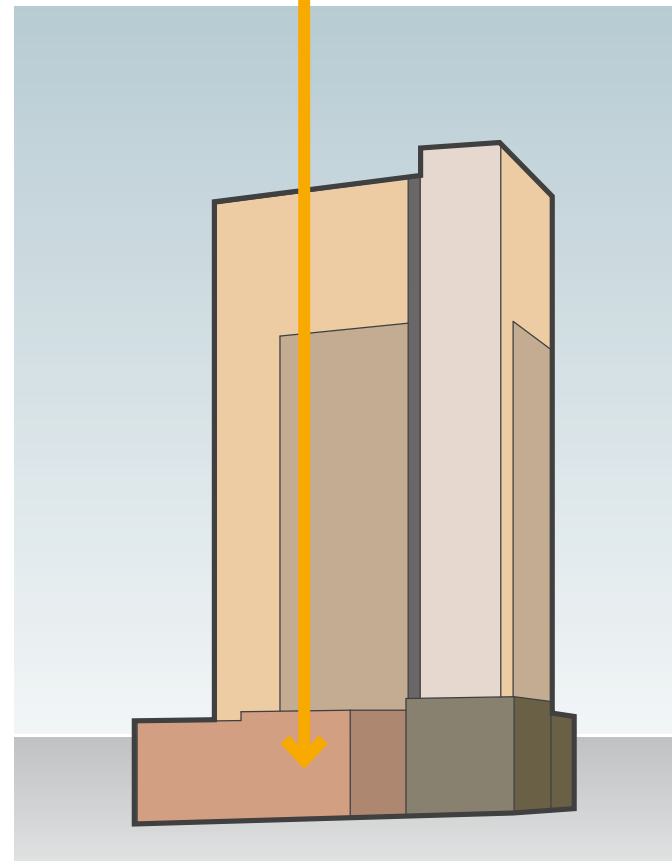
Building finishes will be selected to maintain an aesthetic which is complementary to the context and sensitive to the manufacturing process

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 Regent Street.
- + Retail buildings traditionally have awnings over the footpath which provide civic amenity and protection from sun and rain.
- + The podium is expressed as two elements; the 'shops' along Regent Street and William Lane in terracotta brick and 'the pub' on the corner which uses a darker brick to reference the dark colored tiles on the existing corner building facade.



08 FACADE DESIGN

RESPONSE TO CONTEXT - KEY ITEMS

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

From the late 19th century, 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)



Figure 01: St Luke’s Presbyterian Church



Figure 02: 128 Regent Street Terrace



Figure 03: Redfern Estate Conservation Area



Figure 04: Redfern Railway Station



Figure 05: Eveleigh Railway Workshop

REGENT STREET HERITAGE

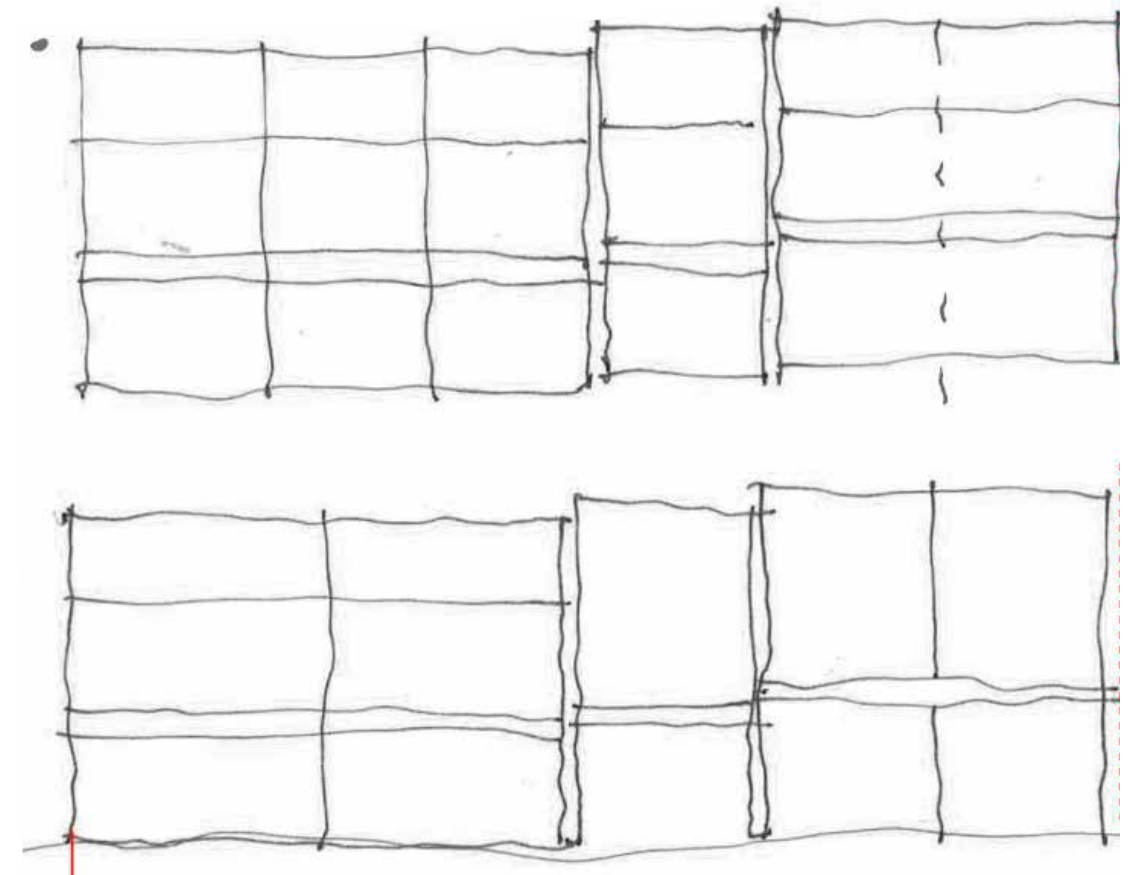
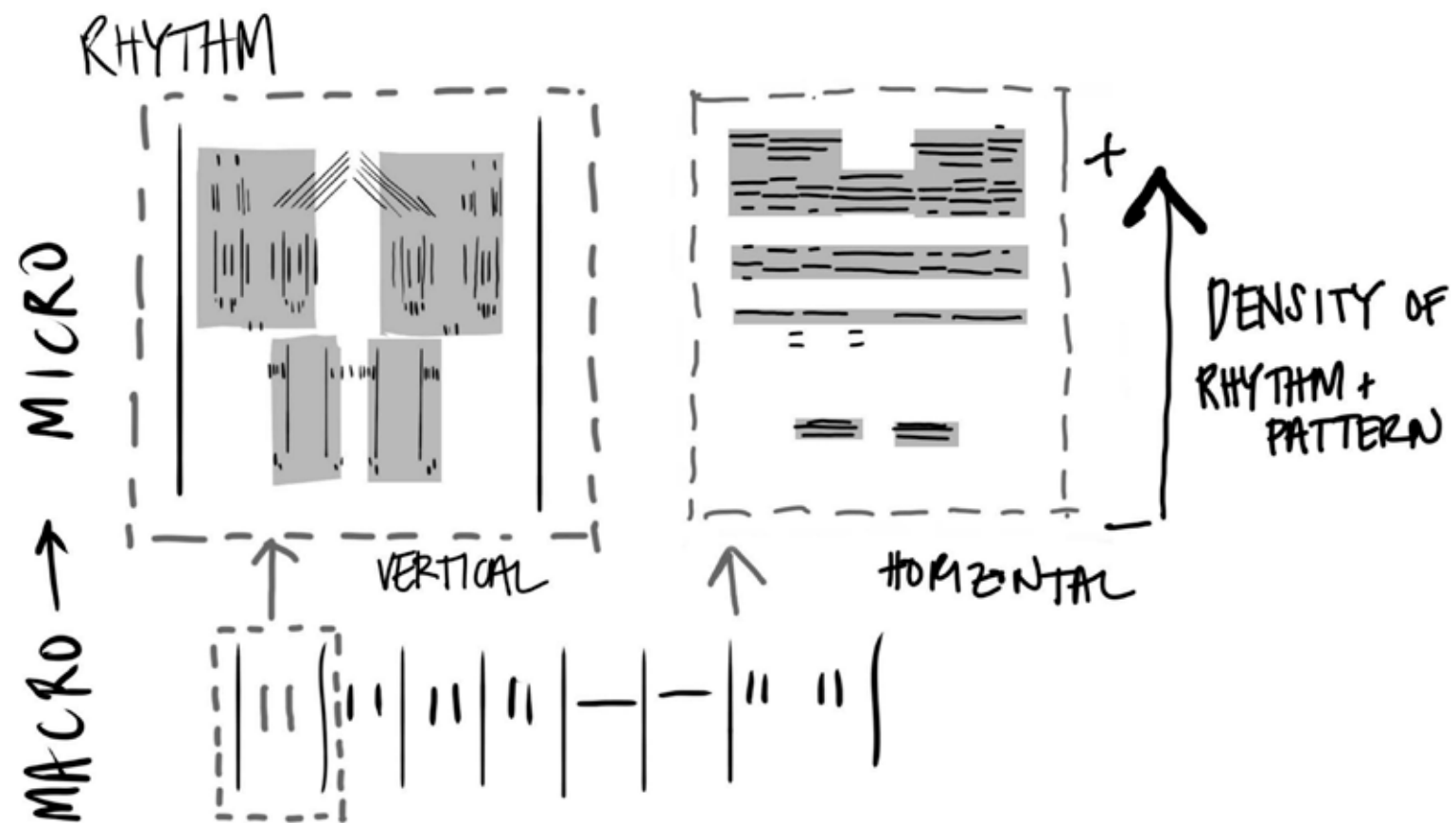


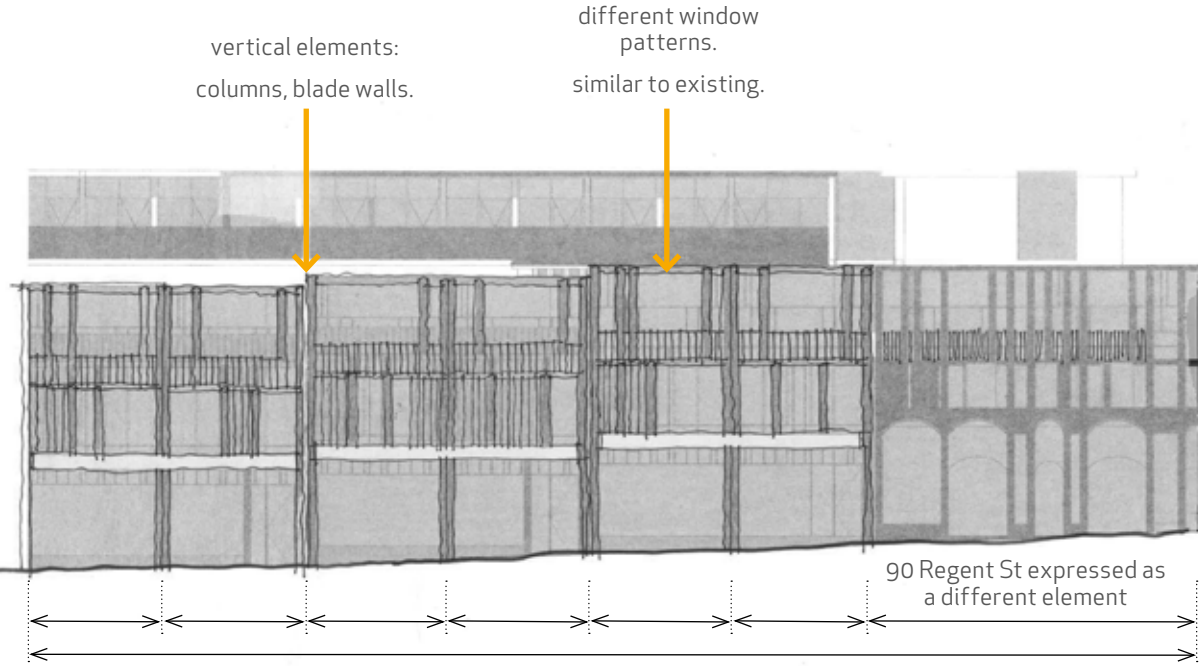
Images taken by AJ+C



08 FACADE DESIGN

RESPONSE TO CONTEXT - STREET LANGUAGE

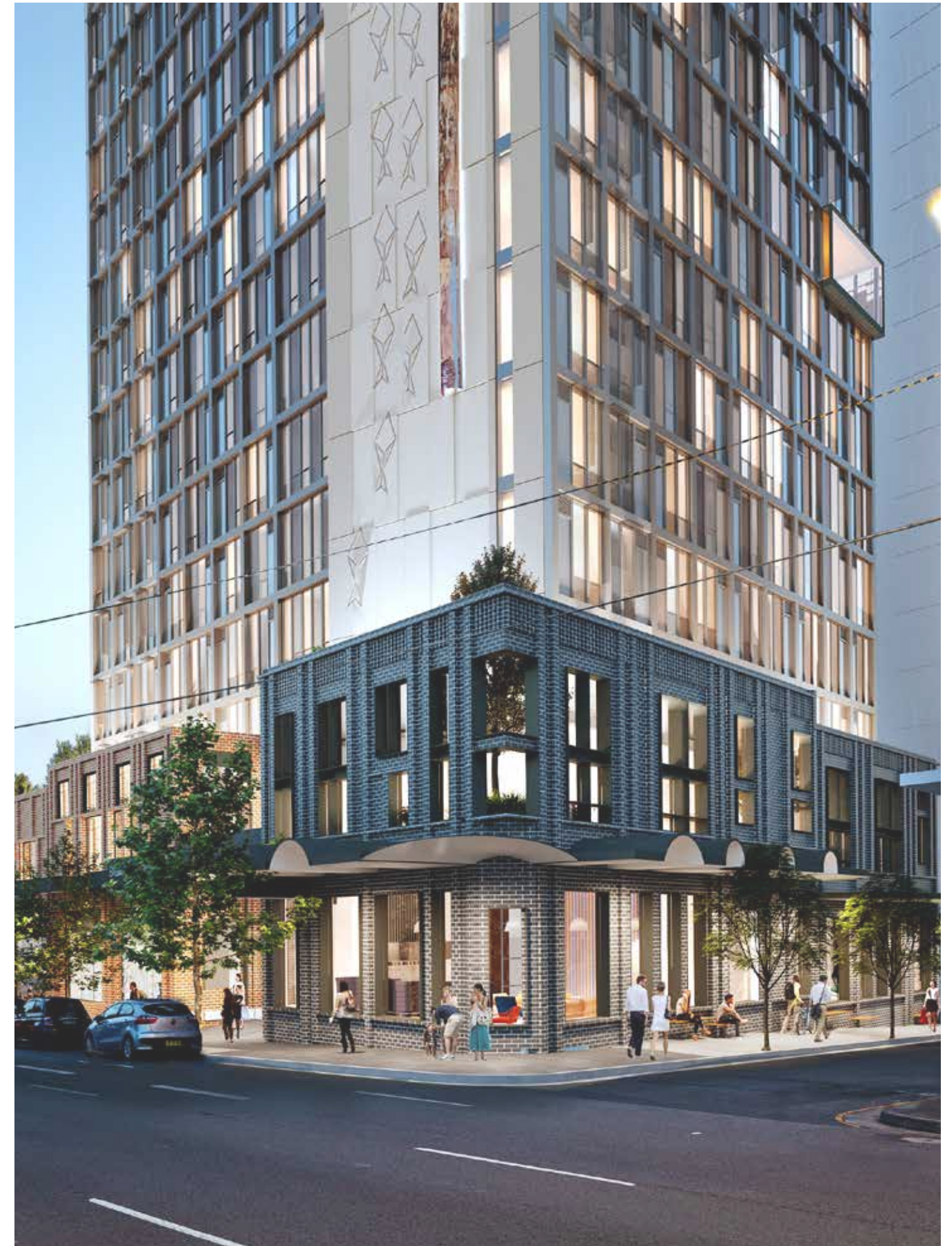




08 FACADE DESIGN

PODIUM FACADE DESIGN - WILLIAM LANE





08 FACADE DESIGN

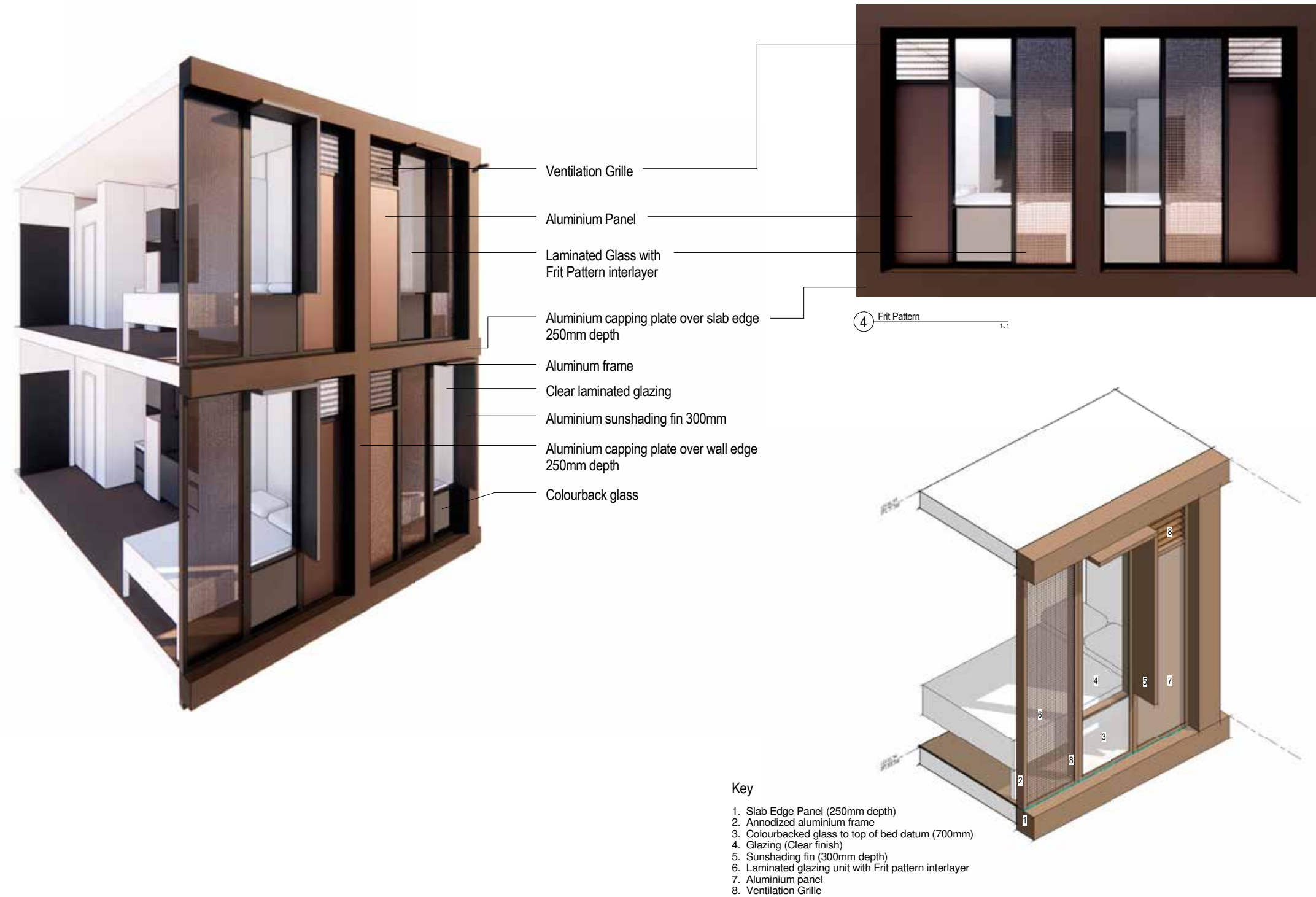
MATERIALITY + RHYTHM - PRECEDENT



Paramount House Hotel - Breathe Architecture



ARC - Koichi Takada Architects



TOWER FACADE MODULE

The typical facade module is comprised of 3 panel sections; 1 clear glazing panel with a colour back glass panel below, 1 glazing frit pattern panel, and 1 solid aluminium panel with an exhaust vent above.

The frit pattern panel is a response to solar amenity throughout the tower, a way for units to enjoy a more controlled, naturally dynamic lighting particularly through warmer months where solar amenity is intense.

The clear glazing panel allows users an operable window for natural ventilation, while the solid aluminium panel provides a balance between glazed and solid surfaces to each SOU.

Additionally, solar fins are purposely placed at key areas on each facade where solar amenity studies were shown to have excessive impacts - these areas are the southern end of the east facade, and the eastern portion of the north facade, both above mid level on the tower.

The slab edge panel provides some depth to the facade expression, and is of a similar tone to the typical module. Each facade incorporates a transition in tone between a mid-bronze and jasper colour, allowing the facade to be expressed in separate but related portions thereby reducing the bulk and scale of each face.

08 FACADE DESIGN

ELEVATIONS



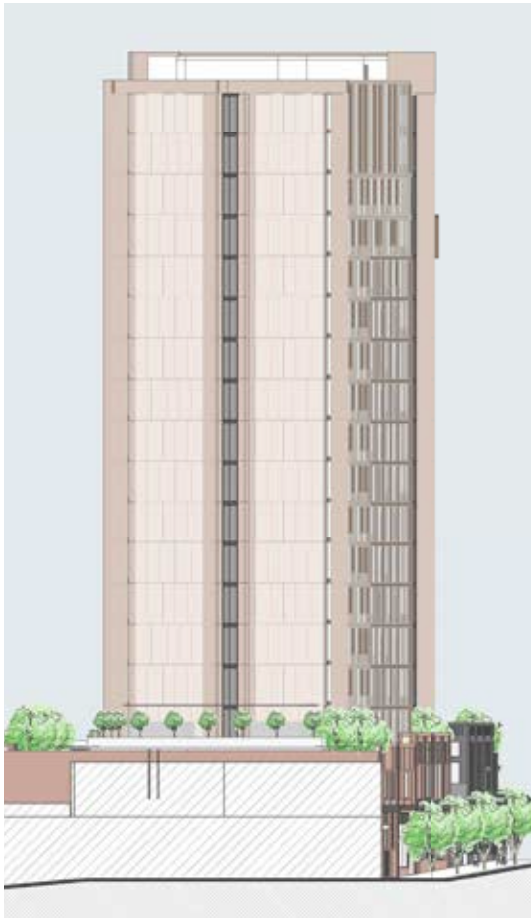
Regent Street Facade



Marian Street Facade



William Lane Facade



South Facade

The tower facades comprise a window wall system and a concrete panel precast system. The window walls are comprised of a typical 3 panel module of clear glazing, pattern frit glazing, and a solid aluminium panel. There 3 panel system allows diversity through each facade, alternating between clear glazing and frit pattern glazing, together with the conjunction of adjacent modules.

The frit pattern glazing allows light to be controlled as it enters an SOU, while solar fins are proposed at select locations in response to solar amenity studies.

Each facade is broken into different tones, reflecting the legacy fabric of Redfern. A mid-bronze colour occupies the inner layer, while a lighter 'jasper' colour outlines the perimeter. At each junction on the northern facade, common areas are proposed to provide amenity to the mid and upper levels of the tower, additionally utilising key views east over Redfern, and west back over Redern station.

These colours have been chosen in response to the material palette of the surrounding area - the terracotta brick facades of the Vitorian buildings of Redfern, and the darker brick and bronze color found in the tiled facade of the old pub on the corner of Regent and Maian Streets.

CP1

CAPPING PLATE

DULUX ANOTEC MID BRONZE

CP2

CAPPING PLATE

DULUX JASPER

WF1

WINDOW FRAME

DULUX ANOTEC MID BRONZE

WF2

WINDOW FRAME

DULUX JASPER

WF3

WINDOW FRAME

DULUX MONUMENT

FP1

LQU FRIT PATTERN

DULUX ANOTEC MID BRONZE

30% PERFORATION

FP2

LQU FRIT PATTERN

DULUX JASPER

30% PERFORATION

AP1

ALUMINIUM PANEL

DULUX ANOTEC MID BRONZE

AP2

ALUMINIUM PANEL

DULUX JASPER

BK1

BRICK CAVITY WALL 1

PGH DRY BLACK BEAUTY

BK2

BRICK CAVITY WALL 2

PGH DRY HAWKESBURY BRONZE



SH1

PERFORATED MESH SHADE

DULUX ANOTEC MID BRONZE

30% PERFORATION

SH2

PERFORATED MESH SHADE

DULUX JASPER

30% PERFORATION

CBG1

COLOUR BACK GLASS

DULUX PEWTER PEARL

LW

LOUVRED WALL WITH BUILT IN DOOR ACCESS

DULUX MONUMENT

VG1

VENTILATION GRILLE

DULUX JASPER OR DULUX ANOTEC MID BRONZE TO MATCH ADJOINING AP

PC1

PRECAST CONCRETE PANEL TINT 1

KEIM 9288

PC2

PRECAST CONCRETE PANEL TINT 2

KEIM 9292

AWF

FOOTPATH AWNING

DULUX MONUMENT TO TOP AND SIDES

DULUX ELECTRO DURATE ZUES TALC TO SOFFIT

W1

PODIUM WALL

DULUX MONUMENT

ME

METAL EXTRUSION

DULUX MONUMENT

Northeast Corner looking down Regent Street

08 FACADE DESIGN

MATERIALITY

CP1

CAPPING PLATE

DULUX ANOTEC MID BRONZE

CP2

CAPPING PLATE

DULUX JASPER

WF1

WINDOW FRAME

DULUX ANOTEC MID BRONZE

WF2

WINDOW FRAME

DULUX JASPER

WF3

WINDOW FRAME

DULUX MONUMENT

FP1

LGU FRIT PATTERN

DULUX ANOTEC MID BRONZE

30% PERFORATION

FP2

LGU FRIT PATTERN

DULUX JASPER

30% PERFORATION

AP1

ALUMINIUM PANEL

DULUX ANOTEC MID BRONZE

AP2

ALUMINIUM PANEL

DULUX JASPER

BK1

BRICK CAVITY WALL 1

PGH DRY BLACK BEAUTY

BK2

BRICK CAVITY WALL 2

PGH DRY HAWKESBURY BRONZE



East Facade looking North up Regent Street

SH1

PERFORATED MESH SHADE

DULUX ANOTEC MID BRONZE

30% PERFORATION

SH2

PERFORATED MESH SHADE

DULUX JASPER

30% PERFORATION

CBG1

COLOUR BACK GLASS

DULUX PEWTER PEARL

LW

LOUVRED WALL WITH BUILT IN DOOR ACCESS

DULUX MONUMENT

VG1

VENTILATION GRILLE

DULUX JASPER OR DULUX ANOTEC MID BRONZE TO MATCH ADJOINING AP

PC1

PRECAST CONCRETE PANEL TINT 1

KIEM 9288

PC2

PRECAST CONCRETE PANEL TINT 2

KIEM 9292

AWF

FOOTPATH AWNING

DULUX MONUMENT TO TOP AND SIDES

DULUX ELECTRO DURATE ZUES TALC TO SOFFIT

W1

PODIUM WALL

DULUX MONUMENT

ME

METAL EXTRUSION

DULUX MONUMENT



CP1 CAPPING PLATE
DULUX ANOTEC MID BRONZE



CP2 CAPPING PLATE
DULUX JASPER



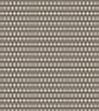
WF1 WINDOW FRAME
DULUX ANOTEC MID BRONZE



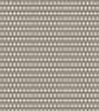
WF2 WINDOW FRAME
DULUX JASPER



WF3 WINDOW FRAME
DULUX MONUMENT



FP1 LGU FRIT PATTERN
DULUX ANOTEC MID BRONZE
30% PERFORATION



FP2 LGU FRIT PATTERN
DULUX JASPER
30% PERFORATION



AP1 ALUMINIUM PANEL
DULUX ANOTEC MID BRONZE



AP2 ALUMINIUM PANEL
DULUX JASPER



BK1 BRICK CAVITY WALL 1
PGH DRY BLACK BEAUTY



BK2 BRICK CAVITY WALL 2
PGH DRY HAWKESBURY BRONZE





SH1 PERFORATED MESH SHADE
DULUX ANOTEC MID BRONZE
30% PERFORATION



SH2 PERFORATED MESH SHADE
DULUX JASPER
30% PERFORATION



CBG1 COLOUR BACK GLASS
DULUX PEWTER PEARL



LW LOUVRED WALL WITH BUILT IN DOOR ACCESS
DULUX MONUMENT



VG1 VENTILATION GRILLE
DULUX JASPER OR DULUX ANOTEC MID
BRONZE TO MATCH ADJOINING AP



PC1 PRECAST CONCRETE PANEL TINT 1
KEIM 9288



PC2 PRECAST CONCRETE PANEL TINT 2
KEIM 9292



AWF FOOTPATH AWNING
DULUX MONUMENT TO TOP AND SIDES
DULUX ELECTRO DURATE ZUES TALC TO SOFFIT



W1 PODIUM WALL
DULUX MONUMENT



ME METAL EXTRUSION
DULUX MONUMENT

Northwest corner along Marian Street

09 INTERIOR DESIGN

DESIGN CONCEPT - BEDROOMS

High quality bedrooms

ROBUST + DURABLE

- + Materials will be selected for their durability and ability to withstand high use

PRIVATE STUDY

- + Each room will provide a place to study and work, enabling complete privacy, if desired

COMFORTABLE

- + Every room is designed to ensure more than enough natural light and ventilation, as well as acoustic separation from the nearby road noise



09 INTERIOR DESIGN

09 INTERIOR DESIGN

DESIGN CONCEPT - COMMON AREAS

Common area zoning tailored to suit desirable social activities and lifestyle

ACTIVITY

Common areas are separated into zones for recreational activities for example

- + 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
- + sun lounge terrace
- + garden spaces





Common area facilities tailored to suit desirable activities

CONVENIENCE

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



STUDY

- + Large study area for individuals, small groups and larger meetings
- + Soundproof rooms for quiet learning or meetings, small study nooks and large workstation spaces inviting students to study in the communal areas

INTERACT

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



09 INTERIOR DESIGN

BEDROOM LAYOUTS



ENSUITE DORM

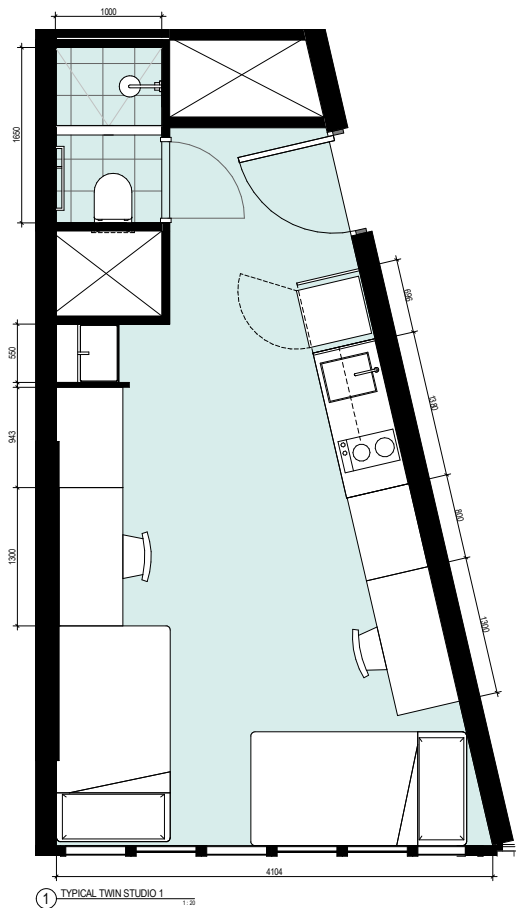
no of occupant(s)	1
room area (excl ensuite)	11.7 m ²
ensuite	2.3 m ²
kitchenette	N/A
total area	14.0 m ²
general ceiling height	3.4m

QUEEN STUDIO ROOM

no of occupant(s)	1
room area	12.2m ²
ensuite	2.3 m ²
kitchenette	1.3 m ²
total area	15.8m ²
general ceiling height	2.7m

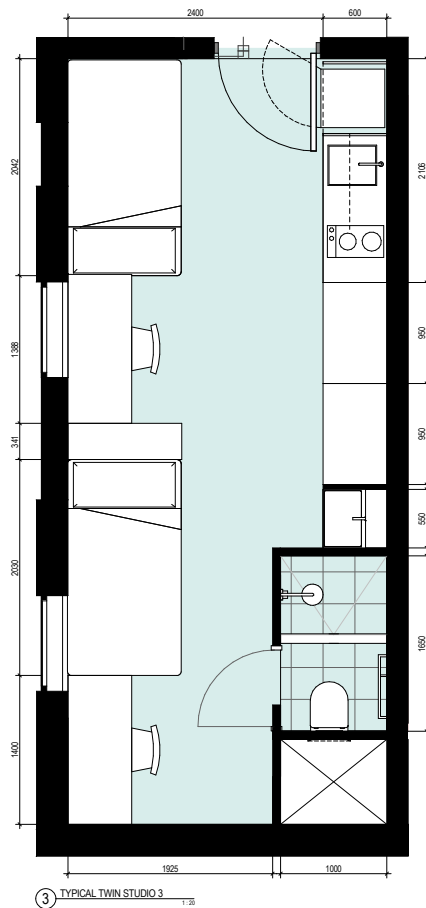
ADAPTABLE UNIT

no of occupant(s)	1
room area (excl ensuite)	12.6 m ²
ensuite	6.2 m ²
kitchenette	2.0 m ²
total area	20.8m ²
general ceiling height	2.7m



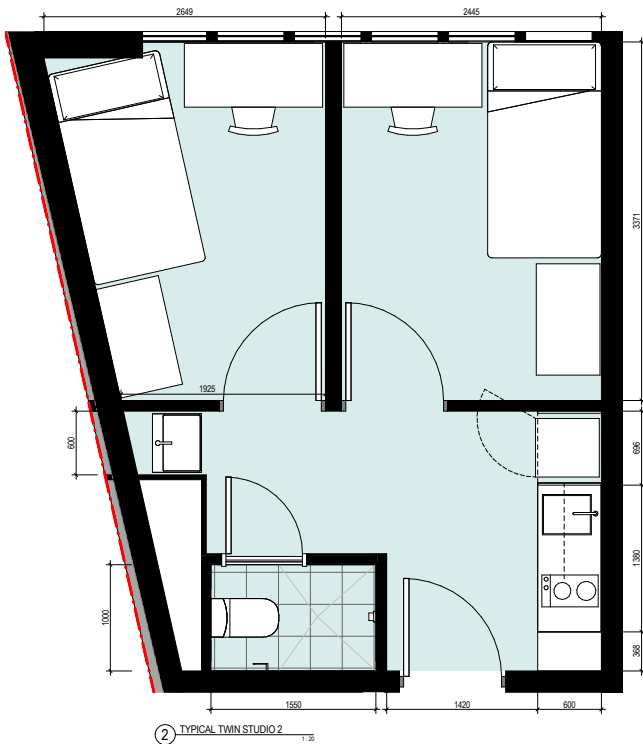
TWIN STUDIO ROOM 1

no of occupant(s)	2
room area (excl ensuite)	18.6 m ²
ensuite	2.3 m ²
kitchenette	1.3 m ²
total area	22.2 m ²
general ceiling height	2.7m



TWIN STUDIO ROOM 2

no of occupant(s)	2
room area (excl ensuite)	16.9 m ²
ensuite	2.3 m ²
kitchenette	1.3 m ²
total area	20.5 m ²
general ceiling height	2.7m



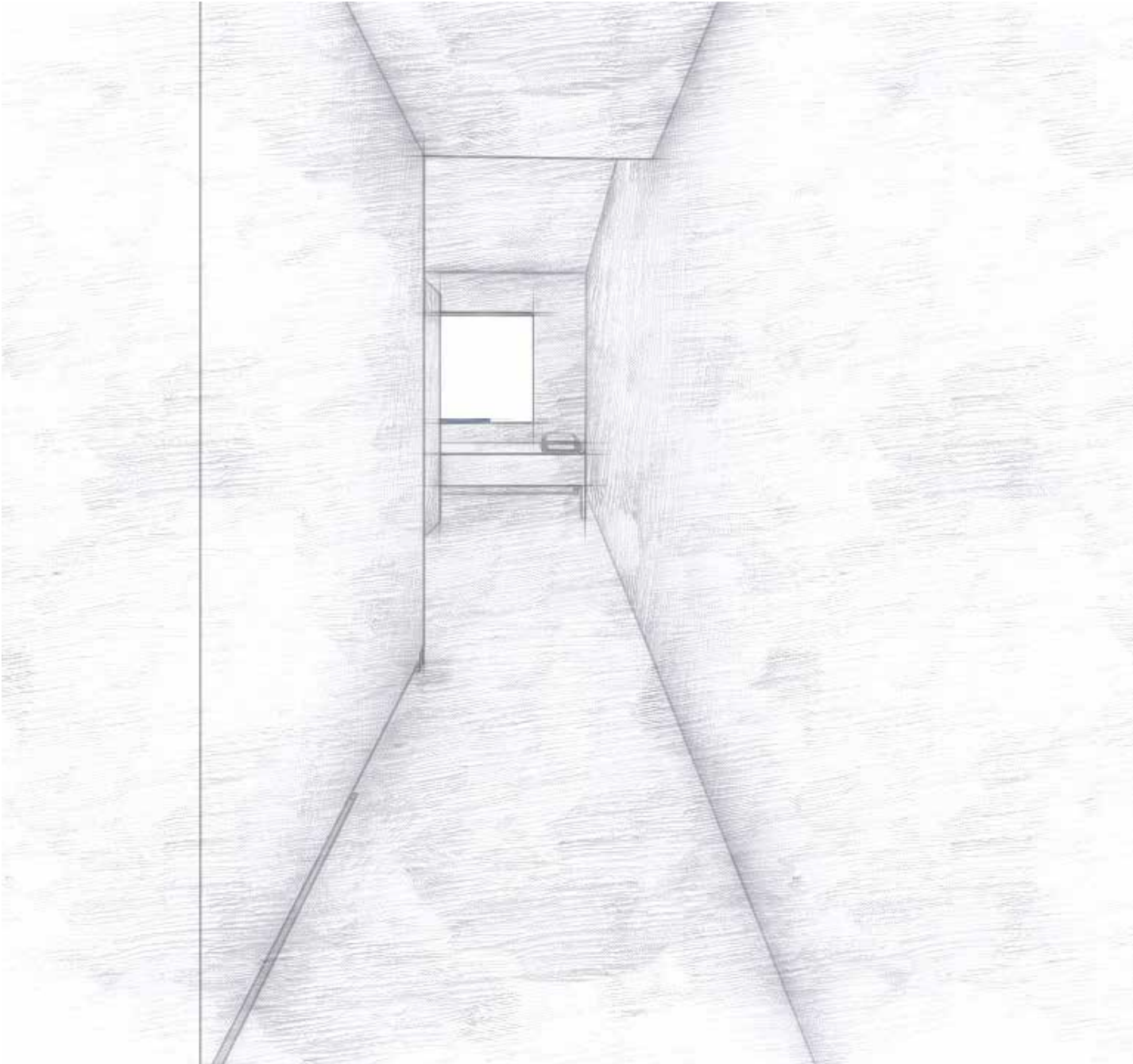
TWIN STUDIO ROOM 3

no of occupant(s)	1
room area (excl ensuite)	22.1 m ²
ensuite	2.3 m ²
kitchenette	1.5 m ²
total area	25.9 m ²
general ceiling height	2.7m

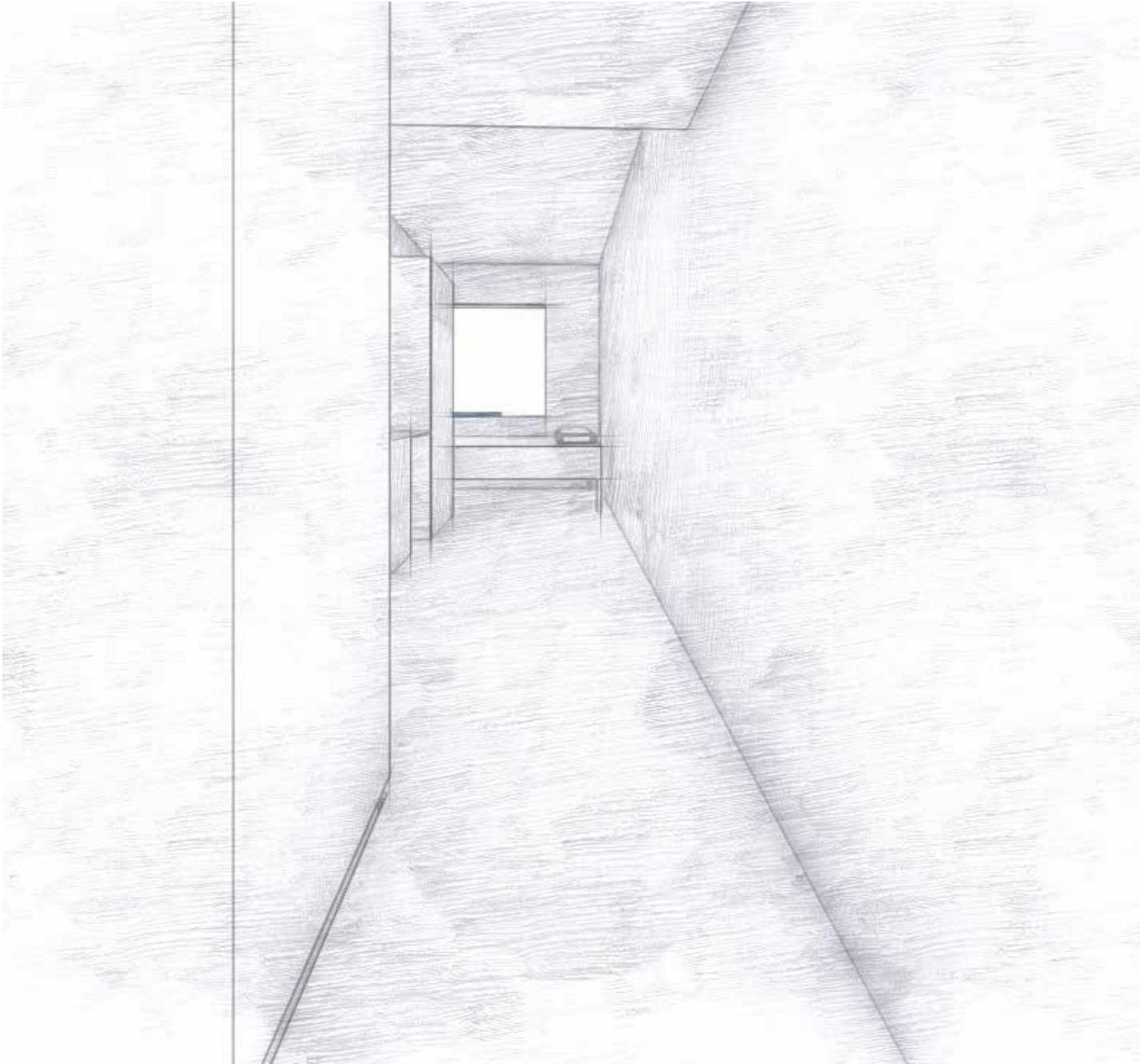
09 INTERIOR DESIGN

CONCEPT SKETCH - BEDROOM

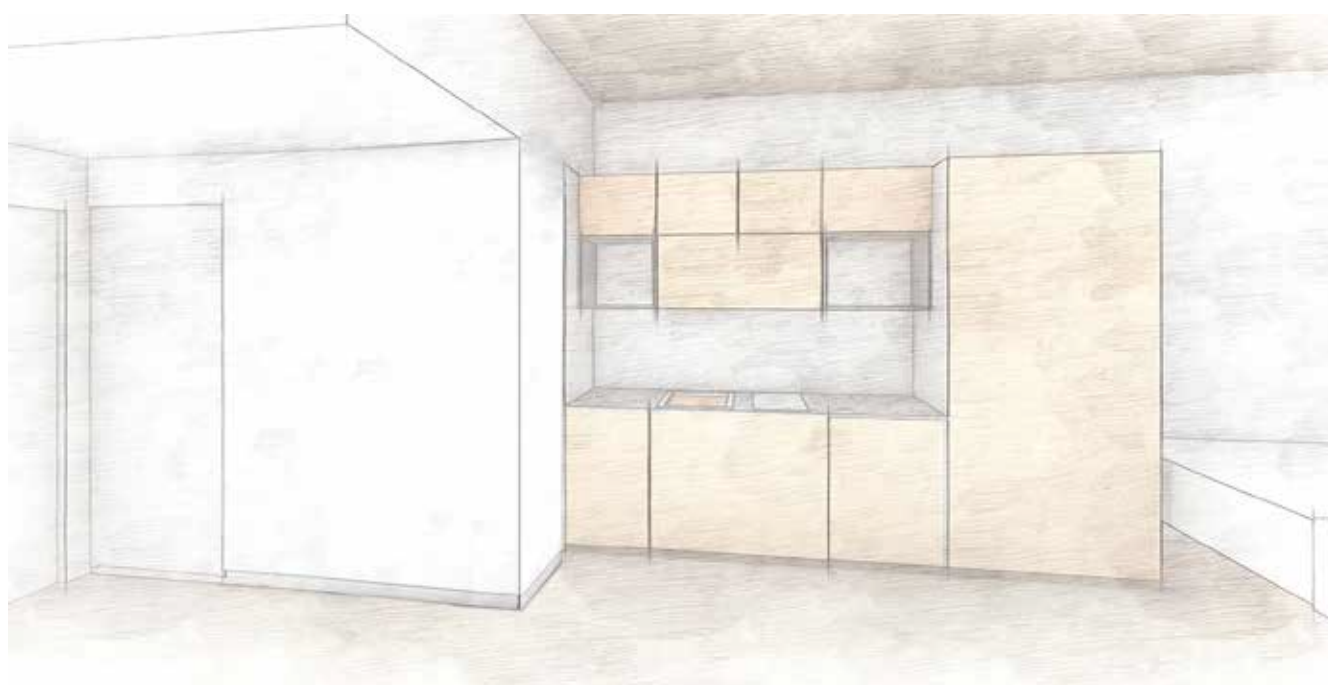
Concept - European style design to locate washbasin outside the bathroom pod to decrease the size of the bathroom, increase the useable room size and open up sightlines to the bedroom window



Single Queen Interior Concept - Room Perspective with Large Bathroom Pod



Single Queen Interior Concept - Room Perspective with Small Bathroom Pod



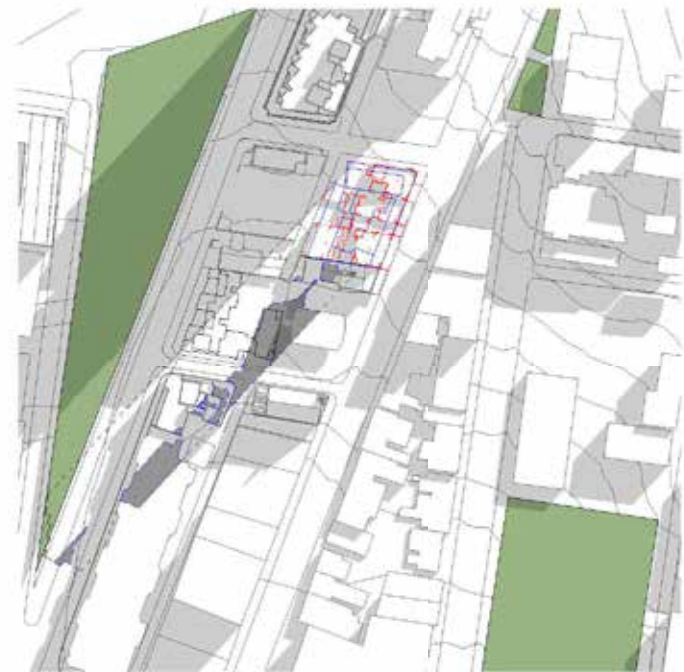
Single Queen Interior Concept
- Large Bathroom Pod with
washbasin inside bathroom pod.



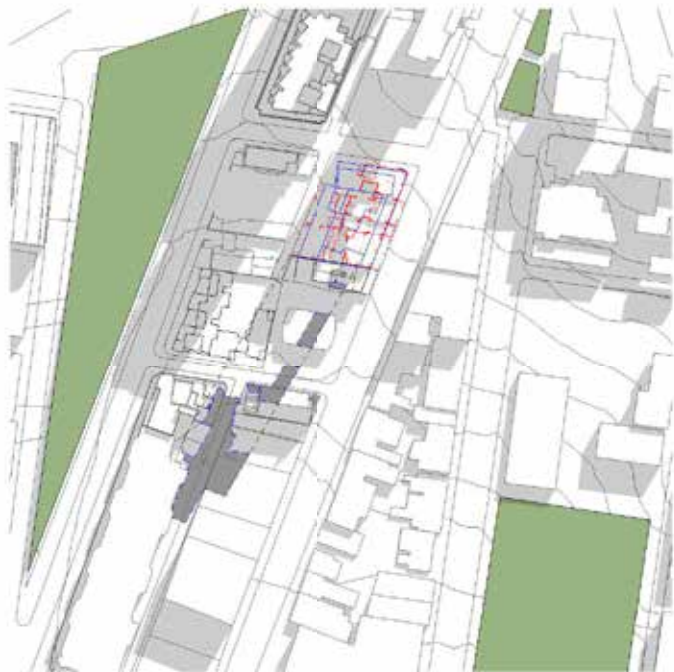
Single Queen Interior Concept
- Small Bathroom Pod with
washbasin as part of kitchen
joinery.

10 SOLAR ANALYSIS

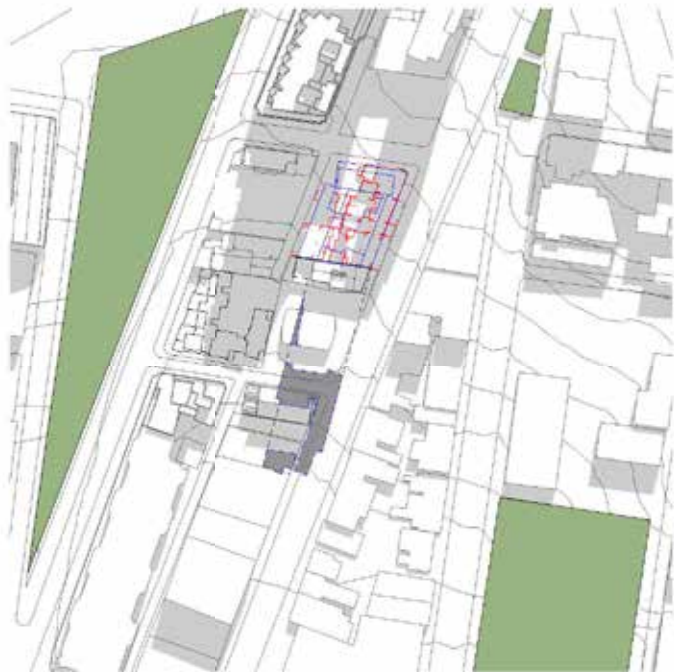
SHADOW DIAGRAMS - PROPOSED - WINTER SOLSTICE



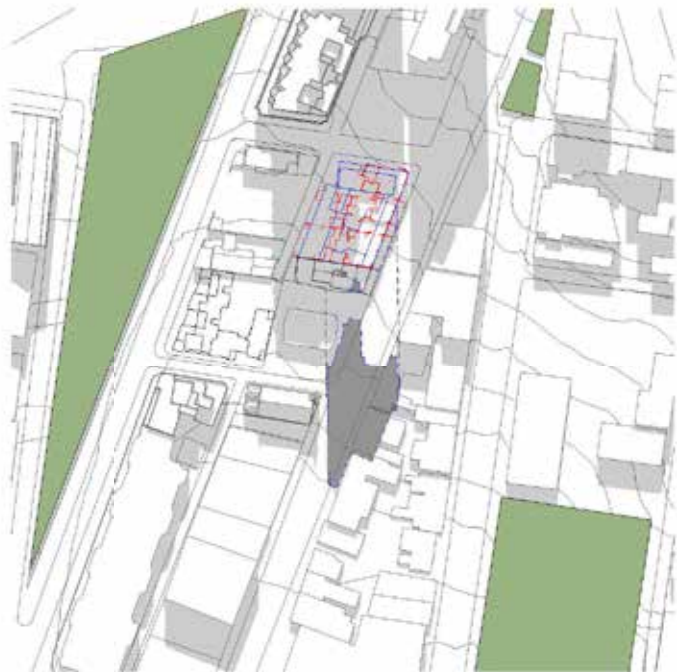
1 EXISTING MID WINTER 9AM
1:1500



2 EXISTING MID WINTER 10AM
1:1500



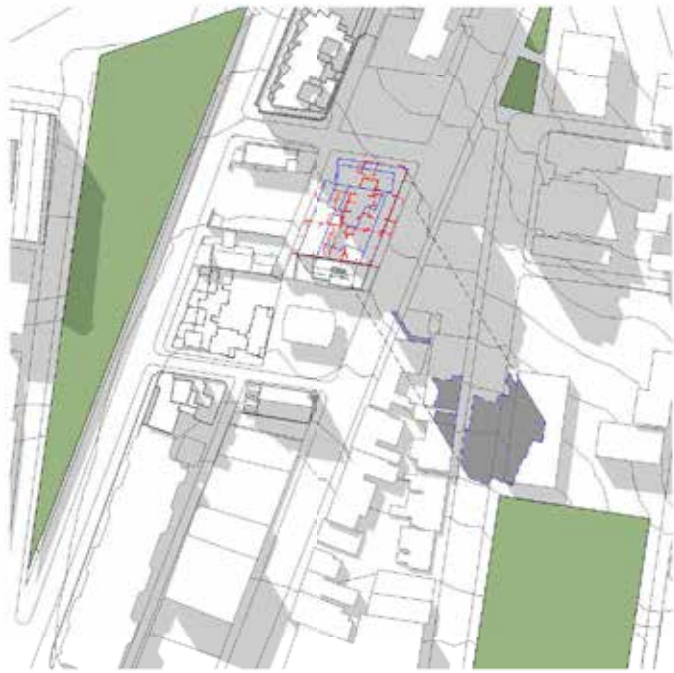
3 EXISTING MID WINTER 11AM
1:1500



4 EXISTING MID WINTER 12PM
1:1500



5 EXISTING MID WINTER 1PM
1:1500



6 EXISTING MID WINTER 2PM
1:1500

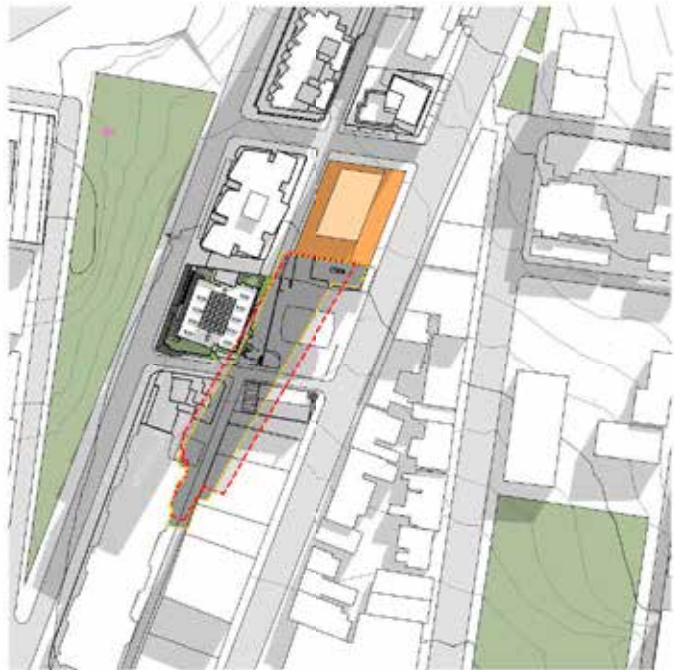


7 EXISTING MID WINTER 3PM
1:1500

■ ADDITIONAL SHADOW FROM PROPOSED
■ EXISTING BUILDING
■ PROPOSED BUILDING



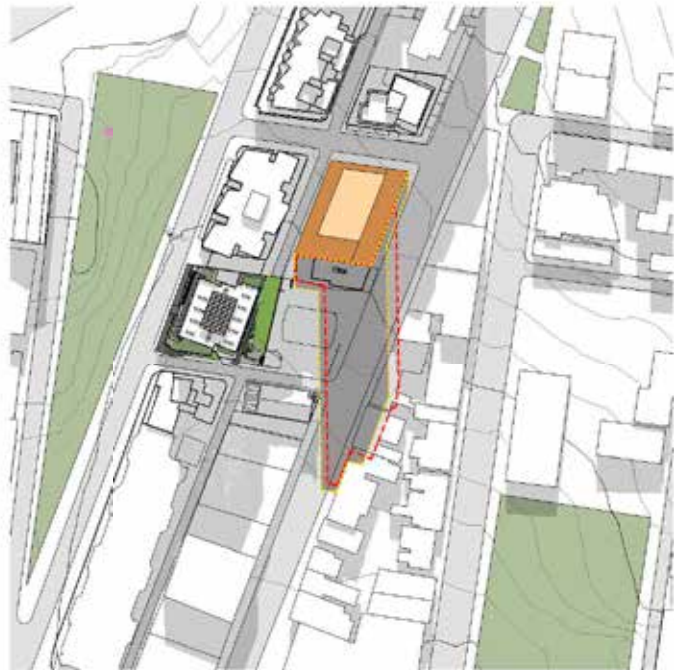
1 CONTROL & APPROVED CONTEXT MID WINTER 9AM
1:1500



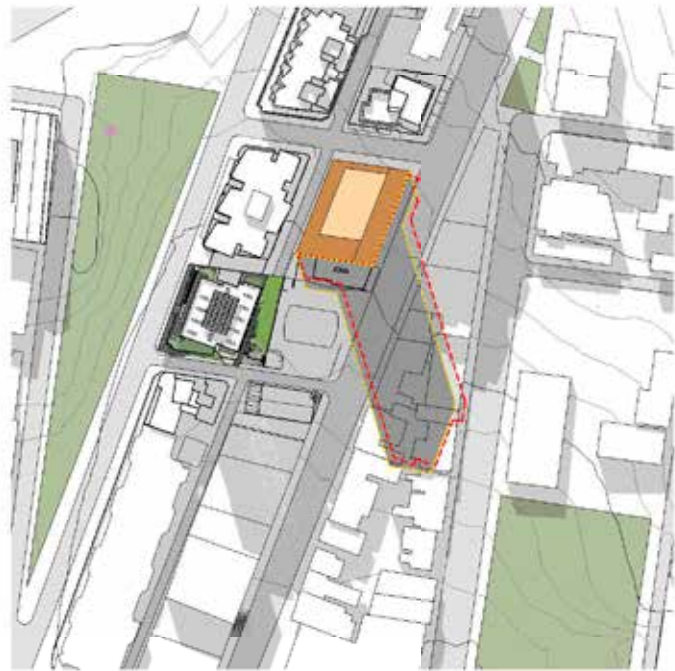
2 CONTROL & APPROVED CONTEXT MID WINTER 10AM
1:1500



3 CONTROL & APPROVED CONTEXT MID WINTER 11AM
1:1500



4 CONTROL & APPROVED CONTEXT MID WINTER 12PM
1:1500



5 CONTROL & APPROVED CONTEXT MID WINTER 1PM
1:1500



6 CONTROL & APPROVED CONTEXT MID WINTER 2PM
1:1500

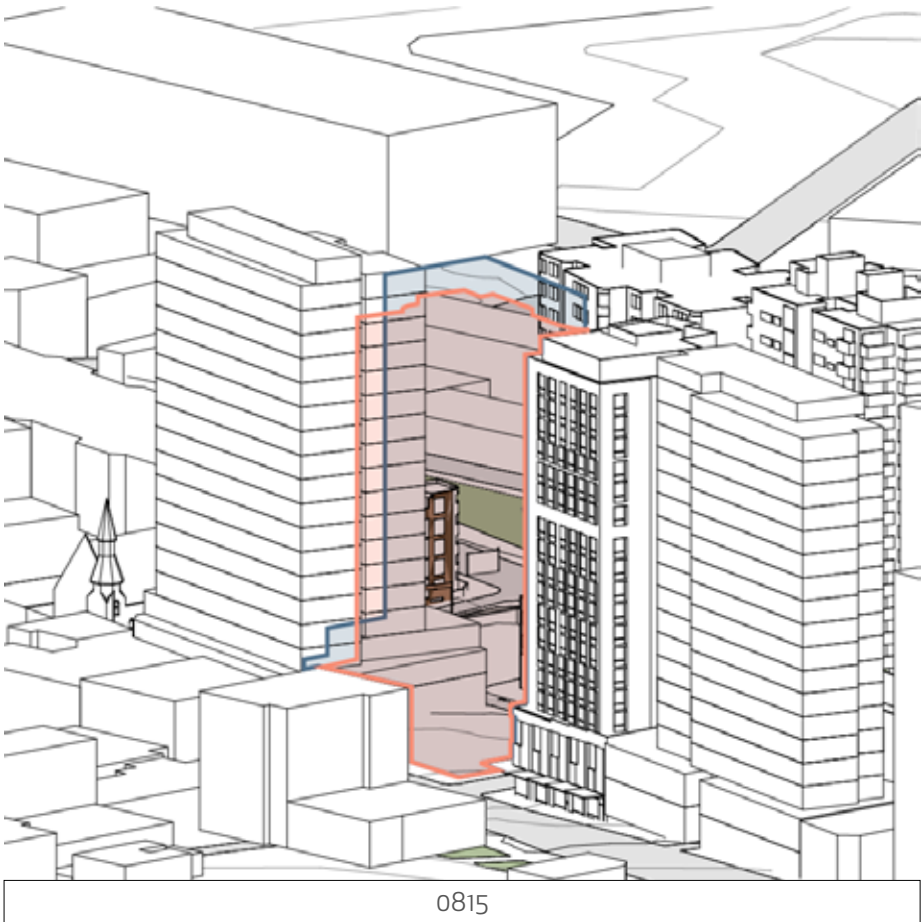
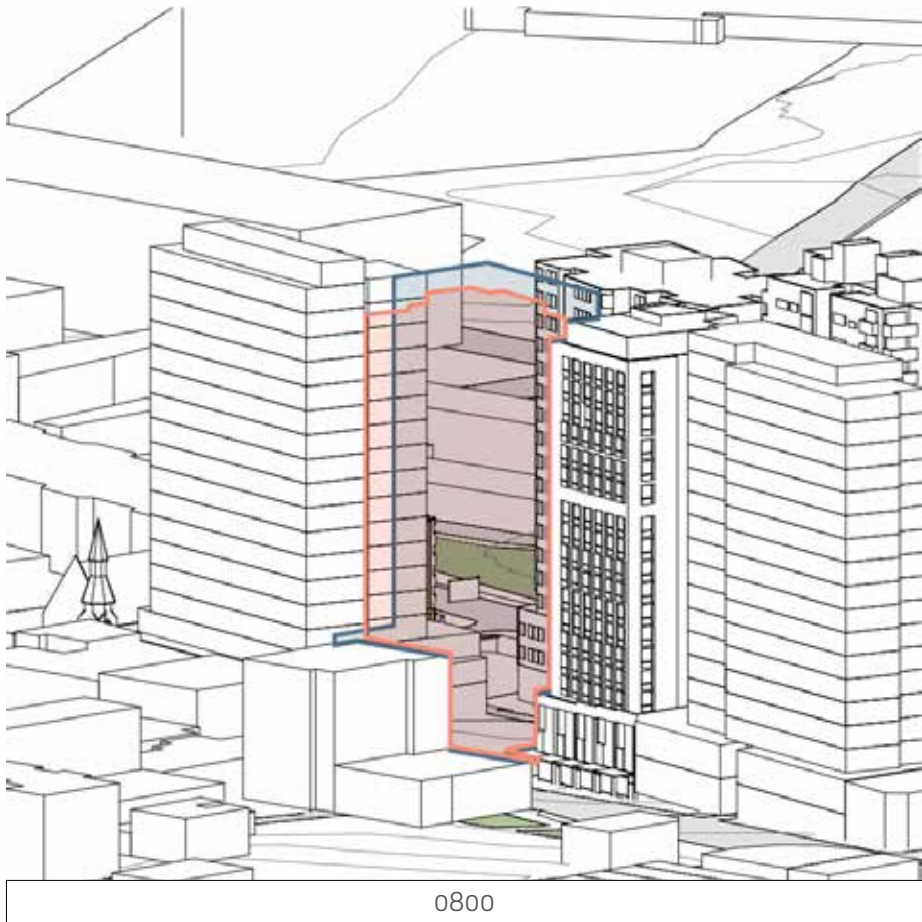


7 CONTROL & APPROVED CONTEXT MID WINTER 3PM
1:1500

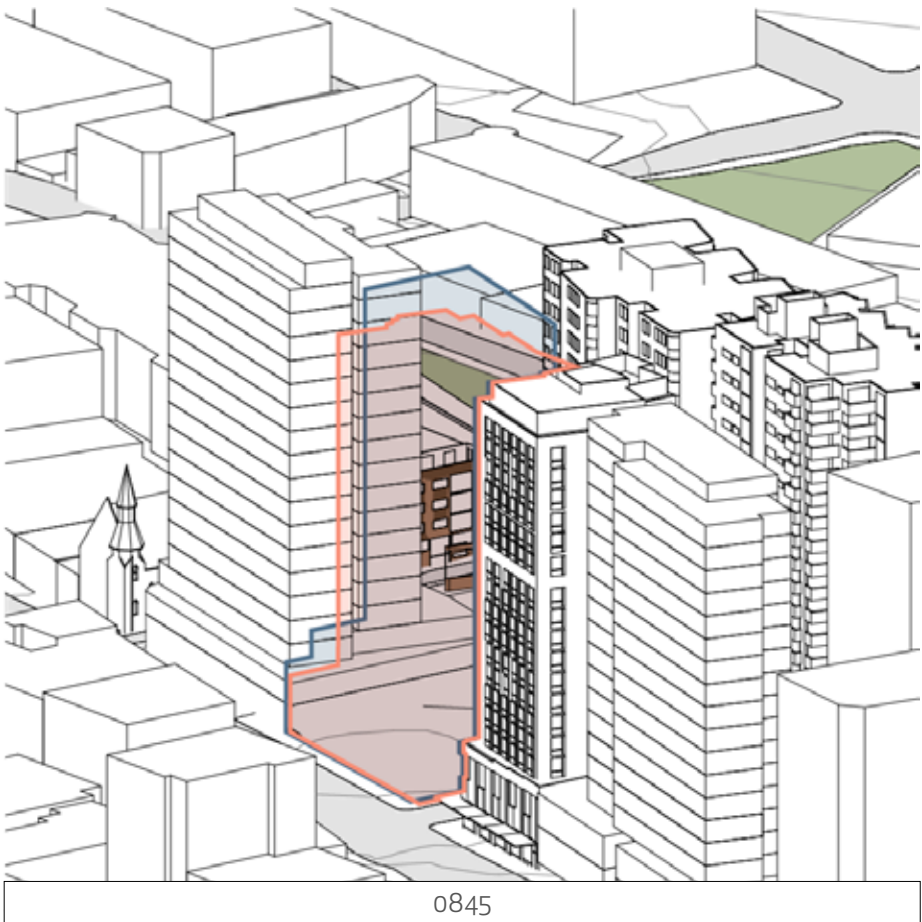
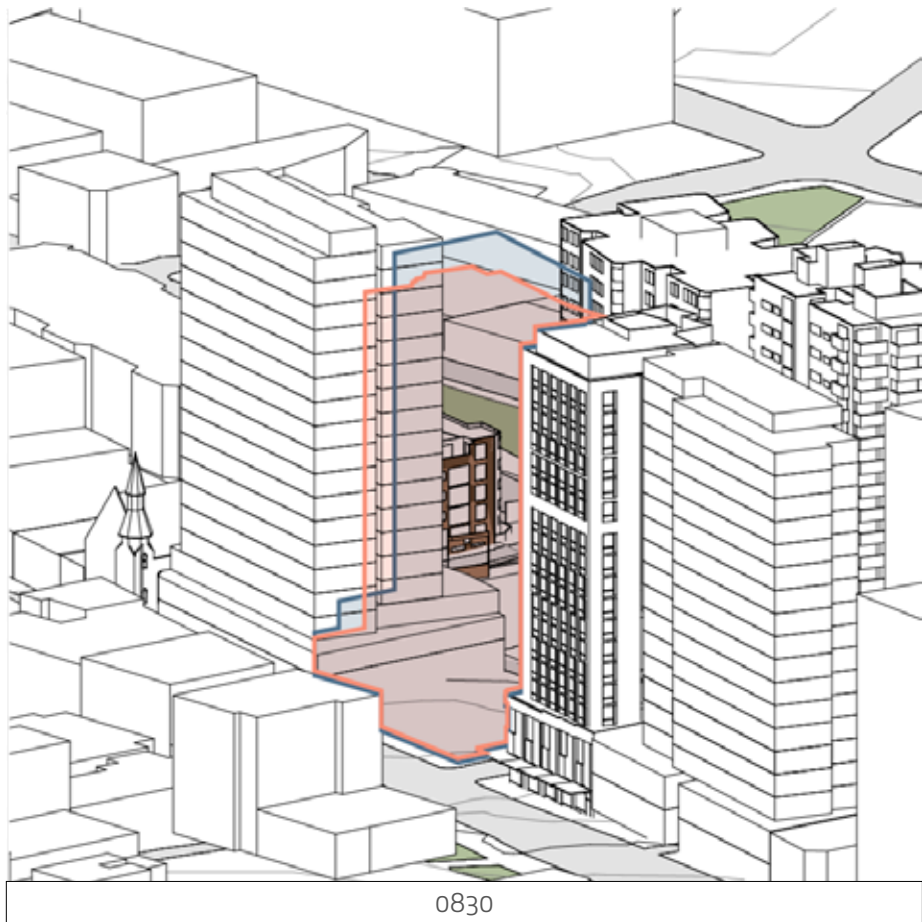
PROPOSED
CONTROL

10 SOLAR ANALYSIS

SUN EYE VIEWS
WINTER SOLSTICE

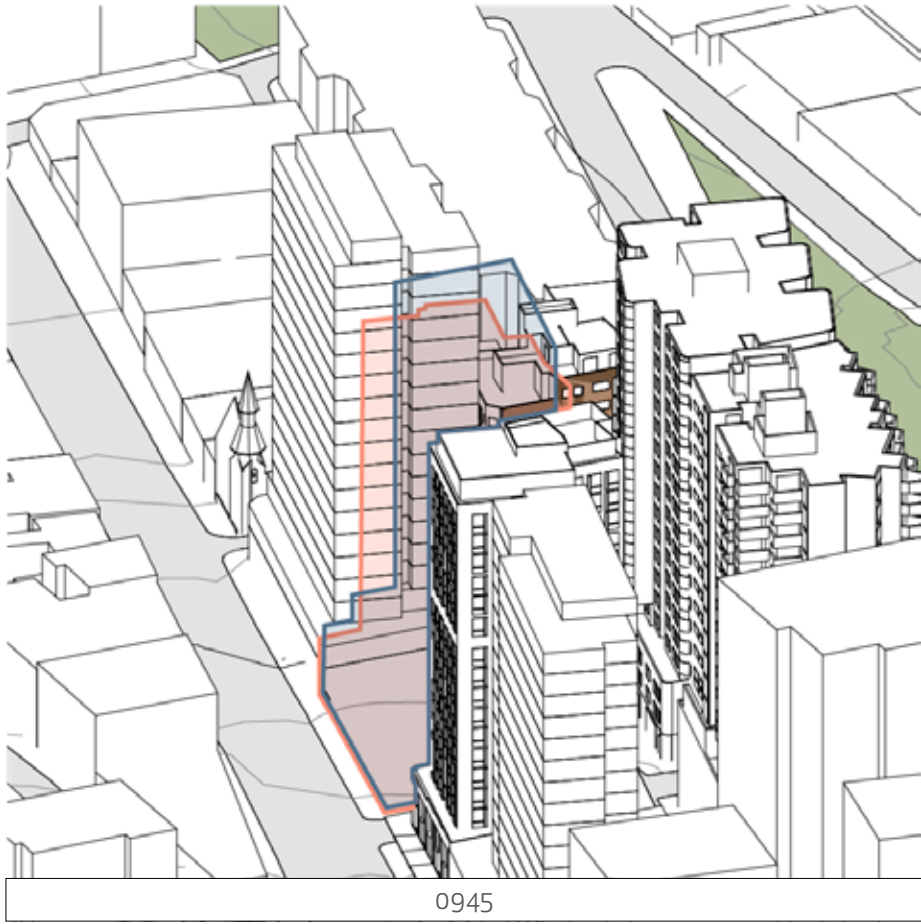
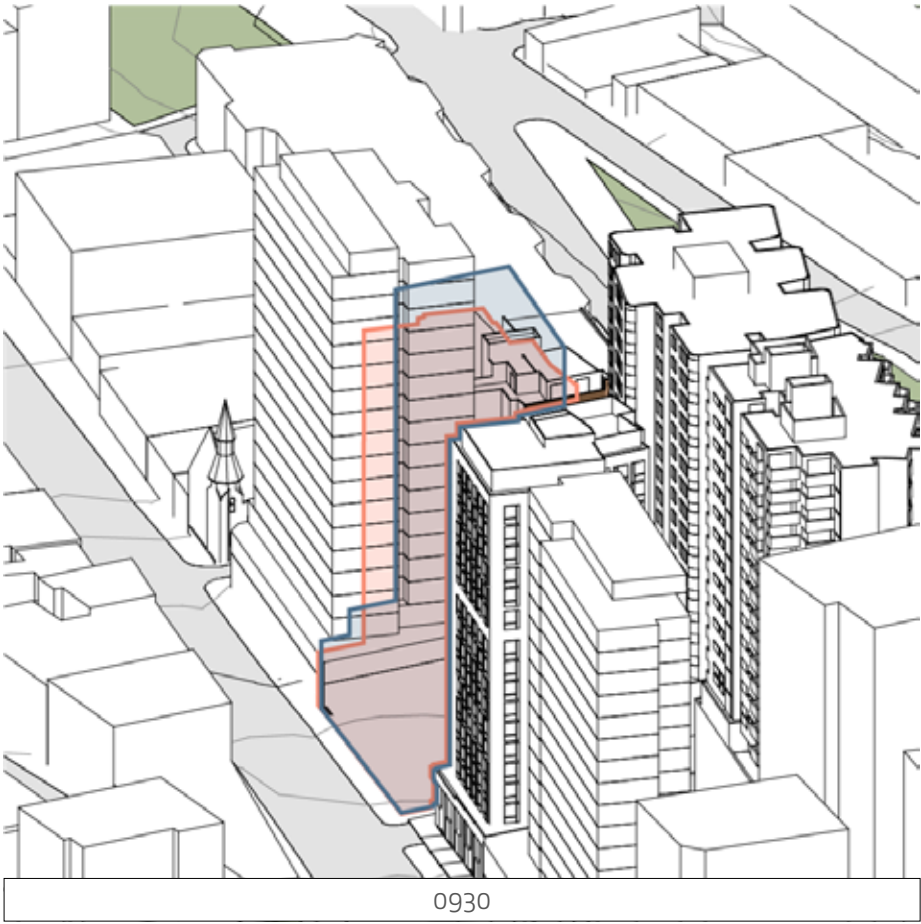
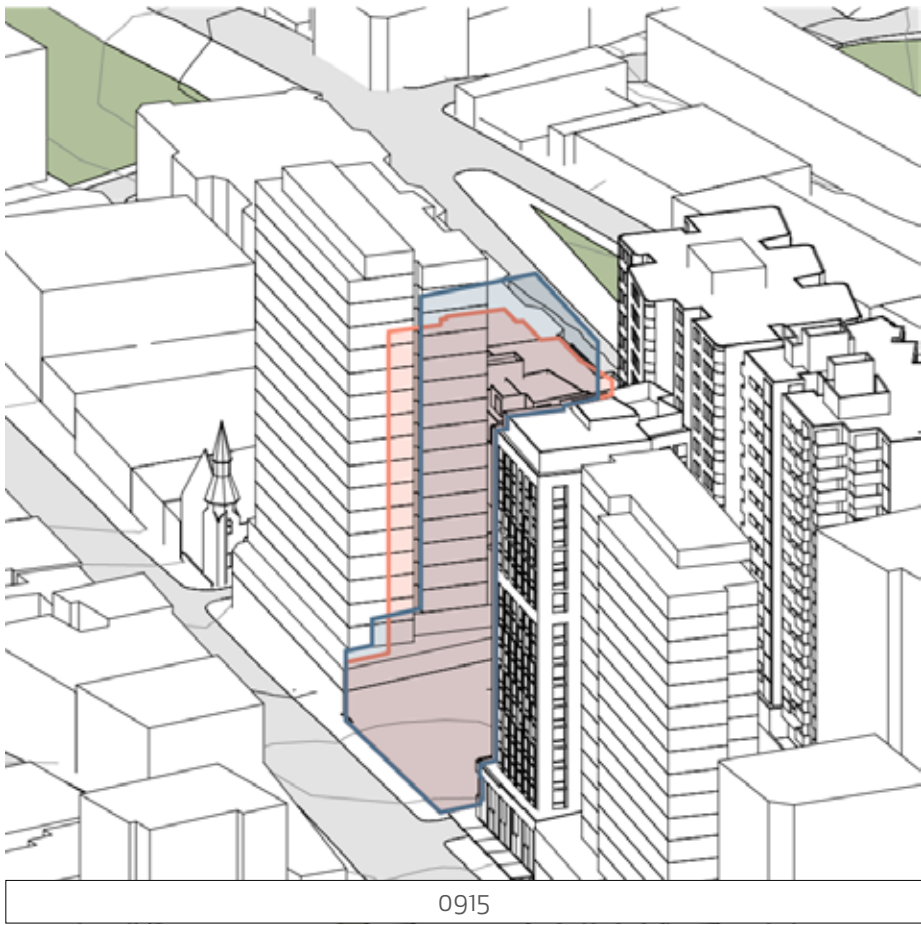
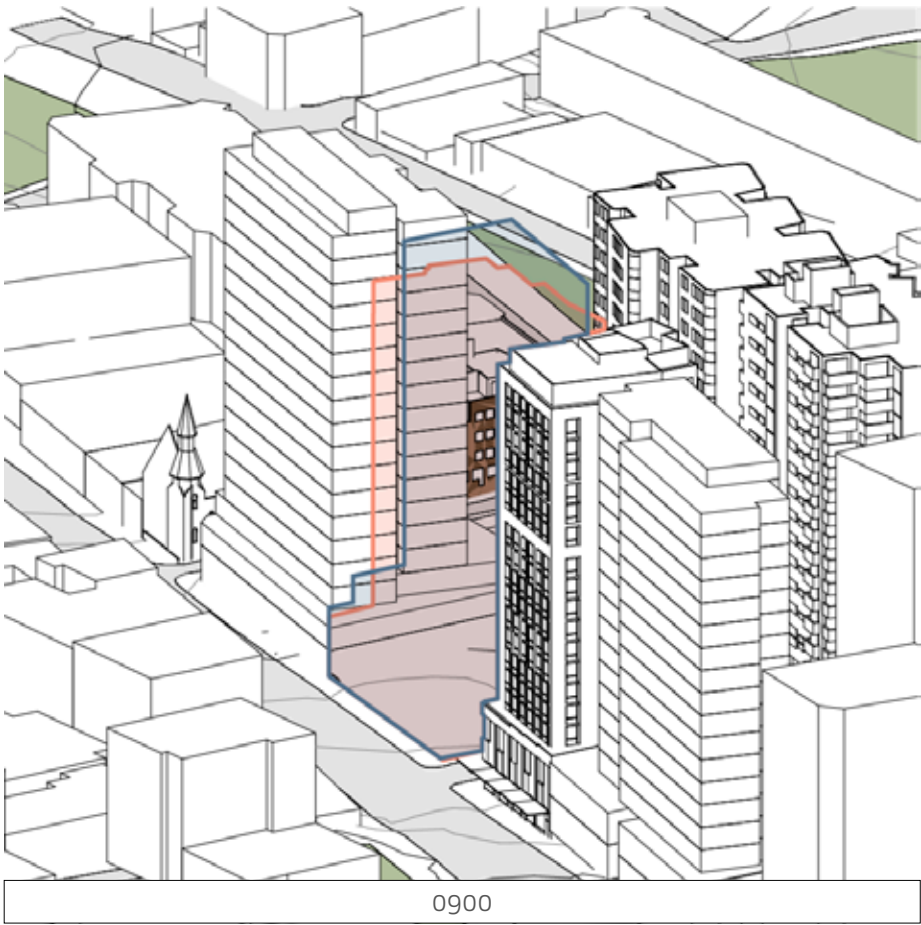


Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 8AM-9AM.



Proposed Development Envelope
Control Development Envelope

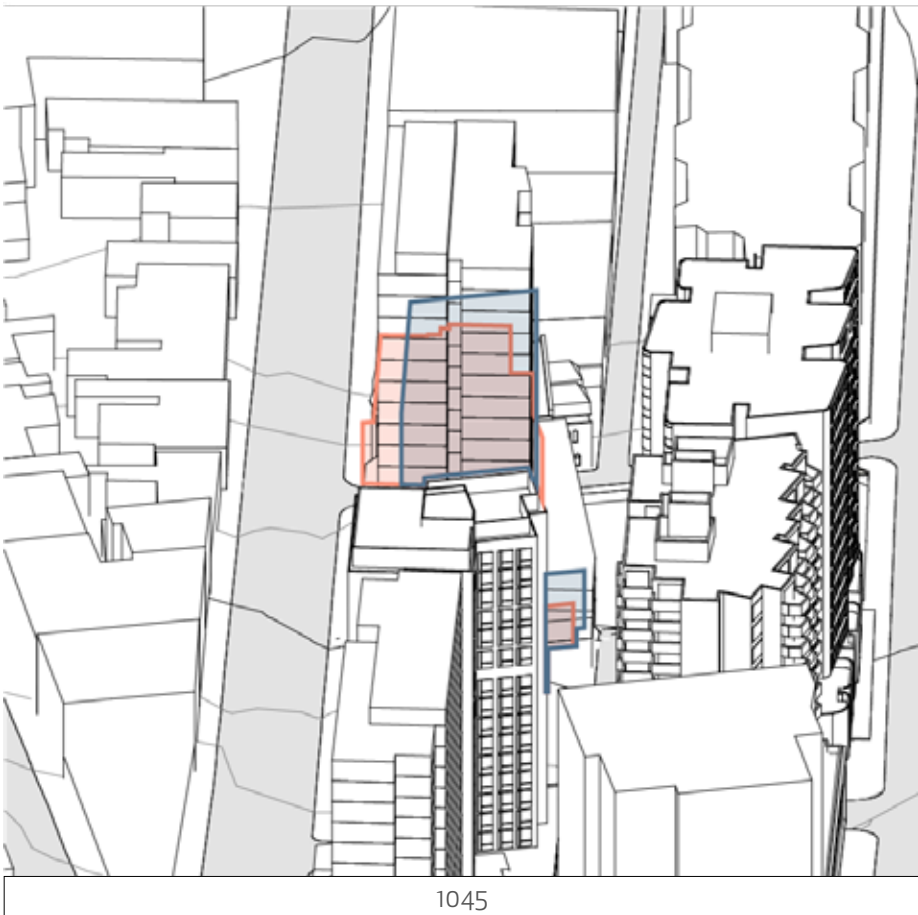
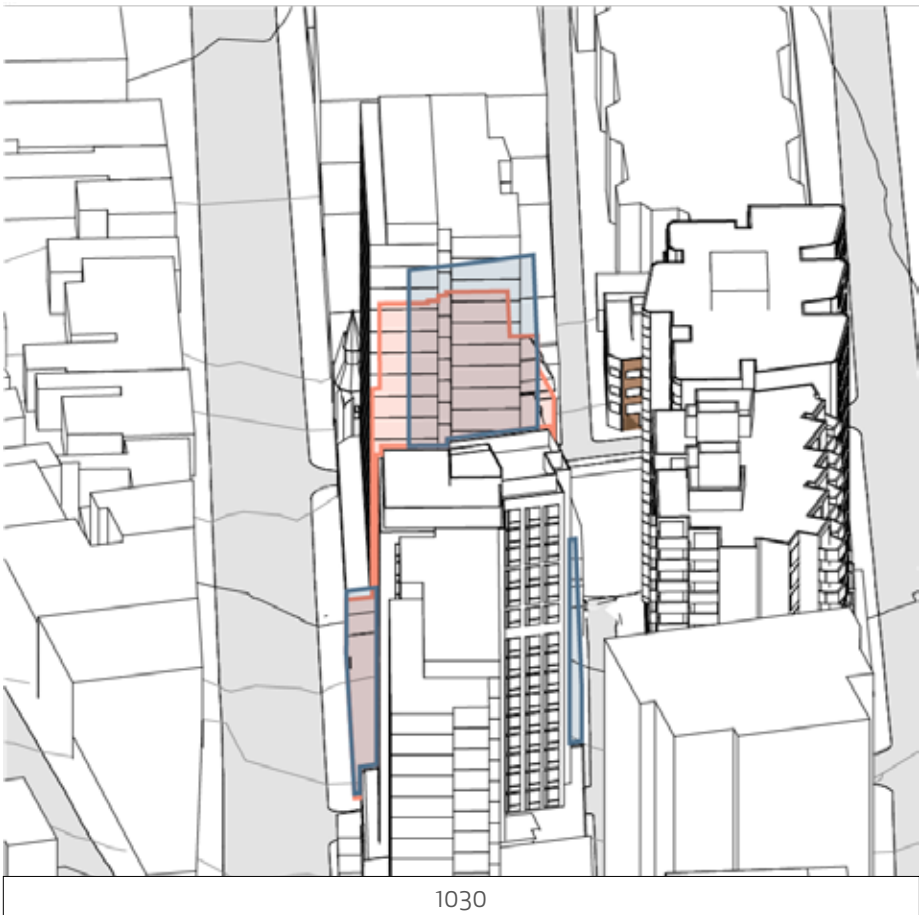
Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 9AM-10AM.



— Proposed Development Envelope
— Control Development Envelope

10 SOLAR ANALYSIS

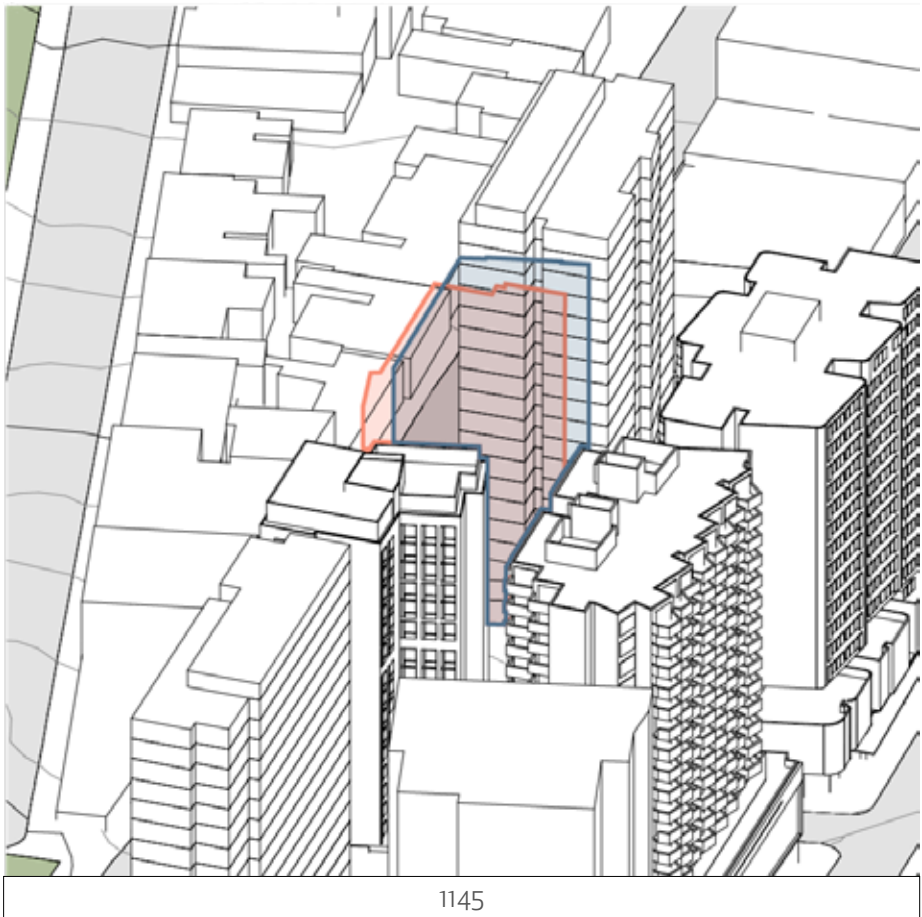
SUN EYE VIEWS
WINTER SOLSTICE



Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 10AM-11AM.

- Proposed Development Envelope
- Control Development Envelope

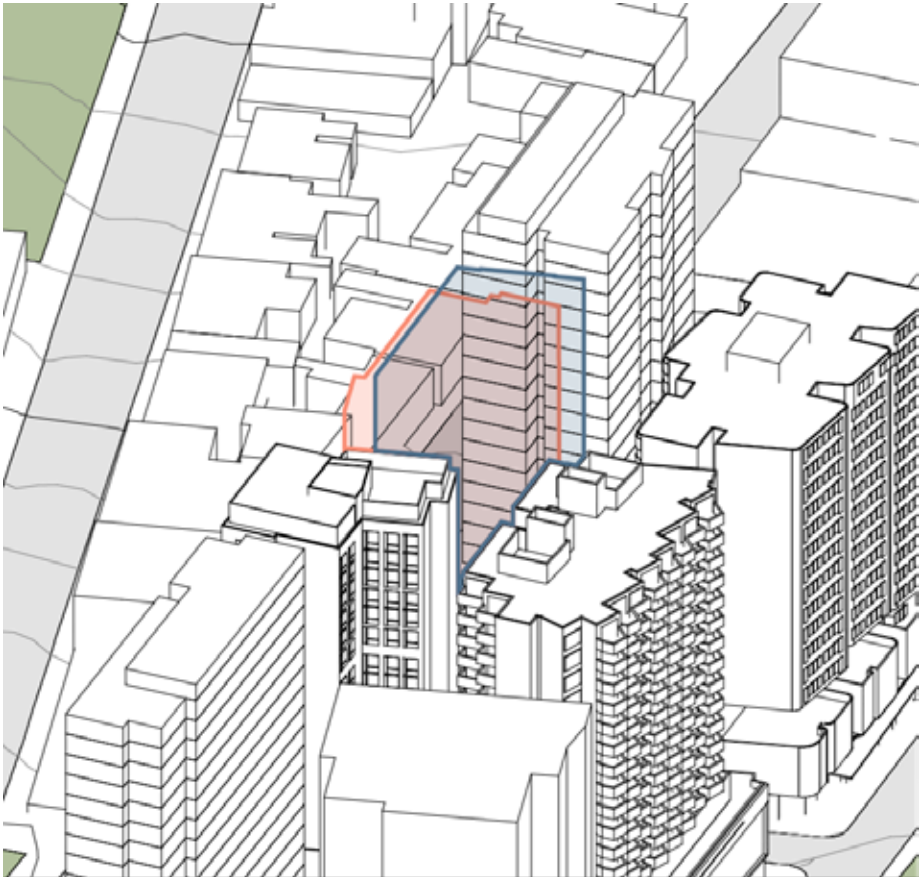
Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 11AM-12PM.



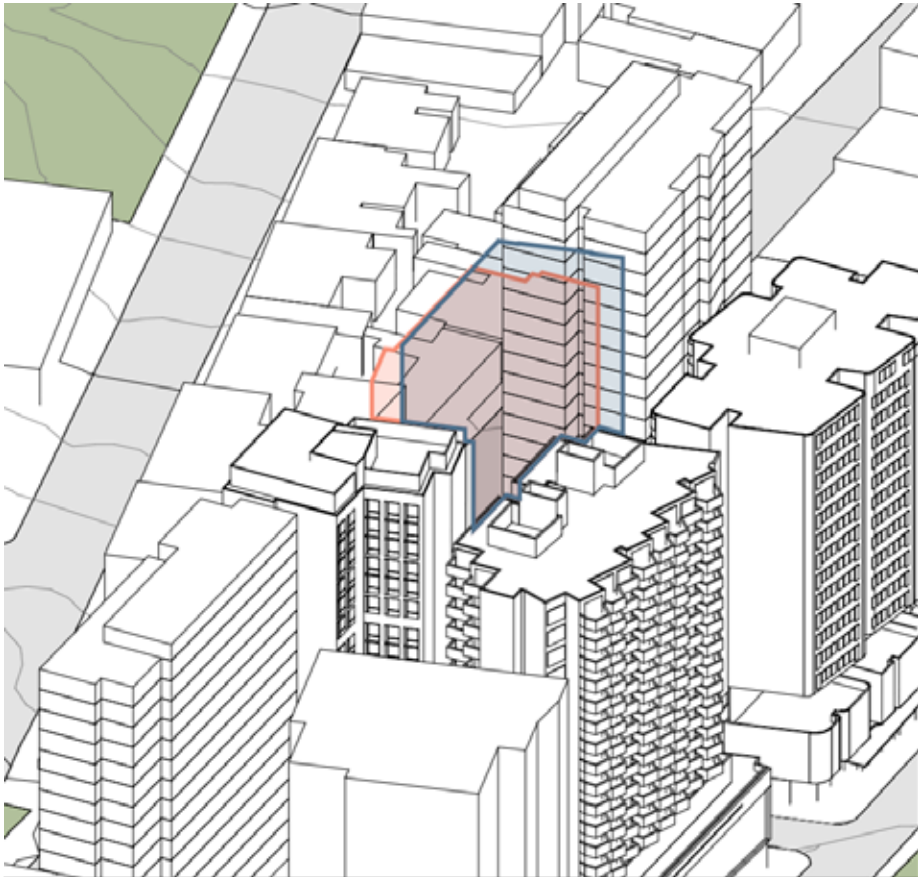
- Proposed Development Envelope
- Control Development Envelope

10 SOLAR ANALYSIS

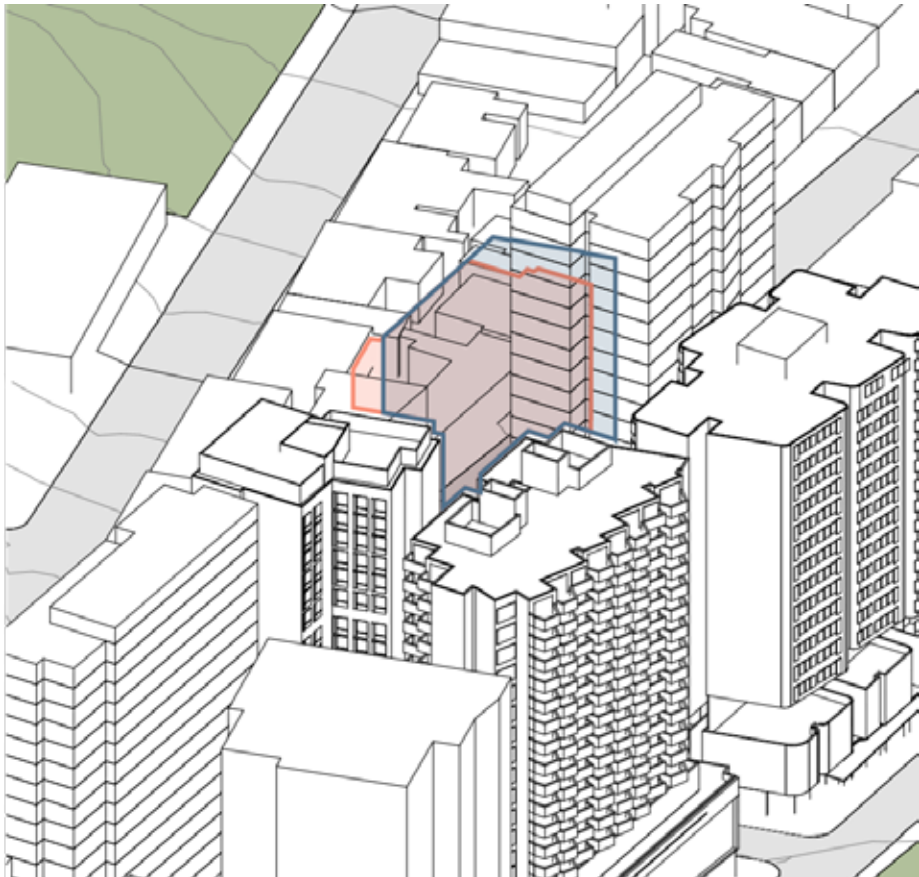
SUN EYE VIEWS
WINTER SOLSTICE



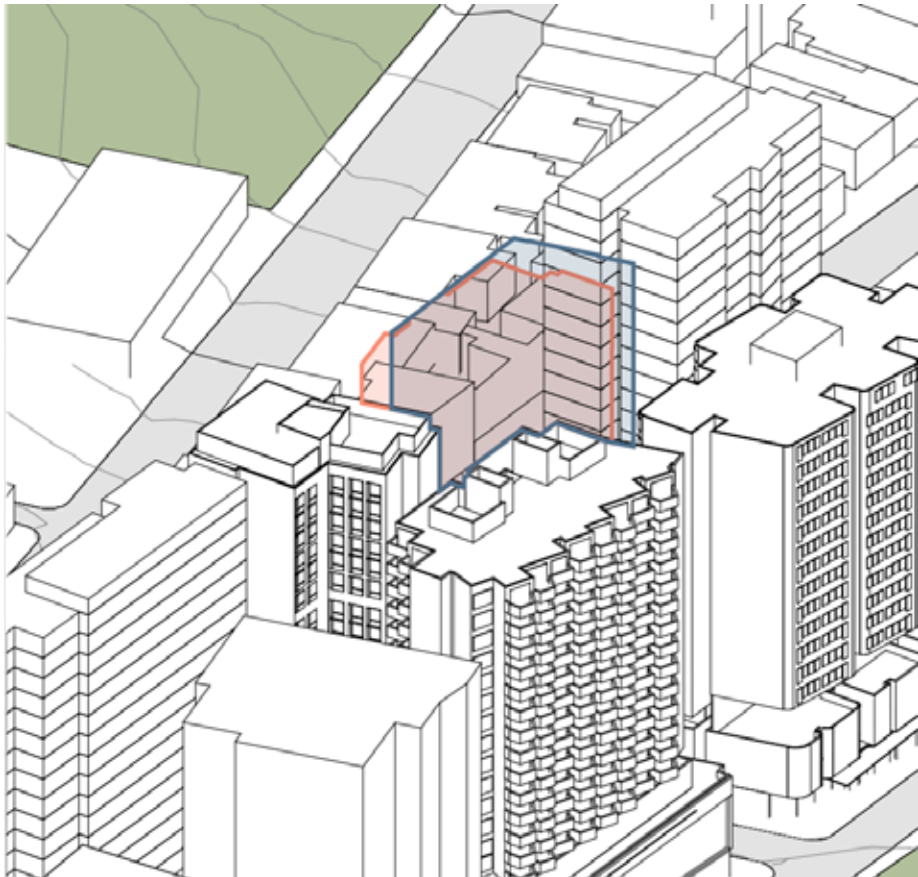
1200



1215



1230

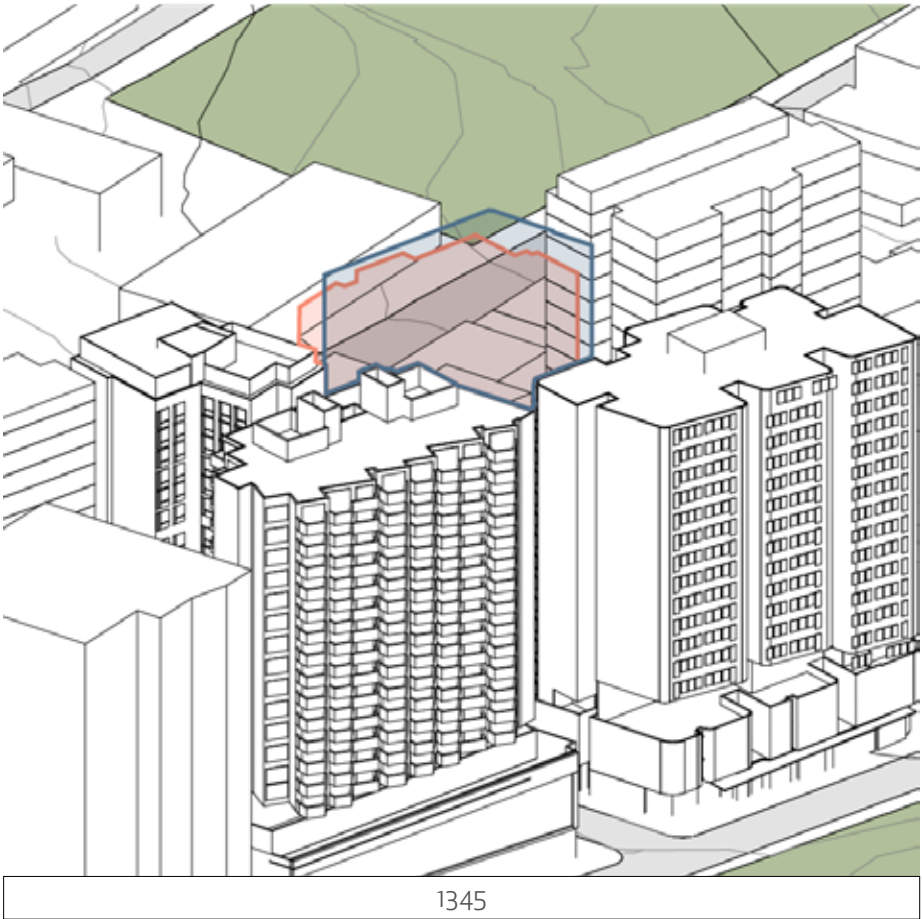
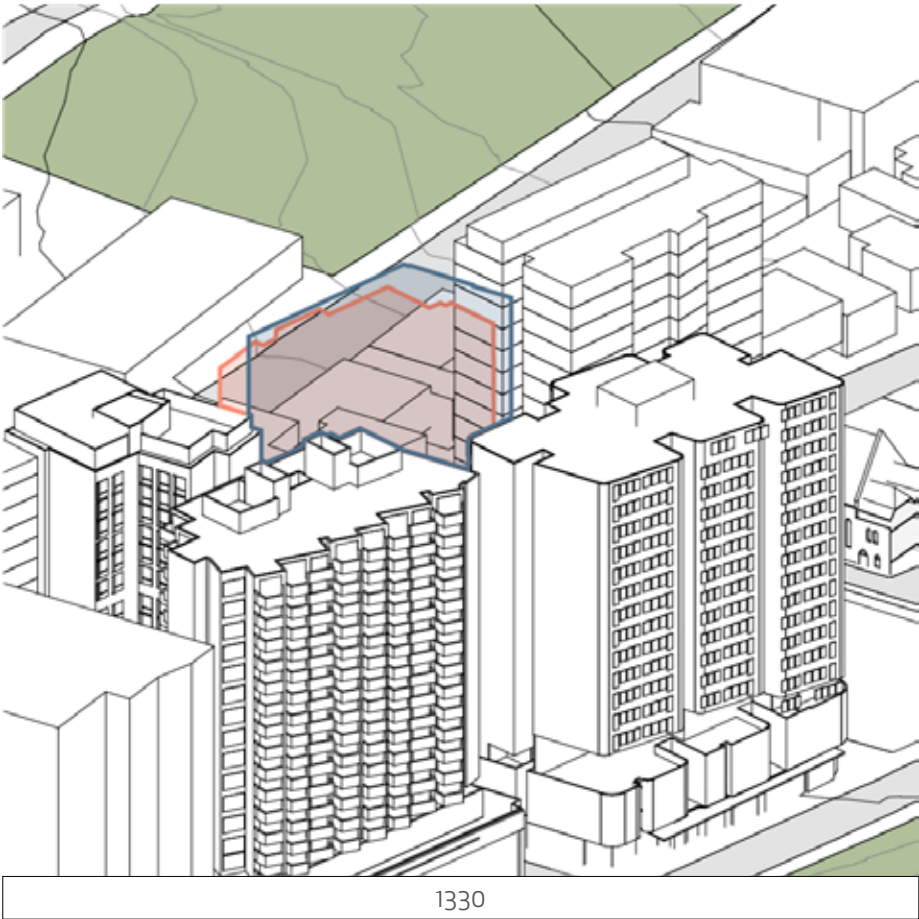
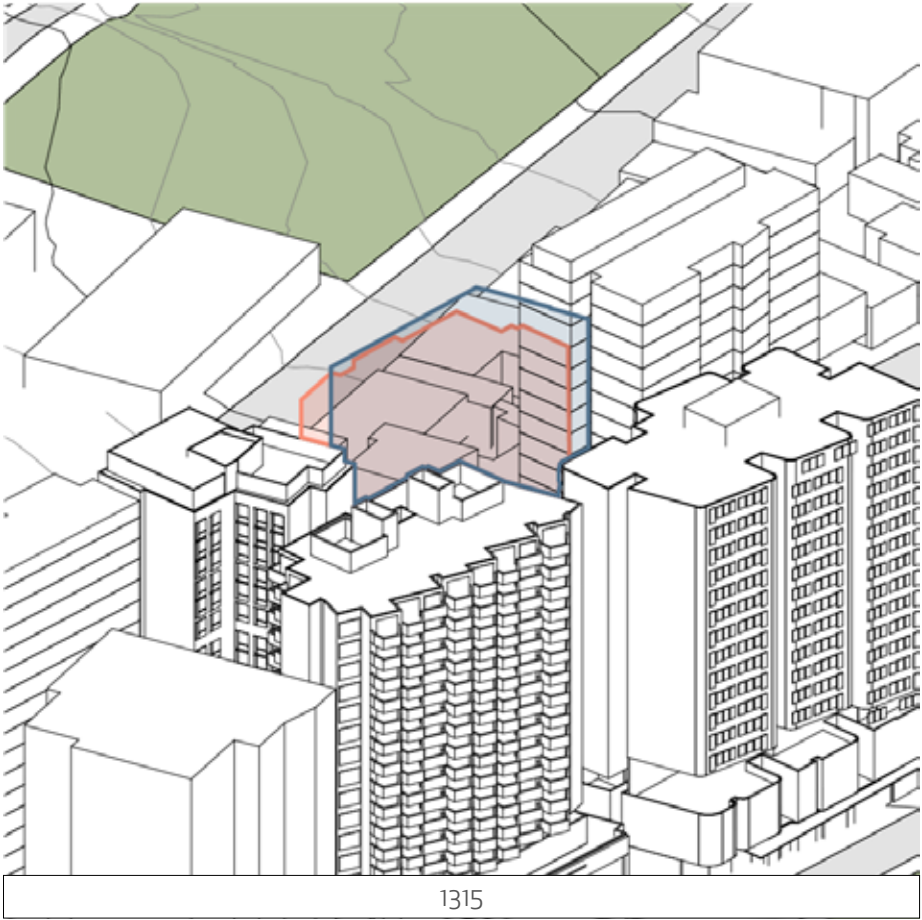
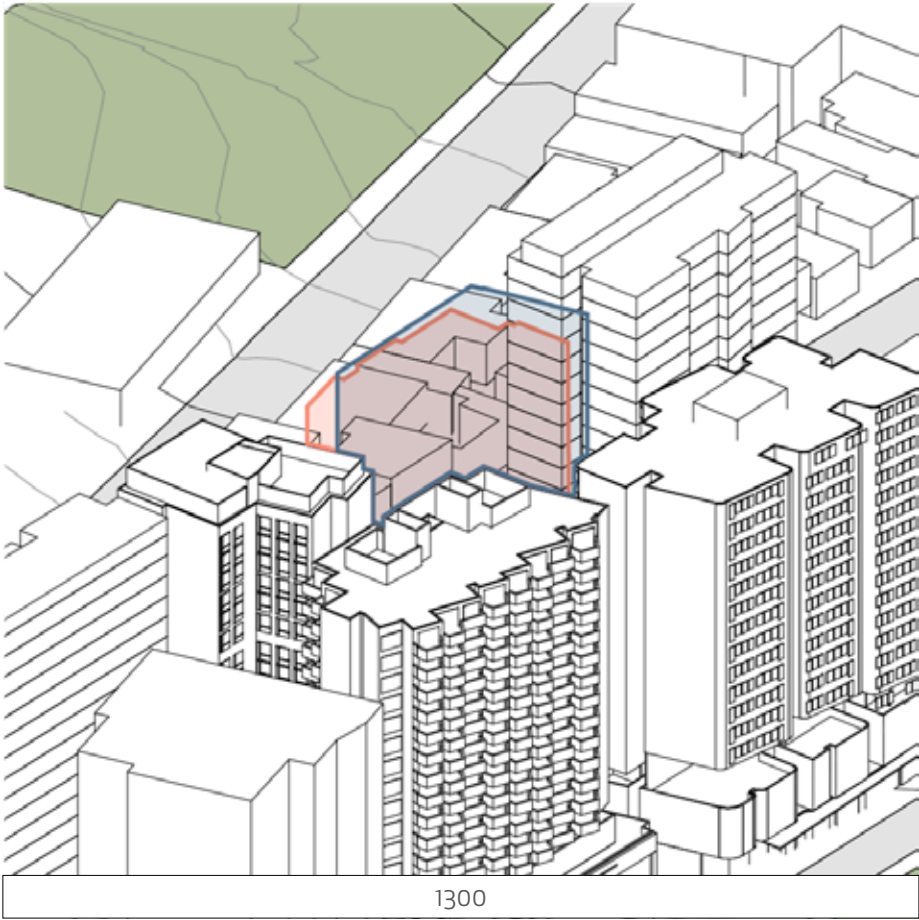


1245

Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 12PM-1PM.

- Proposed Development Envelope
- Control Development Envelope

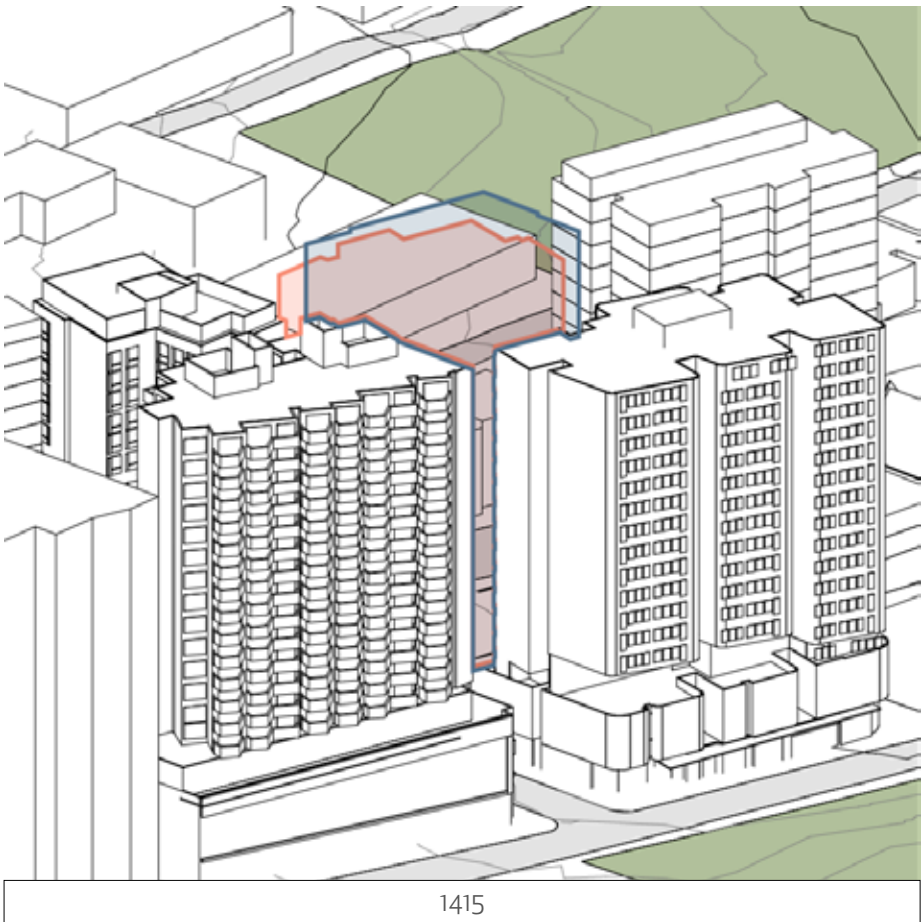
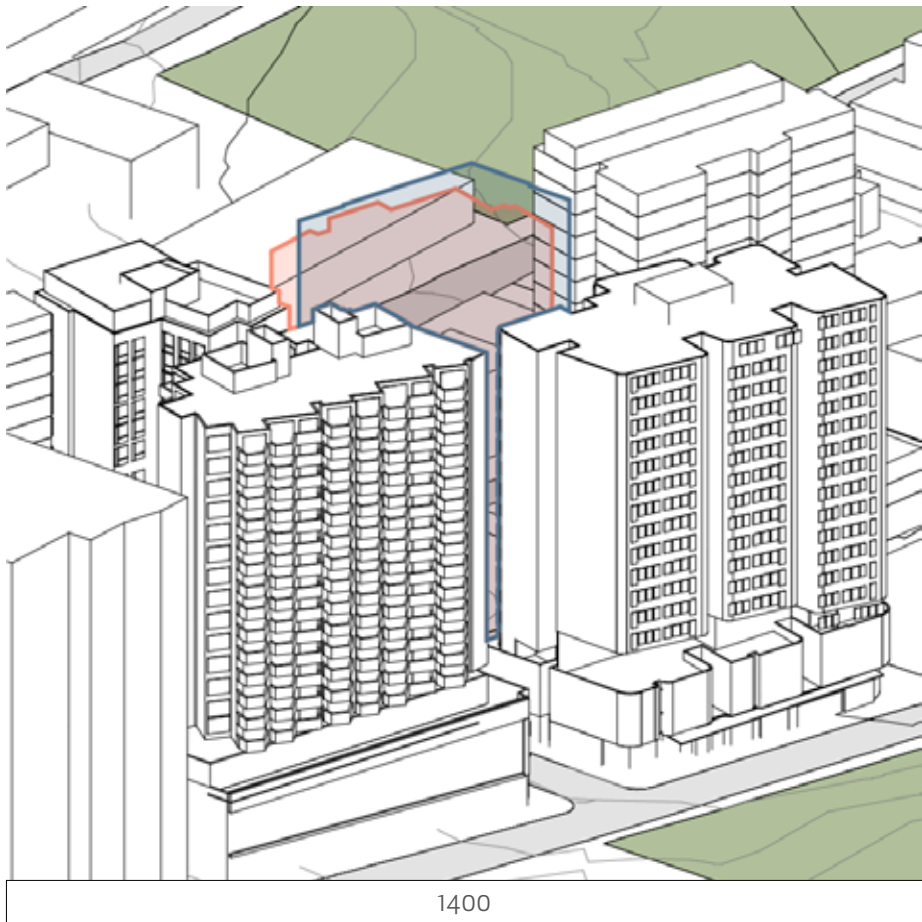
Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 1PM-2PM.



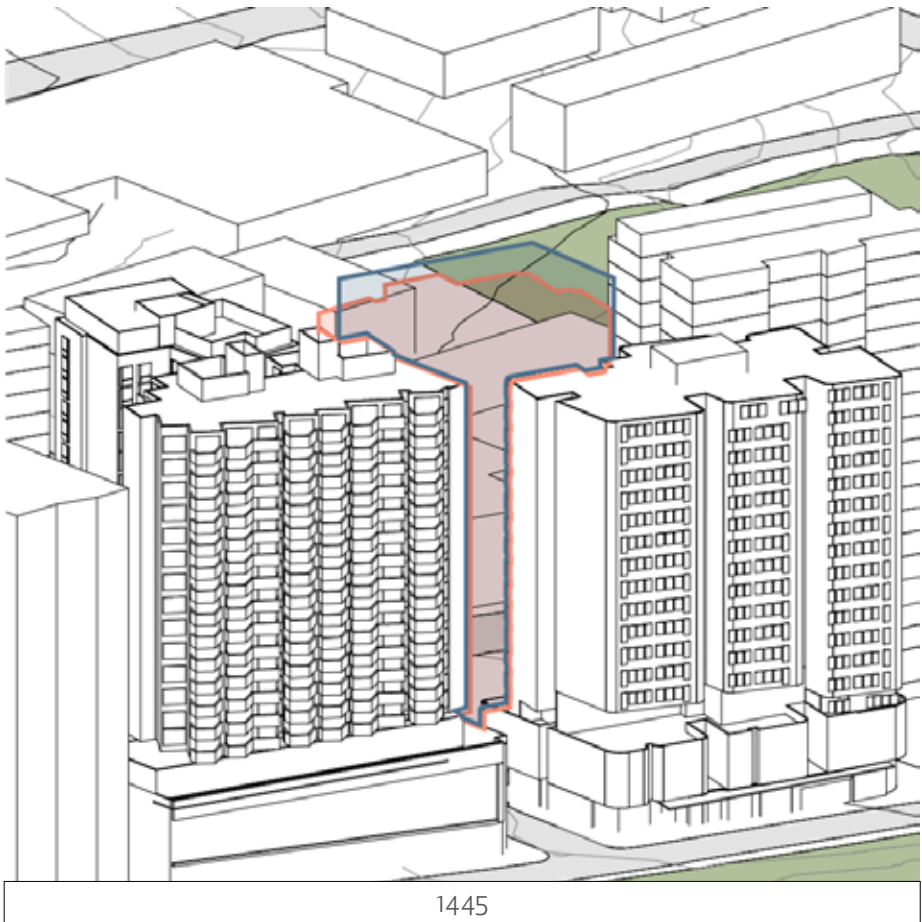
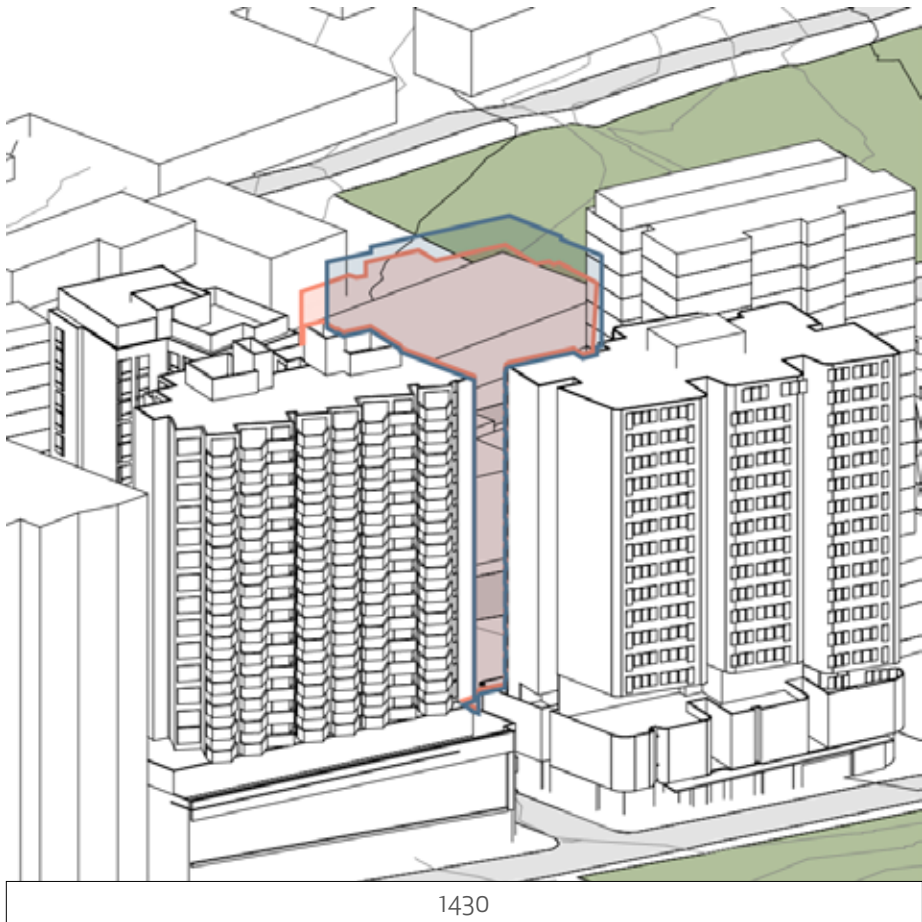
Proposed Development Envelope
Control Development Envelope

10 SOLAR ANALYSIS

SUN EYE VIEWS
WINTER SOLSTICE



Mid-winter sun eye views comparing solar access of the control development envelope with the proposed envelope between 2PM-3PM.



Proposed Development Envelope
Control Development Envelope

Wee Hur Regent Accommodation Schedule

Apartment type	Studio Standard	Studio DDA	Single Ensuite Dorm DDA	Single Ensuite Dorm	Twin Share Studio	Twin Share Studio DDA	Total Beds	Total Apartments	Common Area (m2)	Outdoor Common Area	GBA (m2)	GFA RETAIL (m2)	GFA STUDENT (m2)
Apartment area (NSA)	16.0	25.0	20.0	13.0	21.0	25.0							
Beds / Apartment	1	1	1	1	2	2							
Basement 1											637		
1 (Ground)							0		332		1114	67	571
2				16	1		18	17	212	403	646		541
3	21				2		25	23			593		489
4	21				2		25	23			593		489
5	21				2		25	23			593		489
6	21				2		25	23			593		489
7	21				2		25	23			593		489
8	21				2		25	23			593		489
9	19				2		23	21	44		595		492
10	21				2		25	23			593		489
11	21				2		25	23			593		489
12	21				2		25	23			593		489
13	21	1			1		24	23			593		490
14	21	1			1		24	23			593		490
15	19	1			1		22	21	44		596		493
16	21	1			1		24	23			593		490
17	21	1			1		24	23			593		490
18	21	1			1		24	23			593		490
Roof													
Total no. apartments	332	6	0	16	27	0		Total	632	403	11,890	67	8,948
% apartments	87.1%	1.6%	0.0%	4.2%	7.1%	0.0%							9,015
Total no. beds	332	6	0	16	54	0	408	381	1.55	0.99			
% beds	81.4%	1.5%	0.0%	3.9%	13.2%	0.0%	100%		Per bed	Per bed	29.1		21.9
	82.8%			3.9%	13.2%								

Site Area	1,287 m ²	Allowable FSR	Difference		
Total FSR	7.00 :1	7 7 :1	0.1%	vs 7.7:1	9909.9
No. adaptable required	15.0				894.9
No. adaptable provided	6				
Common living area	1.25 /bed		490.0 m ²		
Common kitchen area	1.2 /bed w/o kitchen		19.2 m ²		
Common areas required			509.2 m ²		
Ratio per bed			1.2		
Bike Parking	0.33 /bed				
Total Required	134.64				

11 SUMMARY

AUTHORITY COMMENTS & RESPONSES

Item	Notes	Reference
City of Sydney - Pre-DA		
Design of ground floor	Significant issue - design of the ground floor and in particular the interface with William Lane. The design fails to comply with CPTED and raises significant safety concerns. Servicing and access to the site needs to be resolved, with a better consideration of the interface with William Lane. + Ground floor plan has been developed incorporating feedback, particularly to servicing opportunities at William Lane. CPTED have also been consulted and feedback incorporated	Refer Section 04; page 38
	The site is Business Zone – Commercial core. Common areas will likely be covered with curtains, screening and are not considered to activate the ground floor with the street. A higher proportion of the ground floor should be commercial use.	
	Retail use should be at the footpath with a nil setback. What is the purpose of the verandah? + Retail developed at east of site, aking to similar streetscapes in future and existing developments	Refer Section 04; page 38
	The change in floor levels is not explained and should be clarified in the DA; + Floor levels accomodate for slope in site, best utilising the topography for amenity and services spaces	Refer Section 04; page 38
Exceedance of height control of 18 storeys	Mezzanine level results in a total of 19 storeys which is not supported. Control permits 2 – 18 storeys. + Mezzanine level has been deleted. Total of 18 storeys	Refer Architectural Drawings; DA3101-DA3104
	FSR to comply with control of 7:1 (no detail provided); + FSR is compliane at 7:1	Refer Section 11; page 97
	Setbacks to comply, no variations permitted to the Redfern Centre Urban Design Guidelines. Footpath widths to comply to Marian St and William Lane and to line up with 11 Gibbons St. + Setbacks have been thoroughly considered, with study comparisons of control and proposed envelope	Refer Section 03; page 22-29
Accessing the site	Trucks are generally not permitted to reverse on-site or down William Lane, the servicing requirements are to be very carefully considered. + Traffic consultant has helped develop servicing strategy; Turntable at Loading area allows trucks to avoid reverseing on-site.	Refer Section 04; page 37;
	You will need to discuss waste mgmt. requirements with Matshepo as previously advised. Access to the site should be in accordance with City policies (see SDCP 2012 and discuss with City’s transport team on 9265 9333). + Waste consultant has helped develop waste strategy at Lower Ground floor.	Refer Operational Waste Management Plan
Common Open Space (outdoor)	Wind impacts to be considered though buildings at 11 and 13-23 Gibbons St may mitigate impacts – a full Wind Study needs to be submitted. + Wind Consultant has undertaken extensive wind tunnel testing and made recommendations that have been incorporated throughout.	Refer Environmental Wind Tunnel Test Report
	Noise impacts to affordable housing remain a concern due to upper level outdoor areas. Consider location and treatments to mitigate noise accordingly. + Acoustic Consultant has considered and made recommendations towards the proposal, and have been incorporated into the design of surfaces and openings throughout.	Refer Acoustic Report
SDRP #1 - 14 January 2020		
	It is acknowledged that the proposal is located on a difficult site, demanding innovation and rigour to achieve design excellence. It is a consensus of the panel that design excellence is not achieved by the current scheme. The design team is encouraged to consider the site’s constraints as opportunities to be explored to benefit the project and the wider community through quality design.	
	For the next SDRP, the design team must provide clear architectural drawings, using consistent scale, drawing type and style to enable ready comparison of design options. Any deviations from the permissible planning envelope should be presented with the permissible envelope so that a clear comparison is possible. + Comparison drawings and massing studies have been prepared.	Refer to pages 36-45; Refer to Architectural Drawings
	The EIS shall include a design excellence strategy prepared in consultation with the NSW Government Architect, demonstrating how the proposal will achieve design excellence. This strategy shall identify: · the process to ensure that design excellence is achieved · process of engagement with the State Design Review Panel (SDRP) Pilot including post approvals · how comments from NSW Government Architect have been addressed	Refer pages 7; Section 11, pages 98-100
	Further information on the proposed strategy for ensuring design excellence across the lifetime of the project must be provided, particularly given a design competition is not proposed. The onus is on the design team to demonstrate how design excellence, as defined above, will be achieved. + A design excellence strategy has been prepared, reviewed and approved by the Government Architect’s office	

	Public Realm and Streetscape Design excellence under the SEPP requires the building form and appearance to “improve the quality and amenity of the public domain”. The site’s opportunities and constraints were clearly defined in the presentation. It has excellent access to public and active transport and is within close proximity to Sydney University, South Eveleigh, the NCIE and various hospitality, shopping and indoor and outdoor recreation facilities. The location is challenged by Gibbons and Regent Street’s high volumes of heavy traffic and the scale and proximity of neighbouring buildings.	
	The planned southern entrance to Redfern Railway Station means Marian St will become a direct pedestrian thoroughfare connecting Sydney University and the North Eveleigh precinct with South and East Redfern and the new Waterloo Metro hub. + The building entry on the corner of Marian Street and William Lane is intended to serve this desire line and assist with activating William Lane and Marian Street.	Refer Section 04; page 38
	This laneway revitalisation should be promoted through facade treatments that are flexible and permeable (both visually and physically), and suited to year round and day/night usability, interaction and passive surveillance. + The laneway façade is activated by common spaces with large areas of glazing and public entrances; service areas are minimised.	Refer to pages 57-58; 72; 76
	William Lane laneway should be publicly accessible at all times and include opportunities for active and shared use programs such as the bike shed and fine grain retail/hospitality. + William Lane remains a public laneway. The footpath on the subject site is proposed to be widened with public domain works including trees, seating and paving.	Refer to pages 38; 58; 72; 76
	The design team must also respond proactively to improving the public domain to the north and east with canopy trees that can be integrated into the proposed awning design. + The street awning has been designed to integrate with the proposed street trees and allow for future growth while providing wind and rain protection to pedestrians.	Refer to pages 38; 48 Refer to Landscape Design Report
	Further details of consultation with neighbours at 13-23 and 11 Gibbons Street and strategies proposed for collaborative laneway activation should be provided in SDRP 02. + Neighbours, stakeholders and authorities have been consulted, refer to the Community Consultation Strategy and EIS submitted with the SSDA. + The proposal will build upon the amenity offered by the proposed through site link in 13-23 Gibbons Street with additional public art, complementary uses located on William Lane such as bike hubs to promote the use of William Lane as a car-free alternative bike route around the area. + The management of 11 Gibbons Street have been and will continue to be consulted with a view to potentially organising shared events for both resident groups and maintaining good working relationships regarding noise or any other potential disturbances.	Refer to the Community Consultation Strategy and EIS submit ted with the SSDA.
	The form, scale and materiality of the brick façade proposed to the nor theast corner, referencing the corner pub precedent is supported and should be developed in an integrated relationship with the landscaped terraces at mezzanine level and the tower form and facades above. + These areas have been further developed.	Refer to Section 08 Facade Design; pages 66-79
	Most amenity issues discussed at SDRP 01 emerge from the proposed overall density and the number of units per floor. Student accommodation presents opportunities for vibrant community interaction with comfortable but modest living spaces. The approach to communal space is critical to the experience of the residents who live in the building. A variety and diversity of communal/shared spaces is needed and they must be distributed throughout the building to allow for small group governance and priority as well as large gatherings and social hubs. To this end, the replacement of some rooms on each floor with possibly bookable, shared communal rooms for a range of activities is recommended. + The tower level plans have been redesigned since SDRP#1, with a reduction in Gross Floor Area delivering a smaller tower footprint and hence improved amenity through lower populations per floor, additional common space and shorter corridors.	Refer to Section 04 Building Design; pages 40-45 Refer to Architectural Drawings
	The singular large ground/mezzanine level communal area is not supported without additional spaces to augment the common space offering. External communal spaces at mezzanine level are supported. + Additional communal space was incorporated at upper level at NE location for SDRP#3. This provides greater variety of spaces and maximises critical views from the site.	Refer to Section 04; pages 42-43
	Further detail of hard and soft landscaping should be provided as part of future presentations. + These areas have been further developed.	Refer to Section 05 Refer to Landscape Design Report submitted with the SSDA.

Amenity	The floorplans presented are diagrammatic and raise a number of amenity issues around the performance of individual rooms and common spaces. Alternative floorplans for residential levels should be explored to consider ways in which the building envelope may be redistributed to maximise amenity and improve environmental performance for rooms and lobbies through better daylighting and natural ventilation. + The tower level plans have been redesigned since SDRP#1, with a reduction in Gross Floor Area delivering a smaller tower footprint and hence improved amenity through lower populations per floor, additional common space and shorter corridors.	Refer to Section 04 Building Design; pages 40-45 Refer to Architectural Drawings
Internal Planning	The student room plans presented, especially the bathroom layouts, require further resolution. Handbasins outside washrooms and detailed internal joinery have potential to be effective for small space dwelling, however, the ventilation strategy requires explanation both in terms of technical performance and design integration. + These areas have been further developed.	Refer to Section 09 Interior Design; pages 80-87
	Detailed illustrations should be provided to explain this system. + A diagram explaining the ventilation system was developed for SDRP#3, which shows passive inflow of fresh air, as well as mechanical air from risers. Computational Fluid Dynamics studies were commissioned to demonstrate the effectiveness of the ventilation system.	Refer to page 60-61
	Alternative core locations were discussed in the panel debrief session. We recommend you explore alternative locations as a way to improve amenity and efficiency of the floor plans, while considering impacts on facades and internal circulation. + The tower level plans have been redesigned since SDRP#1.	Refer to Section 04 Building Design; pages 40-45 Refer to Architectural Drawings;
Tower Form & Facade	Any breach of building zone envelopes must result in markedly improved design outcomes. This is not demonstrated in the current proposal. If deviating from planning controls, a comprehensive response to site and micro environmental conditions must accompany the proposal.	
	Similarly, façade expression should be the product of site responsive design. Built precedents and visual references must be underpinned by rational and credible technical solutions for the challenges of solar heat gain, noise, wind, waste management, privacy, outlook and so on. + Façade design arises from an analysis of orientation, solar access, views, privacy, wind and noise conditions	Refer to Section 08 Facade Design; pages 66-79
ESD	At the next SDRP session, a more comprehensive approach to ESD and amenity issues should be presented with consistent, clear drawings having regard to the advice and recommendations above. + An ESD report has been prepared to accompany this SSDA.	Refer to ESD Report
SDRP #2 - 12 February 2020		
	Concerns remain, however, around the bulk and scale of the proposal and the impacts the additional GFA (over and above 7:1 FSR) is having on amenity within the building and surrounding the proposal. In the next SDRP, the design team must present a scheme that complies with the 7:1 FSR to allow clear comparison with the proposed 7.9:1 scheme. + FSR is compliant at 7:1	Refer to Section 11; page 97
	A clear examination of how any additional GFA can be distributed is requested along with examination of reduced or amended setbacks and their potential impacts. + AJ+C have shown extent of previous SEARs scheme submission showing 7:1 FSR, overlayed onto existing elevations. Additional GFA has been distributed predominantly to the southern end of the building. + The resultant setback from the potential of a 116 Regent Street site development maintains above 10.5m setback, similar to surrounding developments in the immediate context.	Refer to Section 04; pages 38-45
Ground Floor Streetscape and Amenity	Changes to the streetscape, distribution of uses, increased corner activation and reduced driveway presence are supported, as is increased tree planting and landscaping on all three street frontages. The ramp entry to the bike store is a potential active contributor to the laneway streetscape but a re-examination of the design of the ramp, its precise location and detail (including edge treatments) is recommended - where possible introduce alternatives to handrails through revised edge conditions promoting seating, and built in planting. + Together with Turf design, AJ+C have designed the ramp condition and entrance to William Lane to incorporate outdoor seating and ease of access from NW corner of site. + Proposed trees provide shading for outdoor activity for users.	Refer to Section 05 Landscape Design; pages 48-50
	The materiality and architectural language of the ground floor facades and podium terrace spaces should promote spatial flow between the outside and inside. Reconsideration of ground floor column locations will strengthen the ‘internal street’ idea and assist in the axial alignment of openings to strengthen the relationship between interior and exterior spaces. + The lower level plans have been redesigned since SDRP#2.	Refer to Section 04 Building Design

Architecture	The improved standard of façade materials (face brick to podium and modular panel cladding/glazing to tower) and the finer grain façade composition are supported and further development encouraged. The updated façade design demonstrates an intelligent response to the sun and a clearer formal expression to each façade is emerging as a result.	Refer to Section 08 Facade Design; pages 66-79
	The reexamination of internal layouts has had a positive impact on the façades of both the podium and the tower. It is requested for the next SDRP a southern elevation is provided as it will be a prominent façade from surrounding streets, especially looking north up Regent Street. + Southern elevation was submitted in SDRP#3, designed and further developed to break down scale of the wall into standardized set of modules, alternating to achieve variation. + Windows are provided to corner studios allowing additional light from SW and SE and potential for cross ventilation. + The common corridor has an end window looking south; clear glazed to east and translucent to south (privacy from future development).	Refer to the Section 08; pages 76, 78
	The materiality of the podium façade, parapets adjacent to the external terraces and the transition from outside to in also needs to be explained with detailed sections, elevations and diagrammatic studies. + These areas have been further developed.	Refer to the Section 08 Facade Design; pages 76, 78
	A further increase in the number of breakout spaces in the tower is to be explored. The panel is not convinced the ratio of student rooms to breakout spaces is adequate – this may need to increase. The opportunity to have double height breakout spaces in the tower should also be explored to provide more voluminous and generous gathering spaces than standard floor to floor heights will allow. + Additional communal space was incorporated at upper level at NE location for SDRP#3. This provides greater variety of spaces and maximises critical views from the site.	Refer to Section 04 and Section 08; pages 42-43;66-67
	Further detail on the ventilation system of the tower is required to help the panel understand the different usage modes across different times of the day/year. A comprehensive summary of proposed ESD strategies is required for SDRP 03. + A diagram explaining the ventilation system was developed for SDRP#3, which shows passive inflow of fresh air, as well as mechanical air from risers. Computational Fluid Dynamics studies were commissioned to demonstrate the effectiveness of the ventilation system. + a 30 kPa Solar PV system on the roof assists to power the ventilation system	Refer to Section 04 Building Design; pages 45
	The panel is concerned with the proposed FSR of 7.9:1. The planning controls are for a maximum of 7:1. The increase of the FSR above 7 has led to a bulky tower form and some awkward setback conditions. Provide comparison studies as requested above to demonstrate amenity impacts of additional FSR on the project. + The Gross Floor Area has been reduced since SDRP#2 which has created a more slender tower form. The plan has been further developed so that the tower holds a consistent southern edge.	Refer to Section 04; pages 38-35
	Including the mezzanine, the proposal is 19 storeys. Please provide explanation of how the number of storeys has been calculated, given the 18 storey limit applicable to the site. + the mezzanine has been deleted. The building is 18 storeys.	Refer to Section 04; pages 38-35
	Consultation with the local Aboriginal community and indigenous involvement in the art program is commended. The panel recommends detailed consultation regarding art/landscape for the development start immediately to promote and integrated approach to art and architecture. Additional opportunities to incorporate Aboriginal Culture and Heritage should be investigated – e.g. room naming, planting, colour palette and artworks. + Art strategy seeks to emphasize the NW corner as point of congregation as well as entrance.	Refer to Section 06; pages 55-57
SDRP #3 - 22 April 2020		
	Improvements to the planning, circulation, common areas, the form of the podium and developments in materiality and detailing over the course of the 3 SDRP meetings to date are acknowledged and commended.	
	The podium scale and form are reading successfully within the streetscape and the tower facades have developed a response to microclimate and solar orientation which has led to more successful and site responsive surface articulation.	
	The increase in landscaping on the podium level, although to the south and largely shaded, will be of benefit to the project. The sculpting and development of the materiality of the facades at street level is also supported. The double height common space provided in the tower is a positive addition to the project, as is all proposed additional floor space for common usage within the tower.	
	Concerns remain regarding the project overall as a contributor to urban form and how the proposed FSR will impact the current and projected neighbourhood context.	
	The 7.7:1 scheme presented exceeds the allowable density of 7:1 by 10%; it exceeds the permissible number of storeys and contravenes the setback controls along Regent Street. These aspects have been thoroughly interrogated in the 3 SDRP meetings. + The height, Gross Floor Area and FSR have been reduced since SDRP#3 which has created a more slender tower form	Refer to Section 04 Building Design Refer to Section 11 Summary; page 97

	The design team were asked at SDRP02 to present a compliant scheme for comparison in SDRP03; this was not presented clearly but was sprinkled through the presentation in an unclear and inconsistent graphic manner, making meaningful comparisons difficult. None of the comparison diagrams provided illustrated the proposal [or a compliant comparison scheme] from a street level view making it difficult to gauge the impacts of the proposed exceedances on the amenity of neighbouring streets and pedestrian amenity. + Diagrams have been prepared showing the ‘control’ and ‘proposed’ envelopes side by side for easy comparison.	Refer to Section 03 Urban Design; pages 22-29
	The bulk of the tower form and the resulting amenity of the spaces within the tower are not supported. Reductions in FSR to achieve compliance [or closer to 7:1] could be made to create a more slender building form with opportunities for further sculpting of corners and edges. A richer spatial outcome internally would follow, along with a more subtle massing. + The Gross Floor Area and FSR have been reduced since SDRP#3 which has created a more slender tower form.	Refer to Section 04 Building Design Refer to Section 11; page 97
	Neighbouring developments that have achieved a higher than compliant FSR are not considered sufficient argument for relaxation of controls on this site. The proposal has been evaluated on its merits given its particular situation and adjacencies.	
	The reduction in GFA between SDRP02 and 03, while having positive impacts within the subject site did not lead to a reduction in the perceived bulk of the tower. The current extruded tower form is not considered a satisfactory response to the current and projected urban setting. + The Gross Floor Area and FSR have been reduced since SDRP#3 which has created a more slender tower form.	Refer to Section 04 Building Design Refer to Section 11; page 97
	Use of the bike store/workspace as an alternative disabled access ramp route is not supported. Potential conflicts in this space arising from the proposed dual purpose of workshop and pathway are not acceptable. A detailed review of how this space is used needs to be undertaken to ensure a clear access path is provided. + The ramp has been relocated to the communal space as an internal ‘landscape’ element; functional and integrated into the interior design of the communal spaces.	Refer to Section 04 Building Design; page 38
	Adjustments to the design have led to improvements in the amenity and urban presence/response of the building at each step of the SDRP process. In particular the changes to the ground plane, street edge and podium are encouraging. Notwithstanding this, the 7:1 FSR proposal is not supported for the reasons outlined above.	
	It is recommended the design team return to SDRP for one more meeting where a clear ‘side by side’ comparison is presented to explain the impacts of any additional GFA over and above 7:1. If the current scheme proceeds to EIS without a further session at SDRP, the advice provided to the assessments team will reflect the advice in this letter. + The Gross Floor Area and FSR have been reduced since SDRP#3.	Refer to Section 11; page 97
SDRP #4 - 26 August 2020		
Outdoor Amenity	The locations of Eastern and Western Terrace landscape spaces at Level 2 present an amenity issue whereby communal gathering and private bedroom spaces are immediately adjacent. A combination of physical mitigation and management strategies may be necessary to ensure privacy and acoustic separation to the 17 affected private rooms. + A combination of screen planting, hardscape elements and space management are proposed to manage any impacts on the bedrooms.	Refer to Section 05 Landscape Design; pages 47-54
	The introduction of mechanical plant to the southern roof terrace at Level 3 is not supported. All possible efforts are to be made to ensure mechanical plant is located at roof level. Any plant required to Level 3 must be minimised and appropriately screened from view with a combination of screens and climbing plants. Any plant in this location must be designed to maximise open space and useable areas for student recreational/ exercise uses. + A combination of planting and architectural screening are proposed to manage the view impacts of the plant area.	Refer to Section 04 Building Design; pages 38-40 Refer to Section 05 Landscape Design; pages 47-54
	Street tree planting located where external awnings are proposed must be carefully managed to ensure the trees will thrive. Appropriate tree species must be specified that suit the location and to provide substantial shading. Awning design needs to accommodate tall tree growth. + The street awning has been designed to integrate with the proposed street trees and allow for future growth while providing wind and rain protection to pedestrians.	Refer to the Landscape Design section of this report; pages 47-54
	The detail design of facades has progressed. The material palette presented in SDRP 04 comprises earth tones, bronze, dark and light brown elements and features prefabricated cladding/glazing cassettes incorporating integrated ventilation grilles.	Refer to Section 08 Facade Design
	The carefully articulated masonry podium to Regent and Marian Streets is well resolved and is supported, however the western podium façade along William Lane needs to be developed to the same level of resolution. + These facades have been further developed.	Refer to Section 08 Facade Design; pages 66-76

	The Indigenous Art proposal including embossed and engraved motifs to the face of the building, glazing decals and street level elements is supported. The project team must keep working with the artists to further integrate and develop the design through assessments, documentation and construction. + A design excellence strategy including the proposed approach to engagement with public art has been prepared, reviewed and approved by the Government Architect’s office.	Refer to Section 06 Public Art; pages 55-58
	The proposed more compact tower bulk with an overall height under 65m – a result of the reduced FSR, changes to the building volume and reduced floor plates – is a marked improvement on the earlier non-compliant schemes. The internal planning of the spaces within the tower has improved with the reduced FSR, notably leading to reduced corridor lengths.	
	The relocation of the equitable access ramp on ground level to within the communal space and the resultant improved amenity at street level to the west is supported.	
	Increased setbacks from the southern boundary have resulted in improved visual bulk as viewed from street level on William Lane and Regent Street. The noncompliant setback (less than 8m) to Regent Street was presented to the panel in terms of relative wind effects. See comments below.	
	An argument for non-compliant bulk was presented to the panel based on the premise that negligible differences in wind effects will result. This argument forms the basis for the design team’s request for the relaxation of setback controls to Regent Street.	
	Consequently, a robust and comprehensive demonstration of relative wind conditions and impacts (compliant versus proposed envelope) must accompany any future EIS submission. This report should address amenity both within the site and in the surrounding streets. Should this wind report fail to demonstrate no negative impacts from the proposed reduced eastern setback, this advice and the proposal will need to be subjected to further review. + A wind report has been prepared to accompany this SSDA which compares the ‘control’ envelope with an 8m setback to Regent Street and the proposed 4m setback. It indicates that improved wind conditions can be expected around the building as a result of the proposed wind mitigation measures such as building setbacks, awnings and street trees.	Refer to Section 07 Environmental Analysis; pages 59-65 Refer to Environmental Wind Tunnel Report

