

# **WATERLOO METRO QUARTER OVER STATION DEVELOPMENT**

**Environmental Impact Statement  
Appendix F – Architectural Design Report**

**Volume 2**

**SSD-10437 Southern Precinct**

Detailed State Significant Development  
Development Application

Prepared for **Waterloo Developer Pty Ltd**

30 September 2020

# PART TWO BUILDING 3 WATERLOO METRO QUARTER

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**SSD-10437 DESIGN REPORT**  
**PREPARED FOR WL DEVELOPER PTY LTD**  
**DOCUMENT NO. WMQ-BLD34-BSA-AR-RPT-DA202**

**25 SEPTEMBER 2020**

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Revision C  
Date of Issue 25.09.2020

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Artist's impression only (Image by Doug & Wolf)

DOCUMENT NAME	SSD-10437 Design Report Part Two - Building 3
PROJECT NUMBER	s12398
CLIENT	WL Developer Pty Ltd
CONSULTANTS	
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Aspect Studios	Landscape Design
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PTC Consulting	Traffic
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# 1.0 SUMMARY

*Our aim is to create a vibrant student community located in the heart of Waterloo, with excellent access to public transport and amenities. A 3-storey podium maintains the scale and character of the surrounding context, while new retail and community spaces expand the active frontage along Botany Road.*

Within the podium is a community space that provides an active frontage to Church Yard, and a student accommodation and gym entry providing an active frontage to Botany road. The social housing entry is located off Wellington Street. The gym and student community facilities are located within the upper podium levels on level 01 and level 02. Facilities include a lounge area, games and study rooms, laundry and an external terrace.

The tower will accommodate 474 students in a range of studio and twin studio units located over 21 floors. The articulated 'L shaped' tower form provides an efficient floorplate, with open corridors and a common room located on the corner of Wellington Street and Botany Road, capturing the prime views. The careful use of masonry, metal and concrete differentiates the tower from the podium and ensures architectural diversity.



# 1.0 SUMMARY

## 1.1 DEVELOPMENT SUMMARY

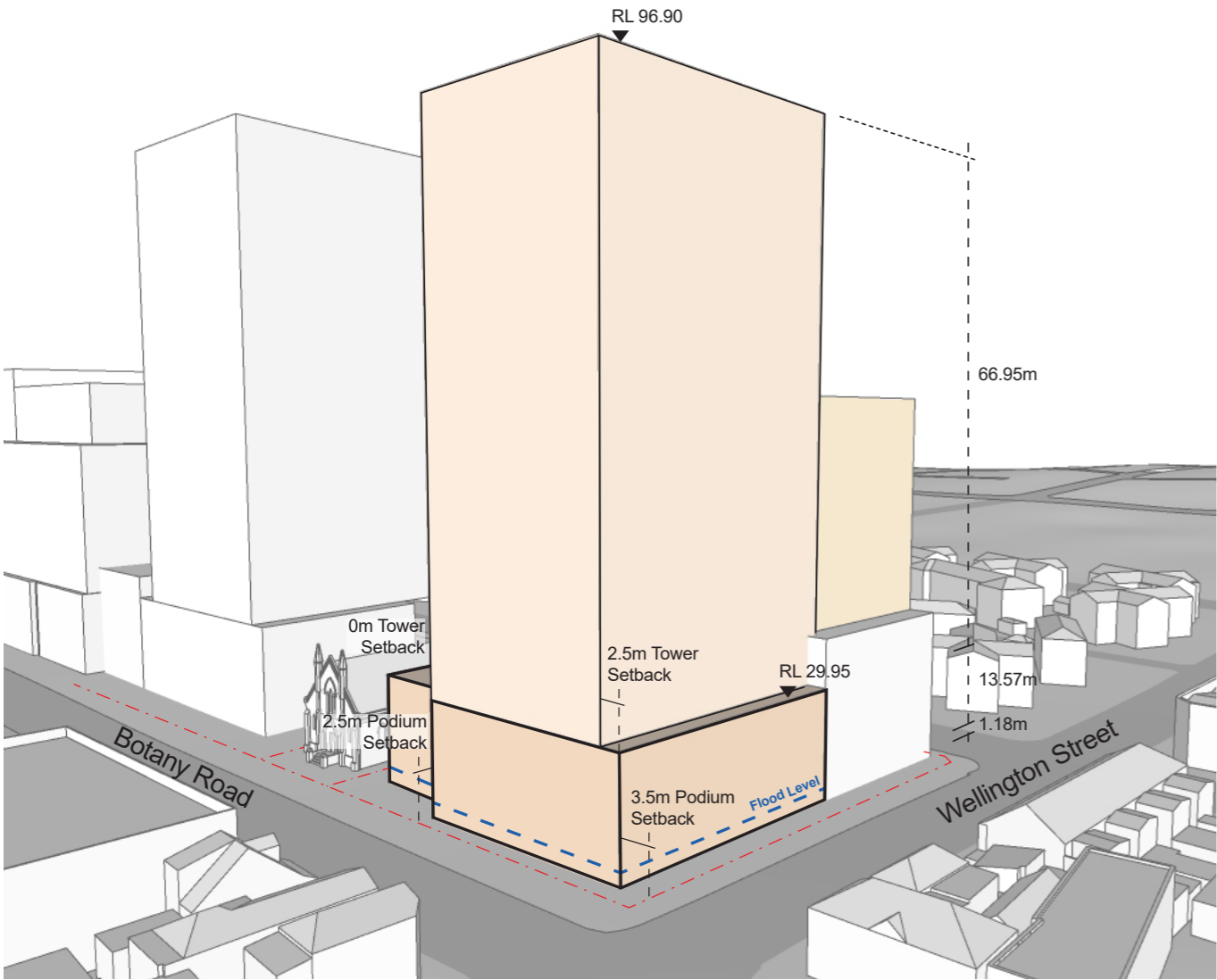
Proposed GFA:	13,402 m <sup>2</sup>
Proposed Storeys (excl. Mezzanine)	24 + plant level
Commercial GFA	973 m <sup>2</sup>
Community Space GFA	300 m <sup>2</sup>
Student Accommodation GFA	12,129 m <sup>2</sup>

### Student Accommodation:

	Units	Beds
Typical Studios	393 units	393 Beds
Twin Studios	39 units	78 Beds
Accessible Studios	3 units	3 Beds
<b>Total</b>	<b>435 units</b>	<b>474 Beds</b>

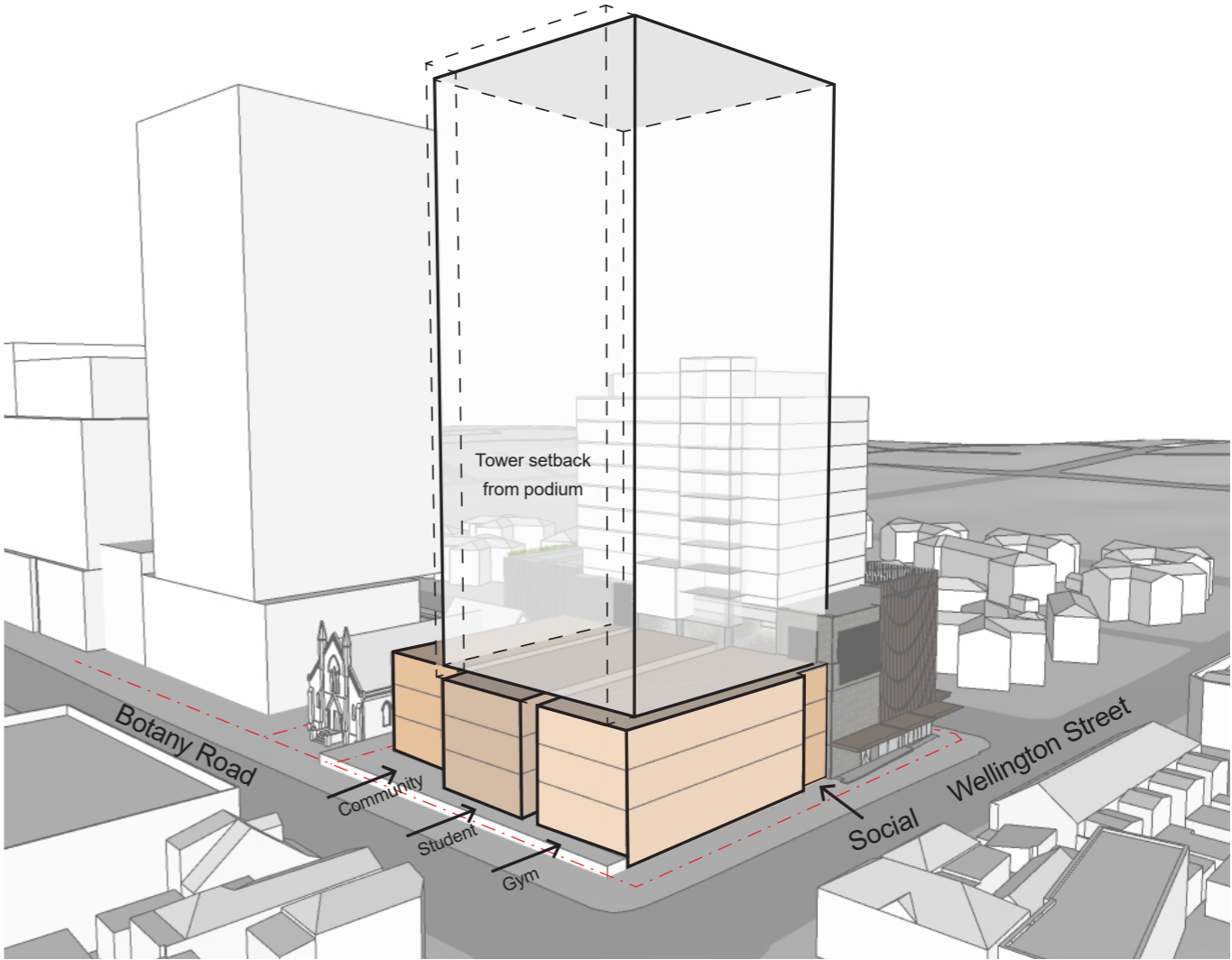
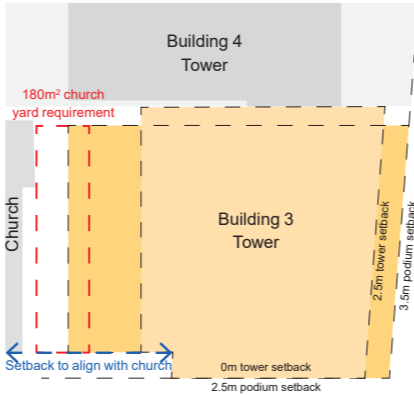


# 2.0 DESIGN CONCEPT



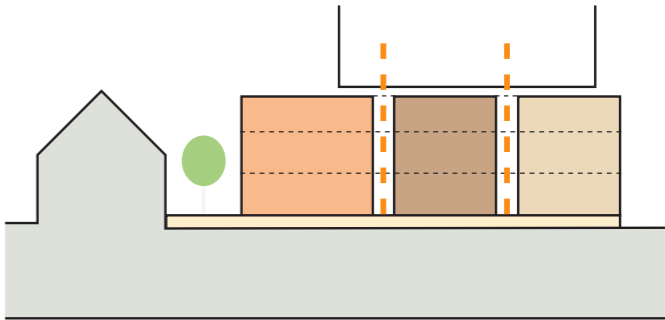
## 2.1 STAGE 1 DA ENVELOPE - PODIUM

The approved Stage 1 DA massing has a 3 storey podium with a 2.5m primary setback to the boundary on Botany Road and a 3.5m primary setback to Wellington Street. There is a further setback 3m setback towards the northern part of Botany Road to align with Waterloo Congregational Church.

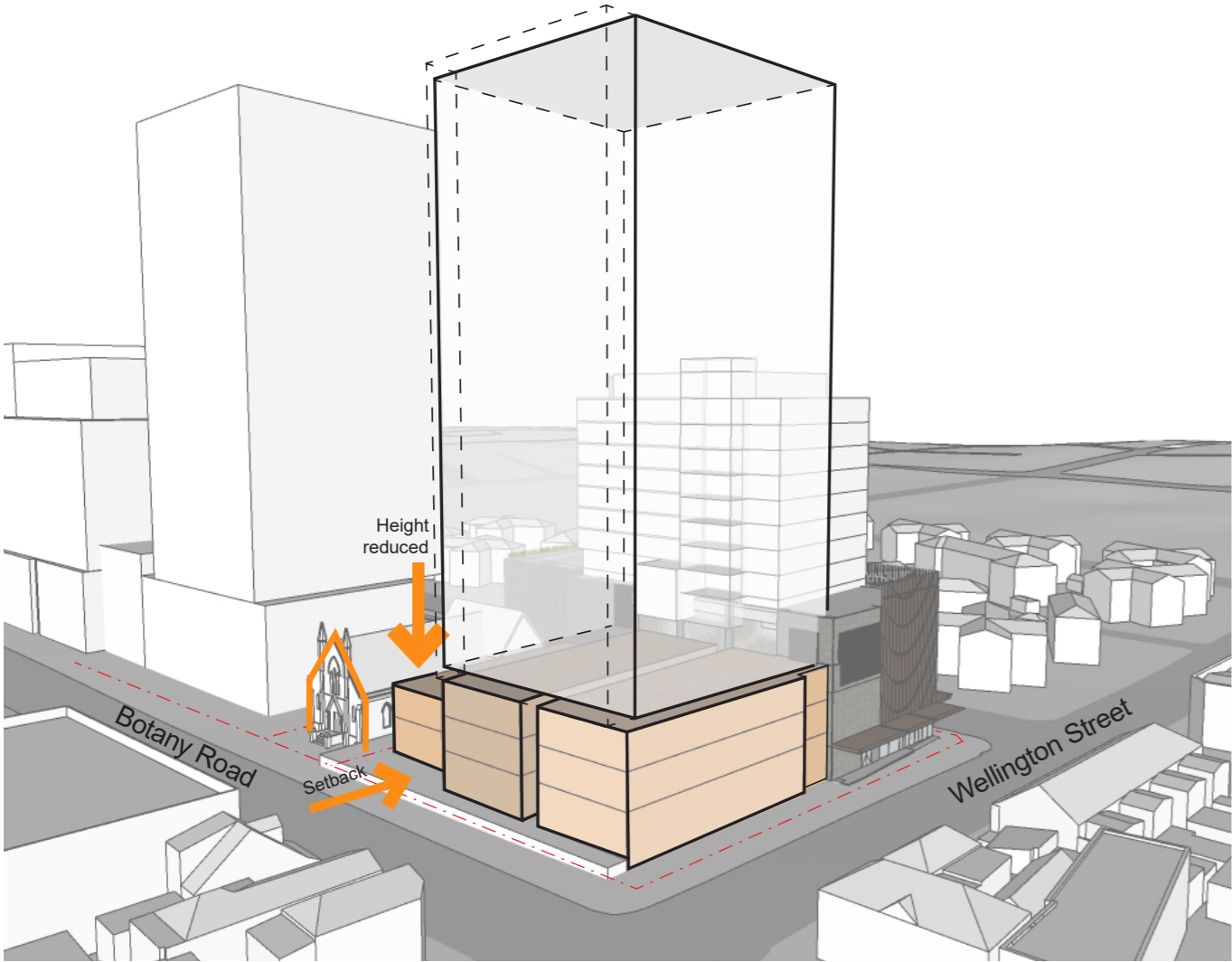


## 2.2 BREAK DOWN MASSING

The proposed massing divides the podium massing into 3 volumes on Botany Road, representing the different uses as well as breaking down the building mass.

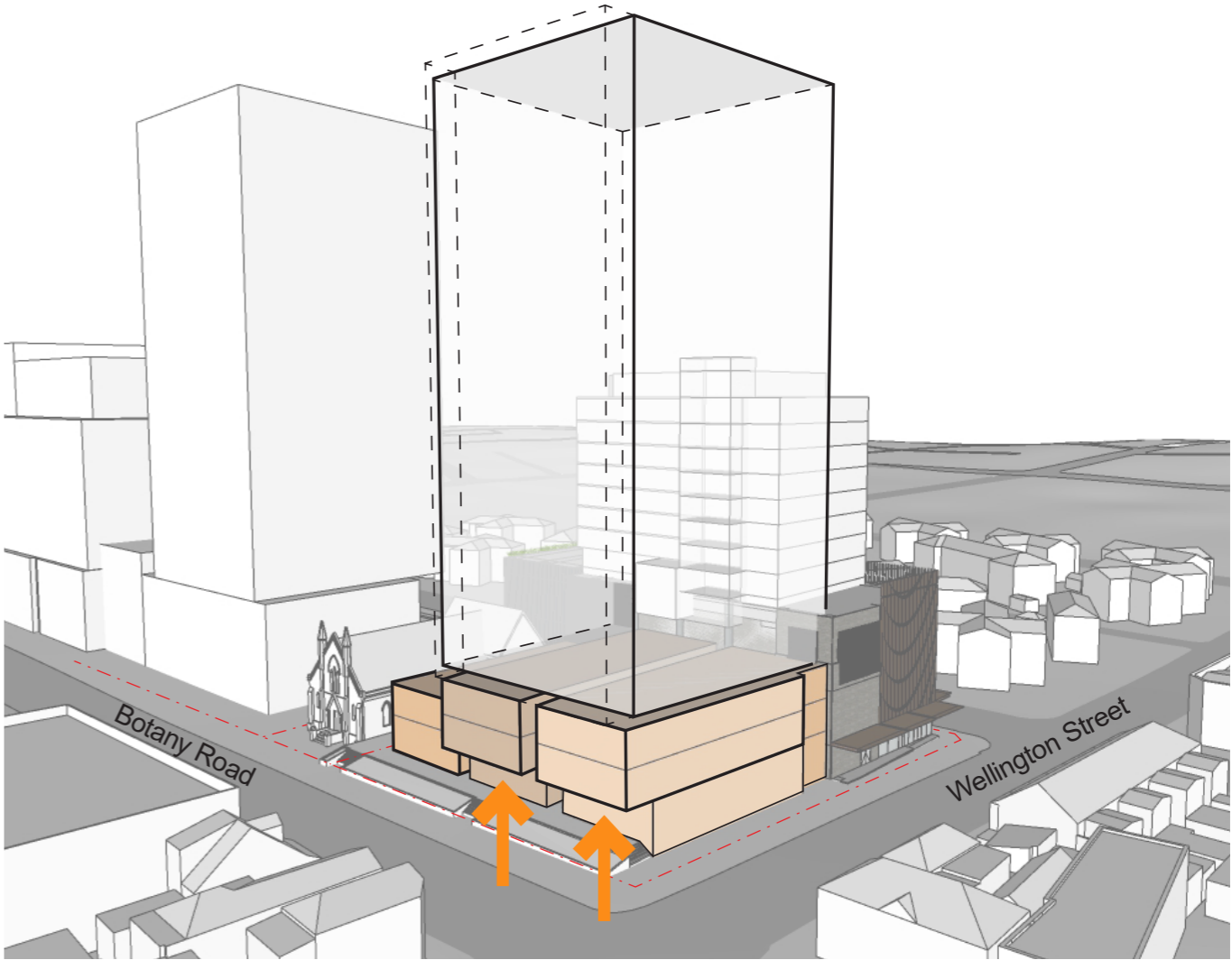
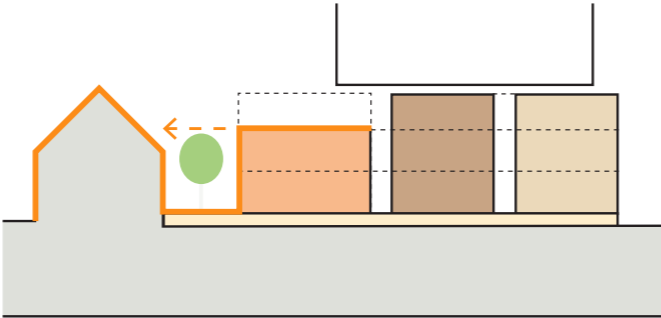


# 2.0 DESIGN CONCEPT



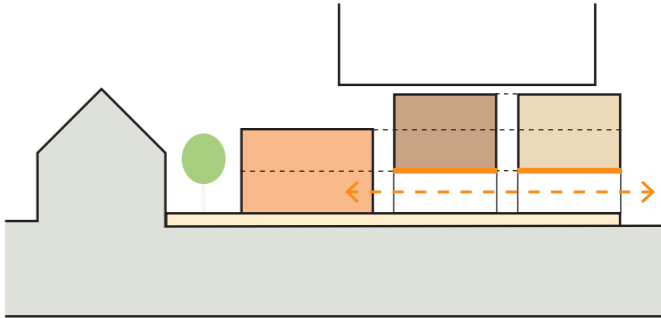
### 2.3 REDUCE SCALE

The podium is reduced to a 2-storey scale along Church Yard to provide a more respectful scale to the church.

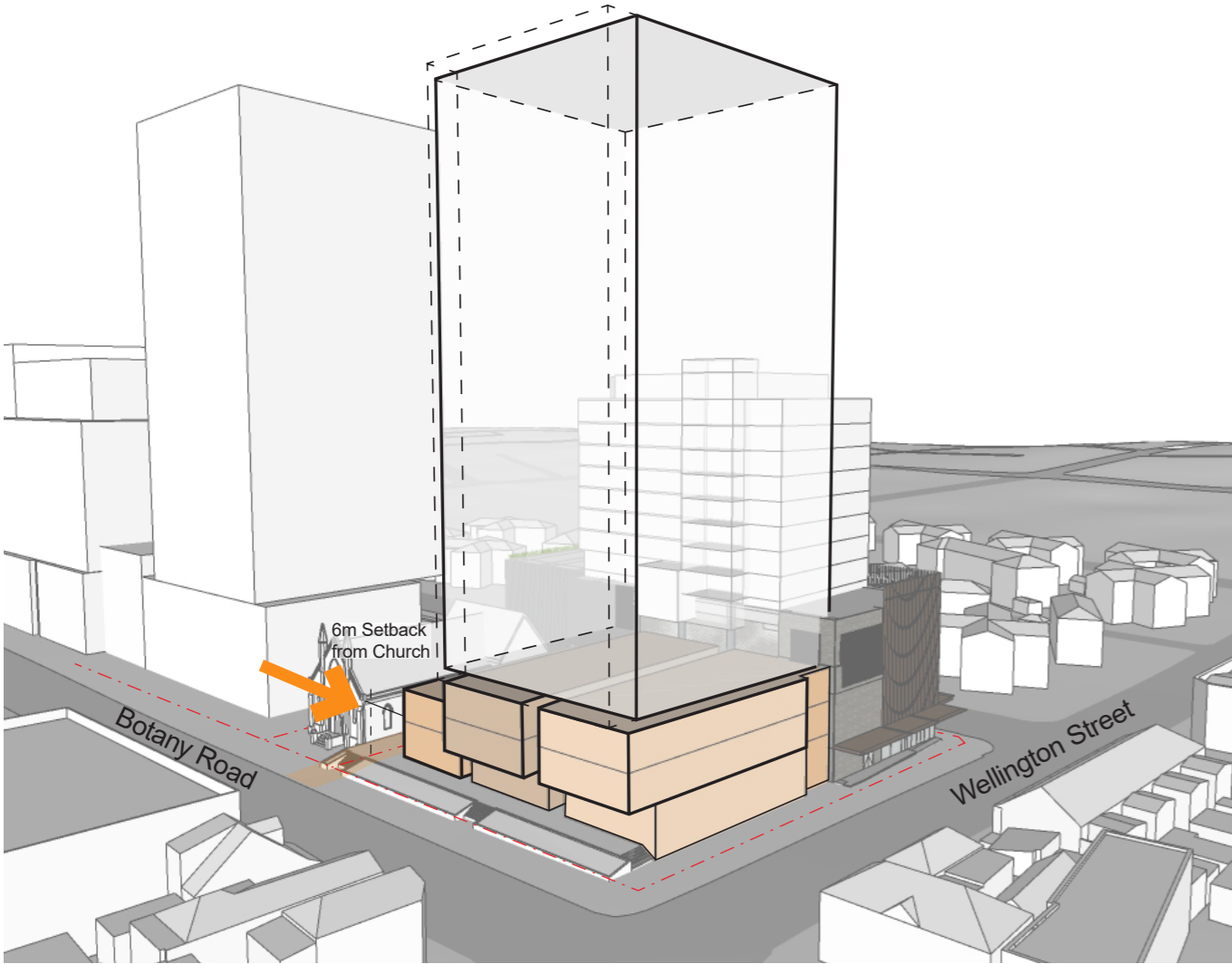


### 2.4 GROUNDED VS ELEVATED

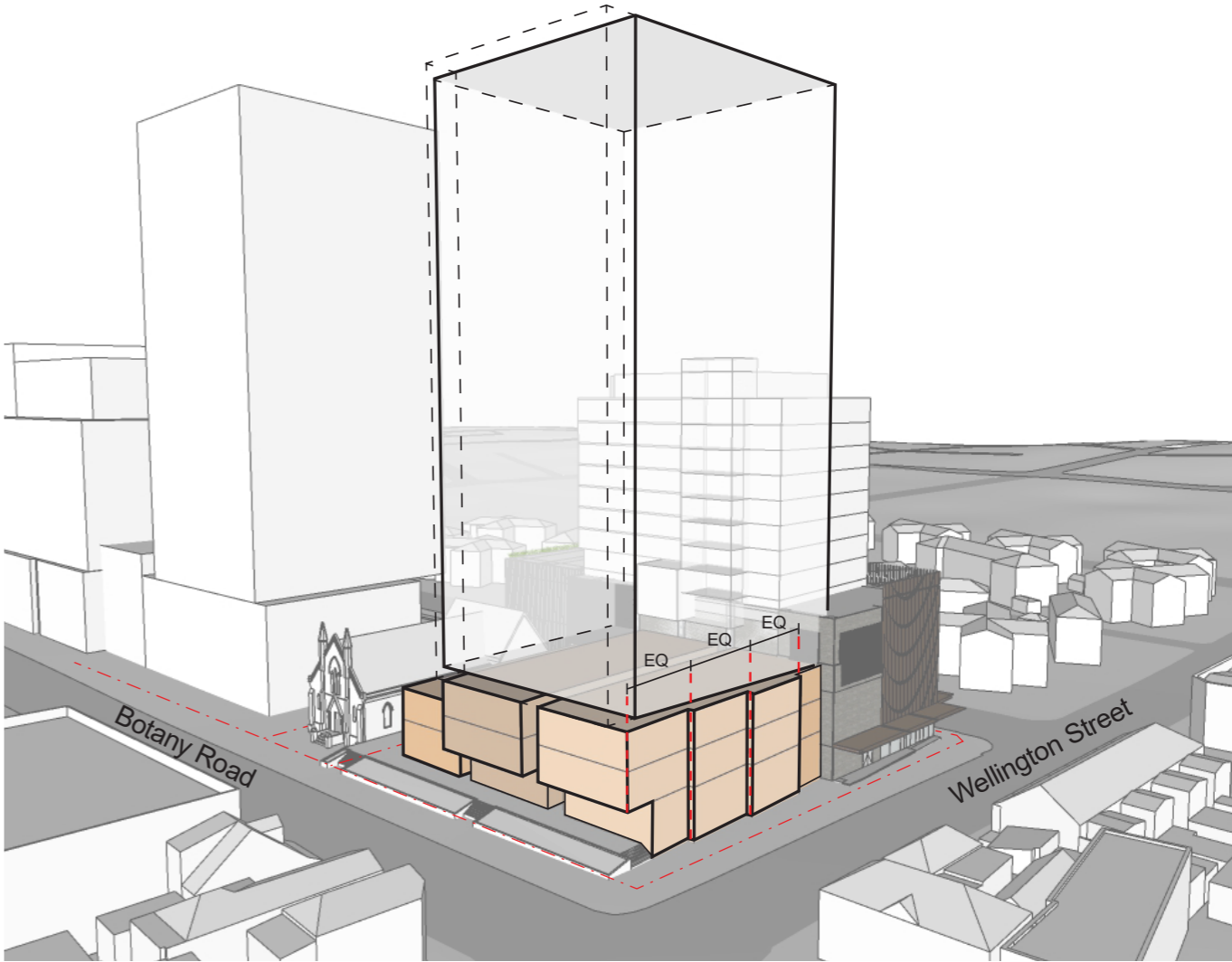
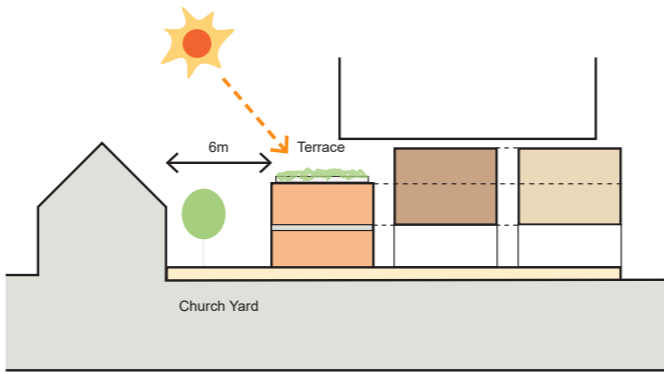
The two southern volumes are elevated to increase the public domain, whilst maintaining the tower setback and creating sheltered entry spaces for the gym and student accommodation.



# 2.0 DESIGN CONCEPT



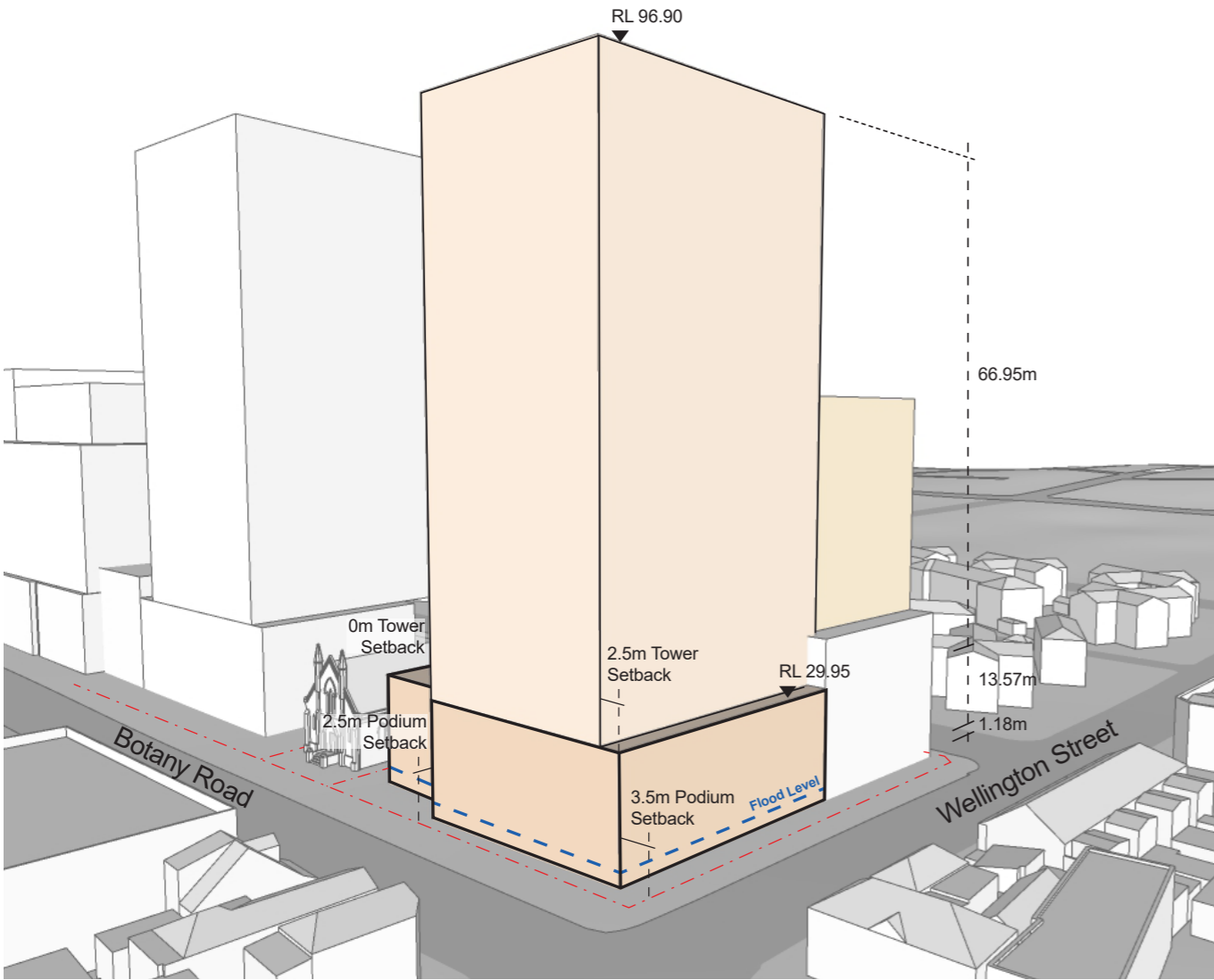
**2.5 SETBACK FROM CHURCH**  
The podium is set back to the north to create a 6m wide space between the church and podium for a 180m<sup>2</sup> public domain.



**2.6 ARTICULATE MASSING**  
Along Wellington Street, the podium steps perpendicular to Botany Road, creating a podium that relates to the finer grain building mass on the southern side of Wellington Street, including the heritage listed Cauliflower Hotel

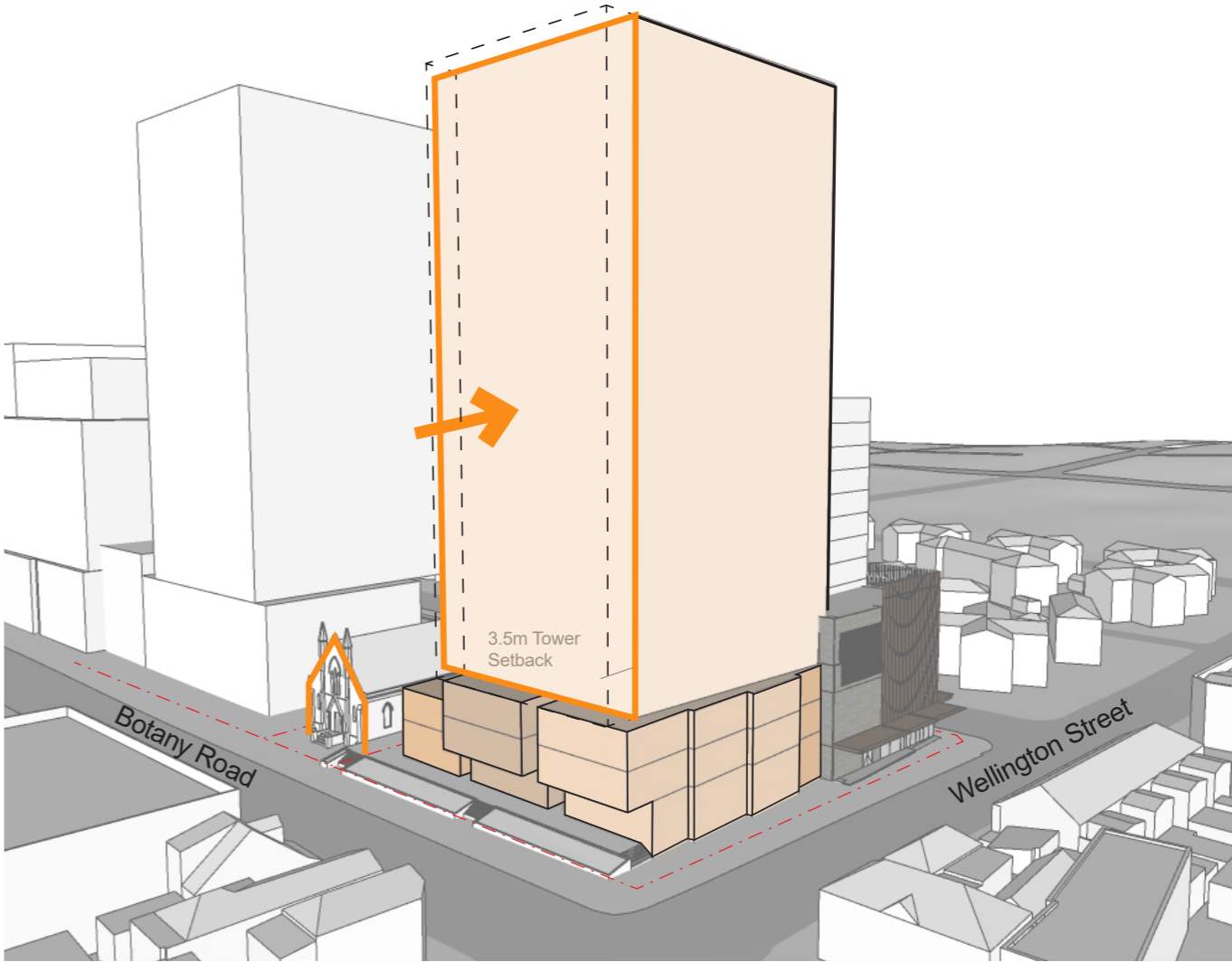
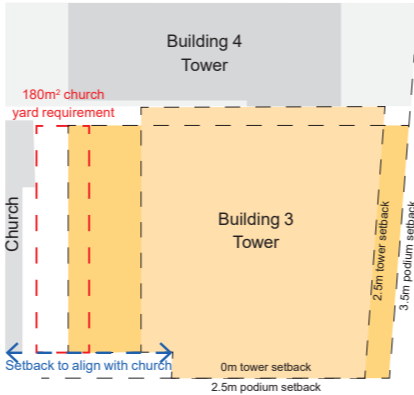


# 2.0 DESIGN CONCEPT



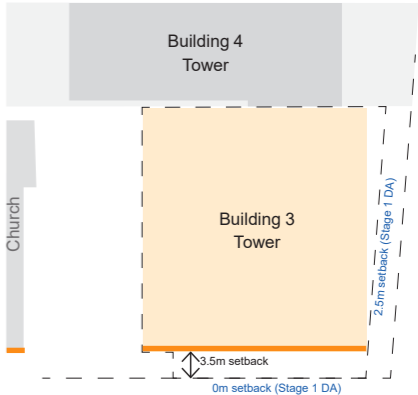
## 2.7 STAGE 1 DA ENVELOPE - TOWER

The approved Stage 1 DA massing has a no secondary setback on Botany Road and a 2.5m secondary setback to Wellington Street.

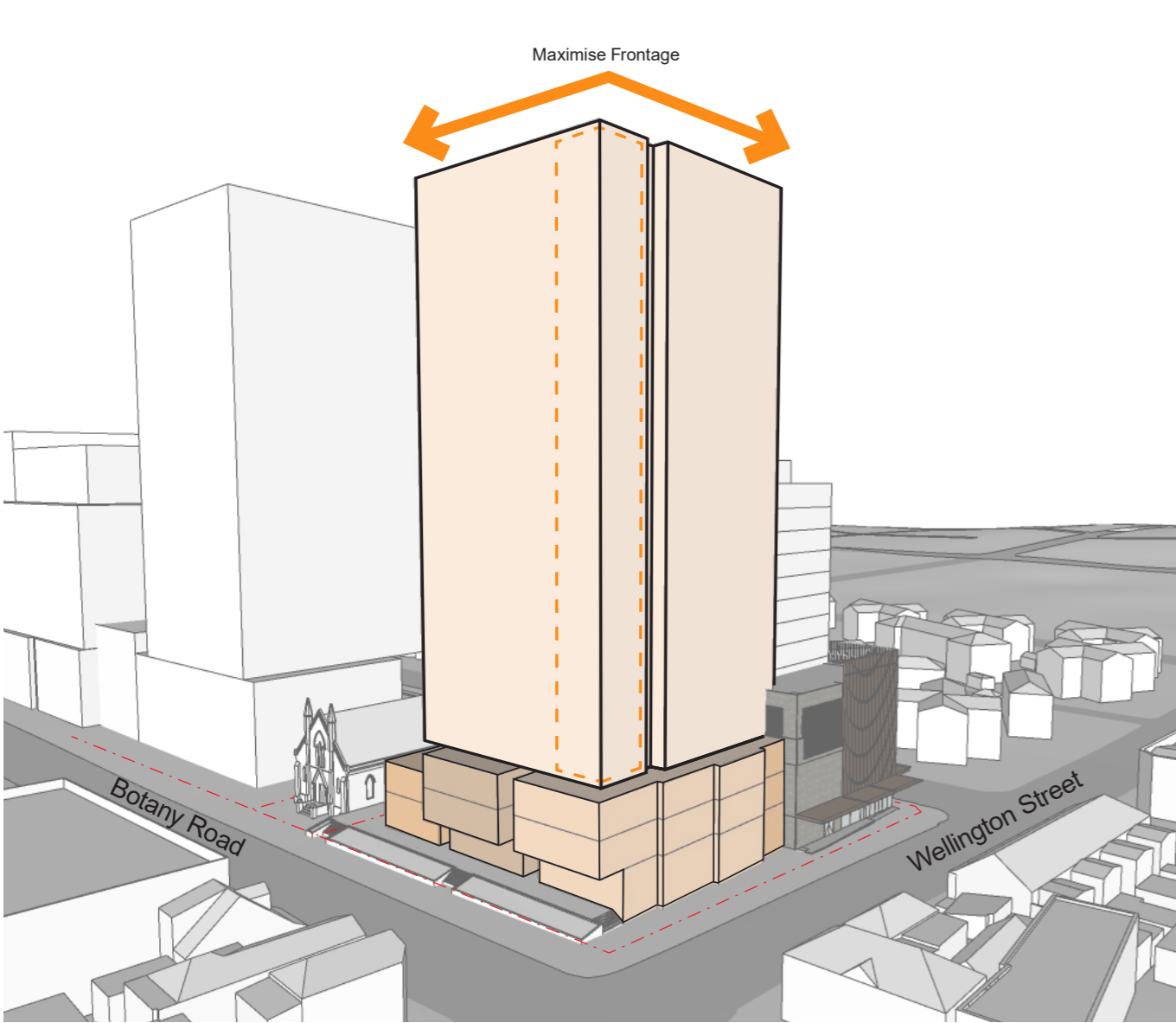


## 2.8 SETBACK TOWER ON BOTANY ROAD

The proposed tower massing has been set back 3.5m from Botany Road to align with the street elevation of the heritage listed Waterloo Congregational Church. This setback also creates greater definition between the podium and tower volumes.

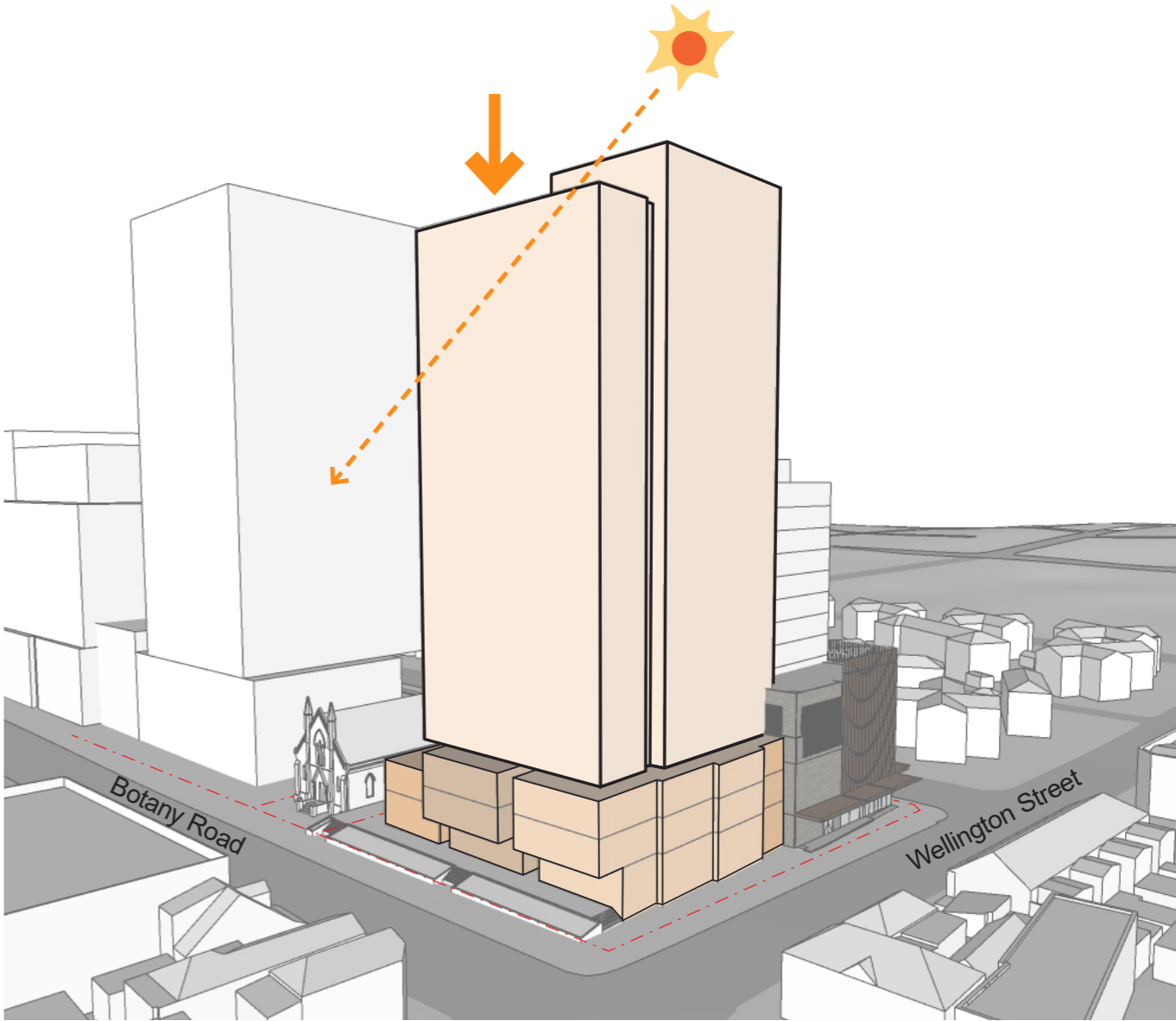
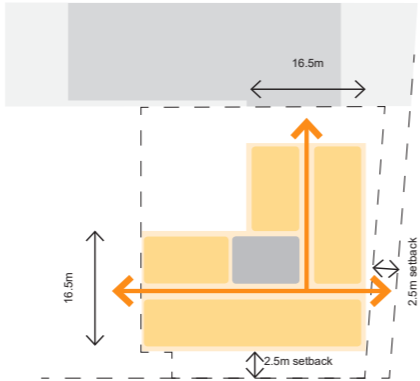


# 2.0 DESIGN CONCEPT



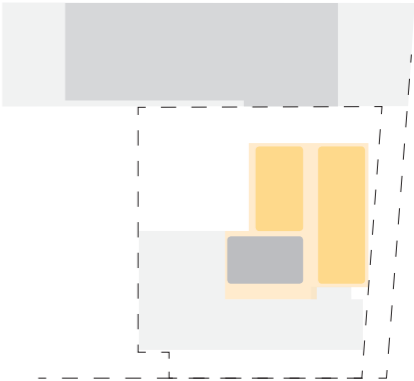
## 2.9 OPTIMISE FLOORPLATE

The tower form maximises frontage and planning efficiency, with a central core and the floorplate layout allowing for natural light to the corridors. The tower form sets back perpendicular to Botany Road creating an average setback on Wellington Street of 3.7m.



## 2.10 STEP MASSING

The western volume is reduced in scale, lessening overshadowing to Alexandria Park, and creating a two-storey articulation to the top of the tower.



# 3.0 DESIGN DESCRIPTION

## 3.1 GROUND LEVEL

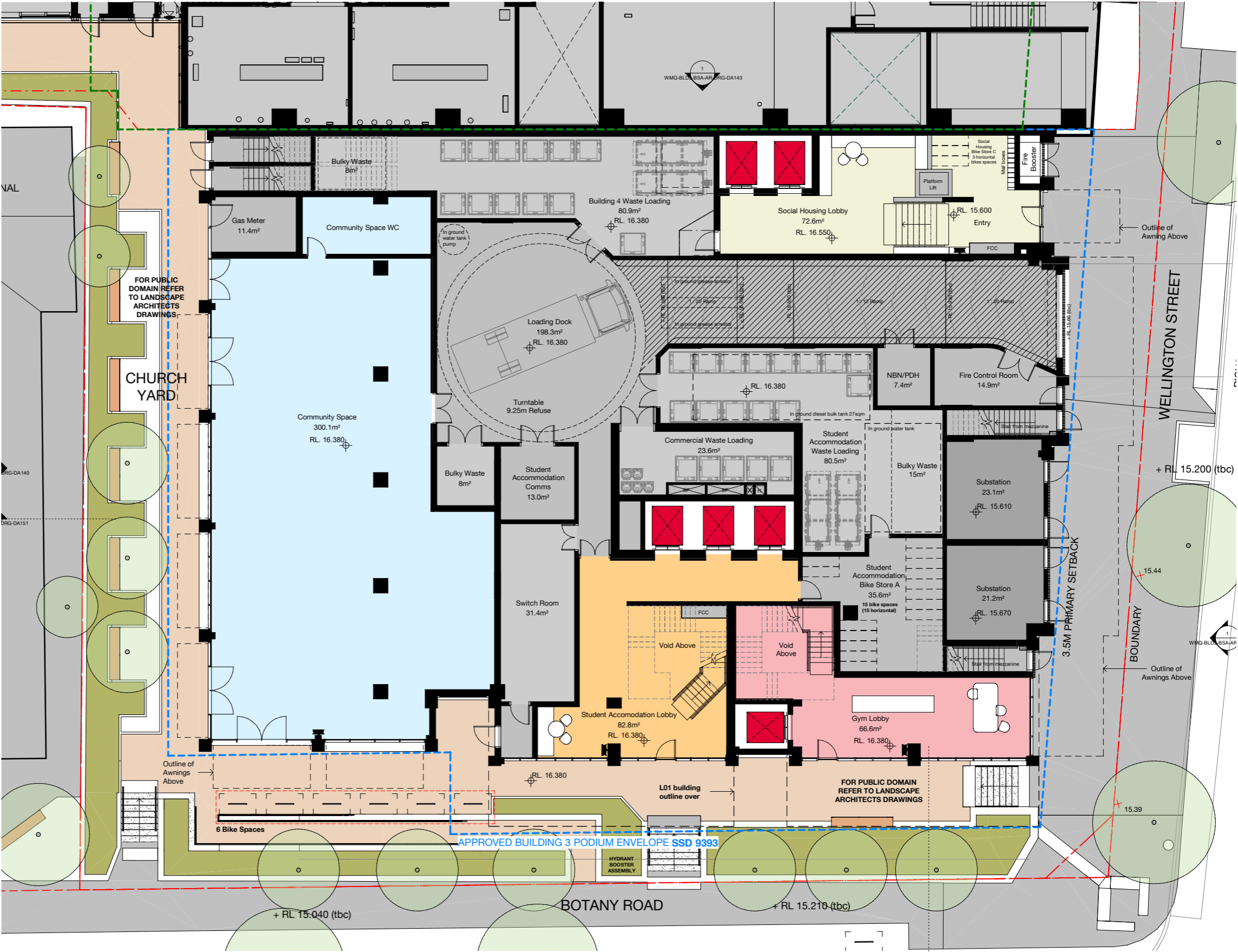
The development aims to maximise active frontages and provide each program with a distinct and visible entry point.

A 300m<sup>2</sup> community space is located in the northern volume on the ground floor, providing a large active frontage and a flexible space towards Church Yard. The community space, student accommodation lobby and gym lobby all open up to the landscaped pedestrian edge along Botany Road, with pockets of seating space along the raised pathway. The social housing lobby (Building 4) is accessed off a two-storey volume on Wellington Street, connecting to the lifts on the western side of the metro box.

The ground floor also accommodates building services and back of house spaces serving both Building 3 and 4, including a shared loading dock and substations. As the sole frontage with vehicular access, the majority of these service spaces are located off Wellington Street. Where possible, back of house spaces have been located away from the street frontage to minimise the extent of inactive facades.



Example of student accommodation lobby  
Iglu Regent Street, Redfern



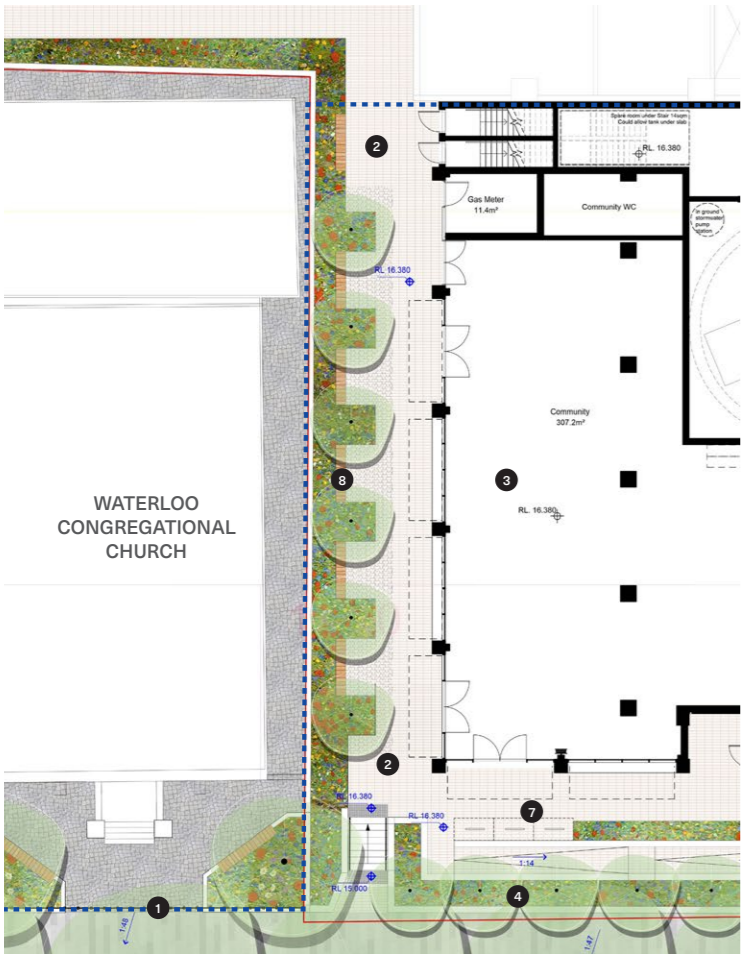
SCALE 1:200 @ A3

# 3.0 DESIGN DESCRIPTION

## 3.2 CHURCH YARD

Church Yard is a proposed 180m<sup>2</sup> pedestrianised public space that is located between the Waterloo Congregational Church and the Building 3 podium. It is a 6m wide intimate space with a human scale, planted edges and integrated seating. The ground floor community space provides an active frontage along the length of the space with opportunities for public engagement between the two spaces. The student accommodation communal space on Level 01 overlooks the space, providing casual surveillance.

As part of a precinct-wide approach to public art, an interpretive installation is proposed to be integrated in the landscape design. For further information, refer to the site-wide Public Art Strategy.



PLAN (BY ASPECT STUDIOS)



VIEW OF CHURCH YARD



MATERIAL REFERENCE IMAGES (BY ASPECT STUDIOS)

# 3.0 DESIGN DESCRIPTION

## 3.3 BUILDING ENTRIES (IGLU & GYM)

The building entries are defined by the three podium volumes facing Botany Road, with the community space entry in the northern volume, the student accommodation entry in the central volume and the gym entry in the southern volume.

The entries are accessed via an elevated terrace that is raised above the flood level and is set back from the street behind a landscaped planter, which forms a buffer to the heavily trafficked Botany Road.

Awnings along the grounded northern volume and the elevated volumes cantilevering over the terrace provide shelter from the elements.

## RELATIONSHIP WITH THE CHURCH

The Stage 1 DA envelope allows for a 3 storey podium. The scale of the podium volume interfacing with the heritage church has been lowered to two storeys to create a more harmonious scale relationship. Further, the tower volume has been set back from Botany Road to align with the street elevation of the church to acknowledge and respect the importance of this heritage building.

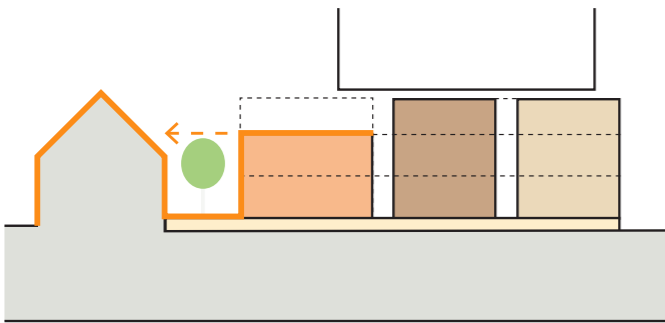


Diagram illustrating the improved scale relationship with the church, achieved by reducing the podium scale from 3 to 2 storeys



Artist's impression only

# 3.0 DESIGN DESCRIPTION

## 3.4 STREET INTERFACE

A landscape planter runs the length of the western side of the site, softening the level transition between the Botany Road footpath and the building entries, and creating a buffer to the vehicular activity on Botany Road.

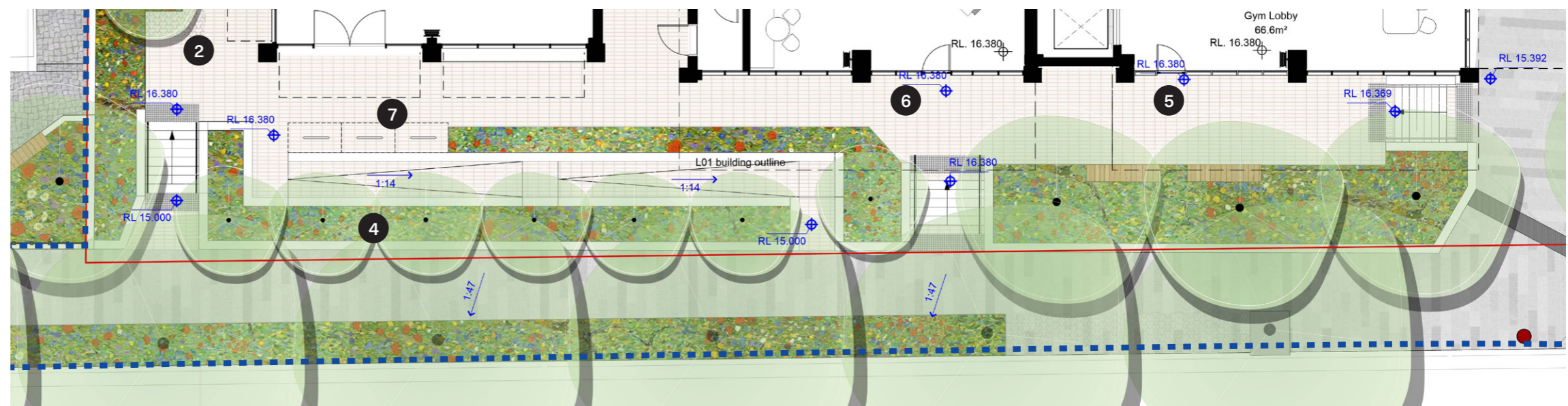
A series of integrated seats are proposed along the edges of the landscaped planters, providing opportunities for people to stop and engage with the public domain.

As the ground floor along Botany Road is raised above the FPL, there is a difference to the footpath of approximately 1.1m.

The student accommodation lobby is centrally located with a frontage to Botany Road. Pedestrian access to the lobby can be either via the elevated terrace running along the edge of the façade, or via steps access leading off the Botany Road footpath located directly opposite the lobby doors.

On ground level, the location of the student accommodation lifts encourages residents and visitors to make use of the staircase to access the communal areas, whilst a small lobby seating area provides space for waiting and greeting on ground level.

The gym lobby is situated on the corner of Botany Road and Wellington Street, providing an easily visible entrance for its users. Access to the lobby is off the elevated terrace along Botany Road.



# 3.0 DESIGN DESCRIPTION

## 3.5 WELLINGTON STREET

The Wellington Street elevation contains the southern frontage of the gym lobby, substations, a fire control room, loading dock entry and the social housing lobby.

The podium massing has been broken into smaller volumes that reflect the finer grain of the lots on the southern side of Wellington Street and steps in plan to further emphasise the finer grain, whilst acknowledging the angled street geometry.

Inactive facades have been consolidated to minimise the impact on the streetscape and to read as an integrated part of the podium language.



Reference Image - 116 Wellington Street, Waterloo



Reference Image - Iglu Regent Street, Redfern



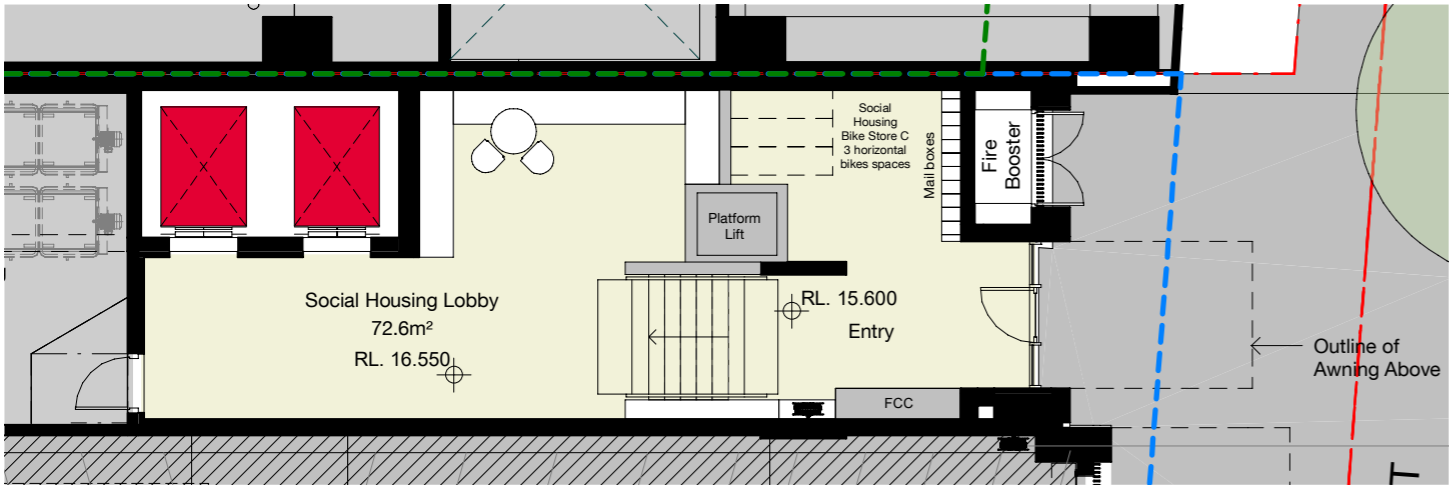
Artist's impression only

# 3.0 DESIGN DESCRIPTION

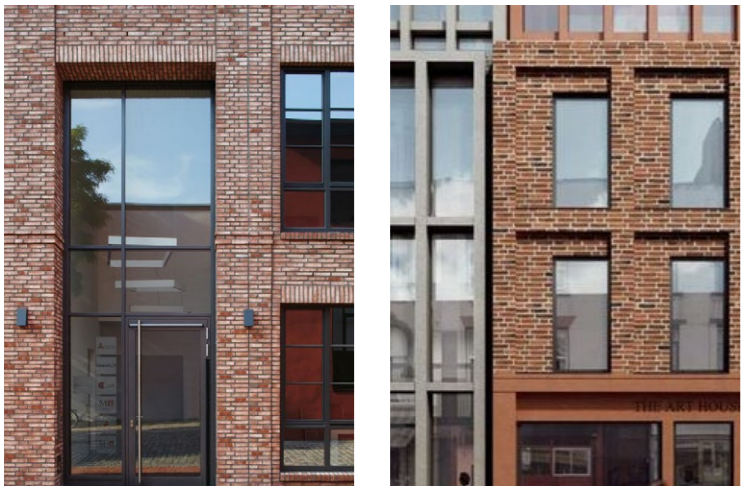
## 3.6 SOCIAL HOUSING LOBBY

The social housing (Building 4) lobby is accessed off Wellington Street and connects to the social housing lifts outside the metro box on the eastern edge of the site. The lobby façade reads as a two storey volume that is set back slightly to give the entry greater definition.

The lobby has a split level design with a generous floor to ceiling height. On the lower level, the lobby entry is at street level and contains bike spaces and the mailboxes. The upper level is elevated above the flood planning level and contains the building lifts and a small seating area for residents. Accessible access between the two levels is via a platform lift, discreetly located to one side of the lobby.



PLAN



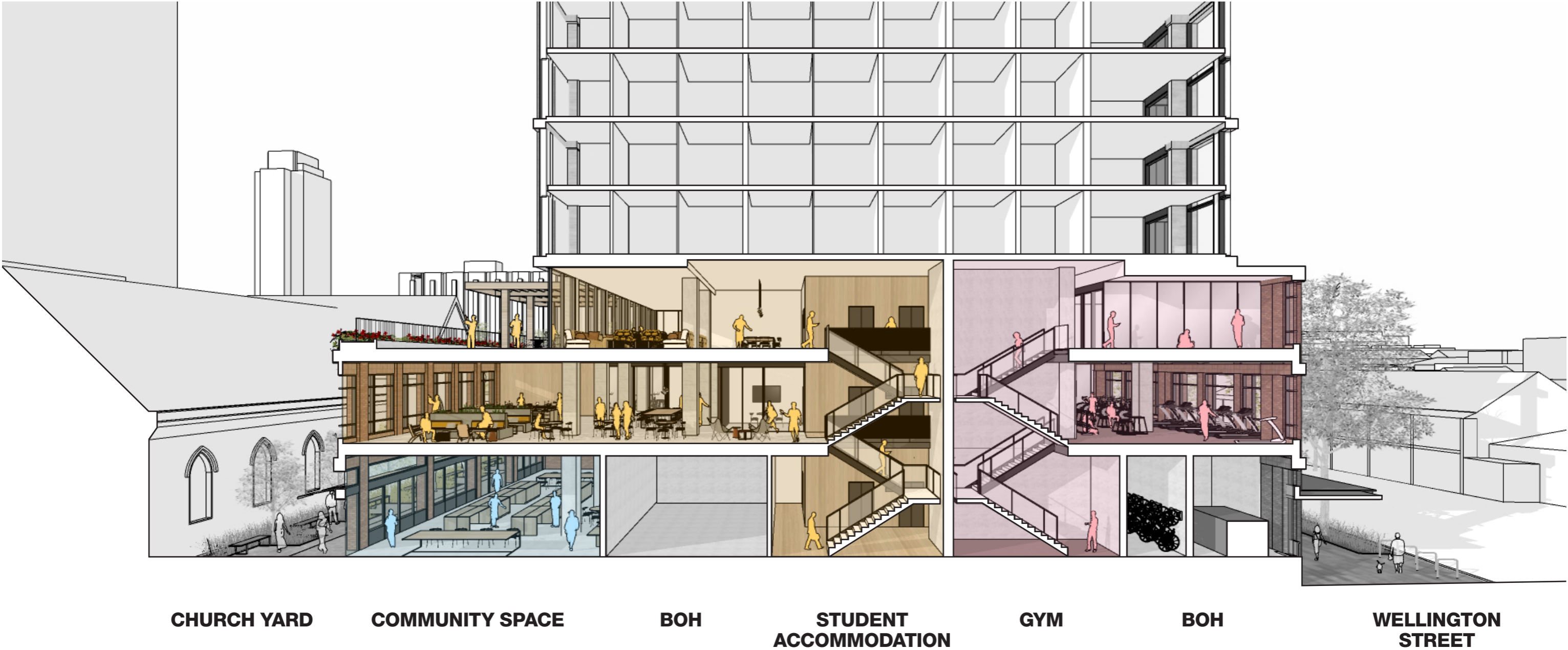
Built Form and Materiality Reference Images



# 3.0 DESIGN DESCRIPTION

## 3.7 PODIUM SECTION

The gym and the student accommodation communal spaces are separated vertically, with both uses having access to their ground floor lobbies and ample natural light. Generous 3 storey staircases connects the various levels, discouraging the use of lifts, and promoting physical activity.



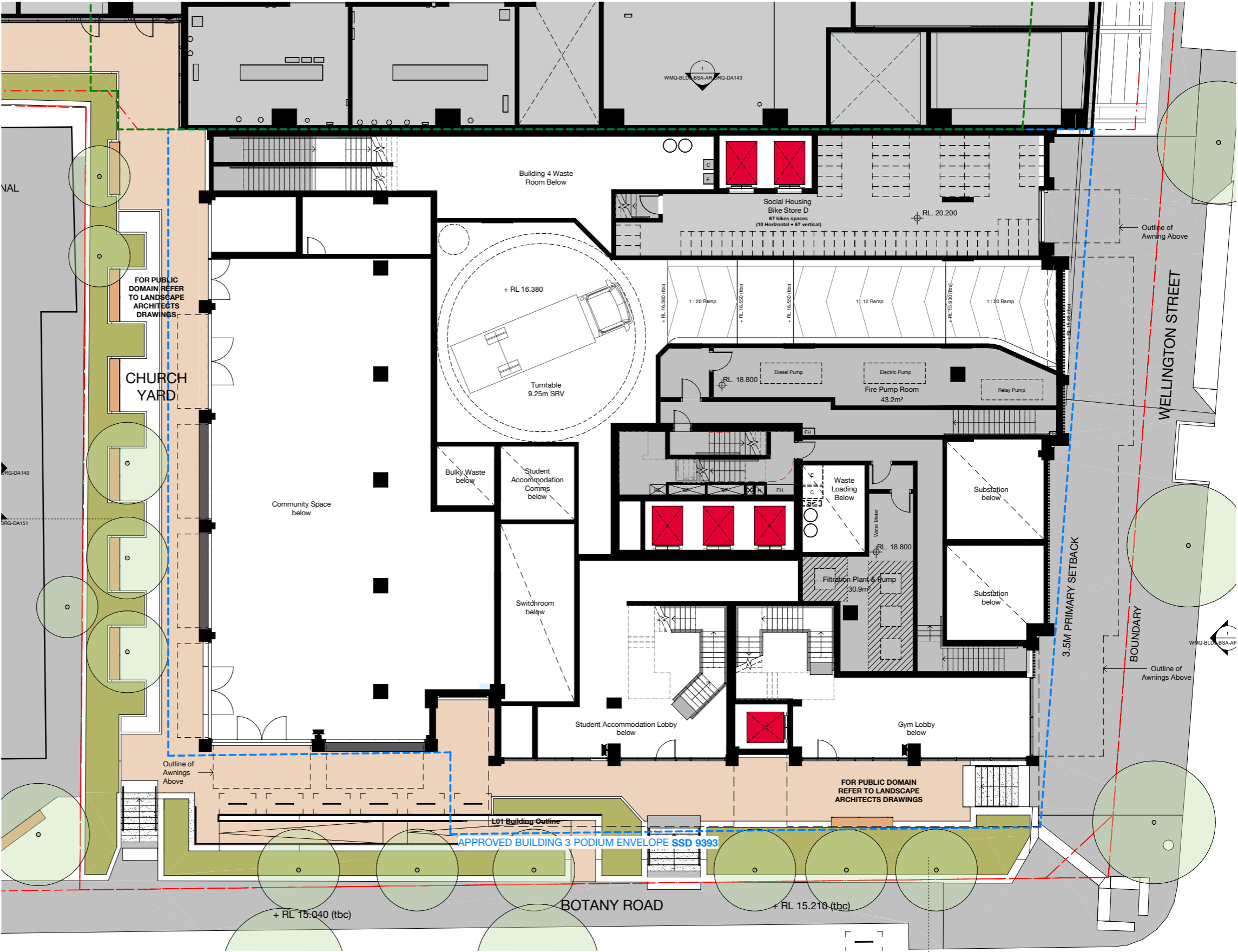
# 3.0 DESIGN DESCRIPTION

## 3.8 MEZZANINE LEVEL

The mezzanine level is located between the Ground Level and Level 01, making use of the higher floor to floor height between these levels.

It contains building services and other back of house spaces that would otherwise go on the ground floor reducing potentially active facades.

The social housing (Building 4) bike store contains 67 bike spaces in a mix of vertical and horizontal racks. The bike store is accessed via the social housing lifts and has fire egress via the social housing fire stairs. An opening to the Wellington Street façade allows natural light and ventilation into the space.



SCALE 1:200 @ A3

# 3.0 DESIGN DESCRIPTION

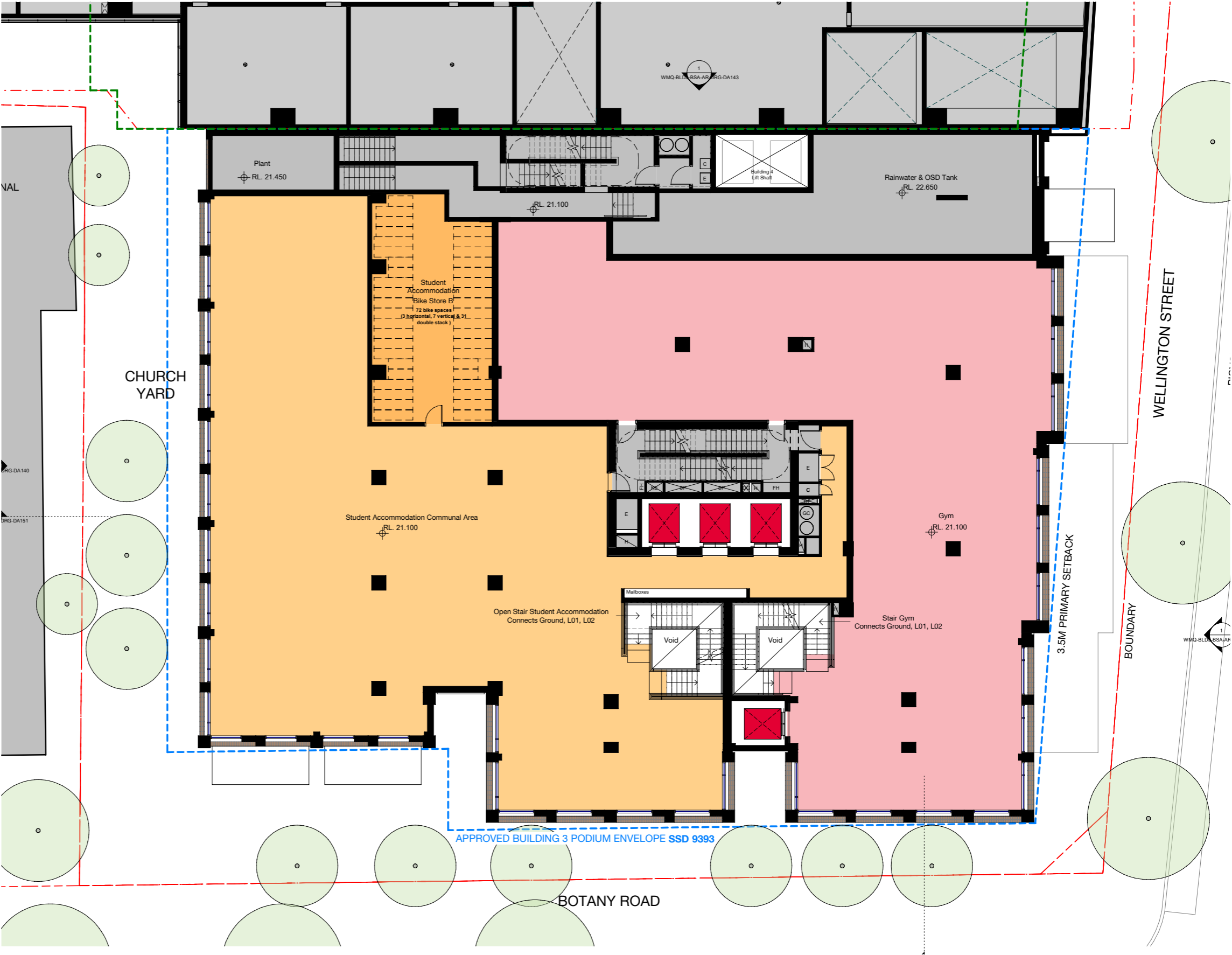
## 3.9 LEVEL 01

Level 01 contains the lower level of the student accommodation communal areas and the gym. The floorplan is split along the east-west axis with the communal areas having a northern orientation to maximise solar access and natural light. The gym is orientated to the southern side of the floorplate with an outlook over Wellington Street and the intersection with Botany Road, providing a large frontage with access to natural light and natural ventilation.

The student communal area is accessed from the street via a generous open staircase. This open stair continues up to Level 02 which contains further communal areas and the outdoor landscaped terrace.



Reference Image: Iglu Franklin Street, Melbourne



SCALE 1:200 @ A3

# 3.0 DESIGN DESCRIPTION

## 3.10 STUDENT ACCOMMODATION COMMUNAL AREAS ON LEVEL 01

The communal area offers a variety of seating options and meeting rooms to provide residents with space to meet, work and socialise. Lounge and study spaces will be located along the north and western frontages, maximising solar access, natural light and natural ventilation.

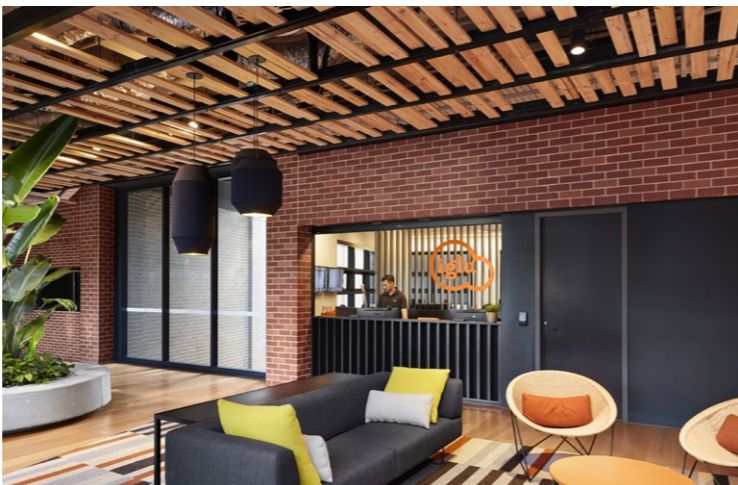
A reception desk located at the top of the stair is positioned to give the student accommodation staff good visibility of all incoming residents and visitors and will function as a security desk overnight. An admin office and staff amenities are discreetly located behind the reception desk. Other facilities such as a laundry, a study library and amenities add to the offering.



Reference Image: Iglu Regent Street, Redfern



Reference Image: Iglu Mary Street, Brisbane



Reference Image: Iglu Regent Street, Redfern



INDICATIVE FITOUT PLAN OF THE STUDENT COMMUNAL AREAS AT LEVEL 01

# 3.0 DESIGN DESCRIPTION

## 3.11 LEVEL 02

Level 02 contains the upper level of the student accommodation communal areas and the gym and has a similar division of space to Level 01.

The communal terrace, which is part open and covered, has a northerly orientation to maximise solar access. Integrated seating and planting, as well as BBQ facilities, provides a high level of amenity. In addition to an intergrated pergola structure, the landscaping to both the station and Botany Road provides a buffer to both wind and noise.

Level 02 of the gym is accessed via either the generous staircase or the dedicated lift, and has an outlook through the trees lining Wellington Street. Though the gym layout is subject to a future tenant fitout, it is envisaged that Level 01 would house weights, treadmills and machines, whilst Level 02 would house various group training rooms.



Reference Image: Iglu Regent Street, Redfern



SCALE 1:200 @ A3

# 3.0 DESIGN DESCRIPTION

## 3.12 STUDENT ACCOMMODATION COMMUNAL AREAS AND OUTDOOR TERRACE ON LEVEL 02

The student accommodation outdoor terrace is located on Level 02 of the podium, with sliding doors opening the space up to the indoor communal areas. Towards Botany Road, it has a heavily landscaped buffer providing shelter from the traffic, whilst towards the station to the east, there is a 6m landscaped zone.

Integrated seating lines the landscaped edge, and a pergola structure provides shade and shelter from the elements.

The student communal areas are envisaged to contain study and lounge spaces, games areas and a centrally located “grab and go” style kitchen, that connects into the roof terrace.



Reference Image: Iglu Mary Street, Brisbane



Reference Image: Iglu Regent Street, Redfern



Reference Image: Iglu Franklin Street, Melbourne



INDICATIVE FITOUT PLAN OF THE STUDENT COMMUNAL AREAS AT LEVEL 02

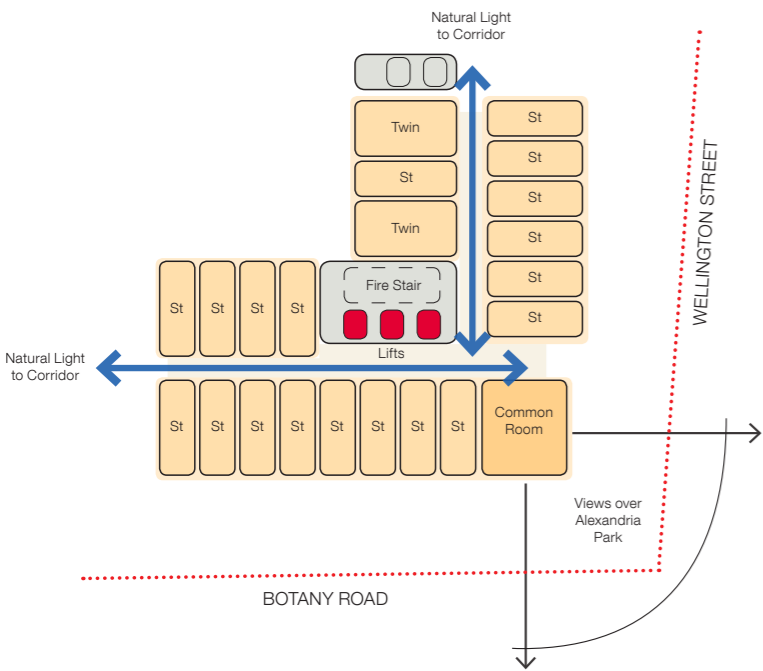
# 3.0 DESIGN DESCRIPTION

## 3.13 TYPICAL LOWER LEVEL

The floorplate is based on an L-shape plan that maximises street frontages. The floorplate has an efficient use of area with double loaded corridors and a compact central core with scissor stair. The ends of the corridors have glazed louvres providing views, natural light and ventilation.

Levels 03-06 has 19 studios, one twin studio and one DDA studio per floor, whilst Levels 06-15 has 19 studios and two twin studios per floor.

Each floor has a communal room, occupying the prime location of the floorplate in the south western corner, with a dual aspect capturing panoramic views to the south towards Botany Bay and to the west across Alexandria Park and the inner west suburbs. This room is a space for residents on that floor to socialise, study or to eat a meal that they have prepared in their studio in a more open social environment.



FLOORPLATE CONCEPT



LEVEL 06-15 PLAN SCALE 1:200 @ A3

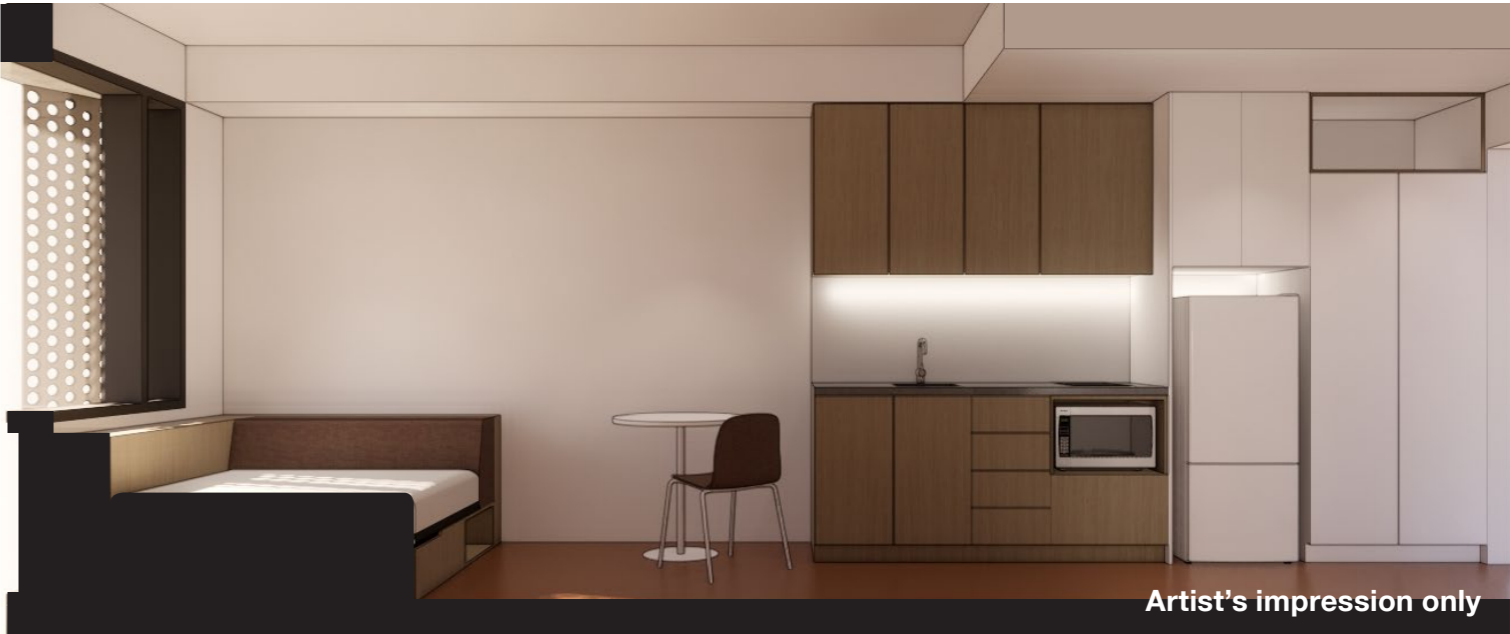
# 3.0 DESIGN DESCRIPTION

## 3.14 TYPICAL STUDIO

Each typical studio contains an ensuite bathroom, kitchen, double bed, mirror, table and chair, night light, bookshelf, waste container, blind/curtain, data point and storage.

The layout and design of the typical studio has been developed to optimise the efficiency and functionality of the space and to incorporate knowledge and user feedback from completed student accommodation projects. This includes a highly customised bathroom pod and a prefabricated bespoke bed with integrated storage, cushions for day use and wireless mobile phone charging.

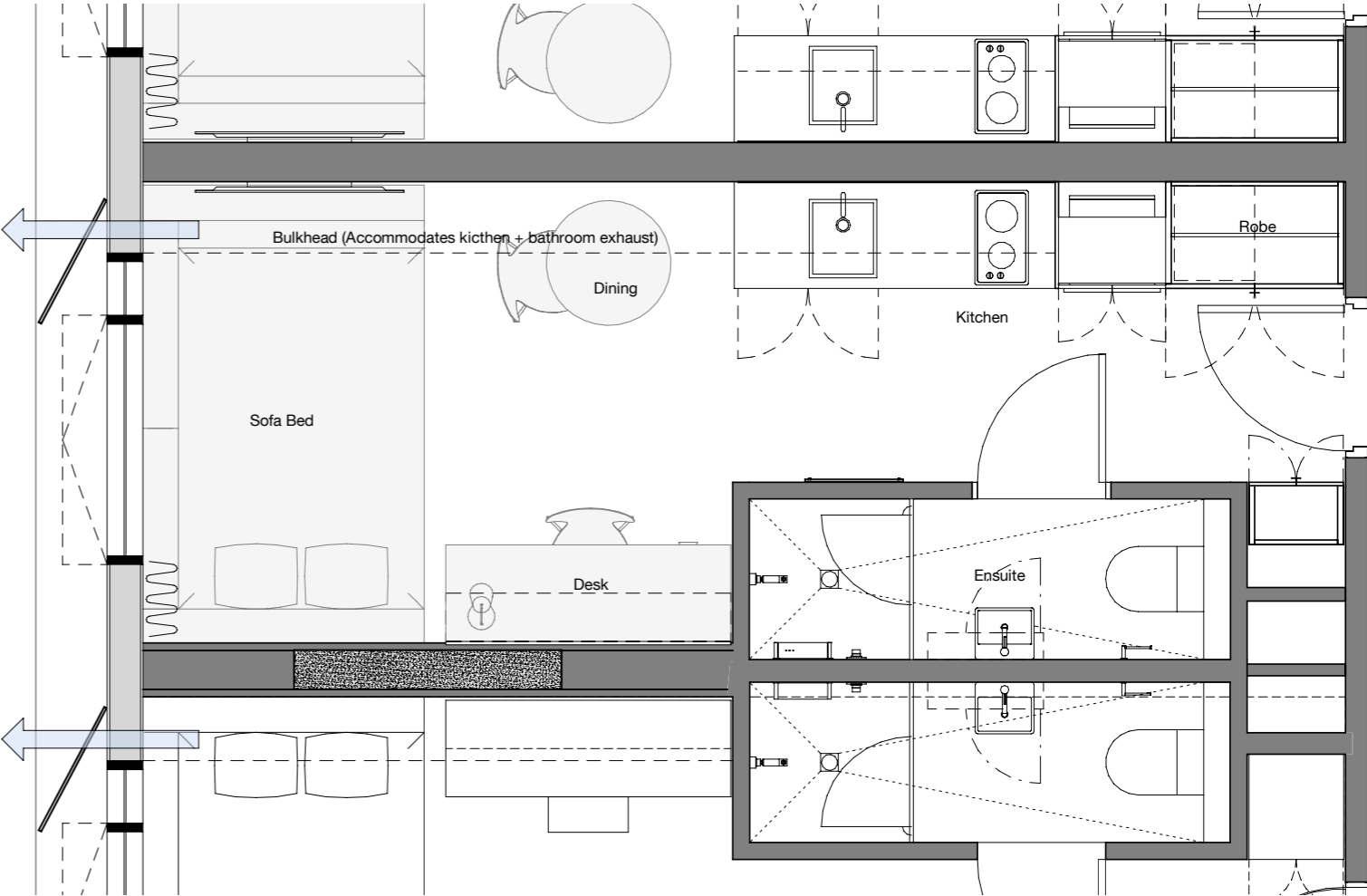
A large picture window maximises access to daylight and views.



INTERIOR ELEVATION



INTERIOR VIEW



PLAN

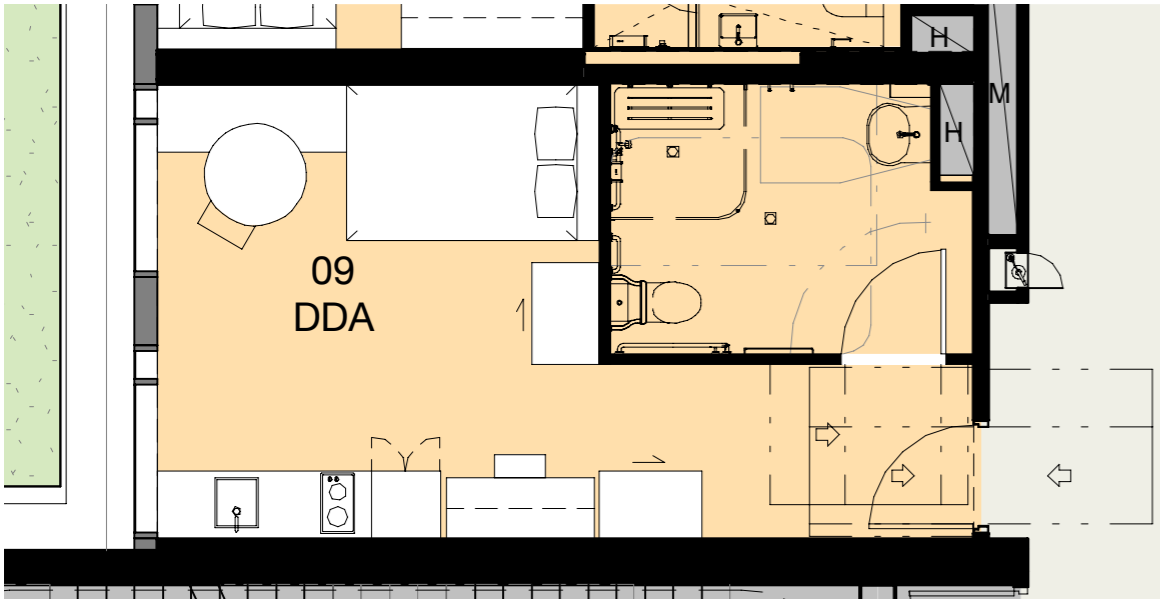
# 3.0 DESIGN DESCRIPTION

## 3.15 OTHER ROOM TYPES

The accommodation floors consist of three room types. In addition to the 393 typical studios, there are also 39 twin studios and 3 accessible studios.



Artist's impression only



### DDA STUDIOS

The DDA Studios contain an ensuite bathroom, kitchen, a double bed, mirror, table and chair, night light, bookshelf, waste container, blind, data point and natural light.



### TWIN STUDIOS

Each Twin Studio contains an ensuite bathroom, kitchen, two king single beds, mirror, table and chair, night lights, bookshelves, waste container, blinds, data points and natural light. The studios vary in size and layout based on their location within the building.

# 3.0 DESIGN DESCRIPTION

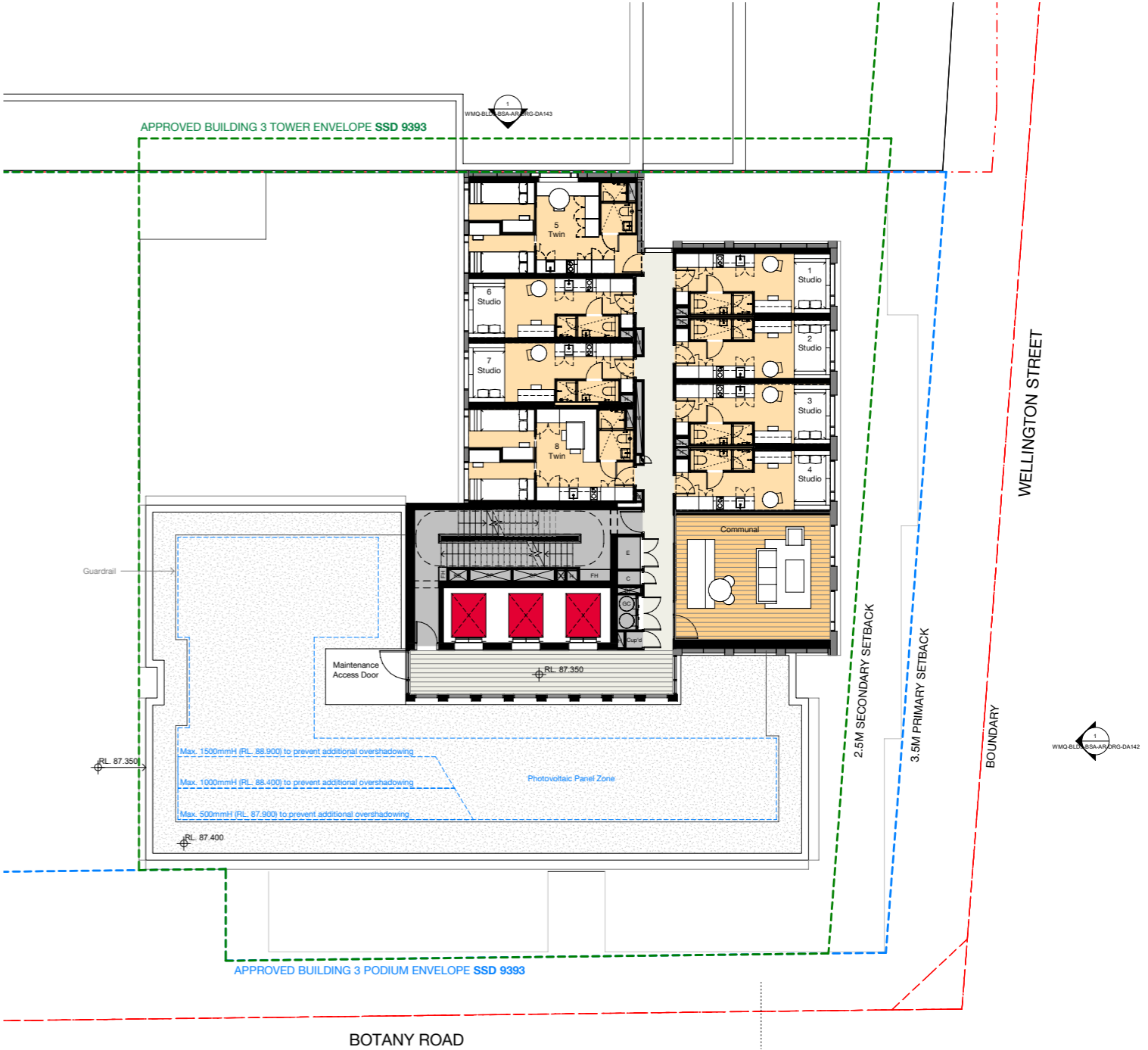


### 3.16 TYPICAL UPPER LEVEL

The typical upper level plan runs from Level 16 to Level 22. It is a continuation of the same floorplate as the levels below apart from the north facing elevation. Here, an additional room is located over the Building 4 lift shaft, with the floorplate containing an extra typical studio per floor.

SCALE 1:250 @ A3

BATESSMART™

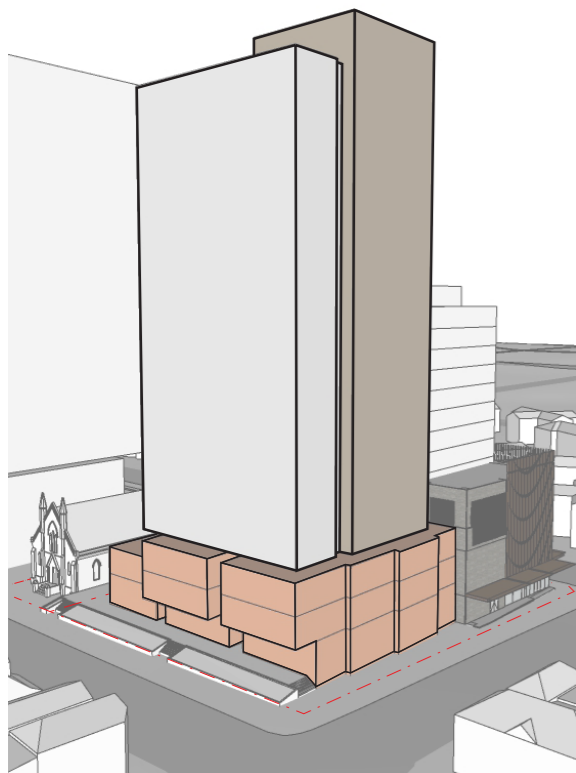


### 3.17 SETBACK LEVEL

Level 23 is the penultimate floor and has a reduced footprint. On this level, the studios to the western side of the building drop off, leaving 6 typical studios and 2 twin rooms on the eastern side. This setback level, along with the plant room above creates a two storey stepped articulation to the top of the building.

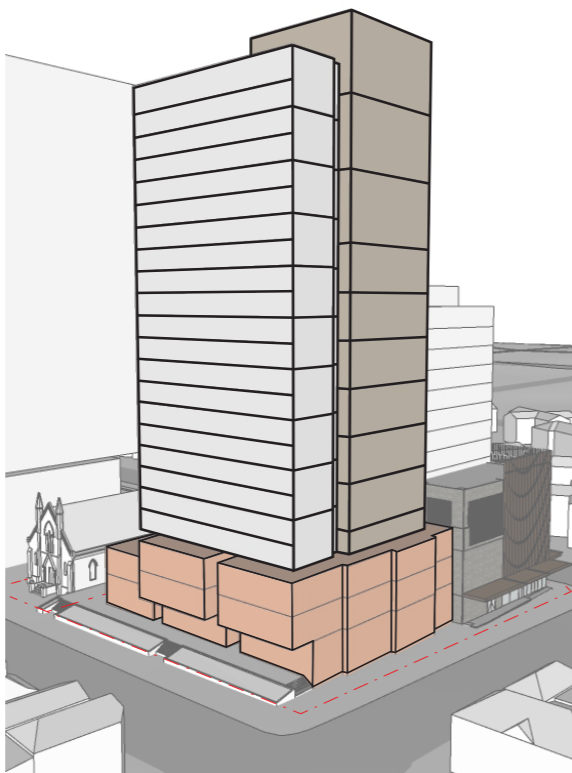
# 4.0 FACADE AND MATERIALS

*The building massing is comprised of two volumes located above a brick podium, with a diversity in building materiality reflecting the diversity in the in the surrounding area. Each elevation has been designed to respond locally to solar gain, views and privacy.*



**3 VOLUMES / 3 MATERIALS**

- / Podium - Brick
- / Botany Rd Tower Volume - Concrete
- / Wellington St Tower Volume - Aluminium



**HORIZONTAL TOWER EXPRESSION**

- / Primary two-storey expression to towers
- / Secondary single storey expression to Botany Rd tower volume
- / Primary two-storey to three-storey expression to Wellington St tower volume

The facade concept for the student accommodation tower has been developed to create two distinct yet complimentary volumes, with variations of similar facade elements ensuring each elevation is locally responsive to solar, views and privacy whilst still creating a cohesive tower expression. The tower facades are articulated into two and three storey volumes. The western volume is characterised by light grey coloured aluminium horizontals and light bronze coloured angled perforated aluminium sunshades which protect from the western sun, whilst the eastern volume is characterised by bronze coloured aluminium horizontals and verticals.

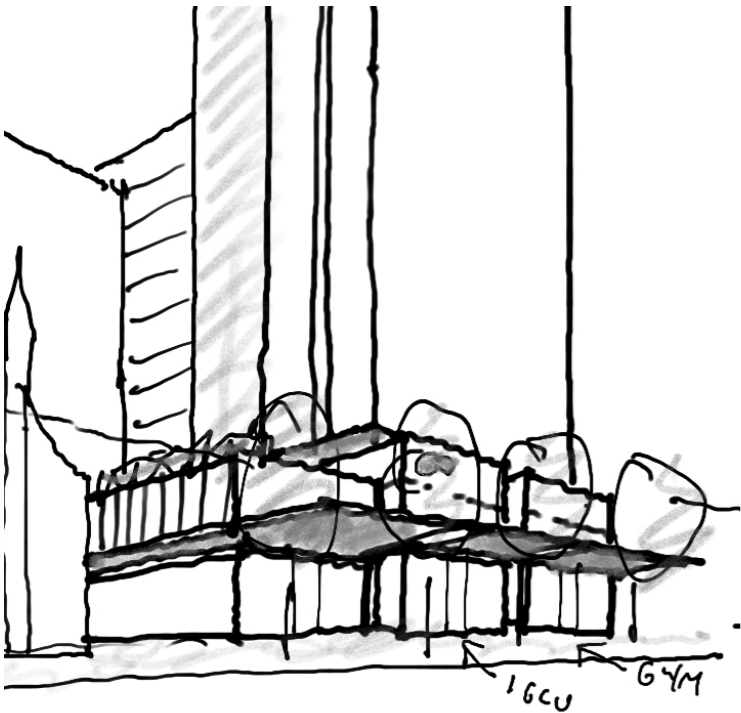


Artist's impression only (Image by Doug & Wolf)

# 4.0 FACADE AND MATERIALS

## 4.1 PODIUM CONCEPT

The masonry materiality of the podium echoes the brick terrace houses and warehouse typology found in the surrounding built context. Variation in brick colour and coursing provides diversity and distinction, and reinforces the different volumes. Open shopfronts provide activation to the various frontages, whilst planting adds a vegetated organic layering.



Reference Images

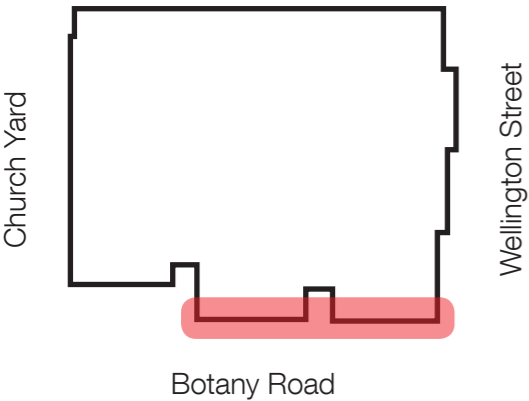
# 4.0 FACADE AND MATERIALS

## 4.2 BOTANY ROAD

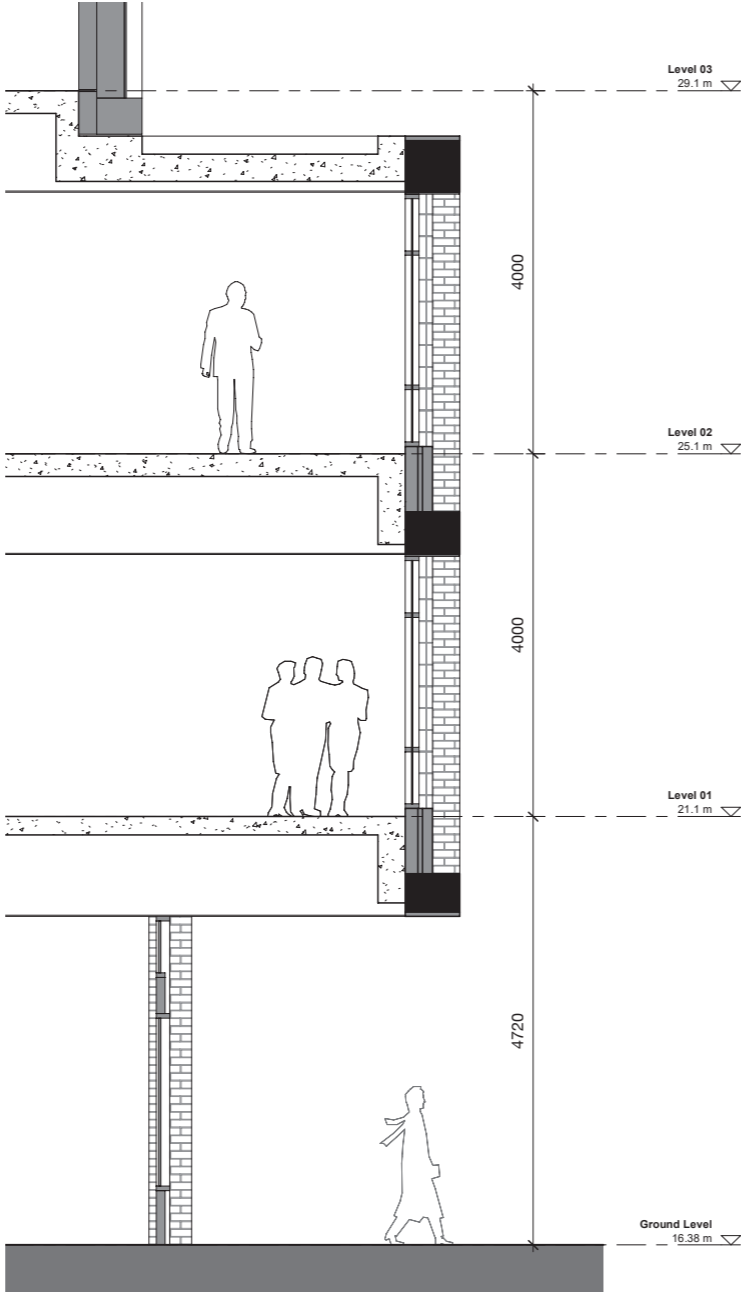
The two southern volumes on Botany Road sit on the raised floor level, with a landscaped buffer between the road and building entries. It has a brick frame expression with stack bonds on the horizontal framing and the infill panels. The solid infill panel is located towards the south of each window frame, increasing solidity and optimising solar performance.

The ground floor has a floor to floor height of approximately 4.7m, giving a generous entry experience. The two upper floors have a floor to floor height of 4m, providing space for structural transfers, services and a generous ceiling height.

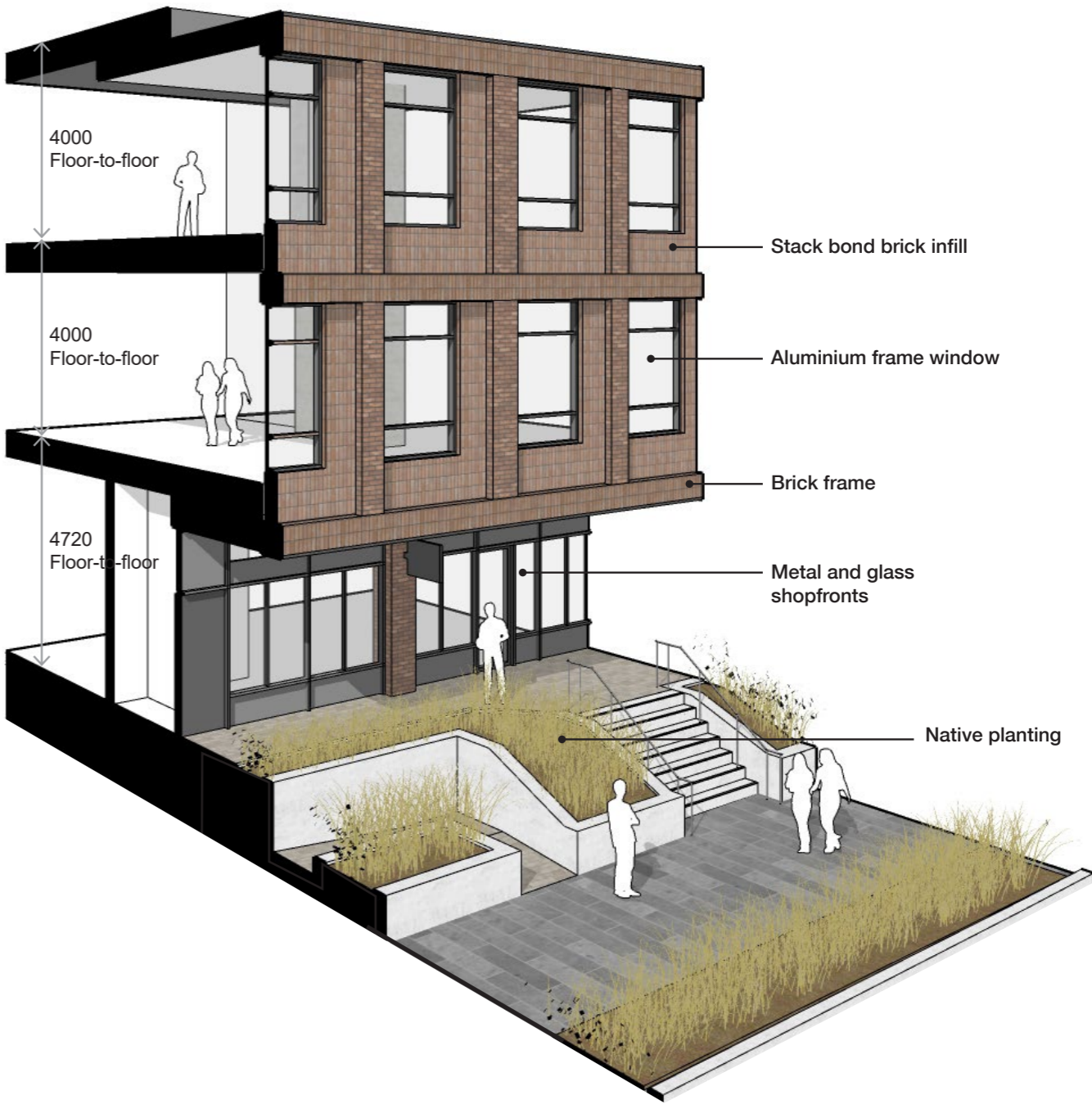
Charcoal coloured metal and glass window frames and shopfronts contrast the brick and sit as infills between the brick piers.



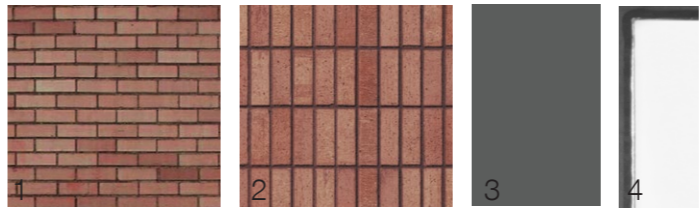
KEY PLAN



INDICATIVE SECTION



3D SECTION



### MATERIALS PALETTE

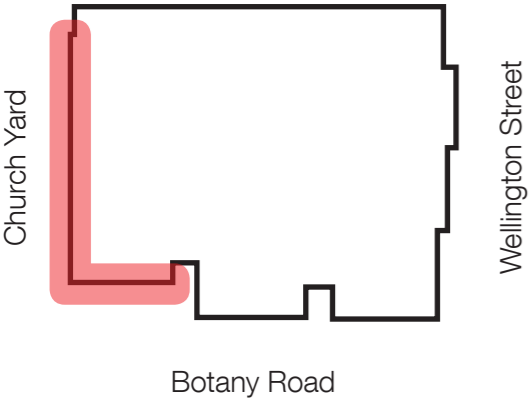
- 1/ Brick - Red Colour
- 2/ Soldier Course Brick - Red Colour Variations
- 3/ Metal - Dark Grey
- 4/ Glass - Clear
- Window Frames - Charcoal

# 4.0 FACADE AND MATERIALS

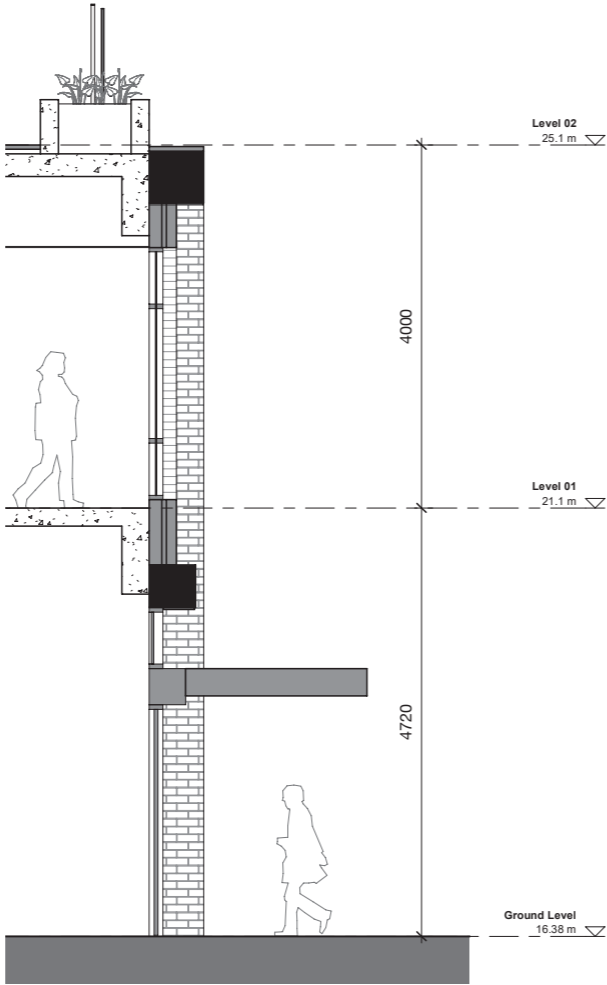
## 4.3 CHURCH YARD

The northern volume on Botany Road has a grounded brick frame expression similar to the cantilevering volumes to the south. Steel frame awnings to the west provide shelter from the elements, whilst retractable fabric awnings along Church Yard create a softer layering to the north. Operable windows allow for natural ventilation to the communal areas.

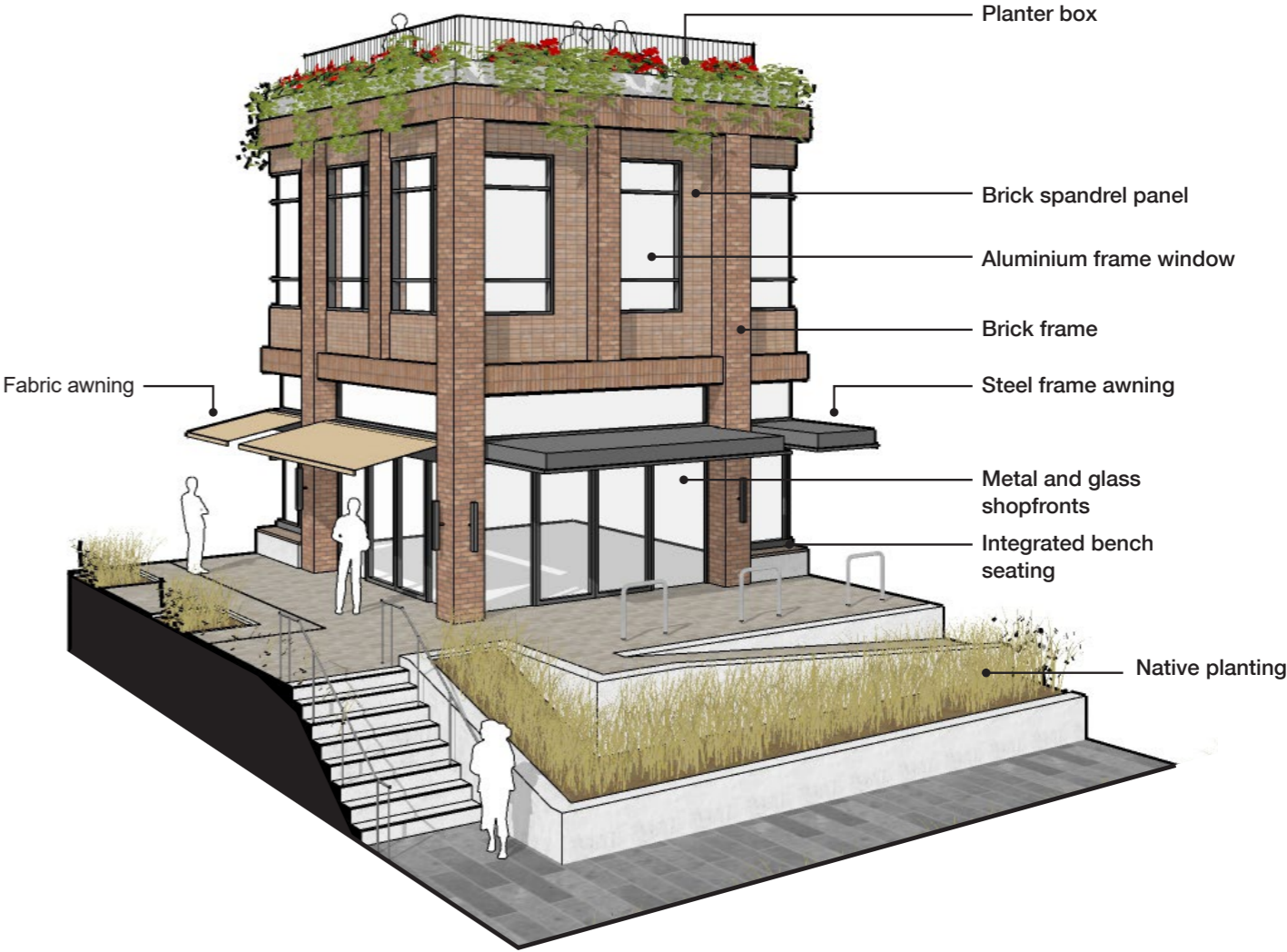
A concrete planter runs along the top of the two storey podium framing the student housing outdoor communal terrace, with planting spilling over the brick edge, improving the amenity for the terrace and Church Yard.



KEY PLAN



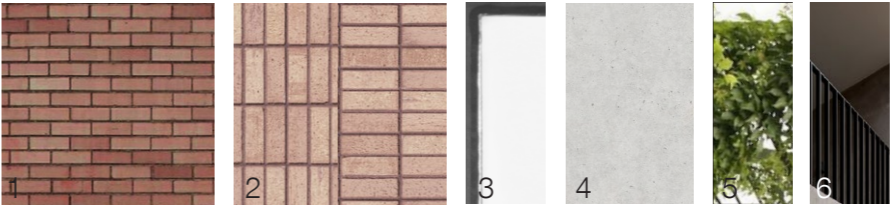
INDICATIVE SECTION



3D SECTION

### MATERIALS PALETTE

- 1/ Brick - Red Colour
- 2/ Soldier/Stacker Course Brick - Red Colour Variations
- 3/ Glass - Clear
- Window Frames - Charcoal
- 4/ Planter Boxes - Concrete
- 5/ Planting
- 6/ Aluminium Palisade Balustrades - Charcoal



# 4.0 FACADE AND MATERIALS

VIEW OF PODIUM FROM BOTANY ROAD



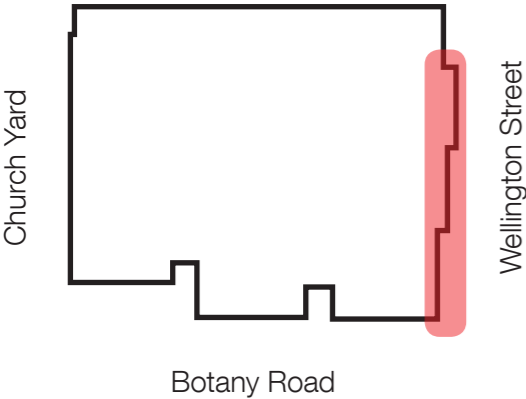
# 4.0 FACADE AND MATERIALS

## 4.4 WELLINGTON STREET

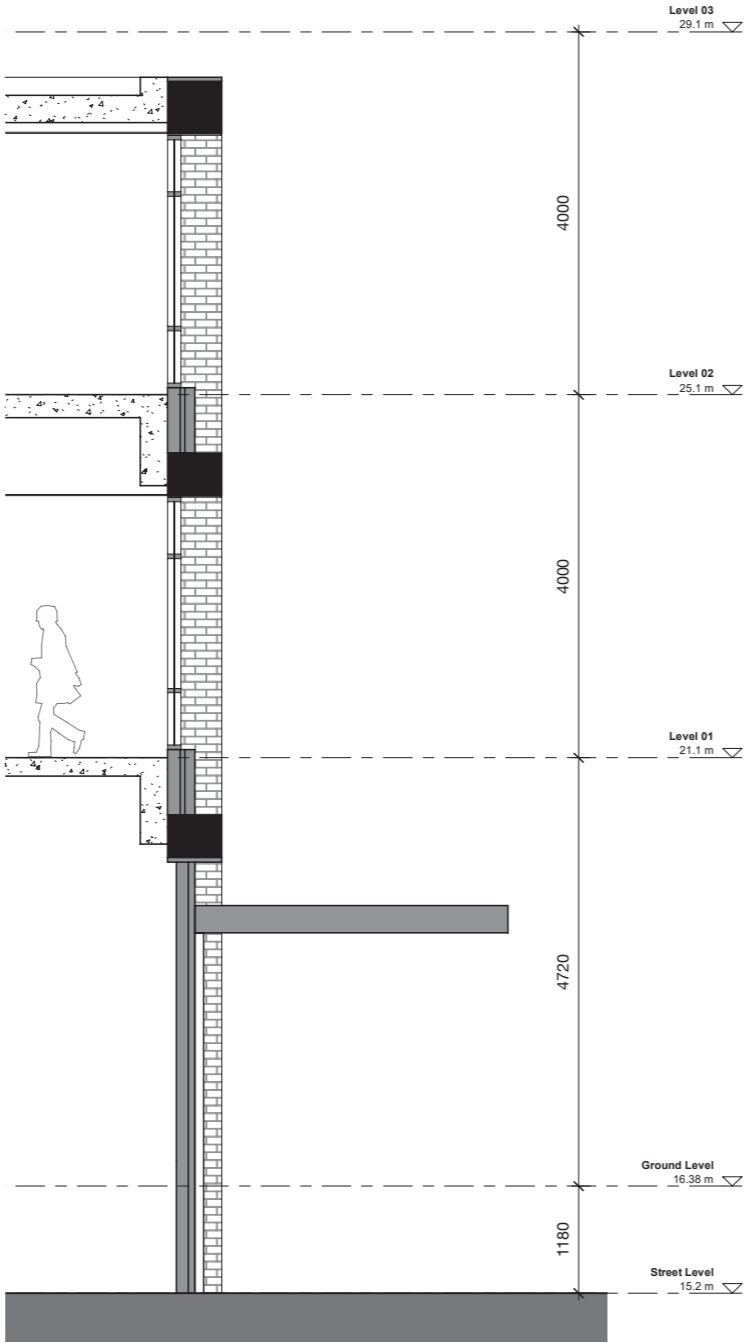
The Wellington Street facade steps perpendicular to Botany Road, breaking the elevation into four segments, relating to the two storey terrace houses across the street.

The south facing facade has large format glazing between the brick frames and operable windows that provide natural ventilation to the gym.

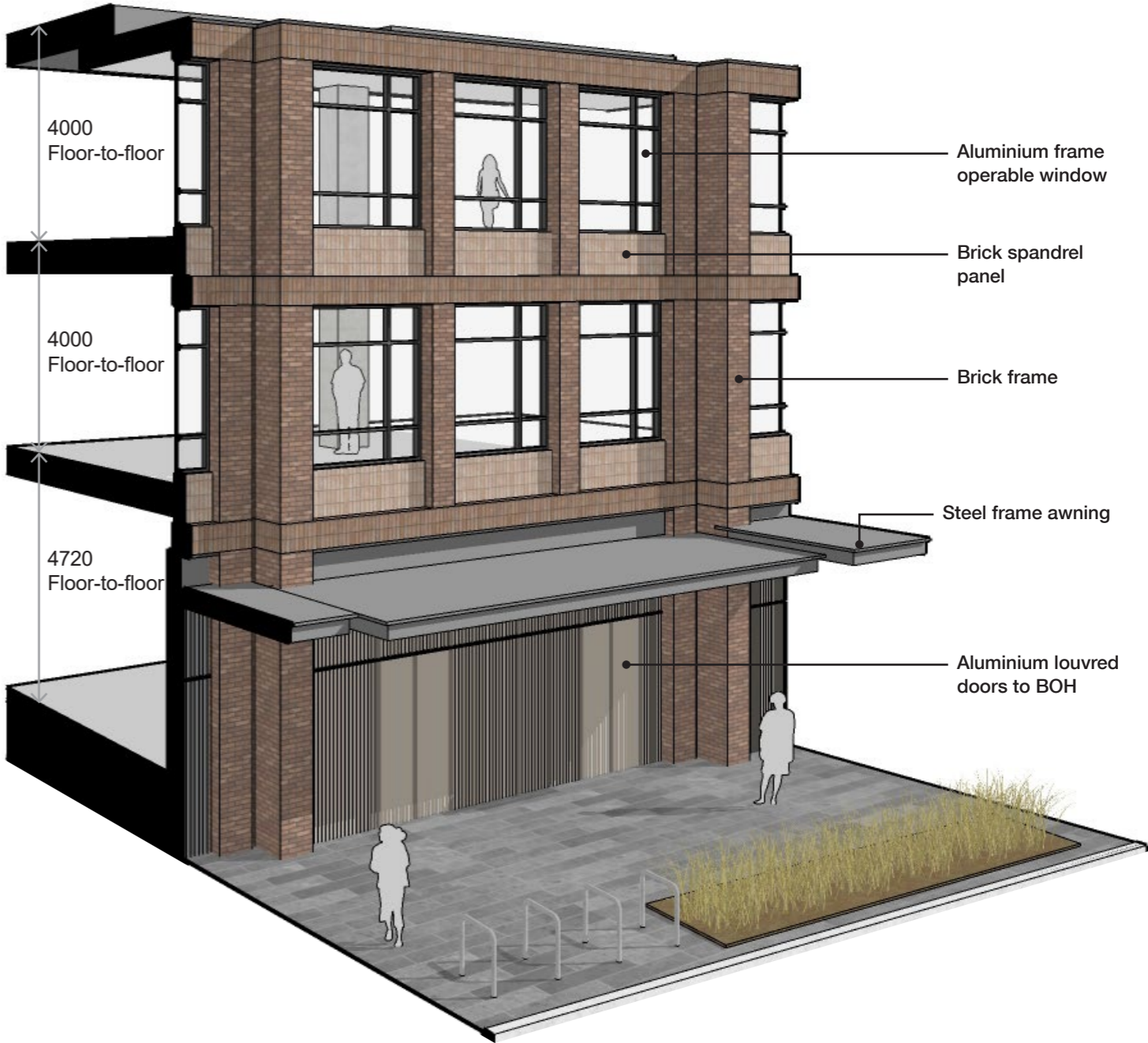
The back of house spaces fronting Wellington Street have fine aluminium louvres that sit as infills between the brick piers. Steel frame awnings provide shelter from the elements.



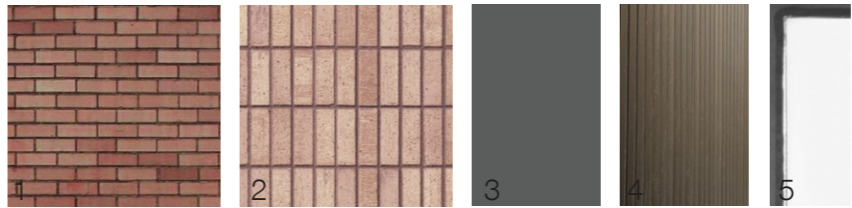
KEY PLAN



INDICATIVE SECTION



3D SECTION



**MATERIALS PALETTE**

- 1/ Brick - Red Colour
- 2/ Soldier Course Brick - Red Colour Variations
- 3/ Metal - Dark Grey
- 4/ Aluminium Louvres - Dark Bronze / Charcoal
- 5/ Glass - Clear
- Window Frames - Charcoal

# 4.0 FACADE AND MATERIALS

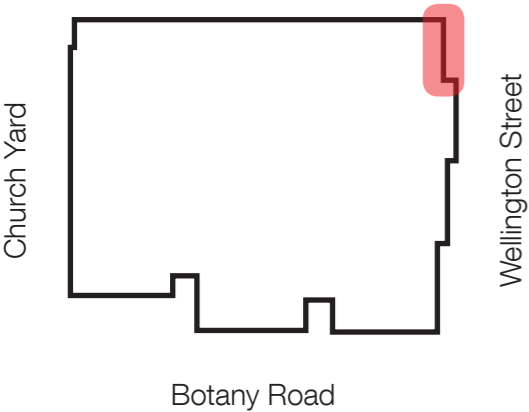
VIEW OF PODIUM FROM WELLINGTON STREET



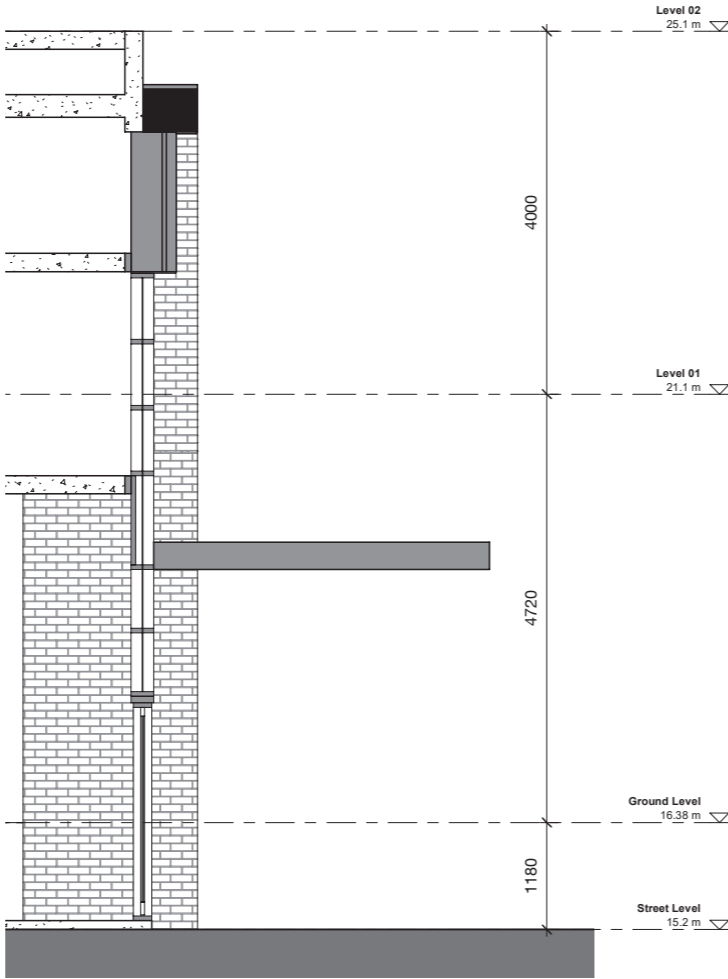
# 4.0 FACADE AND MATERIALS

## 4.5 SOCIAL HOUSING LOBBY

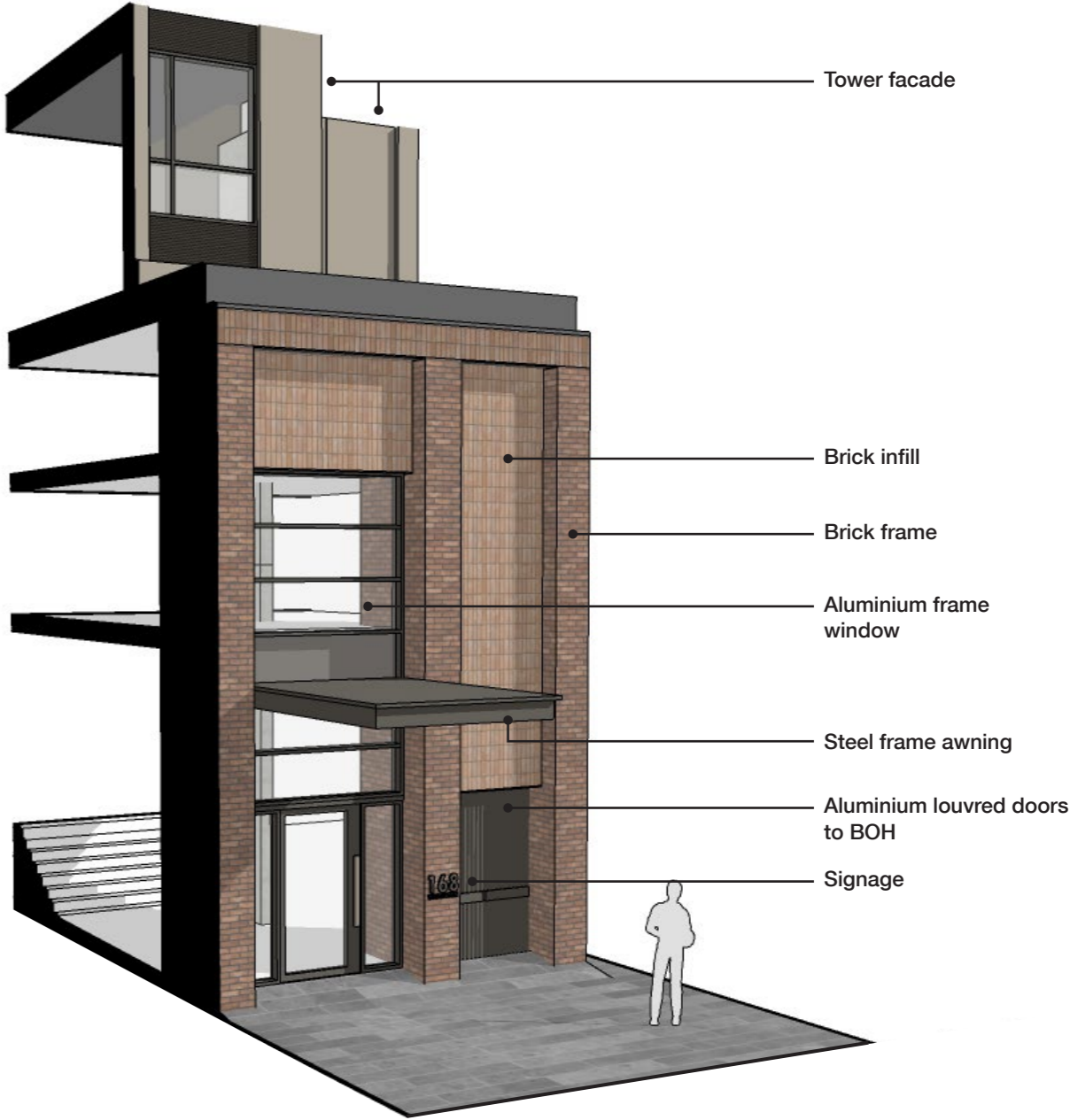
The social housing lobby is located on the eastern edge of Wellington Street towards the metro station. The lobby sits as part of a recessed 2 storey brick podium with a 3.5m ground floor to floor.



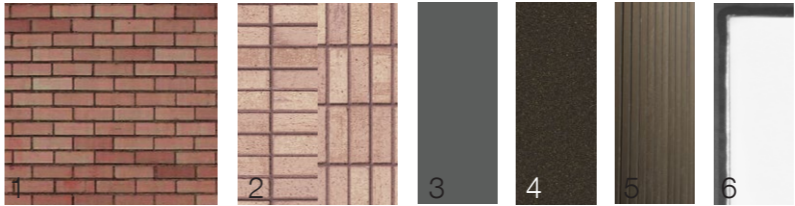
KEY PLAN



INDICATIVE SECTION



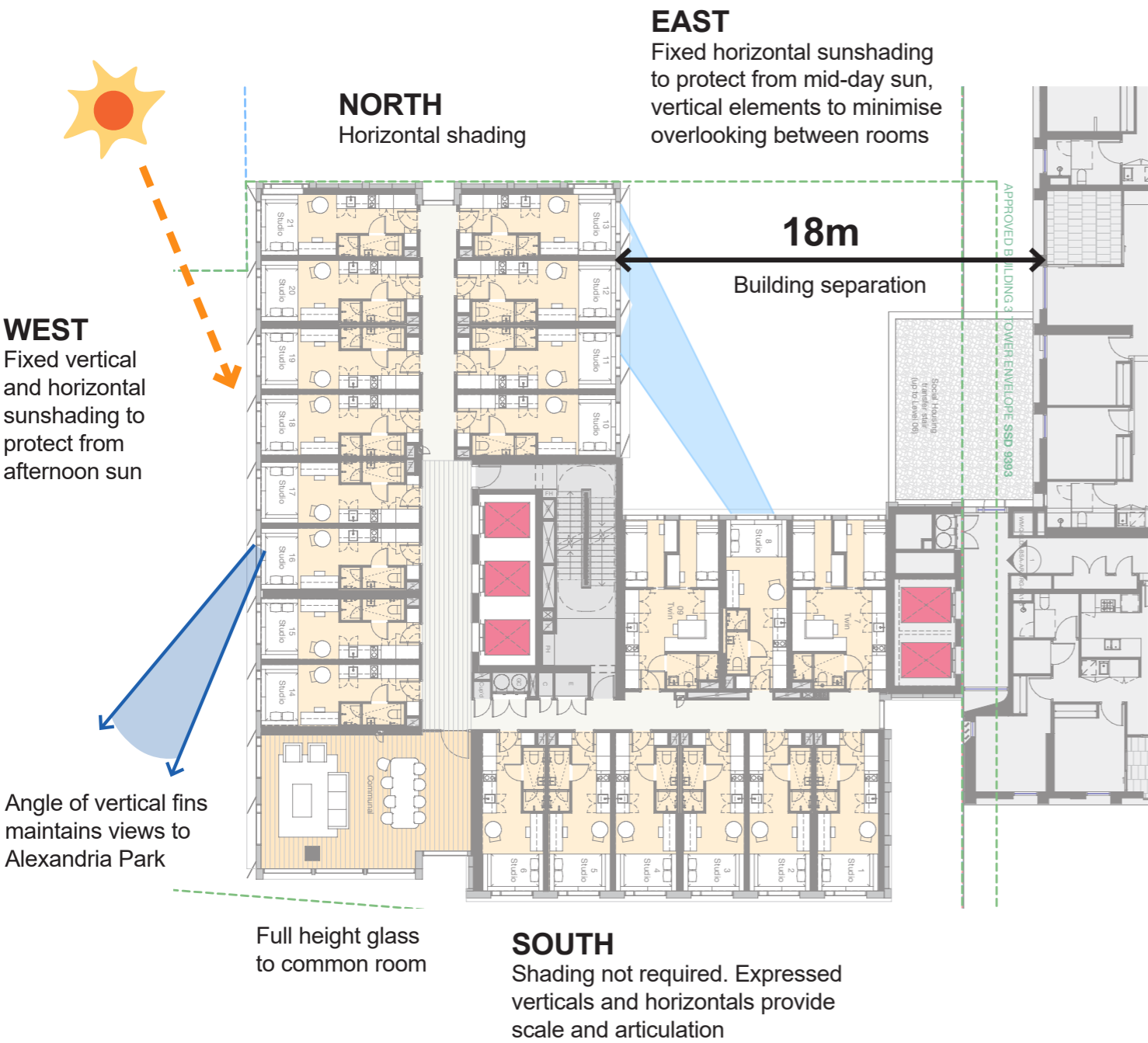
3D SECTION



### MATERIALS PALETTE

- 1/ Brick - Red Colour
- 2/ Soldier/Stacker Course Brick - Red Colour Variations
- 3/ Metal - Dark Grey
- 4/ Aluminium - Dark Bronze
- 5/ Aluminium Louvres - Dark Bronze
- 6/ Glass - Clear
- Window Frames - Charcoal

# 4.0 FACADE AND MATERIALS

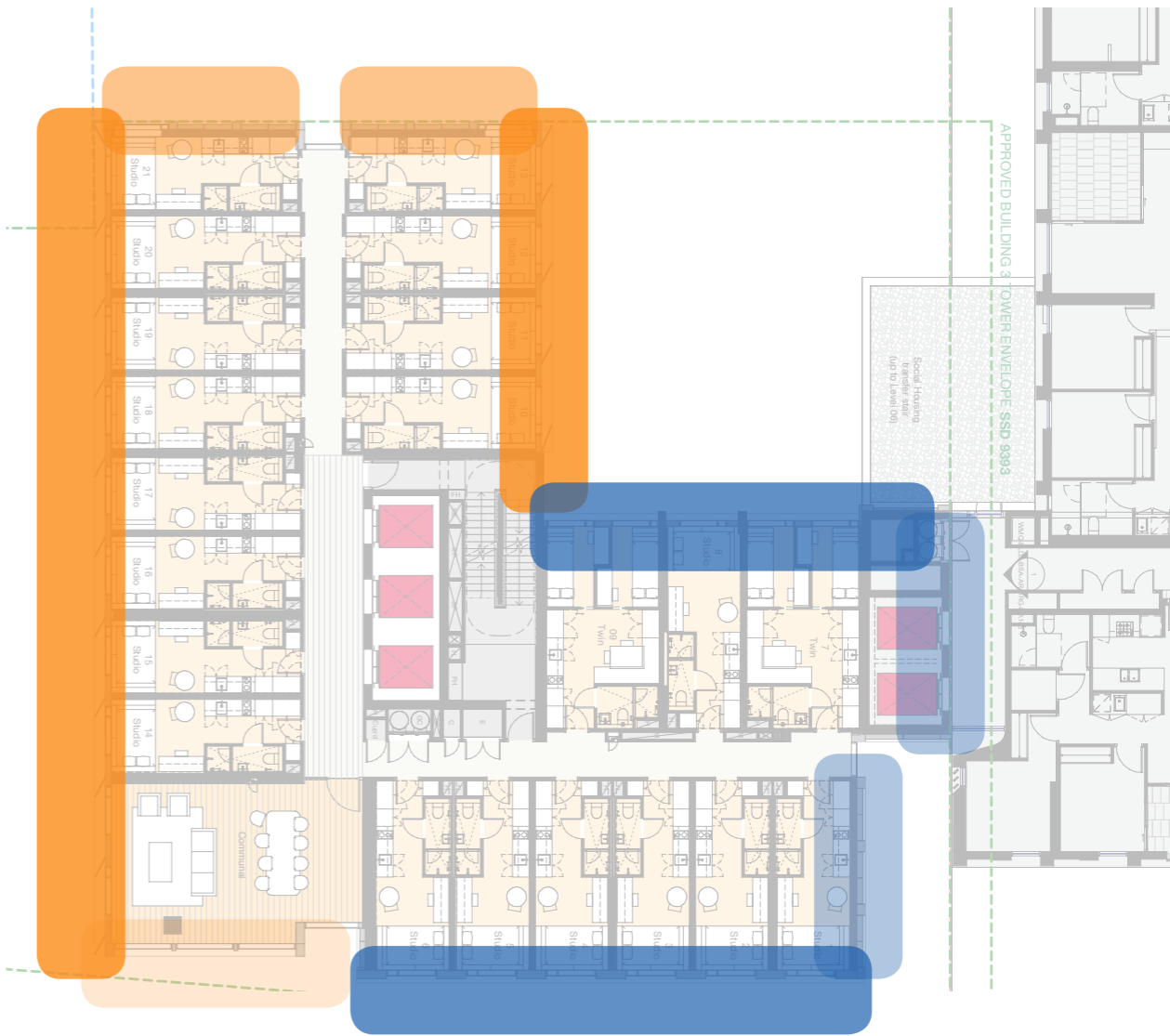


## 4.6 TOWER FACADE RESPONSE

The facade of each elevation is locally responsive to the solar, views and privacy conditions it is subject to. Horizontal sunshades are utilised on the east, north and west facades. On the western facade, vertical sunshades have been angled to maximise sunshading in the afternoon whilst maintaining direct views towards Alexandria Park. The north and south facades are similar however, the north facade has horizontal sunshades to respond to the greater solar exposure. The east facade has vertical elements similar to the west facade however they are angled in the opposite direction in order to manage privacy between the studios on the adjacent, north facing side of the tower.

SCALE 1:250 @ A3

BATESSMART™



## 4.7 TOWER FACADE TYPES

Architecturally, the two distinct volumes of the tower are expressed as two primary facade types. Within each type, there are sub-types that utilise a family of facade elements to create a respond to the specific conditions on each elevation.

### KEY

- Type A1 - Studios (West & East)
- Type A2 - Building Ends (North)
- Type A3 - Common Room
- Type B1 - Studios (North & South)
- Type B2 - Building Ends (East)

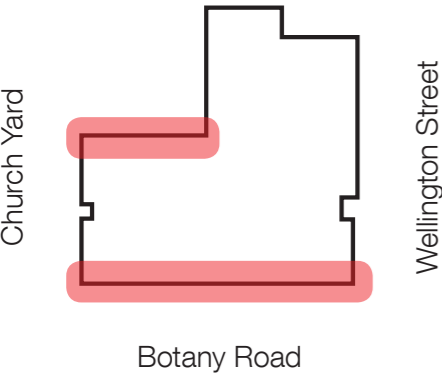
# 4.0 FACADE AND MATERIALS

## 4.8 EAST & WEST FACING STUDIO FACADE

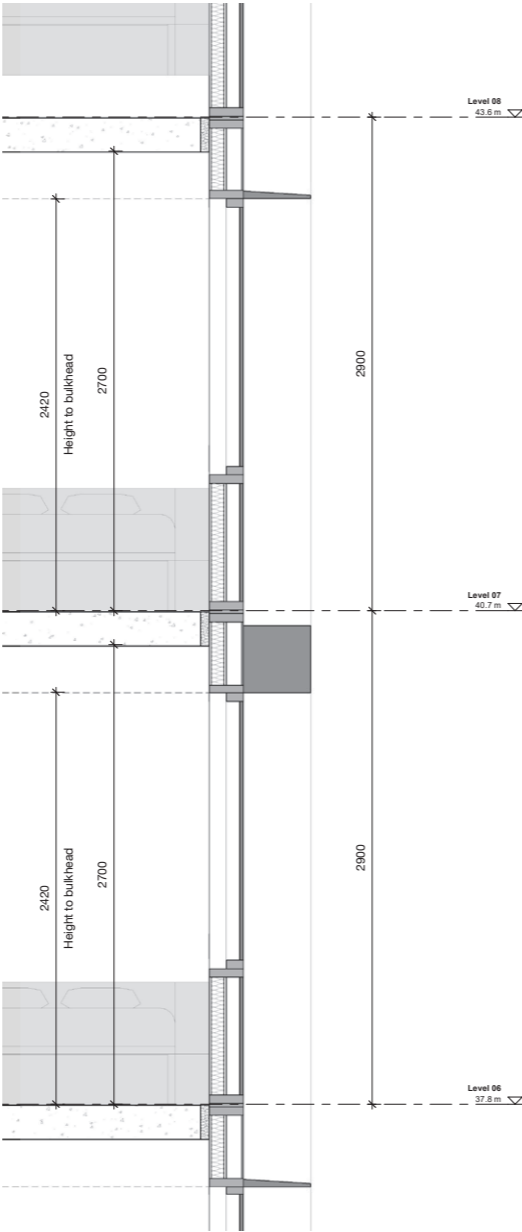
The eastern and western facades have a two-storey expression created by deep light grey aluminium horizontal sunshades alternating with thin light bronze aluminium horizontal sunshades. Each studio has a large awning picture window allowing for natural light and ventilation to each room.

On the western facade, the large window is protected from afternoon western sun by an angled aluminium fin positioned to the north side of each window. This fin has a gradient of perforations along its length that provides shading whilst allowing filtered views out from the studios towards the north-west.

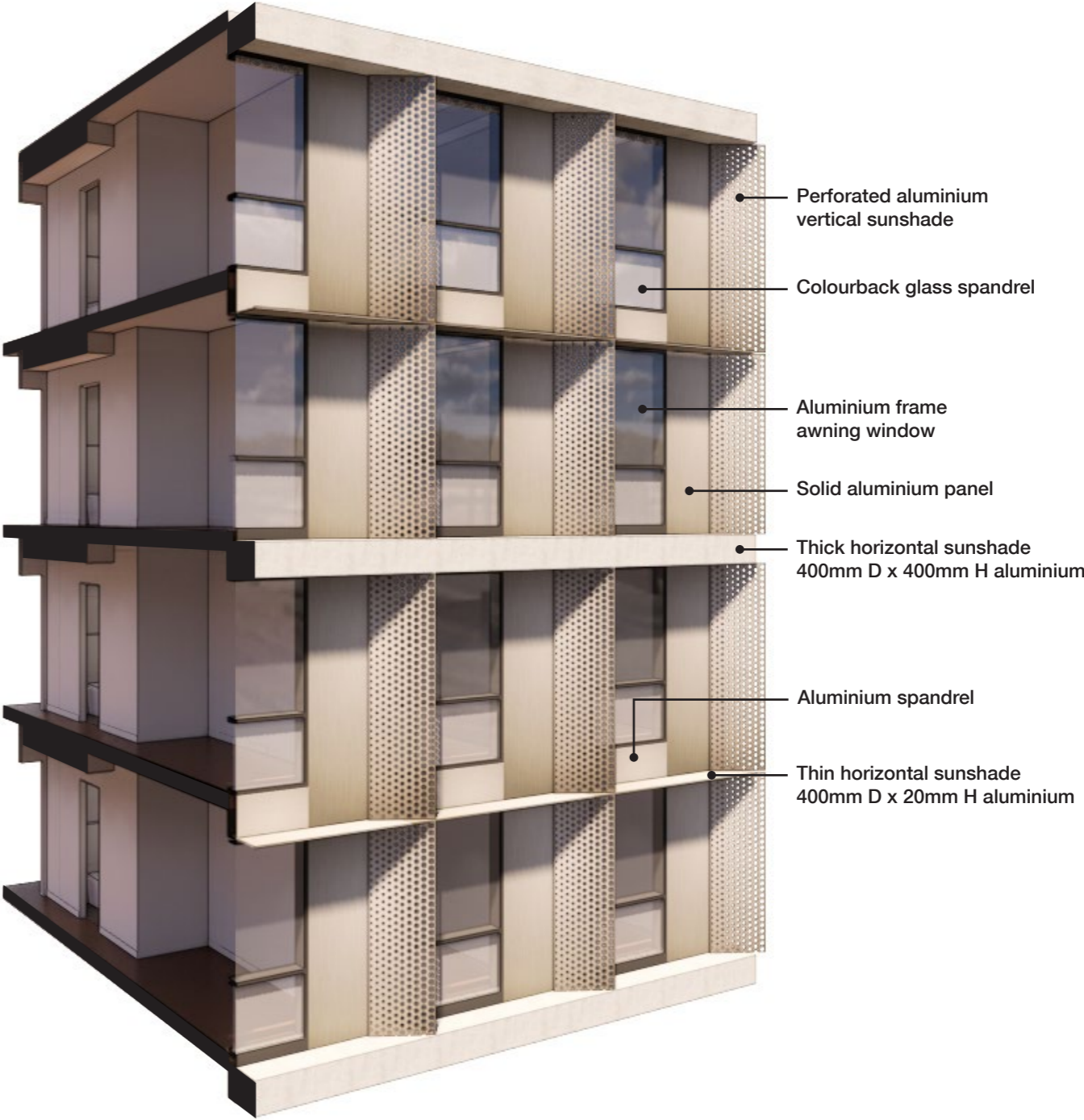
On the eastern facade, the angled aluminium fins are orientated to the south of the window, to improve privacy and minimise overlooking between rooms.



KEY PLAN



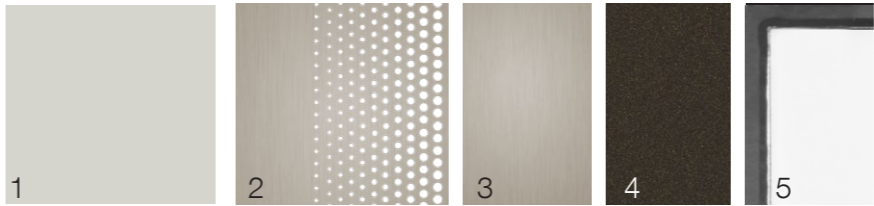
INDICATIVE SECTION



3D SECTION

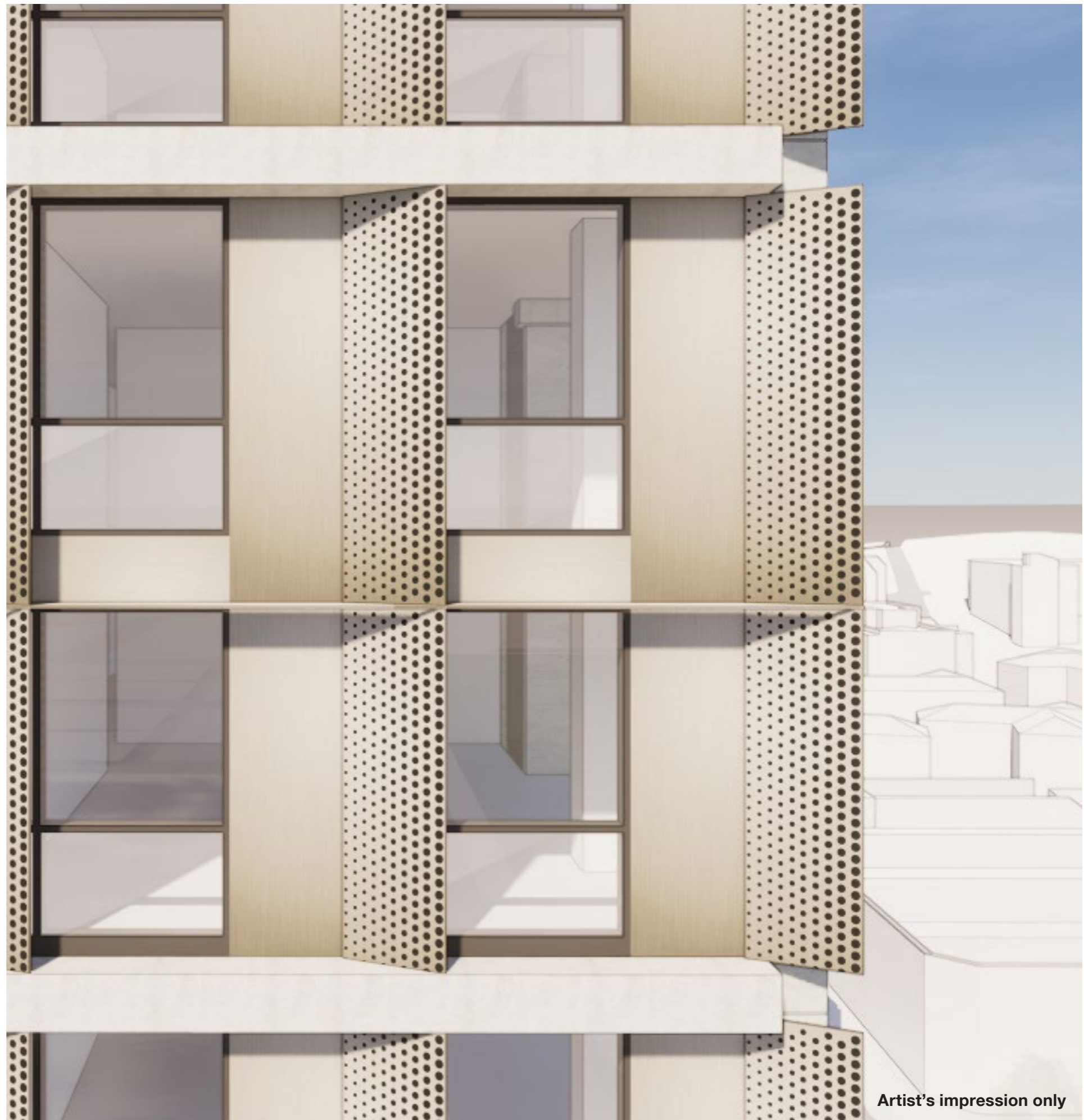
### MATERIALS PALETTE

- 1/ Thick horizontal sunshades - Aluminium - Light Grey
- 2/ Perforated Aluminium Sunshades - Light Bronze
- 3/ Aluminium Cladding / Thin Horizontal Sunshades - Light Bronze
- 4/ Window Frames - Dark Bronze
- 5/ Glass - Clear



# 4.0 FACADE AND MATERIALS

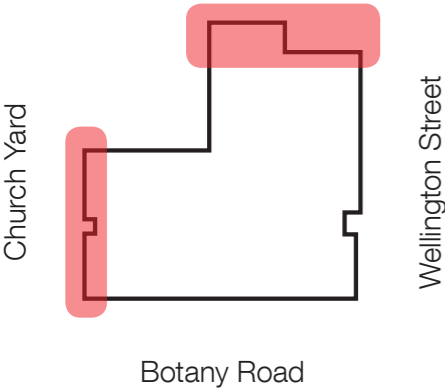
## WEST FACING STUDIO FACADE



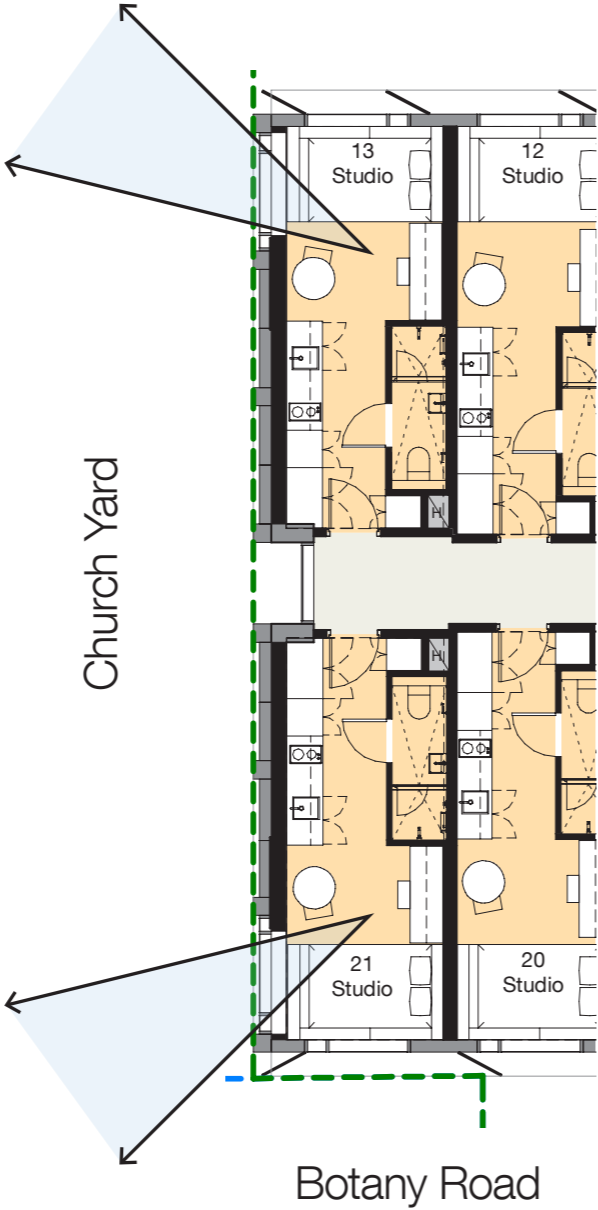
# 4.0 FACADE AND MATERIALS

## 4.9 BUILDING ENDS FACADES

The building ends utilise the same family of facade elements as the main facades of its associated tower volume, albeit with greater solidity. The solid end walls have been given a legible 2 to 3 storey scale through the use of vertical and horizontal elements, aluminium cladding and additional windows to the end studios. North facing windows to the end rooms reduce the extent of solid walls whilst providing additional views and daylight to these corner studios.



KEY PLAN



PLAN OF NORTHERN BUILDING END



VIEW OF NORTHERN BUILDING END

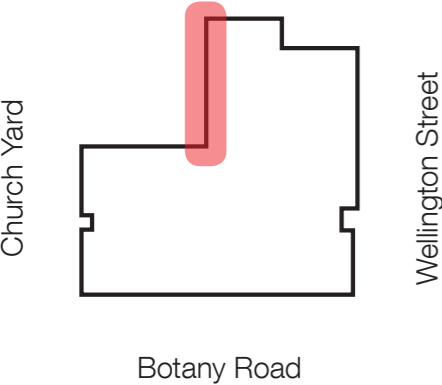


VIEW OF EASTERN BUILDING END

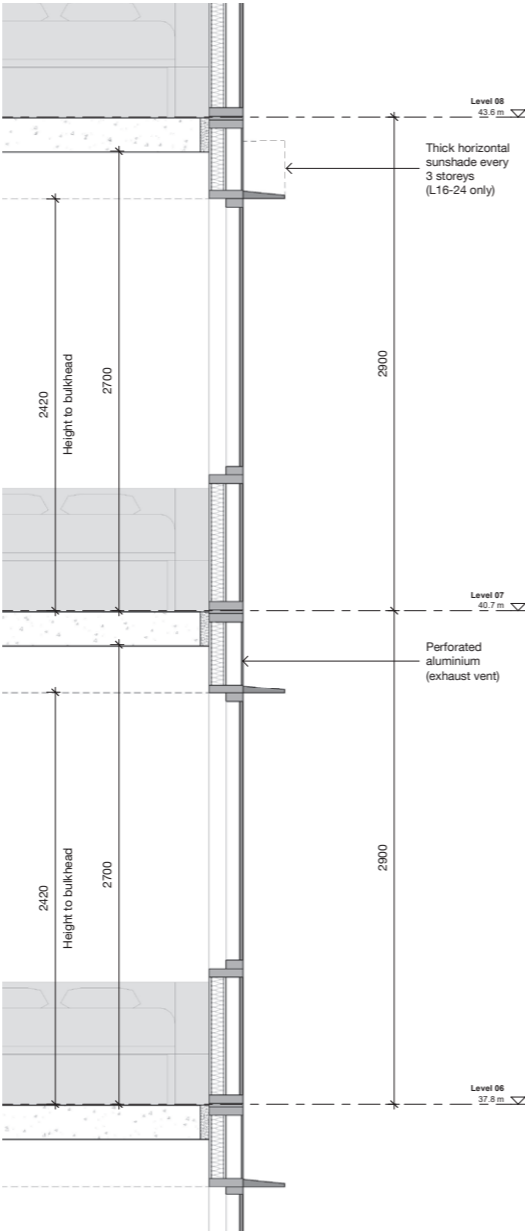
# 4.0 FACADE AND MATERIALS

## 4.10 NORTH FACING STUDIO FACADE

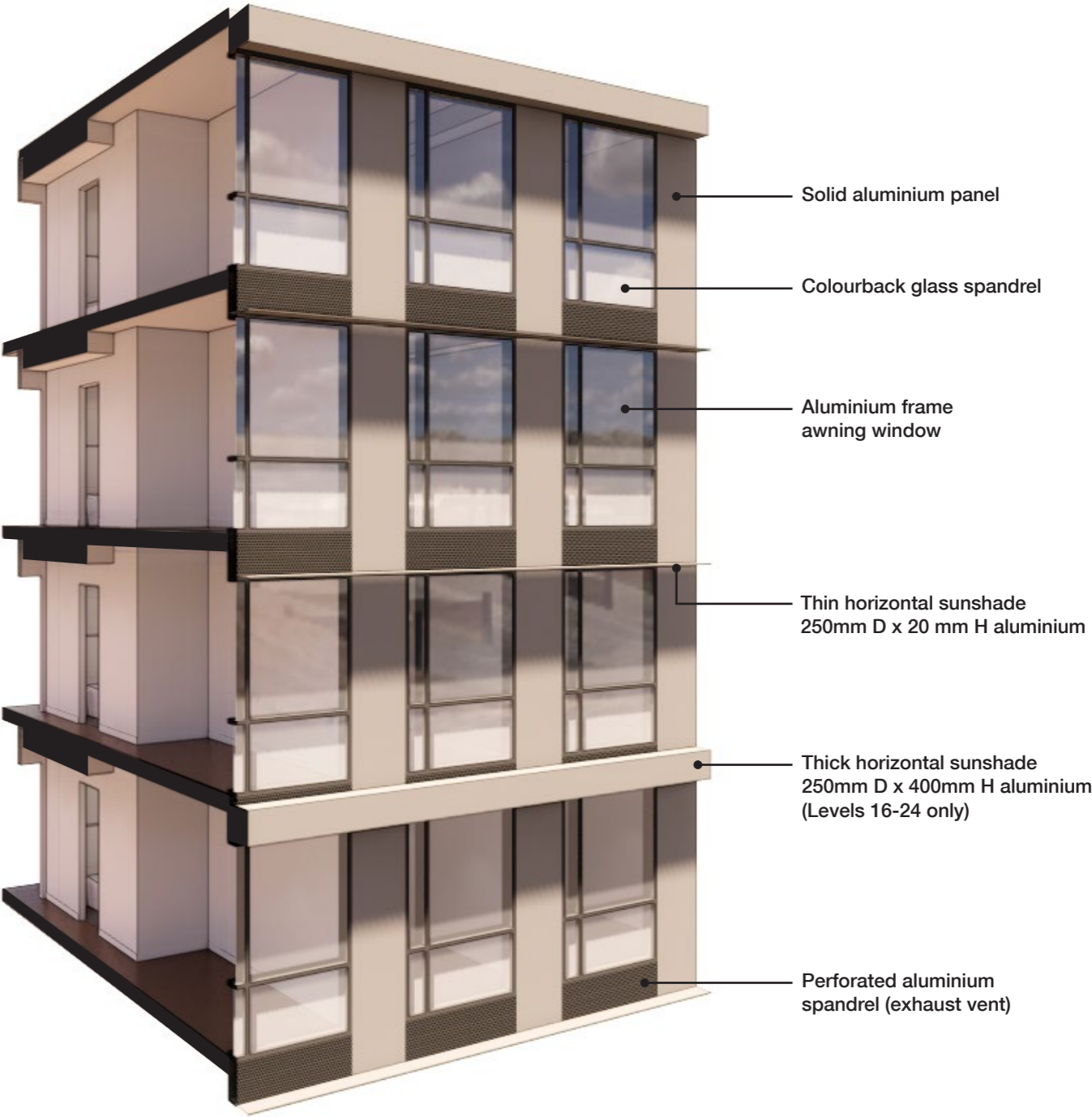
The facade to the north facing studios has a more vertical expression defined by the width of the studio modules. The facade on the lower levels has a single storey expression, with each floor having a thin aluminium horizontal sunshade located above each window. The facade on the upper levels has a three-storey expression created by alternating thicker aluminium horizontal sunshades with thinner aluminium horizontal sunshades. Bronze coloured solid aluminium panels between each window contribute to the vertical expression of the eastern tower volume.



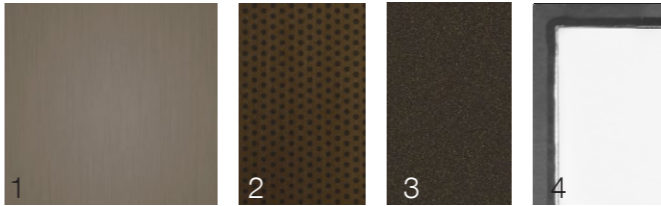
KEY PLAN



INDICATIVE SECTION



3D SECTION



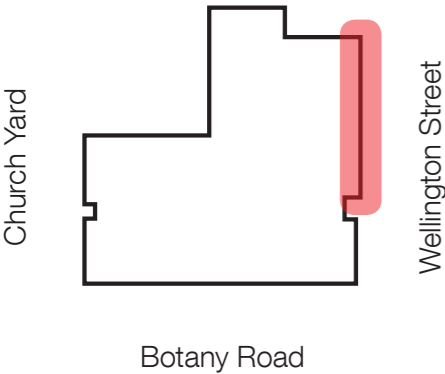
- MATERIALS PALETTE**
- 1/ Aluminium Cladding / Sunshades - Medium Bronze
  - 2/ Perforated Aluminium - Dark Bronze
  - 3/ Window Frames - Dark Bronze
  - 4/ Glass - Clear

# 4.0 FACADE AND MATERIALS

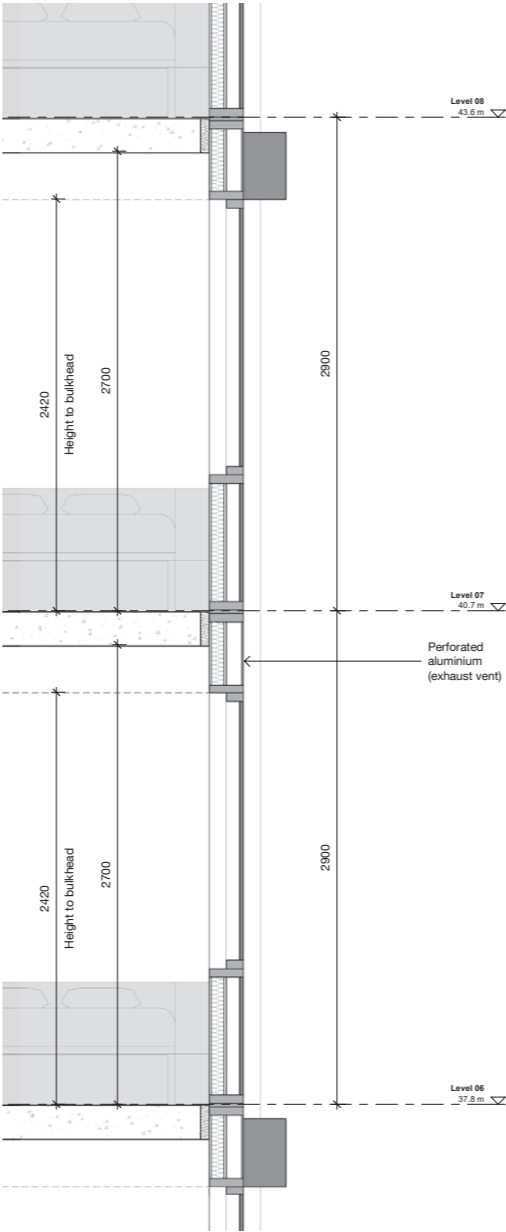
## 4.11 SOUTH FACING STUDIO FACADE

The southern facade has a similar design to the northern facade with the exception of the secondary, thin horizontal sunshades which are not required on the southern facade as solar exposure is less of a concern.

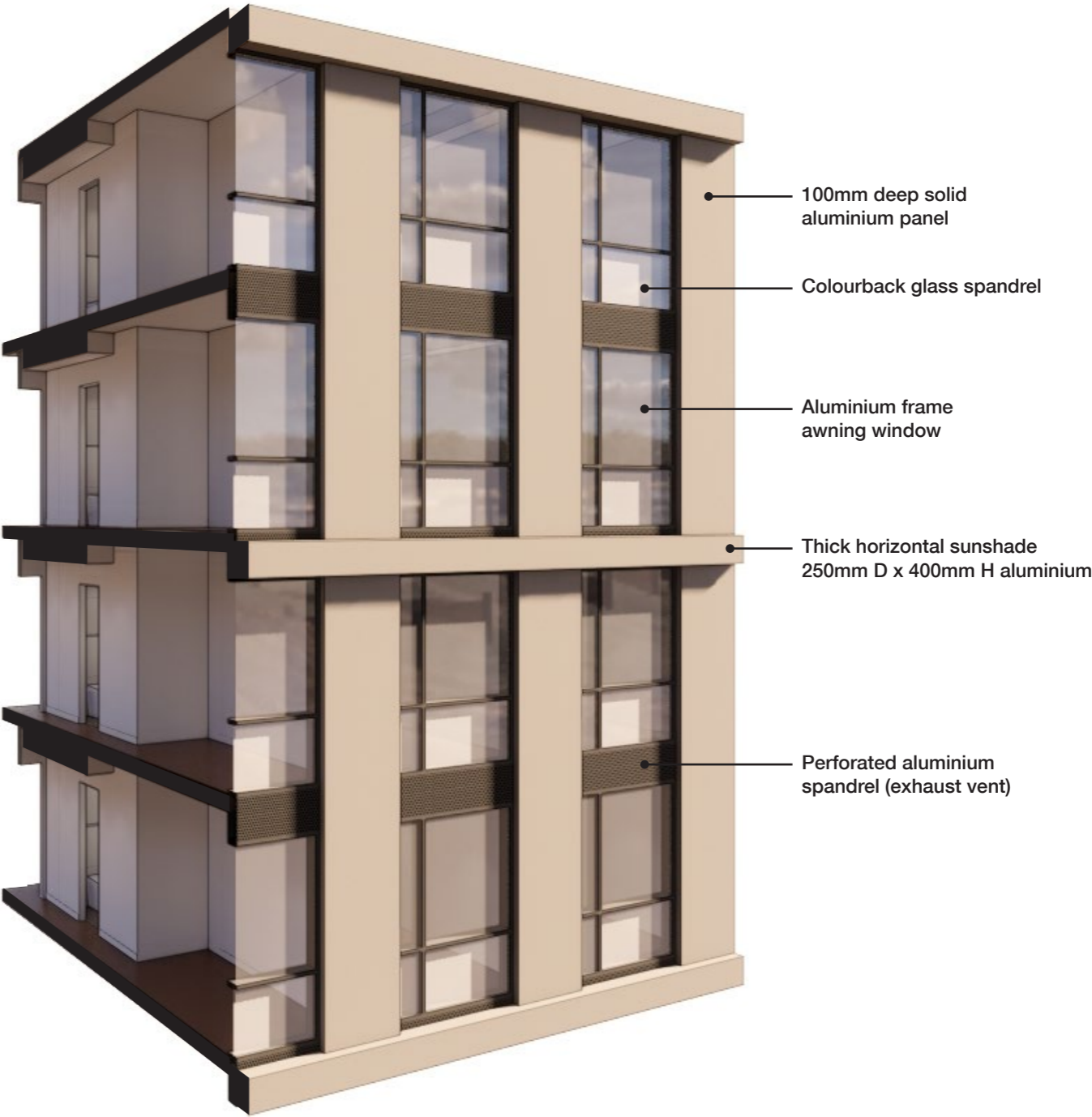
Whilst shading is not required, the expressed verticals and horizontals provide scale and articulation. Unlike the north facing studio facade, the windows on the south facing studio facade are centrally located between two deeper bronze solid aluminium panels. These variations provide a subtle difference between the north and south elevations whilst their use of similar elements and materials creates a consistency to the eastern volume.



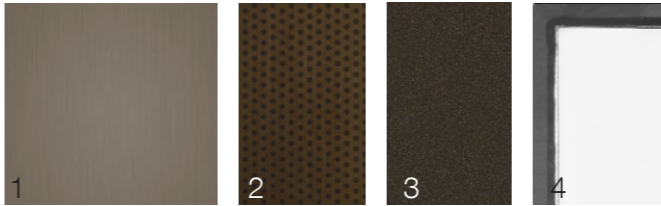
KEY PLAN



INDICATIVE SECTION



3D SECTION



- MATERIALS PALETTE**
- 1/ Aluminium Cladding / Sunshades - Medium Bronze
  - 2/ Perforated Aluminium - Dark Bronze
  - 3/ Window Frames - Dark Bronze
  - 4/ Glass - Clear

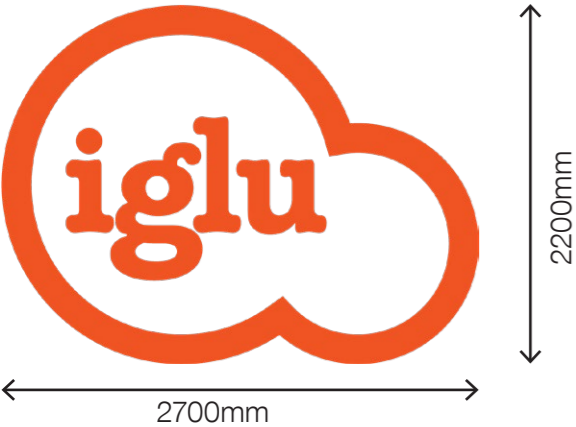
# 4.0 FACADE AND MATERIALS

## 4.12 BUILDING SIGNAGE ZONES

### Top of Building Signage

Top of building signage is proposed in two locations on the tower; on Level 23 of the eastern building end facade to provide signage visible from Wellington Street, and on Level 22 of the northern building end facade to provide signage visible from Botany Road and Cope Street Plaza.

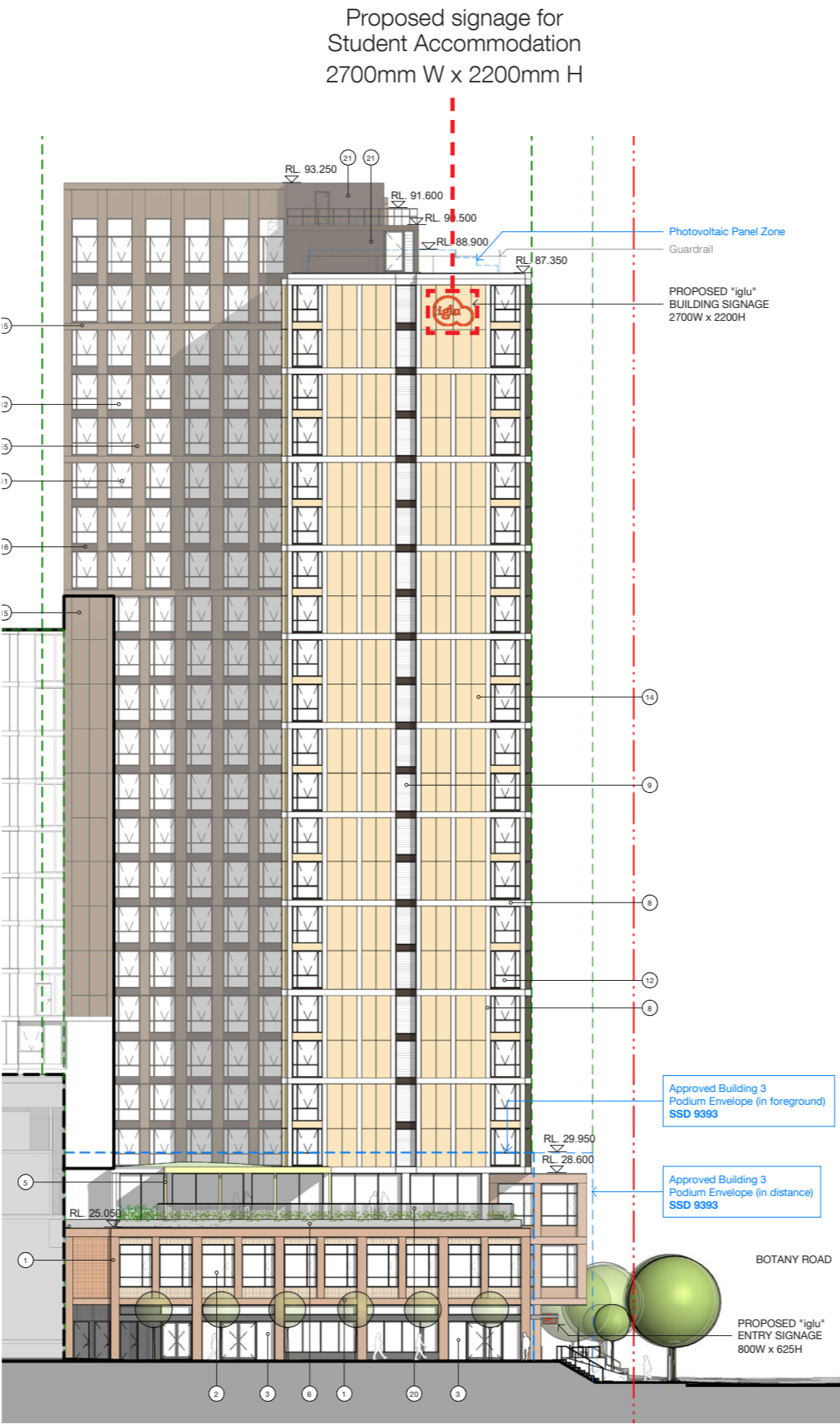
- The proposed top of building signage shall be:
- / 2700mm W x 2200mm H
  - / display the student accommodation operators name/logo using individual letters
  - / integrated with overall building design
  - / integrated with facade design to ensure concealed fixings
  - / located to avoid clashes with mechanical louvres or openings in the facade



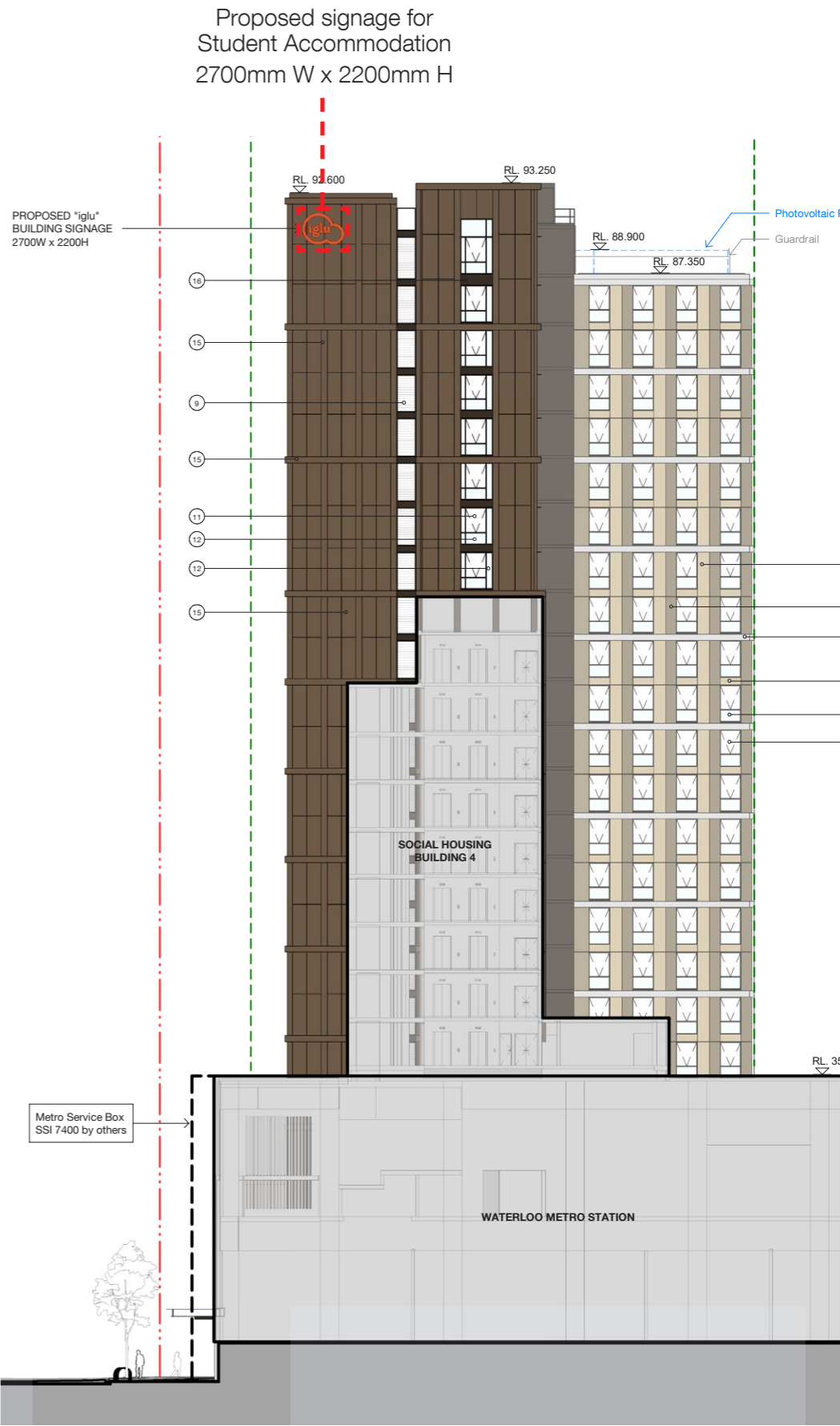
Proposed signage for Student Accommodation

**KEY**

 Proposed signage location



NORTH ELEVATION



EAST ELEVATION

# 4.0 FACADE AND MATERIALS

## 4.12 BUILDING SIGNAGE ZONES

### Podium Signage

Podium signage zones are proposed on the west and south elevations for use as entry identification signage for the community space, student accommodation and gym.



Signage zones are proposed as a mix of top hamper-style signage integrated into the shopfront facade and horizontal projecting wall signage.

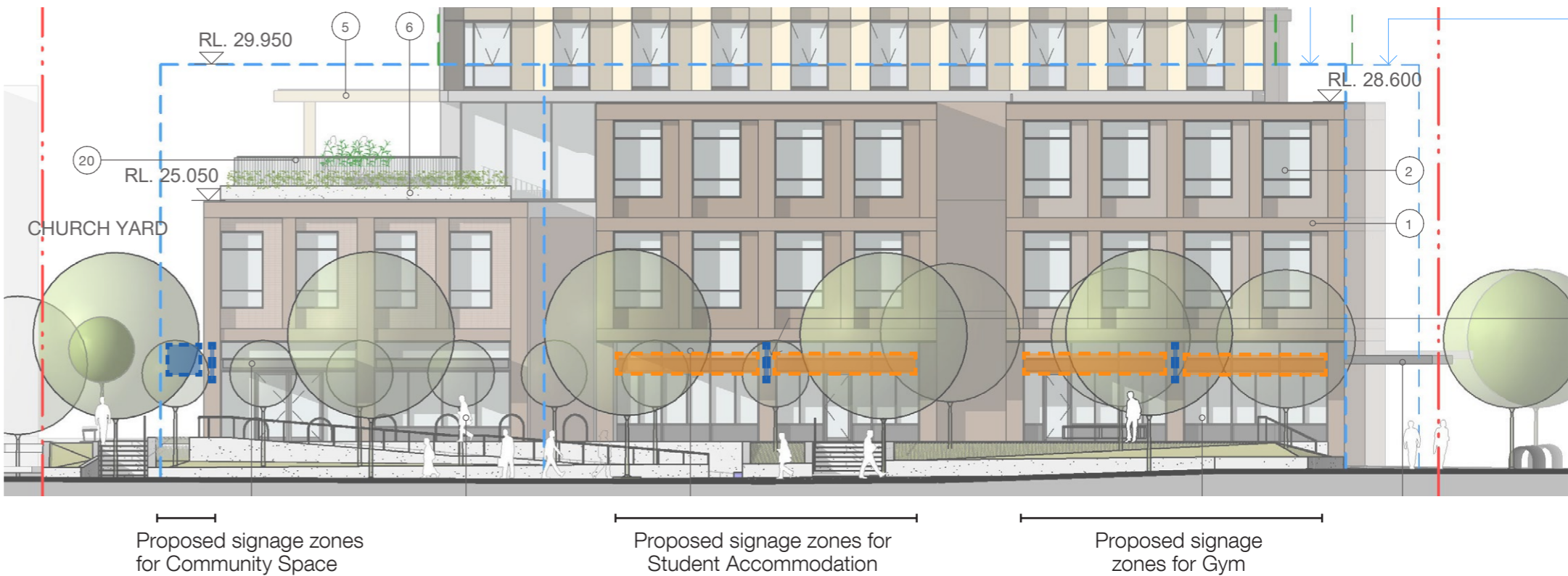
- The top hamper signage shall be:
  - / located in a zone between 2.4m and 3.5m above the footpath
  - / be contained between the brick piers

- The horizontal projecting signage shall:
  - / be fixed at right angles to the building facade
  - / have an maximum area of 0.5sqm
  - / be located in a zone between 2.6 and 3.5m above the footpath below

- All podium signage shall be:
  - / integrated with overall building design and have a design and materiality that compliments the building architecture
  - / integrated with facade design to ensure concealed fixings
  - / located to avoid clashes with mechanical louvres or openings in the facade

### KEY

-  Proposed top hamper signage zone
-  Proposed horizontal projecting wall signage



WEST ELEVATION



SOUTH ELEVATION

# 5.0 ESD STRATEGY

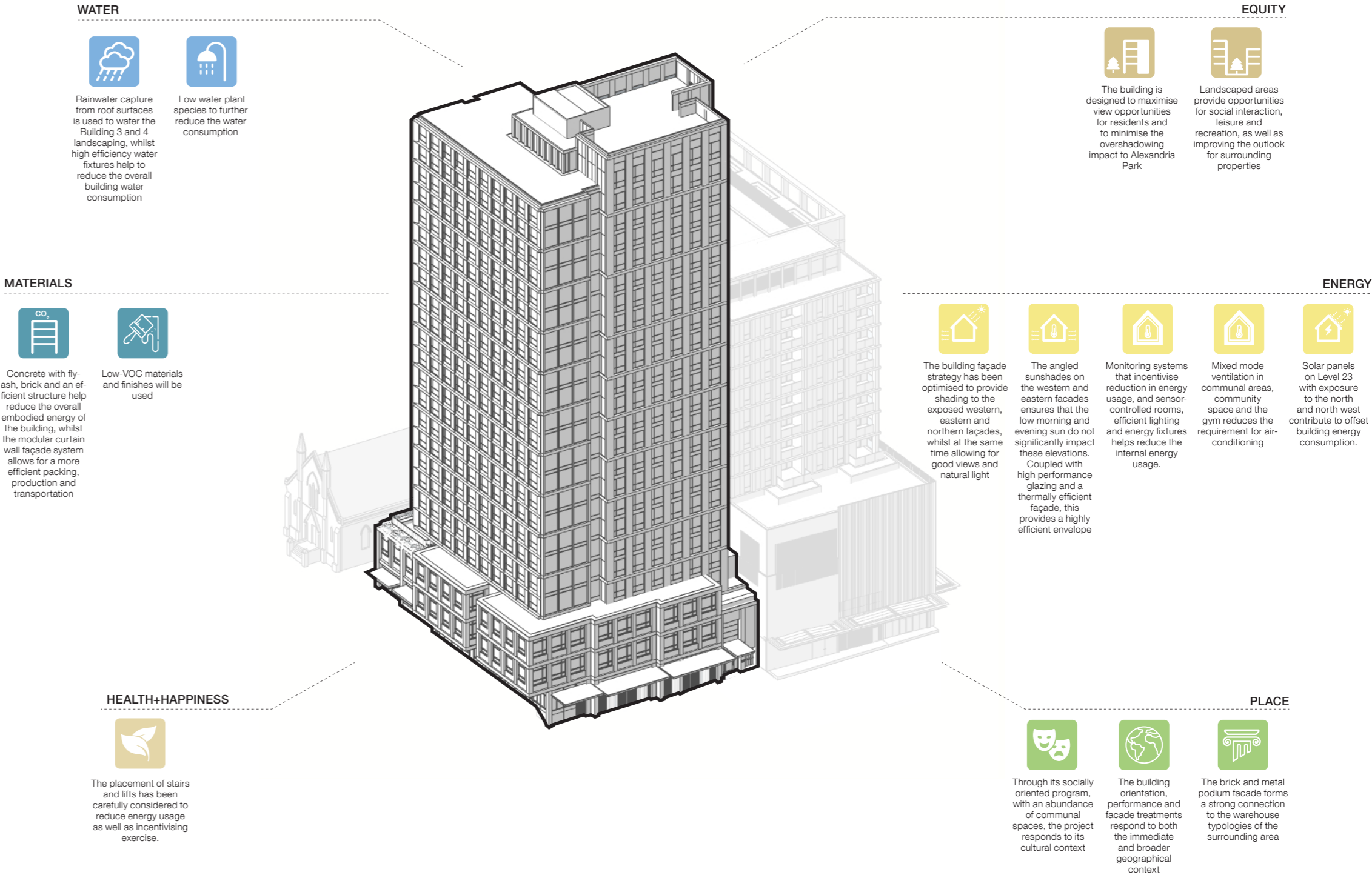
The proposed buildings are to achieve the following certifications:

- / 5 Star rating – Green Star Design and As-Built rating tool v1.3
- / BASIX Energy score of  $\geq 30$
- / BASIX Water score of  $>40$

The whole Waterloo Metro Quarter is to obtain the following site-wide certifications:

- / 6 Star rating – Green Star Communities rating tool v1.1
- / One Planet Community – recognition by BioRegional Australia

A broad range of sustainability measures are proposed to help achieve these targets. These are summarised on the adjacent diagram.



# 6.0 AREA SCHEDULE

Area Schedule						Student	Comm.	Retail
Level	Height	RL	FFL-FFL	USE (Primary)	GFA m <sup>2</sup>	GFA m <sup>2</sup>	GFA m <sup>2</sup>	GFA m <sup>2</sup>
Top.	76.87	93.25						
24 (Plant)	74.12	90.50	2.75	Plant				
23	70.97	87.35	3.15	Rooms	265.0	265.0		
22	67.82	84.20	3.15	Rooms	559.0	559.0		
21	64.92	81.30	2.90	Rooms	559.0	559.0		
20	62.02	78.40	2.90	Rooms	559.0	559.0		
19	59.12	75.50	2.90	Rooms	559.0	559.0		
18	56.22	72.60	2.90	Rooms	559.0	559.0		
17	53.32	69.70	2.90	Rooms	559.0	559.0		
16	50.42	66.80	2.90	Rooms	559.0	559.0		
15	47.52	63.90	2.90	Rooms	538.0	538.0		
14	44.62	61.00	2.90	Rooms	538.0	538.0		
13	41.72	58.10	2.90	Rooms	538.0	538.0		
12	38.82	55.20	2.90	Rooms	538.0	538.0		
11	35.92	52.30	2.90	Rooms	538.0	538.0		
10	33.02	49.40	2.90	Rooms	538.0	538.0		
9	30.12	46.50	2.90	Rooms	538.0	538.0		
8	27.22	43.60	2.90	Rooms	538.0	538.0		
7	24.32	40.70	2.90	Rooms	538.0	538.0		
6	21.42	37.80	2.90	Rooms	538.0	538.0		
5	18.52	34.90	2.90	Rooms	538.0	538.0		
4	15.62	32.00	2.90	Rooms	538.0	538.0		
3	12.72	29.10	2.90	Rooms	538.0	538.0		
2	8.72	25.10	4.00	Student Acc. Communal / Commercial	790.0	303.0		487.0
1	4.72	21.10	4.00	Student Acc. Communal / Commercial	955.0	536.0		419.0
Mezz	2.30	18.68	2.30	Services				
Ground	0.00	16.38	4.72	Community Space / Commercial	485.0	118.0	300.0	67.0
Totals					13,402.0	12,129.0	300.0	973.0

Student Accomodation Product Mix						
Type 1 Studio	Type 2 DDA Studio	Type 3 Twin	Type 4 -	Type 5 -	Type 6 -	Total Beds
6		2				10
20		2				24
20		2				24
20		2				24
20		2				24
20		2				24
20		2				24
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19		2				23
19	1	1				22
19	1	1				22
19	1	1				22
393.0	3.0	39.0	0.0	0.0	0.0	474