

GSA Australia Pty Ltd C/- Intro Design Pty Ltd

Variation to 34-storey mixed use building comprising: Additional two (2) storeys (ground plus 35), reduction in floor to floor heights, deletion of basement, reduction in size of café tenancy, reconfiguration of communal areas, reconfiguration of apartment typology across level 24-26, change in materiality (glass panels replaced with precast concrete panels of similar colour) and reduction in height and change of materiality within the crown

266-269 North Terrace, Adelaide

020/A074/17 V1

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OVERVIEW

Application No	020/A074/17 V1
Unique ID/KNET ID	2018/23109/01 / (3742)
Applicant	GSA Australia Pty Ltd
Proposal	Variation
Subject Land	266 North Terrace, Adelaide
Zone/Policy Area	Capital City Zone / Central Business Policy Area 13
Relevant Authority	SCAP
Lodgement Date	14 November 2018
Council	City of Adelaide
Development Plan	07 June 2018
Type of Development	Merit
Referral Agencies	Government Architect, City of Adelaide
Report Author	Janaki Benson
RECOMMENDATION	DEVELOPMENT PLAN CONSENT BE GRANTED

EXECUTIVE SUMMARY

On 14 March 2019 the State Commission Assessment Panel (SCAP) considered a variation application to a 34-storey mixed use building comprising: additional two (2) storeys (ground plus 35), reduction in floor to floor heights, deletion of basement, reduction in size of café tenancy, reconfiguration of communal areas, reconfiguration of apartment typology across level 24-26, change in materiality (glass panels replaced with precast concrete panels of similar colour) and reduction in height and change of materiality within the crown.

The application was deferred by SCAP at its meeting held 14 March 2019, with the applicant providing a response to the deferral motion.

Although the changes are considered to result in an altered architectural expression to that originally granted by SCAP, Development Plan Consent is recommended.

ASSESSMENT REPORT

1. BACKGROUND

On 14 March 2019, the State Commission Assessment Panel (SCAP) considered a variation application to DA 020/A074/17 (V1) which sought:

- Reduction in floor to floor heights by 60mm (no change to internal floor to ceiling heights);
- Removal of pedestrian canopy to Frome Street;
- Two (2) additional residential levels, from 34 to 36 (extra 38 beds). The overall building height does not increase however given a reduction in slab level allows for the additional levels sought;
- Change to the architectural expression to the crown of the building;
- Deletion of basement;
- Reduction in ground level café floor area;
- Reconfiguration and relocation of communal spaces;
- Reconfiguration of apartment typologies across levels 24-26;
- Reduction in the number of bike parks;
- Change in materiality - glass spandrel panels to be replaced with precast concrete panels of a similar colour; and
- Change to the horizontal sunshade depth to 600mm (previously a variety of depths to align to the curved edges of the vertical sun shading blades).

The State Commission Assessment Panel discussed the application and outlined:

The State Commission Assessment Panel notes that the Development Plan provisions call for the highest design quality as expressed, for example Objective 2 (Central Business Policy Area 13) 'Development of a high standard of design and external appearance that integrates with the public realm' and the Desired Character states that 'buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality.....design outcomes of enduring appeal are expected'.

The Panel would prefer to retain the original approved expression. The Panel is concerned about the changes in materiality, specifically in the treatment of the grey concrete spandrels. The Panel would prefer to see an approach that goes beyond a flat matte finish, incorporating materials of greater quality, texture, durability and interest. Similarly the Panel is not convinced the Exotec cladding system will deliver a sufficiently high quality outcome given that this is a key prominent design feature of the building.

The State Commission Assessment Panel resolved to defer consideration of the item to allow the applicant the opportunity to reconsider their design approach in relation to the matters outlined above in consultation with the Government Architect and the State Commission Assessment Panel.

2. DEFERRAL MATTERS

The applicant has provided amended drawings in response to the SCAP deferral motion and an explanation for the external changes proposed below.

Sunshades

- The dynamic loads on the tower have undergone detailed structural and wind engineering analysis. This analysis has determined that the horizontal sunshades will enable a stiffer section and act as an integral part of the overall building performance for managing down draft and building sway if they form

part of the precast upstand, rather than an externally fixed element (as previously proposed).

- The concrete spandrels now proposed are designed to be integral to horizontal sunshade elements. The dimensions and projection of the sunshades will allow a conventional glazing system due to passive solar design now proposed.
- The dimensions of projection of both horizontal and vertical sunshades will still provide full sun protection in summer.

Use of Nawkaw (to Spandrel Panels)

- The use of Nawkaw creates a pre-finished system for the spandrels. Nawkaw colour system bonds to the precast and creates a gloss but textured finish.
- The use of the Nawkaw solution to the spandrel panels [integral paint system] is in response to current fire cladding issues. The certification of the vast majority of pre-existing lightweight cladding solutions have no certification currently to allow installation on a new building. CFC is known as a wall type that can meet the fire compliance requirements.
- The reflective integrated colour system to the spandrel in 'Iron' will create a sheen to the surface of the tower that will pick up and reflect light in a similar way to the main glazed elements.

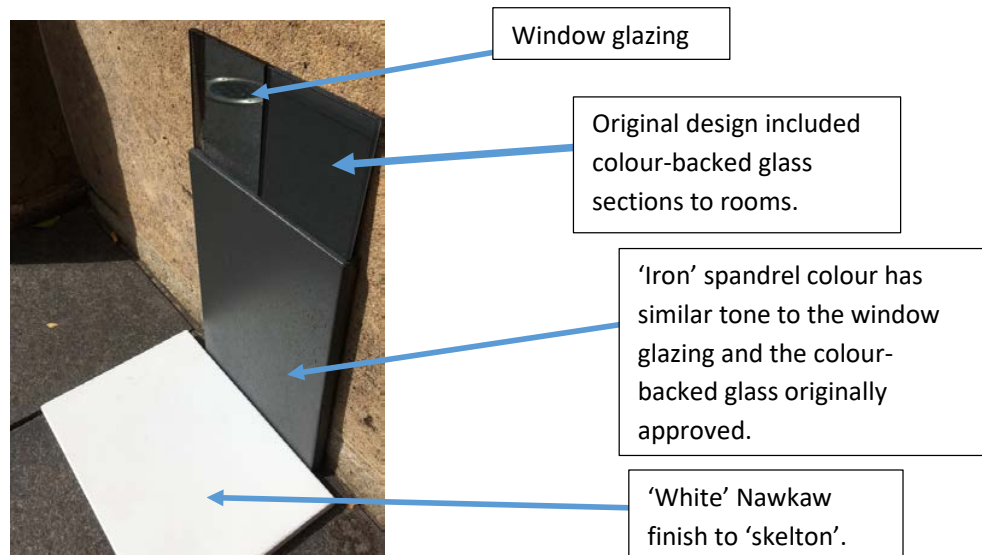
Façade Design Concept

- The white masonry 'skeleton' (verticals and horizontals) is considered to retain its dominance given the reflective integrated colour system to the spandrel creates a sheen to the surface of the tower that will pick up and reflect light in a similar way to the main glazed elements. See *Figure 1* below.
- The spandrel panel is detailed to flush with the glazing. The variety of colour created by the 'Iron' finish to the precast spandrels will act similarly to the glazing. Light will move across the surface contrasting from an almost charcoal/similar tone to the glazing.
- A 'distant view' has been provided in the amended documentation that demonstrates the recessive nature of the 'Iron' colour system and its ability to blend back in with the window frames. Hence, the predominance of the white elements is considered retained.
- Room layouts and designs have also been key consideration in the development of the external façade. The original design approved included colour-backed glass sections (where concrete spandrels are now proposed) to the rooms to block out areas where no vision glazing was available - see *Figure 2* below.
- The spandrels now create the ability to include additional storage in the rooms and workability of layouts.

Figure 1 – Spandrel Panel Design Intent



Figure 2 – Proposed Façade System



Cladding at Base

- Changes in certification means the metal cladding at the base (proposed in the original application approved) was hard to certify in relation to the issuing of Building Rules Consent. As such, the alternative was to change to a Compressed Fibre Cement panel with an integrated coating system in 'Copper'.
- The application of CFC in 'Copper' however will not be applied at ground in response to the SCAP deferral motion and the GA advice (provided below). The applicant has confirmed a pre-finished 'Bronze' panel will be used at the base/ground and first floor for cladding to ensure a high quality interface with the public realm. *Figure 3* below demonstrates the intended material palette now sought. The proposed cladding sample will however be provided as part of the revised material board to be presented at the SCAP meeting for SCAP's consideration and endorsement.

Figure 3 – Material Palette



The Government Architect has reviewed the above response by the applicant and outlined:

Following the design discussion on 22 March 2019, the material samples and the accompanying additional information were submitted for review and comments.

For the spandrel panels, concrete panels with metallic Nawkaw (factory applied colouring) finish in two colour options ('Iron' and 'Monument') are proposed in lieu of the previously proposed matt grey finish.

While I maintain my view that the provision of solid concrete panel to replace the originally approved colour back glazing spandrel panels reduces the distinction between the projecting white skeletal elements and the recessed infill panels, I acknowledge that the metallic finish provides an architectural expression that is more consistent with the original design intent.

In my opinion, the concrete panel with Nawkaw metallic finish in 'Iron – M4' is acceptable as an alternative to the colour back glass spandrel panels as originally approved.

Regarding the 'metallic' cladding material to the communal areas, a sample of a CFC (compressed fibre cement) panel with metallic Nawkaw finish in 'Copper- M7' colour is provided for consideration.

Due to the site's significant location on North Terrace, I am of the view that authentic and high quality material should be considered for the areas within the public realm. As such, I do not support the use of CFC panelling on the ground and first floor cladding. I strongly recommend exploration of other high quality pre-finished or natural materials to this section of the building, including materials that may not be consistent in the colour of the originally approved metal cladding material. For the

upper communal floors, I could consider the metallic coated CFC panelling as an alternative material.

As outlined above, the GA has acknowledged that the metallic Nawkaw 'Iron' finish proposed will provide an architectural expression that is more consistent with the original design intent.

The use of CFC panelling at ground is also no longer proposed at first/ground levels in response to both the SCAP deferral motion and the above advice. The base is now to be clad with a pre-finished material in 'Bronze' (material to be confirmed at the SCAP meeting via a materials board to be provided) and will ensure a greater quality material and durability, as anticipated in this prominent City location.

3. CONCLUSION

The additional information provided by the applicant has provided clarity around matters regarding materials, colour and application. While the unique sculptural architectural outcome originally proposed for this site is still considered to be diluted as a result of the proposed external changes, the building's expression is deemed satisfactory. The white masonry 'skeleton' is considered to retain its general dominance given the reflective colour system to the spandrel proposed will allow sheen to the surface and reflect light in a similar way to the main glazed elements. The use of a pre-finished material cladding at base level will also ensure a desirable outcome.

Other matters forming part of the variation in relation to internal, amenity, waste storage and vehicle manoeuvring are also deemed acceptable (as discussed in the original SCAP Agenda item presented 14 March 2019).

The application is recommended for the granting of Development Plan Consent subject to the conditions attached to this report.

4. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the City of Adelaide Development Plan.

PLANNING CONDITIONS

1. The development granted Development Plan Consent shall be undertaken and completed in accordance with the stamped plans and documentation, except where varied by conditions below.
2. Prior to Development Approval for Stage 4 (Architectural facade), the applicant shall submit a final detailed schedule of external materials and finishes to the satisfaction of the SCAP in consultation with the Government Architect.

ADVISORY NOTES

- a. Previous Application
Previously supplied documentation, correspondence and reports (unless expressly superseded by this consent or previous approvals granted in respect to DA 020/A074/17) remain valid.

b. Other Authorities

The applicant, or any person with the benefit of this consent, must ensure that any consent from other authorities or third parties that may be required to undertake the development, have been granted by that authority prior to the commencement of the development.

c. Right of Way

The applicant is reminded to ensure that the right of way is maintained in accordance with their obligations pursuant to the *Real Property Act 1886*.



Janaki Benson

Senior Planner

DEVELOPMENT DIVISION

DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

266 North Terrace, Adelaide.

GSA North Terrace Govt Architect Review



Contents

- Discussion on Precast Spandrel Design intent
- Discussion on Materiality of communal level cladding
- Imagery of proposal materials, and physical samples.

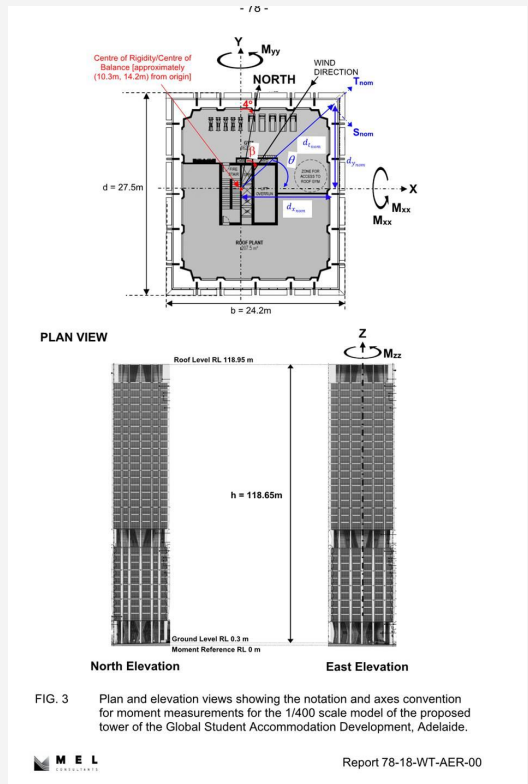
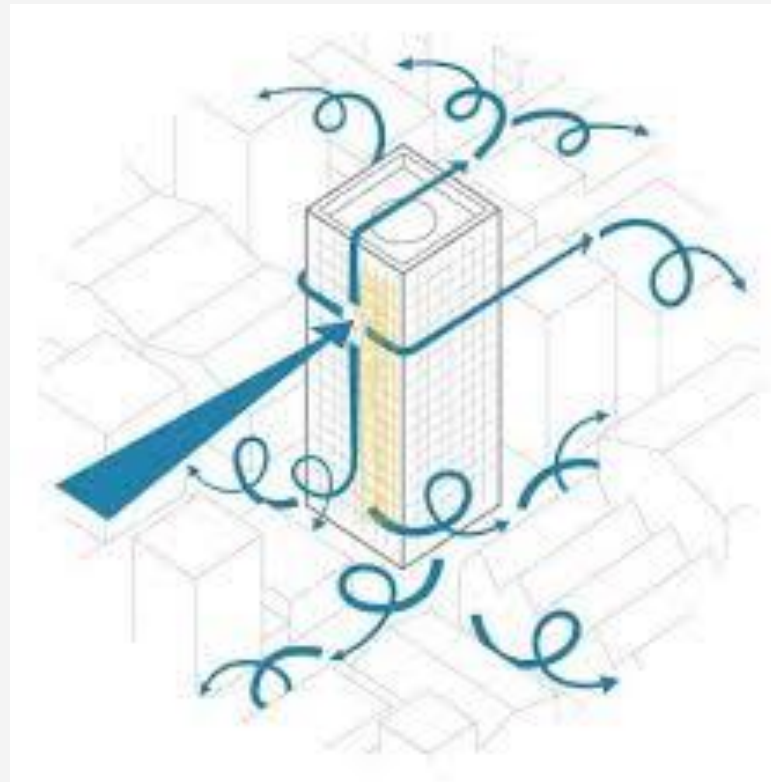
Design intent of Bris Soleil

- Architectural expression of the tower generated from combination of vertical and horizontal elements
- These act as scaling of the building to the surrounding context, but also perform an important environmental role
- All vision glazing is to be protected from summer midday sun

Key Design challenges

Wind and lateral stability

- The dynamic loads on the tower have undergone detailed structural and wind engineering analysis
- The horizontal sunshades, being proposed as part of a precast upstand, rather than an externally fixed element, are enabling a stiffer section, and act as an integral part of the overall building performance for managing down draft, and building sway
- The horizontal integrated sun shade devices is acting to significantly lower the wind conditions that may have resulted by dissipating winds that would otherwise accelerate across the smooth surface of the tower.



Key Design challenges

- Fire Code and cladding issues
 - Vast majority of pre-existing lightweight cladding solutions have no certification currently to allow installation on a new building.
 - Certification of these systems is challenging
 - Proposal is to incorporate an integral paint system (Nawkaw) to a compressed fibre cement sheet that is laid in an expressed joint pattern as per the original design intent for the cladding on the Communal levels at Ground Level, Level 1, 12 and 13
 - CFC is known as a wall type that can meet the Fire compliance requirements, and be of sufficient durability for the use adjacent to the public domain.



Façade Design Concept

- The Structural skeleton of the tower is expressed through the vertical columns, combined with the horizontal sun shades. These form the dominant architectural expression for the tower
- The secondary element is then the communal glazing “bay window” devices.
- The third element is the recessive main wall plane, which is made up of reflective, gloss surfaces. This incorporates a darker horizontal spandrel, and the similarly horizontal expression of the window system.
- The window system is now a fully horizontal element which has allowed for a more consistent colour to be used, as with a glazed spandrel, we required colour back glass that would by its nature have a different visible affect.
- The spandrel panel is detailed flush with the glazing so as the sun moves across the façade, the reflectivity is capture dynamically throughout the day

Façade Design Concept

- Precast façade design developed to include precast spandrels
- Spandrels designed to be integral to horizontal sunshade elements
- Dimensions of projection of vertical and horizontal elements optimised to allow conventional glazing system due to passive solar design.



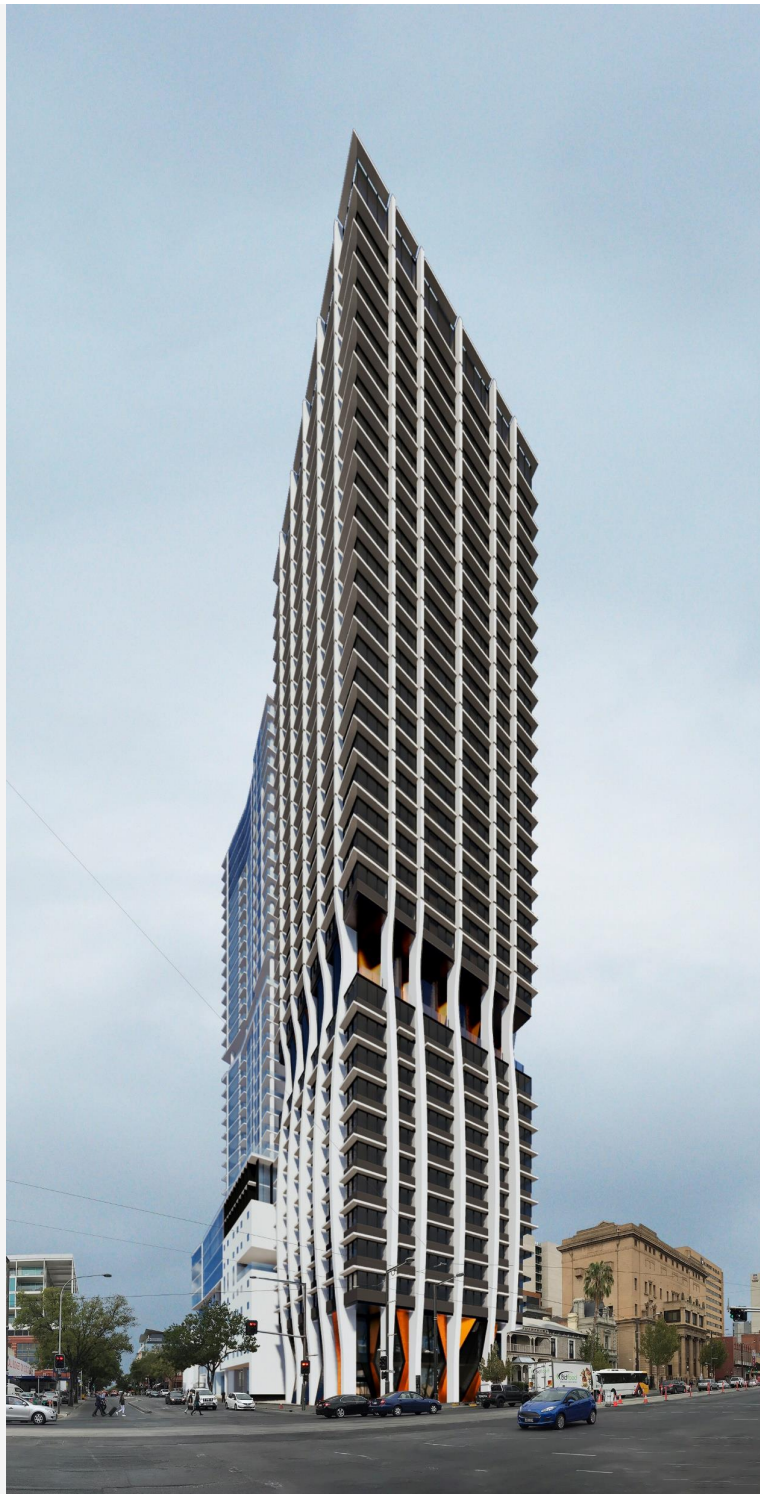
Façade design elements

- Reflective integrated colour system to the spandrel creates a sheen to the surface of the tower that will pick up and reflect light in a similar way to the main glazed elements.
- The white masonry verticals and horizontals retain their dominance with the matt white integral colour.



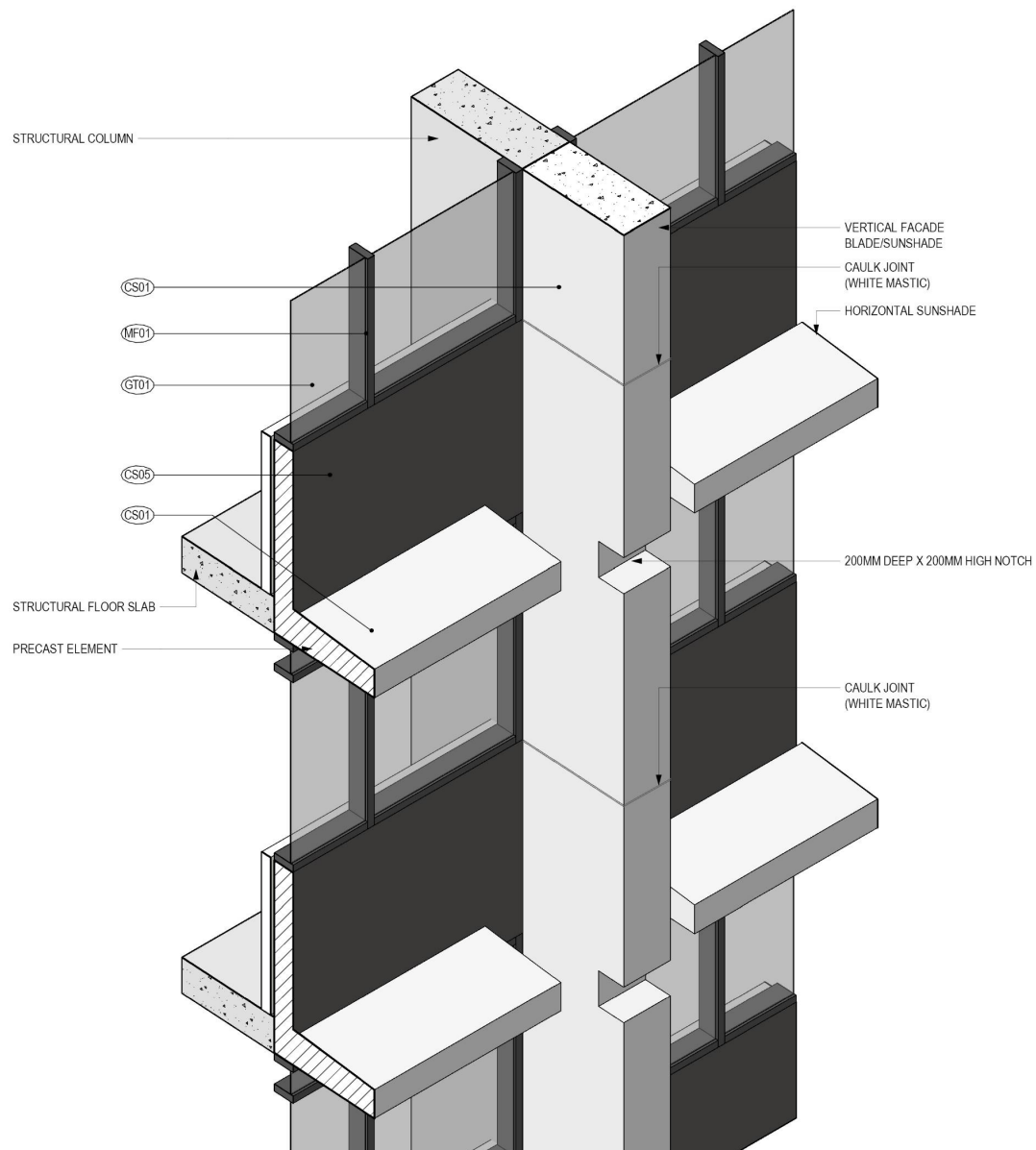
Façade design elements

- Image demonstrating the variety of colour created by the “Iron” finish to the precast spandrels. It will act similarly to the glazing with light moving across the surface contrasting from an almost charcoal, similar tone to the glazing, up to reflection and movement from the window itself.



Distant view

- Demonstrates the recessive nature of the “Iron” colour system and its ability to blend back in with the windows and window frames.
- The predominance of the white elements is then maintained.



SYMBOL LEGEND:

REFER TO TP05 01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- CS01 CLADDING SYSTEM TYPE 01
- MF01 METAL FINISH TYPE 01
- GT01 GLAZING TYPE 01
- * FAÇADE JOINT

3D Façade Design Intent Detail

•(As per current Development
Application).



Detail view

- Nawkaw colour system bonds to the precast and creates a gloss, but textured finish that captures the light at different angles.
- The Scale and presence of the white columns is protected.



Proposed Material

- Proposed selection is a Nawkaw integral paint finish system
- This creates a pre-finished system for the precast spandrels, along with the existing vertical columns.

Nawkaw
'White on White'

Nawkaw
'Iron'

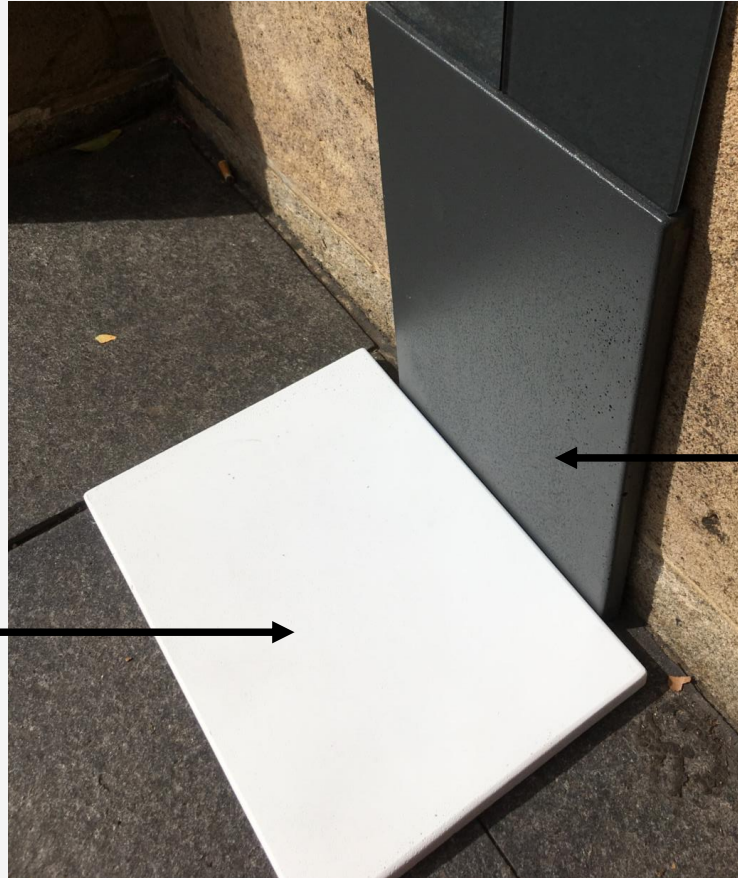


Photo of Sample



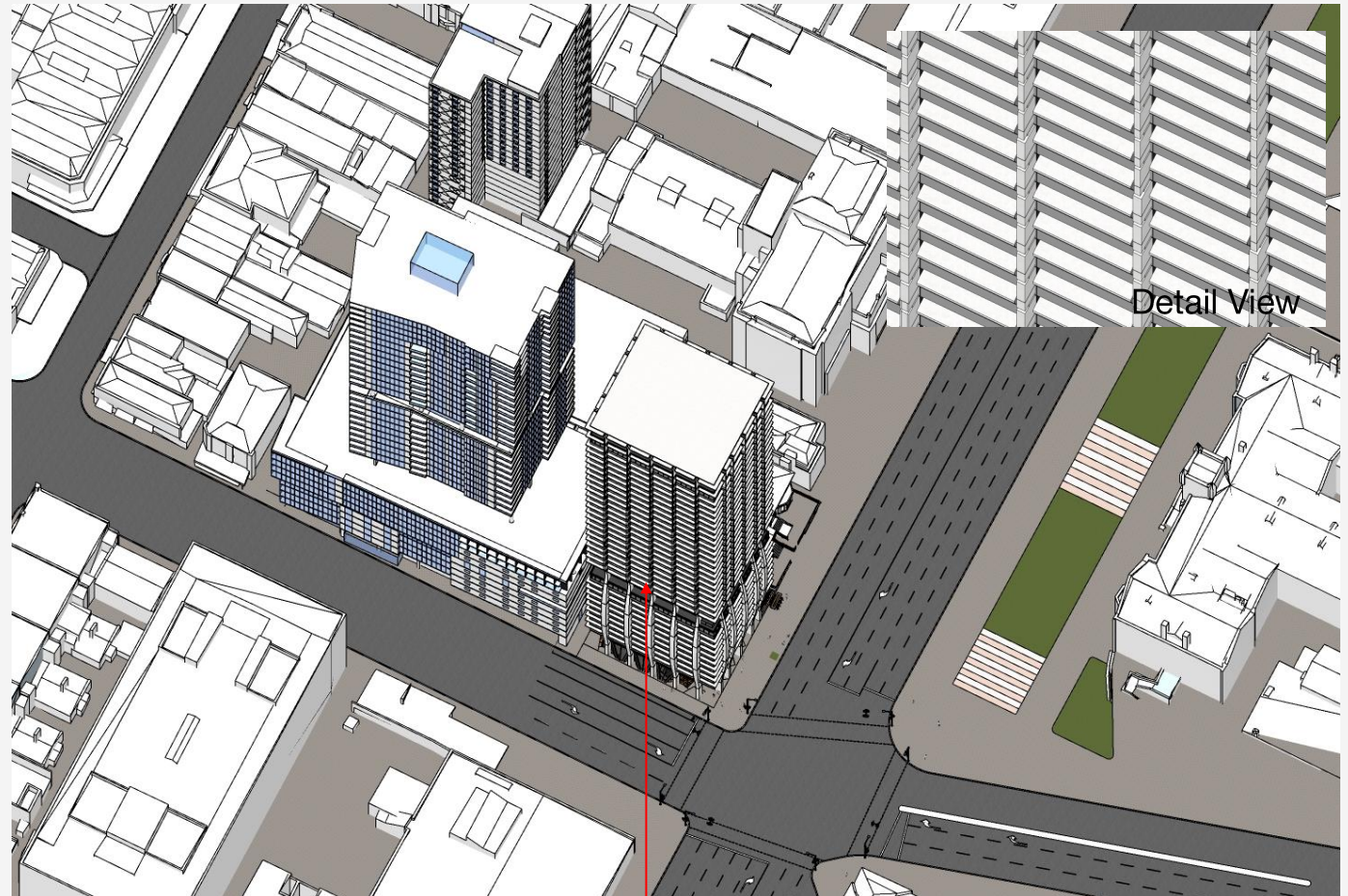


Photo of Proposed Main façade systems

- The spandrel panel has an equivalent tone to the glazing and window frame/colour back sections such that in shade they all are viewed as a consistent colour.
- As the sunlight moves across the façade, the spandrels will be reflective similar to the glazing such that the surface consistency is maintained.

Solar Performance

- Dimensions of projection of vertical and horizontal elements optimised to provide full sun protection in summer
- Vertical blades shelter in afternoon and morning
- Horizontal projections sized to maintain protection – 600mm depth provides this outcome
- Majority of glazing fully shaded from 11am till 2pm in mid summer
- Overleaf are “sun point of view drawings” what is visible is what the sun hits at that time of day on 22nd December

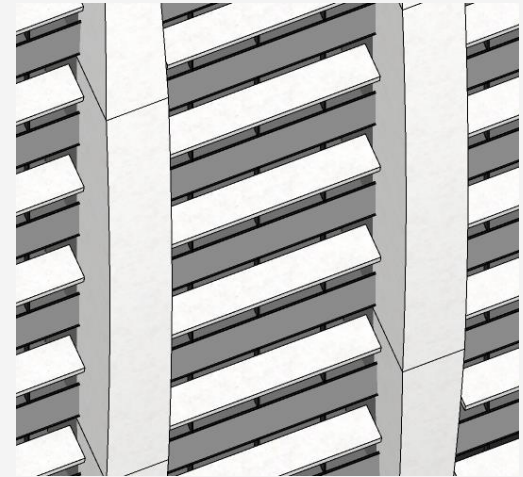
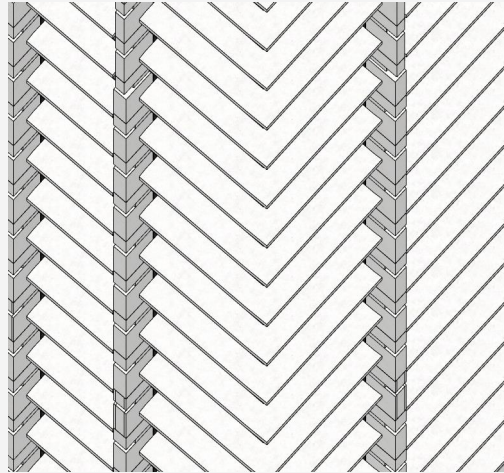
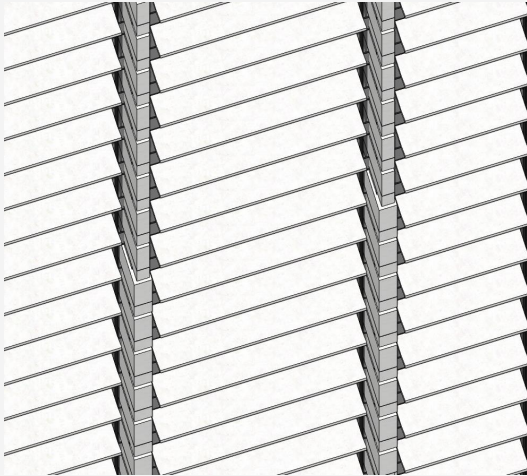


No glazing visible

11am

Solar Performance

Detail View



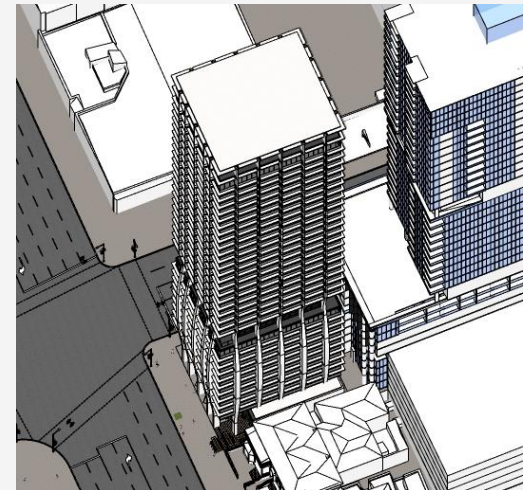
Overall View



12pm



1pm



2pm

Internal Amenity

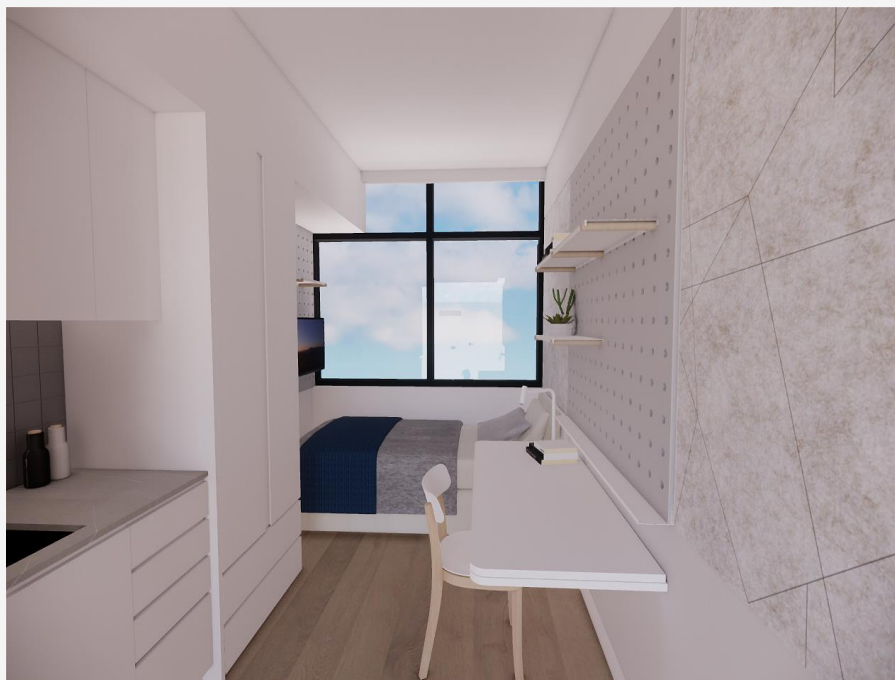
- Room layouts and designs have been key consideration in the development of the external façade
- Useability of the rooms, and protection of window openings forms part of the proposal to include precast spandrels.
- Proposed design for Original lodgement included colour-backed glass sections to block out areas where no vision glazing was available.



Spandrel creates ability to include additional storage in apartments and workability of layouts.



Typical room layout showing provision of horizontal windows



Typical co-living room showing provision of horizontal windows



Typical multi-bed apartment living room showing provision of horizontal windows



Typical studios showing provision of horizontal windows

Communal Areas - Cladding

- Original wall system incorporated a metal cladding panel
- Changes in certification means a composite cladding panel is impossible to certify
- Solid core cladding is still being tested
- As such, proposed alternative was to change to a Compressed Fibre Cement panel with an integrate coating system such as Nawkaw
- This achieves a high quality finish that's bonded to the cladding panel, but is able to provide the required fire rating.

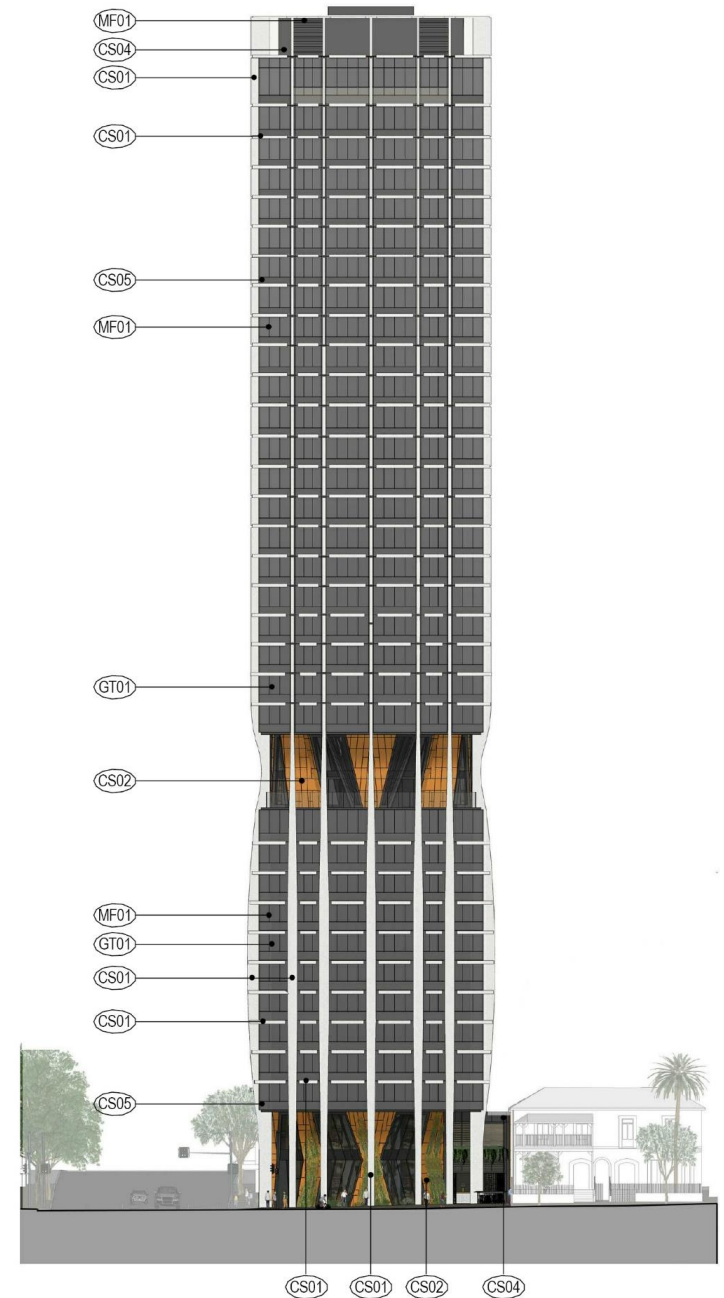
Communal Area Cladding.

- View showing proposed cladding panels and pattern of sheets
- Substrate to hold panels can be achieved in several methods to achieve the patterned finish we are looking for.
- Glazing system detailing is in design development so shows design intent only.
- Note image of sample swatch and physical sample side by side.



Physical Samples

- The following key samples have been provided
 - Proposed integral colour system for precast spandrel panels
 - Proposed integral colour system for Communal area cladding.

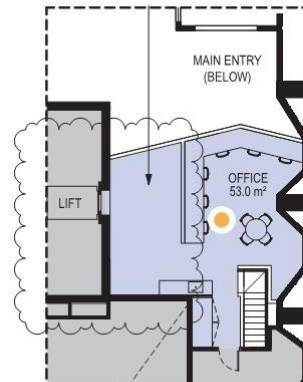


3.0 Ground Floor / 3.03 Foyer & Waiting Views



Quasicrystals

Re-interpretation of Pattern, finishes, grain or textures.



Office Concept

Vertical City

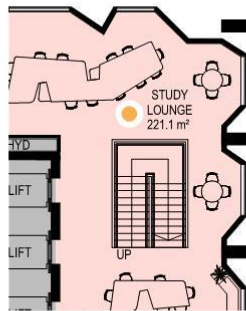
Maximise the interactions between various vertical planes



Mezzanine office

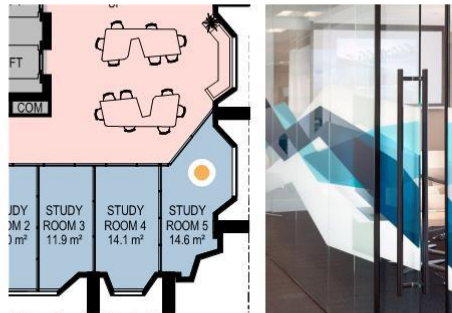
Tree of Knowledge

Systems put in place that grow and adapt



L13 - Study Lounge





L13 - Flexi & Study Spaces





L13 - Flexi & Study Spaces

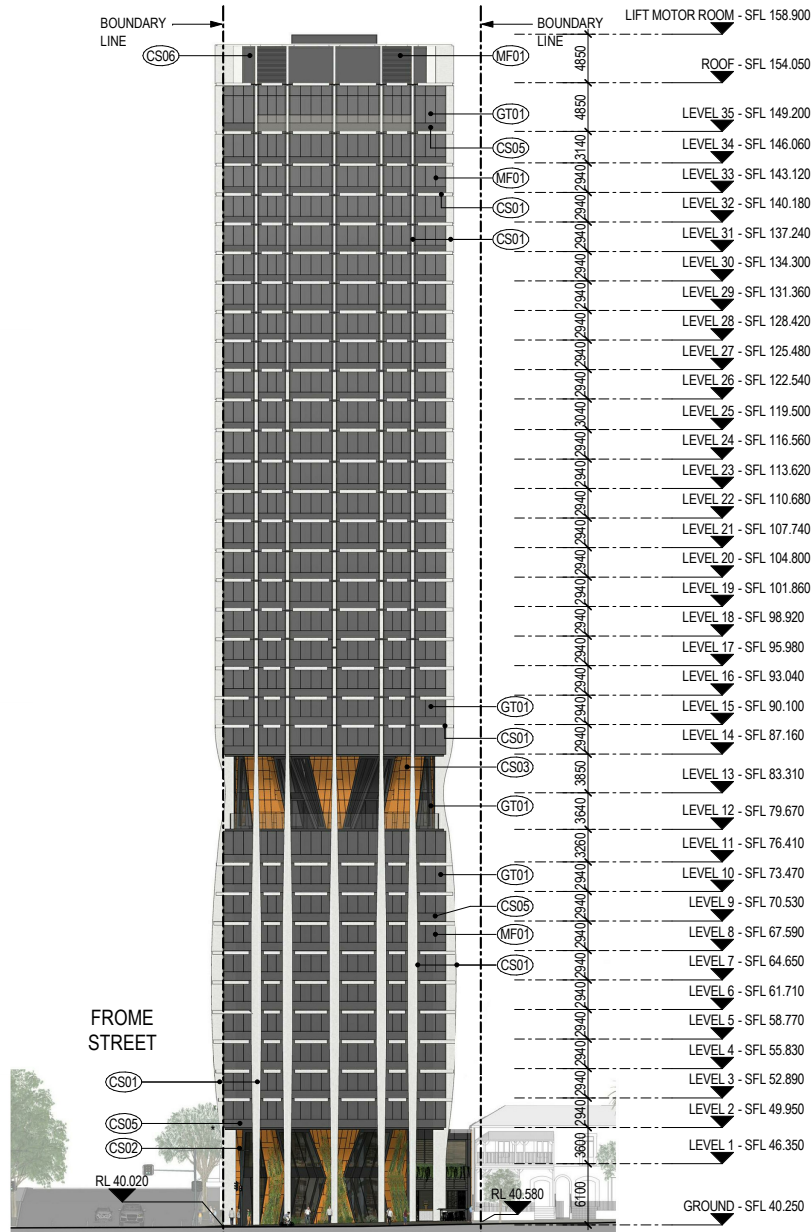




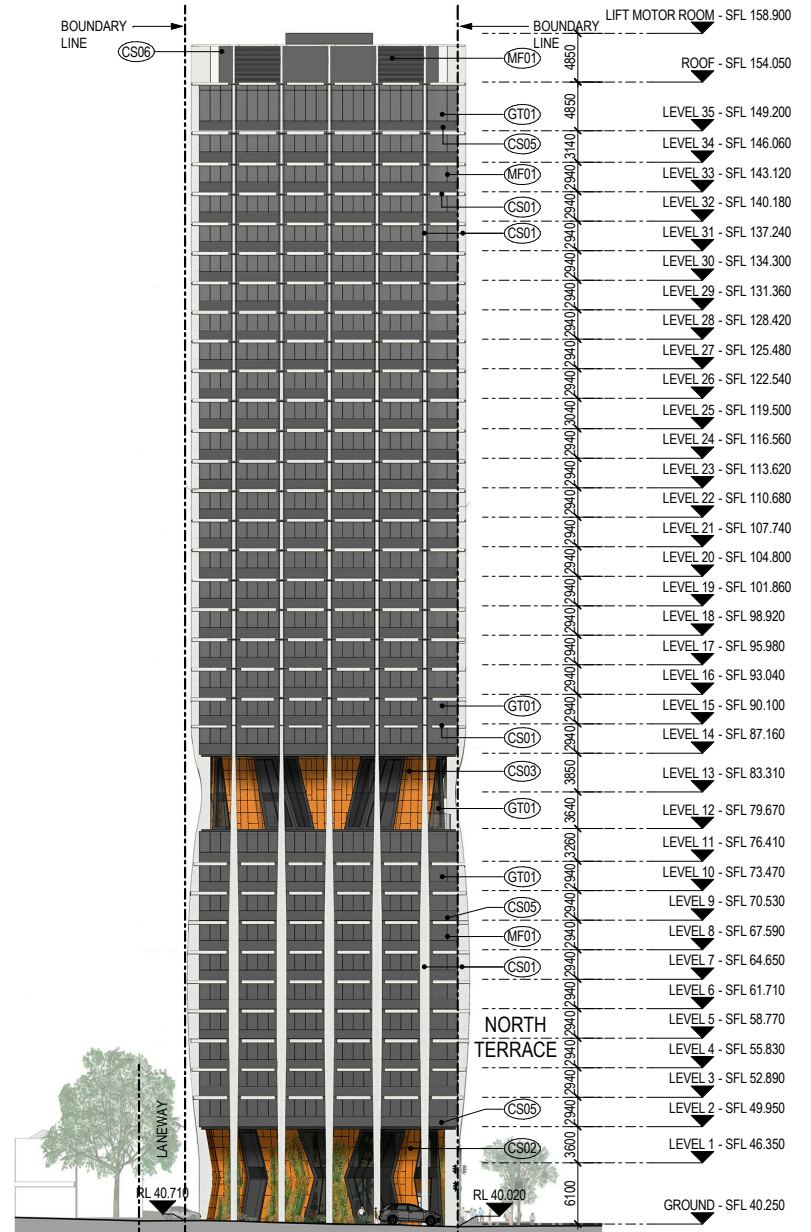
SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE FOR DESCRIPTION AND COLOUR

- (CS01) CLADDING SYSTEM TYPE 01
- (MF01) METAL FINISH TYPE 01
- (GT01) GLAZING TYPE 01
- * FACADE JOINT



NORTH ELEVATION



EAST ELEVATION

DEVELOPMENT APPLICATION

Revisions			
A	08.11.17	Development Application	KW
B	22.11.17	Revised Ground & Level 1 for DA	KW
C	22.01.18	Response to Council comments	KW
D	13.02.18	Response to Government Architect	JU
E	23.02.18	Response to Government Architect	KW
F	13.11.18	Revised Development Application	CB
G	02.04.19	Response to Deferral Items	KW

GSA Student Housing North Terrace
266 North Terrace, Adelaide, SA

ELEVATIONS - NORTH & EAST

Project No. **217091** Date **25.10.17**

Author **KW** Scale: @ A3 **1 : 500**

Drawing No. **TP02.01 F**

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Brisbane, Melbourne, Sydney
www.rothelowman.com.au

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SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

(CS01) CLADDING SYSTEM TYPE 01

(MF01) METAL FINISH TYPE 01

(GT01) GLAZING TYPE 01

* FACADE JOINT

DEVELOPMENT APPLICATION

Revisions	A	22.11.17	Revised Ground & Level 1 for DA	KW
	B	22.01.18	Response to Council comments	KW
	C	13.02.18	Response to Government Architect	JU
	D	23.02.18	Response to Government Architect	KW
	E	03.04.18	Response to Deferral Items	JU
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	G	02.04.19	Response to Deferral Items	KW

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **ELEVATIONS - SOUTH
& WEST**

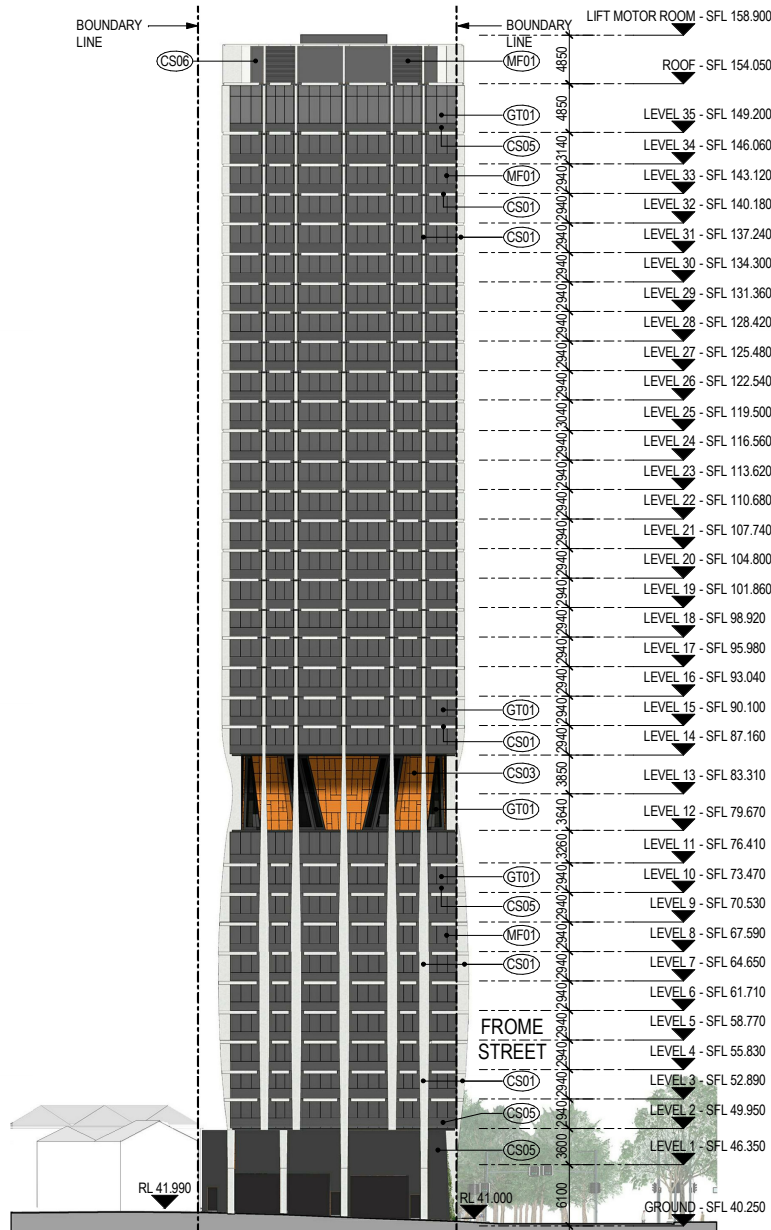
Project No / **217091** Date / **25.10.17**

Author / **KW** Scale: @ A3 / **1 : 500**

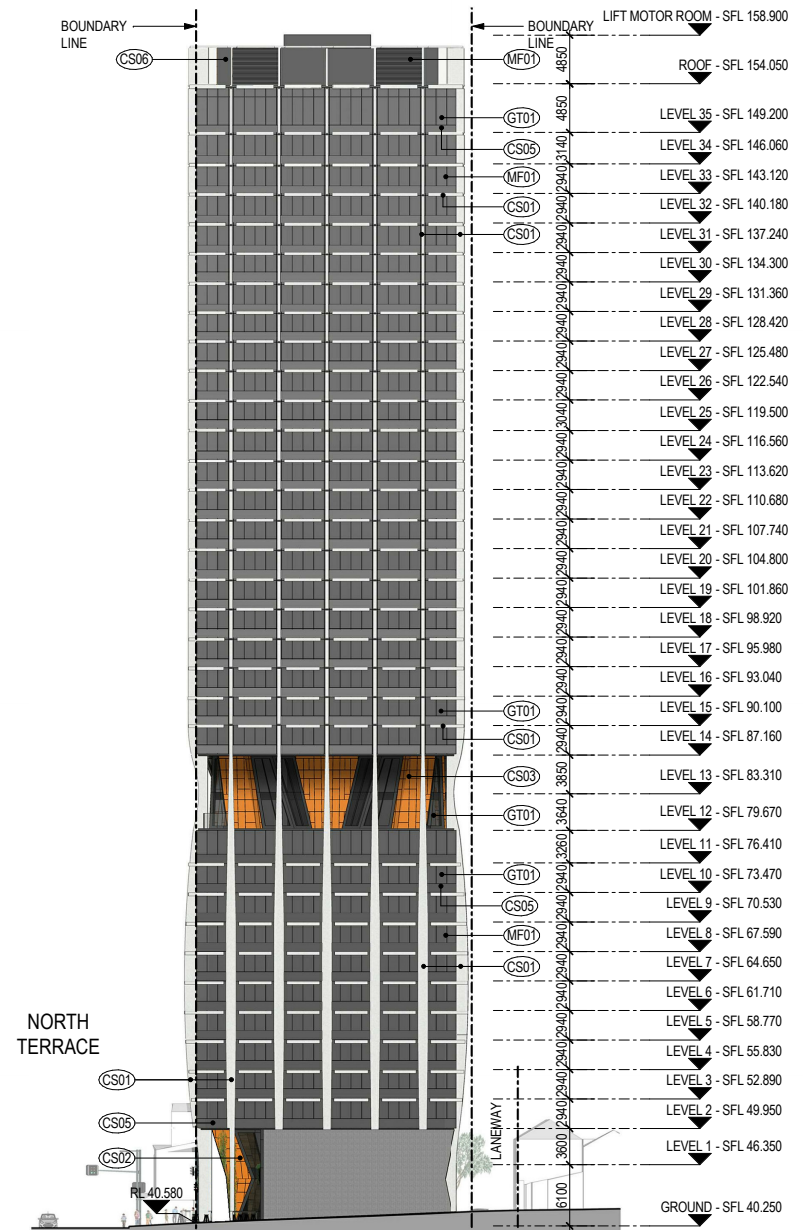
Drawing No. / **TP02.02 G**

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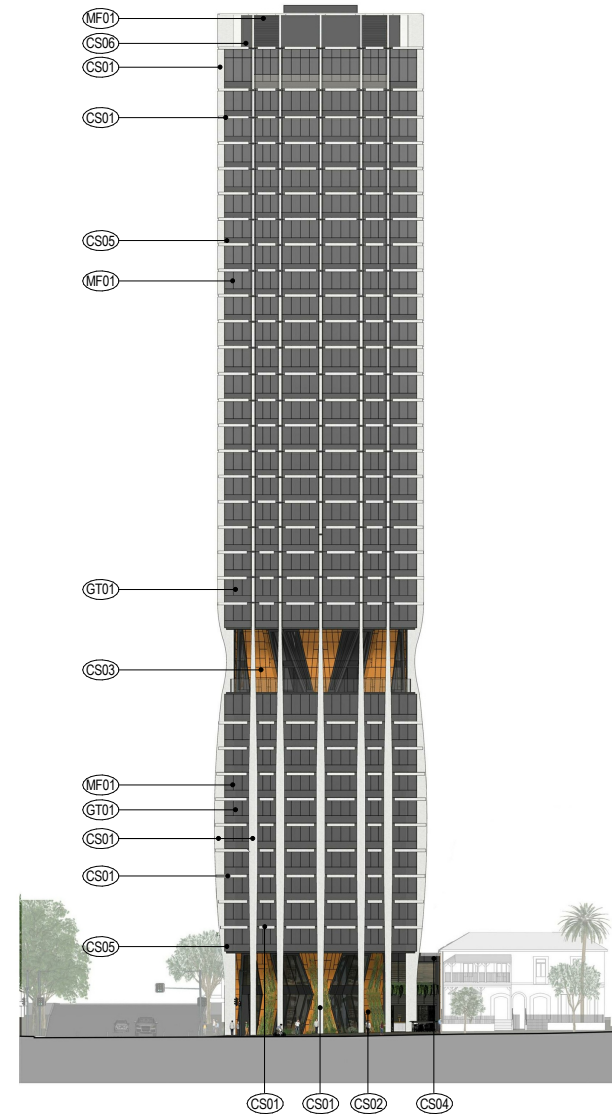
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SOUTH ELEVATION



WEST ELEVATION



DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.01.18	Response to Council comments	KW
B	03.04.18	Response to Deferral Items	JLI
C	13.11.18	Revised Development Application	CB
D	20.02.19	Response to RPI	MR
E	02.04.19	Response to Deferral Items	KW

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **MATERIAL PALETTE**

Project No / **217091**

Date / **03.11.17**

Author / **KW**

Scale: @ A3 / **1 : 200**

Drawing No. / **TP05.01 E**

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GSA Australia Pty Ltd C/- Intro Design Pty Ltd

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266-269 North Terrace, Adelaide

020/A074/17 V1

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OVERVIEW

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RECOMMENDATION	DEVELOPMENT PLAN CONSENT BE GRANTED

EXECUTIVE SUMMARY

The proposed development seeks a variation to DA 020/A074/17 granted consent by the State Commission Assessment Panel (SCAP) in April 2018 for *'Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses'*.

The variations sought include the following:

- Reduction in floor to floor heights by 60mm (no change to internal floor to ceiling heights);
- Removal of pedestrian canopy to Frome Street;
- Two (2) additional residential levels, from 34 to 36 (extra 38 beds). The overall building height does not increase however given a reduction in slab level allows for the additional levels sought;
- Change to the architectural expression to the crown of the building;
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- Change in materiality - glass spandrel panels to be replaced with precast concrete panels of a similar colour; and
- Change to the horizontal sunshade depth to 600mm (previously a variety of depths to align to the curved edges of the vertical sun shading blades).

While the Government Architect is of the view that many of the changes are consistent with the originally approved scheme, concern over proposed apartment amenity (via connection and location to communal spaces) and architectural expression resulting from the proposed material and sunshade change has been raised.

Although the changes are considered to result in an altered architectural expression to that originally granted by SCAP, Development Plan Consent is recommended.

ASSESSMENT REPORT

1. BACKGROUND

At the State Commission Assessment Panel meeting held 8 March 2018 the Panel considered a proposal for *Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses* and resolved to defer consideration of the development. In response to the deferral motion, the applicant made a number of amendments and provided further information, where the item was reconsidered and granted consent at the SCAP meeting held 12 April 2018.

Early construction work has commenced at the site with demolition now complete.

1.1 Strategic Context

On 30 May 2017 the Minister for Planning approved the Capital City Policy Review (Design Quality) Development Plan Amendment introducing new policy intended to:

- reinforce the importance of design quality for new development;
- establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances; and
- provide guidance regarding built form responses to context and streetscape character.

1.2 Pre-Lodgement Process

The applicant chose not to engage in the Pre-lodgement service for the original application and did not undergo a Pre-lodgement meeting or Design Review process.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

A summary of the proposal is as follows:

	Approved	Variation/Proposed
Land Use Description	Mixed use building comprising commercial (cafe) tenancy at ground floor and 687 student accommodation beds with associated communal areas.	Mixed use building comprising commercial (cafe) tenancy at ground floor and 725 student accommodation beds with associated communal areas.
Building Height	118 metres (RL 158.9m) – 35 levels (including basement).	118 metres (RL 158.9m) – 35 levels.
Description of levels	<p>Basement – building services, bicycle store and back of house facilities</p> <p>Ground – commercial tenancy with alfresco area, foyer, student services, loading and waste store.</p> <p>Level 1 – student amenity space, laundry, back of house and co-work space.</p> <p>Levels 2-5 (each contain) – 1x DDA compliant studio, 4x 1</p>	<p>Basement – Deleted.</p> <p>Ground - commercial tenancy with alfresco area, foyer, student services, loading and waste store.</p> <p>Level 1 - student amenity/gym, fire pump room and back of house facilities.</p> <p>Levels 2-5 – Co-living & DDA</p>

	<p>bed co-living, 3x 2 bed co-living, 4x 4 bed co-living and two level communal spaces</p> <p>Levels 6-11 (each level) – 4 x 1 bed co-living, 4x 2 bed co-living, 4x 4 bed co-living and two level communal spaces.</p> <p>Level 12 – Student amenity space, gymnasium and balcony area</p> <p>Level 13 – Student amenity space including study rooms.</p> <p>Levels 14-23 (each level) – 1 x 5 bed duplex every second level and 4x 5 bed ensuite.</p> <p>Level 24 – 1x 2 bed ensuite and 4x 5 bed ensuite.</p> <p>Level 25 – 9x standard studio, 1x large studio, 1x 1 bed room, 1x DDA compliant studio, communal open space.</p> <p>Level 26-29 (each level) – 15x standard studio, 2x large studio, 1x 1 bed room and 1x DDA studio.</p> <p>Levels 30-33 (each level) – 15x standard studio, 2x large studio and 2x 1 bed rooms.</p> <p>Roof – lift overrun with rooftop plant concealed by structure with solar panels above.</p>	<p>Levels 6-11 – Co-living</p> <p>Level 12 – Communal</p> <p>Level 13 – Communal</p> <p>Level 14-25 – Multi-bed & duplex</p> <p>Level 26 – Studio & 2 bed</p> <p>Level 27-30 – Studio & DDA</p> <p>Level 31-34 – Studio</p> <p>Level 35 – Studio & communal</p> <p>Roof – lift overrun with rooftop plant concealed by structure. The applicant has confirmed solar panels are still proposed at roof level.</p>
Site Access	<p>Vehicular access to the site, for deliveries and waste collection, is via a private laneway and associated right of way. Pedestrian access is via the main entrance at the corner of Frome Street and North Terrace, through the commercial tenancy on North Terrace.</p>	<p>No change.</p>
Car and Bicycle Parking	<p>45 bicycle parks with no inclusion of car parking on site.</p>	<p>32 bicycle parks with no inclusion of car parking on site.</p>
Encroachments	<p>The external fins encroach into the public land by a maximum of 1.2 metres – Council confirmed that the encroachments can be authorised under staff delegation.</p>	<p>Council has confirmed a reduction in the horizontal fins/sunshades to 600mm complies with Council's Encroachment Policy.</p>

3. SITE AND LOCALITY

3.1 Site Description

The site comprises of one allotment, described as follows:

Lot No	Street	Suburb	Hundred	Title Reference
235	North Terrace	Adelaide	Adelaide	6194/250

The subject site is located at the corner of North Terrace and Frome Road, where the existing First Church of Christ Scientist building has recently been demolished. The site has a 27.38 metre frontage to Frome Street and a 25.76 metre frontage to North Terrace. There is a 4.57 metre shared lane to the southern boundary of the site which has rights of way over it to enable rear access to the rear of the neighbouring buildings that front North Terrace.

The site is located adjacent state heritage buildings with the 4 buildings immediately west of the site being listed along with the University of South Australia building to the north-west and the Old Royal Adelaide Hospital buildings to the north east.

3.2 Locality

The immediate locality is characterised by a number of State Heritage Listed buildings including the Brookman Building of the University of South Australia, the Old Royal Adelaide Hospital Buildings, Ayers House, the classical sandstone Villa at 261 North Terrace, the two storey terrace buildings at 263-264 North Terrace and Grand Lodge of Freemasons Adelaide Masonic Centre.

North Terrace is Adelaide's most prominent boulevard and provides a significant cultural experience with the location of the Universities, Museum, Art Gallery and Parliament located on the its northern side. The Southern side comprises of a mixture of uses with offices, public buildings, public car parking structures and two churches (one to be demolished by this application).

A majority of the buildings on North Terrace have a zero setback to the front boundaries and create a hard edge between the public realm and the built form, the exception is the heritage buildings at 261-264 North Terrace.

South of the site is a privately owned laneway, a construction site for the new Adelaidian development and the existing public car parking structure fronting Frome Street.

The eastern side of Frome Street comprises of a Budget car rental office with associated car park and another public carpark further south with residential apartments above and ground floor tenancies.

Figure 1 – Location Map



4. COUNCIL COMMENTS or TECHNICAL ADVICE

4.1 City of Adelaide

Council has confirmed 'no' comments.

5. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

5.1 Government Architect

The Government Architect is a mandatory referral in accordance with Schedule 8 of the Development Regulations 2008. The State Commission Assessment Panel must have regard to this advice.

While the GA is of the view that many of the changes proposed are consistent with the originally approved scheme, the GA considers that proposed amendments to the arrangement of some of the communal spaces will result in reduced amenity for the student residents. The GA is also of the view that the proposed change to the materiality of the spandrel panels and horizontal fins will result in an architectural expression which is diluted and inconsistent with the originally approved scheme.

The additional documentation provided by the applicant, dated 06 February 2019, has been reviewed by the Government Architect and the following has been noted:

- *We have reviewed the responses from Intro, and the Government Architect has no additional comments.*

6. PUBLIC NOTIFICATION

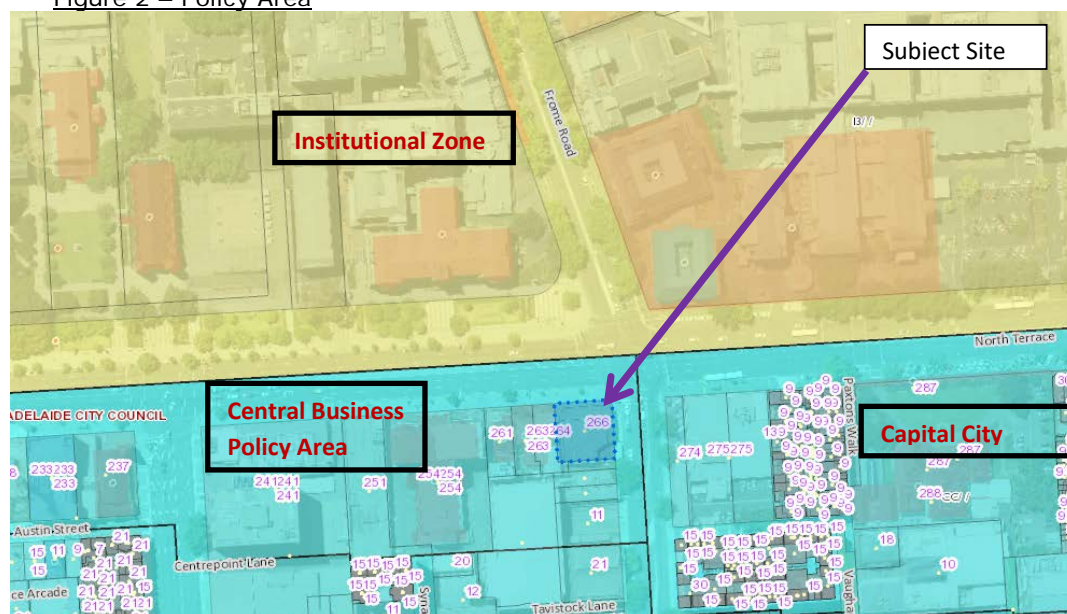
The variation application is a Category 1 development and no public notification was required.

7. POLICY OVERVIEW

The subject site is within the Capital City Zone, Central Business Policy Area 13 as described within the City of Adelaide Development Plan Consolidated 07 June 2018.

7.1 Policy Area

Figure 2 – Policy Area



7.2 Central Business Policy Area 13

- The Policy Area is the State's pre-eminent economic, governance and cultural hub and will be supported by educational, hospitality and entertainment activities and increased opportunities for residential, student and tourist accommodation.
- Buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality.
- Complementary and harmonious buildings in individual streets will create localised character and legible differences between streets, founded on the existing activity focus, building and settlement patterns and street widths.
- Development of a high standard of design and external appearance is anticipated in a way that successfully integrates with the public realm. To enable an activated street level, residential uses (or similar) should be located above ground level.

7.3 Capital City Zone

- High-scale development is envisaged in the Capital City Zone with high street walls that frame the streets and an interesting pedestrian environment and human scale created at ground level.
- In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment.
- Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment with buildings sited and composed in a way that responds to the buildings' context.
- A comprehensive, safe and convenient movement network throughout the City will develop, focusing on the provision of linkages on both public and private land between important destinations and public transport.

7.4 Council Wide

Council Wide provisions provide guidance on the desire for increased levels of activity and interest at ground level; a high standard of design; appropriate bulk and scale of buildings and positive contribution to streetscapes including interfaces with places of heritage significance. Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages within the Primary Pedestrian Area.

7.5 Overlays

7.5.1 Affordable Housing

The subject land is located within the Affordable Housing Designated Area in Development Plan Map Adel/1 (Overlay 5a).

The Overlay recommends integration of affordable housing with residential and mixed-use development, and development comprising 20 or more dwellings to include a minimum of 15 percent affordable housing.

7.5.2 Adelaide City Airport Building Heights

Prescribed height limits are specified for the subject land under the Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5).

Referral to the Department of Transport and Regional Services through AAL has already been undertaken given the development proposed in the original application exceeded the Obstacle Limitation Surface prescribed in the Development Plan. Approval was required under the Commonwealth Airports Act 1996 for this structure that sought to penetrate the prescribed air space as defined in the Act. The applicant is aware of the separate approval being required and have commenced that process.

Given the variation does not seek to alter or increase the approved height approved (158.900 AHD), no referral to AAL was required as part of assessment of this variation application.

8. PLANNING ASSESSMENT

The assessment information below is only considering the proposed variations, all other assessment matters are contained in the original assessment report, which can be found in the attachments associated with this report.

The variations sought include the following:

- Reduction in floor to floor heights by 60mm (no change to internal floor to ceiling heights);
- Two (2) additional residential levels, from 34 to 36 (extra 38 beds). The overall building height does not increase however given a reduction in slab level allows for the additional levels sought;
- Change to the architectural expression to the crown of the building;
- Deletion of basement;
- Reduction in ground level café floor area;
- Reconfiguration and relocation of communal spaces;
- Reconfiguration of apartment typologies across levels 24-26;
- Change in materiality - glass spandrel panels to be replaced with precast concrete panels of a similar colour; and
- Change to the horizontal sunshade depth to 600mm (previously a variety of depths to align to the curved edges of the vertical sun shading blades).

8.1 Design and Appearance

The proposed variations will result in external alterations to all facades of the building as demonstrated in Figures 3, 4, 5 and 6 below, via:

- Change to crown of the building;
- Change in materiality - glass spandrel panels to be replaced with precast concrete panels of a similar colour (grey); and
- Change to the horizontal sunshade depth to 600mm (previously a variety of depths of depths to align to the curved edges of the vertical sun shading blades).

Figure 3 – Spandrel Panel Comparison (from glass to concrete)

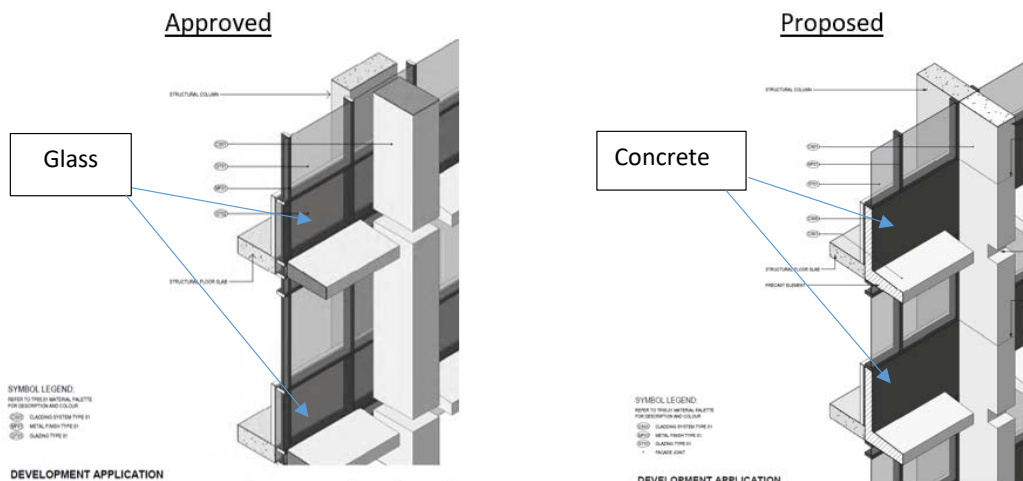
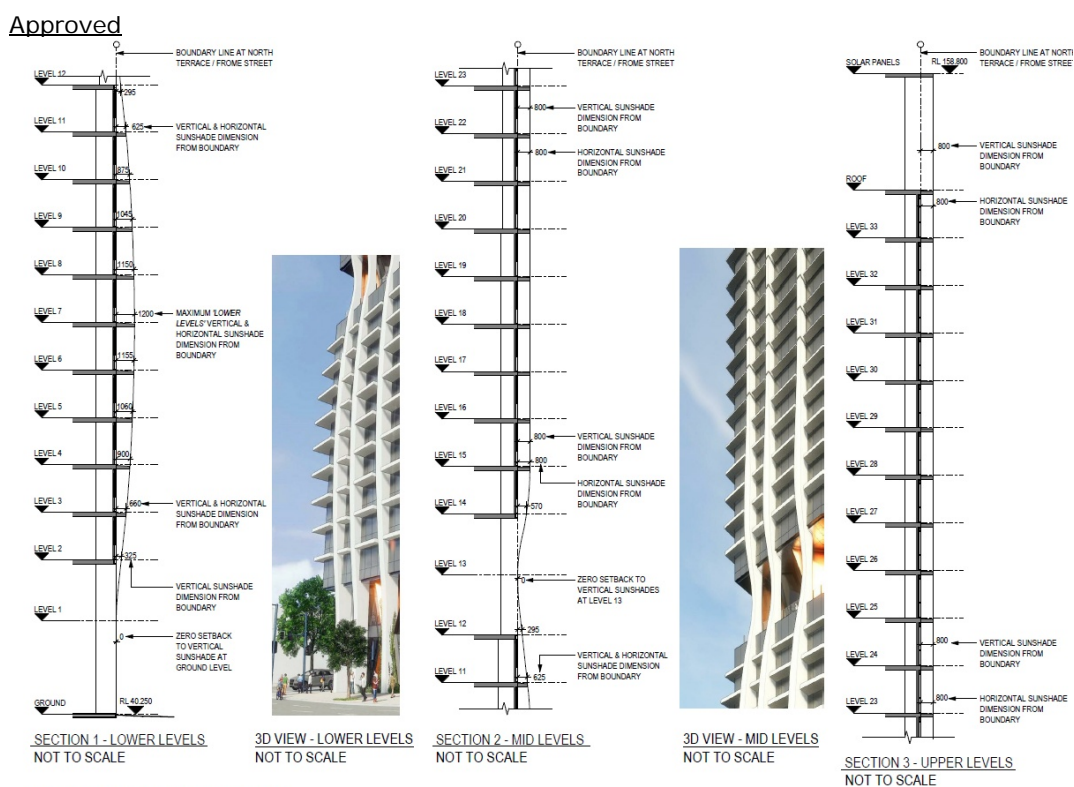


Figure 4 – Material Comparison



Figure 5 – Sunshade/Vertical Fin Comparison



Proposed

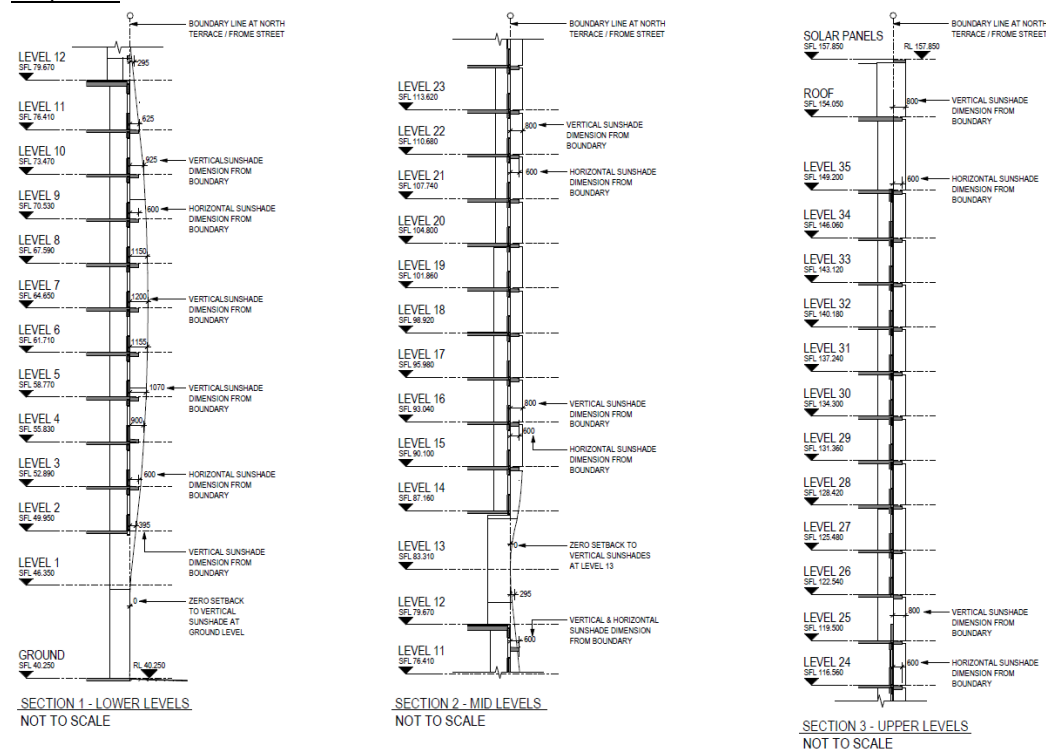
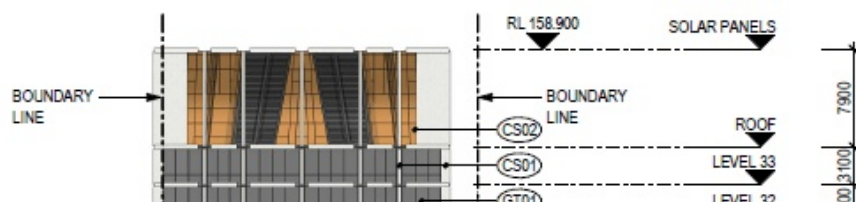


Figure 6 – Crown Change

Approved



Proposed



The GA does not object to the reduction in height of the rooftop 'crown' element as shown above in *Figure 6* above. The change materiality of the spandrel panels from glass to coated concrete also does not substantially change the GA's previous concerns raised regarding the appropriateness of the proposal's architectural expression within the specific context of North Terrace and the site's location as a key corner to the CBD. Notwithstanding this, the GA is of the view that the proposed change in materiality is inconsistent with the originally approved architectural expression and will reduce the distinction between the projecting white skeletal elements and recessed infill panels in a contrasting dark colour.

Ultimately, the external changes will result in the building being less 'sculptural'. This is also a result of the proposed change to both the vertical and horizontal sunshade widths at all levels of the building that seek a reduction to their projection.

At 'Lower Levels', the horizontal sunshades will have a maximum projection of 600mm, as opposed to the approved scheme. It was originally sought that the horizontal sunshades project out to the width of the vertical sunshades of various widths, ranging from 295mm-1200mm – which resulted in the 'curve'. Again, at 'Mid Levels' and 'Upper Levels', the horizontal sunshade seeks a reduction in width from 800mm to 600mm. The applicant has advised that the sunshade width change is due to the methodology of construction.

The material change from glass to concrete will also change the appearance of the building, along with its solid to void composition. The applicant has provided updated renders which can be view in the relevant attachments to this report. The use of pre-finished concrete '*CS01 – Precast Concrete – White Nawkaw coating or similar approved*' was approved in the original scheme for the projecting 'skeleton' element and is now to be applied to the concrete spandrel panels.

Generally, the changes are considered acceptable and a minor change to that approved, albeit it is acknowledged that the proposed changes will result in an altered architectural expression than that approved.

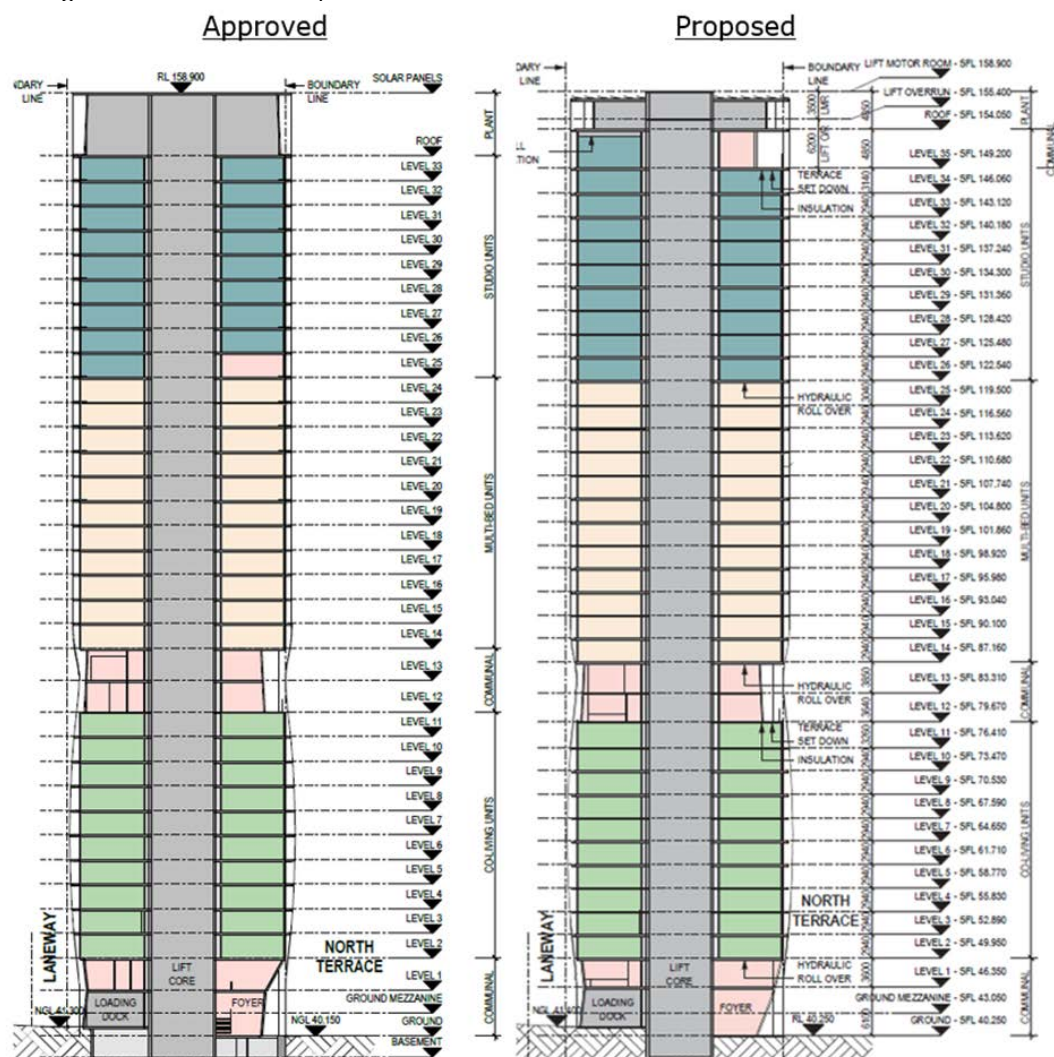
8.2 Internal Amenity

The proposed variations will result in internal alterations that include:

- Reduction in floor to floor heights by 60mm (no change to internal floor to ceiling heights);
- Two (2) additional residential levels, from 34 to 36 (extra 38 beds);
- Reconfiguration and relocation of communal spaces;
- Reconfiguration of apartment typologies across levels 24-26;
- Deletion of basement level; and
- Reduction in bike parking to 45 from 32.

The approved building height (158.9 AHD) is maintained through the reduction in height of the rooftop screening element ('Crown') and the reduction of floor to floor heights (via the slab depths). The reduction in floor to floor height has meant that the building can accommodate an additional 2 floors and 38 beds as demonstrated in Figure 6 below.

Figure 6 – Section Comparison



As the proposal maintains the floor to ceiling heights and does not impact the residential amenity of the apartment units, the GA has indicated no concern in this regard. The reconfiguration of accommodation types, including DDA compliant rooms, is also supported by the GA as the proposal will continue to offer a variety of student accommodation options.

Notwithstanding the above, the GA has requested the applicant demonstrate that sufficient communal spaces and facilities are provided within the building to ensure high quality residential amenity. In particular, the GA has outlined concern over the increase in beds (by 38), reduction in bike parking from 45 to 32, along with the location and configuration of some of the communal spaces. While the relocation of the gym from level 12 to level one is supported by the GA, reinstatement of the stair connection between ground and first levels has been recommended to provide a visual and physical connection between these two spaces. The relocation of the communal lounge from level 25 to level 35 at the top of the building is also considered less central and likely to compromise access from the co-bed units. Well distributed shared spaces throughout

the building was considered one of the merits of the originally approved scheme and as such the GA does not support the relocation of the communal space to level 35.

The applicant has responded to the GA's concerns regarding the proposed communal space arrangements and outlined the following:

- Reinstatement of Stair:
 - Noise from the gym at level 1 has the potential to impact on the amenity of the ground level should a stair be introduced;
 - Security of the building and student safety is an ongoing concern during the operation of the building. Restricting public access to the ground level represents an additional barrier between students and the public; and
 - The provision of a stair from the ground level to the first level reduces the efficiency of these spaces. Reinstatement of a stair will reduce the useable area in the foyer and the usability of the Gym on level 1.
- Communal Space:
 - The relocation of the communal space (to level 35) becomes a destination for residents in the building. GSA have direct market feedback from residents in other facilities that providing an area for residents at the top of the building is desirable;
 - Signage, wayfinding and the management structure surrounding the building ensures that no resident will feel excluded from any of the communal spaces; and
 - The development provides approximately 1.84m² of communal space per bed at ground, level 1, 12, 13, 35 and external communal areas at level 12 and 35. This excludes communal areas within the co-living floors which comprise an additional 505m² over 9 levels.

The original application proposed over 1,300m² of communal areas within the building, which included a theatre, kitchen, and dining areas, gaming console room, study areas and a balcony area on level 12.

While the location of the communal areas differs in part from that approved, the amount and distribution of communal areas is still considered acceptable. The location differences between the approved and proposed communal areas is demonstrated in *Figure 6 – Section Comparison* above. In this case, the variation application will still provide for 1336m² of communal space (as seen on the 'Communal Area' drawing in the ATTACHMENTS) albeit now located at levels 1 (gym), 12 (cinema), 13 (study and lounge areas) and 35 (communal/lounge area). Outdoor terrace areas are also provided at levels 12 and 35.

Although the communal area at level 35 is less central to the multi-bed units (located at levels 14-25), it is considered that the multi-bed units will still have reasonable access to all communal spaces within the building, particularly to the communal areas located at levels 12 and 13 (lounge, cinema, media room, kitchen/dinning, study areas).

8.4 Bike Parking

The variation application seeks an increase in resident population by an extra 38 beds than that approved. Conversely, a reduction in 13 bike parks is proposed as detailed below in *Table 1*:

Table 1: Bike Parking Comparison

	Number of Beds	Proposed Number of Bike Parks
Approved	687	45
Proposed	725	32

A review of the bike parking numbers to be provided for the 725 beds now proposed has been undertaken by GTA Traffic Consultant's. GTA have outlined that Table Adel/6 in the Adelaide (City) Development Plan does not list a bicycle parking rate for 'student accommodation'. The Development Plan does however contain rates for 'high to medium residential development' along with 'serviced apartments'. Based on these land uses, the serviced apartment rate would generate a requirement of 20 bicycle parking spaces and 387 bicycle parks based on the residential rate (along with 2 spaces for the café use).

GTA considers however that that the nature of this proposal would fall between these two types of land uses and an empirical assessment of bicycle parking provision should be applied in this case (as per the approach taken in the original application also). GTA have outlined the following in support of the proposed bike parking numbers:

- A similar student accommodation on Bank Street in Adelaide currently provides a total of 503 beds and 24 bicycle parks, which equates to a rate of 1 space per 21 beds. In this case, the provisions of 32 beds for 725 beds equates to a rate of 1 space per 23 beds, which is a similar rate to that provided for the Bank Street development;
- The development site is located at the corner of Frome Street and North Terrace opposite the University of South Australia (City East campus) and the University of Adelaide. The subject site is also located approximately 400 metres from Rundle Mall shopping district. Given the close proximity to University campuses and the shopping district, the majority of the student residents would be expected to walk to their study and shopping destinations;
- With the tram stop at University within 150m of the site, residents will have good accessibility to the free and frequent tram services to other parts of the CDB area, including the City West campus of UniSA, the Adelaide Railway Station, Central Market and Victoria Square. The development is also within walking distance to major bus routes on North Terrace, Pulteney and Grenfell Street; and
- Adelaide free Bike hire is available at the University of South Australia (East Campus) which is approximately 100m from the subject site. The service is free and is available 7 days 8am to 5pm.

Given the above analysis by GTA, it is considered that the proposed number of bike parks will appropriately cater for the anticipated demand to be generated regardless of the fact that this variation seeks to reduce bike parking numbers by 13 (from 45 to 32).

Based on the empirical rate suggested by GTA (1 per 21 beds), the variation would create an additional 1.6 bike space demand based on the 38 bed increase sought. The empirical rate (1 per 21) recommends a total of 34.5 bike parks for 725 beds. Albeit there is a 2.5 space shortfall, the 32 bike parks proposed is deemed satisfactory and reasonable given the site's location within the CBD and its proximity to the universities, public transport and premier shopping district.

9. CONCLUSION

The internal variations proposed to the development are reasonable and considered to provide an acceptable level of amenity for the students. While the unique sculptural architectural outcome proposed for this site will be diluted as a result of the proposed external changes, the building's expression is still considered satisfactory. Waste storage and vehicle manoeuvring is also deemed acceptable. The application is recommended for the granting of Development Plan Consent subject to the conditions attached to this report.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the City of Adelaide Development Plan.

PLANNING CONDITIONS

1. The development granted Development Plan Consent shall be undertaken and completed in accordance with the stamped plans and documentation, except where varied by conditions below (if any).

ADVISORY NOTES

- a. Previous Application
Previously supplied documentation, correspondence and reports (unless expressly superseded by this consent or previous approvals granted in respect to DA 020/A074/17) remain valid.
- b. Other Authorities
The applicant, or any person with the benefit of this consent, must ensure that any consent from other authorities or third parties that may be required to undertake the development, have been granted by that authority prior to the commencement of the development.
- c. Right of Way
The applicant is reminded to ensure that the right of way is maintained in accordance with their obligations pursuant to the *Real Property Act 1886*.



Janaki Benson
Senior Planner
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

INTRO

14 November 2018

Brett Miller
Team Leader – Inner Metro Development Assessment
Development Division

Via email: brett.miller@sa.gov.au

Dear Brett,

Re: 266 North Terrace - Variation to DA 020/A074/17

Intro Architecture on behalf of GSA Australia Pty Ltd is pleased to submit amended plans for the demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses.

The revised proposal is for a 36 storey (ground plus 35) mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses. Please note the proposal increases the total quantum of floors without increasing the total height of the building.

A revised waste management study and traffic report will be provided.

SUBJECT LAND

The subject land is located at 266 North Terrace and is legally described below:

Lot No	Filed Plan	Volume/Folio	Hundred
235	181887	5097/955	Adelaide
23	181887	2331/105	Adelaide

The subject land is located within the Capital City Zone within the Adelaide (City) Development Plan (consolidated – 7 June 2018).

PROPOSED DEVELOPMENT

The proposed development is described as follows:

- Reduction in floor to floor heights;
- Deletion of basement;
- Reduction in size of café tenancy from 19.1 sqm to 11.4sqm;
- Relocation of gym to level 1;
- Reconfiguration of level 12 and 13 communal space;

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Activating human space

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- Replacement of level 24 multi-bed floor and level 25 studio, DDA and communal floor with standard multi-bed and duplex levels. Standard multi-bed and duplex floors now extend from levels 14-25;
- Level 26 replaced with Studio and 2 bed typology;
- The Studio and DDA typical floorplate is proposed at levels 27-30, up from levels 26-29;
- The Studio typical floorplate is proposed at levels 31-34, up from levels 30-33;
- Creation of a level 35 comprising studios and communal open space;
- Glass spandrel panels have been replaced with precast concrete panels of the similar colour; and
- Reduction in height and change of materiality within the crown.

In total the proposal comprises an increase in the total quantum of beds on site to 725 student beds.

The proposed development fits in two additional levels without impacting on overall building height.

NATURE OF DEVELOPMENT

I am of the opinion that the proposed development is a variation application as the essential nature of the application has not changed pursuant to *Section 39(4)(a)(ii)* within the *Development Act 1993*.

The proposed development satisfies the Development Plan insofar as:

- the essential nature of the application remains as the construction of a mixed-use development comprising a student accommodation, student amenity spaces and a ground floor commercial use;
- the access and egress arrangements remain unchanged;
- the additional level of student accommodation is provided within the existing building height ensuring that the built form impacts on the locality remain unaltered;
- the form and composition of the building are consistent with the approved development;
- the façade treatment is continued to ensure the additional level is consistent in appearance with the existing building;
- the ground floor interface with the public realm remains consistent with the approved development;

The revised development is not prescribed as complying nor as non-complying within the Development Plan and should be assessed on its merits against the provisions of the Adelaide (City) Development Plan (consolidated 20 June 2017) as a consent form of development.

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BUILDING HEIGHT

The proposed development does not alter the height of the proposed tower element. The proposed building height is consistent with the building height of the approved scheme dated 12 April 2018.

The approved building has a total height of 158.9m AHD when measured to the tallest point of the building. This is consistent with the proposed development which has a total height of 158.9m AHD which is measured to the top of the proposed solar panels.

BUILDING DESIGN

The proposed development comprises a Variation Application in its own right, as opposed to a Regulation 47A Minor Variation as the external of the appearance of the building has changed, most notably, the proportion of the crown.

I am of the opinion that the change to the composition of the façade results in the proposal being of a significant change to warrant the lodgement of a Variation Application.

Please find included within this application package the following documentation:

- a completed development application form;
- the Certificate of Title;
- revised Architectural Plans; and
- revised waste management information.

We ask that you receive this application and issue a fee invoice to the applicant care of Intro Architecture in due course.

Should you wish to discuss any matter further, please contact the undersigned on 8410 0453 or 0402 424 403

Yours sincerely,



Anthony Gatti
Senior Planning Advisor

INTRO

APPENDIX 02 – PROPOSAL PLANS

Intro Design Pty Ltd
L11 44 Waymouth Street
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Adelaide SA 5000

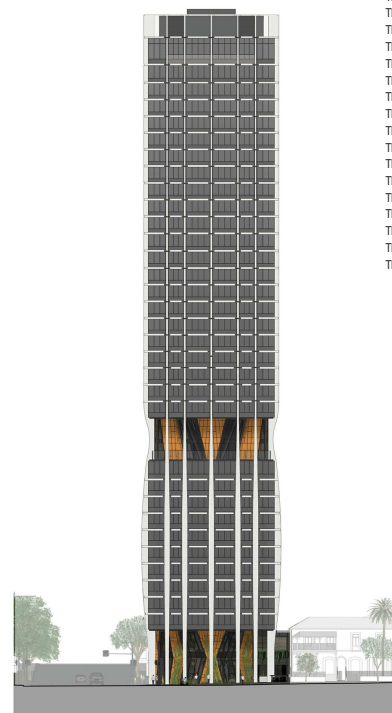
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PISA DEVELOPMENT DATA											
Room Type	Code	Dev. Mix (%)	Room Size	Total Units	Total NLA	Beds / Unit	Total Beds	BT01	BT02	BT03	Total PODS
Standard Studio	SS	19.3%	18	140	2,520 m ²	1	140		1		140
Premium Studio	PS	2.6%	24	1	480 m ²	1	1		1		20
1 Bed Co-Living	1B-CO	5.5%	13	40	520 m ²	1	40	1			40
2 Bed Co-Living	2B-CO	9.9%	28	36	1,008 m ²	2	72		1		36
4 Bed Co-Living	4B-CO	22.1%	48	40	1,920 m ²	4	160	2			80
UDA Studio	UDA	1.1%	28	8	224 m ²	1	8			1	8
1 Bed Apartment	1B	1.8%	28	13	364 m ²	1	13		1		13
5 Bed Shared (Duplex)	5B-DUP	4.1%	90	6	540 m ²	5	30		3		18
5 Bed Ensuite Apartment	5B-E	33.1%	92	48	4,416 m ²	5	240	5	1		240
2 Bed Apartment	2B	0.3%	57	1	57 m ²	2	2				1
Total		100%		352	12,049 m²		725	361	228	8	596

RESIDENTIAL DEVELOPMENT DATA													
Level	S5	P5	18-CO	20-CO	48-CO	DDA	18	S8-DUP	S8-E	28	NSA		
REDS Per Units	1	1	1	2	4	1		5	5	2	Total Units	Beds / Floor	Total NSA
Bathroom PODS Per Units	1	1	-	1	-	-	1	3	-	1			
Unit Size	18	24	13	28	46	28	28	90	92	57			
Basement 1													
Ground													
Ground Floor Mezzanine													
Level 2			4	3	4	1					12	27	348 m ²
Level 3			4	3	4	1					12	27	348 m ²
Level 4			4	3	4	1					12	27	348 m ²
Level 5			4	3	4	1					12	27	348 m ²
Level 6			4	4	4						12	28	348 m ²
Level 7			4	4	4						12	28	348 m ²
Level 8			4	4	4						12	28	348 m ²
Level 9			4	4	4						12	28	348 m ²
Level 10			4	4	4						12	28	348 m ²
Level 11			4	4	4						12	28	348 m ²
Level 12													
Level 13													
Level 14								1	4		5	25	458 m ²
Level 15									4		4	20	368 m ²
Level 16								1	4		5	25	458 m ²
Level 17											4	20	368 m ²
Level 18								1	4		5	25	458 m ²
Level 19											4	20	368 m ²
Level 20								1	4		5	25	458 m ²
Level 21									4		4	20	368 m ²
Level 22								1	4		5	25	458 m ²
Level 23									4		4	20	368 m ²
Level 24								1	4		5	25	458 m ²
Level 25									4		4	20	368 m ²
Level 26	15	2							4		4	20	368 m ²
Level 27	15	2			1	1	1			1	19	19	374 m ²
Level 28	15	2			1	1					19	19	374 m ²
Level 29	15	2			1	1					19	19	374 m ²
Level 30	15	2			1	1					19	19	374 m ²
Level 31	15	2			2	2					19	19	374 m ²
Level 32	15	2			2	2					19	19	374 m ²
Level 33	15	2			2	2					19	19	374 m ²
Level 34	15	2			2	2					19	19	374 m ²
Level 35	5	2			1	1					8	8	166 m ²
	140	20	40	36	60	8	13	6	48	1	952	725	11,868 m ²

DWG #	DRAWING NAME	REV
TP00.00	COVER SHEET	-
TP01.00	SITE PLAN EXISTING	C
TP01.01	GROUND FLOOR & MEZZANINE	E
TP01.02	LEVEL 1	E
TP01.03	LEVELS 2-5 'CO-LIVING' & DDA	B
TP01.07	LEVELS 6-11 'CO-LIVING'	B
TP01.13	LEVEL 12 COMMUNAL	B
TP01.14	LEVEL 13 COMMUNAL	B
TP01.15	LEVELS 14-25 'MULTI-BED' & DUPLEX	A
TP01.26	LEVEL 26 'STUDIO' & 2 BED	A
TP01.27	LEVELS 27-30 'STUDIO' & DDA	-
TP01.31	LEVELS 31-34 'STUDIO'	A
TP01.34	LEVEL 35 STUDIO & COMMUNAL	-
TP01.35	ROOF	B
TP02.01	ELEVATIONS - NORTH & EAST	E
TP02.02	ELEVATIONS - SOUTH & WEST	F
TP03.01	SECTION	C
TP03.02	3D FACADE SECTION	A
TP05.01	MATERIAL PALETTE	C
TP06.04	3D VIEW 4	D



Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	03.04.18	Response to Deferral Items	JLI
C	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing**
North Terrace
266 North Terrace, Adelaide, SA

Drawing / **COVER SHEET**Project No / **217091** Date / **23.10.17**

Author / JLi

Scale: @ A3 /

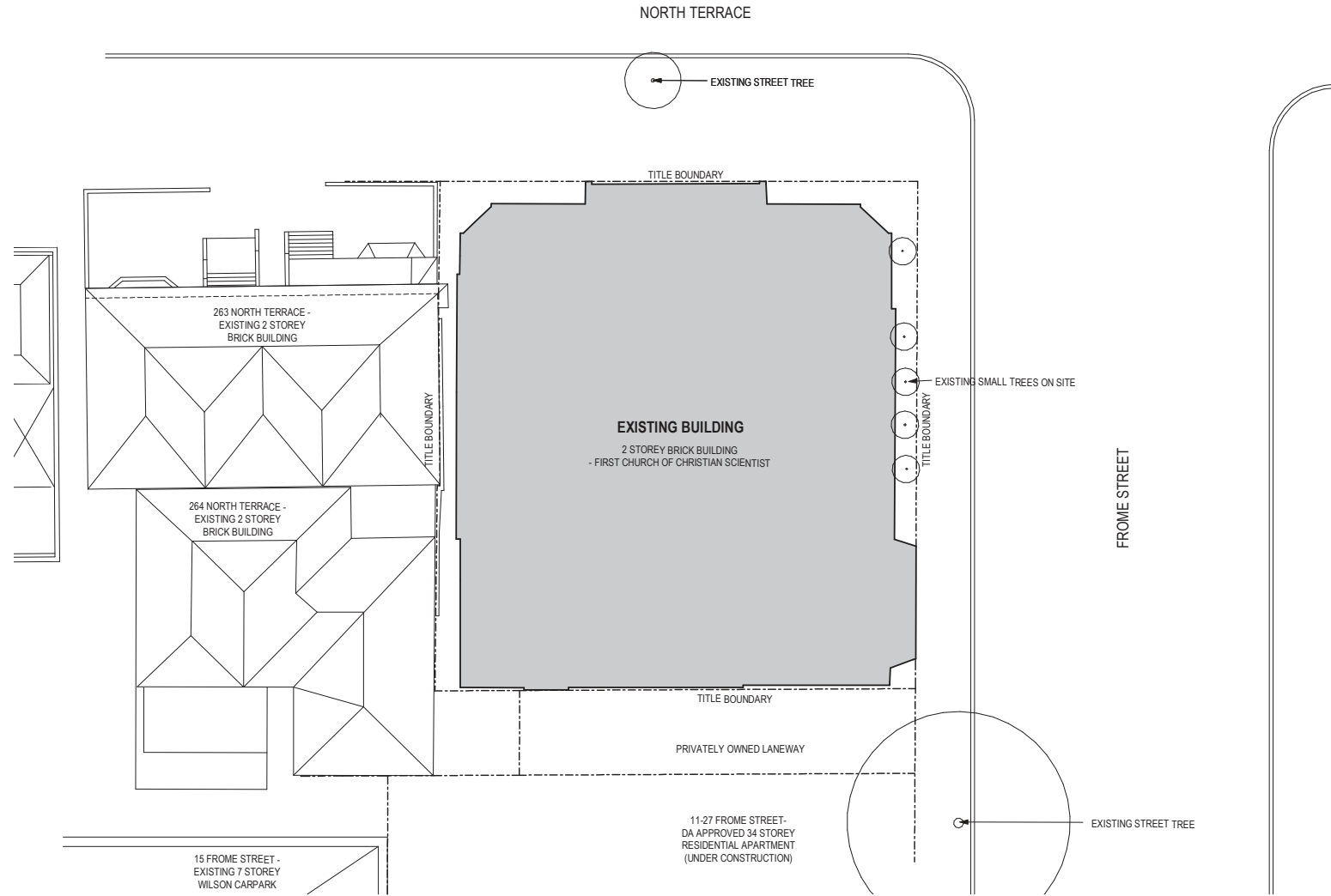
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DEVELOPMENT APPLICATION

Revisions / 08.11.17 Development Application KW Project

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **SITE PLAN EXISTING**

Project No / **217091** Date / **31.10.17** Author / **AK**

Scale: @ A3 / **1:200**

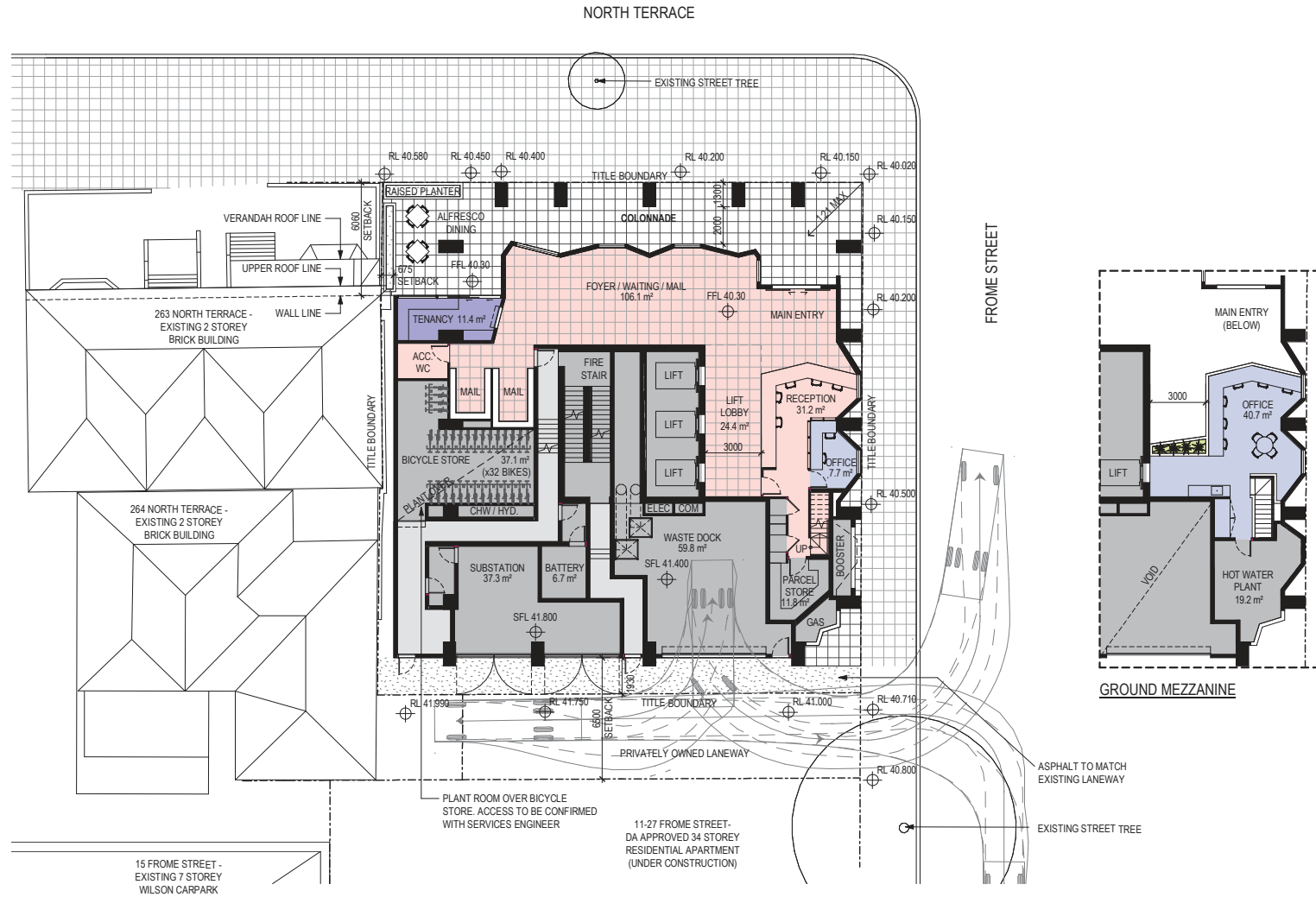
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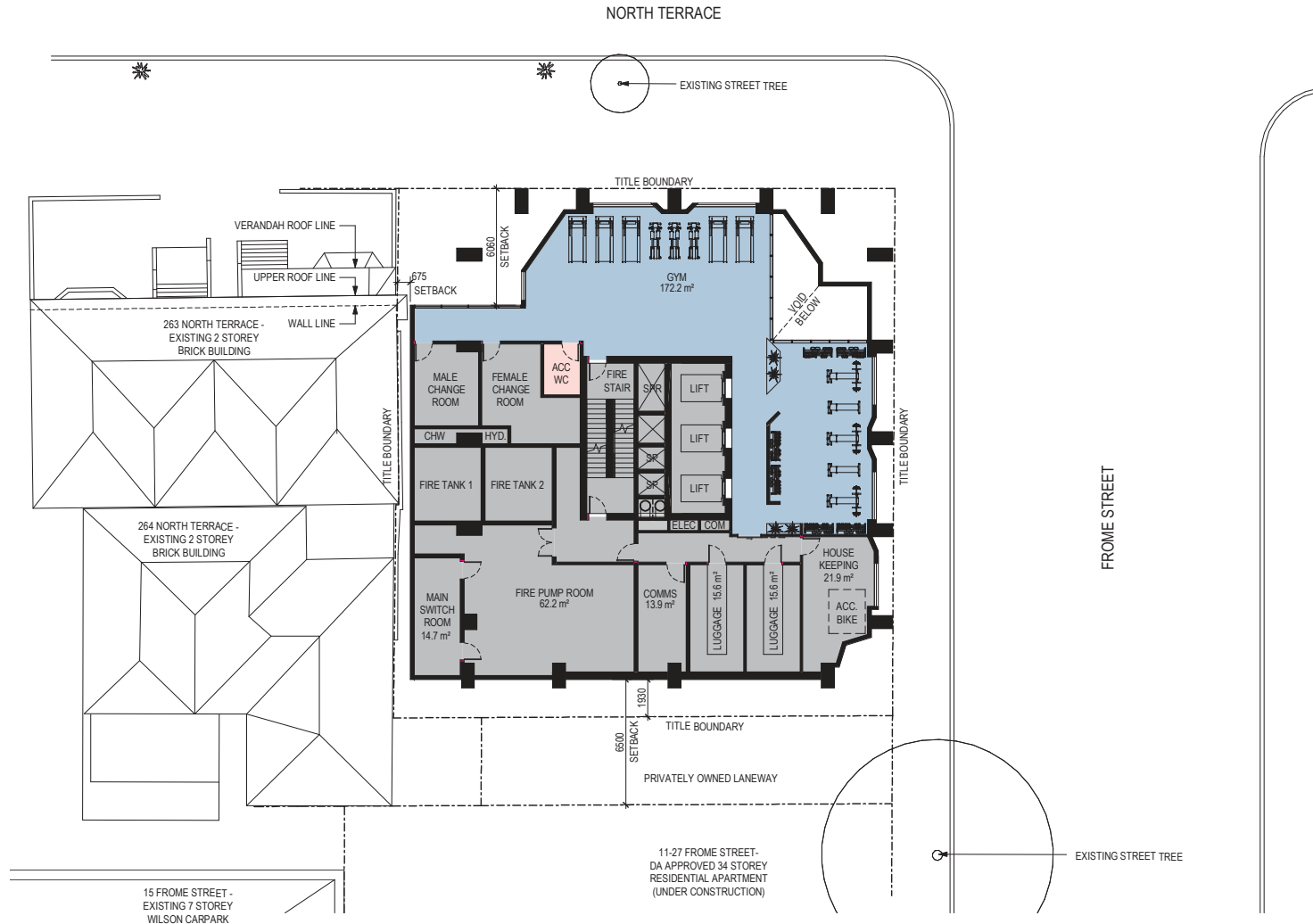
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ABBREVIATIONS:

C	CLEANERS CUPBOARD
COM	COMMUNICATIONS RISER
CHW	CHILLED / HOT WATER RISER
ELEC	ELECTRICAL RISER
GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	13.02.18	Response to Government Architect	JLI
	B	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVELS 2-5 'CO-LIVING'
& DDA**

Project No / **217091**

Date / **23.10.17**

Author / **JLI**

Scale: @ A3 / **1:200**

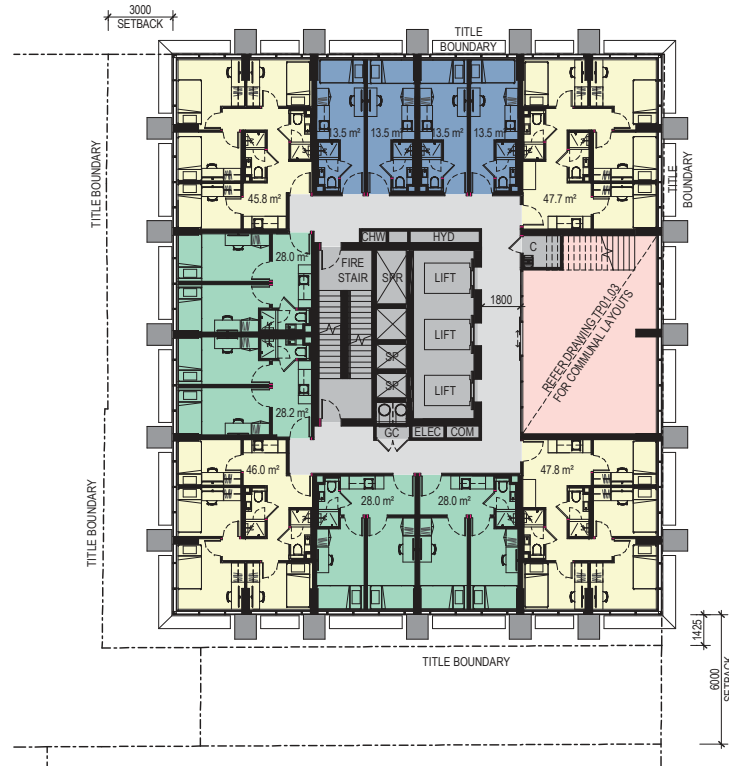
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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
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	B	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVELS 6-11
'CO-LIVING'**

Project No / **217091**

Date / **23.10.17**

Author / **JLI**

Scale: @ A3 / **1:200**

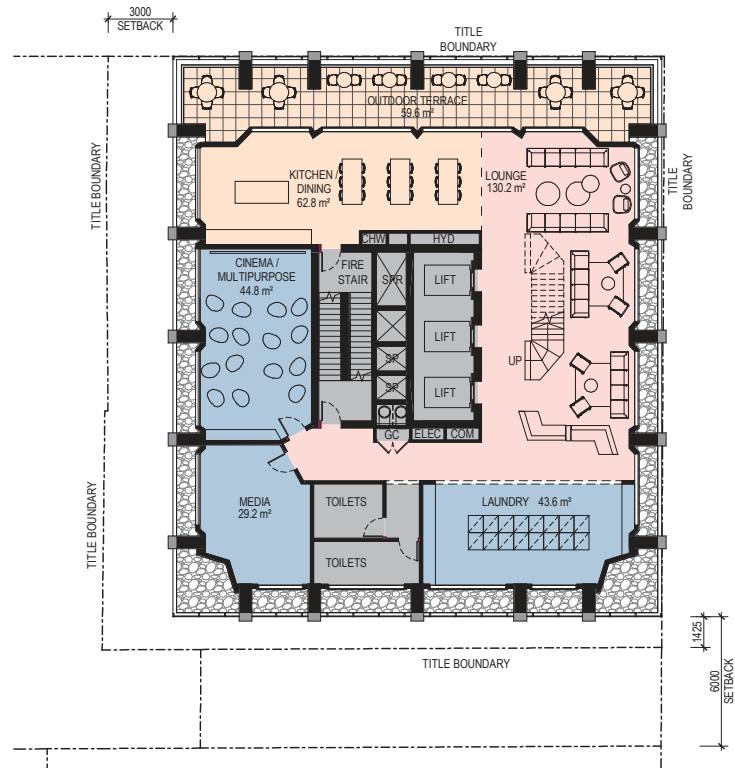
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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	03.04.18	Response to Deferral Items	JLI
	B	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVEL 12 COMMUNAL**

Project No / **217091**

Date / **23.10.17**

Author / **JLI**

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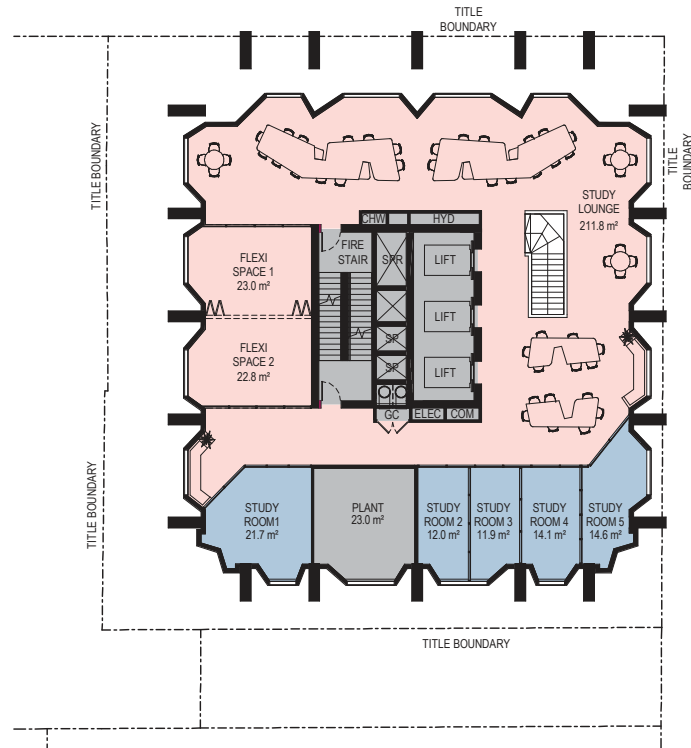
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DEVELOPMENT APPLICATION

Revisions					
-	08.11.17	Development Application	KW		
A	03.04.18	Response to Deferral Items	JLI		
B	13.11.18	Revised Development Application	CB		

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVEL 13 COMMUNAL**

Project No / **217091**

Date / **23.10.17**

Author / **JLI**

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DEVELOPMENT APPLICATION

Revisions	08.11.17	Development Application	KW
A	13.11.18	Revised Development Application	CB

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVELS 14-25
'MULTI-BED' & DUPLEX**

Project No / **217091** Date / **23.10.17** Author / **JLI**

Scale: @ A3 / **1:200**

Drawing No. / **TP01.15 A**

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DEVELOPMENT APPLICATION

Revisions	08.11.17	Development Application	KW
A	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVELS 31-34 'STUDIO'**

Project No / **217091**

Date / **23.10.17**

Author / **JLI**

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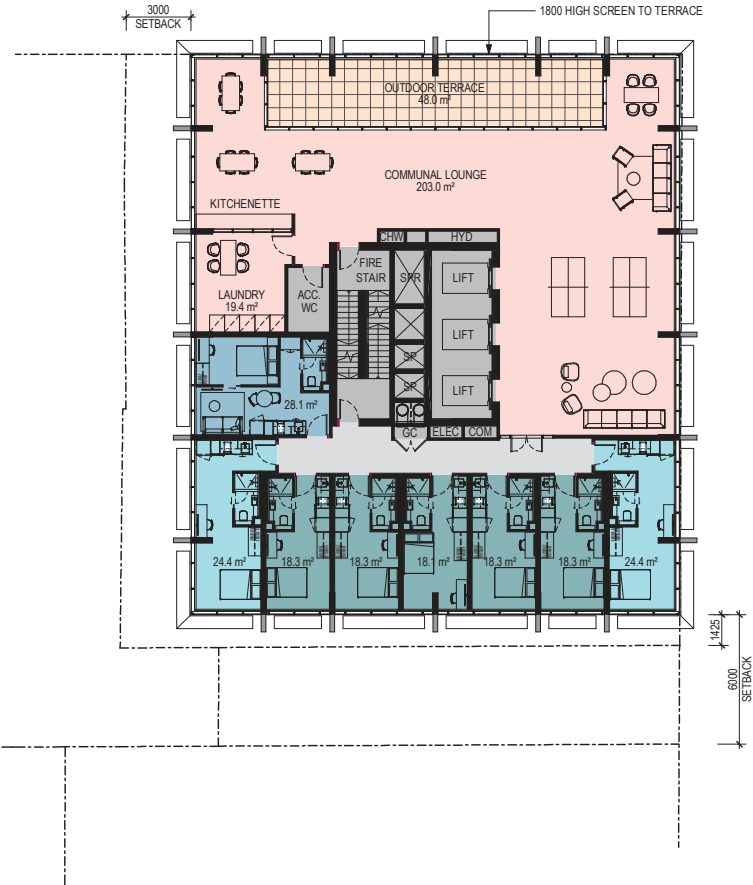
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SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / 13.11.18 Revised Development Application CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **LEVEL 35 STUDIO &
COMMUNAL**

Project No / **217091**

Date / **08.05.18**

Author / **KW**

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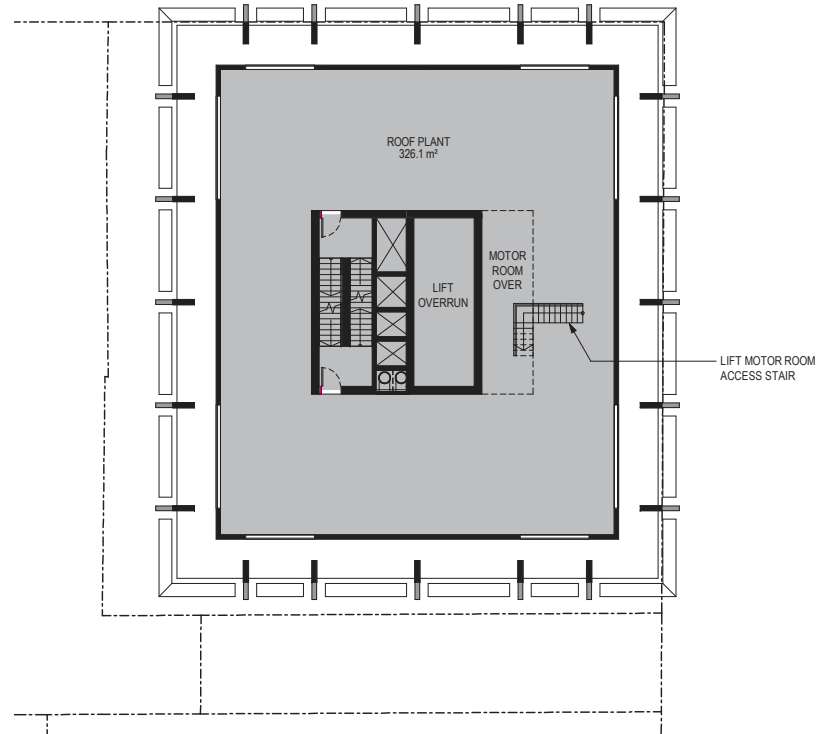
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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	03.04.18	Response to Deferral Items	JLI
	B	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **ROOF**

Project No / **217091**

Date / **25.10.17**

Author / **KW**

Scale: @ A3 / **1 : 200**

Drawing No. / **TP01.35 B**

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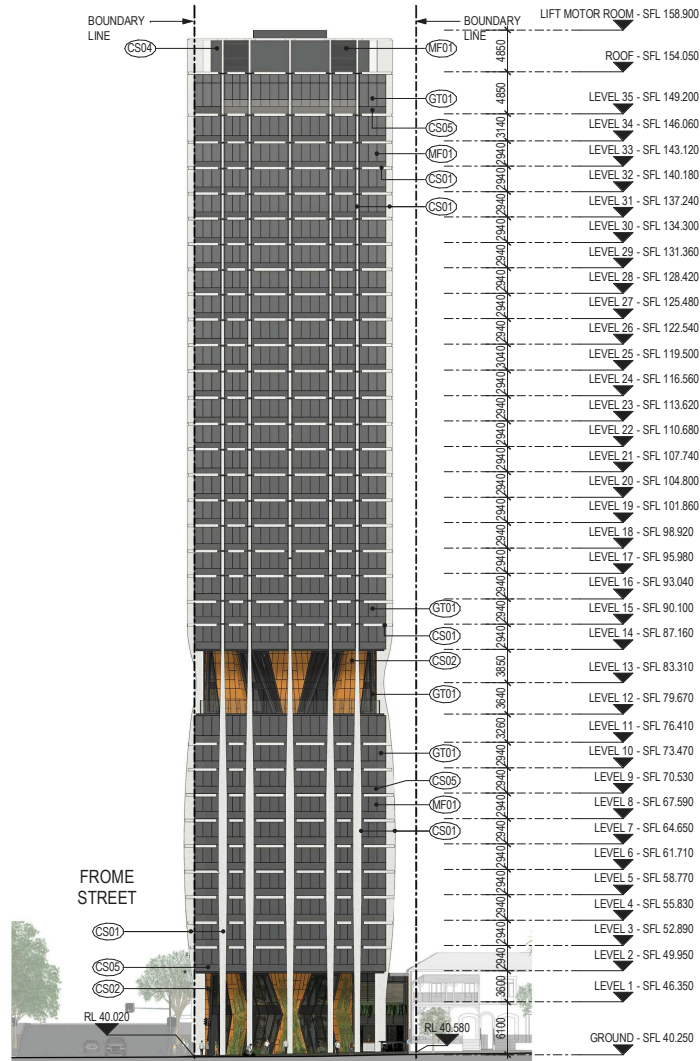
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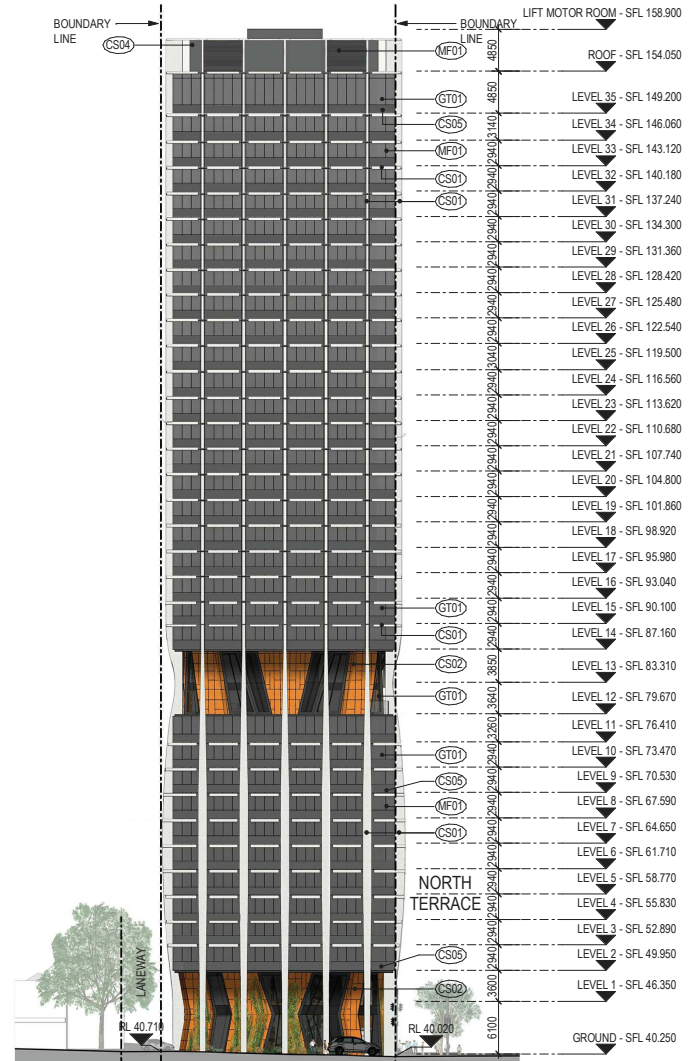
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SYMBOL LEGEND:
REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- (CS01) CLADDING SYSTEM TYPE 01
(MF01) METAL FINISH TYPE 01
(GT01) GLAZING TYPE 01
* FACADE JOINT



NORTH ELEVATION



EAST ELEVATION

DEVELOPMENT APPLICATION

Revisions			
A	08.11.17	Development Application	KW
B	22.11.17	Revised Ground & Level 1 for DA	KW
C	22.01.18	Response to Council comments	KW
D	13.02.18	Response to Government Architect	JLI
E	23.02.18	Response to Government Architect	KW
	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **ELEVATIONS - NORTH
& EAST**

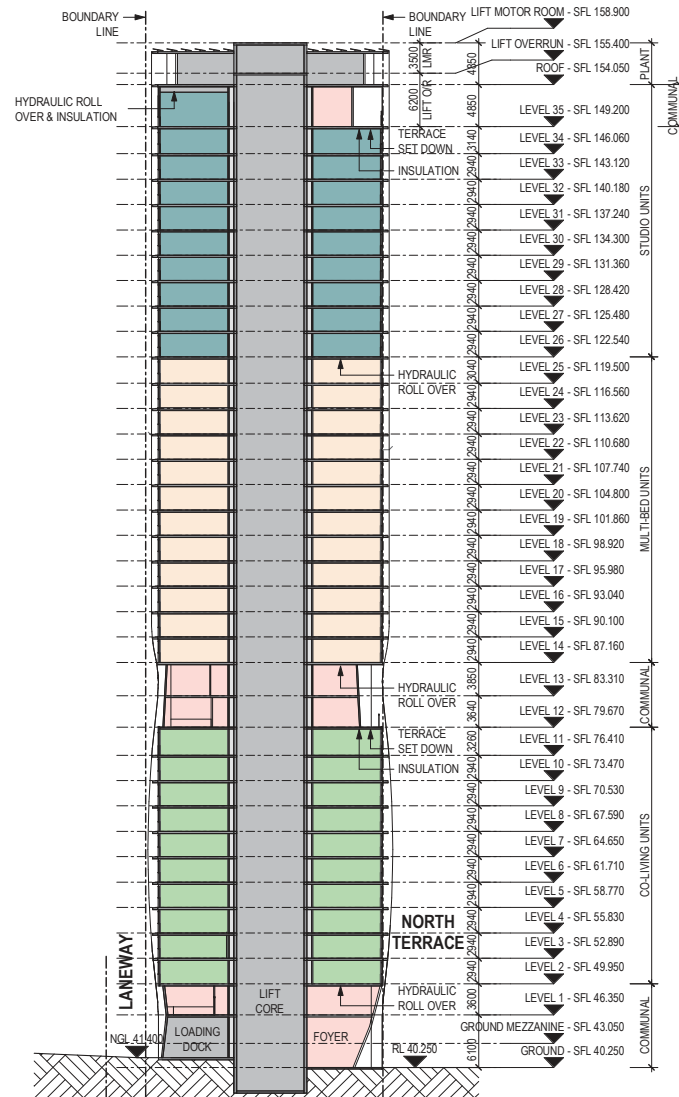
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Author / **KW** Scale: @ A3 / **1: 500**

Drawing No. / **TP02.01 E**

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DEVELOPMENT APPLICATION

Revisions			
A	08.11.17	Development Application	KW
B	13.02.18	Response to Government Architect	JLI
C	03.04.18	Response to Deferral Items	JLI
D	13.11.18	Revised Development Application	CB

Project **GSA Student Housing North Terrace**
266 North Terrace, Adelaide, SA

Drawing **SECTION**

Project No **217091**

Date **23.10.17**

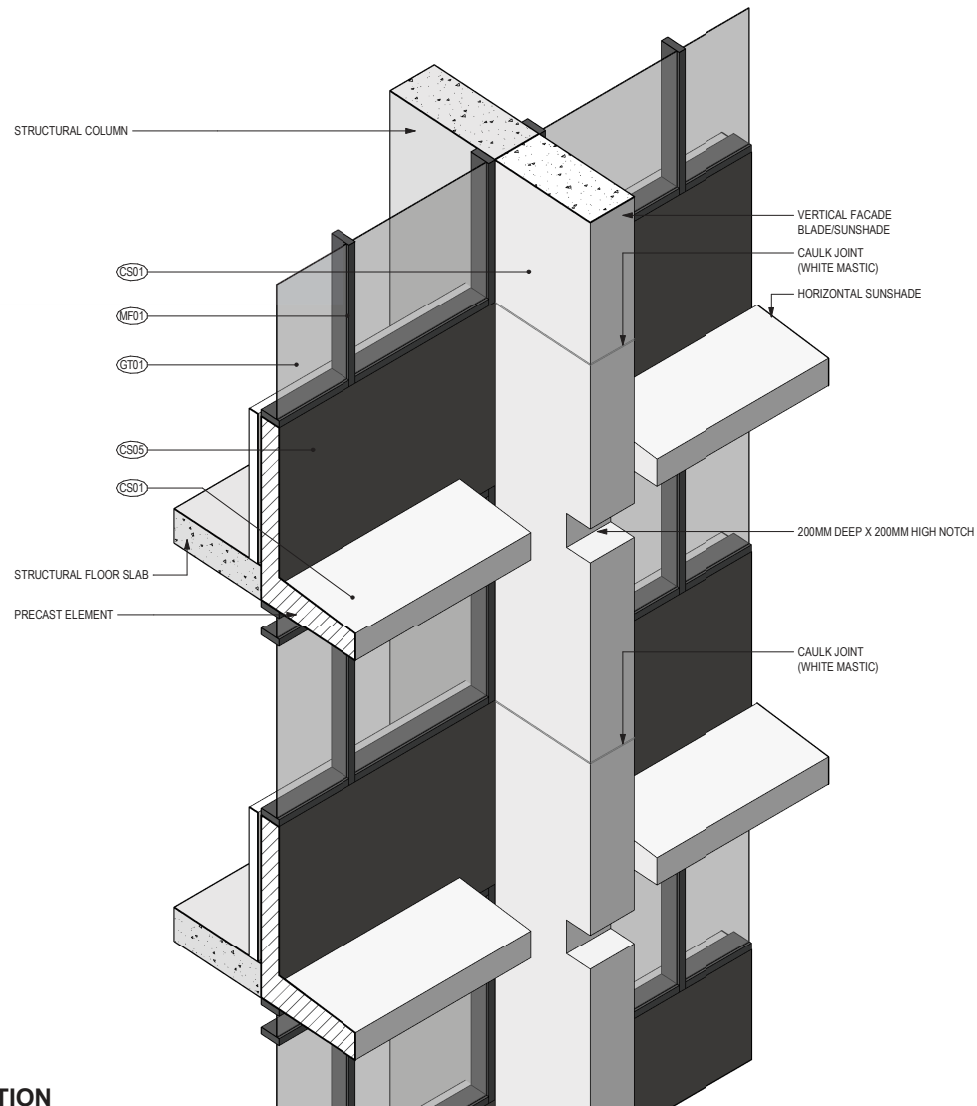
Author **JLI**

Scale: @ A3 **1: 500**

Drawing No. **TP03.01 C**

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SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- CS01 CLADDING SYSTEM TYPE 01
- MF01 METAL FINISH TYPE 01
- GT01 GLAZING TYPE 01
- * FACADE JOINT

DEVELOPMENT APPLICATION

Revisions / 08.11.17 Development Application KW
A 13.11.18 Revised Development Application CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D FACADE SECTION**

Project No / **217091**

Date / **26.10.17**

Author / **KW**

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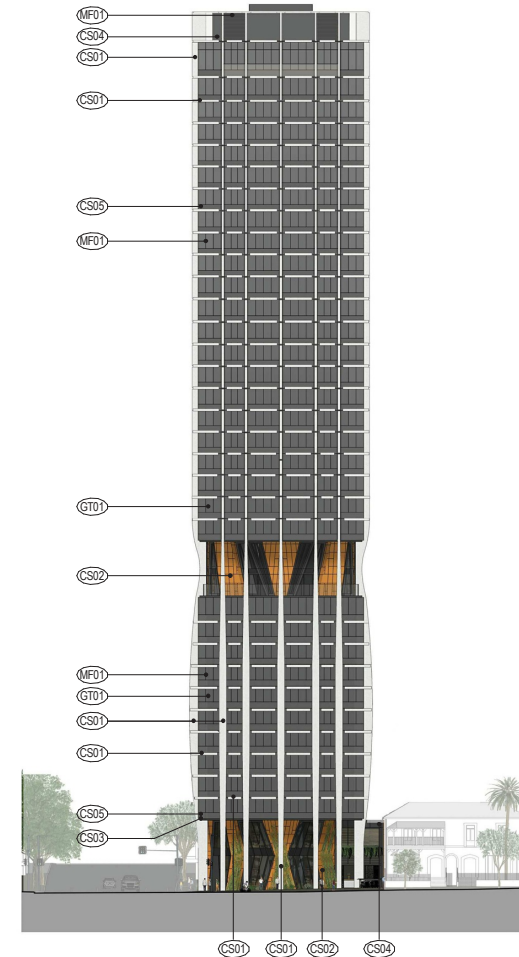
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DEVELOPMENT APPLICATION

Revisions			
A	08.11.17	Development Application	KW
B	22.01.18	Response to Council comments	KW
C	03.04.18	Response to Deferral Items	JL
	13.11.18	Revised Development Application	CB

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **MATERIAL PALETTE**

Project No / **217091**

Date / **03.11.17**

Author / **KW**

Scale: @ A3 / **1:200**

Drawing No. / **TP05.01 C**

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Revisions			
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C	03.04.18	Response to Deferral Items	JLI
D	13.11.18	Revised Development Application	CB

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 4**

Project No / **217091**

Date / **07.11.17**

Author / **KW**

Scale: @ A3

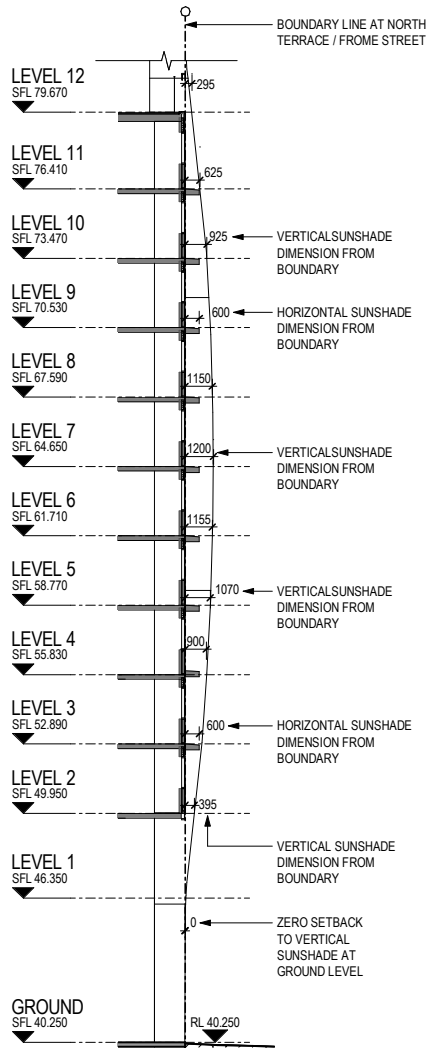
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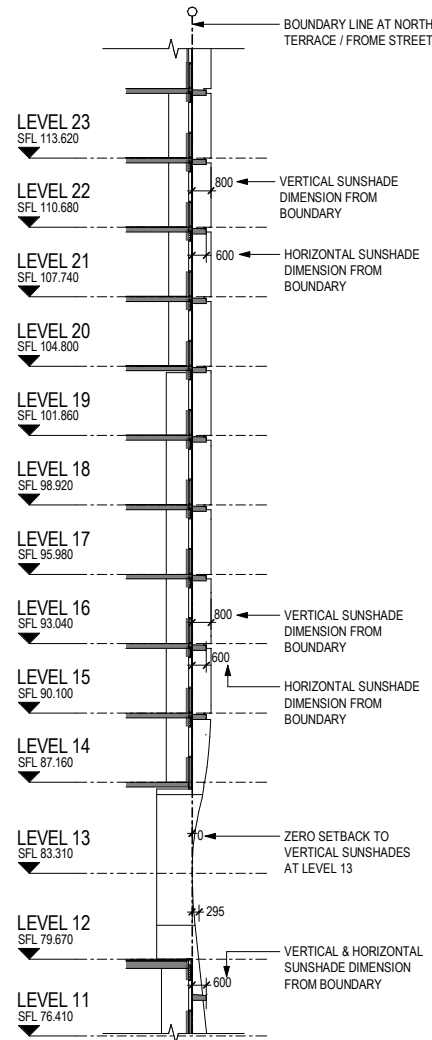
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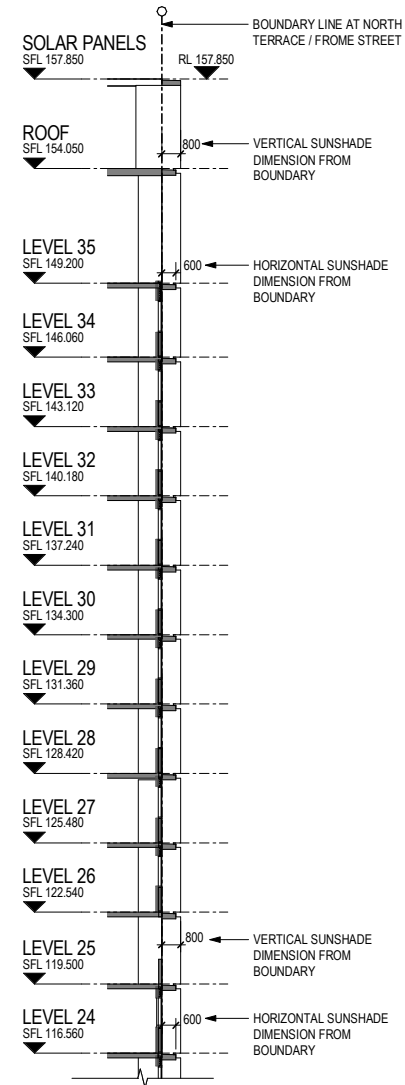
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SECTION 1 - LOWER LEVELS
NOT TO SCALE



SECTION 2 - MID LEVELS
NOT TO SCALE



SECTION 3 - UPPER LEVELS
NOT TO SCALE

DEVELOPMENT APPLICATION

Revisions /
A 13.02.18 Development Application
A 10.01.19 Development Application

Project /
GSA Student Housing
North Terrace
266 North Terrace, Adelaide, SA

Drawing /
FACADE AT NORTH
TERRACE & FROME ST
BOUNDARIES

Project No /
217091

Date /
07.12.17

Author /
KW

Scale: @ A3 /
NOT TO SCALE

Drawing No. /
SK10.21 A

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PRELIMINARY

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	13.02.18	Response to Government Architect	JLI
C	27.02.18	Response to Government Architect	JLI
D	03.04.18	Response to Deferral Items	JLI
E	20.02.19	Response to RF1	MR

Project / **GSA Student Housing
North Terrace**
260 North Terrace, Adelaide, SA

Drawing / **3D VIEW 1**

Project No / **217091** Date / **07.11.17** Author / **KW** Scale: @ A3 /

Drawing No. / **TP06.01 E**

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PRELIMINARY

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	13.02.18	Response to Government Architect	JLI
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D	03.04.18	Response to Deferral Items	JLI
E	20.02.19	Response to RF1	MR

Project / **GSA Student Housing
North Terrace**
260 North Terrace, Adelaide, SA

Drawing / **3D VIEW 2**

Project No / **217091** Date / **07.11.17** Author / **KW** Scale: @ A3 /

Drawing No. / **TP06.02 E**

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PRELIMINARY

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	27.02.18	Response to Government Architect	JLI
C	03.04.18	Response to Deferral Items	JLI
D	20.02.19	Response to RFI	MR

Project / **GSA Student Housing
North Terrace**
260 North Terrace, Adelaide, SA

Drawing / **3D VIEW 3**

Project No / **217091**

Date / **08.11.17**

Author / **KW**

Scale: @ A3 /

Drawing No. / **TP06.03 D**

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DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	27.02.18	Response to Government Architect	JLI
C	03.04.18	Response to Deferral Items	JLI
D	13.11.18	Revised Development Application	CB
E	20.02.19	Response to RF1	MR

Project / **GSA Student Housing
North Terrace**
260 North Terrace, Adelaide, SA

Drawing / **3D VIEW 4**

Project No / **217091**

Date / **18.01.19**

Author / **JC**

Scale: @ A3 /

Drawing No. / **TP06.04 E**

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PRELIMINARY

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	27.02.18	Response to Government Architect	JLI
C	03.04.18	Response to Deferral Items	JLI
D	20.02.19	Response to RFI	MR

Project / **GSA Student Housing
North Terrace**
260 North Terrace, Adelaide, SA

Drawing / **3D VIEW 5**

Project No / **217091** Date / **08.11.17** Author / **KW** Scale: @ A3 /

Drawing No. / **TP06.05 D**

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www.rothelowman.com.au

File No:
2014/11234/01

19 December 2018

Ref No:
13466885

Janaki Benson
Senior Planning Officer
Planning and Development
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

janaki.benson@sa.gov.au

For the attention of the State Commission Assessment Panel

266 North Terrace, Adelaide

Further to the referral 020/A074/17 V1 received 5 December 2018 pertaining to the development application to vary the development previously granted Development Consent DA 020/A074/17 at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I would like to offer the following comments for your consideration.

The proposed variation includes two additional residential floors, reconfiguration and relocation of communal spaces, reconfiguration of accommodation types and amendment to the materiality of the spandrel panels from glass to concrete.

The proposal seeks to provide two additional residential levels, increasing the number of floors from 34 to 36, without increasing the overall height of the building. The approved building height is maintained through the reduction in height of the rooftop screening element ('crown') and the reduction of floor to floor heights. I do not object to the reduction in height of the rooftop element. In addition, I acknowledge that the proposed variation maintains the floor to ceiling heights and therefore does not impact the residential amenity of the individual units. However I am concerned by the increase in the number of beds by 38, from 687 to 725. I acknowledge that the increase in student population is relatively minor in proportion to the overall scale of the development. However in my opinion, it should be demonstrated that sufficient communal spaces and facilities are provided to ensure high quality residential amenity inside and outside of the individual units. I am particularly concerned by the reduction of the onsite bike parking numbers from 45 to 32 despite the increased number of residents.

Reconfiguration and redistribution of communal spaces includes relocation of the gym from level 12 to level one. I support the proposed changes on level 12, including the provision of cinema and media spaces in lieu of the previously proposed gym, as the connection between the level 12 lounge and the level 13 study lounge is maintained. However I do not support the proposed change to the level one arrangement, in particular the removal of the stair connection between the

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Government
of South Australia

File No:
2014/11234/01

Ref No:
13466885

ground floor foyer waiting space and the level one communal space (originally proposed as lounge). I recommend the reinstatement of visual and physical connection between communal spaces on the ground and first floors.

The variation proposes the relocation of the communal lounge from level 25 to level 35. In principle, I support the increase in floor area for the communal lounge and the introduction of a connected outdoor terrace. However I am concerned by its new location at the top of the building, which is less central and will compromise access from the multi-bed units. Well distributed shared spaces throughout the building was considered one of the merits of the originally approved scheme, and as such I do not support the proposed relocation of the communal space to level 35.

I do not object to the reconfiguration of accommodation types, as the proposal continues to offer a variety of student accommodation options, including DDA compliant rooms.

The variation proposes to replace the materiality of the spandrel panels from glass to coated concrete. This does not substantially change my previous concerns regarding the appropriateness of the proposal's architectural expression within the specific context of North Terrace and the site's location as a key corner to the CBD. Notwithstanding, I am of the view that the proposed change in materiality is inconsistent with the originally approved architectural expression, as it will reduce the distinction between the projecting white skeletal elements and recessed infill panels in a contrasting dark colour.

The variation also includes removal of the basement and minor amendments to the ground floor configuration, including the reduction in size of the cafe tenancy. I am not concerned about these changes, as the project's interface with the public realm along the North Terrace and Frome Street frontages are generally unaffected.

Overall I am of the view that many of the changes proposed are consistent with the originally approved scheme. However in my opinion, the proposed amendments to the arrangements of some of the communal spaces will result in reduced amenity for the student residents. I am also of the view that the proposed change to the materiality of the spandrel panels will result in an architectural expression, which is inconsistent with the originally approved scheme.

Yours sincerely



Kirsteen Mackay
South Australian Government Architect

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INTRO

5 February 2019

Janaki Benson
Senior Planning Officer – Inner Metro Development Assessment
Development Division

Via email: janaki.benson@sa.gov.au

[Intro Design Pty Ltd](#)
L11 44 Waymouth Street
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Dear Janaki,

Re: 266 North Terrace – RFI Response to DA 020/A074/17 V1

Intro Architecture on behalf of GSA Australia Pty Ltd (the applicant) with respect to the proposed development of a multi-storey mixed use building located at 266 North Terrace.

This correspondence has been prepared in response to the request for information received. I have identified the following as key issues within the RFI:

- consideration of reinstatement of the stair connection between ground and first levels to allow a visual and physical connection between the communal spaces;
- demonstrate sufficient communal space and facilities (including bike parking);
- location of the communal lounge at the top of the building (moved from level 25 to level 35);
- renders that clearly show the proposed external changes; and
- physical sample of the replacement material for the panels.

Additional plans demonstrating the communal open space and renders are provided in Appendix 01.

I provide a response to each of the items raised below:

REINSTATEMENT OF STAIR CONNECTION

GSA have undertaken a thorough review of the communal open spaces of the scheme and the stair has been removed for a range of reasons.

The use of the Level 1 space has changed, noise from the gym has the potential to impact on the amenity of the ground level, should a stair be introduced.

Security of the building and student safety is an ongoing concern during the operation of the building. Restricting public access to the ground level represents an additional barrier between students and the public.

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The provision of a stair from the ground level to the first level reduces the efficiency of these spaces. Reinstatement of a stair will reduce the useable area in the foyer and the usability of the Gym on Level 1.

It is for these reasons that the stair will not be reinstated.

COMMUNAL OPEN SPACE AND BIKE PARKING

The proposed development provides for approximately 1.84sqm of communal open space per bed. This includes:

- Ground level;
- Level 1;
- Level 12;
- Level 13;
- Level 35; and
- external areas at level 12 and level 35.

This excludes the communal areas within the co-living floors which comprise an additional 505sqm over 9 levels.

The proposed development provides for an acceptable quantum of communal space with a high level of amenity for the student population.

A review of bike parking has been undertaken by GTA Traffic Consultants. This review is provided in Appendix 02.

LOCATION OF COMMUNAL LOUNGE AT LEVEL 35

GSA acknowledges the Government Architects position regarding the relocation of the communal open space to level 35.

The relocation of the communal open space becomes a destination for residents in the building. GSA have direct market feedback from residents in other facilities that providing an area for residents at the top of the building is desirable.

Signage, wayfinding and the management structure surrounding the building ensures that no resident will feel excluded from any of the communal spaces.

RENDER

An updated render is provided in Appendix 01. As is demonstrated within the render, the slight shortening of the sunhoods and the change in materiality from colourback glass to coloured precast does not impact on the aesthetics of the built form.

The precast will be finished in a Nawkaw product ensuring that its visual appearance is durable and requires no maintenance.

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PHYSICAL SAMPLE OF ITEMS

A revised physical materials board is being compiled and will be provided to the SCAP. The samples will be provided shortly for staff review prior to the SCAP meeting.

I trust that the information provided herein is sufficient for you to finalise your assessment. Should you wish to discuss any matter further, please contact the undersigned on 8410 0453 or 0402 424 403

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Yours sincerely,



Anthony Gatti
Senior Planning Advisor

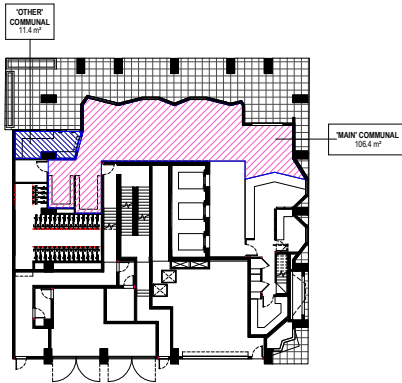
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APPENDIX 01 – ADDITIONAL PLANS

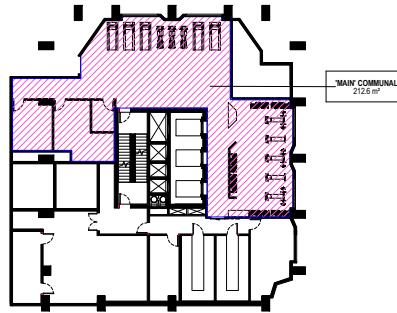
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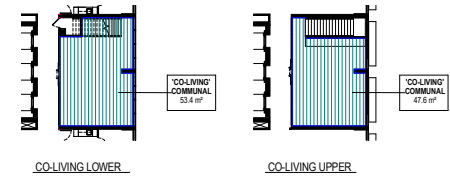
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GROUND

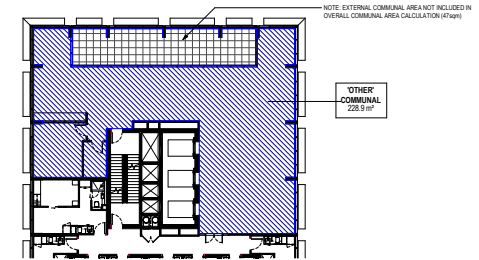


LEVEL 1

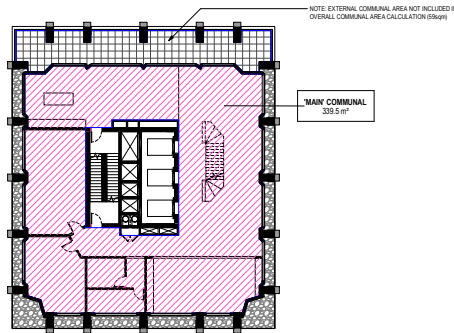


CO-LIVING LOWER

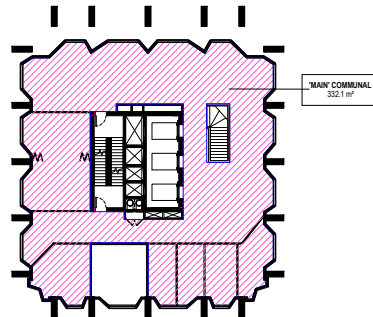
CO-LIVING UPPER



LEVEL 35



LEVEL 12



LEVEL 13

INTERNAL COMMUNAL AREAS	
Level	Area
GROUND	106.4 m²
LEVEL 1	212.6 m²
LEVEL 12	339.5 m²
LEVEL 13	332.1 m²
TOTAL 'MAIN' COMMUNAL	990.6 m²
GROUND	11.4 m²
LEVEL 35	228.9 m²
TOTAL 'OTHER' COMMUNAL	240.3 m²
	1230.9 m²

NOTE: EXTERNAL COMMUNAL AREA NOT INCLUDED
+ ADDITIONAL 58m² AT LEVEL 12 & 47m² AT LEVEL 35 (106m² TOTAL)

CO-LIVING COMMUNAL	
Level	Area
LEVEL 2	53.4 m²
LEVEL 3	47.6 m²
LEVEL 4	53.4 m²
LEVEL 5	47.6 m²
LEVEL 6	53.4 m²
LEVEL 7	47.6 m²
LEVEL 8	53.4 m²
LEVEL 9	47.6 m²
LEVEL 10	53.4 m²
LEVEL 11	47.6 m²
TOTAL 'CO-LIVING' COMMUNAL	504.8 m²

Revisions / P1 08.11.17 For Information
P2 05.02.19 For Information

KW
KW

Project / GSA Student Housing
North Terrace
206 North Terrace, Adelaide, SA

Drawing / COMMUNAL AREAS

Project No / 217091 Date / 07.11.17

Author / KW

Scale: @ A3 / 1 : 200

Drawing No / SK05.01 P2

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APPENDIX 02 – TRAFFIC REPORT

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REF: S137890

DATE: 27 February 2019

Intro Design Pty Ltd
Level 11, 44 Waymouth Street
ADELAIDE SA 5000

Attention: Mr. Anthony Gatti

Dear Anthony,

RE: STUDENT ACCOMMODATION, 266 NORTH TERRACE, ADELAIDE

Further to our recent discussions and correspondence pursuant to the proposed Student Accommodation to be located on 266 North Terrace in Adelaide GTA has prepared a supplementary letter assessing the revised development of 725 beds and 32 bicycle parking spaces. The revised assessment has been undertaken based on plans prepared by Rothelowman (Drawing No. TP01.01-E).

Proposed Variation

The approved multi-storey student accommodation development includes a total of 687 beds and 45 bicycle parking spaces. The revised plan incorporates a total of 725 beds and 32 bicycle parking spaces, which results in an increase of 38 beds and a decrease of 13 bicycle parking spaces.

The revised plan also includes a reduction in the area of the café tenancy from 19.1 sq.m to 11.4 sq.m.

It is noted that the loading and waste collection dock has a negligible decrease in area of 0.7 sq.m, and the entry and exit configuration of loading dock has not changed. Hence the access configurations of the refuse vehicle will not be changed compared to the approved plan.

Bicycle Parking Provision

Table Adel/6 in the Adelaide (City) Development Plan (consolidated 7 June 2018) has listed the recommended bicycle parking rates for new developments in Adelaide City Council. A review of Table Adel/6 has found there is no specific bicycle parking rate for student accommodation.

The Development Plan contains bicycle parking rates for general residential use and serviced apartments. The nature of the proposed use would fall between the two types of uses. Given the more transient nature of student accommodation, the bicycle ownership of the proposed site would be expected to be at the lower end of the range.

The development plan requirement for the provision of bicycle facilities for the subject site is set out in Table 1 and Table 2.

Table 1: Development Plan Bicycle Parking Requirement – Student Accommodation

Use		Size	Development Plan Rate	Required Bicycle Parking Spaces
General Residential	Residents/Employees	352 units	1 for every dwelling/apartment with a total floor area less than 150 square metres	352 spaces
	Visitors		1 for every 10 dwellings	35 spaces
Total				387 spaces
Serviced Apartment	Residents/Employees	< 20 Employees	1 per 20 employees	1 Space
	Visitors	725 beds	2 for the first 40 rooms, plus 1 for every additional 40 rooms	19 spaces
Total				20 spaces

Table 2: Development Plan Bicycle Parking Requirement – Café

Use		Size	Development Plan Rate	Required Bicycle Parking Spaces
Café	Employees	< 20 employees	1 per 20 employees	1 space
	Customers	< 50 seats	1 per 50 seats	1 space
Total				2 spaces

Based on the above, the revised development would generate a requirement for 20 bicycle parking spaces based on the serviced apartment rate and 387 bicycle parking spaces based on the standard residential rate. With a required bicycle parking space of 2 for the café, the proposed development generates a total bicycle parking requirement of between 22 and 389 spaces.

Given an absence of a specific bicycle parking rate in the Development Plan for Student Accommodation, an empirical assessment of bicycle parking provision at other student accommodation developments is undertaken. A similar student accommodation on Bank Street in Adelaide currently provides a total of 503 beds and 24 bicycle parking spaces, which equates to a bicycle provision rate of 1 space per 21 beds. The provision of 32 spaces for 725 beds for the revised development equates to a bicycle provision rate of 1 space per 23 beds, which is at a similar rate to the existing student accommodation on Bank Street.

Furthermore, the proposed student accommodation is located at the corner of Frome Street and North Terrace opposite University of South Australia (City East campus) and University of Adelaide. The subject site is also located approximately 400 metres from Rundle Mall shopping district. Given the close proximity to University campuses and the shopping district, the majority of the student residents would be expected to walk to their study and shopping destinations.

With the recently completed new tram stop at University within 150m of the site, residents will have good accessibility to the free and frequent tram services to other parts of the CBD area, including the City West campus of UniSA, the Adelaide Railway Station, Central Market and Victoria Square. The proposed development is also located within walking distance to major bus routes on North Terrace, Pulteney Street and Grenfell Street.

In addition, Adelaide Free Bike hire is available at the University of South Australia (East Campus) which is approximately 100m from the subject site. The service is free and is available 7 days 8am - 5pm. Compared to the cost of buying a bike, residents may choose to use this free bike-share service for the anticipated occasional bicycle trips.

Based on the above discussion and analysis, GTA considers the proposed ground level bicycle storage room, with capacity to store 32 bicycles, will be appropriate for the nature and location of the proposed student accommodation and will cater for the likely demand. The bicycle parking will be provide in the form of a proprietary Bicycle Parking Device (BPD).

The Australian Standard for Parking Facilities – Part 3: Bicycle parking (AS2890.3:2015) specifies the following requirements for bicycle parking facilities:

- For resident parking at multi-dwelling developments, the bicycle parking facility should be provided in a secure room or structure, protected from the weather, containing bicycle parking devices that allow users to lock the bicycle frame and both wheels and with some level of direct or passive surveillance.
- Bicycle parking facilities shall be designed to include a minimum of 20% of ground level (horizontal) BPDs to comply with the Disability Discrimination Act 1992. The proposed provision of 32 bicycles will require a minimum of 6 bicycle parking spaces to be installed horizontally.
- Where vertical BPDs require a bicycle to be manually lifted, the maximum height of the bicycle hanging point shall be no more than 2,150mm.
- Static BPDs shall provide space no less than the dimensions of the bicycle spacing envelope for each bicycle parking space. Dynamic BPD's shall not allow bicycles to touch at any point and shall meet the additional design requirements set out in clause 3.3.

The above requirements outlined in AS2890.3:2015 should be accommodated in the detailed design of the bicycle parking facility. A proprietary bicycle parking system is proposed to be installed, which may be either a static or a dynamic system or a combination of both. In all cases, the system to be installed would be designed in accordance with the relevant sections of the Australian Standard.

Conclusion


Based on the analysis and discussions presented within this supplementary report, the following conclusions are made:

- i. The revised student accommodation incorporates a total of 725 beds and a bicycle storage room capable of accommodating 32 bicycles.
- ii. The revised development is expected to generate 22 - 389 bicycle parking spaces based on Development Plan bicycle parking rates for Serviced Apartment and General Residential uses respectively.
- iii. Based on the empirical assessment, the proposed 32 bicycle parking spaces (at a rate of 1 per 23 beds) is at a similar rate to existing student accommodation on Bank Street.
- iv. The proposed bicycle parking spaces are anticipated to accommodate the bicycle parking demand based on the walking proximity to the University campuses, retail and entertainment premises and free trams within the CBD.
- v. The loading/refuse collection arrangement will remain the same as the approved plan.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me on (08) 8334 3600.

Yours sincerely

GTA CONSULTANTS



Paul Froggatt
Associate Director

INTRO

APPENDIX 03 – REVISED WASTE MANAGEMENT REPORT

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GSA

266 North Terrace Development Waste Management Plan

October 2018



Prepared by Rawtec Pty Ltd



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- IMPORTANT NOTES-

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Document verification

Date	Version	Title	Prepared by	Approved by
9/11/2017	V1	266 North Terrace Development Waste Management Plan – Draft	Matt Allan and Jarvis Webb	Mark Rawson
10/11/2017	V2	266 North Terrace Development Waste Management Plan	Matt Allan and Jarvis Webb	Mark Rawson
26/10/2018	V3	266 North Terrace Development Waste Management Plan – updated	Matt Allan	Mark Rawson

1. Introduction

1.1 About This WMP and the Proposed Development

This document provides a waste management plan (WMP), for the proposed development identified in Table 1 below. This WMP will be included with building plans for the development lodged with the Development Assessment Commission (DAC) to obtain Development Approval. The WMP outlines the proposed waste management system (WMS) for the development at high-level, which demonstrate that successful management of waste can be achieved at the site.

Table 1: Proposed development's details

Site Location	266 North Terrace, Adelaide
Development Project	GSA Student Housing Adelaide
Client	GSA
Project Architect	Rothelowman
Project Managers	Intro and Neoscape
Traffic Consultant	GTA Consultants

1.2 Purpose and Scope Of WMP

This WMP has been developed for the planning stage of this development. It provides a preliminary design for the WMS for this site and is intended to demonstrate that successful management of waste can be achieved.

The WMP has been prepared with the policy and requirements for waste management (identified in Appendix 1) in conjunction with the Client, Project Managers, Project Architects, and Traffic Consultant, who have indicated the intended site uses of the development, occupancy data, and requirements for how waste should be managed. If future land uses and waste management arrangements for the development are altered, the WMP may need to be updated.

The suggested arrangements in this WMP are preliminary and reflect one possible configuration for the waste management system at this site. These arrangements could evolve and be refined (during detailed building design) before the construction takes place. This may affect the WMP for the site, which should be updated accordingly.

1.3 What This WMP Contains

Table 2 below outlines what is contained in the waste management plan (WMP)

Table 2: What this WMP contains

Section 2 – Description of Development	Provides details of the development relevant to the WMP preparation and indicates the waste and recycling collection services proposed for the development.
Section 3 – Outcomes from the Analysis on Waste and Recycling Requirements at the Development	Provides estimates of the waste and recycling volumes likely to be generated at the site which will require storage, collection and disposal. This included the recommended size and layout of the development waste and recycling storage locations.
Section 4 – Proposed Waste Management System (WMS)	Provides an overview of the proposed WMS for the development, including the main elements and important design requirements, and how these systems should operate. The WMS outlines how waste would be stored, transferred and collected at the site.
Section 5 – Collection Vehicle Requirements	Includes relevant information on collection requirements, including number of collections per week and provision for access and maneuverability for waste collection vehicles.
Appendix 1 – Policy, Design and Operational Waste Management Requirements	This Appendix identifies the policy, design, and/or operational requirements for waste management that have been used in relation to the development of the WMP.
Appendix 2 – Additional Waste Management Design Considerations	This Appendix provides better practice design advice and other waste management design considerations for the development, based on the South Australia Better Practice Waste Management Guide for Residential and Mixed Use Developments and other applicable documents.

2. Description of the Development

2.1 Land Uses and Occupancy Data

The Client and Project Architects have provided Rawtec with a description of the development and plans showing the proposed layout of the site, buildings and land uses. A breakdown of the land use and tenancy assumptions used for estimating waste and recycling volumes for the development, can be found in Table 3 below.

Table 3: Land use and occupancy overview

Floor	Tenancy according to plans	Waste & Recycling Generating Rate Land Use¹	Est. Size/ Number	m²/ Bedrooms
Ground	Tenancy and Alfresco Dining	<i>Café/ restaurant</i>	44.4	m ²
Ground	Reception and Office	<i>Offices and Consulting Rooms</i>	38.9	m ²
Ground mezzanine	Office	<i>Offices and Consulting Rooms</i>	40.7	m ²
1 – 35	Apartments	<i>Residential (high density)</i>	725	Bedrooms

** Note that numerous levels throughout the building have communal areas that will not generate additional waste as the waste in these areas will be generated by residents/students, which is captured in the waste generated in apartments throughout the building.*

¹ Waste and recycling generation rate land use categories are based on the SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA, 2014).

2.2 Site Waste Management Requirements

The following waste management and operational arrangements were identified as preferred for the site by the Client and Project Architect (Table 4). These arrangements have been considered when developing the design of the proposed waste management system and the information contained in the waste management plan.

Table 4: Site requirement summary

Waste Management Requirement	Description
Waste Storage	Waste generated throughout the building would be stored within the waste room on the ground floor.
Waste management at the site and collection services	Collection would be conducted by a commercial waste collector. This Waste Management Plan assumes all tenancies are using the same service. Note that by utilising a commercial collector, Council is unlikely to perform any collection services at the site.
Residents and Building Services responsibilities	Building services would be responsible for moving waste and recycling bins within the waste room, coordinating hard waste collection, and collecting organics (food) waste from communal areas throughout the building.
Collection point	Collection would be direct from the waste room on the ground floor. There will be a Loading Zone on the ground floor that can be accessed via the southern lane, which runs off Frome Street.

2.3 Recommended Waste and Recycling Services

To achieve effective waste and recycling management at the site, Table 5 below outlines the recommended waste and recycling services that should be collected from the development as outlined in the *SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments* (Green Industries SA, 2014). Note that to minimise bin numbers stored at the development, we have combined cardboard recycling with co-mingled recycling.

Table 5: Proposed waste recycling services for the development per identified land uses²

Required/recommended waste and recycling collection services				
Land use		Residential	Commercial	Commercial
Development land uses		Student apartments	Tenancy and Alfresco Dining	Reception and Office
Routine collection (rear lift)	General waste	X	X	X
	Comingled recycling	X	X	X
	Organics recycling	X	X	X
	Cardboard recycling	NS	NS	NS
	Paper recycling	NS	NS	X
	Medical waste	NS	NS	NS
	Plastic recycling	NS	NS	NS
	Confidential paper recycling	NS	NS	X
On-call or external drop-off	Hard waste	X	X	X
	E-waste	X	X	X
	CFL/Lighting	X	X	X
	Printer Cartridges	X	X	X
	Batteries	X	X	X

X = Required/Desired
 NS = Not serviced as separate service not required

The following tenancy managed waste and recycling streams are not included in this WMP:

- E-waste (batteries and printer cartridges, lighting etc.) – These waste streams would be temporarily stored within land uses (e.g. offices) before being dropped off at an appropriate external location (e.g. local recycling depot or office supply store) or collected by an appropriate collection company. Some items may be managed through an external collection contractor (e.g. for carpark lighting replacement).
- Hard waste (e.g. during tenancy fit out) – hard waste would be temporarily stored within tenancies, and be managed via a pull-in/pull-out collection service during retrofitting or maintenance activities. This would be arranged by the tenants in conjunction with building services, to ensure that collection via the on-property loading area, is undertaken at an appropriate time.

² 'X' indicates required/desired as per The SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA, 2014).

3. Outcomes from the Analysis

3.1 Estimated Waste & Recycling Generation Rates (WRGR) and Volumes

Table 6 below includes the estimated volumes of waste generated at the development each week overall, and by stream. Note that to minimise bin numbers stored at the development, we have combined cardboard recycling with co-mingled recycling.

Table 6: Estimated waste and recycling volumes by land development³

Estimated waste generation volumes (litres per week)					
Land use type		Residential	Commercial	Commercial	Total
Development land use		Student apartments (bedrooms)	Tenancy and Alfresco Dining	Reception and Office	
WRGR classification		Residential (High Density)	Café/Restaurant	Offices or Consulting Rooms	
Waste stream	General waste	21,800	900	100	22,800
	Comingled recycling	18,100	600	50	18,800
	Organics recycling	7,300	1,200	20	8,500
	Paper recycling	NE	NE	60	100
	Confidential paper recycling	NE	NE	7	10
	Hard waste	5,100	NE	NE	5,100
	E-waste	900	NE	NE	900
Total site volume		53,200	2,700	200	56,200

*Totals have been rounded and may not equate

NE = Not Estimated as Not Required

³ Estimated volumes based on: The proposed land use data; Waste generation metrics found in the South Australian Better Guide Practice Guide – Waste Management in Residential or Mixed-Use Developments (Green Industries SA (previously Zero Waste SA), 2014); Waste and recycling metrics developed by Rawtec, which are based on industry knowledge and experience.

3.2 Waste and Recycling Stream Volumes, Bin Sizes and Collection Details

Table 7 below identifies the:

- estimated waste and recycling volumes generated at the development;
- nominated bin sizes for each waste stream;
- proposed collection frequency;
- number of bins required;
- proposed waste collection service provider; and
- the location where bins are presented for collection.

The data in the table below also assumes that the waste collection service provider would be the same for all land uses generating waste within the building (student apartments, retail and offices). Note that the below calculations assume that no compaction would occur for the general waste bins.

Table 7: Estimates of waste and recycling volumes (litres/week) for residents in the larger building, with proposed services and collection frequency

Waste stream	Estimated Waste Volume (Litres Per Week)*	Proposed Services			Proposed waste collection service provider	Proposed location where bins/ waste is presented for collection
		Bin Size (Litres)	Collection Frequency	Est. no. of bins required		
General Waste	22,800 (approx. 11,400 after compaction ⁴)	1100	4 x week	3 ⁴	Commercial Contractor ⁵	Ground floor waste room
Co-mingled Recycling	18,800	1100	5 x week	4		
Organics (Food) Recycling	8,500	660	5 x week	3		
Paper Recycling	60	240	Monthly/ on-call	1		
Confidential Paper Recycling	7	140	Monthly/ on-call	1		
Hard Waste	5,000	NA	On-call	NA		
E-waste	900	NA	On-call	NA		
Totals	56,100	-	14 x per week	12 bins	-	-

**Note: Totals have been rounded to better reflect estimation of the volumes and may not equate*

⁴ This assumes a compaction rate of 50%

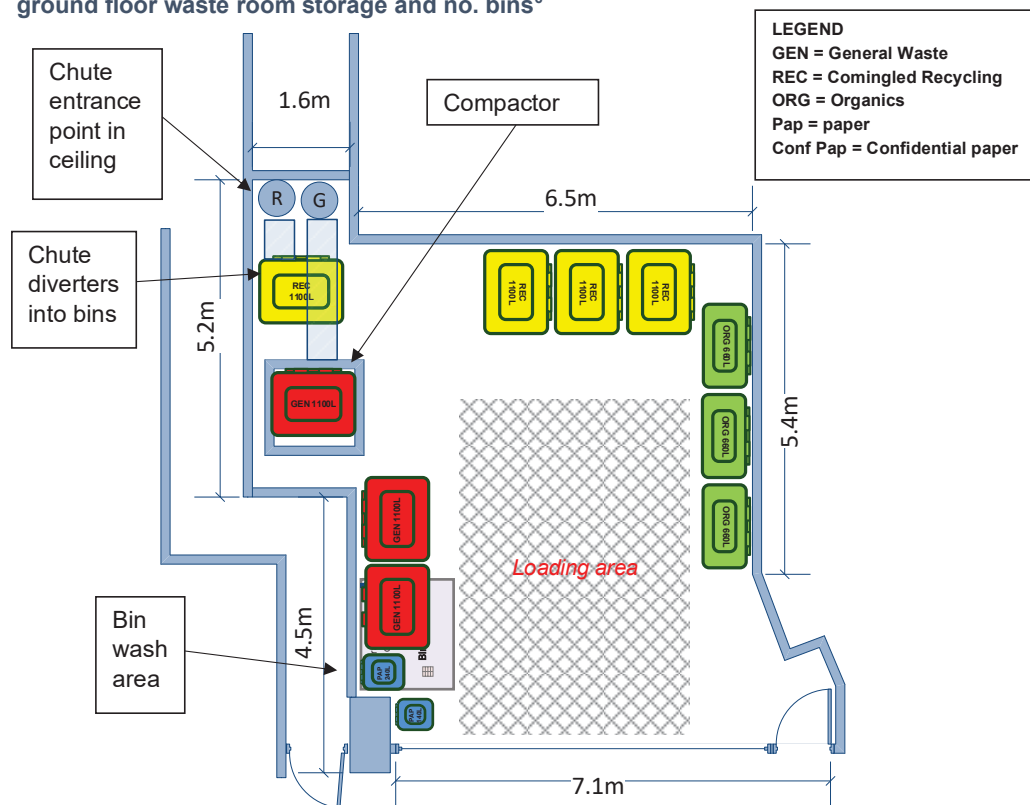
⁵ It is understood that the City of Adelaide is offering weekly bulk bin services to residential developments in the city. However, given the generation rates and storage space at this development, commercial contractors are likely to be needed to collect the waste at this site as collection will likely be more than once a week.

3.3 Waste Storage Area and Considerations for the Development

An indicative drawing of the development's waste collection room on the ground floor containing the required number of bins (compacted for general waste at an assumed 50% compaction rate), which includes one example of bin configuration, can be found in Figure 1 below. Additional design advice and other considerations (e.g. bin washing), can be found in Appendix 2.

At this stage there is enough height and space in the waste room to divert the chutes and have a compactor for the general waste. However, the final layout of chutes and equipment (e.g. compactors, conveyors, diverters etc if applicable) need to be confirmed by the Client and chute system supplier during detailed design.

Figure 1: Preliminary drawing showing the estimated required size and layout of the ground floor waste room storage and no. bins⁶



Note: These bin sizes are for illustration purpose only and are based on the standard MASTEC Australia bin sizes (<http://www.mastec.com.au>). Bin sizes and shapes may differ depending on manufacturer, collection contractor or local waste authority. Please allow extra room (e.g. >10%) for differences in bin sizes, bin access, opening and closing and manoeuvring.

⁶ the chute layout is indicative and for illustration only all design, layout, sizing and dimensions of chutes and equipment (e.g. compactors, conveyors) will need to be confirmed by a chute manufacturer/supplier in detailed design.

4. Proposed Waste Management System

4.1 Overview of the WMS

To effectively manage the waste generated at the site, an appropriate Waste Management System (WMS) is required. The WMS consists of:

- User storage of waste
- Waste transfer to common disposal area
- Aggregation and storage of this waste
- Waste/bin collection.

The tables below provide an outline of the waste management system for each land use within the building. This is based on the waste management steps recommended in the Guide, summarised in Appendix 2.

4.2 Student Apartment Waste Management System

Table 8 below provides details on the WMS for student waste generated within the building.

Table 8: WMS for the student waste generated in the building

Storage, transfer pathways and collection details for: <ul style="list-style-type: none"> • General Waste • Comingled Recycling • Organics (Food) Recycling 	WMS step	WMS Notes
	Step 1 – User storage	Each apartment would have its own small bins (with bags if required) to store waste (for example 10-60L bins). Organics (food) recycling can be stored in apartments where there are kitchen facilities. The City of Adelaide can provide small kitchen caddies with compostable liners for these apartments. Waste bins would also be placed in Communal areas throughout the building, including Organics (Food) Recycling bins for areas that have kitchen facilities. The liner/ bag for these bins would be compostable.
	Step 2 – Transfer pathways	Residents would take waste and recyclables from their rooms to the to the chute room on their respective floor, and apartments with organics (food) recycling can transport waste to Communal areas which will have organics bins. Building management/cleaners would take the general waste and co-mingled recycling from Communal areas to the chute room on the respective floor, and organic (food) recycling directly to the waste room on the ground floor.
	Step 3 – Aggregation and Storage	General waste and co-mingled recyclables would progress down the chutes to the ground floor waste room bins, where it would be stored in the 1100 litres bins. The bins would be rotated by building services with other bins in the waste room on the ground floor and stored here until collection. The general waste bin would have a compaction unit to compact the materials.
	Step 4 – Bin collection	Collection by a Commercial Waste and Recycling Collection Contractor would take place from the Loading Area within the development. Collection contractors would: <ol style="list-style-type: none"> 1. Drive into the lane adjacent the building (southern side) off Frome Street in a forward direction, 2. Reverse the vehicle into the designated Loading Area. 3. Load the bins directly from the Waste Room into their collection vehicle. 4. Return the empty bins to the Bin Storage Room. 5. Exit in a forward direction onto the lane and then onto Frome Street. See Section 5 and the Traffic Consultant's Report for details on collection vehicle movements within the development.

4.3 Commercial Tenancies' Waste Management System

Table 9 below provides details on the WMS for the Alfresco, Reception and Office on the ground floor and mezzanine ground floor.

Table 9: WMS for the Commercial Tenancies' waste generated in the building

Storage, transfer pathways and collection details for: <ul style="list-style-type: none"> • General Waste • Comingled Recycling • Organics (Food) Recycling • Cardboard Recycling (collected in co-mingled recycling bins) 	WMS step	WMS Notes
	Step 1 – User storage	<p>Where required, all rooms/areas would have small-medium bins (with bags if required) to store waste. For example:</p> <ul style="list-style-type: none"> ○ A 40-80L general waste bin; ○ A 40-80L comingled recycling bin; and ○ A 40-80L organics (food) recycling bin with compostable bin liner ○ A 40-80L paper bin ○ A 40-80L confidential paper bin. <p>Bulky or excessive quantities of cardboard are to be taken directly to the waste room and disposed of within the co-mingled recycling bins. Smaller quantities of cardboard waste are to be placed within the co-mingled recycling bins within or near the room/area where it is generated.</p>
	Step 2 – Transfer pathways	Cleaners/ tenancy staff/ building services would take waste and recyclables from the commercial tenancies on the ground floor to the waste room using internal corridors and pathways. See Appendix 2 for recommendations on transfer pathways.
	Step 3 – Aggregation and Storage	Cleaners/ tenancy staff/ building services would then dispose of waste and recycling items into the bins provided in the ground floor waste room.
	Step 4 – Bin collection	<p>Collection by a Commercial Waste and Recycling Collection Contractor would take place from the Loading Area within the development, which is adjacent to the Waste Room.</p> <p>Collection contractors would:</p> <ol style="list-style-type: none"> 1. Drive into the lane adjacent the building (southern side) off Frome Street in a forward direction, 2. Reverse the vehicle into the designated Loading Area. 3. Load the bins directly from the Waste Room into their collection vehicle. 4. Return the empty bins to the Bin Storage Room. 5. Exit in a forward direction into the lane and onto Frome Street. <p>See Section 5 and the Traffic Consultant's Report for details on collection vehicle movements within the development.</p>

5. Collection Vehicle Requirements

5.1 Collection Vehicle Requirements

The collection vehicles expected for waste collection at this development would generally be:

- Rear-lift trucks – for collection of routine waste, comingled recycling and organics;
- Pan-tech or flat-bed trucks – for collection of at-call waste streams, if required.

Examples of the likely truck dimensions are provided in Table 10 below to assist the Traffic Engineer/Consultant in ensuring that the loading zone can accommodate the waste and recycling collection vehicles, and that vehicles can enter and exit the area safely. In addition to the truck length, the parking area will need to accommodate at least 2m behind collection vehicles for waste bin loading for the rear-lift trucks.

Collection vehicle dimensions and operating requirements vary between waste collection contractors. The Client would be required to ensure that the collection vehicle used by the waste collection contractor servicing the development is able to accommodate for the Loading Zone and other requirements before collection can begin.

Table 10: Likely dimensions and turning circles of waste collection vehicles that would be required to access the site⁷

<i>Likely <u>minimum</u> dimensions and turning circles of waste collection trucks</i>	
<i>Vehicle Type</i>	<i>Rear-lift waste trucks (to collect bins up to 1100L)</i>
<i>Height</i>	<i>3.5m</i>
<i>Width</i>	<i>2.5m</i>
<i>Length</i>	<i>8m minimum (8.8m is recommended for service flexibility)</i>
<i>Space at the rear to load bins</i>	<i>2m</i>
<i>Vehicle height in operation</i>	<i>3.5m</i>
<i>Vehicle turning circle</i>	<i>18-25m</i>

5.2 Estimated Number of Waste Vehicle Movements Per Week

We have estimated that there would be 14 collection vehicle movements per week at the site. This is based on the estimated waste and recycling volumes and service frequency described above. These estimated vehicle movements do not include on-call or infrequent services such as paper and confidential paper, hard waste and E-waste collection.

⁷Vehicle width dimensions are based on Australian MRV standard specifications - AS 2890.2-2002. Vehicle length and heights are based on common collection vehicles currently operating in the SA market. However, it should be noted that waste and recycling collection vehicles are custom designed and may differ from these specifications.

Appendix 1 – Policy, Design and Operational Waste Management Requirements

This WMP has been prepared with the following policy, design, and/or operational requirements for waste management in mind:

- *The South Australian Environment Protection (Waste to Resources) Policy 2010 (W2REPP) (Government of South Australia, 2011):*
 - This Policy requires that waste is subject to resource recovery processes, which can include source separation, before disposal to landfill.
- *South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA (previously Zero Waste SA), 2014):*
 - Identifies need for areas to store waste and recyclable materials, appropriate to the size and type of development, screened from public, which minimises disturbance to residents and provides for service vehicle access.
 - Provides guidance on design of waste management systems for medium to high density residential and mixed use developments.
- *City of Adelaide Design Guide for Residential Recycling (2013)*
 - Similar to the Better Practice Guide above, but with some slightly different design requirements.
- *The City of Adelaide Operating Guideline – Waste & Recycling Services (The City of Adelaide, previously Adelaide City Council, 2014)*
 - Set outs Council's proposed basic and enhanced services for collection of waste and recycling from high density and mixed use developments and businesses.
- *Adelaide (City) Development Plan (Department of Planning, Transport & Infrastructure, 2017).*
 - Objectives and principles of development control regarding waste management, specifically:
 - OBJ 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.
 - PDC 101: A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.
 - PDC 102: A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.

- PDC 103: Development greater than 2 000 square metres of total floor area should manage waste by:
 - a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;
 - b) on-site storage and management of waste;
 - c) disposal of non-recyclable waste; and
 - d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

The estimation of waste and recycling volumes contained in this waste management plan, is based on:

- The proposed land use data;
- Client and regulatory expected services for different development land uses; and
- Waste generation metrics found in:
 - *The South Australian Better Guide Practice Guide – Waste Management in Residential or Mixed Use Developments* (Green Industries SA (previously Zero Waste SA), 2014)
 - Waste and recycling metrics developed by Rawtec, which are based on industry knowledge and experience.

Appendix 2 – Additional Waste Management Design Advice

The below table provides design advice and other considerations based on the *South Australia Better Practice Waste Management Guide for Residential and Mixed Use Developments*. For further recommendations and information from this guide, please visit the [Green Industries SA](https://www.greenindustries.sa.gov.au/) website.

Table 11: Additional waste management design advice and other considerations

Area	Recommendation/ Consideration
Access distance from resident properties to bin disposal point	<ul style="list-style-type: none"> Better practice recommends this distance be no greater than 30 metres. This reduces the likelihood of spillage and increases convenience for residents.
Disposal points for residents	<ul style="list-style-type: none"> The SA Better Practice Guide indicates that organics (food and/or garden) is a required or expected service for residents in South Australia. It is also recommended that disposal points for all three streams (general waste, comingled recycling and food organics) be at the same point for residents.
Bin/chute rooms on each floor	<ul style="list-style-type: none"> Another consideration from a better practice waste perspective is having chutes allocated in a chute room on each floor. This may prevent odour or spillage issues in undesirable areas if the chutes are directly accessible in a hallway for example. It is important that consideration is given for access to this room/chute area by mobility impaired persons.
Bin transfer routes	<ul style="list-style-type: none"> The Better Practice Guide recommends transfer routes be free of obstructions and steps, at least 1.25m wide and a slope of no more than 1:10. These should also not pass through living areas or dwellings.
Hard waste	<ul style="list-style-type: none"> It is recommended that an aggregation point for hard waste be provided in a space that is easy to access for collection vehicles. This is logistically easier than collection directly from apartments, where the building services manager, resident and collection contractor would all need to be present for the collection day and time. It also takes longer for the contractor to collect the waste and may therefore increase costs.
Bin washing	<ul style="list-style-type: none"> It is recommended that a bin wash area be installed and that it: <ul style="list-style-type: none"> Is sloped to a drain leading to the sewer; Has an installed tap with mains supply and a hose nearby; Is at least 2m x 2m; and Is slip resistant to prevent slippage during washing. Note that line marking and bunding is not required around the bin wash area, and bins can be stored on top of the bin wash area in the waste room. During washing, other bins can be placed outside the waste collection room while bins are washed in the waste room. Alternatively, the bin wash area can be installed outside the waste room. It may also be possible for the waste contractor to be contracted to provide this service (either on-site or off-site).

GSA Australia Pty Ltd C/- Intro Design Pty Ltd

Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses.

266-269 North Terrace, Adelaide

020/A074/17

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OVERVIEW

Application No	020/A074/17
Unique ID/KNET ID	2695 - 2017/24787/01
Applicant	GSA Australian Pty Ltd C/- Intro Design Pty Ltd
Proposal	Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses
Subject Land	266-269 North Terrace, Adelaide
Zone/Policy Area	Capital City Zone / Central Business Policy Area
Relevant Authority	State Commission Assessment Panel (SCAP) Schedule 10 (4B)
Lodgement Date	21 November 2017
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan – Consolidated 20 June 2017
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	Government Architect, Airports, State Heritage Branch
Report Author	Brett Miller – Team Leader Inner Metro Development Assessment
RECOMMENDATION	Grant Development Plan Consent with Conditions

EXECUTIVE SUMMARY

The proposed development is for a 34 storey predominantly student accommodation building located on the corner of Frome Street and North Terrace. The proposal includes a commercial space at the ground floor and is located adjacent State Heritage Places to the west and the approved Adelaiddian development to the south. The site is located within an area of the City that has no specific height limitations.

The application was deferred from the State Commission Assessment Panel (SCAP) meeting of 8 March 2018 with the applicant amending their plans in response to the deferral motion. The amendments include the removal of a majority of the facilities (including bicycle store) from the basement, therefore negating the need for the inclusion of a lift down to the basement, an amended and detailed materials board, enhanced renders that include adjacent developments and introduced a canopy to the Frome Street frontage of the development with a colonnade effect to the North Terrace frontage. The proponent has also done further detailed design to refine the internal layouts of the communal areas including ground, first, twelfth and thirteenth floors. The removal of some services from the basement has led to a slight change to the roof level, however it there is no external impact of this change.

SCAP Administration staff, the proponent and the Associate Government Architect (AGA) held a meeting to discuss the inclusion of pedestrian protection at the ground level. The AGA, SCAP Administration and the proponent struggled to work out a suitable solution to provide the shelter due to the strength of the architectural form of the building. The proponent team has provided a solution of having a colonnade to the North Terrace frontage and canopies between the vertical elements to the Frome Street frontage.

The AGA is supportive of the North Terrace resolution, however remains of the opinion that the canopies to Frome Street are not a positive outcome for the proposed development. The State Heritage Branch remains supportive of the development.

The changes proposed are considered to have addressed the reasons for deferral with the proposal recommended for the granting of Development Plan Consent.

ASSESSMENT REPORT

1. BACKGROUND

At the State Commission Assessment Panel meeting held 8 March 2018 the Panel resolved the following:

The State Commission Assessment Panel resolved to defer consideration of the development to allow the applicant to explore in more detail the following issues:

- In association with the Associate Government Architect and the State Heritage Branch, consider the introduction of pedestrian protection at ground level on both street facades.
- Demonstrate that external materials and finishes will deliver the stated architectural design integrity.
- The provision of more realistic streetscape imagery from Frome Street and North Terrace that includes existing and approved developments.
- Provision of lift access to the basement.

Following the deferral motion the applicant prepared some concept plans to enable a meeting being held with the proponent, SCAP Administration and the AGA. It is noted that the plans were supplied to the State Heritage Branch, however due to circumstances beyond their control they were unable to attend. The State Heritage branch provided the following comment in relation to any canopy design, *"In relation to the proposed introduction of pedestrian protection, I would encourage this being used to strengthen and reinforce the new building's relationship with and response to the adjacent State heritage place"*. The proponent was aware of this comment and has provided a design to appropriately balance the architectural merit of the proposal with the adjacent State Heritage Buildings.

2. PLANNING ASSESSMENT

The assessment information below is only considering the deferral motion and items presented in response to the deferral, all other assessment matters are contained in the original assessment report, which can be found in the attachments associated with this report:

- **In association with the Associate Government Architect and the State Heritage Branch, consider the introduction of pedestrian protection at ground level on both street facades.**

It is noted that the meeting held between SCAP administration, the proponent and the AGA concern was raised that the inclusion of any pedestrian protection would take away from the unique sculptural architectural expression of the building.

The proponent considered the deferral motion and prepared a concept design (as can be seen in the attachments – page 16) for discussion with the AGA and State Heritage Branch. The outcome of the meeting was that there was difficulty with the inclusion of the canopy to Frome Street as it was in conflict with the strong architectural form of the building. The outcome of the meeting was for the proponent team to prepare an alternate design that included a colonnade to North Terrace frontage and further consideration be given to the pedestrian protection to the Frome Street frontage.

Ultimately the amended design has resulted in a colonnade effect to North Terrace which is considered to address the SCAP concerns with pedestrian protection and balance the architectural concerns with diminishing the architectural merits of the proposal. The State Heritage Branch have reviewed this aspect of the development and are of the opinion that there will be no further negative impact on the heritage values of the place. The amendments are not considered to change the assessment and recommendations of their original response.

The design team has provided canopies in between the vertical blades on the Frome Street frontage. The AGA is concerned that this outcome diminishes the strong architectural form to this frontage and is not supportive of the design outcome. The AGA also states that Frome Street has no consistent canopies in existence and does not consider there to be an express need for this to be included on this design. There was a suggestion to have a colonnade to the Frome Street frontage, however this does not appear possible due to the internal layout and the minimal size of the site. The design team have rationalised the ground floor design and are unable to squeeze any further space to enable a suitable colonnade to this frontage.

The materials proposed on the canopies blend and integrate them suitably into the building. Ultimately the inclusion of the canopy to the Frome Street, whilst not being supported by the AGA provides pedestrian protection from the elements as sought by the SCAP and has been designed to minimise any impact on the architectural quality of the building.

- **Demonstrate that external materials and finishes will deliver the stated architectural design integrity.**

The proponent has supplied an image of the updated materials palette and will be supplying a materials board at the SCAP meeting. The materials proposed provide certainty as to the quality proposed will be able to uphold the architectural design integrity of the proposed development.

- **The provision of more realistic streetscape imagery from Frome Street and North Terrace that includes existing and approved developments.**

The applicant has provided five 3D views of the proposed development from different vantage points around the site. The 3D imagery includes existing and proposed surrounding development to provide context for the development were it to be granted approval. The imagery supplied is considered to adequately address the deferral motion and provides useful perspective as to how the proposed development will be positioned in the context of the locality.

- **Provision of lift access to the basement.**

The applicant has undergone a redesign of the basement level which has resulted in the removal of the basement bicycle parking area and a majority of the building services that were previously housed in the basement level. The removal of the bicycle parking from the basement level has led to there no longer being a need for lift access to this level. It is noted that the service area will be accessed via two hatches provided in the cloister area on the ground level.

The changes to the basement level has resulted in the bicycle parking area to be places to the western boundary of the building and resulted in a reduction of the number of bicycle parks supplied on site (from 128 to 45). The location of the park at the ground level is seen as a positive and given there is no requirement for bicycle parking attributed to the proposed use the reduction in the overall numbers is not considered to be critical to the approval of the development.

The proponent team has made some alterations to the design of the building at the communal levels on 12 and 13 to maintain the architectural narrative that has been altered at the lower levels of the building. The alterations are not material to the overall design of the building and maintain the unique architectural design of the building. Levels 12 and 13 now has a bit more of a regular shape to the edges, however the change does not have an impact on the usability/functionality of the spaces.

3. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

3.1 Government Architect

The Associate Government Architect (AGA) was consulted on the amended design and limited commentary to the pedestrian protection proposed due to the lack of support for the overall design of the building that was generally supported by the SCAP.

Support was given for the provision of the colonnade along the North Terrace frontage. It is believed that the colonnade will provide sufficient pedestrian protection, further increase the visibility of the adjoining heritage places, and is consistent with the overall architectural expression of the proposed building.

There is concern with the canopies proposed along Frome Street and in the AGA's opinion, the proposed canopies are inconsistent with the architectural expression of the building overall, and in particular, the expression of the bottom two levels. The canopies also compromise the verticality and the scale of the bottom two floors.

While there is acknowledgement of the continuous canopy over footpath being anticipated for the adjoining Adelaidean project, street canopies in this section of Frome Street are sporadic and no regular pattern has been established.

In this instance, the AGA does not support the provision of street awnings, due to the unique sculptural architectural expression intended for the proposal.

3.2 State Heritage Branch

The State Heritage Branch were consulted on the amended design and stated that the pedestrian protection does not alter the physical relationship to the adjoining State heritage places, and will have no further negative impact on the heritage values of the place. They have also stated that the amendments would not change the assessment and recommendations in their response letter dated 25 January 2018.

4. CONCLUSION

The applicant has provided a response to all of the deferral items by virtue of amended plans, additional details in relation to the materials proposed and the inclusion of pedestrian protection to the North Terrace and Frome Street Frontages of the site.

The AGA is concerned that the inclusion of the canopies to the Frome Street frontage of the development diminishes the strong architectural expression to the lower levels of the building and is not supportive of this inclusion in the design. In relation to the North Terrace frontage the AGA is supportive of the colonnade effect provided to enable pedestrian protection from the elements.

The State Heritage Branch remain supportive of the development and raise no concern with the amendments proposed to the ground level of the development.

The relocation of the bicycle parking area to the ground floor is seen as a positive outcome in terms of access with the reduction in its size not being considered detrimental to the overall outcome of the proposed development. The proposed amendments to the upper communal levels are considered to have balanced the architectural expression now proposed at the lower levels and maintained a high-quality living environment for the students to be take up residence in the building.

The alterations made to the development are considered to have addressed the deferral motion and provided a balanced architectural outcome for the prominent site. The application is considered to be a positive outcome for the City and is recommended for the granting of Development Plan Consent subject to the conditions attached to this report.

5. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the Adelaide (City) Council Development Plan.
- 3) RESOLVE to grant Development Plan Consent to the proposal by GSA Australian Pty Ltd for demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses at 266-269 North Terrace, Adelaide subject to the following reserved matters and conditions of consent.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 020/A074/17.

Plans by Rothe Lowman

Sheet title	Drawing Number	Revision	Date
Site Plan Proposed	TP00.02	A	03.04.18
Basement	TP01.00	C	03.04.18
Ground Floor	TP01.01	D	03.04.18
Level 1	TP01.02	D	03.04.18
Levels 2-5 'Co-Living- & DDA	TP01.03	A	13.02.18
Levels 6-11 'Co-Living'	TP01.07	A	13.02.18
Level 12 Communal	TP01.13	A	03.04.18
Level 13 Communal	TP01.14	A	03.04.18
Levels 14-23 'Multi-Bed' & Duplex	TP01.15	-	08.11.17
Level 24 'Multi-Bed'	TP01.25	-	08.11.17
Level 25 'Studio', DDA & Communal	TP01.26	-	08.11.17
Levels 26-29 'Studio' & DDA	TP01.27	-	08.11.17

Levels 30-33 'Studio'	TP01.31	-	08.11.17
Roof	TP01.35	A	03.04.18
Elevations – North & East	TP02.01	E	03.04.18
Elevations – South & West	TP02.02	E	03.04.18
North & West Elevations (at Lower Levels)	TP02.11	D	03.04.18
Section	TP03.01	B	03.04.18
3D Façade Section	TP03.02	-	08.11.17
Material Palette	TP05.01	B	03.04.18
Façade at North Terrace & Frome St Boundaries	SK10.21	-	13.02.18

Environment

2. All stormwater design and construction shall be in accordance with Australian Standard AS/NZS 3500.3:2015 (Part 3) to ensure that stormwater does not adversely affect any adjoining property or public road.
3. The acoustic attenuation measures recommended in the Traffic and Tram Noise Assessment Report dated February 2018 by Sonus, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the State Commission Assessment Panel. Such acoustic measures shall be made operational prior to the occupation or use of the development.
4. All external lighting on the site shall be designed and constructed to conform to Australian Standard (AS 4282-1997).
5. A Construction Environment Management Plan (CEMP) shall be prepared and implemented in accordance with current industry standards – including the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition" and, where applicable, "Environmental Management of On-site Remediation" – to minimise environmental harm and disturbance during construction. A copy of the CEMP shall be provided to the State Commission Assessment Panel prior to commencement of site works.
6. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc.) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.
7. Waste collection vehicles shall not access the site after 10:00pm on any day, before 7:00am Monday to Saturday or before 9:00am on Sundays.

Site Contamination

8. A statement by a suitably qualified environmental engineer that demonstrates that the land is suitable for its intended use (or can reasonably be made suitable for its intended use) shall be submitted to the State Commission Assessment Panel prior to Development Approval being granted for substructure works.

State Heritage Branch Conditions

9. A dilapidation survey recording the condition of the State heritage place at 263-264 North Terrace shall be prepared prior to the commencement of work on site, to the satisfaction of the relevant authority. As well as recording fabric in good condition, the survey shall also record the location, type and dimensional extent of any existing

physical damage to the place that might be affected by the proposed demolition, excavation and construction works.

10. A Construction Management Plan outlining measures to minimise ground vibrations in the proximity of the heritage building is to be prepared to the satisfaction of the relevant authority in consultation with Heritage South Australia (Department of Environment, Water and Natural Resources) prior to final Development Approval being granted. The Management Plan shall include:
 - a. proposals for the ongoing monitoring of the condition of the heritage place during the works;
 - b. proposals for protective measures against accidental damage to the heritage place; and
 - c. procedures to be taken if any structural distress or accidental damage is identified in the heritage fabric.
11. During ground works, the short term vibration levels at the heritage-listed structure shall be monitored, and shall not exceed the velocity limits for structural vibration in buildings established for Group 3 structures in the German Standard DIN 4150 Part 3.

ADVISORY NOTES

- a. The development has been proposed in the following stages:
 - a. Stage 1: Demolition
 - b. Stage 2: Substructure
 - c. Stage 3 Superstructure
 - d. Stage 4: Architectural Façade
- b. This Development Plan Consent will expire after 12 months from the date of this Notification, unless final Development Approval from Council has been received within that period or this Consent has been extended by the State Commission Assessment Panel.
- c. The applicant is also advised that any act or work authorised or required by this Notification must be substantially commenced within 1 year of the final Development Approval issued by Council and substantially completed within 3 years of the date of final Development Approval issued by Council, unless that Development Approval is extended by the Council.
- d. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).
- e. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department of Environment, Water and Natural Resources, or an additional referral to the Minister for Sustainability, Environment and Conservation. Such changes would include for example (a) an application to vary the planning consent, or (b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.

- f. The applicant is to note the following requirements of the Heritage Places Act 1993:
- a. If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified.
 - b. Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

For further information, contact the Department of Environment, Water and Natural Resources.

- g. The applicant is to note the following requirements of the Aboriginal Heritage Act 1988:
- a. If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the *Aboriginal Heritage Act 1988*.



Brett Miller

**TEAM LEADER –INNER METRO DEVELOPMENT ASSESSMENT
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE**

Statement of Changes

GSA North Terrace

266 North Terrace, Adelaide, 5000

Project no. **217091**

Status **TP**

Rev **-**

Date **3/04/2018**

The following is a list of changes between the Development Application for the above site, as considered by the Panel on 8 March 2018, and the revised drawings dated 03 April 2018.

Deferral Items from the Panel on 8 March 2018

1. In association with the Associate Government Architect and the State Heritage Branch, consider the introduction of pedestrian protection at ground level on both street facades.
2. Demonstrate that external materials and finishes will deliver the stated architectural design integrity.
3. The provision of more realistic streetscape imagery from Frome Street and North Terrace that includes existing and approved developments.
4. Provision of lift access to the basement.

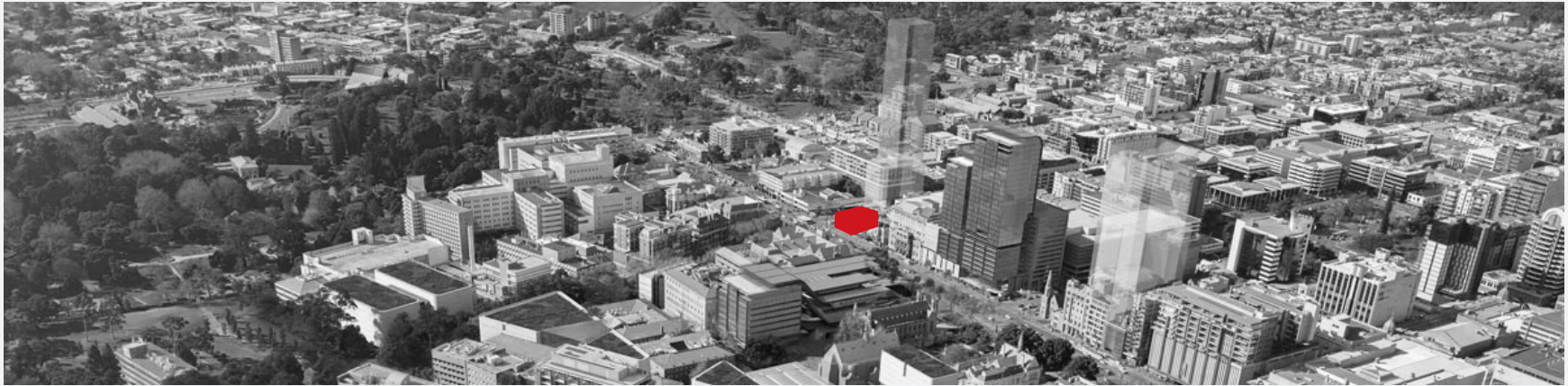
General Changes

1. Amendments in response to Deferral Items (4 of, refer above list).
2. Reduction of Basement size and associated redistribution of services / plant.
 - o Includes Bicycle Store relocation to Ground level.
3. Envelope revisions to Level 12, 13 & Roof to maintain consistent architectural narrative post Ground & Level 1 envelope revisions.
 - o Ground & Level 1 envelope revisions were undertaken in response to Associate Government Architect comments / letter dated 07 February 2018 reference 12321183.

Detailed Changes

Item	Change	Drawing Ref.	Reason
Basement			
1.	Reduction of Basement size & usage change to host services / plant only. Services / Plant to be relocated through levels above as follow: Bicycle Store, Main Switch Room, Substation Vault Room, Fire Tank & Pump Room, Communications / NBN Room.	TP 01.00	In response to Deferral Item 4
Ground (and associated elevations / section / 3D views)			
2.	Introduction of pedestrian protection along North Terrace & Frome Streets.	TP 01.01 TP 02.01 TP 02.02 TP 02.11 TP 03.01 TP 06.01-05	In response to Deferral Item 1
3.	New Bicycle Store location. Bicycle store total number reduced to 40.	TP 01.01	In response to Deferral Item 4
4.	Café layout / extent revised.	TP 01.01	As a result of change #3

Item	Change	Drawing Ref.	Reason
5.	Entry, Foyer, Reception, Mail boxes and Parcel Store reconfigured.	TP 01.01	As a result of change #2
6.	Mezzanine level added to host Office.	TP 01.01	As a result of change #2
Level 1			
7.	New location of Main Switch Room, Fire Tank & Pump Room, Communications / NBN room.	TP 01.02	As a result of change #1
8.	Reconfiguration of communal areas.	TP 01.02	As a result of change #7
Level 12			
9.	Envelope revised.	TP 01.13	To maintain consistent architectural narrative post Ground & Level 1 envelope revisions
10.	New location of Laundry & Multipurpose room.	TP 01.13	As a result of change #7
11.	Reconfiguration of communal areas.	TP 01.13	As a result of change #9
Level 13			
12.	Envelope revised.	TP 01.14	To maintain consistent architectural narrative post Ground & Level 1 envelope revisions
13.	Reconfiguration of communal areas.	TP 01.14	As a result of change #12
Roof			
21.	Envelope revised.	TP 01.35	To maintain consistent architectural narrative post Ground & Level 1 envelope revisions
Exterior Finishes / Materials			
22.	Updated to match physical materials sample board (physical board to be provided at next meeting with the Panel).	TP05.01	In response to Deferral Item 2
Streetscape Imagery			
23.	3D views updated as requested.	TP06.01-05	In response to Deferral Item 3



April 2018

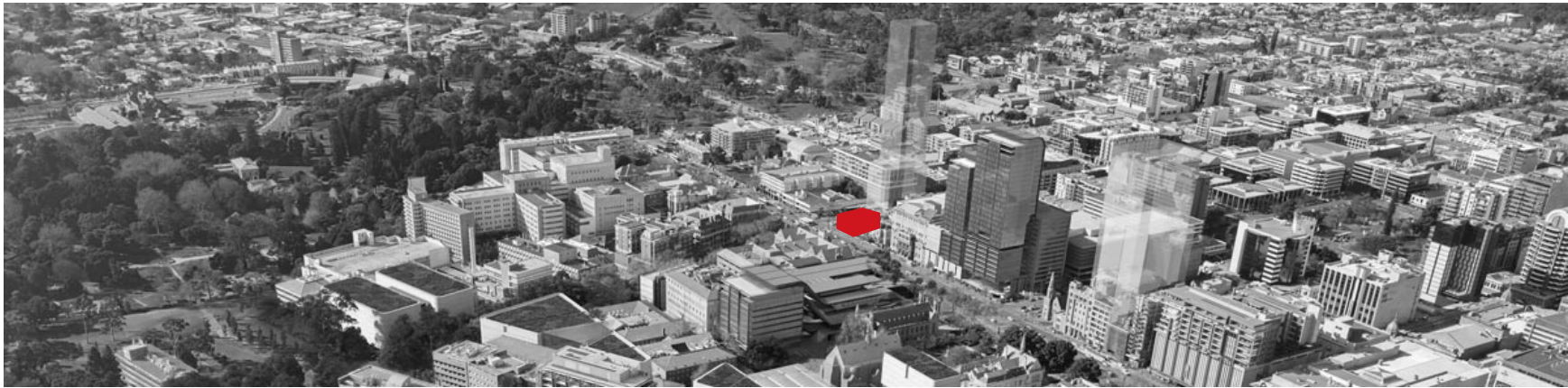
266 North Terrace, Adelaide

Pedestrian Protection Design Rationale
(Response to Deferral Item 1)



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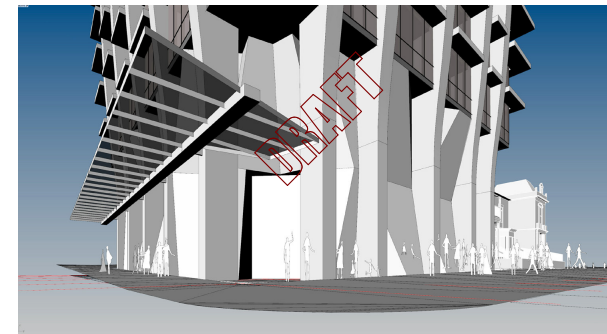
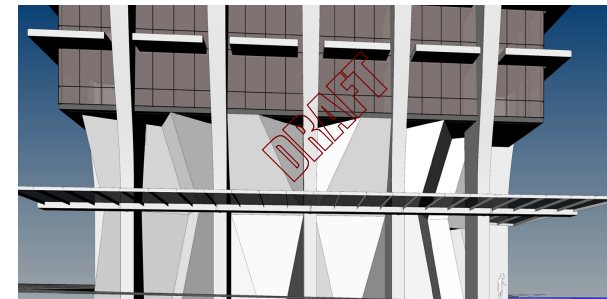
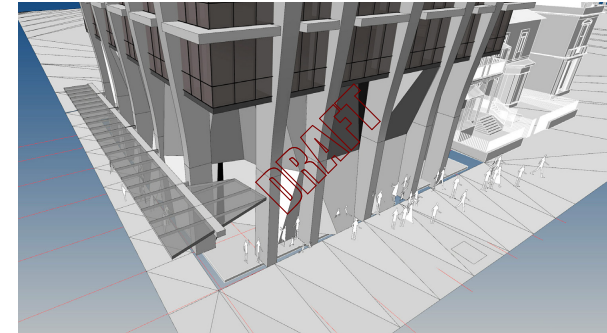
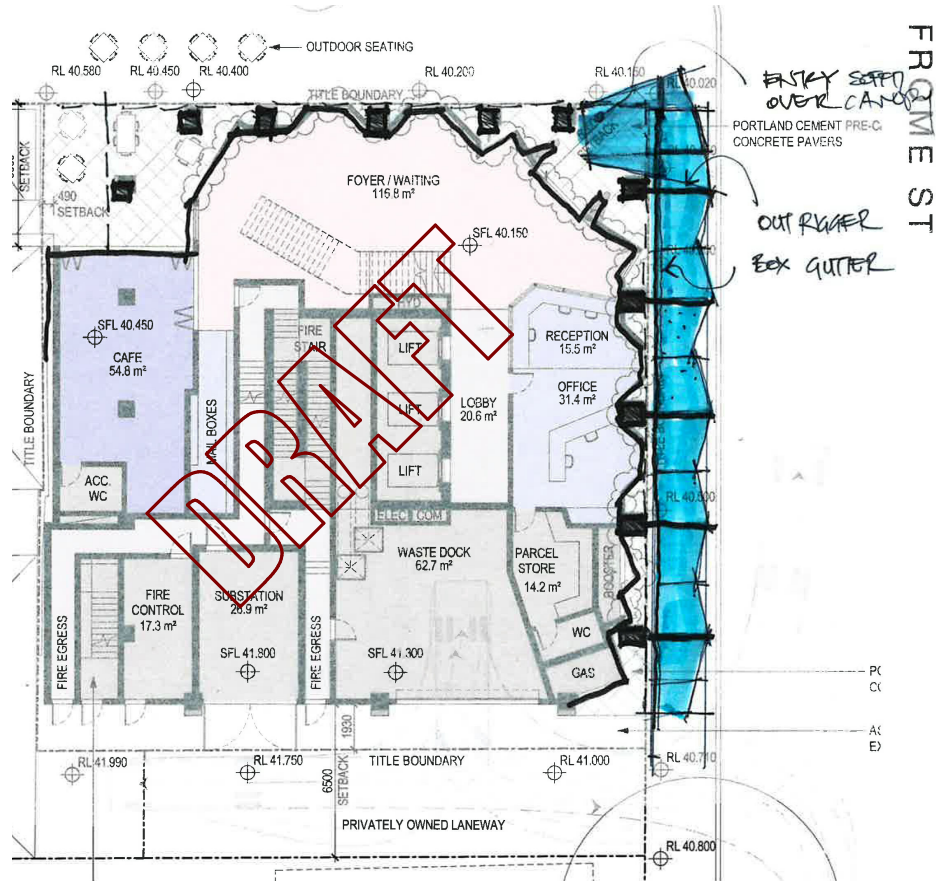
1.0	Design Proposal	
1.01	Initial Pedestrian Protection Concept	3
1.02	Pedestrian Protection Extents	4
1.03	Pedestrian Protection Perspectives	5
1.04	Pedestrian Protection Perspectives	6



1.0 Design Proposal / 1.01 Initial Pedestrian Protection Concept

At meeting with the Govt Arch on 21/3/2018 the initial design concept for the awning design was tabled. At this meeting, the following issues were raised by the GA with regards to the design of an awning not fitting with the vertical expression of the main tower.

A potential alternative arrangement of creation of a covered footpath area or colonnade on the north terrace and Frome street frontages was discussed as a potential solution to providing pedestrian protection that integrates with the current overall design.



DESIGN STUDIES

Design investigations were carried out post this meeting as to the ability of the design to integrate a colonnade style feature on both North Terrace and Frome street.

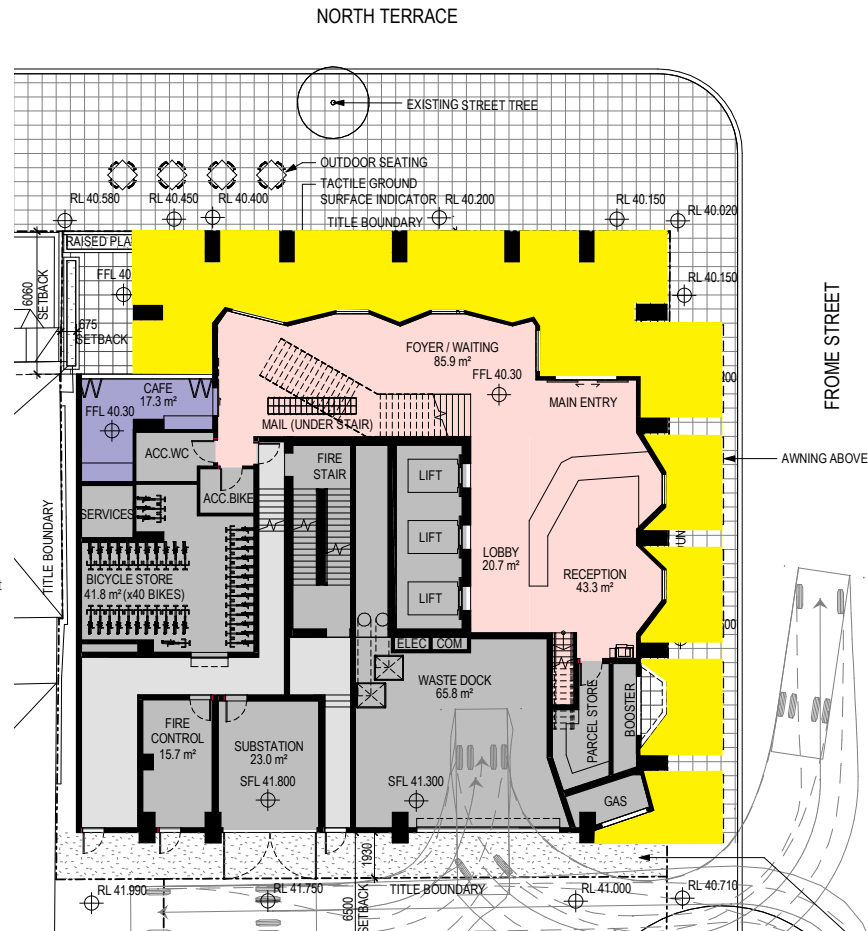
The key outcomes of this study were

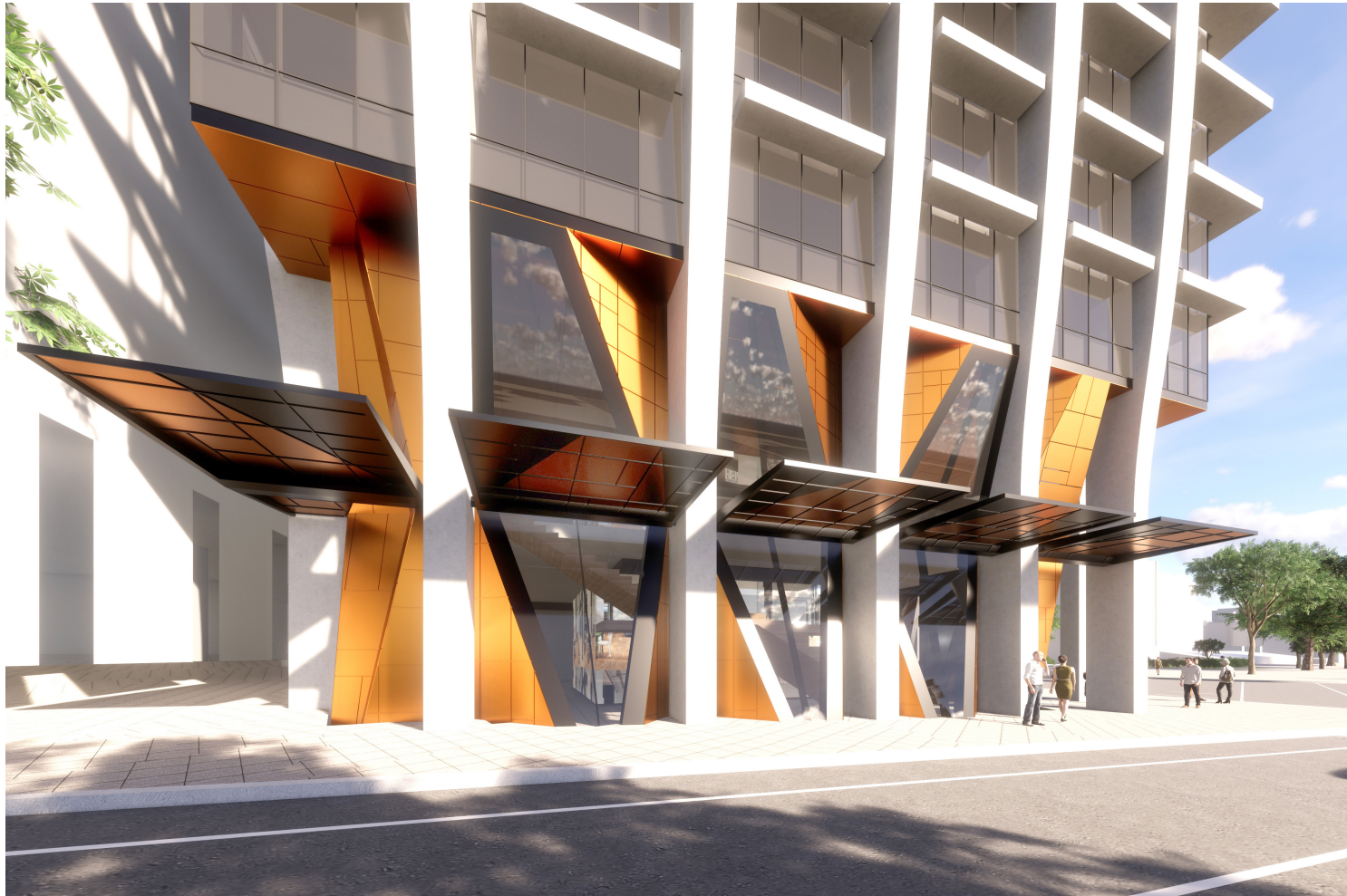
- The neighbouring approved Adelaidean has a street awning up to the edge of the shared laneway, and having a colonnade on that street frontage would misalign the public domain
- Significant service infrastructure along this frontage and the recessing of the facade here would compromise the amenity of users for the lift lobby area
- The integration of an awning device on North terrace would compromise the visibility of the neighbouring heritage item to our West, which has been a key part of the design intent of the current concept.
- The integration of a full length colonnade to North Terrace enhances the visibility of the heritage item and creates a fully covered area consistent with the intent of the pedestrian protection request.
- An awning device proposed on the Frome street Frontage needs to allow for the vertical architectural expression to take precedence, and hence a discontinuous design is proposed.
- The awning design from the initial GA review was revised to integrate solid lining such that both weather and solar protection is created along the street edge.

DESIGN PROPOSAL

A scheme has been developed that provides for

- the full extent of Frome and North Terrace being covered for pedestrian protection
- An integrated architectural solution that is contextual for each particular street
- A new colonnade space on the North Terrace frontage that fits with the existing heritage strategy and provides for enhanced visibility of the heritage items to the West





AWNING CONCEPT TO FROME STREET

- Awning is a cold clad and steel framed to integrate into the design language of the Ground floor communal areas
- The awning spans between the Columns to maintain the vertical expression of the tower form.
- Neighbouring Adelaidean shown in all views for Clarity



VIEW OF NORTH TERRACE FROM STREET CORNER

- Facade line setback on North Terrace at ground levels to provide covered colonnade
- Entrance area integrated into street corner but with vertical glazing now addressing north Terrace
- Vertical facade expression maintained, along with view of heritage cottage from street corner



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DEVELOPMENT SUMMARY

PBSA DEVELOPMENT DATA									
Room Type	Code	Dev. Mix (%)	Room Size	Total Units	Total NLA	Beds / Unit	Total Beds	PODS / Unit	Total PODS
Standard Studio	SS	18.8%	18	129	2,322 m ²	1	129	1	129
Premium Studio	PS	2.5%	24	17	408 m ²	1	17	1	17
1 Bed Co-Living	1B-CO	5.8%	13	40	520 m ²	1	40	1	40
2 Bed Co-Living	2B-CO	10.5%	28	36	1,008 m ²	2	72	2	72
4 Bed Co-Living	4B-CO	23.3%	48	40	1,920 m ²	4	160	2	80
ODA Studio	ODA	1.3%	28	9	252 m ²	1	9	1	9
1 Bed Apartment	1B	1.9%	28	13	364 m ²	1	13	1	13
5 Bed Shared (Duplex)	5B-DUP	3.6%	90	5	450 m ²	5	25	3	15
5 Bed Ensuite Apartment	5B-E	32.0%	92	44	4,048 m ²	5	220	5	220
7 Bed Ensuite Apartment	7B-E	0.3%	50	1	50 m ²	2	2	2	2
Total		100%		334	11,342 m ²		687		597

RESIDENTIAL DEVELOPMENT DATA												
Level	SS	PS	1B-CO	2B-CO	4B-CO	ODA	1B	5B-DUP	5B-E	7B-E	NSA	
BEDS Per Units	1	1	1	2	4	1	1	5	5	2	Total Units	Total NSA
Bathroom PODS Per Units	1	1	1	2	2	1	1	3	5	2		
Unit Size	18	24	13	28	46	28	28	90	92	50		
Basement 1												
Ground												
Ground Floor Mezzanine												
Level 2			4	3	4	1					12	27
Level 3			4	3	4	1					12	27
Level 4			4	3	4	1					12	27
Level 5			4	3	4	1					12	27
Level 6			4	4	4						12	28
Level 7			4	4	4						12	28
Level 8			4	4	4						12	28
Level 9			4	4	4						12	28
Level 10			4	4	4						12	28
Level 11			4	4	4						12	28
Level 12												
Level 13												
Level 14								1	4		5	25
Level 15									4		4	20
Level 16								1	4		5	25
Level 17									4		4	20
Level 18								1	4		5	25
Level 19									4		4	20
Level 20								1	4		5	25
Level 21									4		4	20
Level 22									4		5	25
Level 23									4		4	20
Level 24									4	1	5	22
Level 25	9	1				1	1				12	12
Level 26	15	2				1	1				19	19
Level 27	15	2				1	1				19	19
Level 28	15	2				1	1				19	19
Level 29	15	2				1	1				19	19
Level 30	15	2					2				19	19
Level 31	15	2					2				19	19
Level 32	15	2					2				19	19
Level 33	15	2					2				19	19

VIEW FROM NORTH TERRACE



DRAWING LIST

DWG #	DRAWING NAME	REV
TP00.01	SITE PLAN EXISTING	-
TP00.02	SITE PLAN PROPOSED	A
TP01.00	BASEMENT	C
TP01.01	GROUND FLOOR	D
TP01.02	LEVEL 1	D
TP01.03	LEVELS 2-5 'CO-LIVING' & DDA	A
TP01.07	LEVELS 6-11 'CO-LIVING'	A
TP01.13	LEVEL 12 COMMUNAL	A
TP01.14	LEVEL 13 COMMUNAL	A
TP01.15	LEVELS 14-23 'MULTI-BED' & DUPLEX	-
TP01.25	LEVEL 24 'MULTI-BED'	-
TP01.26	LEVEL 25 'STUDIO', DDA & COMMUNAL	-
TP01.27	LEVELS 26-29 'STUDIO' & DDA	-
TP01.31	LEVELS 30-33 'STUDIO'	-
TP01.35	ROOF	A
TP02.01	ELEVATIONS - NORTH & EAST	E
TP02.02	ELEVATIONS - SOUTH & WEST	E
TP02.11	NORTH & WEST ELEVATIONS (AT LOWER LEVELS)	D
TP03.01	SECTION	B
TP03.02	3D FACADE SECTION	-
TP04.01	SHADOW ANALYSIS - 21 JUNE 0900	A
TP04.02	SHADOW ANALYSIS - 21 JUNE 1200	A
TP04.03	SHADOW ANALYSIS - 21 JUNE 1500	A
TP05.01	MATERIAL PALETTE	B
SK10.21	FACADE AT NORTH TERRACE & FROME ST BOUNDARIES	
TP06.01	3D VIEW 1	D
TP06.02	3D VIEW 2	D
TP06.03	3D VIEW 3	C
TP06.04	3D VIEW 4	C
TP06.05	3D VIEW 5	C

DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	03.04.18	Response to Deferral Items	JLI

Project / **GSA Student Housing North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **COVER SHEET**

Project No / **217091** Date / **23.10.17**

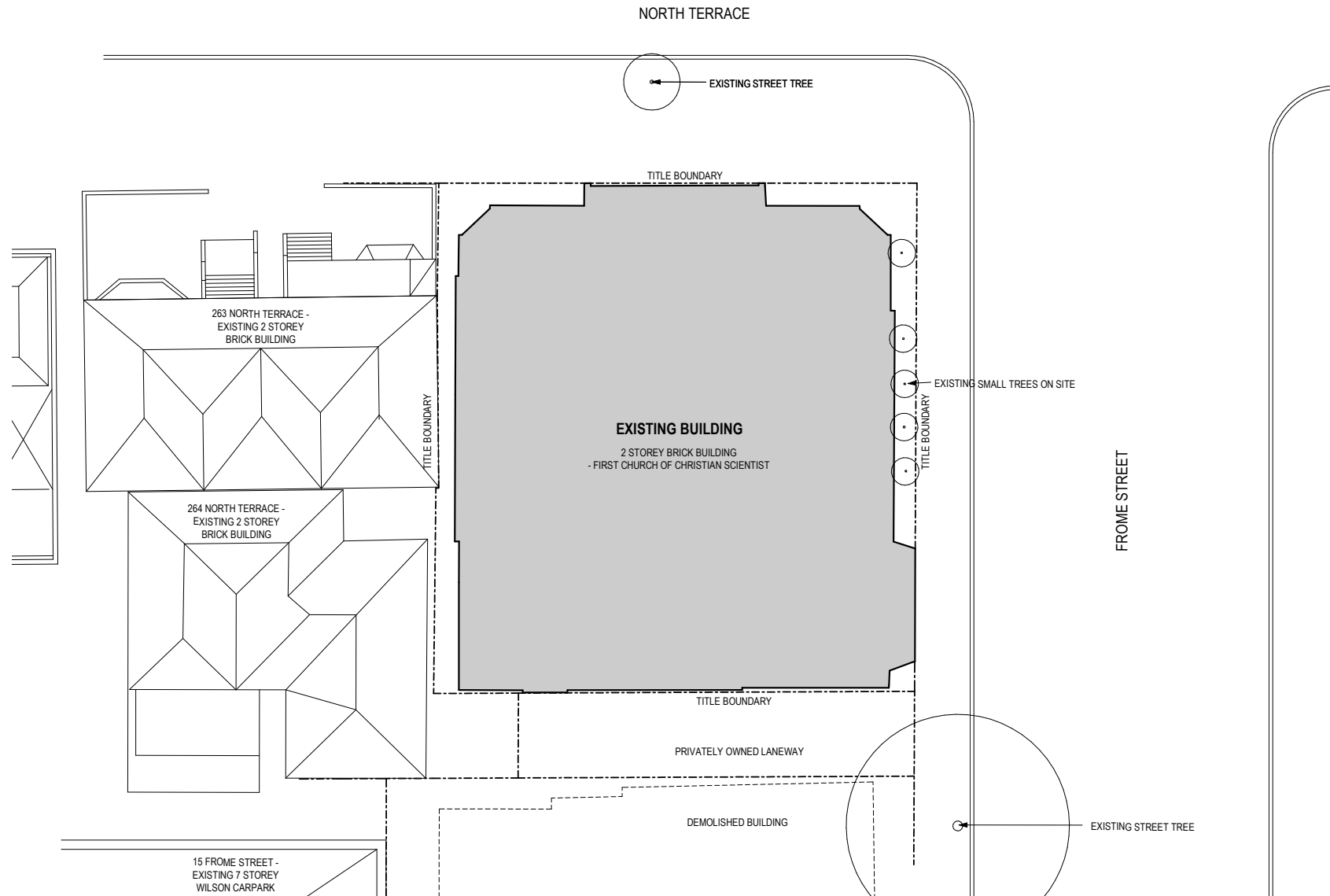
Author / **JLi**

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Drawing No. / **TP00.00 B**

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DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

Project / KW **GSA Student Housing**

Drawing / **SITE PLAN EXISTING**

Project No / **217091**

Date / **31.10.17**

Author / **AK**

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Drawing No. / **TP00.01 -**

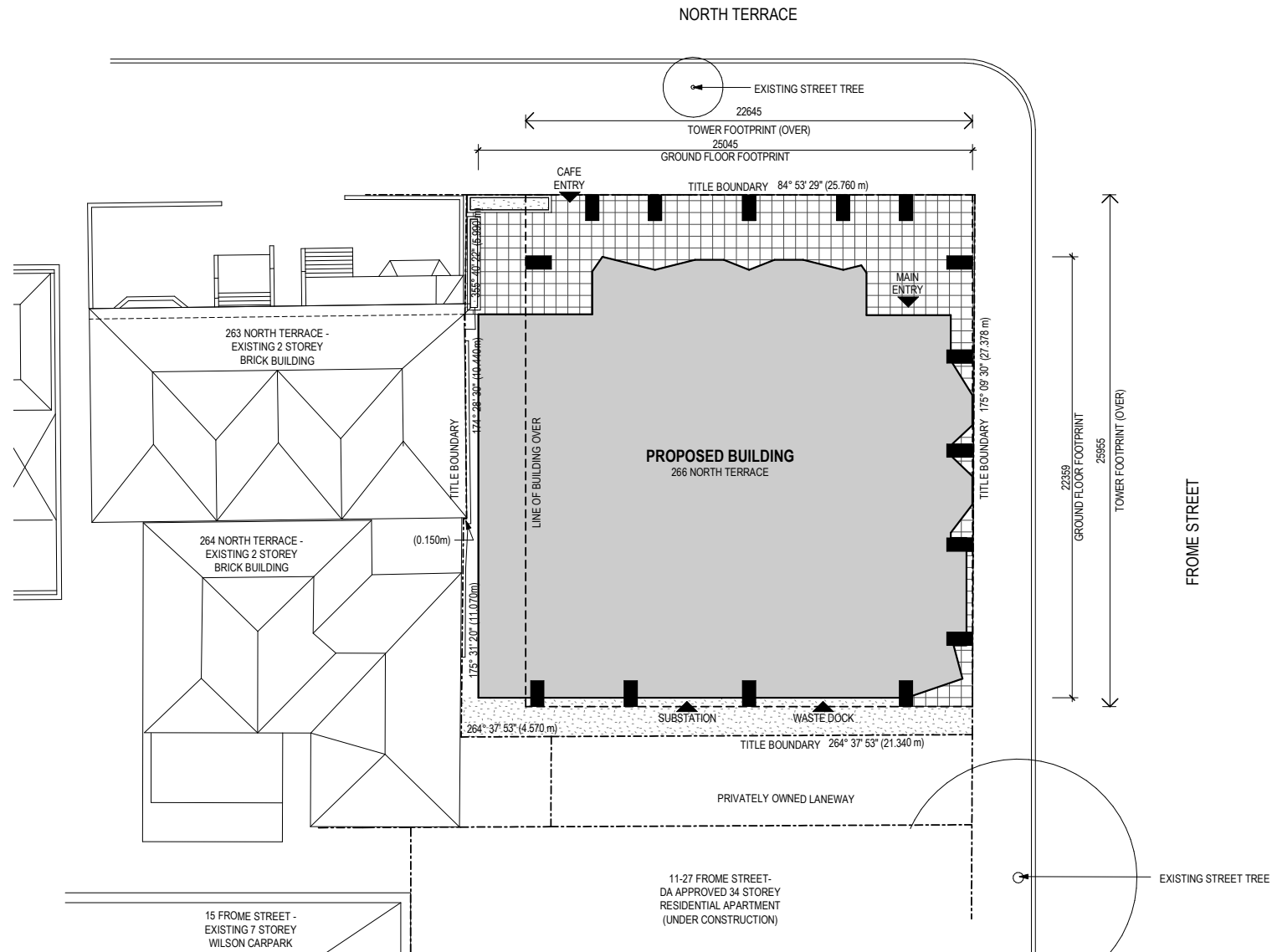
266 North Terrace, Adelaide, SA

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DEVELOPMENT APPLICATION

Revisions /
- 08.11.17 Development Application
A 03.04.18 Response to Deferral Items

Project /
**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing /
SITE PLAN PROPOSED

Project No /
217091

Date /
31.10.17

Author /
AK

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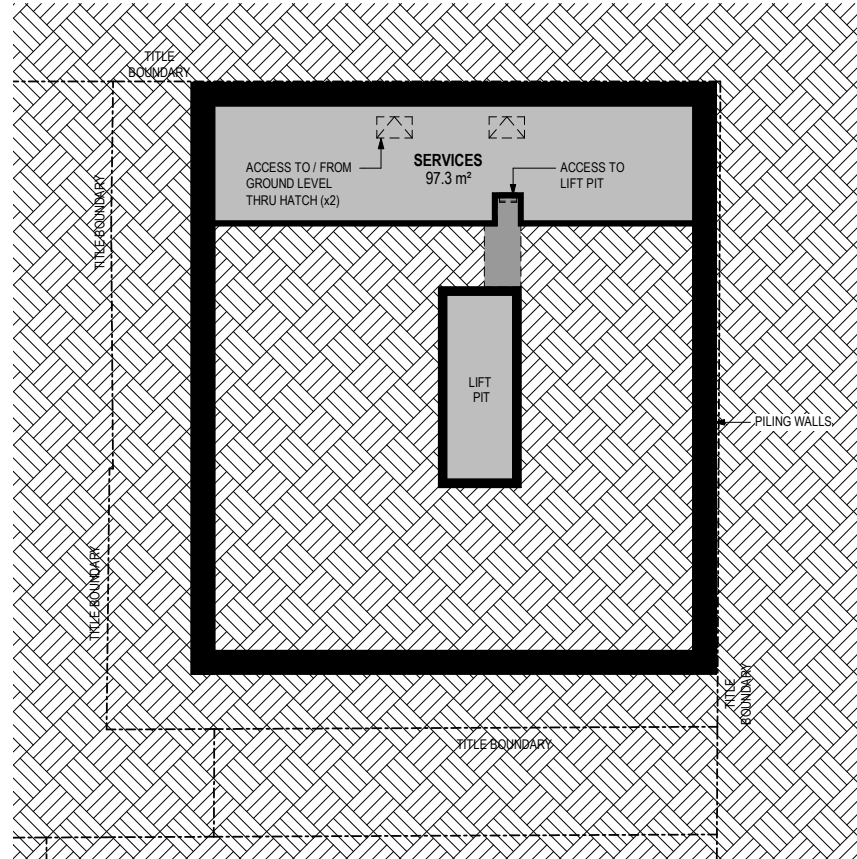
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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	23.02.18	Response to Government Architect	KW
	B	20.03.18	Response to Deferral Items	YY
	C	03.04.18	Response to Deferral Items	JLi

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **BASEMENT**

Project No / **217091**

Date / **23.10.17**

Author / **JLi**

Scale: @ A3 / **1: 200**

Drawing No. / **TP01.00 C**



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Brisbane, Melbourne, Sydney
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Architectural site plan and ground mezzanine layout for a residential development at 11-27 Frome Street.

Main Plan Details:

- Building Footprint:** 11-27 FROME STREET - DA APPROVED 34 STOREY RESIDENTIAL APARTMENT (UNDER CONSTRUCTION)
- Rooms and Areas:**
 - FOYER / WAITING: 83.9 m²
 - MAIN ENTRY
 - RECEPTION: 35.6 m²
 - LIFT LOBBY: 24.4 m²
 - CAFE: 19.1 m²
 - ACC.WC: 4.9 m²
 - BICYCLE STORE: 50.2 m² (x45 BIKES)
 - WASTE DOCK: 60.5 m²
 - SUBSTATION: 42.8 m²
 - OFFICE: 42.1 m²
 - HOT WATER PLANT: 24.6 m²
 - PARCEL STORE: 15.9 m²
 - ALFRESCO DINING
 - RAISED PLANTER
 - COLONNADE
 - OUTDOOR SEATING
- Setbacks and Boundaries:**
 - VERANDAH ROOF LINE
 - UPPER ROOF LINE
 - WALL LINE
 - TITLE BOUNDARY
 - PRIVATELY OWNED LANEWAY
 - EXISTING STREET TREE
- Levels and Elevation:**
 - RL 40.580, RL 40.450, RL 40.400, RL 40.200, RL 40.150, RL 40.020, RL 40.150, RL 40.200, RL 40.500, RL 41.990, RL 41.750, RL 41.000, RL 40.710, RL 40.800
- Other Features:**
 - 675 SETBACK
 - 6800 SETBACK
 - AWNING ABOVE
 - BOOSTER
 - GAS
 - ELEC.COM
 - FIRE STAIR
 - LIFT

Ground Mezzanine Layout:

- MAIN ENTRY (BELOW)
- OFFICE: 42.1 m²
- HOT WATER PLANT: 24.6 m²
- PARCEL STORE: 15.9 m²
- WASTE DOCK: 60.5 m²
- SUBSTATION: 42.8 m²
- BICYCLE STORE: 50.2 m² (x45 BIKES)
- ACC.WC: 4.9 m²
- CAFE: 19.1 m²
- FOYER / WAITING: 83.9 m²
- MAIN ENTRY
- RECEPTION: 35.6 m²
- LIFT LOBBY: 24.4 m²
- LIFT
- BOOSTER
- GAS
- ELEC.COM
- FIRE STAIR
- RAISED PLANTER
- COLONNADE
- OUTDOOR SEATING
- VERANDAH ROOF LINE
- UPPER ROOF LINE
- WALL LINE
- TITLE BOUNDARY
- PRIVATELY OWNED LANEWAY
- EXISTING STREET TREE

Revisions			
-	06.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	22.01.18	Response to Council comments	KW
C	23.02.18	Response to Government Architect	KW
D	03.04.18	Response to Deferral Items	JLI

Project / **GSA Student Housing**
North Terrace
266 North Terrace, Adelaide, SA

Drawing / **GROUND FLOOR & MEZZANINE**

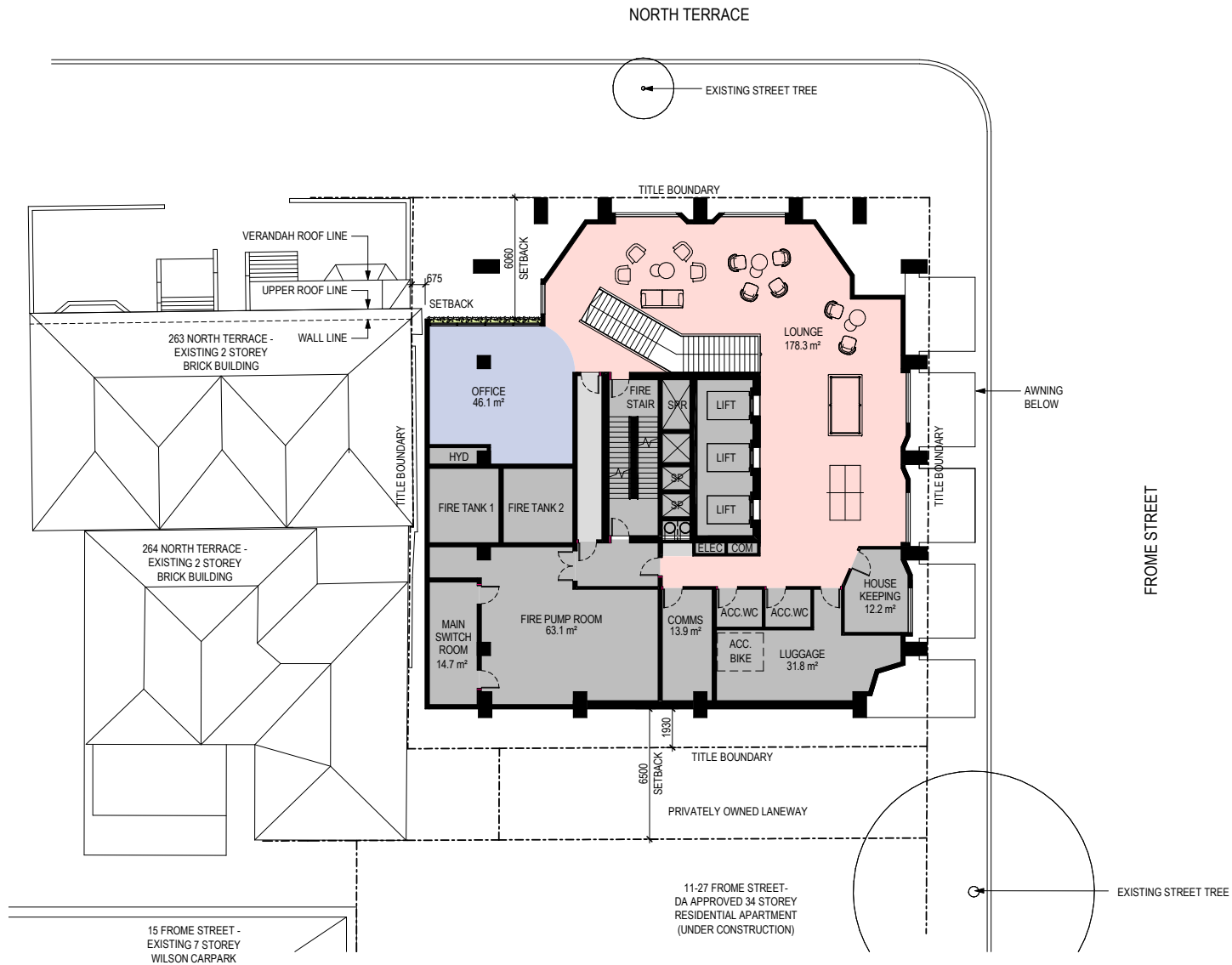
Project No / **217091** Date / **23.10.17** Author / **JLi** Scale: @ A3 / **1 : 200**

Drawing No. **TP01.01 D**

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DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	22.01.18	Response to Council comments	KW
C	23.02.18	Response to Government Architect	KW
D	03.04.18	Response to Deferral Items	JLI

Project
GSA Student Housing North Terrace
 266 North Terrace, Adelaide, SA

Drawing
LEVEL 1

Project No
217091

Date
23.10.17

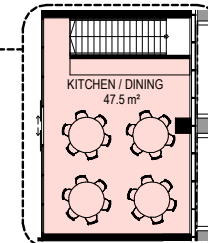
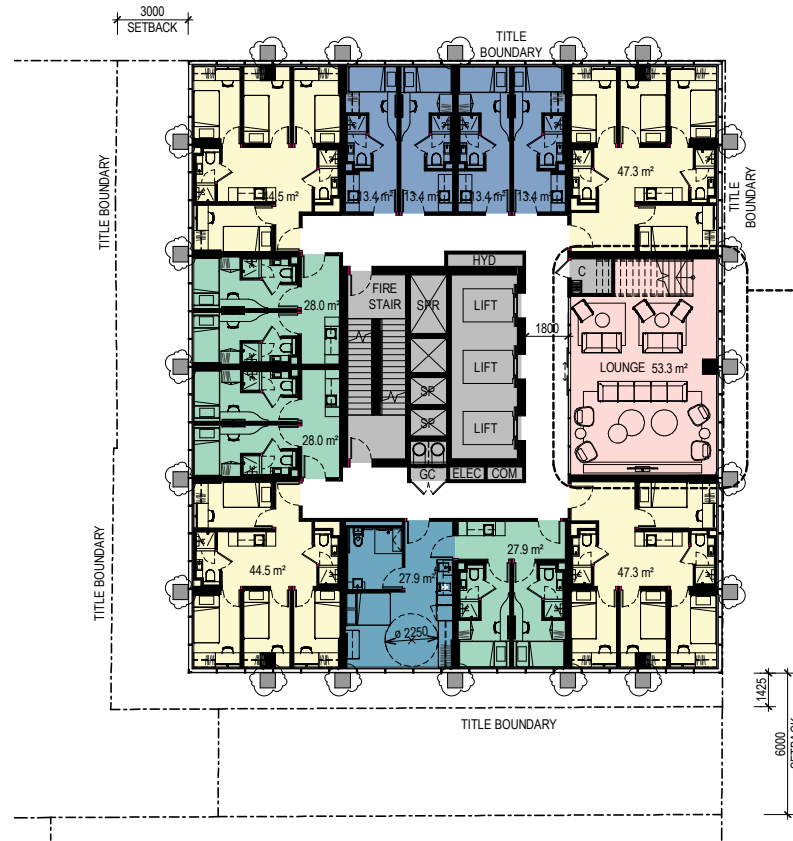
Author
JLI

Scale: @ A3 / **1:200**

Drawing No. **TP01.02 D**

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UPPER LEVEL COMMUNAL SPACE

ABBREVIATIONS:

C	CLEANERS CUPBOARD
COM	COMMUNICATIONS RISER
ELEC	ELECTRICAL RISER
GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	13.02.18	Response to Government Architect	JLI

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

**LEVELS 2-5 'CO-LIVING'
& DDA**

Project No **217091**

Date **23.10.17**

Author **JLI**

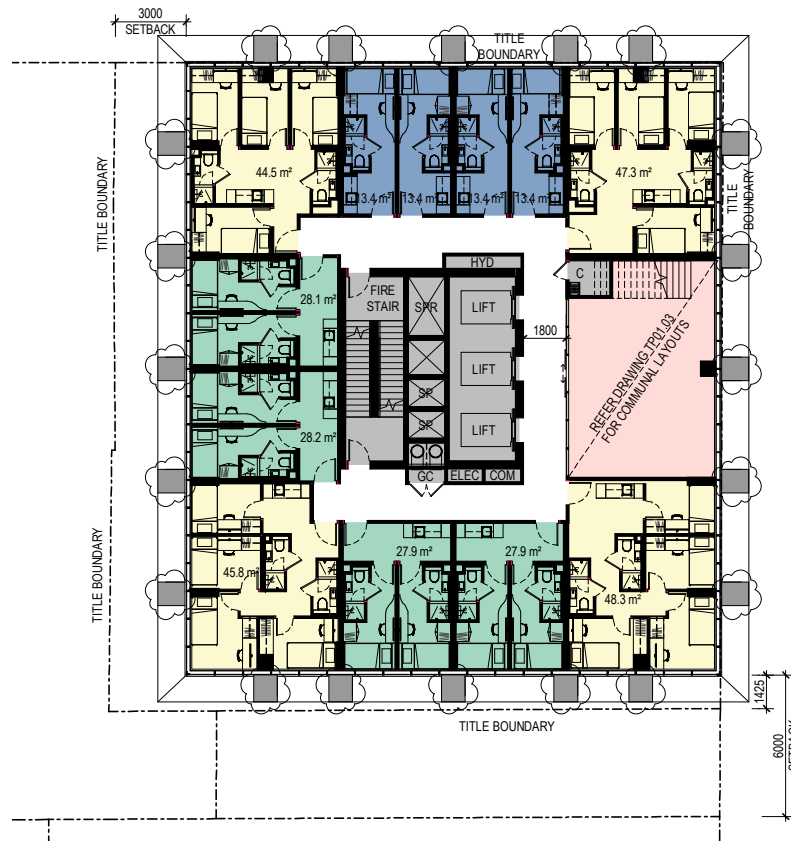
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Drawing No **TP01.03 A**

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HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	13.02.18	Response to Government Architect	JLI

Project
**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing
**LEVELS 6-11
'CO-LIVING'**

Project No
217091

Date
23.10.17

Author
JLI

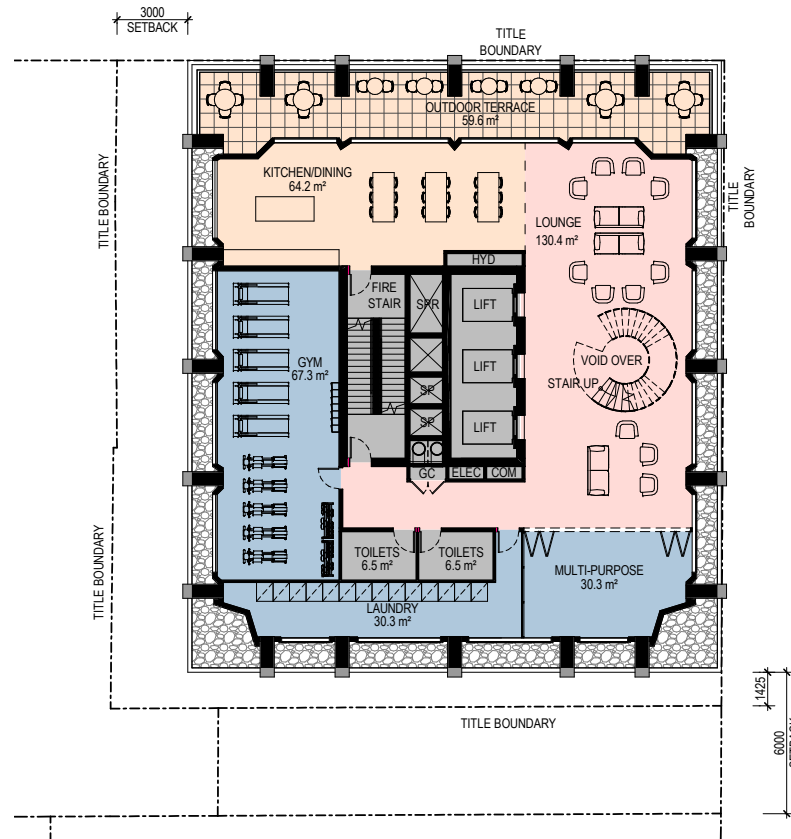
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Drawing No
TP01.07 A

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GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	03.04.18	Response to Deferral Items	JLi

Project
**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing
LEVEL 12 COMMUNAL

Project No
217091

Date
23.10.17

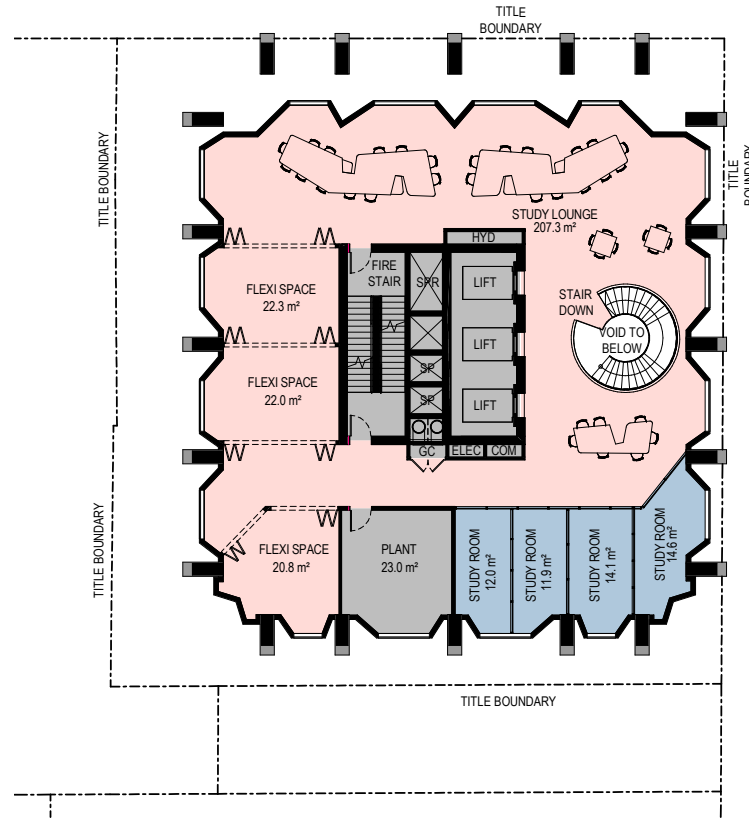
Author
JLi

Scale: @ A3
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Drawing No
TP01.13 A

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GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	03.04.18	Response to Deferral Items	JLi

Project
**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing
LEVEL 13 COMMUNAL

Project No
217091

Date
23.10.17

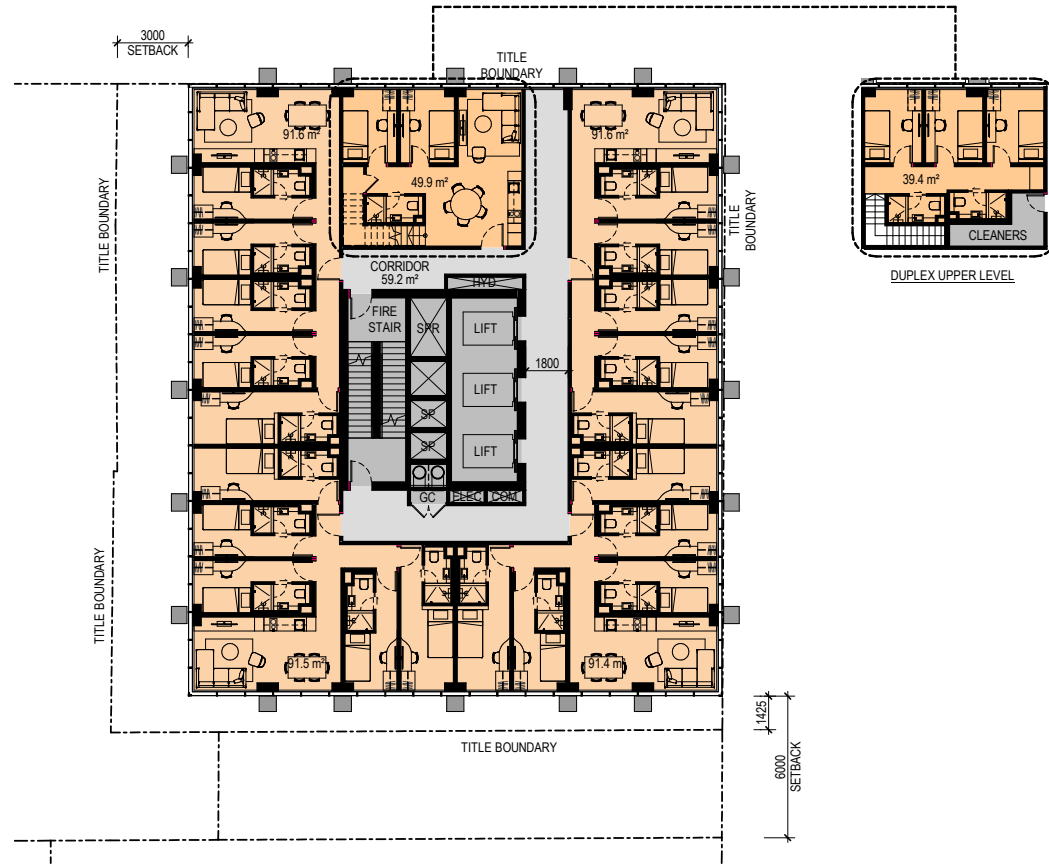
Author
JLi

Scale: @ A3
1: 200

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TP01.14 A

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GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

Project / KW GSA Student Housing

266 North Terrace, Adelaide, SA

Drawing / LEVELS 14-23
'MULTI-BED' & DUPLEX

Project No / 217091

Date / 23.10.17

Author / JLi

Scale: @ A3 / 1 : 200

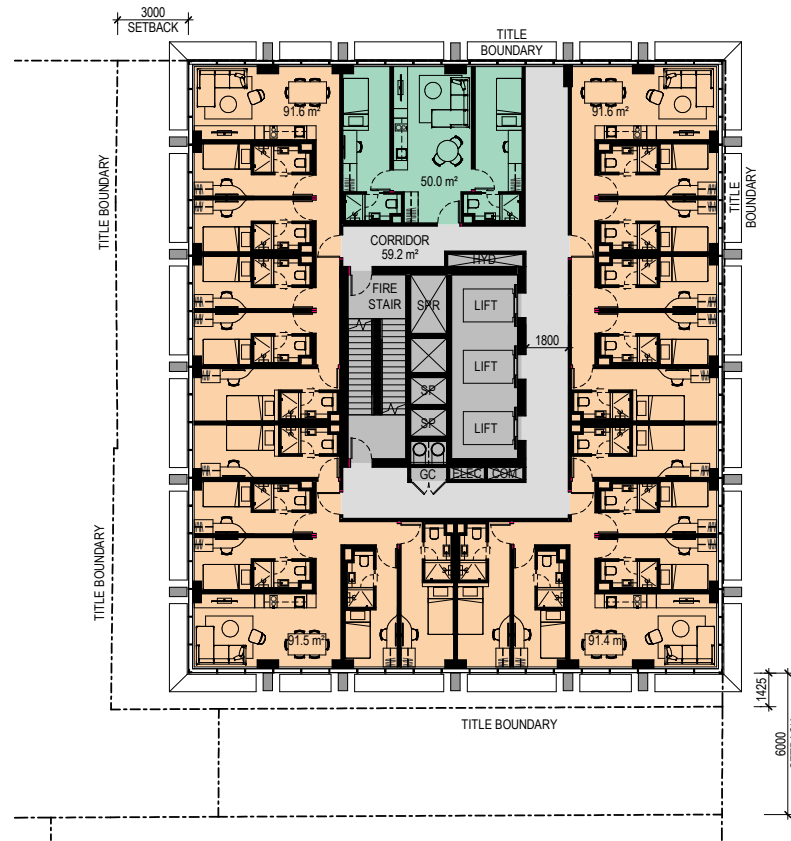
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HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application KW Project / **GSA Student Housing** Drawing / **LEVEL 24 'MULTI-BED'** Project No / **217091** Date / **27.10.17** Author / **KW** Scale: @ A3 / **1 : 200** Drawing No. / **TP01.25** -

266 North Terrace, Adelaide, SA

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GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

KW Project / **GSA Student Housing**

266 North Terrace, Adelaide, SA

Drawing / **LEVEL 25 'STUDIO',
DDA & COMMUNAL**

Project No / **217091**

Date / **23.10.17**

Author / **JLi**

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Drawing No / **TP01.26 -**

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ELEC	ELECTRICAL RISER
GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

Project / KW GSA Student Housing

266 North Terrace, Adelaide, SA

Drawing / LEVELS 26-29 'STUDIO' & DDA

Project No / 217091

Date / 25.10.17

Author / KW

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Drawing No / TP01.27 -

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GC	GARBAGE CHUTES
HYD	HYDRAULICS RISER
SP	STAIR PRESSURISATION RISER
SPR	STAIR PRESSURISATION RELIEF RISER

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

KW Project / **GSA Student Housing**

Drawing / **LEVELS 30-33 'STUDIO'**

Project No / **217091**

Date / **23.10.17**

Author / **JLi**

Scale: @ A3 / **1 : 200**

Drawing No. / **TP01.31 -**

266 North Terrace, Adelaide, SA

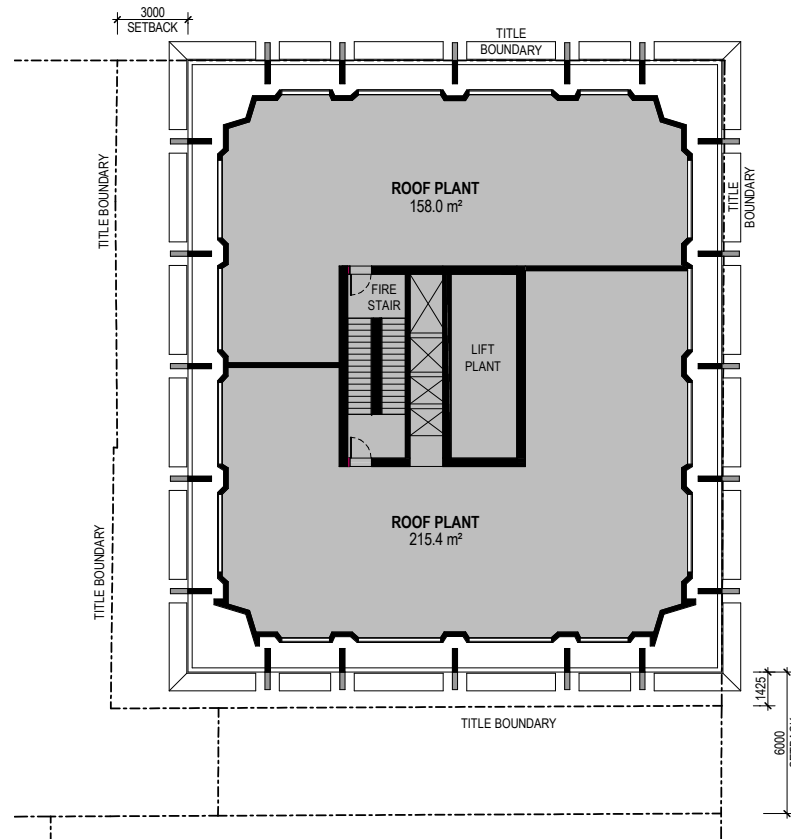
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DEVELOPMENT APPLICATION

Revisions /
- 08.11.17 Development Application
A 03.04.18 Response to Deferral Items

Project /
KW
JLI

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing /
ROOF

Project No /
217091

Date /
25.10.17

Author /
KW

Scale: @ A3 /
1 : 200

Drawing No. /
TP01.35 A

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SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- (CS01) CLADDING SYSTEM TYPE 01
- (MF01) METAL FINISH TYPE 01
- (GT01) GLAZING TYPE 01
- * FACADE JOINT

DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	22.01.18	Response to Council comments	KW
C	13.02.18	Response to Government Architect	JLI
D	23.02.18	Response to Government Architect	KW
E	03.04.18	Response to Deferral Items	JLI

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

**ELEVATIONS - NORTH
& EAST**

Project No / **217091** Date / **25.10.17**

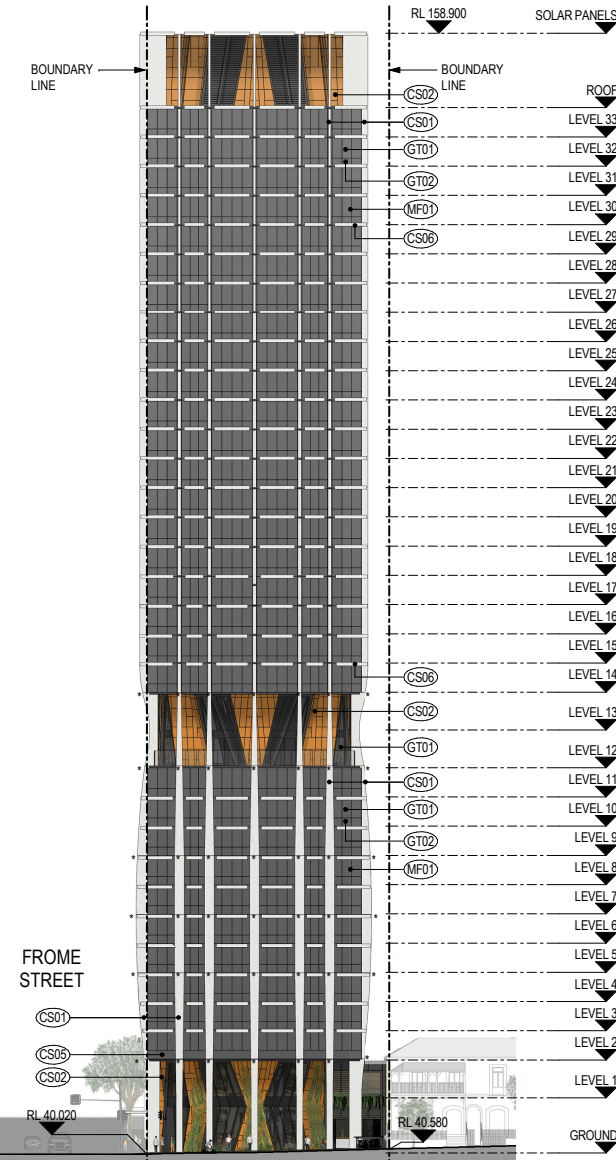
Author / **KW** Scale: @ A3 / **1 : 500**

Drawing No. / **TP02.01 E**

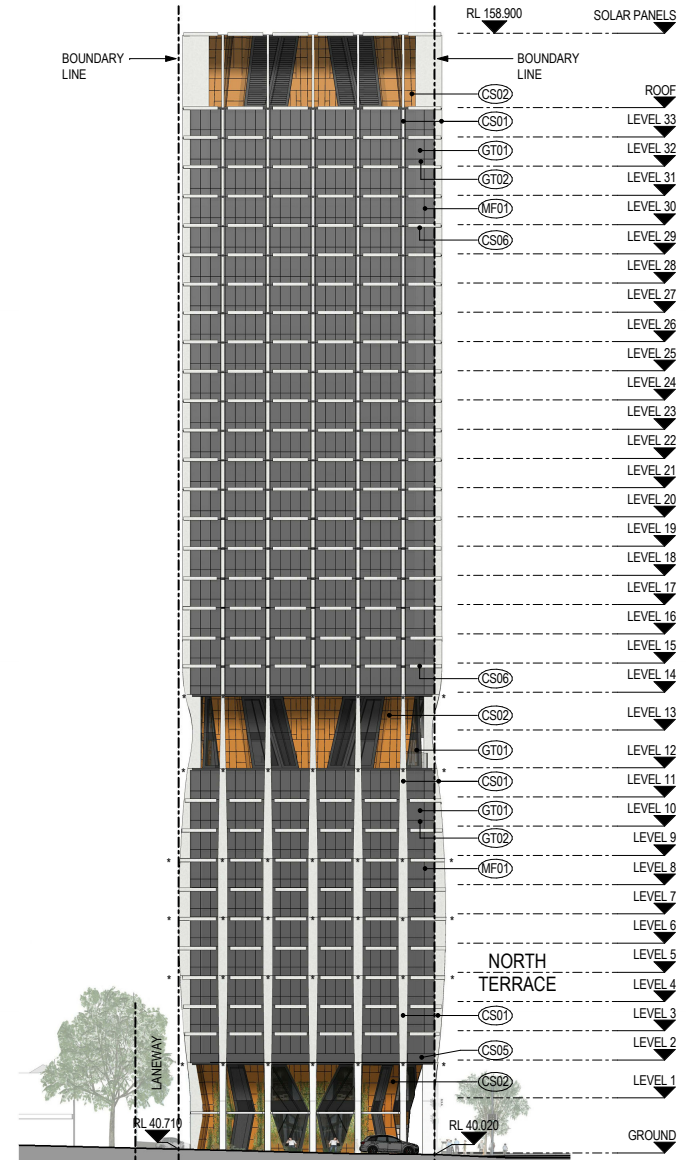
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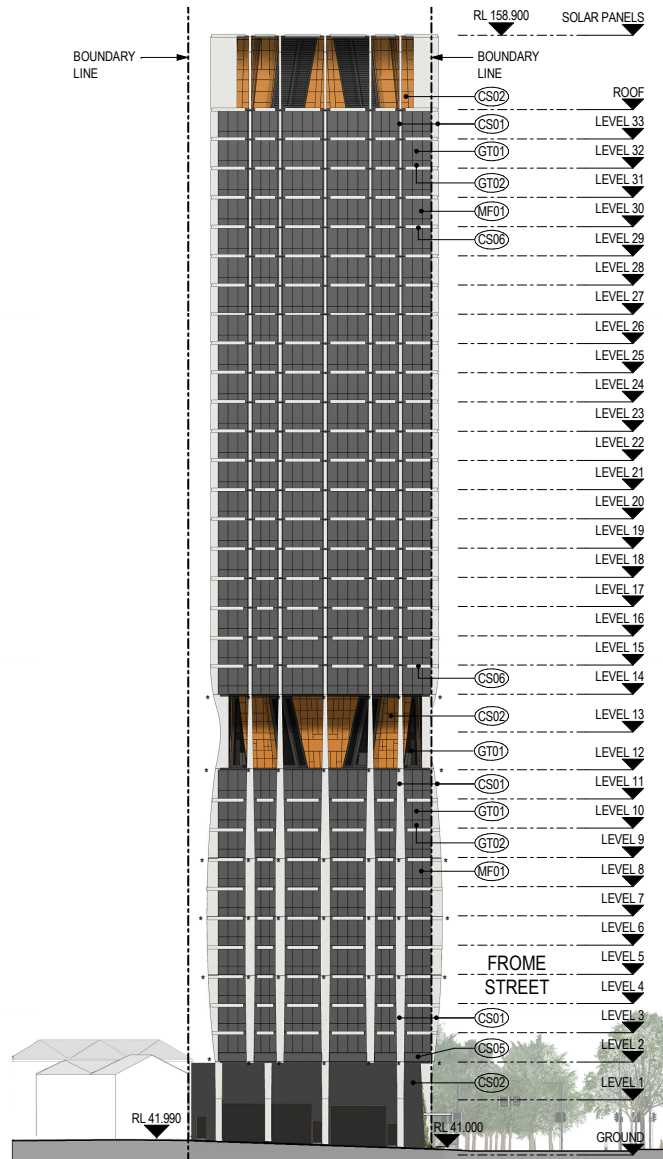


NORTH ELEVATION



EAST ELEVATION

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SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- (CS01) CLADDING SYSTEM TYPE 01
- (MF01) METAL FINISH TYPE 01
- (GT01) GLAZING TYPE 01
- * FACADE JOINT

DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	22.01.18	Response to Council comments	KW
C	13.02.18	Response to Government Architect	JL
D	23.02.18	Response to Government Architect	KW
E	03.04.18	Response to Deferral Items	JL

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

SOUTH ELEVATION

**ELEVATIONS - SOUTH
& WEST**

Project No / **217091** Date / **25.10.17**

Author / **KW** Scale: @ A3 / **1 : 500**

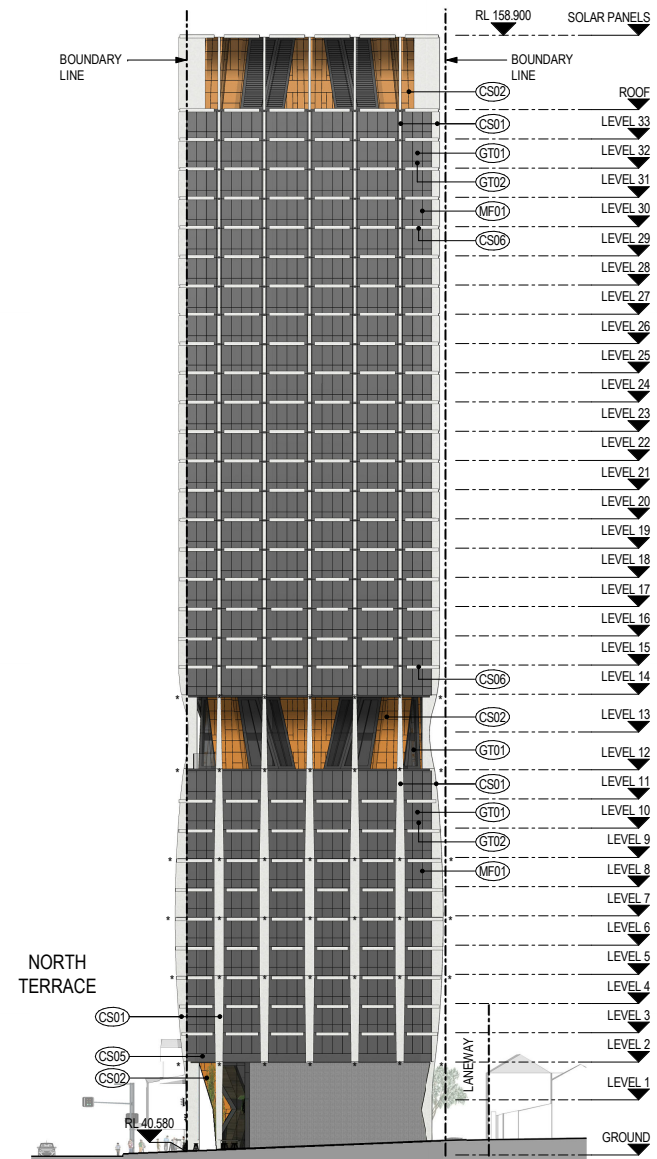
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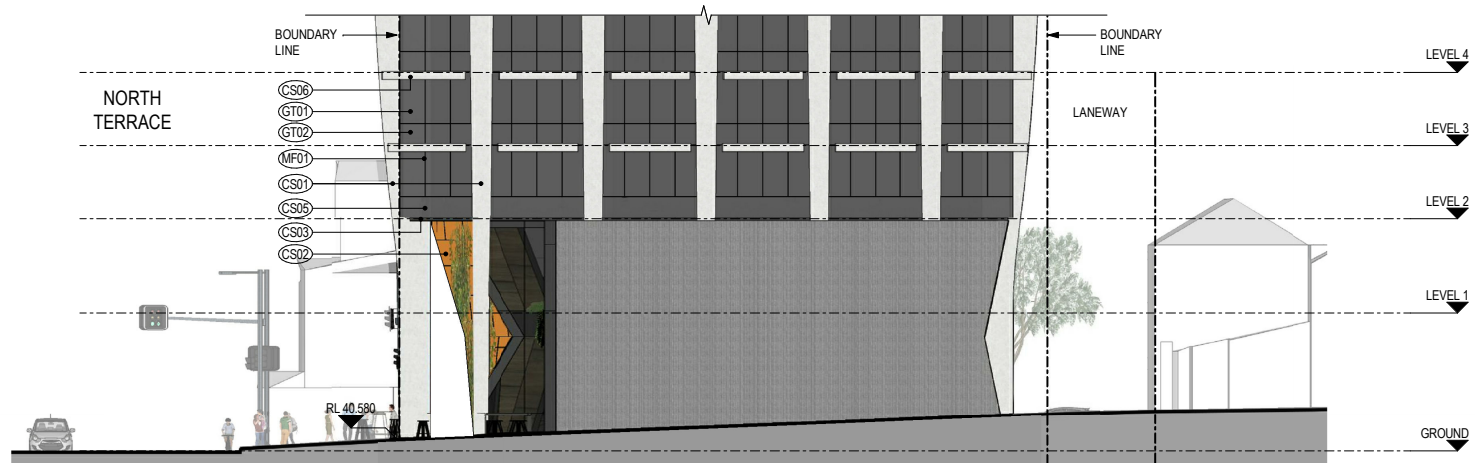
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WEST ELEVATION



NORTH ELEVATION



WEST ELEVATION

DEVELOPMENT APPLICATION

Revisions			
-	22.11.17	Development Application	KW
A	22.01.18	Response to Council comments	KW
B	13.02.18	Response to Government Architect	JU
C	23.02.18	Response to Government Architect	KW
D	03.04.18	Response to Deferral Items	JU

Project
GSA Student Housing
North Terrace
 266 North Terrace, Adelaide, SA

Drawing
NORTH & WEST
ELEVATIONS
(AT LOWER LEVELS)

Project No / **217091**

Date / **14.11.17**

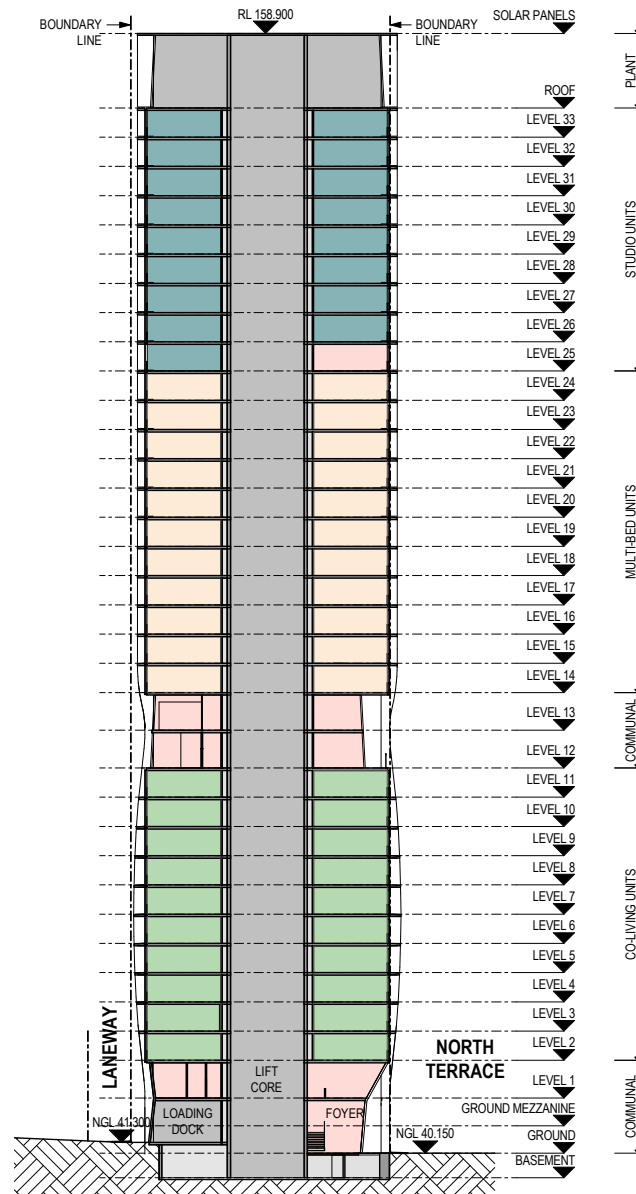
Author / **KW**

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Drawing No. / **TP02.11 D**

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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	13.02.18	Response to Government Architect	JLI
	B	03.04.18	Response to Deferral Items	JLI

Project
**GSA Student Housing
 North Terrace**
 266 North Terrace, Adelaide, SA

Drawing
SECTION

Project No / **217091** Date / **23.10.17** Author / **JLI** Scale: @ A3 / **1 : 500**

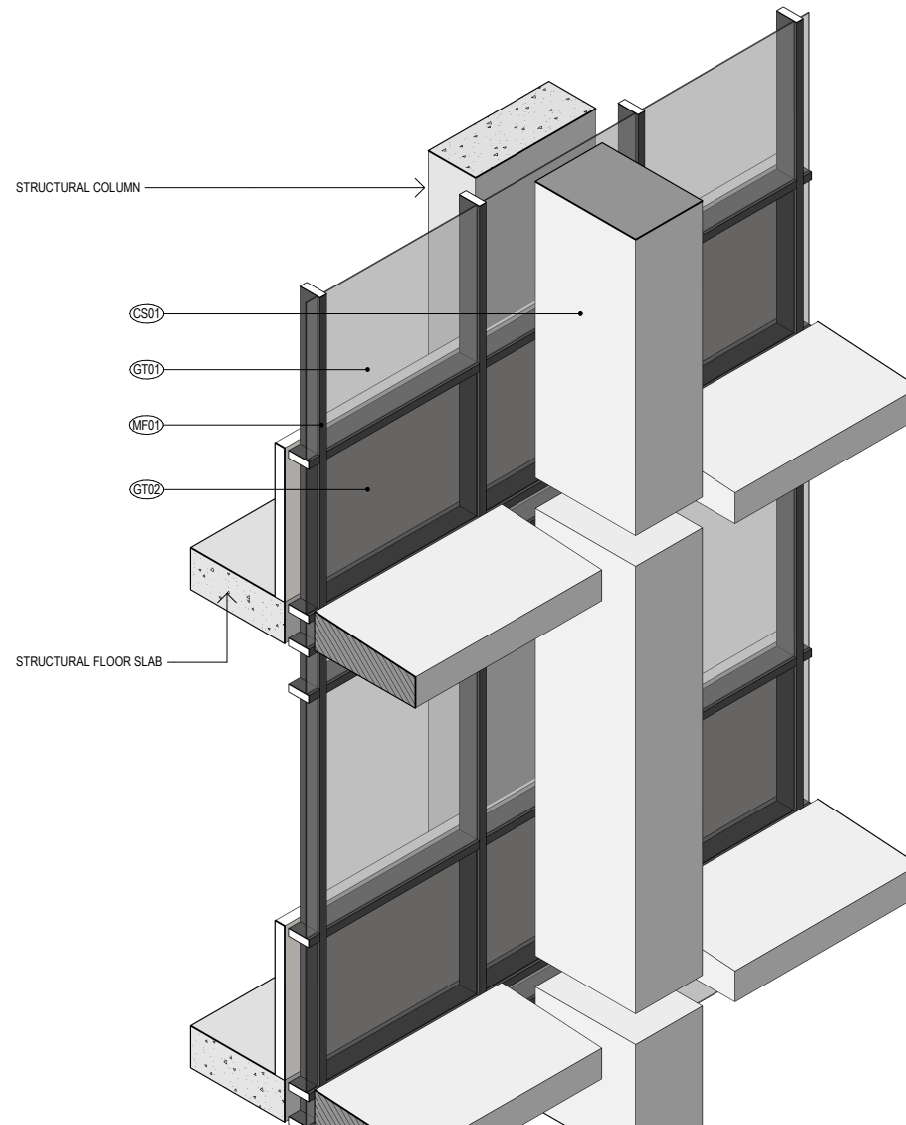
Drawing No. / **TP03.01 B**

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SYMBOL LEGEND:

REFER TO TP05.01 MATERIAL PALETTE
FOR DESCRIPTION AND COLOUR

- CS01 CLADDING SYSTEM TYPE 01
- MF01 METAL FINISH TYPE 01
- GT01 GLAZING TYPE 01

DEVELOPMENT APPLICATION

Revisions / - 08.11.17 Development Application

KW Project / **GSA Student Housing**

Drawing / **3D FACADE SECTION**

Project No / **217091**

Date / **26.10.17**

Author / **KW**

Scale: @ A3 /

Drawing No / **TP03.02 -**

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PRELIMINARY

Revisions /
 - 08.11.17 Development Application KW
 A 13.02.18 Response to Government Architect JLI

Project /
**GSA Student Housing
 North Terrace**
 260 North Terrace, Adelaide, SA

Drawing /
**SHADOW ANALYSIS -
 21 JUNE 0900**

Project No /
217091

Date /
30.10.17

Author /
AK

Scale: @ A3 /
1 : 1500

Drawing No. /
TP04.01 A

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Revisions /
 - 08.11.17 Development Application KW
 A 13.02.18 Response to Government Architect JLI

Project /
**GSA Student Housing
 North Terrace**
 260 North Terrace, Adelaide, SA

Drawing /
**SHADOW ANALYSIS -
 21 JUNE 1200**

Project No / **217091** Date / **30.10.17**

Author / **AK**

Scale: @ A3 / **1 : 1500**

Drawing No. / **TP04.02 A**

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 - 08.11.17 Development Application KW
 A 13.02.18 Response to Government Architect JLI

Project /
**GSA Student Housing
 North Terrace**
 260 North Terrace, Adelaide, SA

Drawing /
**SHADOW ANALYSIS -
 21 JUNE 1500**

Project No /
217091

Date /
30.10.17

Author /
AK

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TP04.03 A

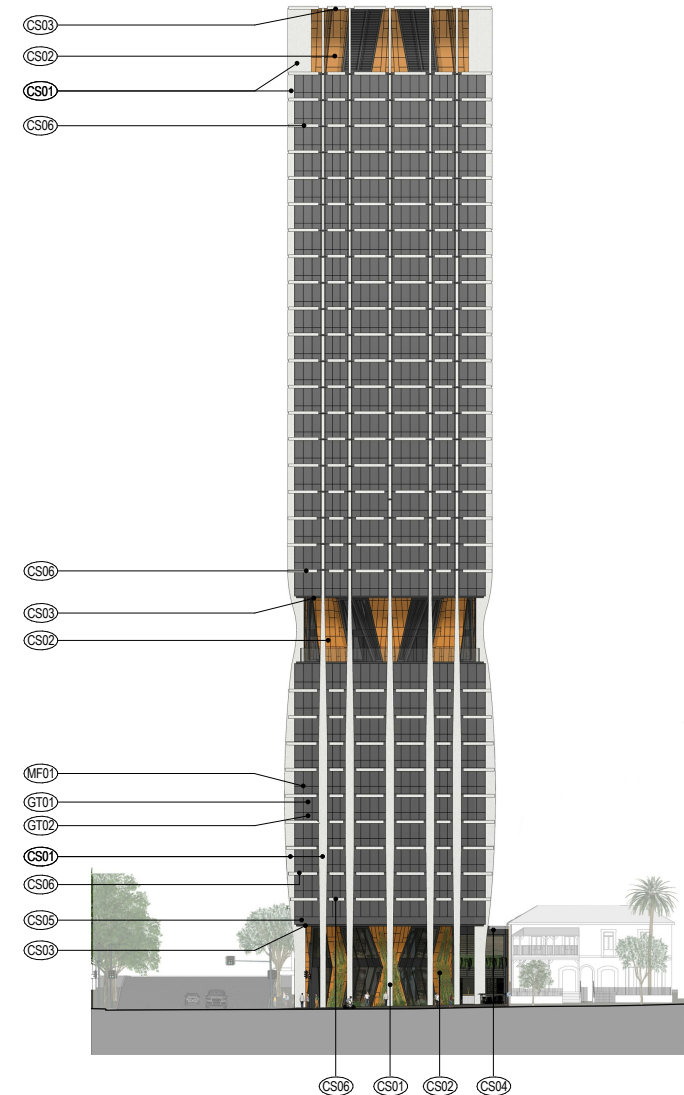
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DEVELOPMENT APPLICATION

Revisions	-	08.11.17	Development Application	KW
	A	22.01.18	Response to Council comments	KW
	B	03.04.18	Response to Deferral Items	JL

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

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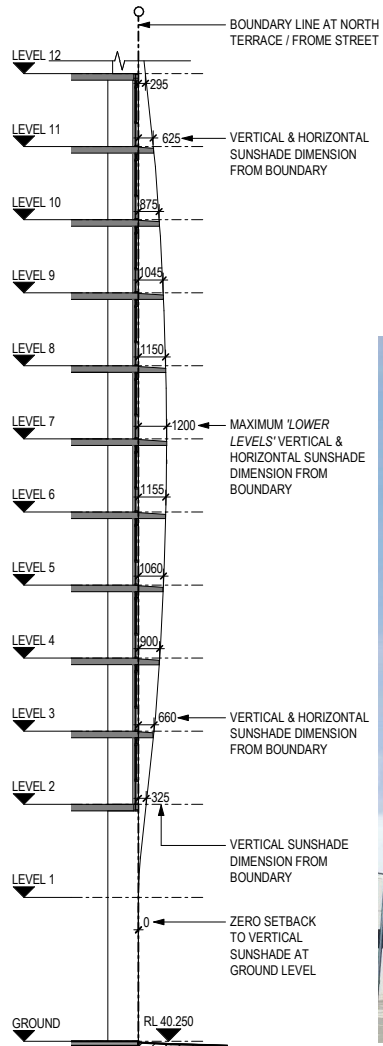
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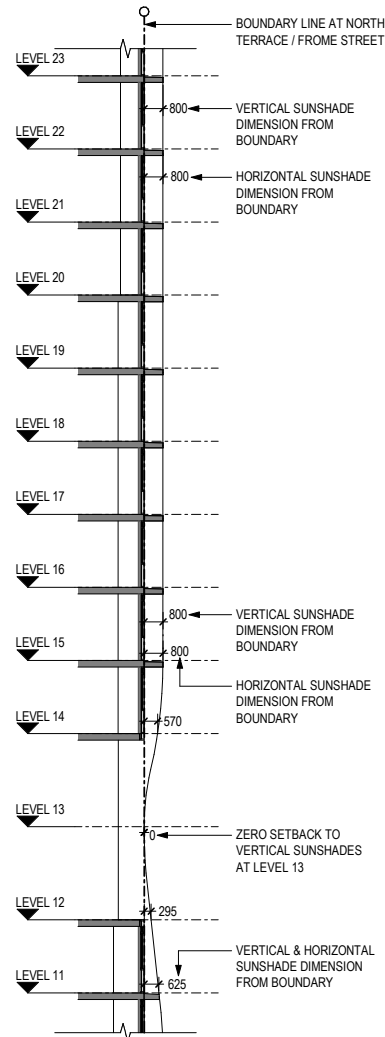
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SECTION 1 - LOWER LEVELS
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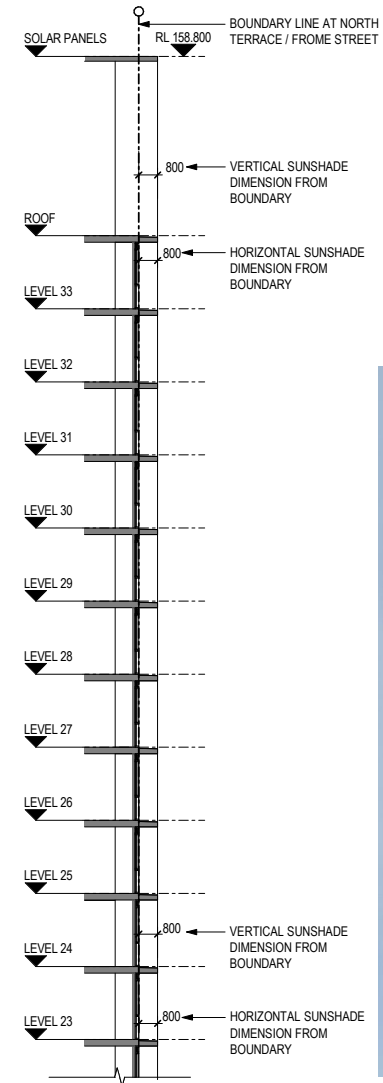
3D VIEW - LOWER LEVELS
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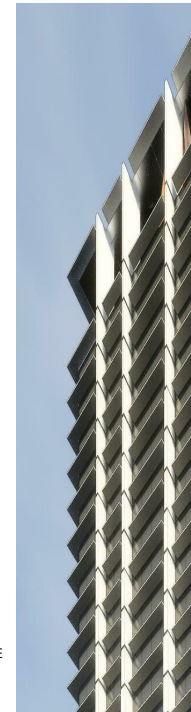
SECTION 2 - MID LEVELS
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3D VIEW - MID LEVELS
NOT TO SCALE



SECTION 3 - UPPER LEVELS
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3D VIEW - UPPER LEVELS
NOT TO SCALE

DEVELOPMENT APPLICATION

Revisions / 13.02.18 Development Application

Project /

**GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing /

**FACADE AT NORTH
TERRACE & FROME ST
BOUNDARIES**

Project No / 217091

Date / 07.12.17

Author / KW

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NOT TO SCALE

Drawing No. / **SK10.21** -

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DEVELOPMENT APPLICATION

Revisions			
-	08.11.17	Development Application	KW
A	22.11.17	Revised Ground & Level 1 for DA	KW
B	13.02.18	Response to Government Architect	JLI
C	27.02.18	Response to Government Architect	JLI
D	03.04.18	Response to Deferral Items	JLI

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 1**

Project No / **217091**

Date / **07.11.17**

Author / **KW**

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Drawing No. / **TP06.01 D**

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DEVELOPMENT APPLICATION

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C	27.02.18	Response to Government Architect	JU
D	03.04.18	Response to Deferral Items	JU

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 2**

Project No / **217091**

Date / **07.11.17**

Author / **KW**

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Drawing No. / **TP06.02 D**

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DEVELOPMENT APPLICATION

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B	27.02.18	Response to Government Architect	JJ
C	03.04.18	Response to Deferral Items	JJ

Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 3**

Project No / **217091** Date / **08.11.17** Author / **KW** Scale: @ A3 /

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Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 4**

Project No / **217091**

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DEVELOPMENT APPLICATION

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Project / **GSA Student Housing
North Terrace**
266 North Terrace, Adelaide, SA

Drawing / **3D VIEW 5**

Project No / **217091**

Date / **08.11.17**

Author / **KW**

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GSA Australia Pty Ltd C/- Intro Design Pty Ltd

Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses.

266-269 North Terrace, Adelaide

020/A074/17

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OVERVIEW

Application No	020/A074/17
Unique ID/KNET ID	2695 - 2017/24787/01
Applicant	GSA Australian Pty Ltd C/- Intro Design Pty Ltd
Proposal	Demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses
Subject Land	266-269 North Terrace, Adelaide
Zone/Policy Area	Capital City Zone / Central Business Policy Area
Relevant Authority	State Commission Assessment Panel (SCAP) Schedule 10 (4B)
Lodgement Date	21 November 2017
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan – Consolidated 20 June 2017
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	Government Architect, Airports, State Heritage Branch
Report Author	Brett Miller – Team Leader Inner Metro Development Assessment
RECOMMENDATION	Grant Development Plan Consent with Conditions

EXECUTIVE SUMMARY

The proposed development is for a 34 storey predominantly student accommodation building located on the corner of Frome Street and North Terrace. The proposal includes a commercial space at the ground floor and is located adjacent State Heritage Places to the west and the approved Adelaidian development to the south. The site is located within an area of the City that has no specific height limitations.

The application required formal referral to the Associate Government Architect (AGA), the State Heritage Branch and the Airports Authority. The overall height of the building was not raised as a concern by any department, however it is noted that a separate Commonwealth approval is required in relation to the development as it penetrates the Adelaide Airport Obstacle Limitation Surfaces (OLS) which is protected airspace for aircraft operations.

The State Heritage branch were supportive of the proposed development and considered that the development to have suitably considered the heritage context of the subject site.

The AGA provided comment that considered the development to not relate well to the North Terrace context and recommended a review of setbacks, further consideration of the solid to void ratio of the development, incorporation of ESD principles and a review of the architectural expression of the building. The applicant did some minor changes to the development however the concerns of the AGA remained concerned with the appropriateness of the proposed architectural expression in its location.

The proposal meets the Development Plan criteria in relation to height, use, access, parking (bicycle and vehicle, encroachments, setbacks, ESD principles, CPTED principles, noise emissions and noise protection, student apartment amenity and waste management.

Whilst the argument is finely balanced, particularly in relation to design and appearance, the development is recommended for the granting of Development Plan Consent.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

On 30 May 2017 the Minister for Planning approved the Capital City Policy Review (Design Quality) Development Plan Amendment introducing new policy intended to:

- reinforce the importance of design quality for new development;
- establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances; and
- provide guidance regarding built form responses to context and streetscape character.

1.2 Pre-Lodgement Process

The applicant chose not to engage in the Pre-lodgement service and submitted the application without undertaking a Pre-lodgement meeting or Design Review process.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

The proposed development involves the demolition of the buildings on site and the construction of a 34 storey mixed use building that is predominantly student accommodation. The mixed use stems from the ground floor containing a commercial space that is indicated it is to be used as a cafe (subject to tenancing). The height of the building is proposed to be 118.32 metres and is to contain 687 student beds.

A summary of the proposal is as follows:

Land Use Description	Mixed use building comprising commercial (cafe) tenancy at Ground floor and 687 student accommodation beds with associated communal areas.
Building Height	<i>118.32 metres – 34 levels and basement</i>
Description of levels	<p>Basement – building services, bicycle store and back of house facilities</p> <p>Ground – commercial tenancy with alfresco area, foyer, student services, loading and waste store.</p> <p>Level 1 – student amenity space, laundry, back of house and co-work space.</p> <p>Levels 2-5 (each contain) – 1x DDA compliant studio, 4x 1 bed co-living, 3x 2 bed co-living, 4x 4 bed co-living and two level communal spaces</p> <p>Levels 6-11 (each level) – 4 x 1 bed co-living, 4x 2 bed co-living, 4x 4 bed co-living and two level communal spaces.</p> <p>Level 12 – Student amenity space, gymnasium and balcony area</p> <p>Level 13 – Student amenity space including study rooms.</p> <p>Levels 14-23 (each level) – 1 x 5 bed duplex every second level and 4x 5 bed ensuite.</p> <p>Level 24 – 1x 2 bed ensuite and 4x 5 bed ensuite.</p> <p>Level 25 – 9x standard studio, 1x large studio, 1x 1 bed room, 1x DDA compliant studio, communal open space.</p> <p>Level 26-29 (each level) – 15x standard studio, 2x large</p>

	studio, 1x 1 bed room and 1x DDA studio. Levels 30-33 (each level) – 15x standard studio, 2x large studio and 2x 1 bed rooms. Roof – lift overrun with rooftop plant concealed by structure with solar panels above.
Site Access	Vehicular access to the site, for deliveries and waste collection, is via a private laneway and associated right of way. Pedestrian access is via the main entrance at the corner of Frome Street and North Terrace, through the commercial tenancy on North Terrace. Fire egress is at the southern edge of the building adjacent the private laneway.
Car and Bicycle Parking	128 bicycle parks with no inclusion of car parking on site.
Encroachments	The external fins encroach into the public land by a maximum of 1.2 metres – Council has confirmed that the encroachments can be authorised under staff delegation.
Staging	Stage 1: Demolition Stage 2: Substructure Stage 3: Superstructure Stage 4: Architectural facade

3. SITE AND LOCALITY

3.1 Site Description

The site comprises of one allotment, described as follows:

Lot No	Street	Suburb	Hundred	Title Reference
235	North Terrace	Adelaide	Adelaide	6194/250

The subject site is located at the corner of North Terrace and Frome Road and currently contains the First Church of Christ Scientist building. The site has a 27.38 metre frontage to Frome Street and a 25.76 metre frontage to North Terrace. There is a 4.57 metre shared lane to the southern boundary of the site which has rights of way over it to enable rear access to the rear of the neighbouring buildings that front North Terrace.

The site is reasonably surrounded by state heritage buildings with the 4 buildings immediately west of the site being listed along with the University of South Australia building to the north west and the Old Royal Adelaide Hospital buildings to the north east.

The site is relatively flat with a fall from south to north of approximately 1 metre, the site is devoid of vegetation save for the 5 small trees adjacent the eastern edge of the existing building. There is one street tree in front of the North Terrace frontage of the site and one street tree to the south eastern corner of the private laneway.

3.2 Locality

The immediate locality is characterised (as mentioned above) by a number of grand State Heritage Listed buildings including the Brookman Building of the University of South Australia, the Old Royal Adelaide Hospital Buildings, Ayers House, the classical sandstone Villa at 261 North Terrace, the two storey terrace buildings at 263-264 North Terrace and Grand Lodge of Freemasons Adelaide Masonic Centre.

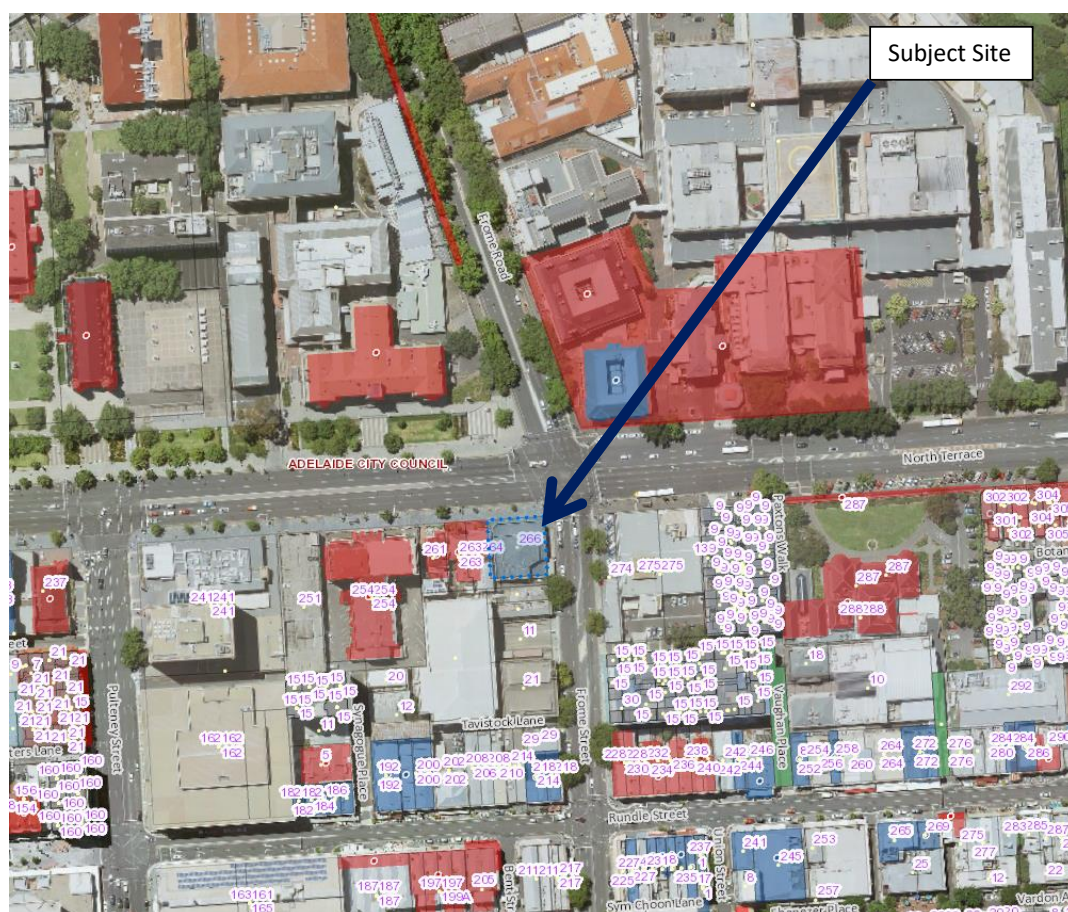
North Terrace is Adelaide's most prominent boulevard and provides a significant cultural experience with the location of the Universities, Museum, Art Gallery and Parliament located on the its northern side. The Southern side comprises of a mixture of used with offices, public buildings, public car parking structures and two churches (one to be demolished by this application).

A majority of the buildings on North Terrace have a zero setback to the front boundaries and create a hard edge between the public realm and the built form, the exception is the heritage buildings at 261-264 North Terrace.

South of the site is a privately owned laneway, a construction site for the new Adelaidian development and the existing public car parking structure fronting Frome Street.

The eastern side of Frome Street comprises of a Budget car rental office with associated car park and another public carpark further south with residential apartments above and ground floor tenancies.

Figure 1 – Location Map





South Eastern corner of the site



North eastern corner of the site.



Adjacent State Heritage properties on North Terrace



North western corner of the site

4. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

4.1 Government Architect

The Government Architect is a mandatory referral in accordance with Schedule 8 of the Development Regulations 2008. The Commission must have regard to this advice.

The application was referred with the AGA providing comment. Whilst there was support for the project teams aspirations for the site, particularly as the site has potential to become a landmark site for Adelaide and North Terrace in particular, there was concern that the architectural expression of the development was not in keeping with the established character of North Terrace. The referral response noted that North Terrace buildings were defined by their grand scale, institutional architecture and they reflected the symmetry and order of the Adelaide square mile.

The referral response raised no concern with the overall height of the development, the proposed use given its proximity to the two university sites on the northern side of North Terrace and support was given to the integrated rooftop plant. However, the response maintained that the development did not sit well with the character of "the City's premier boulevard".

The referral response continues on to suggest that the lower two levels of the building should not be setback from the frontages of the site as this would appear

contradictory to the established character of North Terrace and the Development Plan which calls for a consistent built form to frame the City edge.

The facade treatment of concrete vertical fins, light weight metal panels and infill glazing was not supported by the AGA. This was predominantly due to the low solid to void ratio being highly inconsistent with the North Terrace character.

There was support for the breaking down of the buildings mass with the inclusion of the break provided at levels 12 and 13 and with this also making a podium that works well with the under construction Adelaidian Development on Frome Street.

Further justification was requested of the ecologically sustainable development due to the inclusion of a substantial amount of glazing.

The applicant has considered the referral from the AGA and provided amended plans that addressed some of the concerns raised in the referral. The changes to the plans were:

- Alterations to the ground plane and the reducing of the setbacks to Frome Street and North Terrace to better address the corner and reinforce the city edge.
- The vertical fins were reduced in depth to no more than 1.2 metres (note that this also addressed the Council concerns in relation to the encroachments).
- Additional justification in relation to the architectural expression (no changes to the overall plans).
- Supporting statements from the architects for the proposal and an additional Heritage Impact Statement.
- Further details as to the communal open space elements and strategy for the development.
- Additional information in relation to ecologically sustainable development initiatives for the project.
- Justification in relation to the non-supply of a materials and finishes board.

Due to the timing of the information supplied there was limited opportunity to re-refer the application to the AGA, however commentary was supplied via e-mail and can be found in the attachments associated with this report. The AGA acknowledged the positive steps taken to address the North Terrace and Frome Street frontages of the site and the further information pertaining to the open space elements. However the AGA remains concerned with the architectural expression of the building.

4.2 State Heritage Branch of DWENR

The application has been referred to the Minister for Sustainability, Environment and Conservation in accordance with Section 37 of the Development Act 1993 as a development that directly affects a State Heritage Place due to its location east of the State Heritage place at 263-264 North Terrace. There are also two other State Heritage Places identified to the west of the above mentioned property at 261 North Terrace and 254 North Terrace.

The State Heritage Branch advised the following:

"Subject to the recommendation set out below, the proposed development (as amended 22/01/2018) is considered to be acceptable in relation to the above State heritage places for the reasons described in the Heritage Impact Statement and as follows.

- *Other than the construction management issues covered by conditions recommended below, the proposed development does not directly affect the physical fabric or material heritage values of the State heritage places.*

- *The two-storey boundary wall of the proposed building is set back from the common side boundary with the State heritage place at 263-264 North Terrace to allow sufficient clearance for projections beyond its eastern wall face (such as footings, plinth and eaves). The two-storey western wall of the proposed building establishes a comfortable visual juxtaposition with the State heritage place by finishing just below its eaves line, and by its front setback sitting behind the two-storey verandah and balcony in line with the front wall alignment of the State heritage place.*
- *Visually, the pronounced articulation of the building's form sets up a satisfactory relationship with the scale of the two-storey State heritage places (SH/13376 and SH/13377), and the inset faceted infill of these levels provides eye-level visual interest and detail that responds to the fine-grained detail of the heritage places. The articulation with a similar inset at levels 12 and 13 generally acknowledges the various heights and scale of more recent built form in the vicinity (including the State heritage-listed Grand Lodge of Freemasons, Brookman Building and Royal Adelaide Hospital buildings)."*

The State Heritage Branch recommended 3 conditions and a number of notes be attached to any consent granted for the proposed development. These conditions and notes have been attached to the recommendation of this report.

4.3 Airport

The Adelaide Airport is a mandatory referral in accordance with Schedule 8 of the *Development Regulations 2008*. The Panel must have direction to the advice.

The application has been assessed and at a height of RL 158.9m AHD. As a result the application will penetrate the Adelaide Airport Obstacle Limitation Surfaces (OLS) which is protected airspace for aircraft operations. It is noted that the proposed development will penetrate the OLS by approximately 8 metres.

As such the application will require approval in accordance with the Airports Act 1996 and the Airport (protection Airspace) Regulation 1996 and therefore will be forwarded to the Department of Infrastructure and Regional Development for their approval.

Crane operations associated with construction, if approved, will also be subject to a separate application and are to remain below the PANS-OPS height of RL 182m AHD. It was also noted that any associated lighting for the building would need to conform to the Airport lighting restrictions and be shielded from aircraft flight paths.

The applicant has recently provided an Aeronautical Study which concludes that the proposed building development at 266 North Terrace, Adelaide, at a height of 158.9m AHD:

- Will infringe the OLS at Adelaide Airport and will require approval from aviation authorities;
- Will not infringe the PANS OPS surfaces at Adelaide Airport;
- Will not impact navigation aid systems located at Adelaide Airport;
- May affect ATS Surveillance system accuracy but other sensors in the area are likely to mitigate this impact. Advice from Airservices Australia's engineers will be required;
- Will not infringe the RTCC protection surface.

This AIA concludes that the crane activity, at a maximum height of 188.9 m;

- Will infringe the OLS at Adelaide Airport;
- Will infringe the PANS OPS surface for two of the approaches to runway 23, as described above;
- Will infringe the RTCC protection surface;

- Adjustments to segment altitudes of the RNAV and VOR approaches and to the RTCC are required to accommodate crane operations during the construction of the building;
- The adjustments and infringements will require approval from aviation authorities.

The applicant is aware of the separate approval being required and have commenced that process. However it is noted that the fact that there is an approval for the building immediately south of the subject site at a taller height indicates that the separate approval should be forthcoming.

5. COUNCIL TECHNICAL ADVICE

5.1 City of Adelaide

The City of Adelaide were referred the application for technical comments and raised no concern in relation to the waste management strategy proposed for the development and very minimal commentary from a traffic perspective. The applicant has addressed the traffic matters and noted that an outdoor seating would be required for any outdoor dining to occur outside of the development site.

Council originally raised concern with the fin elements and their encroachment over the public realm. The original design had the fins projecting more than 1.2 metres over the boundary of the development site and this posed a concern from Council as it failed to meet the Councils Encroachments Policy. The applicant has reconfigured the fin elements to ensure that they will be in line with the Policy and Council have confirmed that these encroachments can be authorised under delegation should the development gain development plan consent.

No further issues were raised by Council in relation to this development.

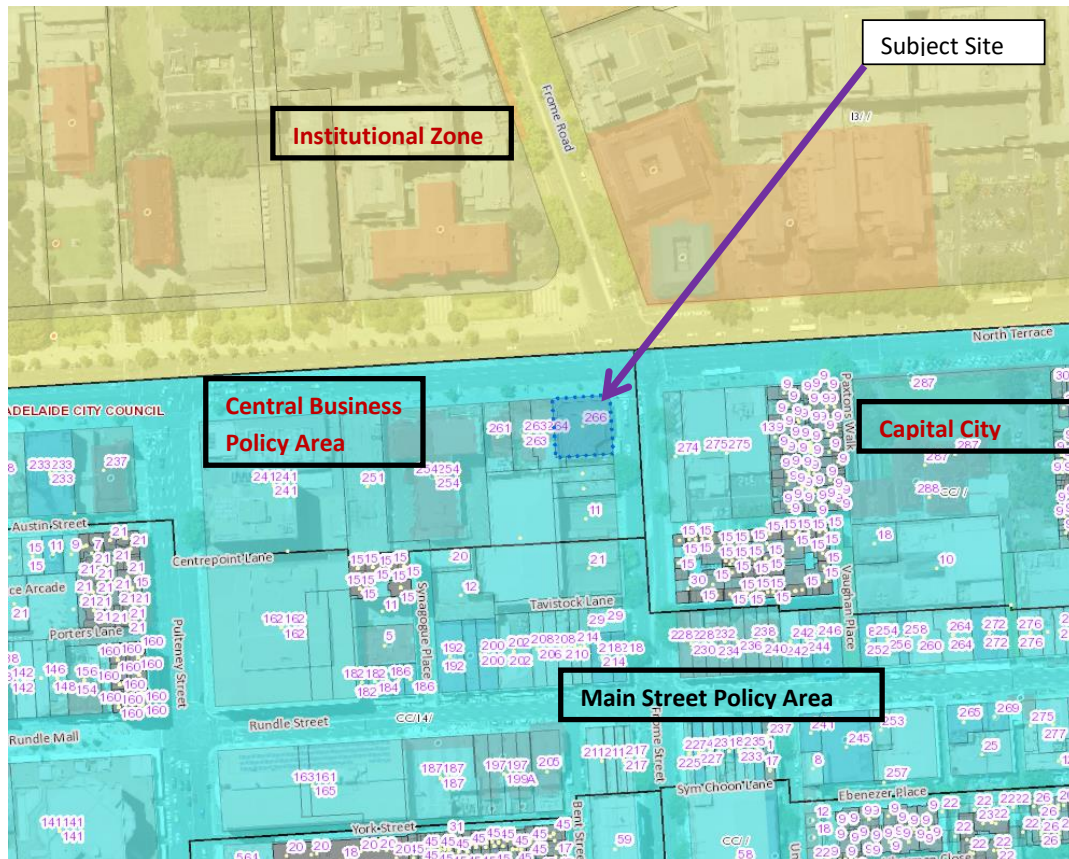
6. PUBLIC NOTIFICATION

The application is a Category 1 development pursuant to The City of Adelaide Development Plan and more specifically Principle of Development Control 40 of the Capital City Zone. No public notification was required.

7. POLICY OVERVIEW

The subject site is within the Capital City Zone, Central Business Policy Area 13 as described within the Adelaide (City) Development Plan Consolidated 30 May 2017. Relevant planning policies are contained in the attachments and are summarised below.

Figure 2 – Zoning Map



7.1 Central Business Policy Area 13

- The Policy Area is the State's pre-eminent economic, governance and cultural hub and will be supported by educational, hospitality and entertainment activities and increased opportunities for residential, student and tourist accommodation.
- Buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality.
- Complementary and harmonious buildings in individual streets will create localised character and legible differences between streets, founded on the existing activity focus, building and settlement patterns and street widths.
- Development of a high standard of design and external appearance is anticipated in a way that successfully integrates with the public realm. To enable an activated street level, residential uses (or similar) should be located above ground level.

7.2 Capital City Zone

- High-scale development is envisaged in the Capital City Zone with high street walls that frame the streets and an interesting pedestrian environment and human scale created at ground level.

- In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment.
- Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment with buildings sited and composed in a way that responds to the buildings' context.
- A comprehensive, safe and convenient movement network throughout the City will develop, focusing on the provision of linkages on both public and private land between important destinations and public transport.

7.3 Council Wide

Council Wide provisions provide guidance on the desire for increased levels of activity and interest at ground level; a high standard of design; appropriate bulk and scale of buildings and positive contribution to streetscapes including interfaces with places of heritage significance. Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages within the Primary Pedestrian Area.

7.4 Overlays

7.4.1 Airport Building Heights

Prescribed height limits are specified for the subject land under the Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5).

Referral to the Department of Transport and Regional Services through AAL is required where a development would exceed the Obstacle Limitation Surface contours shown on Overlay 5. Approval is required under the Commonwealth *Airports Act 1996* for structures that penetrate prescribed air space as defined in the Act.

7.4.2 Affordable Housing

The subject land is located within the Affordable Housing Designated Area in Development Plan Map Adel/1 (Overlay 5a).

The Overlay recommends integration of affordable housing with residential and mixed-use development, and development comprising 20 or more dwellings to include a minimum of 15 percent affordable housing.

8. PLANNING ASSESSMENT

The SCAP is the relevant authority pursuant to Schedule 10(4) of the *Development Regulations 2008*:

4B (1) Development in the area of the Corporation of the City of Adelaide where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$10 000 000

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan, contained in the **Attachments**

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	No height limit	118.32 metres	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Land Use	Envisaged forms of development within the Capital City Zone include Student Accommodation and commercial developments.	Mixed use , predominantly student accommodation with commercial tenancy	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Car Parking	No minimum recommended	None supplied	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Bicycle Parking	No specific ratio applied for student accommodation	128 bicycle spaces	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Front Setback	Built to street frontage to form a city edge	Varies due to ground floor design – note 6 metre setback adjacent the Heritage Place.	YES <input type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input checked="" type="checkbox"/>	Refer to section 8.4 for further discussion
Rear Setback	None applicable	1.93 metres	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Side Setback	None applicable	On boundary for lower two levels then 3 metres	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	
Private Open Space	No specific ratio applied for student accommodation.	No individual private open space however there is communal areas and a 54m ² balcony on level 12.	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	

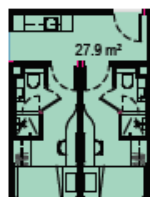
8.2 Land Use and Character

The proposed development contributes to the Desired Character of the Capital City Zone by introducing envisaged forms of development, which will contribute to an increased population with a resulting increase in the vibrancy and level of activity in this part of Adelaide's CBD.

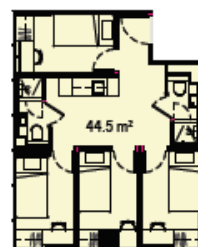
It is noted that the proposed development contributes to objectives in relation to housing choice, including through the provision of 9 DDA-compliant rooms through the development and the provision of a mixture of room typologies. The room typologies comprise of the following:



Typology- 1 Bed Co-Living

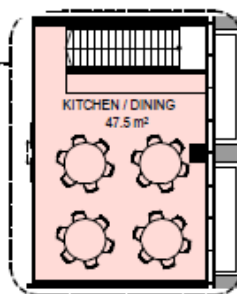
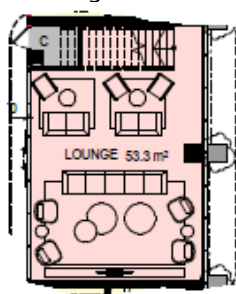


Typology- 2 Bed Co-Living

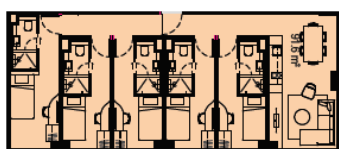


Typology- 4 Bed Co-Living

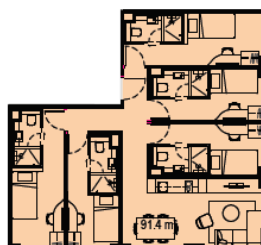
Co-living communal space



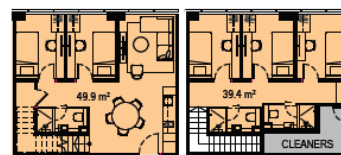
UPPER LEVEL COMMUNAL SPACE



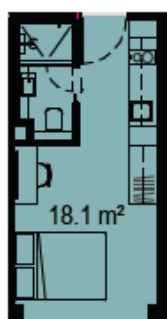
Typology- 5 Bed Apartment



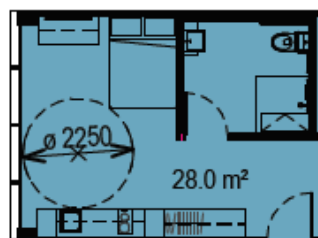
Typology- 5 Bed Apartment



Typology- 5 Bed Duplex Apartment

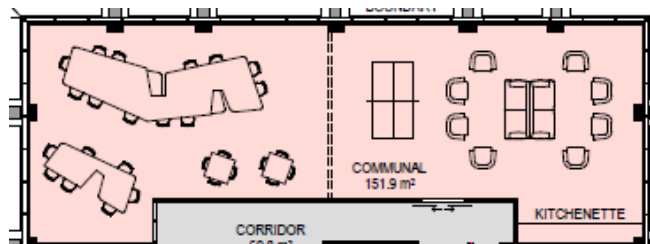


Typology- Studio



Typology- Accessible Studio

Communal Space for studio apartments



While the planning report and application material does not specifically address the requirements of the affordable housing overlay, it is noted that the proposed apartments in varying configurations of shared and private facilities will contribute to the supply of student accommodation in a range of price brackets.

The proposed building will introduce a contemporary design to North Terrace and there is some concern in relation to how the building will fit into the existing streetscape and character for North Terrace, particularly the protruding fins, the solid to void ratio and the unique ground floor plane. North Terrace has a distinct character with grand buildings that present a relatively consistent streetscape with a high solid to void ratio and rectilinear shapes and relatively hard edges to the North Terrace frontages. It is noted that the ground floor layout has been amended to provide a more solid facade treatment and to form an edge to the building. It is also noted that the design has been tailored to provide a setback to the north western corner of the building to address the State Heritage listed building adjoining the site.

The building is, on balance, considered to be providing an appropriate land use for the locality, however there is some unease in the design and it being in keeping with the character of the locality.

8.3 Building height

Within the Capital City Zone, PDC 21 provides that development should not exceed the maximum building height shown in the relevant Concept Plan. Concept Plan Figure CC/1 shows a no maximum height for the subject site.

Whilst the subject land is located within a portion of the Capital City Zone where no building height limit is prescribed, Zone PDC 22(c) envisages diminished building height where development would be located adjacent a Heritage Place. The Central Business Policy Area also advocates buildings of a height that ensures airport operational safety is not adversely affected.

At 34 storeys (118.32 metres) the building would present as one of the largest in the locality, it is noted that there is an approval for a building of a similar height (slightly taller) located to the south of the development site. Whilst the Development Plan contemplates lower buildings adjacent Heritage Places the proposed development is not considered out of context in terms of height for this locality. As discussed earlier in this report the AGA and the State Heritage Branch do not consider the height of this proposed development to be an issue.

8.4 Setbacks, Design and Appearance

The Capital City Zone seeks high street walls that frame the city streets, which is further strengthened by the Central Business Policy Area that supports tall and imposing buildings that provide a hard edge to the street.

The proposed development is attempting to blend the above mentioned requirement for a hard edge to the street with the fact that the development site is adjacent State heritage places that are setback between 3-6 metres. The North Terrace frontage of the building steps back at ground and first floor levels adjacent the State Heritage place to have the building set behind the built form of the Heritage place. It is noted that there is a fin column located in the courtyard located in front of the commercial tenancy to this frontage.

The remainder of the building fronting North Terrace has a varied setback to the building line as it works around the column/fin elements. The design of the building provides adequate grounding by virtue of the column/fin widths and the design has been amended following the original comments from the AGA to provide more ground floor area abutting the road boundaries of the site. The amendments are considered to provide contrast to the rectilinear form of the upper levels of the building, however it is noted that the AGA remains concerned with the setbacks and maintains that this aspect of the development does not suitable consider the existing character of North Terrace.

The upper levels of the building are set in from the western boundary of the site, which as discussed earlier in this report gives the neighbouring State Heritage Place breathing room. This setback also provides separation to meet the building code and allows separation for any later development of neighbouring sites. The rear of the building is set back 1.9 metres from the rear private laneway and therefore has a separation of 6.5 metres to the approved Adelaidian development.

Buildings in the Central Business Policy Area will exhibit innovative design approaches and produce stylish and evocative architecture of the highest design quality including tall and imposing buildings that provide a hard edge to the street. Development should be of a high standard of architectural design and finish to produce a variety of design outcomes of enduring appeal and contemporary juxtapositions providing new settings for heritage places.

The Development Plan identifies North Terrace as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile. The intent of the boulevard is to provide a clear sense of arrival into the City. This is of particular relevance to this site due to its location on a prominent corner of North Terrace and Frome Street.

There is fundamental difference of opinion between the applicants design team and the AGA in terms of the architectural expression of the building. The AGA considers the proposed development should provide a more appropriate response to the specific context of the North Terrace locality. The AGA continues on to state that there is a concern with the low solid to void ratio due to the construction of the building to incorporate the concrete vertical fins with infill glazing (colour backed and standard).

The applicants design team has responded to the concerns by some minor changes at the lower levels to provide more of an edge to the building, however they have retained the lower level form and the use of the vertical fin elements with infill glazing. The changes to the lower levels have provided a more usable space rather than the unusable tight corner elements. The applicant has also provided a separate architectural opinion from Hosking Willis Architecture in direct repose to the AGA's comments. The opinion takes cues from the approved Adelaidian development to the southern side of the site rather than the broader North Terrace locality. The statement continues to suggest that there would be difficulty in taking cues from the lower scale developments on North Terrace and transfer the design language onto a building of the scale proposed in this application.

The use of the colour-backed glazing does little to address the solid to void ratio of the building and whilst it is not suggested that it would need to match that of the heritage buildings it has been suggested that further consideration be given to this element of the design. The applicant has chosen to remain with this design. This has been supported by the secondary architectural opinion. The opinion suggests that the use of a higher solid to void ratio would cause an insular building. The design is considered to provide a design approach that allows for connection from the interior of the building to external public realm (however this argument becomes diluted the higher you go up the building).

There are valid arguments both for and against the proposed development in relation to the design and appearance. The discussion is finely balanced between two parts of the Desired Character statement of the Capital City Zone with these being:

"High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building facades, verandahs, balconies, awnings and other features that provide weather protection."

And

"Development fronting North Terrace, King William Street, Wakefield Street, Grote Street, the Squares and in the Main Street Policy Area, will reflect their importance through highly contextual design that reflects and responds to their setting and role."

Both of the above statements provide a level of flexibility in the design of proposals in the Capital City Zone that are somewhat conflicting, particularly the aspects that call for a hard edge and then the creation of an interesting pedestrian environment through articulation.

Consideration must also be given to the Desired Character Statement of the Central Business Policy Area, which also has an ability to have a differing opinion expressed as the statement calls for a hard edge to the street, but also a wide variety of design outcomes of enduring appeal.

On balance the proposal meets the Development Plan guidelines in relation to setbacks and the design team have somewhat addressed the lower level design. However, there is still concern in relation to the appearance of the building in the context of North Terrace.

8.5 Internal Amenity

Being specifically designed for student occupation, the proposed development qualifies for reduced internal and external private spaces through the provision of a significant number of shared or communal facilities including, theatre, kitchen, and dining areas, gaming console room, study areas and a balcony area on level 12. The development also provides a number of different room configurations and includes communal areas within the duplex configurations and communal spaces for the co-living configurations. The development proposes over 1,300m² of communal areas within the building.

Each bedroom has access to natural light along with the circulation spaces on each level by virtue of windows at the end of each corridor. The multi-bed room types have access to natural light by the location of the communal areas within these pods being generally located in the corners of the building. The floor plans accompanying the application show how each room type can accommodate as a minimum a desk,

robe, shelves and a single bed. In the absence of specific quantitative criteria for room size, regard is had to PDC 13 which seeks to ensure that sufficient space is provided for a single bed, book shelves, a desk and workspace and a cupboard/wardrobe. The applicant has suitably demonstrated how these can be accommodated within each of the room types proposed.

It is considered that the proposed development achieves the objective and principles set out in Objective 9 and PDCs 10 to 13 in relation to Student Accommodation.

8.6 Heritage

The design of the proposed building has had careful consideration of the adjacent State Heritage Places with the design garnering support from the State Heritage Branch. Whilst the building will tower over the adjoining heritage buildings the design at the junction between the buildings is considered appropriate. The proposed building has been stepped back into the site for the lower two levels adjacent the Heritage properties to allow for visibility of the properties from North Terrace. The building has also been set in from the western boundary to provide some breathing space to the heritage building and to enable the building to have similar facade treatments from all sides. This side setback also meets the building code for separation between buildings to minimise external fire treatments.

The design of the building whilst being contemporary has enabled breathing space to the Heritage places and is not considered to diminish the heritage value of the places. As such the development is considered satisfactory in relation to Heritage matters.

8.7 Traffic Impact, Access and Parking

Development should provide safe, convenient and comfortable access and movement (Transport and Access, PDC 224), including by reflecting the significance and increasing the permeability of the identified pedestrian network (PDC 226), and by providing an adequate supply of on-site secure bicycle parking (PDC 234). No specific requirement for provision of on-site car parking arises for development in the Capital City Zone.

The application documentation includes a Traffic Impact Assessment Report prepared by GTA Consultants. As stated above the site is located in an area that has no specific requirement for on-site vehicle parking, with the application not proposing to supply any. The GTA report concludes that given the proposed use of the building there is no specific need to supply car parking.

The GTA report has undertaken a review of the waste dock area (doubled as a delivery area) and the vehicle swept paths required for the waste collection vehicle to enter and exit the site in a forward direction and concluded that the use of the lane and the fact that the building is being set off the rear boundary enables this manoeuvre to safely occur.

In terms of bicycle parking it is noted that there are 128 spaces provided. Again the development plan is silent on the supply of bicycle parking on site for student accommodation buildings. Given the location of this site within the City, adjacent two university campuses, adjacent a soon to be completed tram and bus routes along North Terrace the development is considered to have adequate supply of bicycle parks.

The proposed development is considered to have adequately addressed the Development Plan requirements in relation to traffic and access.

8.8 Environmental Factors

8.8.1 Crime Prevention

Development should promote the safety and security of the community in the public realm and within development, through the promotion of natural surveillance and other design measures (Environmental – Crime Prevention Through Urban Design, PDCs 82 to 84).

The applicants planning report identifies a range of active and passive surveillance strategies for the site. The strategies include:

- All public areas being well lit.
- All student accommodation rooms have external windows that provide passive surveillance at the lower levels to the public realm.
- The ground level design has considered entrances from clearly defined paths and thoroughfares.
- The building design has eliminated external nooks and isolated areas to remove possibilities of places for people to hide from view.
- The service lane will be adequately lit and appropriately surveilled during night hours.
- The building has a reception lobby for persons entering the site and will be fitted with electronic keyed entry outside of hours when the reception area is staffed.

The proposed development is considered to have satisfactorily addressed CPTED principles and therefore the Development Plan requirements.

8.8.2 Noise Emissions

Objective 27 (Environmental – Noise Emissions) requires that noise sensitive development be designed to protect its occupants from existing and contemplated noise sources, and not unreasonably interfere with the operation of non-residential uses contemplated within the relevant Zone or Policy Area. Noise receivers should incorporate adequate noise attenuation measures, and should not unreasonably interfere with the operation of non-residential uses that are commensurate with the envisaged amenity of the locality (PDCs 95 to 97).

The applicant has provided two separate noise assessment reports to address the potential traffic and tram noise arising from the adjacent road networks and the potential external noise impacts to other developments surrounding the site.

The second noise report specifically reviewed the noise levels from traffic due to the fact that construction work was occurring on the tram line at the time of the first assessment and this had an impact on the traffic flow around this site.

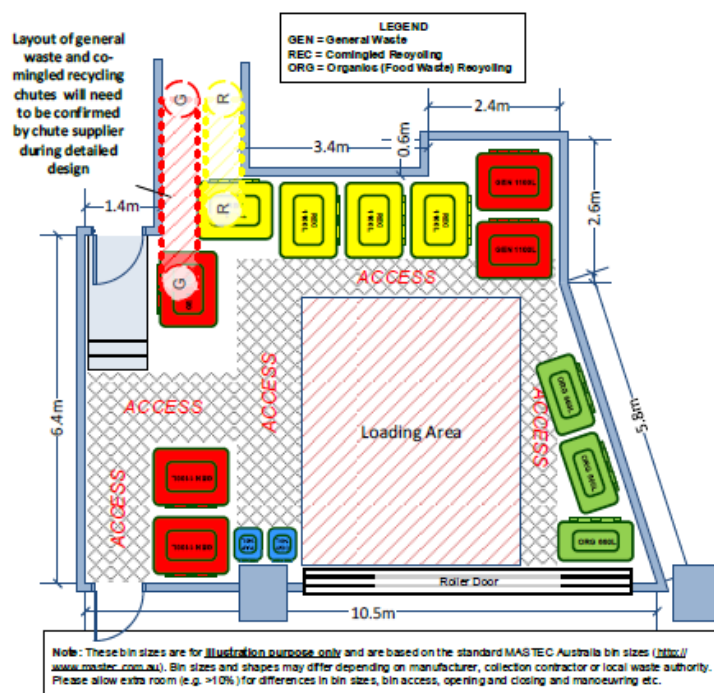
The reports concluded a number of minimum acoustic treatments required to the façade of the building to ensure an acceptable level of amenity is maintained within the building in relation to noise impacts. The recommendations of this report have been included as a condition of consent attached to the recommendation of this report.

8.8.3 Waste Management

PDC 101 (Environmental – Waste Management) requires a dedicated area for on-site collection and sorting of recyclable materials and refuse to be provided within all new development. Development greater than 2,000 square metres

total floor area should manage waste by containing a dedicated area for collection and sorting of construction waste and recyclable building materials; on-site storage and management of waste; disposal of non-recyclable waste; and incorporating waste water and stormwater re-use including the treatment and re-use of grey water (PDC 103).

The applicant has supplied a Waste Management Plan that discusses the ability for the site to adequately store and allow for onsite collection of the waste streams generated. It is estimated that there will be 15 Waste collection vehicle movements per week for the proposed development and these are to be completed by a contractor. The Waste Management Plan has the below layout proposed for the Waste room.



Council has been referred the application and is supportive of the Waste Management Plan proposed. The proposal is considered to have addressed the Development Plan requirements form waste management.

8.8.4 Energy Efficiency

Buildings should provide adequate thermal comfort and minimise the need for energy use for heating, cooling and lighting through design measures specified in Environmental – Energy Efficiency PDCs 106 to 108.

The proposed development is supported by a sustainability report that indicates a number of initiatives that have been adopted in the design of the building, most notably the inclusion of roof mounted photovoltaic cells, water efficient fittings throughout the building, LED lighting, natural ventilation to each unit, the use of architectural elements to shade glazing and high performance low-e glazing throughout.

The development has also not proposed any car parking spaces on site and a storage room for 128 bicycles to encourage low carbon forms of transportation.

8.8.5 Wind Analysis

Development should be designed and sited to minimise micro-climactic impact on adjacent land or buildings, including effects of patterns of wind (Environmental – Micro-climate and Sunlight PDC 119).

The applicant has supplied a wind impact assessment report which discusses the potential “downwash” wind effect at the ground level corners of the building. The design of the building is such that the downwash effects are significantly reduced by a number of factors including the indented communal areas on level 12 and 13 of the building, the setbacks of glazing at the ground floor level and the horizontal elements of the proposed facade.

The report concludes that the proposed development is not expected to impact on the existing wind conditions experienced around the site. However it did recommend that light weight items or loose furniture located on the open terrace of level 12 should be secured during strong wind events as there is potential for the downwash at this level to have an impact on such items.

With the inclusion of a condition around loose furniture and light weight items on level 12 being secured the proposed development is considered to have satisfactorily addressed Development Plan criteria in relation to wind analysis.

8.8.6 Site Contamination

Council Wide (Environmental – Contaminated Sites) policy recommends that where there is evidence or reasonable suspicion that land may have been contaminated, development should only occur where it is demonstrated that the land can be made suitable for its intended use prior to commencement of that use.

The application includes an Environmental Site History Report undertaken by FMG. The report concludes that there is a low to moderate potential risk arising from the redevelopment of the site and that the site warrants further investigation. A condition is proposed to be assigned to any consent granted that a statement from a suitably qualified environmental engineer demonstrating suitability of the site for its intended use be provided prior to the commencement of construction.

8.9 Signage

Objective 56 – Advertising within Built Form and Townscape aims for outdoor advertisements that are designed and located to reinforce the desired character and amenity of their location, to be concise and efficient, including by not contributing to confusion and visual clutter, and not to create a hazard. PDCs 211 to 217 set out design and location standards for advertising signage.

The documentation supplied does not indicate any signage and it is reasonable to expect that there will be some corporate identification signs and directional signage required, the detail required to assess the proposed signage against the principles set out in PDCs 211 to 217 has not been provided as part of the present application.

Signage should therefore be the subject of a separate application for Development Plan Consent.

9. CONCLUSION

The applicant proposes a 34 storey mixed use development comprising student accommodation and a commercial tenancy in a prominent North Terrace location. The proposal meets the Development Plan criteria in relation to height, use, access, parking (bicycle and vehicle), encroachments, setbacks, ESD principles, CPTED principles, noise emissions and noise protection and waste management.

Council, the State Heritage Branch and the Airports Authority are generally supportive of the proposed development. However the AGA has raised concerns with the architectural design and whilst some alterations have been made to the lower level design the concerns of the AGA remain.

Whilst the argument is finely balanced, particularly in relation to design and appearance, the development meets a majority of the Development Plan requirements and is considered to provide a pleasant living environment for the students to be housed in the building. The development is therefore recommended for the granting of Development Plan Consent.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the Adelaide (City) Council Development Plan.
- 3) RESOLVE to grant Development Plan Consent to the proposal by GSA Australian Pty Ltd for demolition of all existing structures and the construction of a 34 storey mixed-use building comprising student accommodation, associated student services/amenity spaces and ground floor commercial land uses at 266-269 North Terrace, Adelaide subject to the following reserved matters and conditions of consent.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 020/A074/17.

Plans By Rothe Lowman

Sheet title	Drawing Number	Revision	Date
Basement	TP01.00	A	23.02.18
Ground Floor	TP01.01	C	23.02.18
Ground Floor Mezzanine	TP01.02	C	23.02.18
Levels 2-5 'Co-Living- & DDA	TP01.03	A	13.02.18
Levels 6-11 'Co-Living'	TP01.07	A	13.02.18
Level 12 Communal	TP01.13	-	08.11.17
Level 13 Communal	TP01.14	-	08.11.17
Levels 14-23 'Multi-Bed' & Duplex	TP01.15	-	08.11.17
Level 24 'Multi-Bed'	TP01.25	-	08.11.17
Level 25 'Studio', DDA & Communal	TP01.26	-	08.11.17

Levels 26-29 'Studio' & DDA	TP01.27	-	08.11.17
Levels 30-33 'Studio'	TP01.31	-	08.11.17
Roof	TP01.35	-	08.11.17
Elevations – North & East	TP02.01	D	23.02.18
Elevations – South & West	TP02.02	D	23.02.18
North & West Elevations (at Lower Levels)	TP02.11	C	23.02.18
Section	TP03.01	A	13.02.18
3D Façade Section	TP03.02	-	08.11.17
Material Palette	TP05.01	A	22.01.18
Façade at North Terrace & Frome St Boundaries	SK10.21	-	13.02.18

Environment

2. All stormwater design and construction shall be in accordance with Australian Standard AS/NZS 3500.3:2015 (Part 3) to ensure that stormwater does not adversely affect any adjoining property or public road.
3. The acoustic attenuation measures recommended in the Traffic and Tram Noise Assessment Report dated February 2018 by Sonus, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the State Commission Assessment Panel. Such acoustic measures shall be made operational prior to the occupation or use of the development.
4. All external lighting on the site shall be designed and constructed to conform to Australian Standard (AS 4282-1997).
5. A Construction Environment Management Plan (CEMP) shall be prepared and implemented in accordance with current industry standards – including the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition" and, where applicable, "Environmental Management of On-site Remediation" – to minimise environmental harm and disturbance during construction. A copy of the CEMP shall be provided to the State Commission Assessment Panel prior to commencement of site works.
6. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc.) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.
7. Waste collection vehicles shall not access the site after 10:00pm on any day, before 7:00am Monday to Saturday or before 9:00am on Sundays.

External Materials

8. Prior to Development Approval for superstructure works, the applicant shall submit a final detailed schedule of external materials and finishes (including the class of concrete to be utilised) to the reasonable satisfaction of the State Commission Assessment Panel in consultation with the Associate Government Architect.

Site Contamination

9. A statement by a suitably qualified environmental engineer that demonstrates that the land is suitable for its intended use (or can reasonably be made suitable for its intended use) shall be submitted to the State Commission Assessment Panel prior to Development Approval being granted for substructure works.

State Heritage Branch Conditions

10. A dilapidation survey recording the condition of the State heritage place at 263-264 North Terrace shall be prepared prior to the commencement of work on site, to the satisfaction of the relevant authority. As well as recording fabric in good condition, the survey shall also record the location, type and dimensional extent of any existing physical damage to the place that might be affected by the proposed demolition, excavation and construction works.
11. A Construction Management Plan outlining measures to minimise ground vibrations in the proximity of the heritage building is to be prepared to the satisfaction of the relevant authority in consultation with Heritage South Australia (Department of Environment, Water and Natural Resources) prior to final Development Approval being granted. The Management Plan shall include:
 - a. proposals for the ongoing monitoring of the condition of the heritage place during the works;
 - b. proposals for protective measures against accidental damage to the heritage place; and
 - c. procedures to be taken if any structural distress or accidental damage is identified in the heritage fabric.
12. During ground works, the short term vibration levels at the heritage-listed structure shall be monitored, and shall not exceed the velocity limits for structural vibration in buildings established for Group 3 structures in the German Standard DIN 4150 Part 3.

ADVISORY NOTES

- a. The development has been proposed in the following stages:
 - Stage 1: Demolition
 - Stage 2: Substructure
 - Stage 3 Superstructure
 - Stage 4: Architectural Façade
- b. This Development Plan Consent will expire after 12 months from the date of this Notification, unless final Development Approval from Council has been received within that period or this Consent has been extended by the State Commission Assessment Panel.
- c. The applicant is also advised that any act or work authorised or required by this Notification must be substantially commenced within 1 year of the final Development Approval issued by Council and substantially completed within 3 years of the date of final Development Approval issued by Council, unless that Development Approval is extended by the Council.
- d. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).
- e. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department of Environment, Water and Natural Resources, or an additional referral to the Minister for Sustainability, Environment and Conservation. Such changes would include for

example (a) an application to vary the planning consent, or (b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.

- f. The applicant is to note the following requirements of the Heritage Places Act 1993:
- If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified.
 - Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

For further information, contact the Department of Environment, Water and Natural Resources.

- g. The applicant is to note the following requirements of the Aboriginal Heritage Act 1988:
- If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the *Aboriginal Heritage Act 1988*.



Brett Miller

**TEAM LEADER –INNER METRO DEVELOPMENT ASSESSMENT
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE**



GSA Student Housing 266 North Terrace, Adelaide Transport Impact Assessment

Client //	GSA Australia Pty Ltd
Office //	SA
Reference //	S137890
Date //	7/03/2019

GSA Student Housing
266 North Terrace, Adelaide
Transport Impact Assessment

Issue: D 7/03/2019

Client: GSA Australia Pty Ltd
Reference: S137890
GTA Consultants Office: SA

Quality Record


Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	3/11/2017	Final	Joy Yu	Paul Froggatt	Paul Froggatt	PF
B	10/11/2017	Final – amended	Joy Yu	Paul Froggatt	Paul Froggatt	PF
C	5/03/2019	Final – amended	Joy Yu	Paul Froggatt	Paul Froggatt	PF
D	7/03/2019	Final – amended	Joy Yu	Paul Froggatt	Paul Froggatt	

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1. Introduction

1.1 Background

The proposed mixed use of retail and student accommodation is located at 266 North Terrace, Adelaide. The proposed development incorporates a total of 687 beds for student accommodation, a ground floor retail area of 78.1m², and associated facilities.

GTA Consultants was commissioned by GSA Australia Pty Ltd in September 2017 to undertake a Transport Impact Assessment of the proposed development.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- i Existing traffic and parking conditions surrounding the site;
- ii Walking, cycling and public transport access for the site;
- iii Traffic generation characteristics of the proposed development;
- iv Proposed access arrangements for the site;
- v Transport impact of the development proposal on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- o Adelaide (City) Development Plan (Consolidated 20 June 2017)
- o Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- o Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- o Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- o plans for the proposed development prepared by Rothe Lowman (dated 06/11/2017)
- o various technical data as referenced in this report
- o an inspection of the site and its surrounds
- o other documents as nominated.

2. Existing Conditions

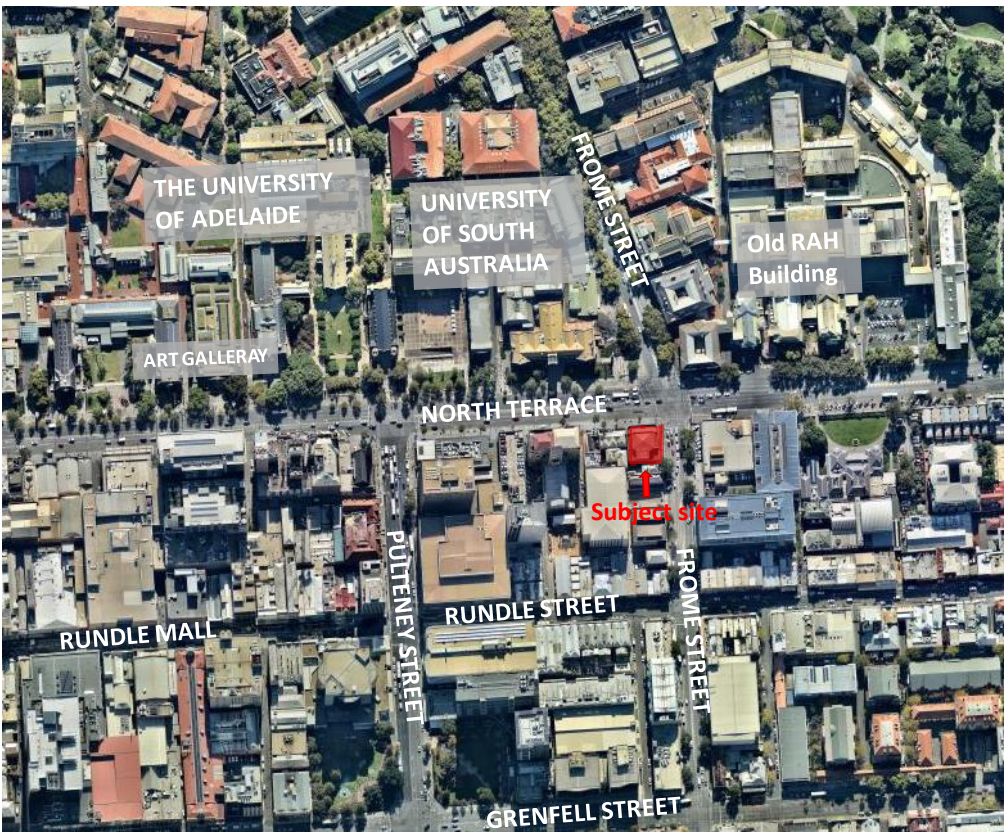
2.1 Subject Site

The subject site is located at 266 North Terrace in Adelaide. The site of approximately 600m² has frontages of 23m to North Terrace and 26m to Frome Road.

The site is located within a Central Business Policy Area and Primary Pedestrian Area in a Capital City Zone as specified in the Adelaide (City) Development Plan. The site is currently occupied by a church building (First Church of Christ, Scientist).

The location of the subject site and the surrounding environs is shown in Figure 2.1. The site is located opposite the University of South Australia City East Campus and the University of Adelaide North Terrace Campus.

Figure 2.1: Subject Site and its Environs



(PhotoMap courtesy of NearMap Pty Ltd)

2.2 Road Network

2.2.1 Adjoining Roads

North Terrace

North Terrace is a two-way divided road aligned in an approximately East/West direction and configured with 3 lanes in each direction. The approximately 23-metre carriageway is set within an approximately 35-metre road reserve.

Kerbside parking is not permitted adjacent to the site due to the close proximity to the signalised intersection.

North Terrace carries approximately 28,600 vehicles per day¹ adjacent to the subject site and is subject to a speed limit of 50km/h.

Frome Street

Frome Street is a two-way road aligned in a north/south direction at the subject site. It is configured with a 2-lane in each direction, 18-metre-wide carriageway set within a 23-metre-wide road reserve (approx.). Kerbside parking is permitted outside of clearway times and is subject to time restrictions.

Frome Road carries approximately 14,100 vehicles per day.¹

Rundle Street

Rundle Street is a two-way road aligned in an east/west direction and is configured with one lane in each direction, with a 10-metre-wide carriageway set within a 16-metre-wide road reserve (approx.). Rundle Street is subject to a speed limit of 50km/h and carries approximately 13,800 vehicles per day.¹

2.2.2 Surrounding Intersections

The following intersections currently exist in the vicinity of the site:

- North Terrace / Frome Street (signalised)
- Rundle Street / Frome Street (signalised).

2.3 Sustainable Transport Infrastructure

2.3.1 Public Transport

North Terrace is one of the High Concentration Public Transport Route identified in the Adelaide (City) Development Plan. Currently most of the bus services on North Terrace are rerouted via Grenfell Street due to the construction of the North Terrace tram line extension. Grenfell Street is located within walkable distance (approximately 300m) south to the proposed site and will provide the nearest location for the majority of the CBD bus services. The high frequency bus services in vicinity of the site provide a variety of links to most urban centres as well as destinations within the CBD.

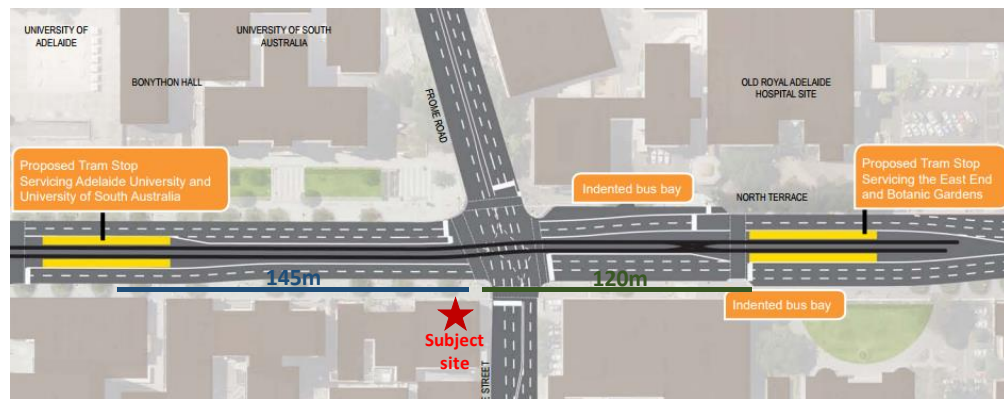
The City Tram Extension is proposed to be operational in late first quarter in 2018. A new tram stop servicing Adelaide University and University of South Australia, and a new tram stop servicing the east end and Botanic Gardens are proposed on North Terrace within 200m of the subject site as shown in Figure 2.2. The extension of the tram line will provide regular tram services to and from Glenelg and the Entertainment Centre from the proposed site. The proposed tram extension will

¹ Obtained from DPTI AADT estimates dated 14 September 2015

also provide links between the proposed site and the City West campus of University of South Australia.

In addition to the tram and frequent bus services, the Adelaide Train Station is located approximately 900m from the proposed site, and offers train services to and from Belair, Gawler, Outer Harbor, Seaford and Tonsley at regular intervals.

Figure 2.2: Public Transport Map



(Reproduced from City Tram Extension Booklet)

2.3.2 Pedestrian Infrastructure

Pedestrian paths are located on either side of North Terrace and Frome Road. Pedestrian actuated crossing facilities are located at the intersection of Frome Road and North Terrace.

2.3.3 Cycle Infrastructure

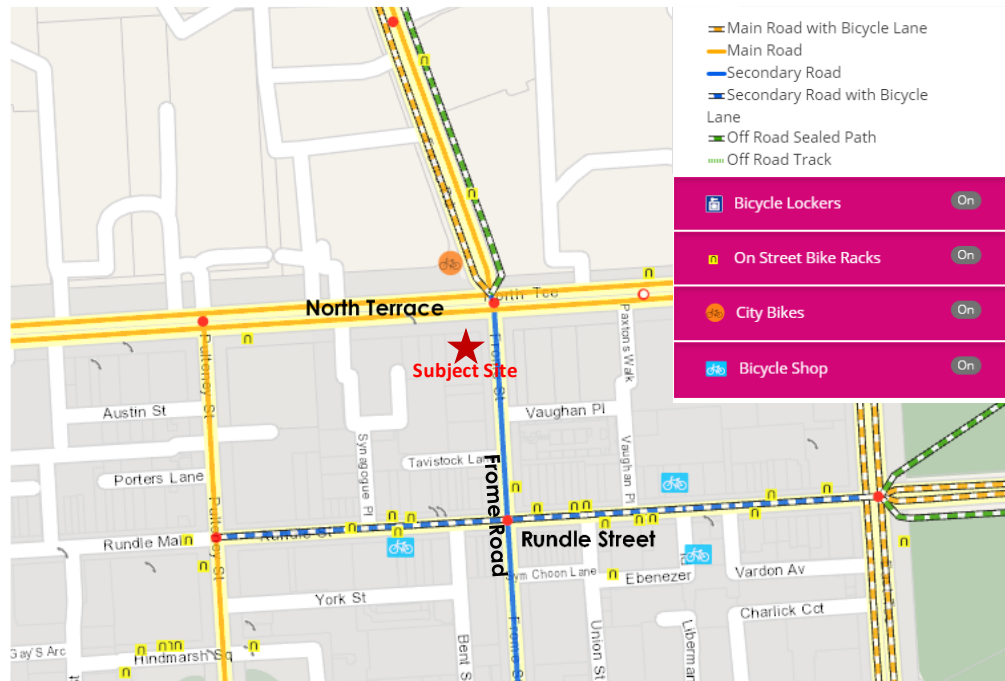
A short section of on-street bicycle lane is marked on the west side of Frome Street on the immediate approach to North Terrace adjacent to the subject site. No marked on-street bicycle lanes are present on North Terrace. Existing bicycle lanes and paths on Frome Road on the north side of North Terrace provide bicycle access to the Riverbank Shared Path.

Frome Street adjacent to the development forms part of the proposed north-south separated bikeway through the Adelaide CBD. The bikeway is currently complete from the south to Pirie Street, with the remaining sections from Pirie Street to North Terrace due to be delivered within the next 2-3 years. The bikeway adjacent to the site is likely to be in the form of a separated bikeway, with physical separation of cyclists from both pedestrians and vehicles, although the design of this section of bikeway is still to be completed.

Public bicycle parking available in the vicinity of the site as shown in Figure 2.3. There are more than 20 on-street bicycle racks available on Rundle Street, and some available on North Terrace and Frome Street in the vicinity of the site. Adelaide free city bikes are available in the UniSA City East Campus right opposite to the proposed site.

GTA further notes that bicycle parking facilities are available in all UPark facilities in Adelaide free of charge or with a small cost depending on individual security requirements. The UParks on Frome Street and Rundle Street are both located in close proximity to the site.

Figure 2.3: Public bicycle parking and free City Bikes locations



2.3.4 Local Car Sharing Services

Car sharing is a commercial alternative to car ownership for individuals and businesses allowing members to access shared vehicles for periods of time. This is achieved through hourly rates and subscriptions to the service. Car sharing is best suited to locations with good access to other transport modes such as public transport, walking and cycling. A car sharing pod, operated by GoGet, is located at Hindmarsh Square, approximately 550 metres walk from the subject site.

3. Development Proposal

3.1 Land Uses

The proposal includes the construction of a student accommodation tower comprising bicycle storage and service areas on the basement floor, retail and service areas on ground floor, a mezzanine level of retail and communal area, 30 levels of student accommodation, with communal student areas at Level 12 and Level 13.

The development will provide a total of 687 student accommodation beds (across 334 units) and 78.1m² of retail tenancy.

3.2 Car Parking

No car parking is proposed.

3.3 Service Vehicle Access

Service vehicle access to the loading bay and bin store is via a crossover at southern end of the building off Frome Street.

3.4 Bicycle Facilities

A bicycle storage area of 113.2m² located in the basement will provide secure storage for 128 bicycles. A bike ramp integrated within the stairs from the ground floor at the southwest of the building is proposed to access the bike storage on basement level.

3.5 Pedestrian Facilities

Existing pedestrian paths will be adequate to provide site access for pedestrians.

3.6 Loading Areas

Loading dock and waste collection will be provided on the south end of the site, accessible from the laneway which connects to Frome Street.

4. Car Parking

4

4.1 Development Plan Car Parking Requirements

The parking requirement applicable for this development is listed in Table Adel/7 in the Adelaide (City) Development Plan (Dated 20 June 2017). There is no minimum parking requirement applicable for residential development in the Capital City Zone and within the Primary Pedestrian Area.

4.2 Adequacy of Parking Supply

No minimum requirement for car parking at the proposed development is required according to the development plan. No parking is proposed and given the nature of the development this is considered appropriate.

5. Sustainable Transport Infrastructure

5

5.1 Bicycle End of Trip Facilities

Table Adel/6 in the Adelaide (City) Development Plan (consolidated 20 June 2017) has listed the recommended bicycle parking rates for new developments in Adelaide City Council. A review of Table Adel/6 has found there is no specific bicycle parking rate for student accommodation.

The Development Plan contains bicycle parking rates for general residential use and serviced apartments. The nature of the proposed use would fall between the two types of uses. Given the more transient nature of student accommodation, the bicycle ownership of the proposed site would be at the lower end.

The recommended bicycle parking rates for serviced apartments, residential units, and retail as contained in the Development Plan are summarised below:

Land Use	Residents/Employees	Visitors
All low, medium, and high scale residential	1 for every dwelling/apartment with a total floor area less than 150 square metres	1 for every 10 dwellings
Serviced Apartment	1 per 20 employees	2 for the first 40 rooms, plus 1 for every additional 40 rooms
Retail	1 per 300 sq.m of gross leasable floor area	1 per 600 sq.m of gross leasable floor area

The development plan requirement for the provision of bicycle facilities for the subject site is set out in Table 5.1.

Table 5.1: Development Plan Requirement for general residential development and serviced apartment

Use		Size	Development Plan Rate	Required Bicycle Parking Spaces
General Residential	Residents/Employees	334 Units	1 for every dwelling/apartment with a total floor area less than 150 square metres	334 Spaces
	Accommodation	334 Units	1 for every 10 dwellings	33 Spaces
	Total			367 Spaces
Serviced Apartment	Employees	< 20 Employees	1 per 20 employees	1 Space
	Accommodation	334 units (687 beds)	2 for the first 40 rooms, plus 1 for every additional 40 rooms	10 Spaces ² (18 Spaces)
	Total			11 Spaces (19 Spaces)

Table 5.2: Development Plan Requirement for Retail Tenancy

Use		Number/Area	Development Plan Rate	Required Bicycle Parking Spaces
Retail	Employees	78.1 sq.m	1 space per 300 sq.m	1 Space
	Customer	78.1 sq.m	1 space per 600 sq.m	1 Space
Total				2 Spaces

² Based on number of units. If based on number of beds, 18 spaces would be required.

Based on Table 5.1, the proposed development would generate a requirement for 11- 19 bicycle parking spaces based on the serviced apartment rate, and 367 spaces based on the standard residential rate. With a required bicycle parking space of 2 for retail purposes, the proposed development generates a total bicycle parking requirement of between 13 and 369 spaces.

5.2 Adequacy of Bicycle Parking Supply

The provision of 128 bicycle parking spaces falls in the bicycle parking requirement range between the serviced apartment rate and standard residential rate in the Development Plan. The transient nature of the student accommodation indicates the bicycle parking demand could be expected to be at the lower end of the requirement range. The majority of the residents at the student accommodation would be from overseas or remote areas who most likely would only stay for the duration of their study. Compared to local residents, students change their places of stay more frequently and would be more likely to minimise the amount of luggage they have to move.

The proposed student accommodation would be mainly attracting students who attend one of the adjacent Universities which are located approximately 200 metres from the subject site. The subject site is also located approximately 400 metres from Rundle Mall shopping district. Given the close proximity to University campuses and shopping district, the majority of the student residents would be expected to walk to their study and shopping destinations.

With two new tram stops proposed in vicinity of the site, residents will have good accessibility to the free tram services to for other parts of the CBD area, including the City West campus of UniSA, the Adelaide Railway Station and nearby facilities, Central Market and Victoria Square.

In addition, bike-share services would be likely to reduce the demand for bicycles. Private dockless bike-share operation has recently commenced operation in the Adelaide CBD by Ofo and Obike, allowing users to find and hire bikes through a mobile application, and leave them wherever their journey ends. The service is available to the public at a small fee. Compared to the cost of buying a bike, residents may choose to use this bike-share service for the anticipated occasional bicycle trips.

Based on the above discussion and analysis, GTA considers the proposed ground level bicycle storage room, with capacity to store up to 128 bicycles using a mixture of horizontal and vertical bicycle storage racks, will be appropriate for the nature and location of the proposed student accommodation and will cater for the likely demand.

5.3 Walking and Cycling Network

Existing pedestrian facilities (footpaths and kerb ramps) will be maintained adjacent the site on North Terrace and Frome Road.

Significant enhancements to the local bicycle network is anticipated following the proposed completion of the Frome Street bikeway in front of the site.

5.4 Public Transport

The site is accessible by public transport as discussed in Section 2.3.1.

6. Loading Facilities

6.1 Development Plan Requirements

The Adelaide (City) Development Plan (dated 17 September 2015) provides guidance for loading/unloading facilities. Principle of Development Control (PDC) 241 in the Transport and Access section of the Development Plan applies to the proposed development. PDC 241 is as follows:

"Facilities for the loading and unloading of courier, delivery and service vehicles and access for emergency vehicles should be provided on-site as appropriate to the size and nature of the development. Such facilities should be screened from public view and designed, where possible, so that vehicles may enter and leave in a forward direction."

6.2 Proposed Loading Arrangements

A loading and waste storage area of 71.6m² is proposed to be located on the ground floor adjacent to the laneway.

Access into this loading area is provided via the laneway to the south of the site accessed from Frome Street.

The loading bay had been designed to cater for a 8.0m refuse vehicle to reverse into and exit in a forward direction.

6.3 Refuse Collection

As required by the Development Plan, the loading and waste collection area will be accessed via forward entry and exit from Frome Street. The truck will enter from Frome Street, reverse into the loading dock and then exit to Frome Street in a forward gear.

Figure 6.1 shows the entry and exit manoeuvres.

7. Traffic Impact Assessment

7.1 Traffic Generation

The proposed development does not include any car parking provision, as such there will be no vehicle movements associated with car parking areas.

There will be a small number of traffic movements associated with the loading dock and refuse collection at the proposed site. Based on the information provided to GTA Consultants, it is understood there would be approximately 15 commercial waste collections per week at the site. In addition, 1-2 deliveries could be expected for the combined uses of the site per day.

Based on the above, the proposed development could be expected to generate a total of 5 inbound and outbound movements to and from Frome Street every day. These movements are generally anticipated to occur outside of peak hours and as such will have minimal impact on the safety or operation of the adjacent road network.

7

8. Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- i The proposed development includes the construction of a student accommodation tower comprising ground floor retail and service areas, a mezzanine level student hub, 32 levels of student accommodation incorporating Communal facilities.
- ii The proposed development is not required to provide any parking based on the Development Plan off-street parking requirements.
- iii No parking is proposed in the proposed development given the primarily student accommodation use.
- iv The proposed development will provide pedestrian connections to North Terrace and Frome Street.
- v A bicycle storage room is proposed within the basement and will provide space for up to 128 bicycles to be stored. This is considered appropriate based on the nature and location of the proposed student accommodation.
- vi The site is well located for bus, tram and train based public transport services, and walking distance to tertiary education facilities.
- vii A loading dock with access from Frome Street will cater for loading and refuse collection vehicles up to 8.0m in length and will enable vehicles to reverse into the site and exit to Frome Street in a forward direction.
- viii The site is expected to generate minimal traffic movements associated with loading and refuse collection only, with movements anticipated to occur outside of the peak period.

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Central Business Policy Area 13

Introduction

The Objectives and Principles of Development Control that follow apply to the Policy Area as shown on [Maps Adel/49, 50, 55 and 56](#). They are additional to those expressed for the Zone and, in cases of apparent conflict, take precedence over the Zone provisions. In the assessment of development, the greatest weight is to be applied to satisfying the Desired Character for the Policy Area.

DESIRED CHARACTER

The Central Business Policy Area is the pre-eminent economic, governance and cultural hub for the State. This role will be supported by educational, hospitality and entertainment activities and increased opportunities for residential, student and tourist accommodation.

Buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality. A wide variety of design outcomes of enduring appeal are expected. Complementary and harmonious buildings in individual streets will create localised character and legible differences between streets, founded on the existing activity focus, building and settlement patterns, and street widths.

OBJECTIVES

- Objective 1:** A concentration of employment, governance, entertainment and residential land uses that form the heart of the City and central place for the State.
- Objective 2:** Development of a high standard of design and external appearance that integrates with the public realm.
- Objective 3:** Development that contributes to the Desired Character of the Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1** Development should contribute to the area's role and function as the State's premier business district, having the highest concentration of office, retail, mixed business, cultural, public administration, hospitality, educational and tourist activities.
- 2** Buildings should be of a height that ensures airport operational safety is not adversely affected.
- 3** To enable an activated street level, residential development or similar should be located above ground floor level.

CAPITAL CITY ZONE

Introduction

The Desired Character, Objectives and Principles of Development Control that follow apply in the whole of the Capital City Zone shown on [Maps Adel/17 to 20, 23 to 26 and 29 to 31](#). They are additional to those expressed for the whole of the Council area and in cases of apparent conflict, take precedence over the more general provisions. In the assessment of development, the greatest weight is to be applied to satisfying the Desired Character for the Zone.

DESIRED CHARACTER

This Zone is the economic and cultural focus of the State and includes a range of employment, community, educational, tourism and entertainment facilities. It is anticipated that an increased population within the Zone will complement the range of opportunities and experiences provided in the City and increase its vibrancy.

The Zone will be active during the day, evening and late night. Licensed entertainment premises, nightclubs and bars are encouraged throughout the Zone, particularly where they are located above or below ground floor level to maintain street level activation during the day and evening.

High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building façades, verandahs, balconies, awnings and other features that provide weather protection.

In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment. In narrow streets and laneways the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure. In the Central Business Policy Areas, upper level setbacks are not envisaged.

Non-residential land uses at ground floor level that generate high levels of pedestrian activity such as shops, cafés and restaurants will occur throughout the Zone. Within the Central Business Policy Area, residential land uses at ground level are discouraged. At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters. Non-residential and / or residential land uses will face the street at the first floor level to contribute to street vibrancy.

New development will achieve high design quality by being:

- (a) **Contextual** – so that it responds to its surroundings, recognises and carefully considers the adjacent built form, and positively contributes to the character of the immediate area.
- (b) **Durable** – by being fit for purpose, adaptable and long lasting, and carefully considers the existing development around it.
- (c) **Inclusive** – by integrating landscape design to optimize pedestrian and cyclist usability, privacy, and equitable access, and also promote the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimize security and safety both internally and into the public realm, for occupants and visitors alike.
- (d) **Sustainable** – by integrating sustainable systems into new buildings and the surrounding landscape design to improve environmental performance and minimise energy consumption.
- (e) **Amenable** – by providing natural light and ventilation to habitable spaces.

Contemporary juxtapositions will provide new settings for heritage places. Innovative design is expected in areas of identified street character with an emphasis on contemporary architecture that responds to site context and broader streetscape, while supporting optimal site development. The addition of height, bulk and massing of new form should be given due consideration in the wider context of the proposed development.

There will also be a rich display of art that is accessible to the public and contextually relevant.

Adelaide's pattern of streets and squares

The distinctive grid pattern of Adelaide will be reinforced through the creation of a series of attractive boulevards as shown on Concept Plan [Figures CC/1 and 2](#). These boulevards will provide a clear sense of arrival into the City and be characterised by buildings that are aligned to the street pattern, particularly at ground level.

Views to important civic landmarks, the Park Lands and the Adelaide Hills will be retained as an important part of the City's charm and character.

The City's boulevards, terraces and Squares will be developed as follows:

- (a) North Terrace will be reinforced as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile.
- (b) King William Street will be enhanced as the City's principal north-south boulevard and will be reinforced as the City's commercial spine.
- (c) Grote Street-Wakefield Street will be enhanced as the City's principal east-west boulevard and will be developed to provide a strong frame that presents a sense of enclosure to the street.
- (d) East Terrace will be characterised by buildings that maximise views through to the Park Lands and provide a distinct City edge.
- (e) West Terrace will be reinforced as the western 'gateway' to the City centre and will form an imposing frontage to the western City edge. Buildings will be constructed to the front and side boundaries, and designed to maximise views through to the Park Lands. Corner sites at the junctions of West Terrace and the major east-west streets will be developed as strongly defined visual gateways to the City. This will provide an imposing frontage to the western edge of the City, which comprises a mixture of commercial, showroom and residential development.
- (f) Pulteney and Morphett streets are key north-south boulevards. A sense of activation and enclosure of these streets will be enhanced through mixed use development with a strong built form edge. Pulteney Street will include residential, office and institutional uses, and retail activities. These boulevards will become important tree-lined commercial corridors.
- (g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas and these view corridors should remain uncluttered.
- (h) Victoria, Hindmarsh and Light Squares will have a continuous edge of medium to high-scale development that frames the Squares and increases ground level activity.

The Zone also includes a number of Main Street areas, encompassing Rundle Mall, Rundle Street, Hindley Street and Gouger Street, which are envisaged to have a wide range of retail, commercial and community uses that generate high levels of activity. These areas will have an intimately scaled built form with narrow and frequent building frontages. These areas are shown on Concept Plan [Figures CC/1 and 2](#).

Development fronting North Terrace, King William Street, Wakefield Street, Grote Street, the Squares, and in the Main Street Policy Area, will reflect their importance through highly contextual design that reflects and responds to their setting and role.

Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment with buildings sited and composed in a way that responds to the buildings' context. There will be a strong emphasis on ground level activation through frequent window openings, land uses that spill out onto the footpath, and control of wind impacts.

Development in minor streets and laneways with a high value character will respond to important character elements and provide a comfortable pedestrian environment, particularly in the following streets: Gray, Leigh, Union, Chesser, Coromandel, Tucker, Cardwell, Kenton, Market, Ruthven, Cannon, Tatham, Bentham streets, Murrays Lane and Wright Court.

A comprehensive, safe and convenient movement network throughout the City will develop, focusing on the provision of linkages on both public and private land between important destinations and public

transport. A high quality system of bicycle or shared pedestrian and bicycle routes will be established within the Zone.

OBJECTIVES

General

- Objective 1:** The principal focus for the economic, social and political life of metropolitan Adelaide and the State.
- Objective 2:** A vibrant mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living.
- Objective 3:** Design and management of City living to ensure the compatibility of residential amenity with the essential commercial and leisure functions of the Zone.
- Objective 4:** City streets that provide a comfortable pedestrian environment.
- Objective 5:** Innovative design approaches and contemporary architecture that respond to a building's context.
- Objective 6:** Buildings that reinforce the gridded layout of Adelaide's streets and respond to the underlying built-form framework of the City.
- Objective 7:** Large sites developed to their full potential while ensuring a cohesive scale of development and responding to a building's context.
- Objective 8:** Development that contributes to the Desired Character of the Zone.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following types of development, or combinations thereof, are envisaged:

- Affordable housing
- Aged persons accommodation
- Community centre
- Consulting room
- Convention centre
- Dwelling
- Educational establishment
- Emergency services facility
- Hospital
- Hotel
- Indoor recreation centre
- Licensed entertainment premises
- Library
- Motel
- Office
- Pre-school
- Personal service establishment
- Place of worship
- Serviced apartment
- Restaurant
- Residential flat building
- Student accommodation
- Shop or group of shops
- Tourist accommodation

- 2 Land uses that are typically closed during the day should be designed to maximise daytime and evening activation at street level and be compatible with surrounding land uses, in particular residential development.
- 3 Low impact industries should be located outside the Central Business Policy Area and have minimal off-site impacts with respect to noise, air, water and waste emissions, traffic generation and movement.
- 4 Development listed as non-complying is generally inappropriate.

Form and Character

- 5 Development should be consistent with the Desired Character for the Zone.

Design and Appearance

- 6 Development should be of a high standard of architectural design and finish which is appropriate to the City's role and image as the capital of the State.
- 7 Buildings should achieve a high standard of external appearance by:
 - (a) the use of high quality materials and finishes. This may be achieved through the use of materials such as masonry, natural stone, prefinished materials that minimise staining, discolouring or deterioration, and avoiding painted surfaces particularly above ground level;
 - (b) providing a high degree of visual interest through articulation, avoiding any large blank facades, and incorporating design features within blank walls on side boundaries which have the potential to be built out;
 - (c) ensuring lower levels are well integrated with, and contribute to a vibrant public realm; and
 - (d) ensuring any ground and first floor level car parking elements are screened by residential or non-residential land uses (such as shops, offices and consulting rooms) to ensure an activated street frontage.
- 8 Buildings should present an attractive pedestrian-oriented frontage that adds interest and vitality to City streets and laneways.
- 9 The finished ground floor level of buildings should be at grade and/or level with the footpath to provide direct pedestrian access and street level activation.
- 10 Providing footpath widths and street tree growth permit, development should contribute to the comfort of pedestrians through the incorporation of verandahs, balconies, awnings and/or canopies that provide pedestrian shelter.
- 11 Buildings should be positioned regularly on the site and built to the street frontage, except where a setback is required to accommodate outdoor dining or provide a contextual response to a heritage place.
- 12 Buildings should be designed to include a podium/street wall height and upper level setback (in the order of 3-6 metres) that:
 - (a) relates to the scale and context of adjoining built form;
 - (b) provides a human scale at street level;
 - (c) creates a well-defined and continuity of frontage;
 - (d) gives emphasis and definition to street corners to clearly define the street grid;
 - (e) contributes to the interest, vitality and security of the pedestrian environment;

- (f) maintains a sense of openness to the sky for pedestrians and brings daylight to the street; and
 - (g) achieves pedestrian comfort by minimising micro climatic impacts (particularly shade/shelter, wind tunnelling and downward drafts);
- other than (h) or (i):
- (h) in the Central Business Policy Area;
 - (i) where a lesser (or zero) upper level setback and/or podium height is warranted to correspond with and complement the form of adjacent development, in which case alternative design solutions should be included to achieve a cohesive streetscape, provided parts (b) to (g) are still achieved.
- 13 Buildings north of Rundle Mall, Rundle Street, Hindley Street and Gouger Street should have a built form that incorporates slender tower elements, spaces between buildings or other design techniques that enable sunlight access to the southern footpath.
 - 14 Buildings, advertisements, site landscaping, street planting and paving should have an integrated, coordinated appearance and should enhance the urban environment.
 - 15 Building façades should be strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.
 - 16 Development that exceeds the maximum building height shown in Concept Plan [Figures CC/1 and 2](#), and meets the relevant quantitative provisions should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including site configuration that acknowledges and responds to the desired future character of an area but that also responds to adjacent conditions (including any special qualities of a locality), pedestrian and cyclist amenity, activation, sustainability, and public realm and streetscape contribution.

The Squares (Victoria, Hindmarsh and Light)

- 17 Outdoor eating and drinking facilities associated with cafés and restaurants are appropriate ground floor uses and should contribute to the vitality of the Squares and create a focus for leisure.
- 18 Buildings fronting the Squares should:
 - (a) provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a minimum of 75 percent of the landscaped part of each Square at the September equinox; and
 - (b) reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.

The Terraces (North, East and West)

- 19 Development along the terraces should contribute to a continuous built form to frame the City edge and activate the Park Lands.
- 20 Development along North Terrace should reinforce the predominant scale and 'City wall' character of the Terrace frontage.

Building Height

- 21 Development should not exceed the maximum building height shown in Concept Plan [Figures CC/1 and 2](#) unless;

- (a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan [Figures CC/1 and 2](#), and
- (b) only if:
 - (i) at least two of the following features are provided:
 - (1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;
 - (2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;
 - (3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;
 - (4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on [Map Adel/1 \(Overlay 2A\)](#);
 - (5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;
 - (6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;
 - (7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;
 - (8) more than 15 per cent of dwellings as affordable housing.
 - (ii) plus all of the following sustainable design measures are provided:
 - (1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;
 - (2) a greenroof, or greenwalls / façades supported by services that ensure ongoing maintenance;
 - (3) innovative external shading devices on all of the western side of a street facing façade; and
 - (4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.

22 Development should have optimal height and floor space yields to take advantage of the premium City location and should have a building height no less than half the maximum shown on Concept Plan [Figures CC/1 and 2](#), or 28 metres in the Central Business Policy Area, except where one or more of the following applies:

- (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations;
- (b) the site is adjacent to the City Living Zone or the Adelaide Historic (Conservation) Zone and a lesser building height is required to manage the interface with low-rise residential development;
- (c) the site is adjacent to a heritage place, or includes a heritage place;

- (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event, within the previous 3 years where the new building has the same, or substantially the same, layout and external appearance as the previous building.

Interface

- 23** Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity.
- 24** Development on all sites on the southern side of Gouger Street - Angas Street and adjacent to a northern boundary of the City Living Zone or the Adelaide Historic (Conservation) Zone should not exceed 22 metres in building height unless the Council Wide overshadowing Principles of Development Control are met.
- 25** Parts of a development that exceed the prescribed maximum building height shown on Concept Plan [Figures CC/1 and 2](#) that are directly adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries should be designed to minimise visual impacts on sensitive uses in the adjoining zones and to maintain the established or desired future character of the area. This may be achieved through a number of techniques such as additional setback, avoiding tall sheer walls, centrally locating taller elements, providing variation of light and shadow through articulation to provide a sense of depth and create visual interest, and the like.

Movement

- 26** Pedestrian movement should be based on a network of pedestrian malls, arcades and lanes, linking the surrounding Zones and giving a variety of north-south and east-west links.
- 27** Development should provide pedestrian linkages for safe and convenient movement with arcades and lanes clearly designated and well-lit to encourage pedestrian access to public transport and areas of activity. Blank surfaces, shutters and solid infills lining such routes should be avoided.
- 28** Development should ensure existing through-site and on-street pedestrian links are maintained and new pedestrian links are developed in accordance with [Map Adel/1 \(Overlay 2A\)](#).
- 29** Car parking should be provided in accordance with [Table Adel/7](#).
- 30** Multi-level car parks should locate vehicle access points away from the primary street frontage wherever possible and should not be located:
 - (a) within any of the following areas:
 - (i) the Core Pedestrian Area identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#)
 - (ii) on frontages to North Terrace, East Terrace, Rundle Street, Hindley Street, Currie Street, Waymouth Street (east of Light Square), Victoria Square or King William Street;
 - (b) where they conflict with existing or projected pedestrian movement and/or activity;
 - (c) where they would cause undue disruption to traffic flow; and
 - (d) where it involves creating new crossovers in North Terrace, Rundle Street, Hindley Street, Currie Street and Waymouth Street (east of Light Square), Grenfell Street and Pirie Street (west of Pulteney Street), Victoria Square, Light Square, Hindmarsh Square, Gawler Place and King William Street or access across primary City access and secondary City access roads identified in [Map Adel/1 \(Overlay 1\)](#).

- 31 Multi-level, non-ancillary car parks are inappropriate within the Core Pedestrian Area as shown on [Map Adel/1 \(Overlays 2, 2A and 3\)](#).
- 32 Vehicle parking spaces and multi-level vehicle parking structures within buildings should:
- (a) enhance active street frontages by providing land uses such as commercial, retail or other non-car park uses along ground floor street frontages;
 - (b) complement the surrounding built form in terms of height, massing and scale; and
 - (c) incorporate façade treatments along major street frontages that are sufficiently enclosed and detailed to complement neighbouring buildings consistent with the Desired Character of the locality.

Advertising

- 33 Other than signs along Hindley Street, advertisements should use simple graphics and be restrained in their size, design and colour.
- 34 In minor streets and laneways, a greater diversity of type, shape, numbers and design of advertisements are appropriate provided they are of a small-scale and located to present a consistent message band to pedestrians.
- 35 There should be an overall consistency achieved by advertisements along individual street frontages.
- 36 In Chesser Street, French Street and Coromandel Place advertisements should be small and preferably square and should not be located more than 3.7 metres above natural ground level or an abutting footpath or street. However, advertisements in these streets may be considered above 3.7 metres at locations near the intersections with major streets.
- 37 Advertisements on the Currie Street frontages between Topham Mall and Gilbert Place and its north-south prolongation should be of a size, shape and location complementary to the desired townscape character, with particular regard to the following:
- (a) On the southern side of Currie Street, advertisements should be fixed with their underside at a common height, except where the architectural detailing of building façades precludes it. At this 'canopy' level advertisements should be of a uniform size and fixed without the support of guy wires. Where architectural detailing permits, advertisements may mark the major entrances to buildings along the southern side of Currie Street with vertical projecting advertisements 1.5 metres high by 1.2 metres wide at, or marginally above, the existing canopy level. Painted wall or window signs should be restrained.
 - (b) On the northern side of Currie Street, advertisements should be of a uniform fixing height and consistent dimensions to match those prevailing in the area.

PROCEDURAL MATTERS

Complying Development

- 38 Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

In addition, the following forms of development are assigned as **complying**:

- (a) Other than in relation to a State heritage place, Local heritage place (City Significance), or Local heritage place, work undertaken within a building which does not involve a change of use or affect the external appearance of the building;
- (b) Temporary depot for Council for a period of no more than 3 months where it can be demonstrated that appropriate provision has been made for:

- (i) dust control;
 - (ii) screening, including landscaping;
 - (iii) containment of litter and water; and
 - (iv) securing of the site.
- (c) Change in the use of land from a non-residential use to an office, shop or consulting room (excluding any retail showroom, adult entertainment premises, adult products and services premises or licensed premises).

Non-complying Development

39 The following kinds of development are **non-complying**:

A change in use of land to any of the following:

Amusement machine centre

Advertisements involving any of the following:

- (a) third party advertising except on Hindley Street, Rundle Mall or on allotments at the intersection of Rundle Street and Pulteney Street, or temporary advertisements on construction sites;
- (b) advertisements located at roof level where the sky or another building forms the background when viewed from ground level;
- (c) advertisements in the area bounded by West Terrace, Grote Street, Franklin Street and Gray Street;
- (d) animation of advertisements along and adjacent to the North Terrace, King William Street and Victoria Square frontages.

Total demolition of a State Heritage Place (as identified in [Table Adel/1](#)).

Vehicle parking except:

- (a) where it is ancillary to an approved or existing use;
- (b) it is a multi-level car park located outside the Core Pedestrian Area as indicated on [Map Adel/1 \(Overlay 2, 2A and 3\)](#); or
- (c) it is within an existing building located outside the Core Pedestrian Area as indicated on [Map Adel/1 \(Overlay 2, 2A and 3\)](#).

Public Notification

40 Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

In addition, the following forms of development, or any combination of (except where the development is non-complying), are assigned:

- (a) **Category 1**, public notification not required:

All forms of development other than where it is assigned Category 2.

- (b) **Category 2**, public notification required. Third parties do not have any appeal rights.

Any development where the site of the development is adjacent land to land in the City Living Zone or Adelaide Historic (Conservation) Zone and it exceeds 22 metres in building height.

Note: For Category 3 development, public notification is required. Third parties may make written representations, appear before the relevant authority on the matter, and may appeal against a development consent. This includes any development not classified as either Category 1 or Category 2.

Council Wide

Environmental

Crime Prevention Through Urban Design

OBJECTIVES

Objective 24: A safe and secure, crime resistant environment that:

- (a) ensures that land uses are integrated and designed to facilitate natural surveillance;
- (b) promotes building and site security; and
- (c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

PRINCIPLES OF DEVELOPMENT CONTROL

82. Development should promote the safety and security of the community in the public realm and within development. Development should:

- (a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:
 - (i) orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;
 - (ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;
 - (iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;
 - (iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;
 - (v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;
 - (vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;
 - (vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and
 - (viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.

- (b) provide access control by facilitating communication, escape and path finding within development through legible design by:
 - (i) incorporating clear directional devices;
 - (ii) avoiding opportunities for concealment near well travelled routes;
 - (iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;
 - (iv) use of devices such as stainless steel mirrors where a passage has a bend;
 - (v) locating main entrances and exits at the front of a site and in view of a street;
 - (vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and
 - (vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.
- (c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:
 - (i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;
 - (ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and
 - (iii) locating main entrances and exits at the front of a site and in view of a street.
- (d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:
 - (i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;
 - (ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;
 - (iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;
 - (iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;
 - (v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and
 - (vi) use of robust and durable design features to discourage vandalism.

83 Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.

To maximise security and safety, buildings should be designed to minimise access between roofs, balconies and windows of adjacent buildings.

85 Security features should be incorporated within the design of shop fronts to complement the design of the frontage and allow window shopping out of hours. If security grilles are provided, these should:

- (a) be transparent and illuminated to complement the appearance of the frontage;
- (b) provide for window shopping; and
- (c) allow for the spill of light from the shop front onto the street.

Solid shutters with less than 75 percent permeability are not acceptable.

86 Public toilets should be designed and located to:

- (a) promote the visibility of people entering and exiting the facility by avoiding recessed entrances and dense shrubbery which obstructs passive surveillance;
- (b) limit opportunities for vandalism through the use of vandal proof lighting on the public toilet buildings and nearby;
- (c) avoid features which facilitate loitering, such as seating or telephones immediately adjacent the structure; and
- (d) maximise surveillance through location near public transport links, pedestrian and cyclist networks.

Noise Emissions

OBJECTIVES

Objective 26: Development that does not unreasonably interfere with the desired character of the locality by generating unduly annoying or disturbing noise.

Objective 27: Noise sensitive development designed to protect its occupants from existing noise sources and from noise sources contemplated within the relevant Zone or Policy Area and that does not unreasonably interfere with the operation of non-residential uses contemplated within the relevant Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Noise Sources

89 Development with potential to emit significant noise (including licensed entertainment premises and licensed premises) should incorporate appropriate noise attenuation measures in to their design to prevent noise from causing unreasonable interference with the amenity and desired character of the locality, as contemplated in the relevant Zone and Policy Area.

93 Mechanical plant or equipment should be designed, sited and screened to minimise noise impact on adjacent premises or properties. The noise level associated with the combined operation of plant and equipment such as air conditioning, ventilation and refrigeration systems when assessed at the nearest existing or envisaged noise sensitive location in or adjacent to the site should not exceed

- (a) 55 dB(A) during daytime (7.00am to 10.00pm) and 45 dB(A) during night time (10.00pm to 7.00am) when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.
- (b) 50 dB(A) during daytime (7.00am to 10.00pm) and 40 dB(A) during night time (10.00pm to 7.00am) in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone, the North Adelaide Historic (Conservation) Zone or the Park Lands Zone when measured and

adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.

94 To ensure minimal disturbance to residents:

- (a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:
 - (i) after 10.00pm; and
 - (ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.
- (b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.

Noise Receivers

- 95** Noise sensitive development should incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity when exposed to noise sources such as major transport corridors (road, rail, tram and aircraft), commercial centres, entertainment premises and the like, and from activities and land uses contemplated in the relevant Zone and Policy Area provisions.
- 96** Noise sensitive development in mixed use areas should not unreasonably interfere with the operation of surrounding non-residential uses that generate noise levels that are commensurate with the envisaged amenity of the locality.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

- 101** A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.
- 102** A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.
- 103** Development greater than 2 000 square metres of total floor area should manage waste by:
- (a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;
 - (b) on-site storage and management of waste;
 - (c) disposal of non-recyclable waste; and
 - (d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

104 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

- (a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;
- (b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and
- (c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Energy Efficiency

OBJECTIVE

Objective 30: Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

PRINCIPLES OF DEVELOPMENT CONTROL

All Development

106 Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:

- (a) providing an internal day living area with a north-facing window, other than for minor additions*, by:
 - (i) arranging and concentrating main activity areas of a building to the north for solar penetration; and
 - (ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.
- (b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;
- (c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;
- (d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;
- (e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;
- (f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;
- (g) providing an external clothes line for residential development; and

* Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

(h) use of landscaping.

107 All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

108 Energy reductions should, where possible, be achieved by the following:

(a) appropriate orientation of the building by:

- (i) maximising north/south facing facades;
- (ii) designing and locating the building so the north facade receives good direct solar radiation;
- (iii) minimising east/west facades to protect the building from summer sun and winter winds;
- (iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or
- (v) minimising the ratio of wall surface to floor area.

(b) window orientation and shading;

(c) adequate thermal mass including night time purging to cool thermal mass;

(d) appropriate insulation by:

- (i) insulating windows, walls, floors and roofs; and
- (ii) sealing of external openings to minimise infiltration.

(e) maximising natural ventilation including the provision of openable windows;

(f) appropriate selection of materials, colours and finishes; and

(g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

109 Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

110 Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.

111 New buildings should be readily adaptable to future alternative uses.

112 Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

Office Development

115 The following principles of sustainable design and construction are required for new office development, and additions and refurbishments to existing office development, to minimise energy consumption and limit greenhouse gas emissions:

- (a) passive solar consideration in the design, planning and placement of buildings;
- (b) re-using and/or improving existing structures or buildings;

- (c) designing for the life-cycle of the development to allow for future adaptation;
- (d) considering low levels of embodied energy in the selection and use of materials;
- (e) developing energy efficiency solutions including passive designs using natural light, solar control, air movement and thermal mass. Systems should be zoned to minimise use of energy;
- (f) using low carbon and renewable energy sources, such as Combined Heat and Power (CHP) systems and photovoltaics; and
- (g) preserving and enhancing local biodiversity, such as by incorporating roof top gardens.

Renewable Energy

OBJECTIVES

- Objective 31:** The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.
- Objective 32:** Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

- 116** Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.
- 117** Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.
- 118** Renewable energy facilities, including wind farms, and ancillary development such as substations, maintenance sheds, access roads and connecting power-lines (including to the National Electricity Grid) should be located, sited, designed and operated in a manner which:
- (a) avoids or minimises detracting from the character, landscape quality, visual significance or amenity of the area;
 - (b) utilises elements of the landscape, materials and finishes to minimise visual impact;
 - (c) avoids or minimises adverse impact on areas of native vegetation, conservation, environmental, geological, tourism or built or natural heritage value;
 - (d) does not impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips;
 - (e) avoids or minimises nuisance or hazard to nearby property owners/occupiers, road users and wildlife by way of:
 - (i) shadowing, flickering, reflection and blade glint impacts;
 - (ii) noise;
 - (iii) interference to television and radio signals;
 - (iv) modification to vegetation, soils and habitats; and
 - (v) bird and bat strike.

Micro-climate and Sunlight

OBJECTIVES

- Objective 33:** Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.
- Objective 34:** Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

PRINCIPLES OF DEVELOPMENT CONTROL

- 119** Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.
- 120** Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.
- 121** Development should not significantly reduce daylight to private open space, communal open space, where such communal open space provides the primary private open space, and habitable rooms in adjacent City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone.
- 122** Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.
- 123** Buildings within the Core and Primary Pedestrian Areas identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#), unless specified otherwise within the relevant Zone or Policy Area, should be designed to provide weather protection for pedestrians against rain, wind and sun. The design of canopies, verandahs and awnings should be compatible with the style and character of the building and adjoining buildings, as well as the desired character, both in scale and detail.
- 124** Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.
- 125** Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

Stormwater Management

OBJECTIVES

- Objective 35:** Development which maximises the use of stormwater.
- Objective 36:** Development designed and located to protect stormwater from pollution sources.

Surface water (inland, marine, estuarine) and ground water has the potential to be detrimentally affected by water run-off from development containing solid and liquid wastes. Minimising and possibly eliminating sources of pollution will reduce the potential for degrading water quality and enable increased use of stormwater for a range of applications with environmental, economic and social benefits.

- Objective 37:** Development designed and located to protect or enhance the environmental values of receiving waters.
- Objective 38:** Development designed and located to prevent erosion.

Development involving soil disturbance may result in erosion and subsequently sedimentation and pollutants entering receiving waters. Design techniques should be incorporated during both the construction and operation phases of development to minimise the transportation of sediment and pollutants off-site.

Objective 39: Development designed and located to prevent or minimise the risk of downstream flooding.

PRINCIPLES OF DEVELOPMENT CONTROL

- 126** Development of stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.
- 127** Development affecting existing stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.
- 128** Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.
- 129** Development should incorporate appropriate measures to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria and litter and other contaminants to the stormwater system and may incorporate systems for treatment or use on site.
- 130** Development should not cause deleterious affect on the quality or hydrology of groundwater.
- 131** Development should manage stormwater to ensure that the design capacity of existing or planned downstream systems are not exceeded, and other property or environments are not adversely affected as a result of any concentrated stormwater discharge from the site.

Infrastructure

OBJECTIVES

Objective 40: Minimisation of the visual impact of infrastructure facilities.

Objective 41: Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

- 132** Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.
- 133** Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.
- 134** Infrastructure and utility services, including provision for the supply of water, gas and electricity should be put in common trenches or conduits.
- 135** Development should only occur where it has access to adequate utilities and services, including:
 - (a) electricity supply;
 - (b) water supply;
 - (c) drainage and stormwater systems;

- (d) effluent disposal systems;
- (e) formed all-weather public roads;
- (f) telecommunications services; and
- (g) gas services.

Heritage and Conservation

OBJECTIVES

- Objective 42:** Acknowledge the diversity of Adelaide's cultural heritage from pre-European occupation to current time through the conservation of heritage places and retention of their heritage value.
- Objective 43:** Development that retains the heritage value and setting of a heritage place and its built form contribution to the locality.
- Objective 44:** Continued use or adaptive reuse of the land, buildings and structures comprising a heritage place.
- Objective 45:** Recognition of Aboriginal sites, items and areas which are of social, archaeological, cultural, mythological or anthropological significance.

PRINCIPLES OF DEVELOPMENT CONTROL

General

- 136** Development of a heritage place should conserve the elements of heritage value as identified in the relevant Tables.
- 137** Development affecting a State heritage place ([Table Adel/1](#)), Local heritage place ([Table Adel/2](#)), Local heritage place (Townscape) ([Table Adel/3](#)) or Local heritage place (City Significance) ([Table Adel/4](#)), including:
- (a) adaptation to a new use;
 - (b) additional construction;
 - (c) part demolition;
 - (d) alterations; or
 - (e) conservation works;
- should facilitate its continued or adaptive use, and utilise materials, finishes, setbacks, scale and other built form qualities that are complementary to the heritage place.
- 138** A local heritage place (as identified in [Tables Adel/2, 3 or 4](#)) or the Elements of Heritage Value (as identified in [Table Adel/2](#)) should not be demolished unless it can be demonstrated that the place, or those Elements of Heritage Value that are proposed to be demolished, have become so distressed in condition or diminished in integrity that the remaining fabric is no longer capable of adequately representing its heritage value as a local heritage place.
- 140** Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

(a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and

(b) is located no closer to the primary street frontage than the adjacent heritage place.

142 Development that abuts the built form/fabric of a heritage place should be carefully integrated, generally being located behind or at the side of the heritage place and without necessarily replicating historic detailing, so as to retain the heritage value of the heritage place.

Advertising

144 Advertisements or signs on the site of a heritage place should be located to complement, rather than dominate or conceal, the appearance and detailing of the heritage place by being:

(a) integrated with architectural elements of the heritage place, including within parapets or wall panels, and at canopy level or within fascias, end panels or windows; and

(b) below the silhouette of the heritage place.

Built Form and Townscape

OBJECTIVES

Objective 46: Reinforcement of the city's grid pattern of streets through:

(a) high rise development framing city boulevards, the Squares and Park Lands

(b) vibrant main streets of a more intimate scale that help bring the city to life

(c) unique and interesting laneways that provide a sense of enclosure and intimacy.

Objective 47: Buildings should be designed to:

(a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;

(b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;

(c) contribute to pedestrian safety and comfort; and

(d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.

Objective 48: Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

Height, Bulk and Scale

PRINCIPLES OF DEVELOPMENT CONTROL

- 2 Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:
 - (a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;
 - (b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;
 - (c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and
 - (d) the open landscape of the Park Lands Zone.
- 3 The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on [Map Adel/1 \(Overlay 1\)](#).
- 4 The height, scale and massing of buildings should reinforce:
 - (a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:
 - (i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;
 - (ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and
 - (iii) avoiding massive unbroken facades.
 - (b) a comfortable proportion of human scale at street level by:
 - (i) building ground level to the street frontage where zero set-backs prevail;
 - (ii) breaking up the building facade into distinct elements;
 - (iii) incorporating art work and wall and window detailing; and
 - (iv) including attractive planting, seating and pedestrian shelter.
- 5 Where possible, large sites should incorporate pedestrian links and combine them with publicly accessible open space.
- 6 Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in [Map Adel/1 \(Overlay 5\)](#) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.
- 7 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

Composition and Proportion

- 8** Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:
- (a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and
 - (b) clearly defining ground, middle and roof top levels.
- 9** Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:
- (a) frontages creating clearly defined edges;
 - (b) generating new compositions and points of interest;
 - (c) introducing elements for future neighbouring buildings; and
 - (d) emphasising the importance of the building according to the street hierarchy.

Articulation and Modelling

- 10** Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.
- 11** Building services such as drainage pipes together with security grills/screens, ventilation louvres and car park entry doors, should be coordinated and integrated with the overall facade design.

Materials, Colours and Finishes

- 12** The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.
- 13** Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape
- 14** Materials and finishes that are easily maintained and do not readily stain, discolour or deteriorate should be utilised.
- 15** Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

Sky and Roof Lines

OBJECTIVE

Objective 49: Innovative and interesting skylines which contribute to the overall design and performance of the building.

PRINCIPLES OF DEVELOPMENT CONTROL

- 16** Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.
- 17** Buildings should be designed to incorporate well designed roof tops that:
- (a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;
 - (b) enhance the skyline and local views;
 - (c) contribute to the architectural quality of the building;
 - (d) provide a compositional relationship between the upper-most levels and the lower portions of the building;
 - (e) provide an expression of identity;
 - (f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;
 - (g) respond to the orientation of the site; and
 - (h) create minimal glare.
- 18** Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:
- (a) be designed to minimise the visual impact; and
 - (b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.
- 19** Roof design should facilitate future use for sustainable functions such as:
- (a) rainwater tanks for water conservation;
 - (b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or
 - (c) “green” roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

Active Street Frontages

OBJECTIVES

- Objective 50:** Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality’s desired character.
- Objective 51:** Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:
- (a) enlivening building edges;
 - (b) creating welcoming, safe and vibrant spaces;
 - (c) improving perceptions of public safety through passive surveillance; and

- (d) creating interesting and lively pedestrian environments.

PRINCIPLES OF DEVELOPMENT CONTROL

- 20** Development should be designed to create active street frontages that provide activity and interest to passing pedestrians and contribute to the liveliness, vitality and security of the public realm.
- 21** Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

Landscaping

OBJECTIVE

Objective 55: Water conserving landscaping that enhances the local landscape character and creates a pleasant, safe and attractive living environment.

PRINCIPLES OF DEVELOPMENT CONTROL

- 22** Landscaping should:
 - (a) be selected and designed for water conservation;
 - (b) form an integral part of the design of development; and
 - (c) be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas and enhance the visual amenity of the area.
- 23** Landscaping should incorporate local indigenous species suited to the site and development, provided such landscaping is consistent with the desired character of the locality and any heritage place.
- 24** Landscaping should be provided to all areas of communal space, driveways and shared car parking areas.
- 25** Landscaping between the road and dwellings should be provided to screen and protect the dwellings from dust and visual impacts of the road.

Advertising

OBJECTIVE

Objective 56: Outdoor advertisements that are designed and located to:

- (a) reinforce the desired character and amenity of the locality within which it is located and rectify existing unsatisfactory situations;
- (b) be concise and efficient in communicating with the public, avoiding a proliferation of confusing and cluttered displays or a large number of advertisements; and
- (c) not create a hazard.

PRINCIPLES OF DEVELOPMENT CONTROL

- 26** Advertisements should be designed to respect and enhance the desired character and amenity of the locality by the means listed below:
 - (a) the scale, type, design, location, materials, colour, style and illumination of any advertisements should be compatible with the design and character of the buildings and

land to which it is related, and should be in accordance with provisions for the Zone and Policy Area in which it is situated and any relevant adjacent Zones or Policy Areas;

- (b) advertisements should be integrated with the architectural form, style and colour of buildings and wherever possible, requirements for advertisements should be considered in the design of new buildings;
- (c) advertisements should be artistically interesting in terms of graphics and construction with intricacy and individuality in design encouraged while maintaining consistency in design and style where co-ordinated advertisements are appropriate;
- (d) structural supports should be concealed from public view or of minimal visual impact;
- (e) advertisements on individual premises should be co-ordinated in terms of type and design and should be limited in number to minimize visual clutter;
- (f) advertisements should be displayed on fascia signs or located below canopy level;
- (g) advertisements on buildings or sites occupied by a number of tenants should be co-ordinated, complementary and the number kept to a minimum; and
- (h) advertisements on or adjacent to a heritage place should be designed and located to respect the heritage value of the heritage place.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

224 Development should provide safe, convenient and comfortable access and movement.

225 Vehicle access points along primary and secondary city access roads and local connector roads, as shown on [Map Adel/1 \(Overlay 1\)](#) should be restricted.

Pedestrian Access

OBJECTIVES

Objective 61: Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

Objective 62: Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities.

PRINCIPLES OF DEVELOPMENT CONTROL

226 Development should reflect the significance of the paths and increase the permeability of the pedestrian network identified within [Map Adel/1 \(Overlay 2\)](#) by ensuring:

- (a) pedestrians are not disrupted or inconvenienced by badly designed or located vehicle access ramps in footpaths or streets; and

- (b) vehicle and service entry points are kept to a minimum to avoid adverse impact on pedestrian amenity.

- 224** Within the Core, Primary and Secondary Pedestrian Areas identified within [Map Adel/1 \(Overlays 2, 2A and 3\)](#), development should be designed to support the establishment and maintenance of continuous footpaths so that pedestrian flow is free and uninterrupted. Pedestrian access should be provided at ground level mid-block between all streets.
- 228** Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within [Map Adel/1 \(Overlays 2, 2A and 3\)](#) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.
- 229** Corner buildings in the Central Business Policy Area of the Capital City Zone, buildings adjacent to street intersections and buildings along a high concentration public transport route or along public transport pedestrian routes identified within [Map Adel/1 \(Overlay 4\)](#) should provide weather protection for pedestrians in the form of verandahs, awnings or canopies. Where verandahs or awnings are provided which block street lighting, they should include additional lighting beneath the canopy.
- 230** Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.
- 231** Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.
- 232** Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

- Objective 64:** Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.
- Objective 65:** Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

- 233** Development should have regard to the bicycle routes identified within [Map Adel/1 \(Overlay 3\)](#) by:
- (a) limiting vehicular access points; and
 - (b) ensuring that vehicles can enter and leave the site in a forward direction, thereby avoiding reverse manoeuvres.
- 234** An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in [Table Adel/6](#).
- 235** Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

- (a) located in a prominent place;
- (b) located at ground floor level;
- (c) located undercover;
- (d) located where passive surveillance is possible, or covered by CCTV;
- (e) well lit and well signed;
- (f) close to well used entrances;
- (g) accessible by cycling along a safe, well lit route;
- (h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and
- (i) in the case of a cage have an access key/pass common to the building access key/pass.

236 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

- (a) directly associated with the main entrance;
- (b) located at ground floor level;
- (c) located undercover;
- (d) well lit and well signed;
- (e) located where passive surveillance is possible, or covered by CCTV; and
- (f) accessible by cycling along a safe, well lit route.

237 Access to bicycle parking should be designed to:

- (a) minimise conflict with motor vehicles and pedestrians;
- (b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and
- (c) ensure the route is unhindered by low roof heights.

238 To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

Public Transport

OBJECTIVES

Objective 66: Development that promotes the use of sustainable transport consistent with State Government objectives and initiatives.

Objective 67: Accessible public transport for all metropolitan residents and visitors and safe and attractive facilities for public transport users.

PRINCIPLES OF DEVELOPMENT CONTROL

239 Development along a high concentration public transport route should be designed to ensure that activity and interest for public transport passengers is maximised through the incorporation of active street frontages.

234 Development along high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#) should:

- (a) ensure there are pedestrian links through the site if needed to provide access to public transport;
- (b) provide shelter (e.g. verandahs) for pedestrians against wind, sun and rain;
- (c) provide interest and activity at street level; and
- (d) where possible, avoid vehicle access across high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#). Where unavoidable, vehicle access should be integrated into the design of the development whilst retaining active street frontages.

Traffic and Vehicle Access

OBJECTIVES

- Objective 68:** Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).
- Objective 69:** An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.
- Objective 70:** Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

- 241** Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.
- 242** Facilities for the loading and unloading of courier, delivery and service vehicles and access for emergency vehicles should be provided on-site as appropriate to the size and nature of the development. Such facilities should be screened from public view and designed, where possible, so that vehicles may enter and leave in a forward direction.
- 243** Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment.
- 244** Vehicular access to development located within the Core and Primary Pedestrian Areas identified in [Map Adel/1 \(Overlay 2A\)](#) should be limited and designed to minimise interruption to street frontages.
- 245** Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in [Map Adel/1 \(Overlay 2A\)](#), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.
- 246** There is no minimum setback required from a rear access way where the access way is wider than 6.5 metres. Where the access way is less than 6.5 metres in width, a setback distance equal to the additional width required to make the access way 6.5 metres or more, is required to provide adequate manoeuvrability for vehicles.

247 The number of access points on primary city access roads identified in [Map Adel/1 \(Overlay 1\)](#) should be limited to minimise traffic and pedestrian inconvenience, interference with public transport facilities and adverse effects on the environment.

248 Buildings located along primary and secondary access roads should be sited to avoid the need for vehicles to reverse on to the road (unless the dimensions of the site make this impractical).

Car Parking

OBJECTIVES

Objective 71: To meet community expectation for parking supply while supporting a shift toward active and sustainable transport modes.

Objective 72: An adequate supply of short-stay and long-stay parking to support desired growth in City activities without detrimental affect on traffic and pedestrian flows.

PRINCIPLES OF DEVELOPMENT CONTROL

251 Car parking areas should be located and designed to:

- (a) ensure safe and convenient pedestrian movement and traffic circulation through and within the car parking area;
- (b) include adequate provision for manoeuvring and individually accessible car standing areas;
- (c) enable, where practical, vehicles to enter and leave the site in a forward direction;
- (d) minimise interruption to the pattern of built form along street frontages;
- (e) provide for access off minor streets and for the screening from public view of such car parking areas by buildings on the site wherever possible;
- (f) minimise adverse impacts on adjoining residential properties in relation to noise and access and egress;
- (g) minimise loss of existing on-street parking spaces arising through crossovers and access;
- (h) incorporate secure bicycle parking spaces and facilitate convenient, safe and comfortable access to these spaces by cyclists; and
- (i) provide landscaping, such as semi-mature trees, to shade parked vehicles and reduce the visual impact of the car parking area while maintaining direct sight lines and informal visual surveillance.

252 All development should provide car parking spaces for people with disabilities in accordance with the requirements in the Building Code of Australia (BCA). For classes of buildings not covered by the requirements of the BCA, the number of spaces should be provided in accordance with [Table Adel/7](#) and such car parking spaces should comply with Australian Standard 2890.1: 'Parking Facilities - Off-street Car Parking'.

254 Off-street parking should:

- (a) be controlled in accordance with the provisions for the relevant Policy Area;
- (b) be located away from street frontages or designed as an integral part of buildings on the site. Provision of parking at basement level is encouraged; and
- (c) not include separate garages or carports in front of buildings within front set-backs.

258 Off-street parking in the Core Pedestrian Area identified in [Map Adel/1 \(Overlay 2A\)](#) will only be appropriate where:

- (a) parking is ancillary to another activity carried out on the land;
- (b) it can be provided without loss of pedestrian amenity; and
- (c) it is not separately created on a strata title or community title basis (unless in association with another title held on the site).

259 Multi-level car parks or non-ancillary car parking use of an existing building should only be established where it can be demonstrated that there is a need which is not adequately satisfied by other parking facilities in the locality.

260 Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages in the Primary Pedestrian Area identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#). Multi-level car parks, short stay public use of ancillary car parking spaces or non-ancillary car parking use of an existing building may be appropriate where it:

- (a) is located away from ground floor street frontages to major streets;
- (b) ensures vehicle access is from the road with less pedestrian activity in instances where a site has access to more than one road frontage;
- (c) has no more than one entry lane and one exit lane;
- (d) has a controlled exit at the property boundary to stop vehicles before travelling across the footpath;
- (e) has no more than one left in and one left out access point;
- (f) avoids access points along high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#); and
- (g) with respect to ancillary parking, is provided at basement level, or undercroft if located behind other uses which provide activity on the street frontage.

261 Multi-level car parks should be designed to:

- (a) provide active street frontages and land uses such as commercial, retail or other non-car park uses, along ground floor street frontages to maintain pedestrian interest and activity at street level;
- (b) be of a high quality design and complement the surrounding built form in terms of height, bulk and scale;
- (c) provide surveillance, lighting and direct sightlines along clearly defined and direct walkways, through and within car parking areas and to lift and toilet areas;
- (d) on a corner site with two major street frontages, be set back from the major street frontages, with commercial or other non-car park floor space in front of and screening the car parking building;
- (e) on a site with only one major street frontage, include screening so that any car parking is not visible from the public realm either day or night, and detailed to complement neighbouring buildings in a manner consistent with desired character in the relevant Zone and Policy Area;
- (f) incorporate treatments to manage the interface with adjacent housing, such as careful use of siting and use of materials and landscaping;

- (g) not have vehicle access points across major walking routes identified in [Map Adel/1 \(Overlay 2\)](#); and
- (h) provide safe and secure bicycle parking spaces in accordance with the requirements of [Table Adel/6](#).

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

- (a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;
- (b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;
- (c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;
- (d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;
- (e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;
- (f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and
- (g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

Objective 75: Development which reinforces clusters and nodes of activity and distinctive local character.

Objective 76: A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia.

PRINCIPLES OF DEVELOPMENT CONTROL

266 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

- (a) provide a range of shopping facilities in locations that are readily accessible;
- (b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;
- (c) maximise opportunities for co-location, multiple use and sharing of facilities;
- (d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and
- (e) have minimal impact on the amenity of residential areas.

- 268** Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.
- 269** Tourist facilities should be compatible with the prevailing character of the area, within close proximity to public transport facilities and well designed and sited.
- 270** Development located either abutting, straddling or within 20 metres of a Zone or Policy Area boundary should provide for a transition and reasonable gradation from the character desired from one to the other.
- 271** Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.