203 North Terrace Pty Ltd

Alterations and additions to a State Heritage Place and construction of a multistorey student accommodation tower above.

203-205 North Terrace, Adelaide

020/A042/19

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OVERVIEW

Application No	020/A042/19
Unique ID/KNET ID	Appian 4370 – Knet 2019/09170/01
Applicant	203 -205 North Terrace Pty Ltd
Proposal	Alterations and additions to a State Heritage place and construction of a multistorey student accommodation tower
Subject Land	203 North Terrace, Adelaide
Zone/Policy Area	Capital City Zone, Central Business Policy Area
Relevant Authority	State Commission Assessment Panel
Lodgement Date	16 July 2019
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan – consolidated 7 June 2018
Type of Development	Merit
Public Notification	Category 1
Representations	N/A
Referral Agencies	Government Architect, State Heritage, Airports, City of Adelaide (non-mandatory)
Report Author	Elysse Kuhar
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The applicant is seeking Development Plan Consent for alterations and additions to a State Heritage place and construction of a multistorey student accommodation tower at 203 - 205 North Terrace, Adelaide.

The proposal is a merit, category 1 form of development. Referral agencies included the Government Architect and Heritage SA. The City of Adelaide was a non-mandatory referral.

The primary planning issues relate to heritage, and design and appearance as the proposal seeks to build a student accommodation tower on-top of the existing W & G Wills & Co. State Heritage building.

The proposal progressed positively through the Pre-lodgement service, and has evolved on the back of comments from ODASA, Heritage SA, Council and DPTI. It is noted that Council raised no objection, but some concerns regarding external materiality and context, and interpretation of the original internal construction have been raised by the Government Architect and Heritage SA.

While it is considered that further resolution of materiality is necessary, this aspect of the application is considered achievable and the proposal as a whole is sufficiently consistent with Development Plan policy to warrant Development Plan Consent subject to reserved matters and conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

In March 2012, the Minister for Planning rezoned land in the City of Adelaide to increase envisaged building heights and provide additional development opportunities that would help enliven the city. As part of this initiative, policies were introduced that

provide for a more performance based planning approach and place a stronger emphasis on the overall planning and design merit of an individual proposal.

On 30 May 2017 the Minister for Planning approved the Capital City Policy Review (Design Quality) Development Plan Amendment, the purpose of which was to introduce new policy intended to:

- reinforce design quality for new development;
- establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances; and
- strengthen the Desired Character Statement along Rundle Street to recognise its important character and provide guidance in regard to contextual building design.

1.2 Pre-Lodgement Process

The applicant engaged with the Department of Planning, Transport and Infrastructure pre-lodgement service from March 2019, participating in 3 Pre-lodgement Panel meetings and 2 Design Review sessions through which the concept progressed positively.

Some of the key issues/outcomes the subject of feedback and design evolution were:

- Relationship between the proposed tower and the existing State Heritage Place.
- Internal building design and amenity.
- Materiality and design of the proposed tower and its impact on the streetscape.
- Minimisation of modifications to the State Heritage Place (maintenance of existing floor levels, centralised lift core, salvaging and reuse of internal materials where possible).
- Tower setback from North Terrace increased to 4.6m from 1.015m.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

The proposal is for alterations and additions to a State Heritage place and construction of a multi-storey student accommodation tower above at 203 -205 North Terrace, Adelaide.

A summary of the proposal is as follows:

Land Use Description	Student accommodation
Building Height	33 storeys , building height of 109.2m (153.16m AHD)
Description of levels	**Basement/Service:** - Bike storage 44 bicycles - Furniture/luggage storage room - Centralised core lift and stairwell - Plant and bin storage rooms accessed via fire exit corridors, bin hoist/lift and new egress doors utilising existing window opening along the North Tce façade - Fire control room **Ground:** - Existing building entry to be used as the main student/public entry providing access to a centralised building lobby, a DDA compliant lift, foyer seating and reception area to the west of the building. - 2 new fully glazed fire exit doors/opening within the northern elevation

	- Centralised core lift and stairwell - Amenity rooms including an associated admin/office room and accessible water closet. **Level 1:** - Common study areas positioned to the north of the building - Centralised core lift and stairwell - Offices, quiet study areas and accessible water closet to the rear of the building. **Level 2:** - Terraced communal open space comprising an area of 65m2 and oriented to the north to overlook North Tce. - Common (kitchen, dining/living and gaming spaces) amenities with a centralised core and lift - Laundry and accessible water closets to the south of the building **Level 3 & 3a:** - Service room (Switch room, plant, fire tank and fire pumps) with a centralised core lift and stairwell together with a structural transfer area connection with the upper levels. **Level 4 – 11 & 13-19:** - Each level accommodating 6 studio rooms, 1 twin room and 1 5-bed cluster room - Centralised core lift and stairwell **Level 12, 23, 32:** - Each level accommodating communal space comprising 121m2 with a northerly orientation and a 5-bed cluster room - Centralised core lift and stairwell **Level 20-22:** - Each level accommodating 2 5-bed clusters and 1 twin room - Centralised core lift and stairwell **Level 24-27:** - Each level accommodating 2 3-bed cluster rooms and 1 twin room - Centralised core lift and stairwell **Level 28:** - 6 studio rooms and 1 5-bed cluster room - Access via a central core lift and stairwell **Level 29 – 31:** - Each level accommodating 6 studio rooms, 1 5-bed cluster room and a DDA studio room - Centralised core lift and stairwell **Level 33:** - Roof level to services and mechanical plant, enclosed by a 1.8m high screen - Rooftop solar panels. **TOTAL BEDS: 341**
Site Access	No vehicular access is provided to the site.
Car and Bicycle Parking	No vehicular access is provided to the site. Bike storage for 44 bikes located on Basement level.
Encroachments	N/A
Staging	**Stage 1:** demolition **Stage 2:** substructure **Stage 3:** main structure)

3. SITE AND LOCALITY

3.1 Site Description

The site consistent of one allotment, described as follows:

Lot No	Street	Suburb	Hundred	Title Reference
Lot 2 in FP 2373	North Terrace	Adelaide	Adelaide	CT 5263/314

The subject site is located at 203-205 North Terrace, Adelaide. The allotment comprises a site area of approximately 460m2, a frontage to North Terrace of 16.45m and a maximum depth of 27.3m.

The site currently contains a State Heritage listed building which is described within the Adelaide (City) Development Plan as *'Office (former dwelling and consulting rooms) and former G & R Wills Warehouse'*. This heritage description is also applicable to the similarly styled State Heritage building occupying the adjoining site to the east (207 North Terrace, Adelaide).

The heritage building which occupies the subject site comprises two levels above ground level, together with a basement level. The ground level is elevated above North Terrace, with stairs leading to the building entrance. Situated between the ground floor level and North Terrace are basement level windows.

The building occupies the majority of the allotment, is primarily constructed of stone with timber floors, ceilings and framework, and a metal deck roof.

Occupying the adjoining premises to the west (201-202 North Terrace, Adelaide) is a smaller neo-gothic styled State Heritage place described within the Adelaide (City) Development Plan as *'The Gallerie Shopping Centre (former G & R Wills Warehouse)'*.

The subject site is for the most part a rectangular land parcel with a small 3 x 3.25m protrusion in its south eastern corner. A common wall straddles the boundary between the subject site and 201-202 North Terrace, and the easements marked 'A' and 'B' registered on the relevant Certificates of Title are for reciprocal party wall rights over this common wall.

The subject site enjoys rights to light and air (with limitations) over the land marked 'C' which traverses the adjoining allotment to the south located at 12-20 Gawler Place, Adelaide.

3.2 Locality

The immediate locality is characterised by a mix of retail, commercial and institutional land uses.

Buildings on the northern side of North Terrace accommodate a variety of institutional land uses including the South Australian Museum, the State Library of South Australia (Mortlock Wing), Writers S.A., the Art Gallery of South Australia, together with the University of Adelaide and the University of South Australia (City East Campus) which are situated a short distance to the north east of the subject site. These land uses are located within State Heritage buildings, which are set back and separated from North Terrace by generously sized pedestrian pathways, plazas and open space which lines the North Terrace frontage.

Land uses occupying the southern side of North Terrace are primarily retail and commercial in nature and include David Jones and Tiffany & Co. to the east, and the M1 Centre (an 11 storey office building) situated to the west of the site, on the corners

of North Terrace and Gawler Place. Interspersed between these uses are a variety of smaller shops including takeaway food outlets, clothing stores and a personal service establishment (optometrist).

Rundle Mall is located a short distance to the south of the site.

Figure 1 – Location Map

4. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

4.1 State Heritage Unit, DEWNR

The Minister for Environment and Water is a mandatory referral in accordance with Item 5 – State heritage places of the table in Schedule 8 to the Development Regulations 2008. The State Commission Assessment Panel must have *regard* to this advice.

The Principal Conservation Architect, on behalf of the Minister for the Environment and Water, has advised that the heritage report provided as part of the lodgement documentation provides a reasonable and balanced summary of material impacts of the proposed development on the existing building subject to qualification regarding the extent to which the proposed salvage and re-use of some original materials and components succeeds in mitigating the negative impacts.

Specifically, *"The project as currently presented makes significant and welcome moves in the right direction. The internal programming of the ground and first floors allow as a ready appreciation of the original open layouts and spatial qualities of the ground and first floors, and sets up appropriate spaces within which the interpretive component can be delivered…The extent and detail of this interpretive component is only vaguely understood at this stage"*.

The Principal Conservation Architect regards this aspect of the proposal as crucial and has recommended the attachment of a reserve matter to any consent granted this proposal.

With regard to contextual impacts, it was advised that the project contributes to the incremental and fundamental transformation of the scale and character of North Terrace that is being experienced in response to height-related development plan policy settings. However, support was given for the overall approach to the tower's external form, setback, symmetry with the heritage place and articulation into three distinct elements.

As stated above, the Principal Conservation Architect has recommended the attachment of a reserve matter regarding final interpretation of the building's original internal construction, along with a number of conditions and general notes.

4.2 Government Architect

The Government Architect (GA) is a mandatory referral for development within the area of the Corporation of the City of Adelaide for which the State Commission Assessment Panel (SCAP) is the relevant authority in accordance with Schedule 8 of the *Development Regulation 2008*. The SCAP must have regard to this advice.

The Government Architect was generally supportive of the proposal however considered the following aspects may benefit from protection as part of the planning permission:

- Provision of physical material samples to confirm selections and delivery of high quality materials and finishes that respond to the heritage masonry fabric and reinforce a unified singular expression for the façade breaks
- Provision of additional information that accurately describes key construction details including fixing, jointing and termination details of the vertical fins, the soffit design details, the jointing of the precast wall panels including the building corners, the setback of the window frames within the precast panels and the proposed precast panel repetitious rebate pattern
- Development of façade design and detailing through prototyping of the patterned concrete patterns during the next phase of design development
- Provision of a detailed waste management plan to minimise safety, amenity and visual impacts on North Terrace
- Development of a signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation.

4.3 Adelaide Airport

The Commonwealth Secretary for the Department of Transport and Regional Services (the Secretary) is a mandatory referral in accordance with Item 9 – Airports of the table in Schedule 8 to the Development Regulations 2008, because the Development Plan contains a map entitled Airport Building Heights and the proposed development would exceed the height prescribed in that map for the subject site.

The building was assessed at a proposed height of RL 157.660m AHD. The proposed building will penetrate the Adelaide Airport Obstacle Limitation Surfaces (OLS) which is protected airspace for aircraft operations.

The application will require approval in accordance with the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996* and therefore will be forwarded to the Department of Infrastructure and Regional Development for their approval.

The development will penetrate the OLS by approximately 28m. If approved by the Department of Infrastructure, Transport, Regional Development and Cities any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.

Crane operations associated with construction, if approved, will also be subject to a separate application.

5. COUNCIL TECHNICAL ADVICE

5.1 City of Adelaide

There is no mandatory referral to Council pursuant to Regulation 38 (4a) of the *Development Regulations 2008.* The application was informally referred to the City of Adelaide.

Council has made the following comments on the proposed development:

- Council is satisfied with the proposal, noting that engaging a private contractor for ongoing bin servicing must occur as the building will not be eligible for Council's waste collection.
- The applicant must advise Council of the waste service provider and the approximate waste collection times to enable communications to Council's Parking Information Officers.
- Waste collection should occur after 7pm and prior to 7am.
- The existing footpath level should not be modified to suit the floor level of the entry point to the development.

It is recommended that relevant conditions and notes be attached to any consent granted the application.

6. PUBLIC NOTIFICATION

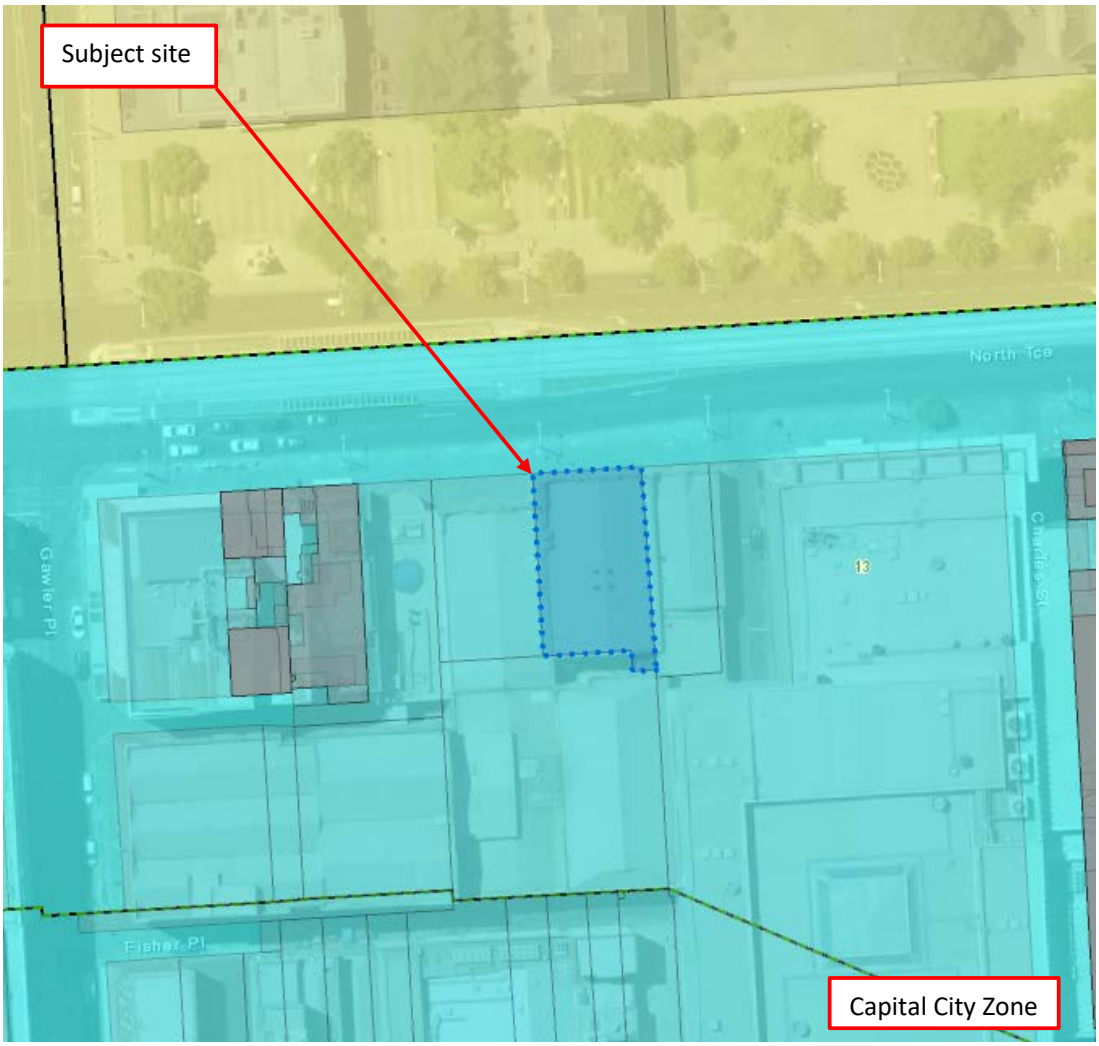
The application is a Category 1 development pursuant to Principle of Development Control 40 of the Capital City Zone within the Adelaide (City) Development Plan. No public notification was required.

7. POLICY OVERVIEW

The subject site is within the Capital City Zone and the Central Business Policy Area as described within the Adelaide (City) Development Plan Consolidated 7 June 2018.

Relevant planning policies are contained in Appendix One and summarised below.

Figure 2 – Zoning Map



7.1 Policy Area

The Desired Character for the Central Business Policy Area 13 is as the pre-eminent economic, governance and cultural hub for the State, supported by educational, hospitality and entertainment activities along with increased potential for tourist accommodation and residential development.

The policy area seeks tall imposing innovative buildings displaying evocative architecture and providing a hard edge to streets. A high standard of design is expected within the policy area with development contextual to its locality and street.

7.2 Zone

The Desired Character for the Capital City Zone is as the economic and cultural focus of the State, with an increased population complementing the opportunities and experiences provided in the City and increasing its vibrancy.

High scale development is envisaged, with walls that frame the streets, and create an interesting pedestrian environment. Maintaining human scale and vibrancy at ground floor levels is emphasised through active uses and building frontages to streets, careful building articulation and fenestration, frequent openings, verandahs, balconies, awnings and other features that provide weather protection. 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.

No specific height limit is identified for the subject site, although the zone does seek to ensure that the ongoing operations of the Adelaide Airport are not compromised by development.

Non-residential land uses at ground-floor level such as shops, cafés and restaurants are encouraged, with residential uses encouraged above ground level. Hotel, tourist accommodation, shop, restaurant and dwelling are envisaged forms of development.

New development is to achieve high design quality by being contextual, durable, inclusive, sustainable and amenable.

The zone places emphasis on supporting pedestrian movement, particularly within the Primary Pedestrian Area and Core Pedestrian Areas by maintaining and enhancing existing pedestrian connections. It seeks this through active uses and building frontages, improvements to the quality of the pedestrian environment, particularly comfort through weather protection, lighting and safety.

7.3 Council Wide

The Council Wide provisions provide direction on the desire for increased levels of activity and interest at ground level; the safe and convenient servicing of sites; a high standard of design and appropriate bulk and scale of buildings; and contribution to streetscape.

7.4 Overlays

7.4.1 Affordable Housing

The proposal is not subject to this overlay as it is not proposing the construction of new dwellings.

7.4.2 Noise and Air Emissions

N/A

7.4.3 Adelaide City Airport Building Heights

The proposed development will require approval under the Commonwealth Airports Act 1996 as a structure that will penetrate the prescribed air space identified in MAP Adel/1 (Overlay 5).

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan, which are contained in Appendix One.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	No prescribed height limit subject to Airport Building Heights overlay	RL 157.66m – the proposal will penetrate OLS by 28m	YES ☐ NO ☐ PARTIAL ☒	Further assessment still required, see section 8.3 below

		Still subject to assessment by the Department of Infrastructure, Transport, Regional Development and Cities		
Car Parking	No minimum parking requirements in the Capital City Zone	N/A	YES ☒ NO ☐ PARTIAL ☐	N/A
Bicycle Parking	Development Plan silent on bike parking requirements for Student Accommodation, however residential provision is 1/dwelling with a floor area less than 150m^2.	44 Bicycle parks	YES ☒ NO ☐ PARTIAL ☐	Further discussion in section 8.7 below
Front Setback	No upper level setbacks required in the Central Business Policy Area.	4.6m	YES ☒ NO ☐ PARTIAL ☐	The tower is setback from the heritage façade 4.6m to align with existing step in the adjoining warehouse building.
Rear Setback	Development Plan generally silent on rear setback, however, seeks 3m setback for habitable room windows for amenity/privacy.	1.1m	YES ☐ NO ☒ PARTIAL ☐	Further discussion in section 8.4 below.
Side Setback	See Rear Setback above	0.6m	YES ☐ NO ☒ PARTIAL ☐	Further discussion in section 8.4 below.
Private Open Space	No guidelines	N/A	YES ☒ NO ☐ PARTIAL ☐	N/A

Where quantitative requirements have been met, they will not be discussed further below.

8.2 Land Use and Character

The proposal is for a student accommodation tower. Student accommodation is listed as an envisaged use in the Capital City Zone and therefore this aspect of the proposal is considered to be acceptable.

8.3 Building Height

Council Wide Principle of Development Control 172 seeks that buildings and structures not adversely affect the long-term operational, safety and commercial requirements of Adelaide International Airport. The proposed development is within an area subject to

no height restrictions in the Development Plan and is subject only to approval regarding Airport Building Heights.

The proposed building height is 153.16m AHD, plus roof plant (RL 157.66m).

The application has been referred to the State body governing these matters, however, as the proposed building penetrates the OLS by approximately 28m, approval is being sought from the Federal Department of Infrastructure, Transport, Regional Development and Cities.

It is noted, that the overall height of the building, including allowance for a 'hammerhead crane' for construction purposes, will not exceed the governing PANS-OPS height or the established Radar Terrain Clearance (RTCC) surface height of 182.8m AHD.

None of the mandatory referral bodies have raised concerns with the height of the building.

It is considered that the proposal meets the relevant Development Plan provisions regarding height. This aspect is considered to be acceptable subject to approval from the Federal Department of Infrastructure, Transport, Regional Development and Cities.

8.4 Setbacks

While the desired character seeks upper level setbacks for buildings throughout the Capital City Zone these are specifically not required in the Central Business Policy Area.

Council wide Principle of Development Control 67 provides the main guidance with regard to setbacks, seeking that habitable windows be setback 3m from the boundary to provide an adequate level of amenity and privacy and to not restrict reasonable development of adjacent sites.

The proposed building has a front setback of 4.6m, rear setback of 1.1m and side setbacks of 0.6m – increasing to 1.05m towards the centre of each elevation to accommodate windows that provide natural light to internal corridors. The site enjoys rights to light and air (with limitations) over land which traverses the adjoining allotment to the south.

No habitable room windows are on either the eastern or western elevations of the proposed building with the only glazing providing natural light to the internal corridors.

Setbacks were amended through the pre-lodgement process following feedback provided by the Government Architect, specifically to increase the front setback of the tower.

In her referral comments, the Government Architect advised that she supports the proposed tower setbacks that respond to the North Terrace context and the overall composition that achieves a reduced north south building depth and a symmetrical relationship to the W&G Wills & Co. warehouse.

Similarly, Heritage SA supports the overall approach to the tower's external form, setback and symmetry with the heritage place stating *that "the further setback of the northern wall line at the Level 2 roof terrace is an important part of the tower's articulation in providing a negative interface between the tower and the form of the heritage building"*.

While it is acknowledged that the rear setback does not meet the setback sought by Council Wide Principle of Development Control 67, the proposal will meet the intent of

the policy as the site enjoys rights to light and air to the south. On balance, it is considered that the proposal meets the intent of Development Plan setback policies. This aspect of the application is considered to be acceptable.

8.5 Design and Appearance

8.5.1 Built Form

The Capital City Zone seeks buildings that reflect innovative design approaches and contemporary architecture that responds appropriately to the locality and context. The zone places a strong emphasis on creating interesting pedestrian environments and ground floor activation through careful building articulation and fenestration, frequent openings in building facades and other design features.

The proposed tower has been designed to achieve a singular, monolithic and sculptured built form outcome. Glazed breaks on Levels 12, 23 and 33 will divide the tower into three vertical elements which, along with the front setback, reduce the scale and visual dominance of the tower, reduce the expanse of solid walling visible from the public realm and provide additional detailing and articulation to improve the appearance of the building when viewed from the public realm.

The Government Architect has expressed support for the transition level between the heritage building and the tower which is treated as a recessive element, comprising black stained precast.

A mechanical plant will be located at roof level (level 33) and a new transformer will be located within the north western corner of the terraced level. Both will be screened from public view by 1.8m high louvres in accordance with the requirements of Council Wide Principle of Development Control 194. This is supported by the Government Architect.

The Government Architect also supports the approach for the design of the top of the tower as the consistent application of the projecting soffit contributes to cohesive expression overall.

Further discussion regarding the interaction between the proposed tower and the existing heritage building is in Section 8.6 below.

Overall the design quality presented is considered to adequately satisfy expectations of building design and appearance encouraged by the Capital City Zone policy.

8.5.2 Materials, colours and finishes

Council wide policy generally seeks that 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. Development fronting North Terrace will reflect their importance though highly contextual design that reflects and responds to their setting and role

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.

Materials and finishes that are easily maintained and do not readily stain, discolour or deteriorate should be utilised.

The proposal includes the following materials:

- Architecture Precast Black stained – Terrace Level
- Anodised Aluminium window framing in 'Espresso Bronze' – Levels 12, 23 and 32
- Anodised Aluminium projecting soffits and capping elements in 'Espresso Bronze'
- Anodised Aluminium window framing in 'Pale Bronze' – general
- Anodised Aluminium vertical fins in 'Pale Bronze' - general
- Architectural Precast Brighton Lite with repetitious rebate pattern – general

In principle, the Government Architect supports the approach for an integral finish to the precast and visual interest created by the rebate pattern, however has raised some concern by the tonal relationship of the Brighton Lite finish to the heritage building. Success of the proposed tower design will be contingent on the precast material quality and detailing of façade elements including:

- Fixing, jointing and termination details of the vertical fins
- Soffit design details
- Jointing of the precast wall panels including the building corners
- Setback of window frames within the precast panels
- Proposed precast panel repetitious rebate pattern
- Tonal relationship of the new building elements to the heritage building.

As such, the Government Architect has recommended provision of additional information that accurately describes these key details supported by physical material samples.

It is considered that while achievable, this aspect of the application requires further resolution. On this basis it is not considered so fundamental as to be detrimental to the proposal as a whole, but it is recommended that an appropriately worded reserve matter be attached to any consent granted to the proposal.

8.6 Heritage

Council Wide provisions regarding heritage generally seek that development affecting a State heritage place 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. 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.

The Capital City Zone envisages development to provide a new setting for heritage places, whilst appropriately responding to the site context and broader streetscape.

The proposal involves internal and external alterations to the existing State Heritage Place. The roof of the State Heritage Place will also be replaced with the student accommodation tower. The main works the affect the heritage building include:

- Conservation works on main, rear and west façade
- Deletion of vehicle entrance and reinstatement of that section of the façade

- Installation of two new exit doors
- Installation of services access points into basement windows
- Revised main entrance, lowered to address BCA/DDA
- Deletion of roof
- Deletion of basement, ground and first floor structures (with cast iron columns, floor board and timber match board ceilings to be salvaged for reuse wherever possible)
- New lift core and structural columns for tower (set in from external walls)
- Conservation works to internal walls
- New floors to match existing levels
- Roof top deck and tower above

The applicant engaged DASH Architects to prepare a Heritage Impact Statement. The report makes the following concluding statements about the project's material heritage impacts:

In this case, the approving authority may form a balanced view that the loss of fabric, and subsequent impact on the Heritage Value of the Place, is acceptable if ensures the ongoing viability of the site. From a heritage point of view this decision could be equated to either 'losing the limb, to save the body', as opposed to holding out for a 'miracle cure'.

The set-out of the new works, and re-use of some materials in a similar location to original, has mitigated the negative heritage impact attributable to the loss of internal fabric but the overall heritage impact internally remains negative.

This negative impact however must be considered within the overall intent of the Development Plan and a range of other factors beyond the scope of a heritage report. Ultimately it may be that this negative impact is acceptable as it meets other ambitions for the site and locality and will help to ensure that the remaining fabric has a viable future, embedded within a new development.

Similarly, an assessment of the proposal against the Development Plan will see many positive elements but must assess the relative impact of the loss of internal fabric.

Heritage SA, in their referral response, see this as a reasonable and balanced summary of the material impacts, subject to the statement regarding the success that the re-use of original materials and components will have in mitigating the negative impacts, which is seen to partially mitigate the negative impacts.

Heritage SA are generally supportive of the proposal, however, regard the realisation and delivery of the interpretive component of the proposal as being crucial to the mitigation of heritage impact and consider therefore that it merits the inclusion of a reserved matter.

While there will be some loss of the internal heritage fabric of the building, the scheme allows for the adaptive use of a State Heritage place and the salvage and partial re-use of internal fabric and components. Heritage SA have raised no objection to the proposal and on balance this aspect of the application is considered to be acceptable.

8.7 Traffic Impact, Access and Parking

8.7.1 Bicycle Parking

The Development Plan does not contemplate a parking rate for student accommodation. Council Wide provisions generally seek the adequate supply of on-site secure bicycle parking that is located in a prominent place, at ground level, undercover, secure and easily accessible.

The proposed development incorporates a dedicated space within the basement for up to 44 bike parks. Students will access the bicycle parking room via North Terrace and the western access point, and a bike rail will be installed along the internal stairwell to facilitate the transportation of bikes to/from the storage room.

In the absence of a prescribed parking rate the traffic report prepared by CIRQA referenced the recently approved Urbanest North Terrace and Urbanest Bank Street exhibited a bicycle parking rate of 1 park per 16.4 beds and 1 park per 22.9 beds. The proposed development provides 1 bicycle park per 20.4 beds which is considered acceptable, given the close proximity to Universities, retail facilities, public transport and public open space.

While not located at ground level, the internal student bicycle parking is considered to be easily accessible from ground level, is undercover and secure, and is therefore considered to generally satisfy Council Wide Principle of Development Control 235.

The proposed bicycle parking exhibits a parking rate similar to established student accommodation developments. While there are no quantitative bicycle parking requirements, the proposal is considered generally consistent with the qualitative bicycle parking provisions of the Development Plan

8.8 Student Accommodation

The Development Plan acknowledges residential development specifically designed for student accommodation may reflect a reduced internal floor areas, storage area and or areas of private open space.

The proposed development has been specifically designed for student occupation, as such the apartments reflect a reduced internal floor plate, typical of a development of this nature. The proposal includes a range of indoor and outdoor communal areas to meet the social, education and cultural needs of the student residents. There are 8 unique communal areas located throughout the development, providing a variety of spaces for the students to interact. The Government Architect generally supports the distribution, integration, generosity and envisaged varied character and quality of the communal spaces. Further support is given to the location of the common spaces on the northern frontage, separation of these spaces from student rooms and the glazed expression of the common spaces externally.

The residential floors of the development offer a mixture of student accommodation options, which also includes 3 DDA compliant studio apartments and student rooms are considered to be typically well planned and efficient by the Government Architect. Each bedroom has access to natural light via a window, all of which are openable to allow access to fresh air. The accompanying floor plans demonstrate how each room can accommodate as a minimum a desk, robe, shelves and a single bed, and are generally considered consistent with Council Wide Principles of Development Control 10 through to 13 regarding student accommodation. This aspect of the proposal is considered to be acceptable.

8.9 Environmental Factors

8.9.1 Crime Prevention

General Section policy recommends development designed to maximise surveillance of public spaces through the incorporation of clear lines of sight,

appropriate lighting and the use of visible permeable barriers, in association with materials that are resistant to vandalism and graffiti.

The proposed development will introduce a considerable residential population which compared to the existing use, would be expected to substantially increase levels of activity and visitation to the site.

Clear glazed facades proposed for the communal floors on the North Terrace frontage complimented with an outdoor terrace on Level 2 are expected to contribute to a well monitored and exposed environment that would not be conducive to anti-social behaviour.

A secure storage room will be provided for bicycle parking on the basement level, with associated CCTV to all fire exit corridors.

While the development is constrained by the need to preserve the heritage fabric of the building, the proposed security measures and overall configuration of the development are expected to assist in mitigating risks to user safety and security and deterring overt criminal activity as encouraged by Development Plan policy related to crime prevention. This aspect of the application is considered to be acceptable.

8.9.2 Noise Emissions

Development Plan policy encourages noise-sensitive development incorporating adequate noise attenuation measures to provide occupants with reasonable amenity when exposed to noise sources such as entertainment premises, commercial centres and activities contemplated nearby.

The applicant engaged Sonus to prepare a Noise Assessment Report. The report has recommended façade treatments to ensure that noise criteria can be satisfied, these comprise:

- Laminated glazing comprising a minimum thickness of 10.38mm to all northern façade windows up to level 22
- Laminated glazing comprising a minimum thickness of 6.38mm to all other glazed façade treatments, including common areas
- Acoustic seals to the doors from the common areas to outdoor area on level 2

The report notes that a comprehensive acoustic assessment of impacts of mechanical plant is yet to take place, but concludes that appropriate and reasonable design strategies can be implemented to minimise noise impacts in accordance with Council Wide Principle of Development Control 93.

The applicant has indicated that the acoustic treatments and construction methodology to be specified during detailed design will align with the recommendations of an acoustic engineer's report.

On this basis the acoustic treatments in the proposed development should be of appropriate standard, however a condition has been proposed to be placed on any planning consent to ensure final acoustic treatments are appropriately integrated into the proposed development. This aspect of the application is considered to be acceptable.

8.9.3 Waste Management

Council Wide Waste Management policies and objectives collectively encourage the use of a dedicated area for on-site waste collection and sorting of recyclable materials, that does not create unacceptable levels of smell and detrimentally affect established amenity.

Rawtec have prepared a Waste Management Plan for the proposal. The report estimates that a total of 17 660L bins will be required with a total of 6 collections per week. Hard waste and e-waste will be managed as they occur on-site.

The proposed development includes a storage area large enough to accommodate 8 x 660L general waste bins, 3 x 600L Organic food bins, 6 x 660L comingled recycling bins and an 8m2 storage area for hard waste and e-waste.

The proposed development incorporates a dual chute system, one of which will have an e-diverter to manage comingled and organics recycling. The bin room is located in the basement level. A bin hoist is proposed to allow bins to be raised from the basement level to the street level for collection.

The Government Architect raised some concern regarding potential safety, amenity and visual impacts of waste collection from North Terrace. However, Council are generally satisfied with the waste management strategy and collection process due to the constraints of the site noting that the applicant must engage a private contractor for waste collection as the building will not be eligible for councils waste collection services.

Subject to appropriately worded conditions regarding the engagement of a private contractor and waste collection times, the proposed waste management strategy is considered to be acceptable and generally consistent with the Development Plan

8.9.4 Energy Efficiency

Development should be sited and designed to conserve energy and be energy and water efficient. Environmentally sustainable design principles applied in the design of the development and specification of equipment include initiatives.

Application details adequately substantiate the applicant's intent to provide a development which would meet the Development Plan's energy efficiency provisions, and contribute to environmentally sustainable outcomes more generally.

8.9.5 Wind Analysis

Multi-storey buildings within the Council area should minimise detrimental micro-climatic impacts on adjacent land and buildings including unwelcome effects of wind.

Council Wide (Environmental) PDC 125 establishes that development of 21 metres or more in building height built at the street frontage should minimise the risk of wind tunnelling effects by adopting design approaches such as a podium at the base of a tower to deflect wind away from the street, or substantial verandas to deflect downward travelling wind flows over pedestrian areas.

The applicant engaged Vipac to conduct a Wind Impact Assessment for the proposed development. The consultant's report predicts that most areas will satisfy the various recommended comfort criteria at the ground level and

communal terraces and as such, makes no recommendation for the alteration of the design as proposed. However, the report recommends that, considering the height of the proposed development, wind tunnel testing be conducted to verify the predictions. Given that wind tunnel testing could only be conducted on a fully constructed building, this is not enforceable by way of condition.

The proposed development generally satisfies the policy provisions relating to wind impacts and is deemed acceptable.

8.9.6 Stormwater

General Section (Natural Resources) policy encourages development that makes adequate provision to control stormwater over-flow runoff from the subject land and should be sited and designed to improve the quality of stormwater and minimise pollutant transfer to receiving waters.

The subject site is currently impervious, which is covered by the existing State Heritage building. The space drains into the existing Council Stormwater system. It is acknowledged that the proposed development will cover the subject site and should not result in an increased stormwater discharge. Council did not raise any storm water related concerns.

Subject to the assignment of an appropriately worded condition to any consent granted, the development would be expected to effectively manage stormwater flows in accordance with the Council's requirements and in doing so satisfy the relevant Development Plan policy.

8.10 Signage

Advertisements in the Council area should use simple graphics and be restrained in their size, design and colour to present an overall consistency of signage along individual street frontages.

The application includes four internally illuminated signage panels which are to be attached to the eastern and western building elevations (two per elevation).

The Government Architect has recommended the provision of further information regarding the signage including proposed lighting and envisaged colour scheme, with a view to achieving an integrated outcome.

The location and dimensions of the proposed signage are considered to be generally consistent with the requirements of the Development Plan. Subject to the assignment of an appropriately worded condition seeking final details to any consent granted, the proposed development is considered to generally satisfy the relevant Development Plan policy in this regard.

9. CONCLUSION

The proposed land use is consistent with the zone's envisaged uses and aligns with Development Plan criteria in relation to height, setbacks, bicycle parking, ESD principles, CPTED principles, noise emissions and noise protection and waste management.

The proposed development is considered acceptable in scale and height for the locality. It is acknowledged that the development is not subject to a prescribed maximum building height, however relevant airport heights still apply to the development site. Adelaide Airport have noted that a separate Commonwealth approval is required in relation to the height of the proposed development.

The design and appearance of the proposed development is considered to generally respond the State Heritage context. Heritage SA are of opinion that the proposed development should not directly affect the physical fabric and material heritage of the State Heritage Place, however suggested some further design refinement. The Government Architect also supports the general design direction, however suggested some further design development.

Whilst there are some areas of further resolution with regard to materials and internal works, these are considered achievable and it is acknowledged that the development meets majority of the Development Plan policy requirements and is consistent with the desired character and objectives of the Capital City Zone. The development is therefore recommended for the granting of Development Plan Consent, subject to reserved matters and planning conditions.

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) Development Plan.

3) RESOLVE to grant Development Plan Consent (and Land Division Consent) to the proposal by 203 North Terrace Pty Ltd for alterations and additions to a State Heritage Place and construction of a multistorey student accommodation tower above at 203 North Terrace, Adelaide subject to the following reserved matters and conditions of consent.

RESERVED MATTERS

1. Pursuant to Section 33(3) of the *Development Act 1993*, the following matter/s are reserved for further assessment prior to the granting of Development Approval in consultation with Heritage South Australia (Department of Environment and Water) and shall be to the satisfaction of the State Commission Assessment Panel (SCAP) :

    a. The scheme for the interpretation of the building's original internal structure, construction, materials, finishes and detailing through the incorporation of salvaged original fabric and other appropriate means.

    A comprehensive concept design, to be followed by detailed design and documentation, shall be developed to demonstrate how the historic character spatial qualities, construction, materials, finishes and detailing of the original interiors are to be presented and interpreted, particularly at the ground floor and first floor levels.

    The brief for concept design shall consider aspects such as:

    a. The 4-bay structural grid;
    b. The structural, functional and material hierarchy of the three levels, evident in the differing column types, soffit treatments, materials palette and decorative detail at each level;
    c. The stairs
    d. The roof lantern; and
    e. The interfaces between old and new

Reason: The ability of the interpretive reconstruction concept to adequately mitigate the heritage impact resulting from total internal demolition relies on the integrity with which salvaged components and other materials are re-used and the validity of the interpretation they achieve, which should be compelling and meaningful.

2. Pursuant to Section 33(3) of the *Development Act 1993*, the following matters are reserved for further assessment prior to the granting of Development Approval, in consultation with the Government Architect and Heritage South Australia (Department of Environment and Water), and shall be to the satisfaction of the SCAP:

   a. A final detailed schedule of external materials and finishes and detailing of façade elements including:
      a. Fixing, jointing and termination details of the vertical fins
      b. Soffit design details
      c. Jointing of the precast wall panels including the building corners
      d. Setback of window frames within the precast panels
      e. Proposed precast panel repetitious rebate pattern
      f. Tonal relationship of the new building elements to the heritage building

   b. A signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation.

   Reason: To ensure the success of the proposed tower design and precast material quality.

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 documents and stamped plans submitted in Development Application No 040/A042/19.

   Reason: To ensure the development is undertaken in accordance with endorsed plans and application details.

2. All bicycle parking spaces shall be designed and constructed in accordance with Australian Standard AS/NZS 2890.1:2015.

   Reason: To ensure the appropriate access arrangements to bicycle parking and storage spaces.

3. 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.

   Reason: To ensure that stormwater does not adversely affect any adjoining property or public road.

4. Waste collection shall be undertaken by private contractor, unless otherwise agreed to by the City of Adelaide Council.

   Reason for condition: Council will not undertake collection of waste for the proposed development.

5. The hours for waste collection shall occur prior to 7am or after 7pm.

   Reason: To ensure the waste collection from the development does not cause undue impacts to the occupants of the building and to those in the locality.

6. The acoustic attenuation measures recommended in the Noise Assessment Report, dated June 2019 by Sonus, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the SCAP. Such acoustic measures shall be made operational prior to the occupation or use of the development.

   Reason: To ensure that the development does not unduly impact on the amenity of the locality.

PLANNING CONDITIONS – HERITAGE SA (DEW)

7. The scope of conservation works to be undertaken as part of this application are to be finalised in consultation with Heritage South Australia, and be to the satisfaction of the SCAP prior to the granting of Development Approval. The scope should include timber door and window joinery, stonework, and restoration of lost or damaged detail.

8. The scope and detail of external and internal conservation works shall be informed by detailed investigations by a suitably experienced heritage architect. The works shall be documented in consultation with Heritage South Australia and be to the satisfaction of the SCAP prior to the granting of Development Approval.

   Reason: The application incudes conservation works but their scope and detail has not yet been defined. Appropriate conservation works will assist in maintaining the heritage values of remnant fabric and in mitigating the effects of long-standing neglect.

9. Details of the following works shall be developed in consultation with Heritage South Australia to the satisfaction of the SCAP, prior to the granting of Development Approval. The works shall be informed by a suitably experienced heritage architect. Documentation shall include the specification of materials, methods, workmanship and finishes:
   a. The deletion of the current vehicle entrance and the reinstatement of that section of the façade to its original state matching the construction, design, appearance and detail of the extant eastern section of the façade.
   b. The forming of two new openings and the installation of two new exit doors beneath the sills of the ground floor windows, including:
      i. The approach to forming the openings and the salvage of the stone for use elsewhere;
      ii. The alignment of jambs relative to the window jambs above;
      iii. The reveal detail and interface with the masonry jambs and sills;
      iv. The threshold treatment and interface with finished footpath levels; and
      v. The design of the new doors including setback, materials, colour, finish, detail and door furniture.
   c. The revised main entrance (lowered to address BCA/DDA requirements) including:
      i. The reuse of the existing timber doors at the lower level, expressing the original form of the doors and fanlight and resolving the appropriate treatment of the zone between the existing fanlight and the re-positioned timber doors;

ii. The design, detail and setback of the new glazed entrance doors and the interface with existing fabric including the re-positioned timber doors;
iii. The interpretation of the original stair profile; and
iv. The design and material expression of the new stair and balustrades.

Reason: Detail of the works sufficient to understand its heritage impact has not yet been developed. The proposed works to the North Terrace façade affect fabric classified as being of 'Exceptional' heritage significance. A high standard of design and consideration for heritage fabric should be achieved in the implementation of these works.

10. Details of the following works shall be developed in consultation with Heritage South Australia and be to the satisfaction of the SCAP, prior to the granting of Development Approval. The works shall be informed by a suitably experienced heritage architect. Documentation shall include the specification of materials, methods, workmanship and finishes.
    a. The installation of services access points into basement windows, including:
        i. Details of existing fabric affected (on the understanding that the masonry openings should not be altered); and
        ii. Details of the finished appearance of the installation.
    b. The installation of new stormwater overflows for the new roof deck. The stormwater management form the existing roof is poor and has presented issues over recent years. The drainage associated with the new roof deck should include overflow capacity to North Terrace in a way that is visually discrete and minimises the physical impact on the masonry.
    c. The installation of new downpipes, and the street connection for stormwater drainage. It is anticipated that these would be of light-weight construction, set in from the masonry gave to express the original form of the openings.
    d. The fire separation infill to openings between the subject building and neighbouring properties. It is anticipated that these would be of light-weight construction, set in from the masonry face to express the original form of the openings.
    e. The installation and screening of the new transformer at the current roof level, including:
        i. Setbacks from the parapets to allow maintenance access to the masonry; and
        ii. Details of the height, design, materials, colour and finish of the screens.

Reason: Details of the works sufficient to understand their heritage impacts have not yet been developed. Works should be reversible with minimal material and visual impact on the place.

11. The following documentation shall be developed in consultation with Heritage South Australia and to the satisfaction of the SCAP prior to the commencement of works on site:
    a. A Vibration Management Plan prepared by the building contractor that establishes:
        i. Appropriate vibration limits in the proximity of the heritage places as informed by DIN 4150-3;
        ii. Appropriate construction techniques to limit vibration to the established limits, and set exclusions zones for equipment and construction practices that are likely to exceed these;
        iii. Risk management procedures for any works that are likely to exceed established limits to ensure the protection and preservation of fabric of heritage significance;

iv. Appropriate monitoring techniques to ensure vibration limits are not exceeded; and
v. A regime of regular inspection of the heritage fabric to ensure no damage is arising from the works.

Reason: To protect the material integrity of the State heritage places.

12. The following documentation shall be prepared in consultation with Heritage South Australia and be to the satisfaction of the SCAP prior to the commencement of works on site:
    a. An archival photographic record of the building internally and externally. The record should be in accordance with the recommendations for photographic recording in the publication How to Prepare Archival Records of Heritage Items (NSW Heritage Office, Heritage Information Series 1998).
    b. A comprehensive 3D laser point cloud scan of the building. The scan shall be of an agreed resolution, and shall at the least include the whole of the building's interior and the external form and detail of the roof.
    c. A deconstruction strategy that details a methodology aimed at minimising the damage to fabric being removed and maximises the salvage of fabric for re-use.
    d. A Dilapidation Survey recording the condition of the three State heritage listed buildings at 201-207 North Terrace. The structural condition of the fabric of each listed building shall be monitored during the course of ground works and construction to identify any adverse impacts. Immediate action shall be taken to identify and address any structural distress that becomes evident during the demolition, ground works and construction stages.
    e. A Heritage Management Plan informed by a suitably experienced heritage architect that clearly identifies
        i. What parts of the place are important and why;
        ii. Potential risks to the place arising from the works, including those arising from the construction process (footing support, vibration, accidental damage);
        iii. Mitigation measures employed to avoid identified risks;
        iv. Identification of persons responsible for managing and reviewing ongoing risks;
        v. Contractor inductions (with regard to heritage matters/risks – refer to attached DEWNR Site Induction Notes for State Heritage Places).
    f. A detailed structural support system and construction methodology for the retention and protection of heritage fabric during the works. Any temporary structural support fixings shall minimise physical damage to original fabric and facilitate repair on removal.

Reason: to provide for an adequate archival record of significant fabric, construction and spaces to be demolished. To adequately manage the inherent risks to the heritage place during the construction phase.

13. Details of the following works shall be prepared in consultation with Heritage South Australia resolved and be to the satisfaction of the SCAP, prior to the granting of Development Approval.
    a. The interface of the proposed raised platforms flanking the North Terrace entrance with the existing northern windows and western loading doors.
    b. The introduction of building services within the listed building.
    c. The method and detail for the seismic stabilisation of retained historic fabric.

Reason: Details of the works sufficient to understand their heritage impact have not yet been developed. Works should be reversible with minimal material and visual impact on the place.

ADVISORY NOTES

a. 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.

b. 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.

c. The applicant will require a fresh consent before commencing or continuing the development if unable to satisfy these requirements.

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. The applicant is reminded of their obligations under the Local Nuisance and Litter Control Act 2016 and the Environment Protection Act 1993, with regard to the appropriate management of environmental impacts and matters of local nuisance. For further information about appropriate management of construction sits, please contact the City of Adelaide on 8203 7203.

ADVISORY NOTES – HERITAGE SA (DEW)

f. The applicant is advised that a site induction of all contractors and staff undertaking the work should be undertaken and include information about the heritage significance and listing of the three State heritage places. The site induction should highlight good heritage practice and what to do if works vary from the approval. The site induction should be prepared by a suitably experienced heritage consultant. A generic site induction is attached for reference.

g. The applicant is advised that site personnel responsible for decisions about the scope and extent of works, extent of removal of damaged fabric, workmanship, repair techniques, materials, colours, finishes, making good, the detail of new fabric or components and other matters concerning the extent and quality of the works should do so on the basis of possessing or seeking from a suitably experienced heritage consultant appropriate expertise in heritage conservation, traditional practice and the sensitive upgrading of heritage places. Those undertaking the works shall also possess

suitable heritage experience and skills to the satisfaction of the site supervisor or heritage consultant.

h. The applicant is advised of 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.

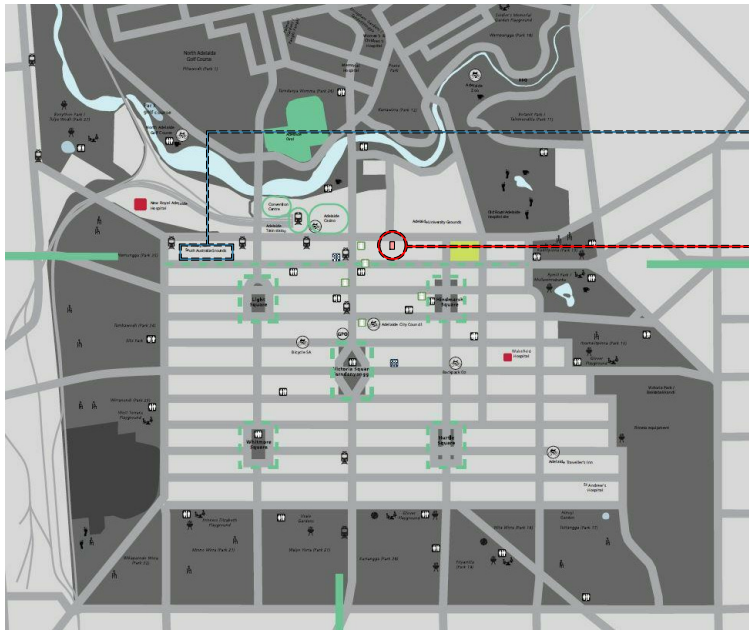
   For further information, contact the Department for Environment and Water.

i. The applicant is advised of 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 Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 if the *Aboriginal Heritage Act 1988.*

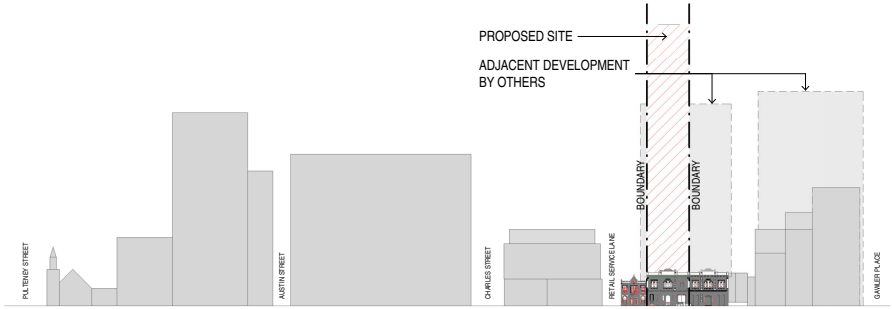
Elysse Kuhar
SENIOR PLANNING OFFICER
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

CONTEXT & SITE ANALYSIS



SITE CONTEXT & ANALYSIS

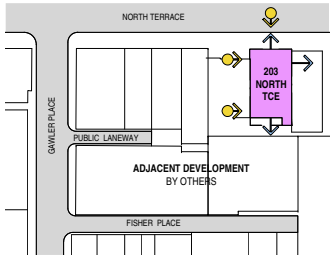
PUBLIC TOILET
INFORMATION
PARKING
HOSPITAL
POLICE
PARK / RECREATION
CAFE
SPORTS / RECREATION
ADELAIDE TRAVELLERS INN
TRAIN
TRAM
SWIM
PARK / SEATING
PUBLIC BBQ



ELEVATION - EXISTING NORTH TERRACE

1 : 1000

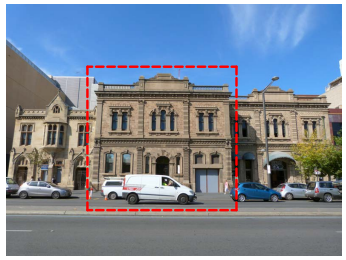
SITE CONTEXT & LOCALITY PLAN



SITE PLAN

PROPOSED

1-2 LEVELS
3-4 LEVELS
5-6 LEVELS
7-9 LEVELS
10-14 LEVELS
15 > LEVELS
SUBJECT SITE
STATE HERITAGE
LOCAL HERITAGE
BEST VIEWS
SHADING



203 NORTH TERRACE - EXISTING HERITAGE BUILDING TO BE RETAINED

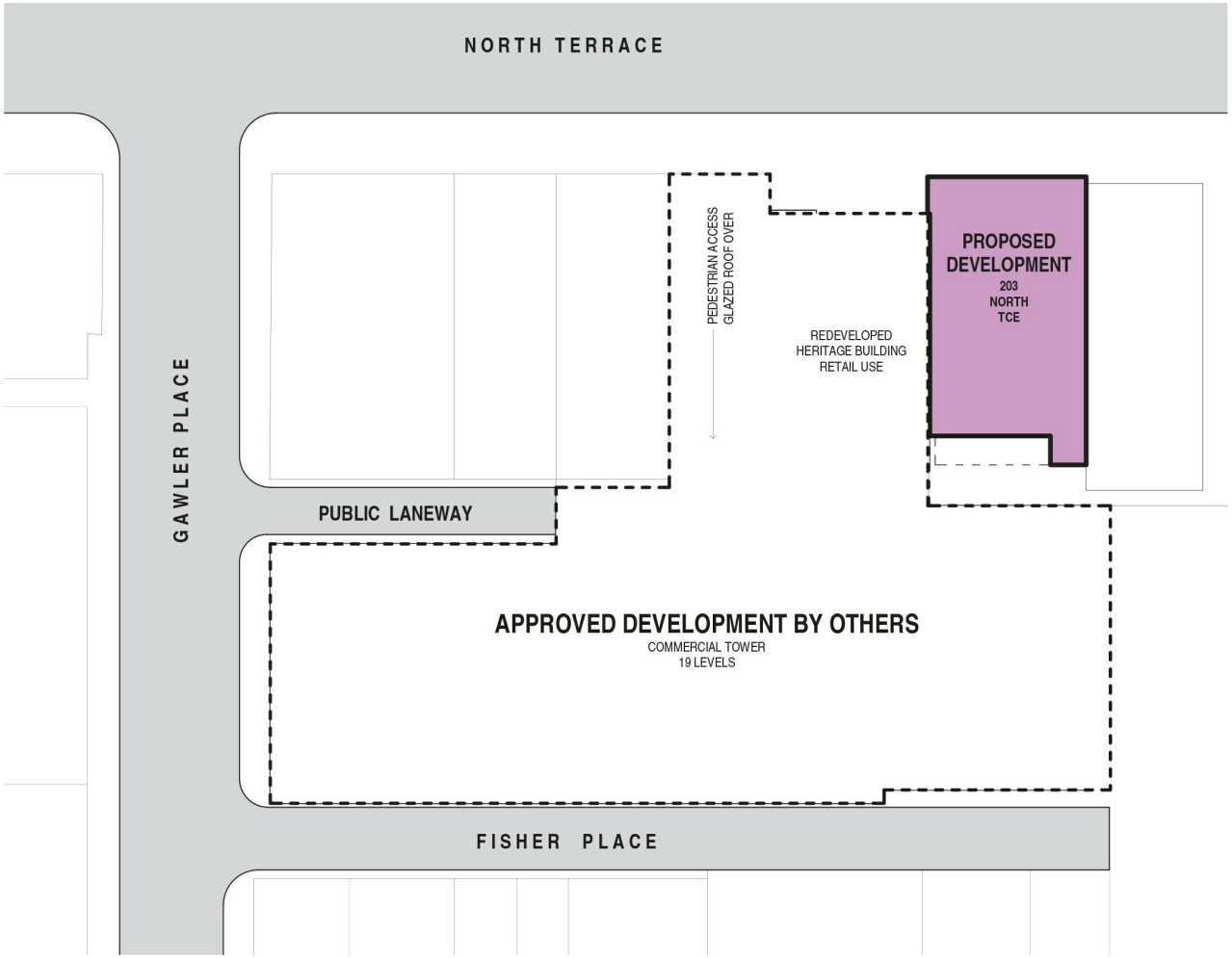
NORTH TERRACE - LOOKING WEST

NORTH TERRACE - LOOKING EAST

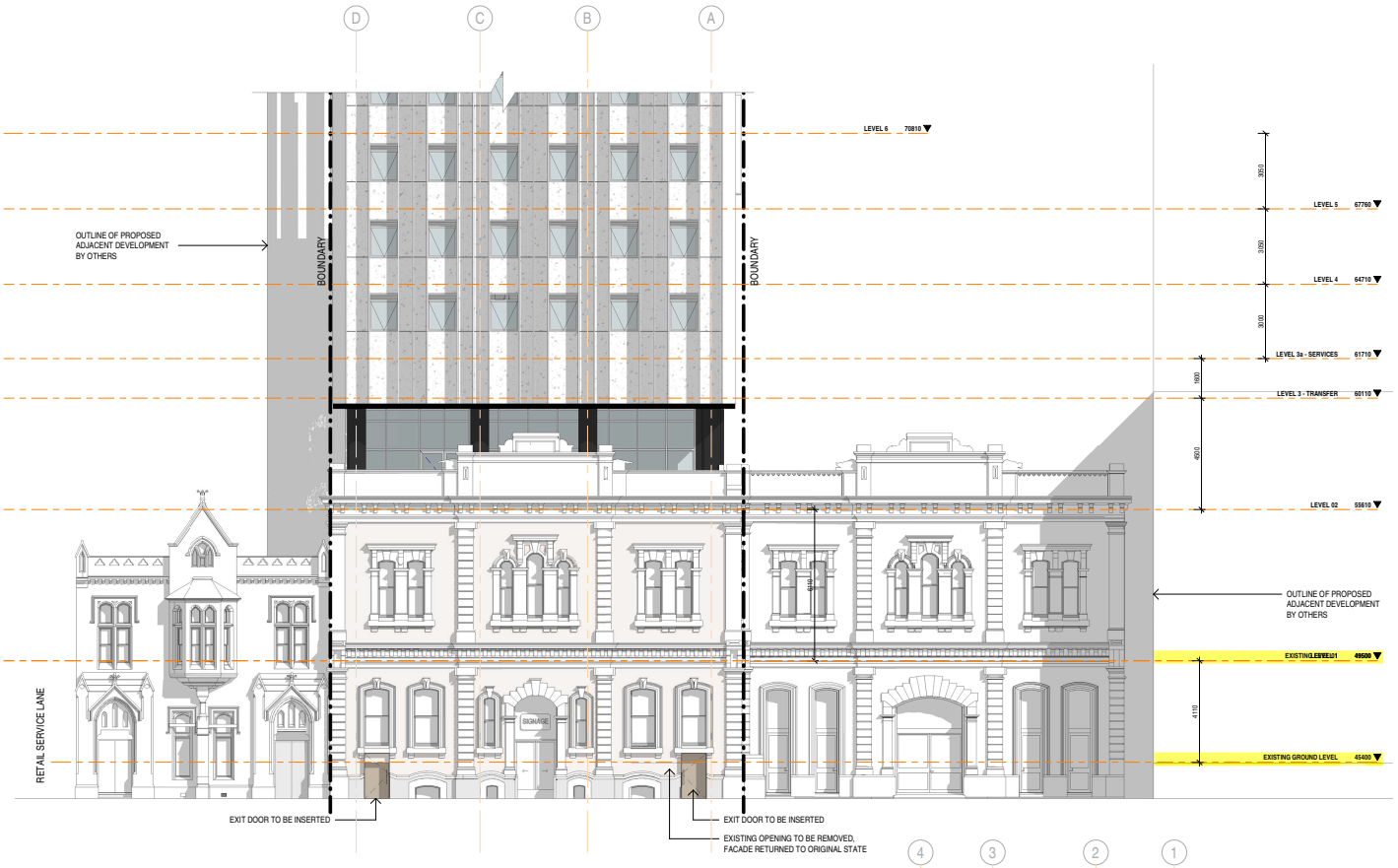
EXISTING CONTEXT PHOTOS

203 NORTH TERRACE
PLANNING APPLICATION SUBMISSION
13 September 2019
01 C

SITE PLAN & CONTEXT

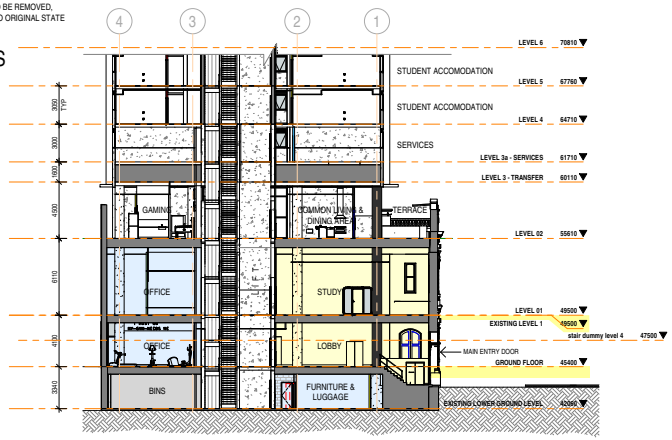


STREETSCAPE & HERITAGE



ELEVATION - NORTH TERRACE EXISTING HERITAGE FACADE & PROPOSED LOWER LEVELS

1 : 100



SECTION THROUGH EXISTING HERITAGE BUILDING

1 : 200

HISTORICAL IMAGE BY STATE LIBRARY OF SOUTH AUSTRALIA

HISTORICAL IMAGE BY STATE LIBRARY OF SOUTH AUSTRALIA

PHOTO OF CURRENT NORTH TERRACE HERITAGE FACADE

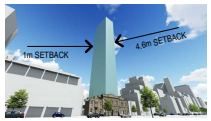
IMAGE OF PROPOSED HERITAGE NORTH TERRACE FACADE

203 NORTH TERRACE
PLANNING APPLICATION SUBMISSION
13 September 2019
03 C

FORM EVOLUTION

01
EXISTING SITE

02
CREATING 31 STOREY MASS



03
SETBACK FROM NORTH
AND EAST BOUNDARIES

04
VERTICAL SEPARATION FROM
EXISTING HERITAGE BUILDING

05
INTRODUCE FACADE GLAZING

06
INTEGRATE SCULPTED SOLID
PANELS AND GLAZED ELEMENTS

07
REDUCED DEPTH OF BUILDING
SET BACK FROM NORTH TERRACE

08
ARTICULATED FLOOR PLATES - SCOLLOPED

09
SCULPTED FLOOR PLATES, EXPRESSED

10
BREAKING OF VERTICAL FORM

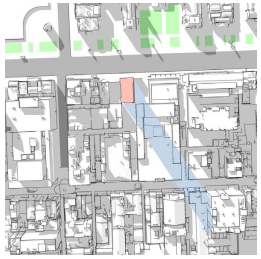
11
ARTICULATION OF REPETITIOUS FACADE

SUN STUDIES

WINTER SOLSTICE
21st JUNE

10AM

12PM



2PM

SUMMER SOLSTICE
22nd DECEMBER

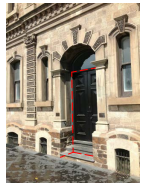
10AM

12PM

2PM

HERITAGE FACADE

- CREATE A NEW CONTEMPORARY DOOR INSERTION.
- RETAIN EXISTING WINDOW SILLS.
- CREATE A SYMMETRY IN THE HERITAGE FACADE TO ACKNOWLEDGE THE BUILDINGS PAST.



- EXISTING GROUND FLOOR LEVEL RETAINED.
- EXISTING ENTRY STAIRS REMOVED.

- REMOVE EXISTING GARAGE DOOR.
- CREATE A NEW CONTEMPORARY DOOR INSERTION.
- CREATE A SYMMETRY IN THE HERITAGE FACADE TO ACKNOWLEDGE THE BUILDINGS PAST.

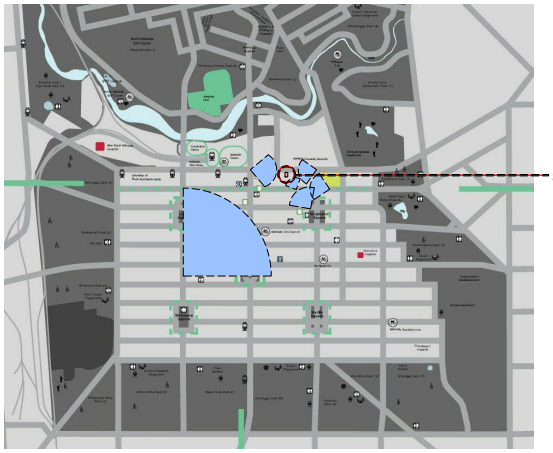
NEW EGRESS DOOR
ARTISTS IMPRESSION

FOYER
ARTISTS IMPRESSION

LONG VIEW 3D PERSPECTIVES

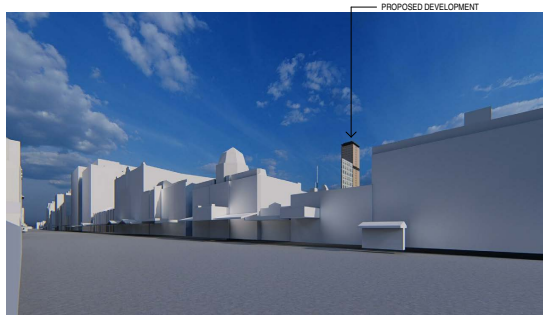
VIEW FROM NORTH TERRACE & PULTENEY STREET INTERSECTION

VIEW FROM NORTH TERRACE & KING WILLIAM STREET INTERSECTION

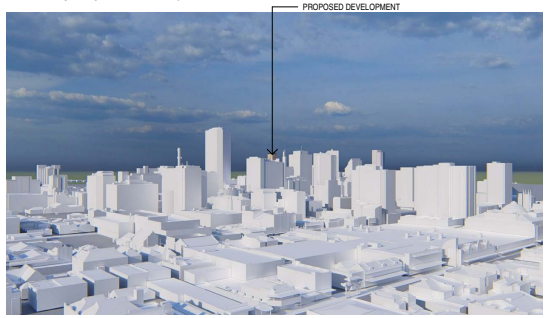


PERSPECTIVE LONG VIEW KEY PLAN

VIEW FROM RUNDLE MALL H&M



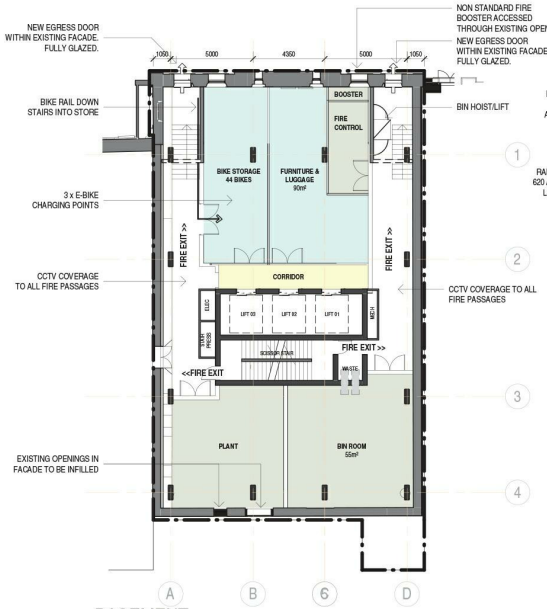
VIEW FROM GRENFELL STREET AT HINDMARSH SQUARE



ELEVATED VIEW FROM MORPHETT STREET & WITCOMBE STREET INTERSECTION

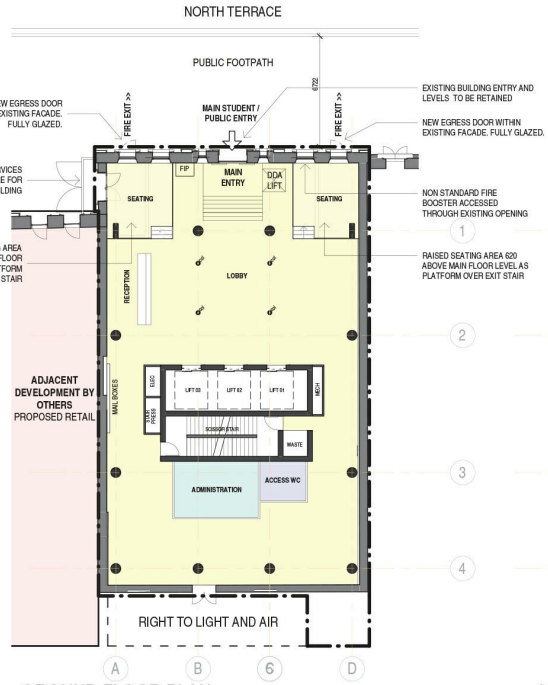
ELEVATED VIEW FROM RUNDLE STREET & SYNAGOGUE PLACE INTERSECTION

FLOOR PLANS - Lower Levels



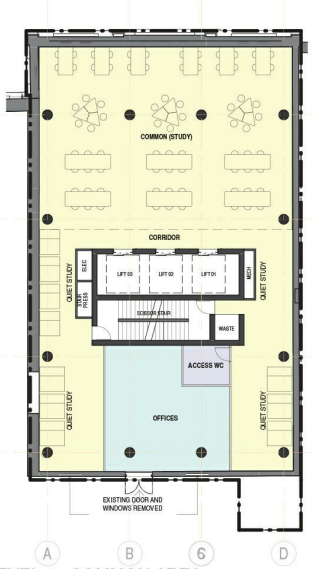
BASEMENT

1 : 150



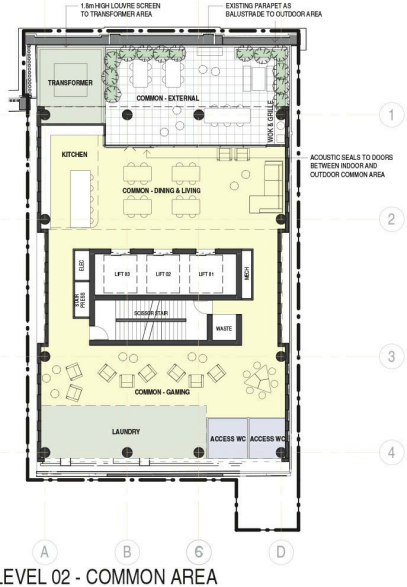
GROUND FLOOR PLAN

1 : 150



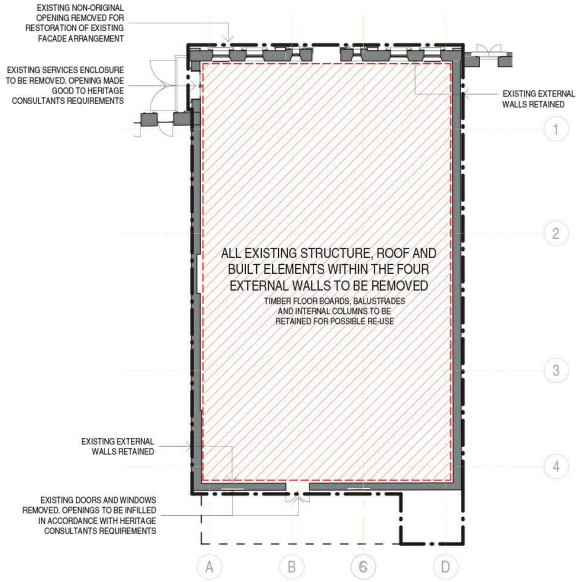
LEVEL 1 - COMMON AREA

1 : 150



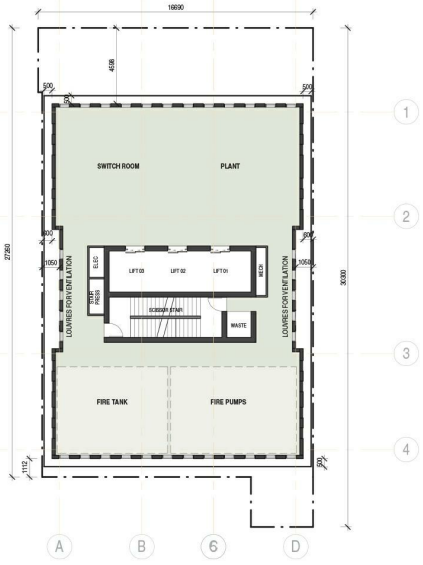
LEVEL 02 - COMMON AREA

1 : 150



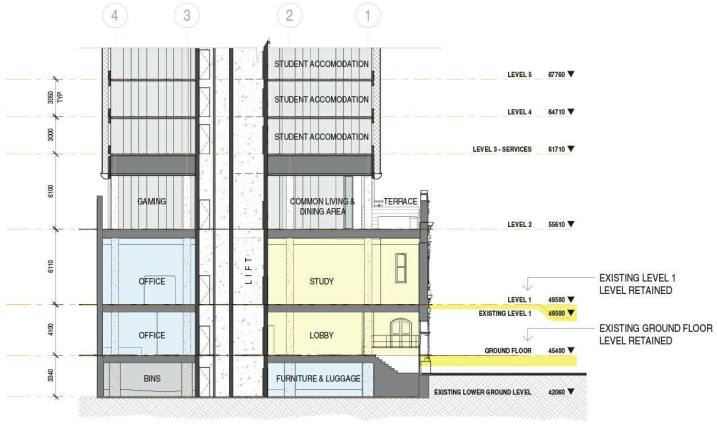
DEMOLITION PLAN

1 : 150



LEVEL 3 - SERVICES

1 : 150

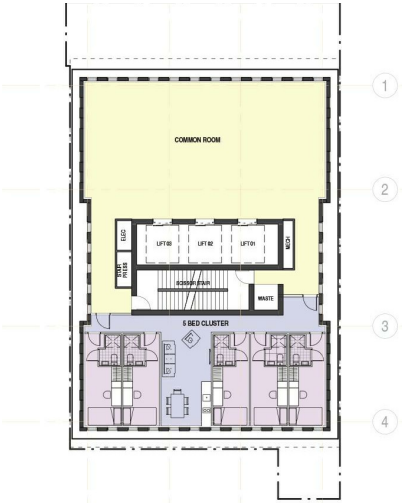


SECTION - LOWER LEVELS

1 : 200

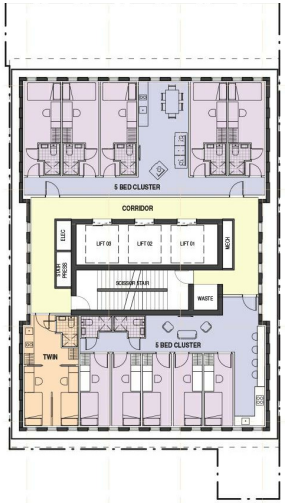
203 NORTH TERRACE
PLANNING APPLICATION SUBMISSION
13 September 2019
06 C

FLOOR PLANS - Accommodation Levels



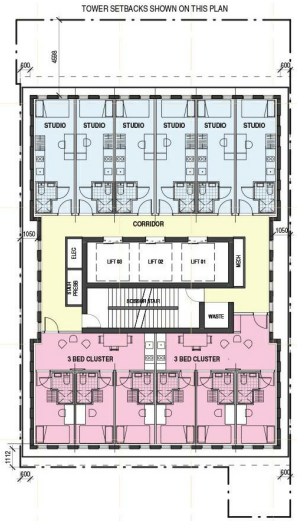
TYPICAL FLOOR TYPE A

1 : 150



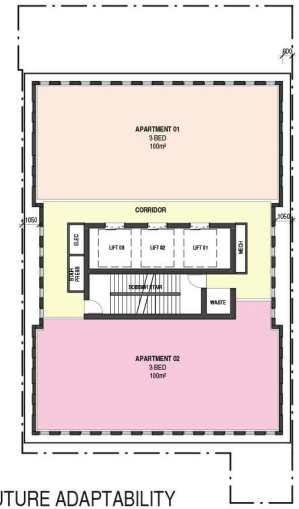
TYPICAL FLOOR TYPE B

1 : 150



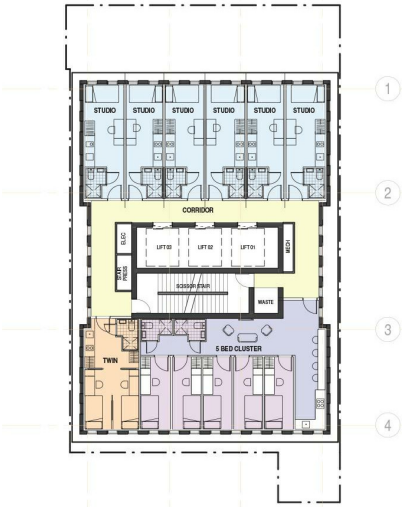
TYPICAL FLOOR TYPE C

1 : 150



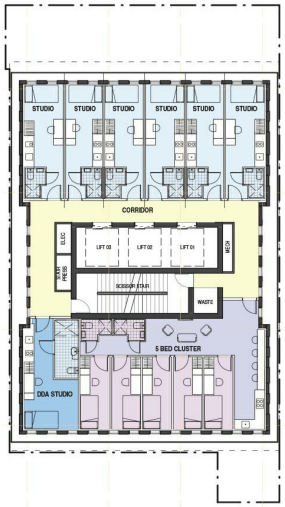
FUTURE ADAPTABILITY

1 : 150



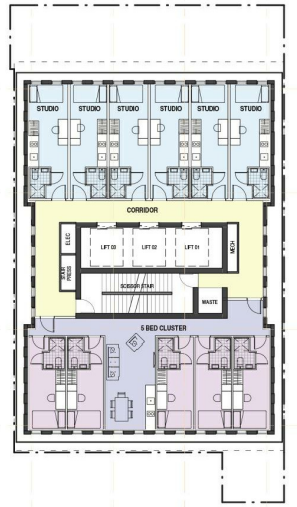
TYPICAL FLOOR TYPE D

1 : 150



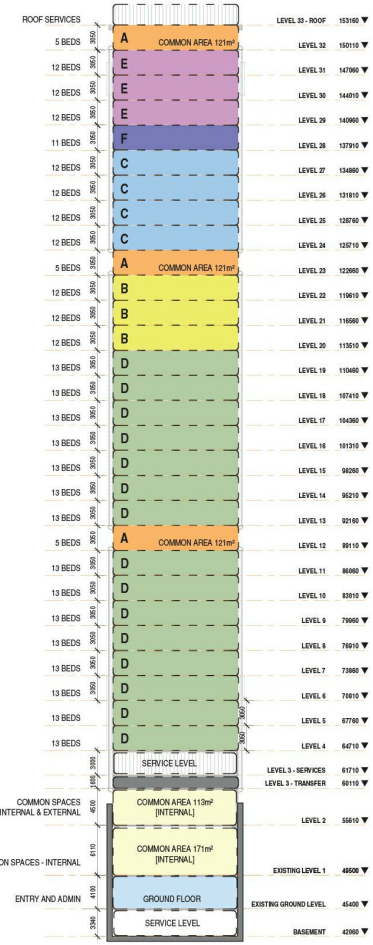
TYPICAL FLOOR TYPE E

1 : 150



TYPICAL FLOOR TYPE F

1 : 150



ACOUSTIC REQUIREMENTS

Refer to detailed acoustic report prepared by Sonus, with note of the following key requirements.

- Northern level facade - 10.38mm thick laminated glass
- All other facades - 6.38mm thick laminated glass
- Acoustic seals to the doors from the common area to outdoor area at level 2

ESD FEATURES

Refer to detailed ESD Strategy prepared by CF with note of the following key features.

- Bike storage for 44 bikes
- Water efficient fittings
- E-bike charging with bike storage room
- Individual room controls for mechanical system
- Common area lighting sensor controls

ACCOMMODATION LEVEL SUMMARY

A	3 LEVELS	15 BEDS
B	3 LEVELS	36 BEDS
C	4 LEVELS	48 BEDS
D	15 LEVELS	195 BEDS
E	3 LEVELS	36 BEDS
F	1 LEVELS	11 BEDS
TOTAL	29 LEVELS	341 BEDS

RESIDENTIAL RATIOS

	ROOMS	BEDS	% OF BEDS
STUDIO ROOM	135	135	39.59%
TWIN ROOM	40	80	23.46%
DDA STUDIO	3	3	0.88%
5 BED CLUSTER	21	105	30.79%
3 BED CLUSTER	6	18	5.28%
	205	341	

COMMON AREAS

LEVEL 01	280m²
LEVEL 02 internal	200m²
LEVEL 02 external	65m²
LEVEL 12	121m²
LEVEL 21	121m²
LEVEL 32	121m²
TOTAL COMMON AREA	908m²
COMMON AREA / RESIDENT	2.66m²

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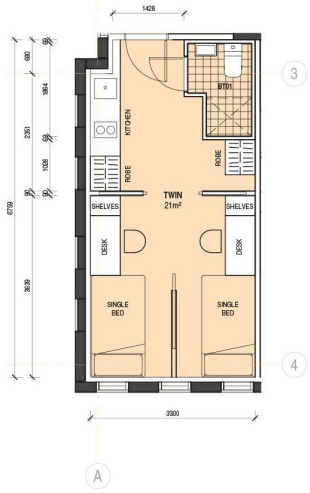
DETAILED PLANS OF ROOM TYPES

BROLA FALCONER

TYPICAL STUDIO NORTH FACING

TYPICAL TWIN SOUTH FACING



DDA STUDIO

3 BED CLUSTER

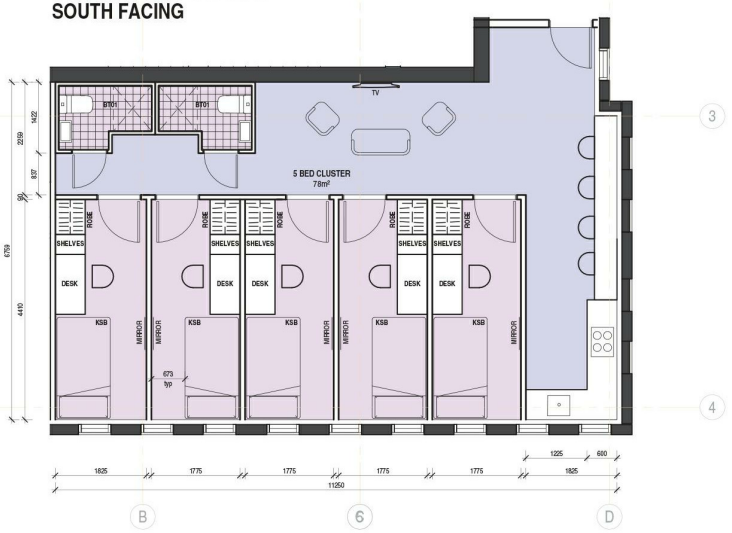

TYPICAL ROOM IMAGE


TYPICAL ROOM IMAGE


TYPICAL ROOM IMAGE

TYPICAL 5 BED CLUSTER NORTH FACING

TYPICAL 5 BED CLUSTER SOUTH FACING



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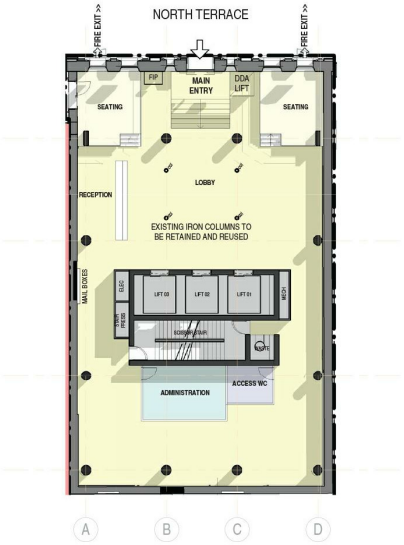
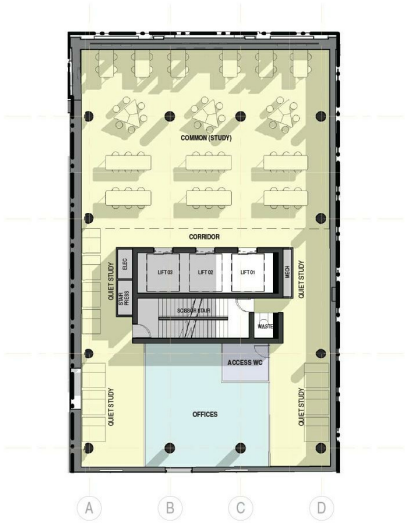
08 C

COMMON AREAS

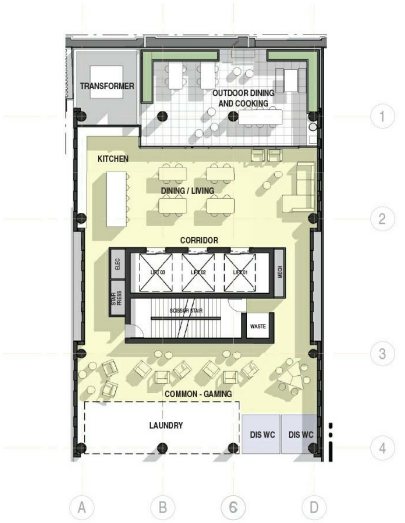
COMMON SPACE - GROUND FLOOR



COMMON SPACE - LEVEL 1
Study Area



COMMON SPACE - LEVEL 2
Kitchen, Laundry & Social



GROUND FLOOR ENTRY FOYER - DESIGN CONCEPT

GROUND FLOOR ENTRY FOYER - DESIGN CONCEPT

LEVEL 1 COMMON AREA - DESIGN CONCEPT

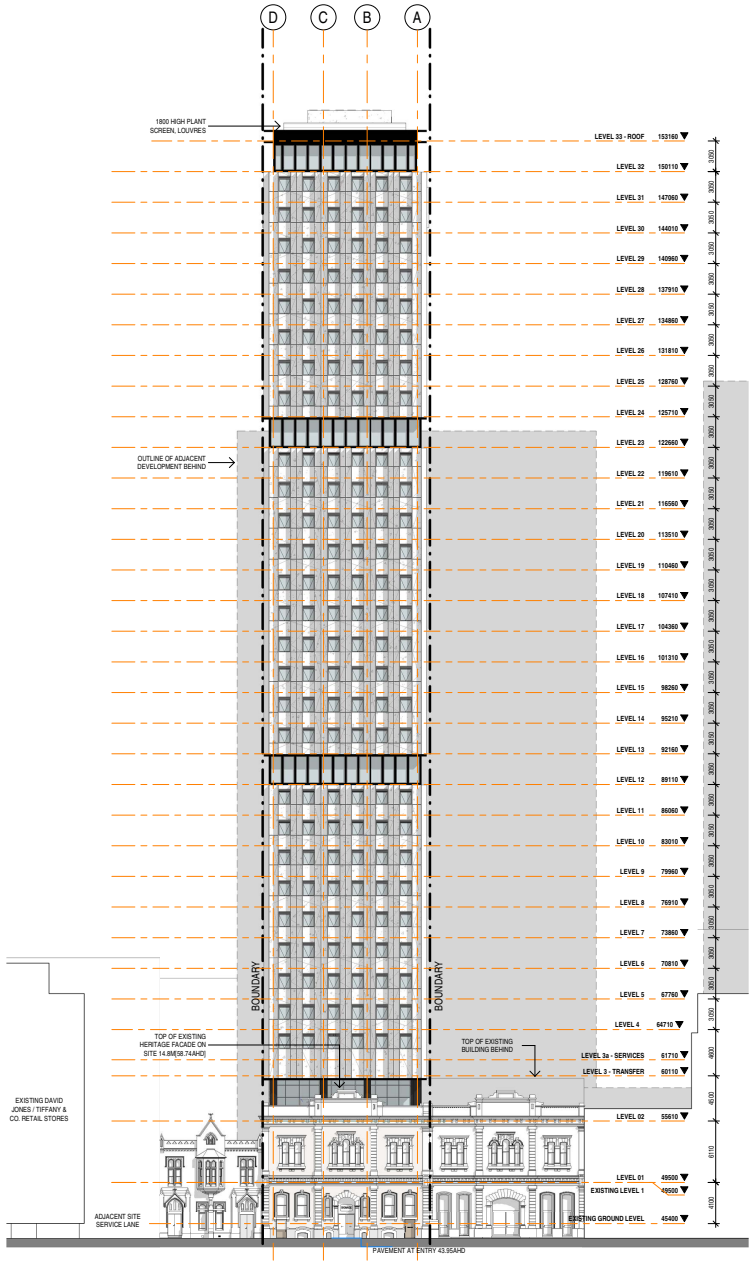
LEVEL 1 COMMON AREA - DESIGN CONCEPT

LEVEL 2 OUTDOOR AREA - DESIGN CONCEPT

IMAGES TO BE UPDATED TO REFLECT REVISED FACADE

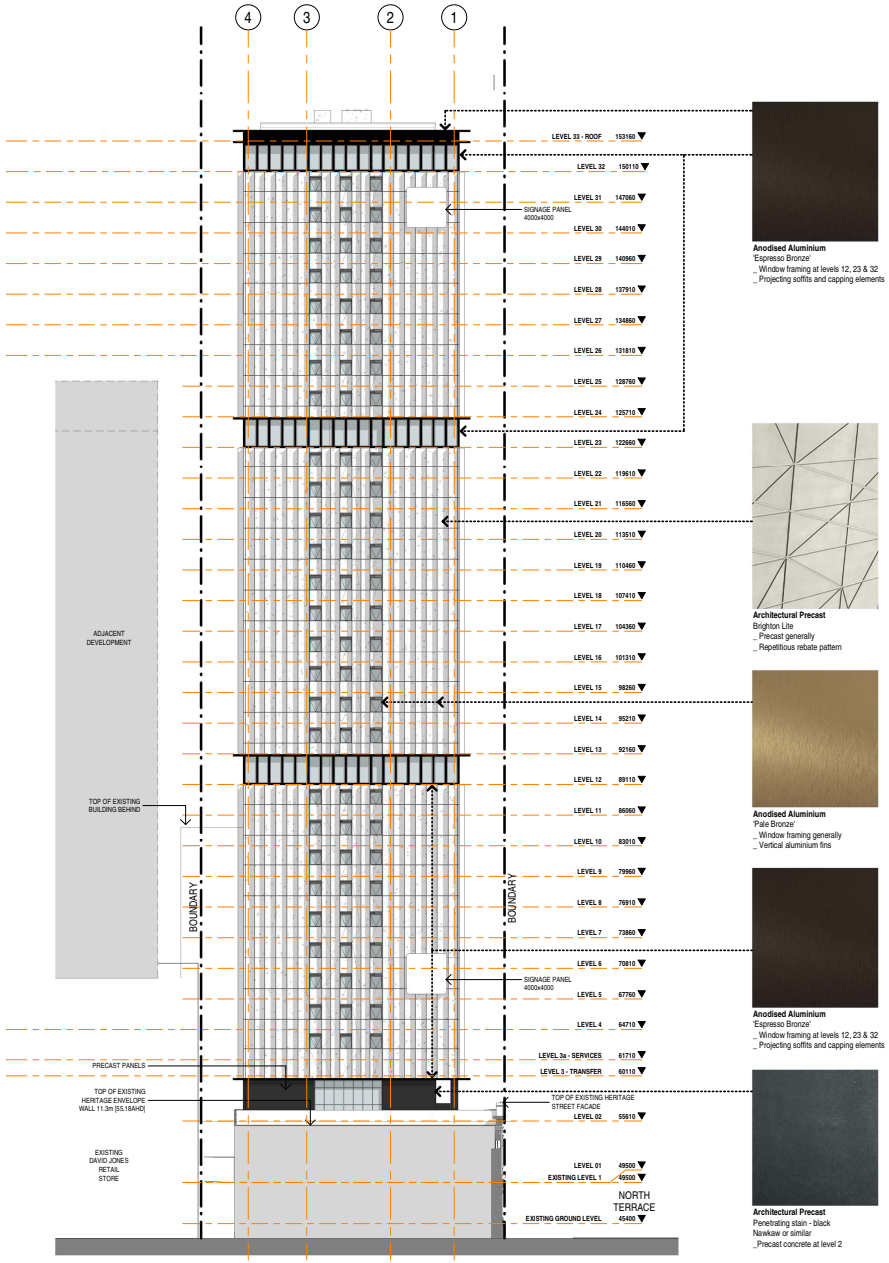
LEVEL 2 OUTDOOR AREA - DESIGN CONCEPT

ELEVATIONS



NORTH ELEVATION

1:250 @ A1



EAST ELEVATION

1:250 @ A1

Anodised Aluminium
'Espresso Bronze'
_ Window framing at levels 12, 23 & 32
_ Projecting soffits and capping elements

Architectural Precast
Brighton Lite
_ Precast generally
_ Repetitious rebate pattern

Anodised Aluminium
'Pale Bronze'
_ Window framing generally
_ Vertical aluminium fins

Anodised Aluminium
'Espresso Bronze'
_ Window framing at levels 12, 23 & 32
_ Projecting soffits and capping elements

Architectural Precast
Penetrating stain - black
Nawkaw or similar
_ Precast concrete at level 2

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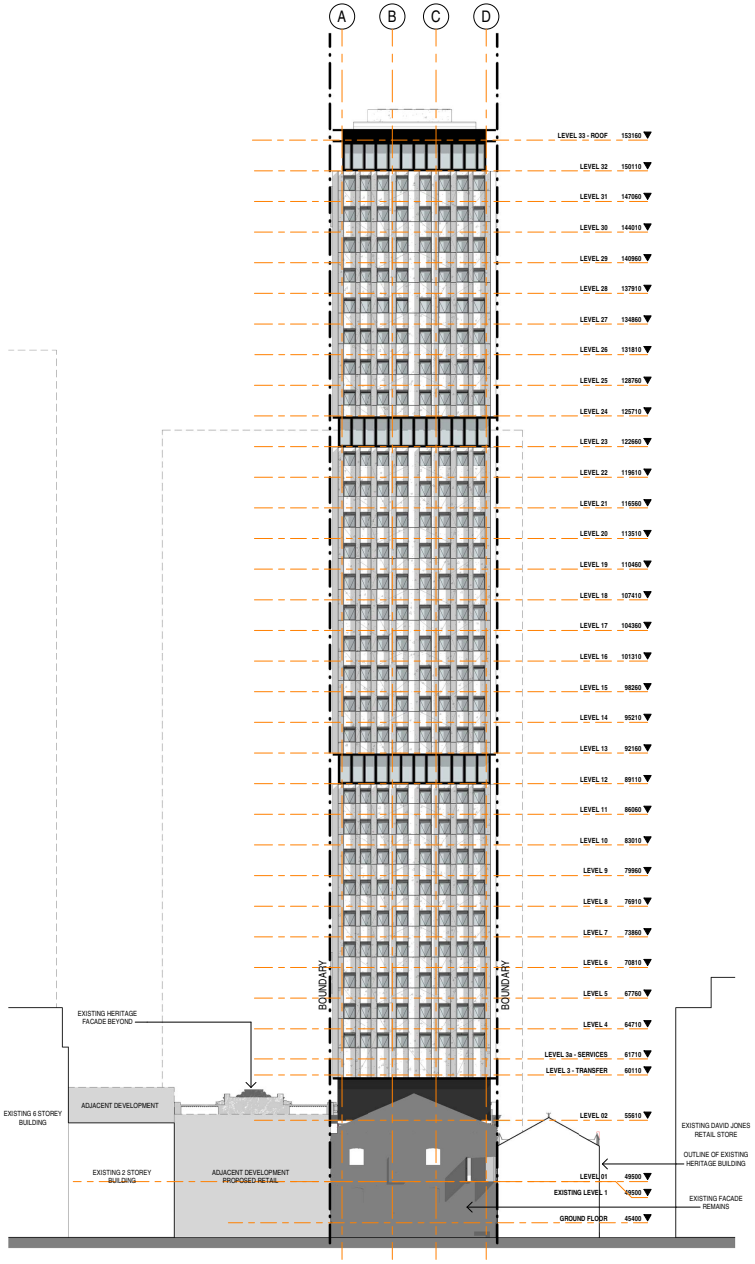
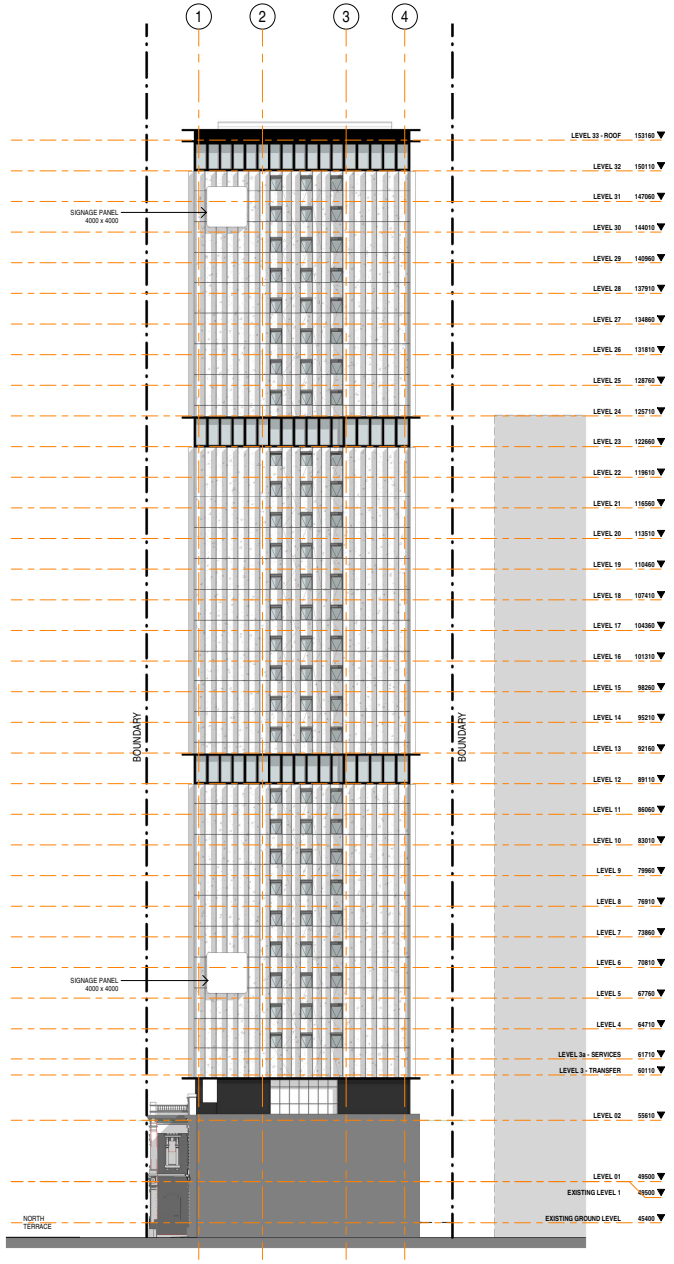
ELEVATIONS



SOUTH ELEVATION
1:250 @ A1



WEST ELEVATION
1:250 @ A1

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PLANNING APPLICATION SUBMISSION
13 September 2019
11 C

3D IMAGES

DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

COUNCIL: DPTI

APPLICANT: 203 North Tce Pty Ltd

Postal Address: 806/147 Pirie Street Adelaide SA 5000

Owner: 203 North Terrace Nominees Pty Ltd

Postal Address: 598-600 South Road Angle Park

BUILDER: TBC

Postal Address:

Licence No:

CONTACT PERSON FOR FURTHER INFORMATION

Name: Richard Dwyer or Rob Gagetti (Ekistics)

Telephone: 7231 0286 [work] _____ [Ah]

Fax: _____ [work] _____ [Ah]

EXISTING USE: Vacant State Heritage Place

FOR OFFICE USE

Development No:

Previous Development No:

Assessment No:

☐ Complying	Application forwarded to DA
☐ Non Complying	Commission/Council on
☐ Notification Cat 2	/ /
☐ Notification Cat 3	Decision:
☐ Referrals/Concurrences	Type:
☐ DA Commission	Date: / /

	Decision required	Fees	Receipt No	Date
Planning:				
Building:				
Land Division:				
Additional:				
Development Approval				

DESCRIPTION OF PROPOSED DEVELOPMENT: Alterations, additions and adaptive reuse of a SHP and a 33 storey student accommodation tower development

LOCATION OF PROPOSED DEVELOPMENT: 203-205 North Terrace, Adelaide

House No: 203 Lot No: 2 Street: North Terrace Town/Suburb: Adelaide

Section No [full/part] _____ Hundred: _____ Volume: 4182 Folio: 923

Section No [full/part] _____ Hundred: _____ Volume: _____ Folio: _____

LAND DIVISION:

Site Area [m²] 460 Reserve Area [m²] _____ No of existing allotments 1

Number of additional allotments [excluding road and reserve]: _____ Lease: YES ☐ NO ☐

BUILDING RULES CLASSIFICATION SOUGHT: _____ Present classification: _____

If Class 5,6,78 or 9 classification is sought, state the proposed number of employees: Male: _____ Female: _____

If Class 9a classification is sought, state the number o persons for whom accommodation is provided: _____

If Class 9b classification is sought, state the proposed number of occupants of the various spaces at the premises: _____

DOES EITHER SCHEDULE 21 OR 22 OF THE DEVELOPMENT REGULATIONS 2008 APPLY? YES ☐ NO ☒

HAS THE CONSTRUCTION INDUSTRY TRAINING FUND ACT 2008 LEVY BEEN PAID? YES ☐ NO ☒

DEVELOPMENT COST [do not include any fit-out costs]: $ 30 Million

I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.

SIGNATURE: _____ Dated: 28 / 06 / 2019

DEVELOPMENT REGULATIONS 2008
Form of Declaration (Schedule 5 clause 2A)

Government of South Australia

To: Department of Planning Transport and Infrastructure

From: Jarrad Haynes of 203 North Tce Pty Ltd

Date of Application: 27 / 06 / 2019

Location of Proposed Development: 203-205 North Terrace, Adelaide

House No: _____ Lot No: _____ Street: _____

Town/Suburb: _____

Section No (full/part): _____ Hundred: _____

Volume: 5263 Folio: 314

Nature of Proposed Development:

Alterations and additions to a State Heritage Place and a 33 storey (excluding basement level) student accommodation tower development

I Jarrad Haynes (203 North Tce Pty Ltd) **being the applicant/ a person acting on behalf of the applicant (delete the inapplicable statement) for the development described above declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the Electricity Act 1996. I make this declaration under clause 2A(1) of Schedule 5 of the Development Regulations 2008.**

Signed: _____ **Date:** 28/06/2019

Government of South Australia

Note 1

This declaration is only relevant to those development applications seeking authorisation for a form of development that involves the construction of a building (there is a definition of 'building' contained in section 4(1) of the Development Act 1993), other than where the development is limited to –

a) an internal alteration of a building; or
b) an alteration to the walls of a building but not so as to alter the shape of the building.

Note 2

The requirements of section 86 of the Electricity Act 1996 do not apply in relation to:

a) an aerial line and a fence, sign or notice that is less than 2.0 m in height and is not designed for a person to stand on; or
b) a service line installed specifically to supply electricity to the building or structure by the operator of the transmission or distribution network from which the electricity is being supplied.

Note 3

Section 86 of the Electricity Act 1996 refers to the erection of buildings in proximity to powerlines. The regulations under this Act prescribe minimum safe clearance distances that must be complied with.

Note 4

The majority of applications will not have any powerline issues, as normal residential setbacks often cause the building to comply with the prescribed powerline clearance distances. Buildings/renovations located far away from powerlines, for example towards the back of properties, will usually also comply.

Particular care needs to be taken where high voltage powerlines exist; or where the development:

- is on a major road;
- commercial/industrial in nature; or
- built to the property boundary.

Note 5

An information brochure: 'Building Safely Near Powerlines' has been prepared by the Technical Regulator to assist applicants and other interested persons.

This brochure is available from council and the Office of the Technical Regulator. The brochure and other relevant information can also be found at **sa.gov.au/energy/powerlinesafety**

Note 6

In cases where applicants have obtained a written approval from the Technical Regulator to build the development specified above in its current form within the prescribed clearance distances, the applicant is able to sign the form.

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5263/314)
Date/Time	02/06/2017 11:28AM
Customer Reference	203 NT
Order ID	20170602004665
Cost	$41.90

REAL PROPERTY ACT, 1886
South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

REGISTRAR-GENERAL SOUTH AUSTRALIA

Certificate of Title - Volume 5263 Folio 314

Parent Title(s) CT 4182/923

Creating Dealing(s) CONVERTED TITLE

Title Issued 26/04/1995 **Edition** 6 **Edition Issued** 19/12/2012

Estate Type

FEE SIMPLE

Registered Proprietor

203 NORTH TERRACE NOMINEES PTY. LTD. (ACN: 161 333 866)
OF 598-600 SOUTH ROAD ANGLE PARK SA 5010

Description of Land

ALLOTMENT 2 FILED PLAN 2373
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

SUBJECT TO PARTY WALL RIGHT(S) OVER THE LAND MARKED B (T 4434570)

TOGETHER WITH EASEMENT(S) WITH LIMITATIONS OVER THE LAND MARKED C (T 1709549)

TOGETHER WITH PARTY WALL RIGHT(S) OVER THE LAND MARKED A (T 4434570)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

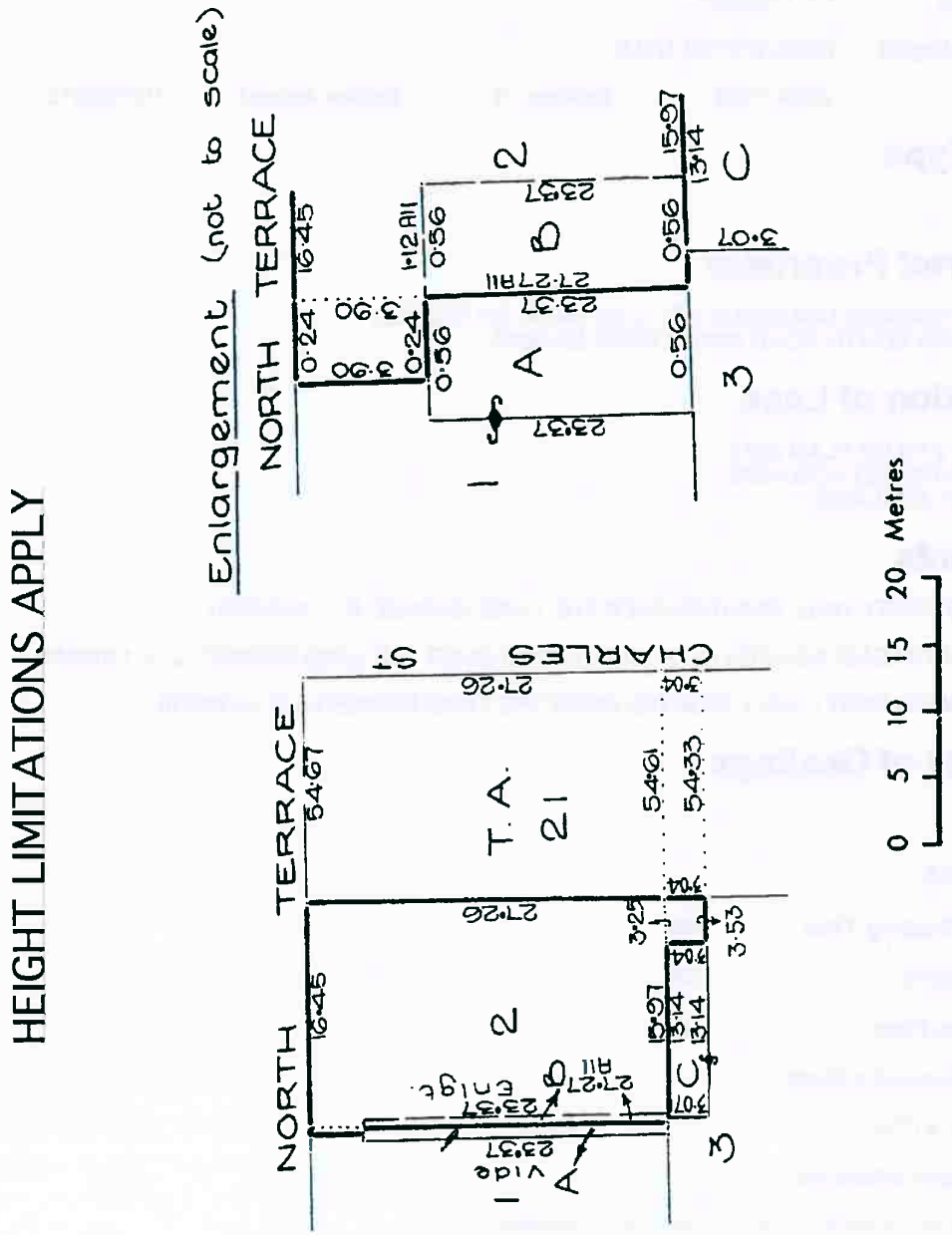
Notations on Plan NIL

Registrar-General's Notes

APPROVED FX17947

Administrative Interests

CONFIRMED IN SA HERITAGE REGISTER 11/09/1986



Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Title and Valuation Package
Date/Time	02/06/2017 11:28AM
Customer Reference	203 NT
Order ID	20170602004665
Cost	$41.90

Certificate of Title

Title Reference	CT 5263/314
Status	CURRENT
Easement	YES
Owner Number	70905761
Address for Notices	598-600 SOUTH RD ANGLE PARK 5010
Area	460M² (APPROXIMATE)

Estate Type

Fee Simple

Registered Proprietor

203 NORTH TERRACE NOMINEES PTY. LTD. (ACN: 161 333 866)
OF 598-600 SOUTH ROAD ANGLE PARK SA 5010

Description of Land

ALLOTMENT 2 FILED PLAN 2373
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Last Sale Details

Dealing Reference	Transfer (T) 11859571
Dealing Date	04/12/2012
Sale Price	$3,300,000
Sale Type	Transfer for full monetary consideration

Constraints

Encumbrances

NIL

Stoppers

NIL

Valuation Numbers

Valuation Number	Status	Property Location Address
0203233306	CURRENT	203-205 NORTH TERRACE, ADELAIDE, SA 5000

Notations

Dealings Affecting Title

NIL

Notations on Plan

NIL

Registrar-General's Notes

APPROVED FX17947

Administrative Interests

CONFIRMED IN SA HERITAGE REGISTER 11/09/1986

Valuation Record

Valuation Number	0203233306
Type	Site & Capital Value
Date of Valuation	01/01/2016
Status	CURRENT
Operative From	01/07/1978
Property Location	203-205 NORTH TERRACE, ADELAIDE, SA 5000
Local Government	ADELAIDE
Owner Names	203 NORTH TERRACE NOMINEES PTY. LTD.
Owner Number	70905761
Address for Notices	598-600 SOUTH RD ANGLE PARK 5010
Zone / Policy / Precinct	CC - Capital City Zone\13 - Central Business Policy Area\
Water Available	Yes
Sewer Available	Yes
Land Use	2699 - Vacant Office
Description	VACANT BLDG
Local Government Description	Commercial - Other

Parcels

Plan/Parcel	Title Reference(s)
F2373 Allotment 2	CT 5263/314

Values

Financial Year	Site Value	Capital Value	Notional Site Value	Notional Capital Value	Notional Type
Current	$1,675,000	$1,675,000	$770,000	$1,150,000	Heritage
Previous	$1,600,000	$1,600,000	$730,000	$1,150,000	Heritage

Occupants

Occupant Id	Property Id	Occupant Name	Land Use	Local Government Description	Site Value	Capital Value	Notional Site Value	Notional Capital Value	Notional Type
20	G/F OFF	VACANT	2699 - Vacant Office	Commercial - Other	$557,775	$557,775	$256,410	$382,950	Heritage
30	1/F OFF	VACANT	2699 - Vacant Office	Commercial - Other	$559,450	$559,450	$257,180	$384,100	Heritage
10	BASEMENT	VACANT	2699 - Vacant Office	Commercial - Other	$557,775	$557,775	$256,410	$382,950	Heritage

Building Details

Valuation Number	0203233306
Building Style	Not available
Year Built	Not available
Building Condition	Not available
Wall Construction	Not available
Roof Construction	Not available
Equivalent Main Area	Not available
Number of Main Rooms	Not available

ekistics

203 - 205 NORTH TERRACE, ADELAIDE

Student Accommodation Planning Statement

Prepared for:
203 North Tce Pty Ltd

Date:
04 July 2019

ekistics

Proprietary Information Statement

Document Control

Revision	Description	Author	Date
V1	Draft Planning Statement	RG	26 June 2019
V2	Final Planning Statement	RG	04 July 2019

Approved by:  Richard Dwyer – Managing Director 4 July 2019

ekistics

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1. Executive Summary

Category	Details
PROJECT DESCRIPTION	Internal alterations and additions to a State Heritage Place and development of a 33 storey (above ground level) Student Accommodation Tower
ADDRESS OF SITE	203 to 205 North Terrace, Adelaide, SA 5000
CERTIFICATES OF TITLE	Certificate of Title Volume 5263 Folio 314 (Allotment 2 in File Plan 2373)
EASEMENTS/ENCUMBRANCES	Party wall rights over land marked 'A' Subject to party wall rights over land marked 'B' Easement with noise and air limitations over land marked 'C'
SITE AREA	460m^2 (approximate)
FRONTAGE	Frontage to North Terrace of 16.45 metres
LOCAL GOVERNMENT	Adelaide City Council
RELEVANT AUTHORITY	State Commission Assessment Panel (SCAP)
DEVELOPMENT PLAN	Adelaide (City) Development Plan (consolidated 07 June 2018)
ZONING	Capital City Zone
POLICY AREA/PRECINCT	Central Business Policy Area 13
EXISTING USE	Vacant State Heritage Place
PROPOSED DEVELOPMENT	Internal alterations and additions to a State Heritage Place and a thirty-three (33) storey (above ground level) 'student accommodation' tower together with associated signage, communal areas and communal open space.
ASSESSMENT PATHWAY	Consent use assessed on merit
REFERRALS/CONCURRENCES	South Australia Government Architect (ODASA) State Heritage Branch Adelaide Airport City of Adelaide (Informal)
PUBLIC NOTIFICATION	Category 1
PRE LODGEMENT PLANNING MEETINGS	PLP 1: 15 March 2019 PLP 2: 27 May 2019 PLP 3: 24 June 2019
DESIGN REVIEW MEETINGS	DR 1: 03 April 2019 DR 2: 05 June 2019
APPLICANT	203 North Tce Pty Ltd
CONTACT PERSON	Richard Dwyer or Rob Gagetti, Ekistics Planning and Design (08) 7231 0286
OUR REFERENCE	00497-003

2. Introduction

2.1 Background

This report has been prepared on behalf of 203 North Tce Pty Ltd (the Applicant) in support of the application for alterations and additions to a State Heritage Place and to establish a 33 storey (above ground) student accommodation development.

The provision of student accommodation will contribute to the fundamental objective of providing a broad range of accommodation within the City Centre. The development also seeks to capitalise on the close proximity of various tertiary institutions including the Adelaide University, together with the City East and City West Campus' of the University of South Australia (UNISA).

This Planning Statement seeks to provide relevant information about the subject land and locality, describes the nature of the proposed development and provides an assessment of the development application against the relevant provisions of the Adelaide (City) Development Plan. This Planning Statement has been prepared to assist the State Commission Assessment Panel (SCAP) in its assessment and determination of the development application.

For the purposes of this Planning Statement, The Adelaide (City) Development Plan (Consolidated 07 June 2018) will be referred to as the 'Development Plan', the *Development Act, 1993* will be referred to as the 'Act' and the *Development Regulations, 2008* will be referred to as the 'Regulations'.

This Planning Statement has been prepared on the basis of the plans and documentation identified below:

- **Appendix 1**: Certificate of Title;
- **Appendix 2:** Brown Falconer Architectural drawings;
- **Appendix 3:** Sonus Noise Assessment;
- **Appendix 4:** D Squared ESD Report and Façade Performance Assessment
- **Appendix 5:** DASH Architects Heritage Impact Assessment;
- **Appendix 6:** Rawtec Waste Management Plan;
- **Appendix 7:** CIRQA Traffic Impact Assessment;
- **Appendix 8:** Vipac Wind Assessment; and
- **Appendix 9:** Government Architect Referral Comments.

An architectural drawing schedule pertaining to the documentation found within ***Appendix 2*** is identified below in Table 2.1.

Table 2.1 *Drawing Schedule*

Plan Number	Description
001	Context and Site Analysis
002	Site Plan and Context
003	Streetscape and Heritage
004	Form Evolution, Materiality and Sun Studies
005	Long View 3D Perspectives
006	Floor Plans – Lower Levels
007	Floor Plans – Accommodation Levels
008	Detailed Plans of Rooms Types
009	Common Area
010	Northern and Eastern Elevations
011	Southern and Western Elevations
012	3D Images

2.2 Pre-Lodgement Process and Design Evolution

The Applicant elected to participate in the 'Pre-lodgement' case management process offered by the Department of Planning Transport and Infrastructure (DPTI). This involved:

- Pre-lodgement planning (PLP) meeting # 1 held on Friday 15 March 2019;
- Design Review (DR) held on Wednesday 3 April 2019;
- Pre-lodgement planning (PLP) meeting # 2 held on Monday 27 May 2019;
- Design Review (DR) held on Wednesday 05 June 2019; and
- Pre-lodgement planning (PLP) meeting # 3 held on Monday 24 June 2019.

The conversations which transpired during both the Pre-Lodgement Planning and Design Review Panel meetings focused (amongst other things) on the internal and external changes to the State Heritage Place, the relationship between the proposed tower and the State Heritage Place, internal building design and amenity, and the materiality and design of the tower addition and its impact on the streetscape.

In response to the constructive feedback provided as part of the PLP and DR process, the design of the development has significantly evolved, including the following key design changes:

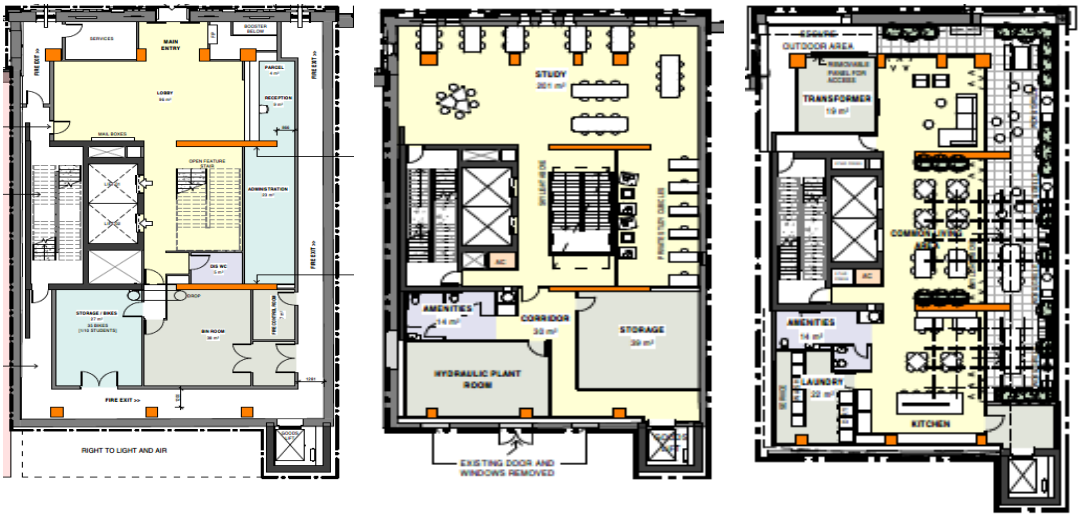
- Modifications to the State Heritage Place have been significantly scaled back and minimised through the following amendments:
  - » existing floor levels within the building have been preserved;
  - » a centralised core lift, with service infrastructure and storage rooms located at basement level to preserve the 'open warehouse' design of the building;
  - » original cast iron columns, floorboards and timber board ceilings salvaged and reused wherever possible;
  - » new external openings to the northern façade of the State Heritage Place have been minimised, and the existing opening towards the western end of the building to be reinstated with cladding that preserves the heritage value of the building.

- The tower setback from North Terrace has increased to 4.6 metres (from 1.015 metres) to achieve the following benefits:
  - greater consistency with the setbacks of adjoining buildings on North Terrace;
  - improved interface and relationship with the State Heritage Place and tower addition; and
  - an improved outlook and northerly orientation for all communal open spaces which (through design amendments) have increased from 390m^2 to 908m^2;
- Improvements to the external appearance of the building through the use of a dual façade design consisting of precast concrete 'sleeved' in a woven metal fabric material and separating into three vertical elements.

The design evolution of the project is illustrated in the Figures 2.1 and 2.2 over page:

Figure 2.1 *Internal changes to SHP*

Original floor plans (PLP #1): Busy floor plates, enclosed by rooms with services located at ground and first levels and western orientation/outlook of communal open space and common areas



Proposed: Open floor plate preserved, State Heritage pillars reused, floor levels maintained and northern orientation for common areas and communal open space.

Figure 2.2 *Materiality change to tower addition*

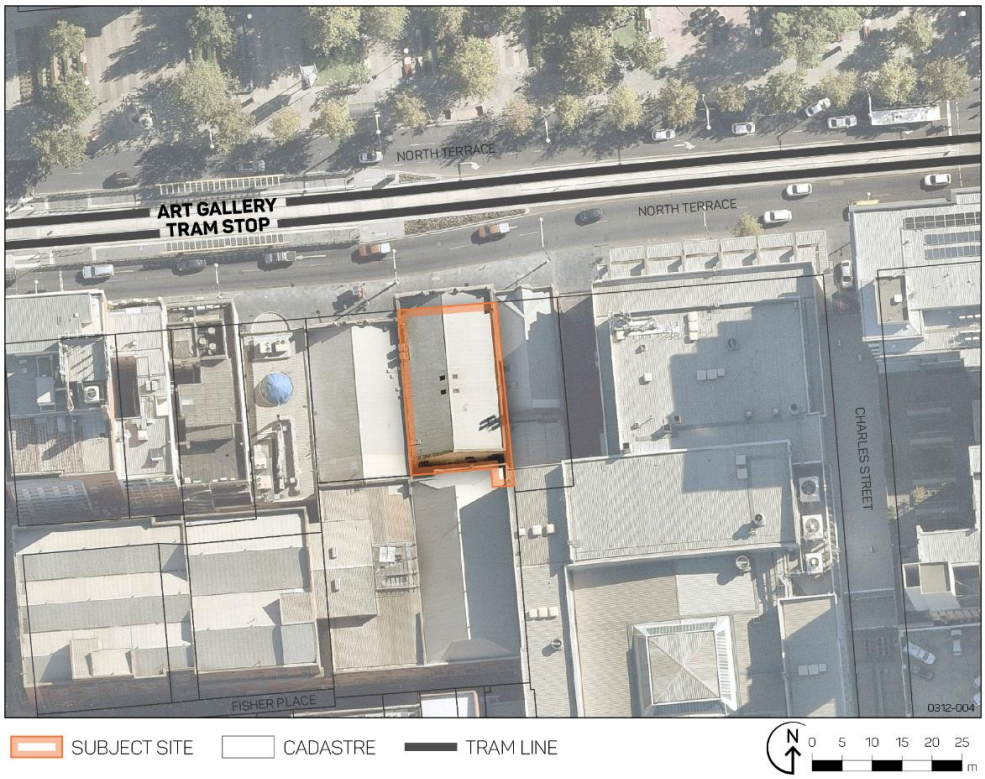
PLP 1 | *Design Review* | *Proposed Design*

3. Site and Locality

3.1 Subject Site

The subject site is identified in Figure 3.1 below.

Figure 3.1 *Aerial image of the subject site*



The subject site is recognised as 203 to 205 North Terrace, Adelaide, and is for most part a rectangular land parcel with a small 3.04 metre by 3.25 metre protrusion in its south-eastern corner. The allotment comprises a site area of approximately 460m^2, a frontage to North Terrace of 16.45 metres and a maximise depth 27.29 metres.

The following table presents the legal identifier for the single allotment which forms the subject 'site':

Table 3.1 *Subject site identifier*

Address	Allotment	Certificate of Title
203 to 205 North Terrace	Lot 2 of Filed Plan 2379	CT Volume 5263 Folio 314

The site accommodates a State Heritage Listed building, which is described within the Adelaide (City) Development Plan as *'Office (former Dwelling and Consulting Rooms) and former G & R Wills Warehouse'*. This heritage listing/description is also applicable to the similarly styled State Heritage building occupying the adjoining site to the east (207 North Terrace).

The heritage building which occupies the subject site comprises two levels above ground level, together with a basement level. The ground level is elevated above North Terrace, with stairs leading to the building entrance. Situated between the ground floor level and North Terrace are basement level windows.

The building occupies the majority of the subject allotment, is primarily constructed in stone with timber floors, ceilings and framework, and a metal deck roof.

The following is an extract from the Construction Management Plan (as cited in the DASH report contained within ***Appendix 5***) which provides a summary of the heritage features and internal condition of the building:

> *"Much of the significance of the subject building lies in its northern façade presenting to North Terrace, as it retains a high level of integrity and is representative of the Italianate style and original warehouse function, demonstrating important aspects of the evolution of the State, being constructed during prosperous times when economic growth was being experienced. The current condition of the interior of the subject building is generally dilapidated (other than the recent superficial refurbishment of the ground floor to accommodate temporary offices). The general warehouse use necessitated an open place layout supported by cast iron and timber columns, which remain today."*

Also occupying the adjoining premises to the west (201-202 North Terrace) is a smaller neo-Gothic-styled State Heritage Place described within the Development Plan as *'The Gallerie Shopping Centre (former G & R Wills Warehouse)'*. A common wall straddles the boundary between the subject site and 201-202 North Terrace, and the easements marked 'A' and 'B' registered on the relevant Certificates of Title are for reciprocal party wall rights over this common wall.

We also note that the subject site enjoys rights to light and air (with limitations) over the land marked 'C' which traverses the adjoining allotment to the south located at 12-20 Gawler Place, Adelaide.

Figure 3.2 identifies the subject site together with the two adjoining heritage listed buildings. Images of the subject site and State Heritage Place are displayed in Figure 3.3 and Figure 3.4 respectively.

Figure 3.2 *Aerial image of State Heritage buildings*

Source: DASH Heritage Impact Statement

Figure 3.3 *Images of the Subject site*

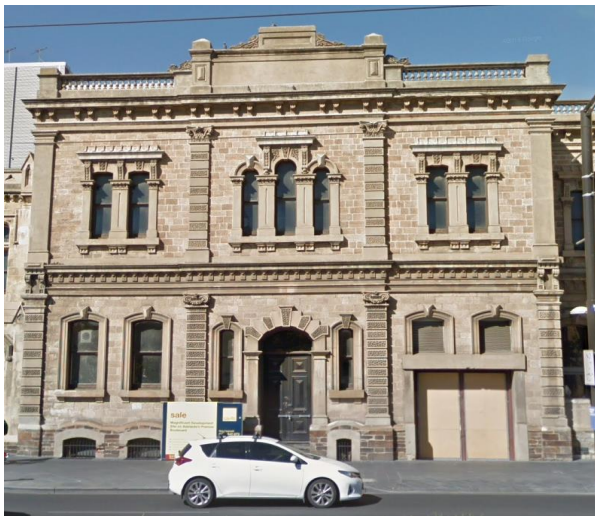


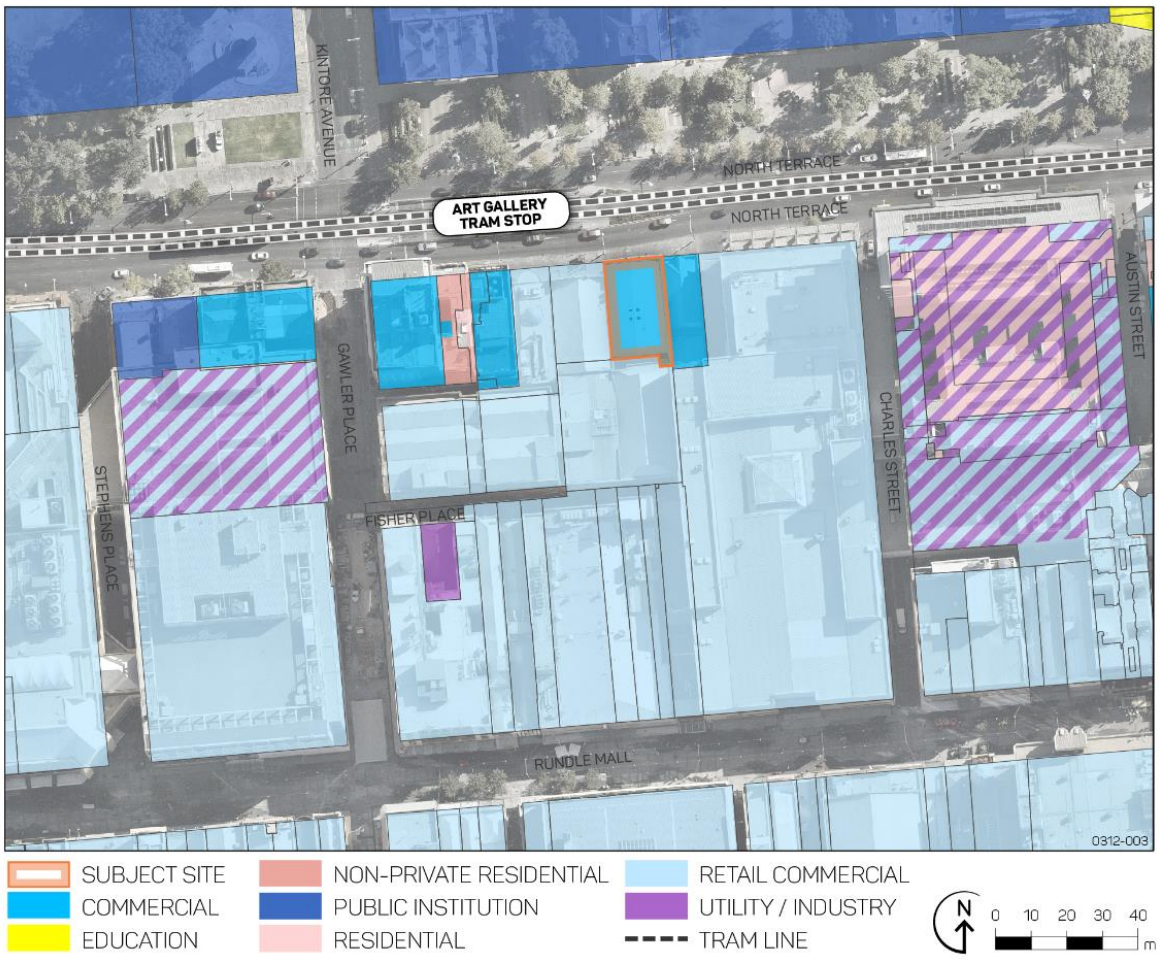
Figure 3.4 Images of the internal condition of the SHP

3.2 Locality

3.2.1 *Land uses found within the locality*

The immediate locality is characterised by a mix of retail, commercial and institutional land uses. The land use mix is illustrated in Figure 3.5 below.

Figure 3.5 *Land use map*



Land situated on the opposite (northern) side of North Terrace is located within the Institutional (University/Hospital) Zone. Buildings which line the northern side of North Terrace accommodate a variety of institutional land uses including the South Australian Museum, the State Library of South Australia (Mortlock Wing), Writers S.A, the Art Gallery of South Australia, together with the University of Adelaide and the University of South Australia (City East Campus) which are situated a short distance to the north-east of the site. These land uses are located within State Heritage listed buildings, which are set back and separated from North Terrace by generously sized pedestrian pathways, plazas and open space which lines the North Terrace frontage.

Land uses occupying the southern side of North Terrace are primarily retail and commercial in nature and include David Jones and Tiffany & Co. to the east, and The M1 Centre (an 11 storey office building) situated to the west of the site, on the corners of North Terrace and Gawler Place. Interspersed between these uses are a variety of smaller shops including takeaway food outlets, clothing stores and a personal service establishment (optometrist).

Rundle Mall is situated a short distance to the south of the site, and is located within Main Street Policy Area 14 of the Capital City Zone. Rundle Mall is Adelaide's premium shopping district, and is accessible from the site via Gawler Place to the west.

3.2.2 *Transport Infrastructure and Services*

North Terrace

The subject site fronts North Terrace which is identified within the Adelaide City Development Plan as a 'Primary City Access', 'Primary Pedestrian and Bicycle Network', and 'High Concentration Public Transport Route'.

North Terrace is under the care and control of the City of Adelaide and comprises two traffic lanes and travelling in each direction and which are separated by the North Terrace East Tram line. Traffic data obtained from the Department of Planning, Transport and Infrastructure (DPTI) suggests that the road carries in the order of 22,800 vehicles per day, of which 6.5% of these are commercial vehicles. 'No Stopping' zones are in place on both side of North Terrace.

Public Transport

The site is serviced by various forms of high frequency public transport including the free City Connector bus service together with the free City Tram service, which connects the Botanic Gardens with the Adelaide Entertainment Centre. The 'Art Gallery' tram stop is situated immediately to the north-west of the site.

The Adelaide Railway Station is also located approximately 500 metres to the west of the subject site and provides frequent train services, connecting the CBD with various suburbs to the north, south and west of the City. A detailed summary of accessible public transport services is provided within the CIRQA traffic report (***Appendix 7***).

Bicycle and Pedestrian Facilities

North Terrace is a highly pedestrianised environment and is characterised by generously sized pedestrian pathways which line both sides of the road and provide connections to bus and tram services, together with institutional land uses situated on the opposite side of North Terrace.

North Terrace is listed as a 'main road' under the South Australian Government's Bike Direct network and the footpaths which traverse both sides of road may also be legally used by cyclists.

3.2.3 *Building Heights and Composition*

The height and scale for existing development within the immediate locality is illustrated in Figure 3.6 below.

Figure 3.6 *Building heights in the immediate locality*

Source: Brown Falconer Architectural Package

The subject site is surrounded by two storey buildings to the east and west, with building heights progressively increasing to 12 storeys for the M1 Centre located on the corners of Gawler Place and North Terrace, and the 14 storeys for the Wilson multi-level carpark building situated on the corners of Charles Street and North Terrace.

Building heights directly to the south vary between 3 and 6 levels.

Although development immediately adjoining the subject site is generally of a lower scale, a review of the DPTI's Development Activity Tracker confirms that the State Commission Assessment Panel previously issued Development Plan Consent for a high rise mixed use development on adjoining land to the west and south at 12-20 Gawler Place and 199-200 North Terrace. Specifically, Development Plan Consent was issued for the adaptive reuse of the adjoining State Heritage listed building, together with the construction of a tower addition with a combined total of 19 levels to be used for residential, office and commercial purposes, a roof top garden and ancillary carparking.

We also note the mixed-use tower incorporating a 4 Star hotel with a podium entertaining area, serviced apartments and 400 car parks which was recently approved on 8 December 2016 at 11-27 Frome Street, Adelaide. On completion, Frome Central Tower One will be 34 storeys and 133.55m high. It is noted that this building is also located within the Capital City Zone and is located approximately 420m east of the subject site

3.2.4 *Heritage*

In addition to the State Heritage Places occupying the subject site and the two adjoining sites to the east and west, heritage listed buildings are also a key feature of the broader North Terrace streetscape with many of the institutional buildings lining the northern side of North Terrace also being State Heritage Places (refer to Figure 3.7 below).

Figure 3.7 *Heritage place locality plan*

Notwithstanding the proximity of the proposed development to various other heritage listed buildings found within the locality, we note that the Heritage Impact Statement prepared by DASH (***Appendix 5***) confirms that with the exception of the two adjoining State Heritage Places, *"the other Heritage Places in the Locality are sufficiently distant from the Site such that the work proposed on it will not have an adverse impact on either their physical fabric or their settings"*. Accordingly, our assessment of heritage matters has been limited to the impact of the development on the heritage buildings occupying the subject site, and two adjoining sites.

4. Proposed Development

4.1 Overview

The proposed development involves alterations and additions to a State Heritage Place and a 33 storey (above ground level) student accommodation tower development with associated façade signage, communal areas and amenities. A detailed summary of each floor level is provided below:

- Basement/Service Level:
  - Bike storage room for 44 bikes (1 per 7.75 students);
  - Furniture and luggage storage room;
  - Centralised core lift and stairwell;
  - Plant and bin storage rooms accessed via fire exit corridors, a bin hoist/lift and new egress doors utilising existing window openings along the North Terrace façade; and
  - The Fire Control room.
- Ground floor
  - Existing building entry to be used as the main student/public entry providing access to a centralised building lobby, a DDA compliant lift, foyer seating and reception area to the west of the building;
  - Two (2) new fully glazed fire exit doors/openings within the northern elevation;
  - Centralised core lift and stairwell; and
  - Amenity rooms including an associated administration/office room and accessible water closet.
- Level 1 – Common Area
  - Common (study areas) positioned to the north of the building;
  - Centralised core lift and stairwell; and
  - Offices, quiet study areas and accessible water closet to the rear of the building.
- Level 2 – Common Area
  - Terraced communal open space comprising an area of 65m^2 and orientated to the north to overlook North Terrace;
  - Common (kitchen, dining/living and gaming spaces) amenities with a centralised core and lift;
  - Laundry and accessible water closets to the south of the building; and
  - Transformer screened by a 1.8m high louvre screen.
- Level 3 and 3a – Service Level
  - Service room (switch room, plant, fire tank and fire pumps) with a centralised core lift and stairwell together with a structural transfer area connecting with the upper levels.
- Levels 4 to 11 and Levels 13 to 19 (Type D floorplate - 195 beds in total)
  - Each level accommodating six (6) studio rooms, one (1) twin room and one (1) 5 bed cluster rooms; and

  - A centralised core lift and stairwell.

- **Level 12, 23 and 32 (Common Area and Type A floorplate – 15 beds in total)**
  - Each level accommodating communal space comprising 121 m^2 with a northerly orientation; and a 5 bed cluster room; and
  - A centralised core lift and stairwell.
- **Levels 20 to 22 (Type B floorplate – 36 beds in total)**
  - Each level accommodating two (2) 5 bed cluster rooms, and one (1) twin room; and
  - A centralised core lift and stairwell.
- **Levels 24 to 27 (Type C floorplate – 48 beds in total)**
  - Each level accommodating two (2) 3 bed clusters and six (6) studio rooms; and
  - A centralised core lift and stairwell.
- **Level 28 (Type F floorplate – 11 bed in total)**
  - Six (6) studio rooms, one (1) 5 bed cluster room; and
  - Access via a central core lift and stairwell.
- **Level 29 to 31 (Type E floor plate –36 beds in total)**
  - Each level accommodating six (6) studio rooms, one (1) 5 bed cluster room and a DDA studio room; and
  - A centralised core lift and stairwell.
- **Level 33 – (Roof services)**
  - Roof level to services and mechanical plant, enclosed by a 1.8 metre high screen; and
  - Roof top solar panels.

4.2 Building Form and Configuration

The development involves two key components including external and internal alterations to the existing State Heritage Place and a tower addition. The development will be used for student accommodation.

4.2.1 *State Heritage Works*

The following description of the internal and external works proposed to the State Heritage Place has been extracted from the Heritage Impact Assessment performed by DASH Architects (***Appendix 5***):

Main Façade

- *"Conservation works – detailed yet to be formally resolved;*
- *New stormwater outflows (for roof deck) – detail yet to be formally resolved;*
- *Deletion of current vehicle entrance and reinstatement of that section of that façade;*
- *Installation of two new exit doors beneath outer windows (using existing lintels as door heads) – detail yet to be formally resolved;*
- *Installation of services access points into basement windows – detail yet to be formally resolved; and*

- *Revised main entrance, lowered to address BCA/DDA (reusing doors as shutters at a lower level and expressing the original form) – detail yet to be formally resolved.*

West façade

- *Conservation works – detail yet to be formally resolved;*
- *Removal of existing stormwater drainage (As this will become redundant through the removal of the main roof); and*
- *Deletion of the redundant fire services into building.*

Rear façade

- *Conservation works – detail yet to be formally resolved.*

Roof

- *Deletion of the roof in its entirety (decking, gutters, timber structure and remnant ceilings).*

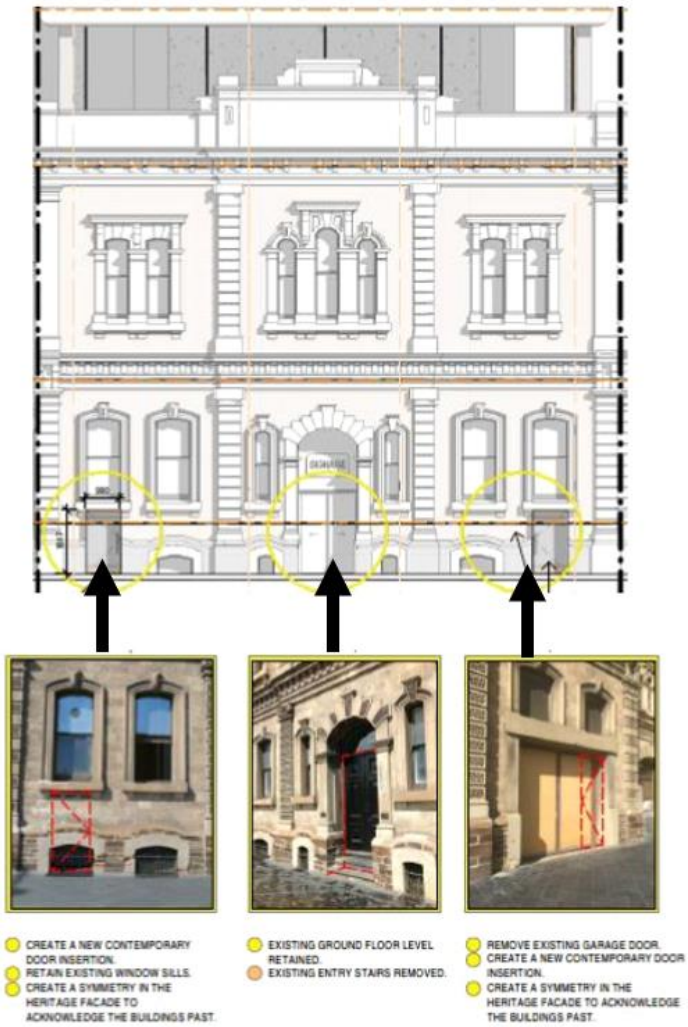
Interior

- *Deletion of basement, ground and first floor structures (with cast iron columns, floor boards and timber match board ceilings to be salvaged for reuse wherever possible);*
- *New internal downpipes (and street connection for stormwater drainage);*
- *New lift core and structural columns for tower (lift core and columns are set-in from the external walls);*
- *'Open plan' layout to the ground and first floors;*
- *New services area in basement level;*
- *New exit pathway from basement through new doors in northern façade;*
- *Conservation works to internal walls (detail yet to be formally resolved);*
- *Fire separation infill openings between the subject building and the neighbouring properties (light weight); and*
- *New floors and ceilings at same level (possible exception is a higher floor at the front of the first floor to activate the windows) . Reusing cast iron columns, floorboards and ceiling boards where possible, concentrating on foyer space…"*

Further to the above description, whilst we note particular conservation works are yet to be resolved, we confirm the applicants intention to provide further details on the extent of heritage works during the detailed design phase of the development.

Façade changes to the State Heritage Place have been kept to a minimum to ensure that were practical, the original heritage fabric of the building is preserved. The key design changes to the northern façade of the State Heritage Place are illustrated in Figure 4.1 below.

Figure 4.1 *External changes to the State Heritage Place*



Source: Brown Falconer Architectural Package

The State Heritage Place will continue to accommodate three storeys, inclusive of the basement level. A fundamental design objective for the project was to preserve and repair the internal fabric of the State Heritage Place (where practical to do so). This is achieved by preserving the existing levels of the State Heritage Place together with the open, warehouse-style appearance of each floor plate.

The semi-basement level was traditionally used as a carpark, and this space will be converted to a plant and storage level for bicycles, furniture, luggage and refuse. General public access to the furniture, bike storage and plant rooms will be via the central core lift, whilst access to the bin room for collection purposes will be via the fire exit and bin hoist. As discussed below, Student Accommodation does not attract a demand for onsite parking Accordingly, unlike most other uses (which attract onsite parking), the adaptive reuse of the heritage

building for Student Accommodation supports the heritage principles of the Development Plan which seek to minimise material changes to heritage buildings.

Locating plant and storage rooms within the basement minimises the number of additional rooms required at ground level and levels 1 and 2. This in-turn accommodates an open-style floor plate reminiscent of the historic use of the building as a warehouse, and where possible, existing iron columns, floorboards and timber ceilings will be preserved and incorporated into the design of each floor plate. The use of these levels as a lobby/reception area and communal open spaces also supports the open floor configuration.

Level 2 will preserve the existing heritage parapet which screens the existing roof form. However, the existing roof will be removed to accommodate internal common areas and external communal open space with a northerly aspect, overlooking North Terrace to optimise access to natural light, and provide scenic views of the parklands and City.

Conceptual images of the Ground floor and Level 1 are illustrated in Figure 4.2.

Figure 4.2 *Artists impression of the Ground floor and Level 1*

Source: Brown Falconer Architectural Package

4.2.2 *Tower Addition*

The tower addition will comprise 31 levels and combined with the heritage building, the development in its entirety will comprise 33 above ground levels.

Situated above, and attached to the State Heritage Place will be a service and structural transfer level (levels 3 and 3a), 29 levels of student accommodation and associated common areas (levels 4 to 32) together with rooftop services, mechanical equipment and solar panels situated on Level 33.

Measured from Level 3, the tower additional will have a total height of 93.5 metres (excluding roof top services) and each apartment level will comprise a floor-to-ceiling height of 2.7 metres. Excluding roof top

services, the total combined building height of the State Heritage Place and tower addition will be approximately 109.2 metres (153.16 AHD).

The student accommodation tower will accommodate 205 student rooms and 341 beds in total. Students will also have access to 908m^2 of common space (2.66m^2 per student) which excludes common areas associated with the 3 and 5 bed clusters.

The proposed configuration and design of the student accommodation and associated communal area is summarised in ***Table 4.1*** below.

Table 4.1 *Student Accommodation Schedule*

Level	Student accommodation floor plan description		No. Rooms per level
L 4 to 11 & L 13 to 19	**Studio Room**		
	• Single bedrooms • Private kitchen and bathrooms • Student Desk, robe and storage space	• Floor Area (17m^2)	6 North Facing Rooms
	Twin Room		
	• Two beds • Single shared kitchen and bathroom • Two desks, robes and storage space areas	• Floor area (21m^2)	1 South Facing Room
	5 Bed Cluster		
	• Five private rooms with beds, shelving, desks and robes • Shared bathrooms (x 2) • Shared kitchen • Shared communal/dining/study space	• Floor Area (78m^2)	1 South Facing Room
L 20 to 22	**Twin Room**		
	• Two beds • Single shared kitchen and bathroom • Two desks, robes and storage space areas	• Floor Area (21m^2)	1 South Facing Room
	South Facing 5 Bed Cluster		
	• Five private rooms with beds, shelving, desks and robes • Shared bathrooms (x 2) • Shared kitchen	• Floor Area (78m^2)	1 South Facing Room

Level	Student accommodation floor plan description		No. Rooms per level
	• Shared communal/dining/study space		
	North Facing 5 Bed Cluster		
	• Five rooms with beds, desks, shelving robes and private bathrooms • Shared kitchen • Shared communal/dining/study space	• Floor Area (96m^2)	1 North Facing Room
L 24 to 27	**Studio**		
	• Singe bedrooms • Private kitchen and bathrooms • Student Desk, robe and storage space	• Floor Area (17m^2)	6 x North Facing Rooms
	3 Bedroom Cluster		
	• Three rooms with beds, desks, shelving, robes and private bathrooms • Shared kitchen • Shared communal/dining/study space	• Floor Area (52m^2)	2 South Facing 3 Bed Clusters
L 28	**Studio**		
	• Single bedrooms • Private kitchen and bathrooms • Student Desk, robe and storage space	• Floor Area (17m^2)	6 x North Facing Rooms
	5 Bed Cluster		
	• Five beds • Private desk, robe and storage space • Shared bathrooms (x 2) • Shared kitchen • Shared communal/dining/study space	• Floor Area (78m^2)	1 South Facing Room
L 29 to 31	**Studio**		
	• Single bedrooms • Private kitchen and bathrooms • Student Desk, robe and storage space	• Floor Area (17m^2)	6 x North Facing Rooms

Level	Student accommodation floor plan description		No. Rooms per level
	South Facing 5 Bed Cluster		
	• Five private rooms with beds, shelving, desks and robes • Shared bathrooms (x 2) • Shared kitchen • Shared communal/dining/study space	• Floor Area (78m^2)	1 South Facing Room
	DDA Rooms		
	• Single bedrooms • Private kitchen and bathrooms • Student Desk, robe and storage space	• Floor Area (21m^2)	1 South Facing Room
L 12, 23 and 32	**South Facing 5 Bed Cluster**		
	• Five private rooms with beds, shelving, desks and robes • Shared bathrooms (x 2) • Shared kitchen • Shared communal/dining/study space	• Floor Area (78m^2)	1 South Facing Room
TOTAL			**205 Rooms**

Each building level will be accessed via a centrally located and consolidated core lift and stairwell. Student rooms will be located on each side of the core to achieve a north-south orientation, with administration/office areas also positioned to the south of the core. Centrally locating the core also accommodates a northerly orientation for all internal common areas and communal open space.

In response to feedback provided throughout the Design Review process, the setback of the tower from North Terrace has increased to 4.6 metres. This setback creates a sympathetic transition between the State Heritage Place and tower addition and also accommodates a northerly orientation for the terraced communal open space area proposed for Level 2. The tower will be positioned 0.6 metres from the eastern and western boundaries, increasing to 1.05 metres towards the centre of each elevation (adjacent the internal corridor and core). This increased setback will accommodate centrally located windows providing access to natural light. At its closest point, the building will be positioned 1.1 metres from the southern boundary, with the easement over the land marked 'C' on the adjoining allotment providing the site with rights to air and light.

Externally, the tower will be constructed in precast concrete panels, sleeved in a tensioned metal façade and separated into three vertical elements using full height windows to common areas located on levels 12, 23 and 32. Windows will also run along the 'spine' of the eastern and western elevations, providing natural light to the centrally located corridors traversing each level.

Situated behind the tensioned metal façade will be windows to the northern and southern elevations to maximise access to natural light and to provide natural ventilation to each student room.

Perspectives and images of the external appearance of the tower are displayed in Figure 4.3 below.

Figure 4.3 *External appearance of the tower*

Source: Brown Falconer Architectural Package

4.3 Signage

Signage will be attached to the eastern and western facades of the tower. Specifically, two (2), 4 metre x 4 metre signage panels will be placed towards the top of each elevation, whilst two (2) 1 .8 metre wide x 9 metre high signage panels will be located towards the bottom of each elevation .

Each signage panel will be used for identification purposes and will be internally illuminated, but will not flash, blink, rotate or move.

4.4 Access and Waste

The Waste Management Plan for the development has been prepared by Rawtec, and is attached as ***Appendix 8***. We note that the waste management arrangements have been designed in consultation with CIRQA and Council to ensure the collection process occurs with minimal disruption to traffic and pedestrian movements along North Terrace. The Traffic Impact Assessment performed by CIRQA is attached as ***Appendix 7***.

The waste management system proposed for the development is summarised below:

- Two waste chutes (including one with a diverter) will be provided at each building level to manage the disposal of comingled, organic and recyclable materials;
- Students will transfer waste from individual rooms to waste chutes, whilst waste from communal spaces will be transferred to waste chutes by employees;
- Waste disposal via individual chutes will discharge into communal waste storage bins located within the basement waste storage room;
- A refuse vehicle will park on North Terrace during off-peak periods (i.e. between 4:00am and 6:00pm) and the private waste contractor and building management will transfer the waste bins via the fire exit and bin hoist to North Terrace; and
- E Waste and hard waste storage will also be stored within the basement waste storage room.

Waste will be stored and transferred to the refuse vehicle using a number of 660 litre bins. An overview of the number of bins required together for the development and waste collection frequency is illustrated in Figure 4.4 below:

Figure 4.4 *Bin numbers and collection frequency*

	Bin room		
	Bin size (L)	Number of bins required	Collections per week
General waste	660	8	2
Comingled recycling	660	6	2
Organics recycling	660	3	2
Total		17	6

Source: Rawtec Waste Management Report

The impact of noise generated during the waste collection process together with all other potential noise sources (i.e. mechanical plants, patron activity etc.) has been considered by Sonus in the Noise Assessment found within ***Appendix 3***.

4.5 Civil Works

The State Heritage Place occupies the majority of the subject site and the tower addition will not increase existing site coverage levels and accordingly, the proposed development will not increase existing rates of runoff. Conversely, the installation of a 50 kilolitre rainwater tank for irrigation purposes and reuse within communal laundry areas will actually reduce the rate of runoff from the site.

Notwithstanding, we understand that the existing stormwater system will need to be upgraded, with the location of downpipes, stormwater runs and outlets carefully designed to preserve the heritage building. Accordingly, the applicant will submit a separate stormwater management plan under separate cover for assessment by the relevant authority.

4.6 Staging Arrangements

Noting the scale of the development, the application for Building Rules Consent will be staged (i.e. demolition, substructure and main structure)

5. Procedural Matters

5.1 Nature of Development

The development application involves two distinct components, including alterations to the existing State Heritage Place, together with the construction of a thirty-one (31) storey 'student accommodation' tower to be situated above and attached to the State Heritage Listed Place.

Although 'Student Accommodation' is not defined by the Regulations, the Adelaide City Council generally defines 'student accommodation' as follows:

> *Student accommodation is housing specifically designed to accommodate students, such as a 'live-in' residential college, boarding house or other purpose built development containing student units with other ancillary facilities (i.e. study areas, communal lounge and kitchens). These forms of development will be assessed as 'student accommodation' or a 'boarding house'. A 'boarding house' provides a principal place of residence, in which bedrooms are not self-contained and usually share a common kitchen and/or bathroom.*

5.2 Assessment Pathway

No component of the development (i.e. the alteration to the State Heritage Place or the Student Accommodation) is listed as 'complying' or 'non-complying' within the Procedural Matters section of the Development Plan. Accordingly, we are of the opinion the application constitutes a 'consent on-merit' proposal.

5.3 Relevant Authority

Given the development involves the construction of a building that will exceed $10M in the City of Adelaide, the Relevant Authority is the State Commission Assessment Panel (SCAP), pursuant to Section 4B of Schedule 10 of the *Development Regulations, 2008.*

5.4 Public Notification

In accordance with Principle of Development Control 40 of the Capital City Zone, the application constitutes a **Category 1** form of development for the purposes of Public Notification (i.e. public notification not required).

5.5 Referrals

5.5.1 *Government Architect*

The application will require referral to the 'Government Architect' pursuant to Schedule 8 Clause 3(24) of the *Development Regulations, 2008* as it involves development within the Corporation of the City of Adelaide for which the State Planning Commission (SPC) is the Relevant Authority, under Section 4(B) of Schedule 10 of the *Development Regulations, 2008.*

It is noted that the SCAP must have 'regard' to the referral advice of the Government Architect when determining the development application.

A copy of the comments provided by the Government Architect as part of the Design Review process can be found in ***Appendix 9***.

5.5.2 *State Heritage Branch*

Schedule 8, Clause 5(1) of the *Development Regulations, 2008* prescribes that a referral to the 'State Heritage Branch' will likely be required as the development involves alterations and additions to a State Heritage Place.

5.5.3 *Adelaide Airport Ltd.*

A referral to the Commonwealth Secretary for the Department of Infrastructure, Regional Development and Cities (DIRDC) is triggered if the proposed building heights exceed the Obstacle Limitation Surface (OLS) Heights shown on Map Adel/1 (Overlay 5) of the Adelaide (City) Development Plan.

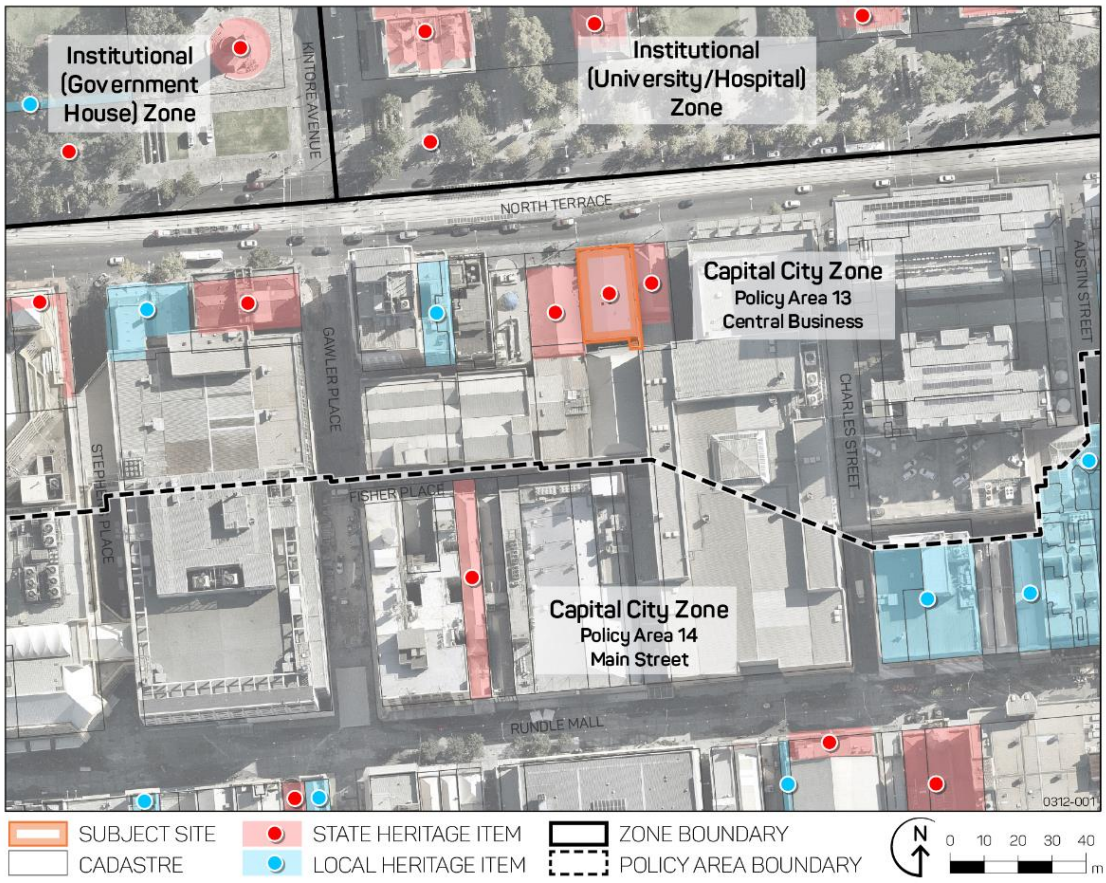
We note that the site is subject to an OLS of approximately 128 metres Australian Height Datum (AHD), which is approximately 84.05 metres above natural ground level, assuming an existing ground level at the site of approximately 43.95 metres AHD. Because the development will reach a height of 109.2 metres (153.16 metres AHD) above natural ground level (excluding additional height for roof top plant), a referral to Adelaide Airport Ltd. (via the Commonwealth Secretary for the Department of Transport and Regional Services) will be required.

6. Development Plan Assessment

6.1 Overview

The subject site is located within **Central Business Policy Area 13** of the **Capital City Zone,** as identified within the Adelaide (City) Development Plan, consolidated 07 June 2018. ***Figure 6.1*** illustrates the subject site, relevant zone and adjoining zones and policy areas.

Figure 6.1 *Zone and Policy Area maps*



In terms of Development Plan considerations, the following list identifies those provisions considered most relevant to the assessment of the proposed development.

Table 6.1 *Relevant Development Plan Provisions*

ZONE & POLICY AREA		
Capital City Zone		
Desired Character Statement		
OBJ: 1, 2, 3, 4 ,5, 6, 7 & 8		
PDC: 1, 2, 5, 6, 7, 8, 9, 11, 13, 14, 15, 19, 20, 22, 26, 27 33 & 35		
Central Business Policy Area 13		
Desired Character Statement		
OBJ: 1, 2 & 3		
PDC: 1, 2 & 3		
COUNCIL WIDE		
Living Culture	**Energy Efficiency**	**Economic Growth and Land Use**
OBJ: 1	OBJ: 30	OBJ: 73 & 76
PDC: 1	PDC: 106, 107, 108, 109, 110, 111, 112, 113 & 114	PDC: 266, 270 & 271
City Living	**Micro-climate and Sunlight**	**Transport and Access**
OBJ: 6, 7 & 8	OBJ: 33 & 34	OBJ: 60
PDC: 5, 6 & 7	PDC: 119, 120, 122, 124 & 125	PDC: 224
COUNCIL WIDE (cont.)		
Medium to High Scale Residential/Serviced	**Stormwater Management**	**Pedestrian Access**
OBJ: 22	OBJ: 35, 36, 37 & 39	OBJ: 61, 62 & 63
PDC:48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73 & 80	PDC: 126, 127, 128, 129 & 130	PDC: 226, 227, 228 & 232
Crime Prevention Through Urban Design	**Infrastructure**	**Bicycle Access**
OBJ: 24	OBJ: 40 & 41	OBJ: 64 & 65
PDC: 82, 83, 84 & 86	PDC: 132, 133, 134 & 135	PDC: 233, 234, 235, 236 & 237
Noise Emissions	**Heritage and Conservation**	**Public Transport**
OBJ: 27	OBJ: 42, 43 & 44	OBJ: 66 & 67
PDC: 93, 94, 95, 96, 97, 98 & 99	PDC: 136, 137, 140, 142 & 144	PDC: 239 & 240

Waste Management	**Built Form and Townscape**	**Access and Movement**
OBJ: 28	OBJ: 46, 47 & 48	OBJ: 60
PDC: 101, 102, 103 & 104	PDC: 168, 169, 170, 172, 177, 180, 181, 182, 185, 186, 187, 188, 189 & 190	PDC: 224
Sky and Roof Lines	**Vacant Site and Buildings**	**Traffic and Vehicle Access**
OBJ: 49	OBJ: 54	OBJ: 68 & 70
PDC: 193, 194 & 195	PDC: 204	PDC: 241, 242, 243, 244, 247 & 248
Landscaping	**Student Accommodation**	**Car Parking**
OBJ: 55	OBJ: 9	OBJ: 71
PDC: 207, 208, 209	PDC: 10, 11, 12 & 13	PDC: 152
Advertising	**Affordable Housing Overlay**	
OBJ: 56	OBJ: 1, 2, 3 & 4	
PDC: 211, 214 & 217	PDC: 1	

Maps & Plans

- Adelaide (City) Zones Map Adel/19
- Adelaide (City) Policy Areas Map Adel/50
- Adelaide (City) City Road Network Map Adel/1 (Overlay 1)
- Adelaide (City) Pedestrian Network Map Adel/1 (Overlay 2A)
- Adelaide (City) Bicycle Network Map Adel/1 (Overlay 3)
- Adelaide (City) Public Transport Network Map Adel/1 (Overlay 4)
- Adelaide (City) Airport Building Heights Map Adel/1 (Overlay 5)
- Adelaide (City) Future Landscape Character (Overlay 9)
- Adelaide (City) Proposed Lighting Framework (Overlay 13)
- Adelaide (City) Affordable Housing Map Adel/1 (Overlay 15b)
- Adelaide (City) Building Heights Concept Plan Figure CC/1

Tables

- Table Adel/1 State Heritage Places
- Table Adel/2 Local Heritage Places
- Table Adel/6 Bicycle Parking Provisions

Overlays

- Overlay 1 – Affordable Housing

An assessment of the Development Application against the key provisions of the Zone as well as Council Wide policies follows.

6.2 Land Use

The following provisions of the Adelaide City Development Plan are considered most relevant to the assessment of desired land use outcomes contemplated for the site and locality more generally:

Capital City Zone

OBJ 2 *A vibrant mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living.*

PDC 1 *The following types of development, or combinations therefore, are envisaged:*

…student accommodation

Central Business Policy Area

OBJ 1: *A concentration of employment, governance, entertainment and residential land uses that form the heart of the City and central place for the State*

PDC 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.*

PDC 3: *To enable an activated street level, residential development or similar should be located above ground floor level.*

Council Wide

OBJ 6 *A variety of housing options which supplement existing types of housing and suit the widely differing social, cultural and economic needs of all existing and future residents.*

OBJ 7 *A range of long and short term residential opportunities to increase the number and range of dwellings available whilst protecting identified areas of special character and improving the quality of the residential environment.*

OBJ 8 *A broad range of accommodation to meet the needs of low income, disadvantaged and groups with complex needs whilst ensuring integration with existing residential communities.*

OBJ 9 *High-quality student accommodation that creates an affordable, safe, healthy and comfortable living environment.*

OBJ 73 *The role of the City enhanced as:*

(g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

OBJ 76 *A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia*

PDC 5 *Development should comprise of a range of housing types, tenures and cost, to meet the widely differing social and economic needs of residents.*

PDC 6 *Development should provide a variety of accommodation to meet the needs of low income people, student housing, social housing, housing for single people, large and small families, people with disabilities and people with other complex needs. These forms of housing should be distributed throughout the Council area to avoid over-concentration of similar types of housing in a particular area and should be of a scale and appearance that reinforces and achieves the desired character of the locality, as expressed in the relevant Zone and Policy Area*

The Policy Area Desired Character Statement also refers to the Policy Area as the pre-eminent economic, government and cultural hub for the State which is to be supported by *"educational, hospitality and entertainment activities and increased opportunities for residential, student and tourist accommodation"*.

The proposal to establish student accommodation comprising 205 student rooms for 341 students directly aligns with the fundamental Policy Area objective of accommodating a variety of affordable housing types to cater for a diverse population. The proposed use also directly supports both the Zone and Policy Area Objectives relating to the ongoing provision of educational facilities. In particular, the student accommodation will be located in proximity to key educational facilities, including the University of Adelaide and the University of South Australia (City East and City West Campus'), and will be accessible by high frequency public transport services such as the free City Tram service which connects with each of these educational facilities.

Accordingly, the proposed development is highly aligned with the land use outcomes contemplated for the Zone and Policy Area.

6.3 Built Form, Design and Materials

6.3.1 *Building Height and Scale*

The following Zone and Council Wide provisions of the Development Plan are considered particularly relevant to the assessment of building height and scale:

Capital City Zone

PDC 21 *Development should not exceed the maximum building height shown in Concept Plan Figures CC/1 and 2….*

Central Business Policy Area 13

PDC 2 *Buildings should be of a height that ensures airport operational safety is not adversely affected*

Council Wide

OBJ 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.*

PDC 168 *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….*

PDC 170 *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.*

PDC 182 *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.*

Further guidance on building scale is articulated within Desired Character Statement which states that the Capital City Zone will accommodate *"high-scale development…. with high street walls that frame the street".*

Excluding roof top mechanical plant and screening, the development proposes a total building height of 109.2 metres (153.16 metres AHD), and the proposed development seeks to establish a building with *"optimal height and floor space yields to take advantage of the premium City location"* (PDC 22).

Although the Building Heights Concept Plan (Figure CC/2) does not prescribe a building height cap for the subject site or immediate locality, Council Wide PDC 172 states that permissible building heights should not adversely affect the long term operational, safety and commercial requirements of Adelaide International Airport.

Whilst the proposed development will penetrate the OLS (approximately 128metre AHD), preliminary feedback provided by Mr. Brett Eaton from Adelaide Airport as part of the PLP process confirms that the building height is likely to be acceptable given the scale of existing and proposed towers within the immediate locality.

We also note that total building height 153.16 metres AHD, plus roof plant allowance, plus a 20 metre allowance for a 'hammerhead crane' for construction purposes will not exceed the governing PANS-OPS height (conservatively estimated to be in the order of 200m AHD), or the established Radar Terrain Clearance (RTCC) surface height of 182.8m AHD. Accordingly, we are of the opinion that the proposed building height satisfies and does not offend the requirements of Council Wide PDC 172:

> *PDC 172* *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.*

In considering the building height and scale and its impact on the character of the locality, it is also important to have regard to prevailing development within the locality and accordingly, we note the mixed-use tower incorporating a 4 Star hotel with a podium entertaining area, serviced apartments and 400 car parks which was recently approved on 8 December 2016 at 11-27 Frome Street, Adelaide. On completion, Frome Central Tower One will be 34 storeys and 133.55 metres high. It is noted that this building is also located within the Capital City Zone and is located approximately 420m east of the subject site.

We also note the previously approved mixed use tower development proposed on land to the south and west of the site and located at 12-20 Gawler Place and 199-200 North Terrace and comprising 19 levels and a maximum building height of 84.5 metres. If enacted, the approved tower development will introduce additional building height within the immediate locality adjoining the subject site.

Further, we are of the opinion that the proposed building height is appropriate taking into account the prevailing character of North Terrace, together the Development Plan objectives to maximise building heights within the Zone.

6.3.2 *Building Setbacks*

The following provisions of the Development Plan are relevant to the assessment of building setbacks:

Capital City Zone

PDC 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.*

PDC 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 width of the street and achieves a suitable level of enclosure to the public realm;

(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 wind tunnelling and downward drafts)……

PDC 19 *Development along the terraces should contribute to a continuous built form to frame the City edge and activity the Park Lands.*

PDC 20 *Development along North Terrace should reinforce the predominant scale and 'City Wall' character of the Terrace frontage.*

Council Wide

PDC 179 *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.*

We also note the following commentary found within the Desired Character Statement for the Central Business Policy Area:

> *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 of the highest design quality*

The proposed development will preserve the existing State Heritage Place which abuts the North Terrace property boundary, and will maintain the desired hard edge interface along the North Terrace frontage.

Importantly, the State Heritage Building will also act as a podium to the proposed tower addition, which will be offset from the North Terrace property boundary by 4.6 metres. This generous front setback will minimise the dominance and scale of the tower and achieve a sympathetic interface with the existing State Heritage Place. The front setback will also align with the existing setback of the adjoining heritage building to the west. Finally, the front setback will accommodate a northerly orientation for all communal open space and common areas to maximise access to natural light (discussed further in Section 6.4 for this Planning Statement).

The building will be set back 0.6 metres from the eastern and western boundaries, increasing to 1.05 metres towards the centre of each elevation to accommodate windows that will provide natural light to internal corridors. The rear (southern) elevation setback will be 1.1 metres, increasing to 3.04 metres in the north-eastern corner of the allotment. The reduced side and rear setbacks will optimise floor area yield and achieve symmetry with the setback position of the State Heritage Place.

Importantly, we note that the setbacks of the building have been modified following feedback provided by the Government Architect as part of the Design Review process. In this regard, we note the Government Architect is supportive of the positioning of tower, and its relationship with the State Heritage Place, as conveyed in statement taken from Design Review response dated 14 June 2019:

> *"I strongly support the proposed tower setbacks that respond to the North Terrace context and the overall composition that achieves a reduced north south dimension and a symmetrical relationship to the W & G Wills & Co. warehouse."*

Further to the above discussion, we are of the opinion that the proposed tower setbacks will achieve a built form outcome which reinforces the desired character of the locality and importantly, preserves the heritage value of the State Heritage Place.

6.3.3 *Building design and articulation*

The following objectives and PDC's are considered particularly relevant to the design outcomes contemplated by the Development Plan:

Capital City Zone

OBJ 5 *Innovative design approaches and contemporary architecture that respond to a building's context.*

OBJ 6 *Buildings that reinforce the gridded layout of Adelaide's streets and respond to the underlying built-form framework of the City.*

PDC 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.*

PDC 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 though 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 sleeved by residential or non-residential land uses (such as shops, offices and consulting rooms) to ensure an activated street frontage.

PDC 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.*

Council Wide

OBJ 48 *Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment*

OBJ 49 *Innovative and interesting skylines which contribute to the overall design and performance of the building*

PDC 180 *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.

PDC 187 *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.*

PDC 188 *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*

PDC 189 *Materials and finishes that are easily maintained and do not readily stain, discolour or should be utilised.*

PDC 190 *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).*

PDC 193 *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.

PDC 194 *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.

A schedule of external finishes, streetscape perspectives and a design statement prepared by Brown Falconer Architects is contained within ***Appendix 2.***

Streetscape perspectives of the building are illustrated in Figure 6.2 Below.

Figure 6.2 *Streetscape Perspectives*

The proposed tower has been designed to achieve a singular, monolithic and sculptured built form outcome using a dual façade consisting of precast concrete walls, sleeved by a tensioned metal woven mesh external screen for the full height of the building. Importantly, we note that all building materials will be applied to all elevations to achieve a consistent high quality built form outcome when viewed from all sides.

The tensioned mesh material has been selected to complement the materiality of the State Heritage Place and for its ability to soften the visual impact of the precast sub-structure and prevent unreasonable overlooking into the southern elevation windows. The metal cladding also has a number of environmental benefits which are discussed further in Section 6.4.

Glazed breaks on Levels 12, 23 and 33 will divide the tower into three vertical elements which (together with the 4.6 metre front setback) will reduce the scale and visual dominance of the tower, reduce the expanse of solid walling visible from the public realm and provide additional detailing and articulation to improve the appearance of the building when viewed from the public realm.

The materiality and design of the building has evolved in response to feedback provided by the Government Architect. Subject to further performance testing and final material selection, we note that the Government Architect (in its correspondence dated 14 June 2019) expressed 'in principle' support for the design of the building:

> *"I support the approach for the singular architectural expression that forms a backdrop to the heritage building and the materiality that complements the warehouse masonry. I also acknowledge the potential of the screen element as a device to reduce the visual impact of the windows, provide solar control and mitigate overlooking to the south."*

Mechanical plant will be located at roof level (Level 33), whilst a new transformer will be located within the north-western corner of the terraced level. In accordance with Council Wide PDC 194 all mechanical plant together with the transformer will be screened from public viewing by 1.8 mere high louvres.

Further to the above discussion, we are of the opinion that the development exhibits a high level of architectural merit which responds well to the context of the locality and includes appropriate levels of varied (yet complementary) building materials and colours to enhance articulation and visual interest, whilst at the same time, preserving the heritage value of the State Heritage Place. Accordingly, in our opinion the development is considered to be highly aligned within the relevant design related provisions of the Development Plan.

6.3.4 *Heritage Considerations*

As previously discussed, the application involves internal and external alterations to the existing State Heritage Place. The roof of the State Heritage Place will also be replaced with the student accommodation tower. The alterations and additions to the State Heritage Place have been assessed against the following Heritage and Conservation provisions of the Development Plan:

OBJ 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.*

OBJ 43: *Development that retains the heritage value and setting of a heritage place and its built form contribution to the locality.*

OBJ 44: *Continued use or adaptive reuse of the land, buildings and structures comprising a heritage place.*

PDC 136: *Development of a heritage place should conserve the elements of heritage value as identified in the relevant Tables*

PDC 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.

PDC 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.

PDC 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.*

PDC 156: *A State heritage place should not be demolished or removed, in whole or in part, unless:*

(a) that portion of the place to be demolished or removed does not diminish the heritage value of the place; and

(b) a heritage impact statement has been prepared that reviews the heritage values of the place and includes an assessment of the impacts on those values by the proposed development.

We note that the design of the tower addition, together with the internal and external alterations of the State Heritage Place have been informed by feedback provided by Mr Peter Wells (Principal Conservation Architect at the Department of Environment and Water), feedback provided during the Pre Lodgement and Design Review process as well as heritage advice provided by Mr. David Holland from DASH Architects.

Our assessment of the heritage impacts of the development have also been informed by the Heritage Impact Assessment performed by DASH Architects (***Appendix 5***). In particular, the DASH report considers the impacts

of the proposed interior and exterior works on the value of the State Heritage Place, together with the impact of the proposed tower addition on the existing heritage setting.

The DASH Heritage Impact Assessment makes note that particular internal and external works will materially impact on the heritage building. Externally, these works primarily relate to the lowering of the main entrance to provide equitable access, together with the creation of two new doors below the existing windows on the Northern façade. Internally, proposed works that will adversely impact on the heritage value of the building include the deletion of the existing roof (including decking, gutters, timber structure and remnant ceilings) together with the demolition of the basement, ground and first floor structures.

Although it is acknowledged that the above-mentioned works will adversely impact on the internal heritage value of the building, it is important to note that these works form part of a larger development proposal involving the repair, refurbishment and adaptive reuse of a vacant and internally dilapidated building which if approved, will be used for Student Accommodation (an envisaged use for the Zone). When considered on balance, the merits of the application outweigh any departure from the relevant Heritage and Conservation provisions of the Development Plan for the reasons briefly outlined below:

- In accordance with Objective 44, the application seeks approval for the adaptive reuse of a State Heritage Place which has been vacant for 11 years and cannot be occupied in its current condition without significant refurbishment works. The heritage related impacts of the internal building alterations should be weighed against the building's existing condition internally (refer to Figure 3.4) and its continual deterioration (should the building continue to remain vacant for extended period of time).
- The internal works proposed are necessary to accommodate an appropriate floor plate that will support a desired land use which contributes to the attainment of the Development Plan objectives to accommodate a variety of affordable housing types within the City. Whilst preserving the existing internal layout is most desirable from a strict heritage view-point, doing so significantly limits how the building could be used in the future and is arguably not commercially viable or realistic.
- The layout of each floor level within the State Heritage Place has been designed to preserve the open 'form' and proportion of the original floor layout, with necessary service and storage rooms placed at basement level and concealed from general public viewing. Refurbishment works will also include the re-use of some materials, including the existing structural columns, timber floorboards and timber roof structure in a similar manner and location, which will mitigate adverse impacts on the internal heritage value of the building.
- From a heritage perspective, the site is particularly suited to Student Accommodation as this land use will minimise external impacts on the heritage building. Student Accommodation does not attract a demand for onsite parking and accordingly, the existing vehicle entrance to the basement will be reinstated. The DASH Heritage Impact Assessment notes that this work is a positive aspect of the development which will outweigh the adverse impacts resulting from the

introduction of the two new doors proposed for the Northern façade and the lowered main entrance door required to accommodate equitable access:

> *"Overall, given the need for equitable access….and the deletion of the vehicle entrance, the impact on the exterior of the Building is positive and will enhance the Heritage Values of the place"*

In contrast, using the building for other forms of development (i.e. office, consulting rooms, retail development, apartments etc.) would likely result in a demand for onsite carparking and the retention of the existing opening within the northern elevation with its concomitant impact on the heritage value and external appearance of the building.

- The Heritage Impact Assessment concludes that the design of the tower, including its setback from North Terrace and its form and materiality will preserve the setting of the State Heritage Place situated on the site:

  > *"The design has been subject of detailed examination through Design review and the PLP process. Overall, I believe that it is successful and that it does not adversely affect the setting of the Heritage Place, and thus its Heritage Values.*

- The proposed development does not involve any physical changes/alterations to the adjoining State Heritage Places, and the Heritage Impact Assessment concludes that subject to the management of vibration impacts, the proposed works will not have any material impact on the heritage value of the adjoining heritage places.

- Although it is acknowledged that the demolition of the existing roof form will adversely impact on the heritage value of the building, the DASH Heritage Impact Assessment indicates that the financial viability of refurbishing the interior of the building may be contingent upon the site accommodating a larger floor area which can only be achieved by adding to the top of the building.

On this basis and noting that the building has been vacant for some time, we are of the opinion that the benefits to result from the refurbishment and adaptive reuse of the heritage place for Student Accommodation (an envisaged form of development) outweighs any adverse impacts to resulting from the proposed internal and external works proposed. We note and draw your attention to the balanced opinion provided by DASH Architects in their closing statement on the overall impacts of the development on the State Heritage Place:

> *"An overall assessment is difficult. The external impact of the proposed development is positive and does not adversely affect the setting of the Place. The internal impact however, through loss of physical fabric, is significant and, it appears, unavoidable for this type of development.*
>
> *Thus, it may be that if a tower is to be envisaged for this site, as the Development Plan would suggest is the case, the impact to the interior of the building may be unavoidable.*

The current state of the building is also such that it cannot, in my view and experience, be reasonably occupied. I also understand that economics of rehabilitating it (assuming the need to repair damaged elements, provide equitable access and meet current codes) in its current form (three storeys) are marginal at best, and simply not viable at worst. We investigated such an option for the previous owners, and they found that they simply could not undertake the works and expect anything like a commercial return on the investment.

In this case, the approving authority may form a balanced view that the loss of fabric, and subsequent impact on the Heritage Value of the Place, is acceptable if it ensures the ongoing viability of the site. From a heritage point of view, this decision could be equated to either 'losing the limb, to save the body' as opposed to holding out for a 'miracle cure'".

6.3.5 *Crime Prevention*

The following Council Wide Objectives and Principles of Development Control of the Development Plan are considered most relevant with respect to Crime Prevention Through Environmental Design.

OBJ 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.

PDC 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.*

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

Although the development is constrained by the need to preserve the heritage fabric of the building, locating services within the basement accommodates creates opportunities for passive surveillance of North Terrace from the ground floor lobby and the common areas located on Levels 1 and 2. By its very nature, the student accommodation use will also accommodate a mix of day and evening activities, particularly in common areas where students will gather to study and socialise.

Windows separating common areas and communal open space will also create a visual link for passive surveillance between these spaces and these two-way views will also be enhanced by the open floor plate and linear corridor configuration on each level, creating floor layouts that are generally free of entrapment spots.

The safety of residents and visitors within less frequently used spaces will be managed by implementing various forms of security initiatives. For example, CCTV coverage will be provided to within all Fire Exit corridors at basement level, whilst access to service rooms and service levels (Level 3a) where surveillance is limited will also be restricted to employees only.

The development will also be staffed by at least one full time employee at all times for additional security.

On this basis, working with the constraints of the existing site, the development has been designed to address applicable CPTED provisions of the Development Plan.

6.3.6 *Signage*

The application includes four (4) internally illuminated signage panels which are to be attached to the eastern and western building elevations (i.e. two each elevation). The signage proposed for the development has been

restricted in number to minimise signage proliferation and clutter. Restricting signage to the side elevations will also enhance views of the development from North Terrace as well as minimise the visual impact of the tower addition on the heritage setting of the site and immediate locality.

Accordingly, the design of the signage satisfies the intent of Council Wide Objective 56:

> ***OBJ 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*

6.4 Accommodation Design and Amenity

Key design and amenity related outcomes contemplated for student accommodation are conveyed within the following Council Wide Objectives of the Development Plan:

> ***OBJ 9*** *High-quality student accommodation that creates an affordable, safe, healthy and comfortable living environment*
>
> ***OBJ 22*** *Medium to high scale residential (including student accommodation) or serviced apartment development that:*
>
> *(a) has a high standard of amenity and environmental performance;*
>
> *(b) comprises functional internal layouts;*
>
> *(c) is adaptable to meet a variety of accommodation and living needs; and*
>
> *(d) includes well-designed and functional recreation and storage areas.*

Our assessment of the proposed accommodation design and student amenity has also had regard to the relevant provisions for Medium to High Scale Residential/Serviced Apartments and Student Accommodation. In this regard it is important to note that the Student Accommodation provisions provide for internal floor area, storage and open space dispensations in recognition of the unique and temporary nature of student accommodation vis-a-vis conventional apartment living. These dispensations are subject to compliance with various design requirements, as conveyed within Council Wide PDC 10:

> ***PDC 10****: Residential development specifically designed for the short-term occupation of students may provide reduced internal floor areas, car parking, storage areas and/or areas of private open space provided that:*

(a) residents have access to common or shared facilities that enable a more efficient use of space (such as cooking, laundry, common rooms or communal open space);

(b) every living room has a window that provides an external outlook and maximises access to natural light;

(c) the development is designed to enable easy adaptation or reconfiguration to accommodate an alternative use;

(d) the development is designed to maximise opportunities to access natural ventilation and natural light;

(e) private open space is provided in the form of balconies and/or substituted with communal open space (including rooftop gardens, common rooms or the like) that is accessible to all occupants of the building; and

(f) the internal layout and facilities provide sufficient space and amenity for the requirements of student life and promote social interaction.

As discussed below, the accommodation has been designed to satisfy the conditions set out within PDC 10 and accordingly, our assessment of the development takes into consideration reasonable dispensations to the minimum floor area, storage and open space requirements prescribed for medium to high scale residential development.

6.4.1 *Student accommodation size, private open space, amenities and facilities*

The Development Plan seeks to ensure student accommodation is appropriately sized and designed to accommodate student living:

PDC 11 *Internal common areas should be capable of being used in a variety of ways to meet the study, social and cultural needs of students.*

PDC 13 *Student accommodation with shared living areas should ensure bedrooms are of a suitable size to accommodate a single bed, book shelves, a desk and workspace, and a cupboard/wardrobe.*

The development proposes five (5) different forms of student accommodation, including twin rooms, studio rooms, DDA studios and 3 and 5 bed clusters. The variety in apartment styles will accommodate a range student living needs and price points as contemplated by Council Wide Objective 22.

Each type of accommodation will accommodate private or (in the case of the Twin Room) semi-private living spaces, appropriately sized and equipped with king single beds, bookshelves, desk and storage/cupboard space, consistent with the requirements of PDC 13. Studio and twin rooms will have exclusive access to kitchen and bathroom facilities, whilst the cluster rooms will be provided with communal areas with shared kitchen, dining, bathroom and lounge facilities.

Communal spaces accommodating common study areas, shared laundry, kitchen, dining and lounge facilities will also be strategically placed throughout the tower on Levels 1, 2, 12, 23 and 32 to maximise accessibility for all students. The communal spaces will comprise a total area of 843m^2 and will encourage student interaction and enhance student amenity in accordance with Council Wide PDC 10 (a) and (f).

6.4.1 *Private Open Space*

The private open space provisions for Medium to High Scale Residential/Services Apartment development is prescribed by Council Wide PDC 59. However, we note that this provision does not prescribe a minimum area of private open space for studio apartments (being the most comparable type of accommodation proposed).

We also note that Council Wide PDC 10 prescribes that private open space for student accommodation may be substituted for communal areas of open space (including common rooms) which is accessible to all occupants of the building.

As mentioned above, a key feature of the tower accommodation is the generous quantity of communal spaces available for students to congregate and interact, including the 65m^2 external private open space located on the Level 2 terrace. Combined, the internal and external spaces equates to 908m^2 (or 2.66m^2) per student, which is additional to exclusive communal spaces allocated to each cluster room and we understand is higher than the average amount of open space allocated for student accommodation.

Finally, we note that all communal spaces have been designed as highly functional and usable areas with northerly orientations to maximise access to natural light and to provide views of North Terrace and the Adelaide Parklands.

6.4.2 *Energy Efficiency and Thermal Comfort*

Council Wide Objectives 30 and 33 are considered relevant to the assessment of energy efficiency and sustainability:

Council Wide – Energy Efficiency

OBJ 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.*

OBJ 33 *Buildings which are designed and sited to be energy efficient and to maximise micro-climatic and solar access impacts on land or other buildings.*

The development has also been assessed against Council Wide PDC 106, 107, 108, 109, 110, 111, 112, 113, 114, 119 and 120 which include specific design criteria aimed at achieving sustainable development outcomes.

A copy of the ESD Strategy and Façade ESD Performance Assessment prepared by D Squared is attached in ***Appendix 4***.

In accordance with Council Wide PDC 106, the student accommodation has been designed with a north-south orientation to maximise access to natural light. Similarly, all internal and external communal areas are also orientated to the north. Conversely, the windows along the western elevation are restricted in number to reduce summer heat loads.

The external mesh material has also been selected for its sustainability properties. In particular, the external cladding will assist with the control of thermal loads and reduce mechanical cooling demands (particularly to the northern elevation). The metal cladding will also accommodate the use of neutral glazing which will significantly increase access to natural light without compromising energy performance, whilst also preserving outward views to the north.

Other key sustainability initiatives incorporated into the design of the building are summarised below:

- High performance glazing to be used on all windows to minimise summer heat loads;
- Openable windows along the northern and south ern elevations accommodating natural ventilation methods for all student accommodation rooms;
- The use of roof top solar panels to provide a source of onsite renewable energy, including for the pre-heating of domestic solar water storage tanks;
- Daylight and motion sensor controls in common areas to reduce lighting operation when the communal spaces are unoccupied and when sufficient levels of daylight is available;
- The services room on Level 3a will accommodate a 50 kilolitre rainwater tank for reuse in the communal laundry and for irrigation of landscaped areas proposed on the Level 2 terrace; and
- Power outlets dedicated for e-bike charging within the bicycle storage room;

Further details on the ESD initiatives are discussed within the Sustainability Report.

On this basis we are of the opinion that the development has been designed to satisfy the applicable energy efficiency provisions of the Development Plan.

6.4.3 *Site facilities*

Council Wide PDC 80 provides guidance on the design and location of site facilities including storage, mailbox and clothes drying facilities:

PDC 80 *Site facilities should be readily accessible to each dwelling/serviced apartment, complement the development and relevant desired character and should include:*

(a) a common mail box structure located close to the main pedestrian entrance;

(b) areas for the storage and collection of goods, materials, refuse and waste including facilities to enable the separation of recyclable materials as appropriate to the size and nature of the development and screened from public view; and

(c) external clothes drying areas for residential dwellings that do not incorporate ground level open space.

Council Wide PDC 12 provides further guidance on the design of storage space, specifically for student accommodation and suggests that the development should *"provide secure long-term storage space in both communal and private areas"*.

Each form of accommodation is provided with cupboards and shelving for the private storage of smaller items, whilst a bulk storage room comprising an area of 90m^2 is provided within the basement for larger items. The short term nature of the accommodation together with the provision of the basement storage room for bulkier items (such as furniture and luggage) effectively negates the need for large areas of storage space within individual apartments.

In accordance with PDC 80, a communal letterbox area will be situated within the entry lobby of the building to the south of the reception desk, whilst a fully enclosed refuse and bicycle storage areas will be situated at the basement. E-diverters will also be installed at each apartment level to accommodate the separation of recyclable materials from general waste. Further discussion on waste management is provided below in Section 6.8 of this Planning Statement.

6.4.4 *Privacy*

Council Wide PDC 66 and 67 provide guidance in relation to the assessment of overlooking:

> ***PDC 66*** *Medium to high scale residential or serviced apartment development should be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development.*
>
> ***PDC 67*** *A habitable room window, balcony, roof garden, terrace or deck should be set-back from boundaries with adjacent sites at least three metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites.*

Windows for student accommodation will run along the northern and southern elevations, whilst windows to the internal corridors will be placed along the eastern and western elevations. The subject site only adjoins commercial development and as such, the development does not overlook habitable rooms of any other residential development.

We note that the recent approval issued for the construction of a 19 storey tower development that will occupy adjoining land to the immediate south of the subject site (DA 020/AO55/17). The development will accommodate office tenancies rear of the subject site, with windows orientated south to face student rooms. If constructed, office tenancies of the adjoining development will be situated approximately 7.2 metres (minimum) from the southern elevation of the student accommodation and this reasonable setback will minimise direct views into habitable rooms of the student accommodation. The proposed metal façade will also act as a screen and will significantly obscure views into student accommodation from the adjoining commercial development.

Accordingly, we are of the view that the generous separation distance (which exceeds the minimum setback prescribed by PDC 67) together with the proposed metal façade treatment will address unreasonable views into the habitable rooms of the proposed development.

6.5 Wind Impact

Council Wide Principle of Development Control 125 is considered most relevant to the assessment of wind impacts generated by the proposed development.

Council Wide

PDC 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.*

An assessment of the likely impact of the proposed building design on the local wind environment has been undertaken by Vipac (***Appendix 8***). In particular, the wind analysis considers the extent to which the proposed building is likely to generate adverse wind conditions in pedestrian environments within and surrounding the development, including public pedestrian pathways along North Terrace, the building entrance and the communal terrace area situated on Level 2. The assessment is performed against the relevant '*Wind Comfort and Safety Gust*' criteria which prescribes different maximum gust speeds according to the activity proposed (i.e. fast walking, walking, standing and sitting) and having regard to the 'Category 3' wind velocity applicable to the Central Business District.

Further to the analysis performed, Vipac conclude that the proposed development has been designed to minimise adverse wind conditions on the pedestrian environment:

> *"After careful consideration of the form and exposure of the proposed development, Vipac predicts that most areas will satisfy the various recommended comfort criteria at the ground level and communal terraces. As such, Vipac makes no recommendation for the alteration of the design as proposed"*

The proposed development therefore satisfies the requirements of Council Wide PDC 125 as potential wind tunnel effects from the proposed development have been minimised through appropriate architectural design treatments.

6.6 Acoustics Considerations

Council Wide Objectives 26 and 27 provide guidance with respect to the desired outcomes for the management of noise related impacts generated by a development:

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

OBJ 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.*

Council Wide Principles of Development Control 68, 69, 93, 94, 95 96 and 97, 98 and 99 are also applicable to the attainment of this objective and generally seek to ensure development incorporates appropriate design strategies to mitigate the impacts of internal and external noise sources.

The Noise Assessment report prepared by Sonus (***Appendix 3***) considers the following noise related impacts:

- Noise impacts on occupants generated by the activities occurring within adjoining apartments and common areas;
- The impacts of local traffic noise, including tram and general street activity; and
- Noise generated by services activities including rubbish collection, mechanical plant and outdoor areas.

6.6.1 *Noise ingress generated by traffic*

The noise criteria for the assessment of external noise impacts generated by traffic, trams and street activity has been derived from a variety of assessment criteria including the World Health Organisation (WHO) Guidelines, Australian Standard AS 2107:2000 – Acoustics – *Recommended design sound levels and reverberation times for building interiors*, and the Minister's Specification SA 78b *Construction requirements for the control of external sound*.

Applying the standards set out in the above guidelines, Sonus conclude that the appropriate noise assessment criteria for the development is as follows:

- *An average noise level (LAeq) of 30 dB(A) across the total number of bedrooms/sleeping areas and a maximum of 35 dB(A) for any bedroom/sleeping area; and*
- *An average noise level of 35 dB(A) across the total number of living/lounge/kitchen and common areas and maximum of 40 dB(A) in any living/kitchen area.*

To accurately determine the impacts of existing external noise sources, noise measurements at 203 North Terrace were taken over a 24 hour period. The findings of noise measurements are found within Appendix A of the Sonus Report, and have informed the following recommended façade treatments to ensure the above-mentioned noise criteria can be satisfied:

- Laminated glazing comprising a minimum thickness of 10.38mm to all northern façade windows up to level 22;
- Laminated glazing comprising a minimum thickness of 6.38mm to all other glazed façade treatments, including common areas; and
- Acoustic seals to the doors from the common areas to outdoor area on Level 2.

6.6.2 *Mechanical Plant*

Council Wide PDC 93 prescribes the applicable criteria for the appropriate management of noise generated by mechanical plant:

> ***PDC 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.

Mechanical plant will be situated on Level 3a and at roof level (Level 33). As mechanical plant is yet to be selected, Sonus note that a comprehensive acoustic assessment of the impacts of mechanical plant is yet to take place. Notwithstanding, Sonus conclude that the development will be capable of achieving the noise criteria prescribed within Council Wide PDC 93 with appropriate acoustic attenuation. In our opinion, it is reasonable and appropriate to condition additional sound modelling during the detailed design phase of the project.

6.6.3 *Outdoor Patron Areas*

Noise measurements taken from various outdoor licensed venues have been used to predict the likely noise levels generated by students occupying the external communal space situated on the Level 2.

Assuming a maximum of 40 patrons during peak periods and 20 patron during off peak periods, Sonus conclude that the maximum noise level at the closest residential apartments is predicted to be no more than 53 dB(A) during peak meal-times, and 50 dB(A) at all other times of high activity.

In comparison, the lowest background noise levels of the existing environment were 54 dB(A) during peak activity periods, and 50 dB(A) at all other times.

Because the predicted noise levels are less than the lowest measured background noise levels, Sonus conclude that noise generated by activities occurring on the terraced level will not result in unreasonable audible impacts on occupants of the student accommodation.

6.6.4 *Service Vehicle Noise*

Council Wide PDC 94 is relevant to the assessment of noise generated by waste collection vehicles:

PDC 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.

Contrary to the above provision, waste collection is proposed to occur between the hours of 4:00am and 6:00am to minimise the impacts of collection services on the flow of traffic along North Terrace. Notwithstanding, the Sonus report also makes note of the provisions of the *Environment Protection (Noise) Policy 2007* (the Policy) which allows rubbish collection during evening hours where it can be demonstrated that maximum instantaneous noise (L_{Amax}) from the collection of rubbish does not exceed the existing maximum instantaneous noise levels (L_{Amax}) already occurring in the area.

Noise measurements contained within Appendix A of the Sonus report confirms that the instantaneous noise level within the environment regularly exceed 80 dB(A) between the hours of 4am to 6am. In comparison, a predicted maximum instantaneous noise level (L_{Amax}) of 76 dB(A) has been identified for the site. This predicted noise level has been informed by noise measurements taken of various other waste collection activities, including the collection of construction waste which is likely to have much greater audible impact when compared with the collection of domestic waste.

Notwithstanding the conservative estimate, the predicted noise level of 76 dB(A) will still be lower than the existing recorded noise level of 80 dB(A). On this basis, Sonus conclude that the collection of rubbish between the hours of 4am and 6am will not have an adverse impact on residential amenity.

6.6.5 *Noise Assessment Summary*

To summarise our assessment of the acoustic considerations for application, we are of the opinion that development has been designed to appropriately mitigate noise related impacts on all internal and external noise sources for the reasons summarised below:

- The development will include external glazing treatments recommended within the acoustic report to protect occupants of the development from excessive traffic noise along North Terrace;
- Sonus conclude that appropriate and reasonable design strategies can be implemented to minimise noise impacts resulting from the operation of the mechanical plant, in accordance with the requirements of Council Wide PDC 93;
- Recorded background noise levels generated by external noise sources will exceed the predicted noise levels generated by students congregating within the communal terrace on Level 2;
- The maximum instantaneous noise level recorded within the external environment will exceed the maximum instantaneous noise level to be generated by refuse collection activities between the hours of 4:00am and 6:00am.

6.7 Traffic

6.7.1 *Vehicle Parking and Access*

The Development Plan does not prescribe a minimum off-street parking rate for student accommodation, medium to high scale residential or serviced apartment development. Notwithstanding, the Development Plan does prescribe a maximum parking rate for development located within the 'Primary Pedestrian Area' (as is the case in this instance). By prescribing a maximum parking rate, the Development Plan policy seeks to restrict reliance on motor vehicles in areas where pedestrian infrastructure exists and pedestrian movements are encouraged.

Consistent with this policy objective, the application does not propose the provision of vehicle parking or any form of vehicle access to/from the site. Instead, the application successfully supports the policy intent to establish land uses (such as student accommodation) which rely on alternate forms of transport including public transport, cycling and pedestrian infrastructure.

Because vehicle parking is not proposed, the development does not require an access point onto North Terrace and we note that the existing cross will be reinstated with kerbing to Council's satisfaction. Accordingly, the development is also closely aligned with the following Transport and Access provisions which seek to restrict new access points onto roads within Primary Pedestrian Areas and Primary City Access roads:

PDC 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.*

PDC 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

PDC 227: *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.*

6.7.2 *Bicycle Parking*

Table 6.3 identifies the bicycle parking requirement for the proposed development/

Table 6.3 *Bicycle Parking Provision*

Type of Development	Bicycle parking space standard for employees and/or residents	Bicycle parking space standard for customers, visitors and/or shoppers
All Low, Medium, and High Scale Residential	1 for every dwelling/apartment with a total floor area less than 150 square metres. 2 for every dwelling/apartment with a total floor area greater than 150 square metres.	1 for every 10 dwellings

Source: Adelaide (City) Development Plan (Table Adel/6)

The development proposes a dedicated space within the basement for up to 44 bicycle parks. Students will access the bicycle parking room via North Terrace and the western access point, and a bike rail will be installed along the internal stairwell to facilitate the transportation of bikes to/from the storage room. An assessment of the bicycle parking supply has been performed by CIRQA (***Appendix 7***).

Applying the bicycle parking rate for low, medium and high scale residential development, the proposal would theoretically require 229 spaces, comprising 208 resident spaces and 21 visitor bicycle parking spaces.

Notwithstanding, the generic bicycle parking rate does not take into consideration the unique nature of the residential accommodation proposed in this instance. The CIRQA report notes that student accommodation tends to attract shorter accommodation periods (i.e. average accommodation periods of between 26 to 56 weeks) and accordingly, students are less likely to own bikes particularly in light of the sites proximity to key services and facilities associated with the proposed use including:

- The University of Adelaide and University of South Australian (City East and City West campuses);
- High frequency public transport which operates along North Terrace; and
- Numerous retail and entertainment offerings within walking distance of the site and accessible by a robust pedestrian network.

CIRQA also note that the bicycle parking rate proposed (i.e. 1 bicycle space per 7.75 beds) is similar to but still notably higher than other student accommodation developments in proximity to the site, including the following:

- Urbanest North Terrace (228-231 North Terrace)
  - 1 space per 12.02 'room clusters' or 1 space per 16.40 beds.
- Urbanest Bank Street (12 Bank Street)
  - 1 bicycle space per 20.96 rooms.
- Hines Property (29 Twin Street)
  - 1 bicycle space per 8.00 'room clusters' or 1 space per 24.28 beds.

The proposed bicycle parking rate is also significantly higher than the bicycle parking rate of 1 space per 38.6 beds identified within the empirical study performed by GTA Consultants for the Urbanest (North Terrace) development in 2015.

For the reasons outlined above, CIRQA concludes that the development will provide sufficient bicycle parking to satisfy the anticipated level of demand:

> *"Given that the proposed development will provide bicycle parking at a rate in excess of that identified by GTA and at a higher rate than those of nearby similar student accommodation facilities, and that the site is in close proximity to Universities, public transport and retail/entertainment offerings, the site's bicycle parking provisions are considered acceptable and appropriate."*

6.8 Waste Management

The following Council Wide Objective PDC's are considered most relevant to waste management:

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.

A Waste Management Plan has been prepared by Rawtec *(**Appendix 7**).*

In accordance with PDC 102 and 103, a communal waste storage room is located within the basement level to the rear of the building. The Waste Management Report prepared by Rawtec concludes that the waste storage area has been designed to accommodate predicted levels of waste generation. A smaller bin size of 660 litres has been selected for its ability to fit through existing window openings within the northern façade of the building, which will be converted into new access doors. Accordingly, the waste management system has been designed to minimise impacts to the external appearance of the heritage building, in accordance with the Heritage and Conservation provisions of the Development Plan.

To reduce waste transfer pathway distances each building level will include designated waste chutes, equipped with an e-diverter to facilitate the sorting and management of waste types (PDC 101). Waste collected from communal areas will be emptied into waste chutes by centre management.

Communal waste bins situated within the waste storage room will need to be swapped on a daily basis, and this process will be managed by centre management. Additional 'on-call' collections of Hard/E-Waste will occur on an as-needed bases, as determined by management.

The waste management system has also been designed in consultation CIRQA and representatives from the City of Adelaide, to minimise disruptions to the movement of traffic along North Terrace whilst waste is being

collected. As the site does not permit vehicle access from North Terrace, refuse collection vehicles will be required to service the site via North Terrace, directly opposite the site. To accommodate this arrangement the Council confirmed during the PLP meeting held on 24 June 2019 that loading dispensations will be implemented between the hours of 4:00am and 6:00am to accommodate the collection of waste. The CIRQA report attached as ***Appendix 7*** confirms Council's 'in principle' support for the waste management arrangements proposed for the development:

> *"Initial discussions were held on Tuesday 4th of June with representatives from the City of Adelaide, during which in-principle support was given for such arrangements noting the restrictions of the subject site (i.e. no other street frontage, heritage façade etc.). Given that the site is proposed to be serviced in the early hours of the morning and that no high waste generating uses are proposed within the development (such as a café or restaurant), the refuse collection arrangements are considered to be acceptable for the subject site."*

Accordingly, the Waste Management Report identifies an appropriate waste management strategy for the development. On this basis we are of the opinion that the design of the refuse storage area and method of waste collection and disposal accords with the relevant waste management provisions of the Development Plan.

7. Conclusion

The development application seeks Development Plan Consent for internal alterations and additions to a State Heritage Place and the construction of a thirty-three (33) storey (above ground level) 'student accommodation' development together with associated signage, communal areas and communal open space. The development is to occur on land located at 203 to 205 North Terrace, Adelaide.

This Planning Statement has assessed the development against the relevant provisions of the Development Plan. Further to this assessment, it is our view that the proposed development represents logical and orderly development that deserves favourable consideration for assessment for the reasons summarised below:

- The proposal to establish student accommodation is closely aligned with the key land use Objectives and PDC's of the Capital City Zone which seeks the provision of a variety of affordable forms of residential accommodations within the Adelaide CBD;
- The contemporary building design exhibits a high degree of architectural merit which responds well to the context of the locality and includes an appropriate level of varied (yet complementary) building materials to enhance articulation and visual interest, whilst simultaneously preserving the value of the State Heritage Place.
- The dual façade treatment proposed for the tower will achieve a singular, monolithic and sculptured expression, whilst the generous 4.6 metre front setback will preserve the heritage setting of the site and immediate locality;

- The development seeks consent for the adaptive reuse of a vacant State Heritage Place, which is in a state of deterioration, and the external and internal conservation works forming part of the development outweigh any adverse heritage impacts to result from the demolition works proposed;
- In accordance with the Student Accommodation provisions of the Development Plan, the development incorporates a variety of envisaged facilities (including communal open space and common areas, study spaces, breakout areas, together with dining, kitchen and laundry facilities) which will encourage student interaction and contribute to high levels of occupant amenity;
- Dual façade treatment of the proposed student accommodation tower will achieve a high degree of privacy for the occupants of south facing accommodation;
- Activated communal spaces which overlook the public realm, open floor plates to accommodate sightlines and various security measures will enhance the safety of students and visitors occupying the premises, in accordance with the crime prevention provisions of the Development Plan;
- A variety of ESD initiatives have been included within the design of the development to optimise energy efficiency and enhance apartment amenity and the external mesh cladding has been selected for its sustainability properties, including its ability to reduce solar heat loads whilst simultaneously maximising access to natural light;
- An independent wind assessment has demonstrated that the proposed development will not create adverse wind conditions within pedestrian spaces internal and external to the site;
- The proposed student accommodation does not incorporate car parking and supports the policy objective for an increase in use of alternative forms of transport including tram and bus services, and pedestrian and cycling infrastructure;
- The student accommodation development is located in proximity to key tertiary institutions located along North Terrace and will support the Development Plan objectives for the CBD to develop as South Australia's educational hub;
- The CIRQA report concludes that the provision of 44 dedicated bicycle spaces will satisfy expected demand and that the proposed bicycle parking rate exceeds that bicycle parking rates applied to other similar developments within the CBD;
- The use of building materials and acoustic screens recommended within the Sonus Report will address the interface impacts resulting from noise generated within the existing environment by North Terrace traffic noise and activities, noise generated by mechanical plant, and noise generated by service vehicle movements and activities associated with the collection of refuse;
- The Waste Management Plan confirms that the waste storage area for the development has been designed to accommodate the quantity and type of wastes expected to be generated on

site (i.e. general waste, recycling, organic waste etc.) with waste transfer pathways adequately designed to facilitate the efficient disposal of waste by private contractors; and

- The proposed development can be adequately serviced by required infrastructure (water, power, waste water, gas and telecommunications).

For the reasons outlined within this Planning Statement, the proposed development is closely aligned within the relevant provisions of the Development Plan, and the adaptive reuse of the heritage building for Student Accommodation (an envisaged use) will assist with minimising material impacts of the existing heritage place and setting.

The proposal therefore warrants a favourable assessment and the granting of Development Plan Consent.

.

203 North Terrace

Student Accommodation

Development Application

Noise Assessment

S6058C3

June 2019

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1 INTRODUCTION

A noise assessment has been made of the proposed student housing development at 203 North Terrace, Adelaide.

The assessment considers:

- The noise impact on future occupants from adjacent occupancies and common areas;
- The noise from traffic, tram and street activity on surrounding roads into the development; and,
- The noise from rubbish collection, mechanical plant and outdoor areas at the proposed development to noise sensitive land uses in the vicinity.

The assessment has been based on:

- Brown Falconer drawings “DRP01” to “DRP11” (inclusive); and,
- a site inspection of the existing premises and surrounding area on 30 May 2019.

The key noise issue for the site is the impact of traffic and tram activity on North Terrace on the amenity of the development. Specific and detailed facade acoustic treatments are recommended in this report to address the impact.

2 DEVELOPMENT PLAN

The subject site is located within a Capital City Zone (Central Business Policy Area) of the City of Adelaide Development Plan (consolidated 7 June 2018). The Development Plan has been reviewed and particular regard has been given to the following Council Wide provisions:

OBJECTIVES

Objective 9: *High-quality student accommodation that creates an affordable, safe, healthy and comfortable living environment.*

Objective 22: *Medium to high scale residential (including student accommodation) or serviced apartment development that:*

(a) has a high standard of amenity and environmental performance;

…

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

10. *Residential development specifically designed for the short-term occupation of students may provide reduced internal floor areas, car parking, storage areas and/or areas of private open space provided that:*

(f) the internal layout and facilities provide sufficient space and amenity for the requirements of student life and promote social interaction.

68. *Medium to high scale residential or serviced apartment development close to high noise sources (e.g. major roads, established places of entertainment and centres of activity) should be designed to locate noise sensitive rooms and private open space away from noise sources, or be protected by appropriate shielding techniques.*

69. *Attached or abutting dwellings/apartments should be designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.*

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.

…

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.

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.

97. Noise sensitive development adjacent to noise sources should include noise attenuation measures to achieve the following:

(a) satisfaction of the sleep disturbance criteria in the bedrooms or sleeping areas of the development as defined by the limits recommended by the World Health Organisation;

(b) the maximum satisfactory levels in any habitable room for development near major roads, as provided in the Australian/New Zealand Standard AS/NZS 2107:2000 - 'Acoustics - Recommended Design Sound Levels and Reverberation Times for Building Interiors'; and

(c) noise level in any bedroom, when exposed to music noise (L_{10}) from existing entertainment premises, being:

(i) less than 8 dB above the level of background noise ($L_{90,15\ min}$) in any octave band of the sound spectrum; and

(ii) less than 5 dB(A) above the level of background noise ($L_{A90,15\ min}$) for the overall (sum of all octave bands) A-weighted levels.

Background noise within the habitable room can be taken to be that expected in a typical residential/apartment development of the type proposed, that is inclusive of internal noise sources such as air conditioning systems, refrigerators and the like as deemed appropriate.

3 Acoustic Separation of Occupants

3.1 Building Code of Australia

The *National Construction Code* (NCC) Building Code of Australia (BCA) provides mandatory criteria for the transmission of sound between attached dwellings. Part F5 of the BCA, titled "Sound Transmission and Insulation", sets out acoustic separation criteria "to prevent illness or loss of amenity to the occupants". Therefore, where compliance with the BCA is achieved it is considered that the Development Plan provisions relating to amenity between occupants and common areas will be satisfied.

The BCA provides requirements for acoustic separation in Class 2 and 3 buildings, such as the proposed student accommodation. The requirements cover:

- Walls separating sole-occupancy units;
- Walls separating a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or parts of a different classification;
- Doors incorporated in a wall that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like;
- Noise transfer from ducts and pipework into sole-occupancy units;
- Floors between sole-occupancy units; and
- Floors separating a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.

3.2 Assessment

It is common that the internal constructions are not determined at the Development Application stage of a project as these are designed during the detailed design stage. However, the BCA requirements are mandatory at the building rules consent stage of the project and adequate wall, floor/ceiling and door duct and pipework constructions will be incorporated into the building documentation to ensure the criteria are achieved. The Development Plan provisions relating to amenity between occupants and from adjacent common spaces will therefore be satisfied.

4 NOISE INGRESS TO THE DEVELOPMENT

4.1 Assessment Criteria

The noise sources with the highest potential to impact upon the development are traffic, trams, and street activity on North Terrace.

The appropriate noise criteria for intrusion of noise into a housing development are derived from the provisions of the Adelaide City Council Development Plan which refer to the recommendations of the Australian Standard *AS 2107:2000 – Acoustics – Recommended design sound levels and reverberation times for building interiors*[1] and the World Health Organisation Guidelines with respect to sleep disturbance. The contemporary Minister's Specification *SA 78B Construction requirements for the control of external sound* to has also been considered.

4.1.1 World Health Organisation Guidelines

Council Wide Principle of Development Control (CWPDC) 97(a) refers to the objective recommendations of the World Health Organisation for sleep disturbance.

The World Health Organisation (WHO) has developed guidelines for community noise in specific environments. To protect against the potential onset of sleep disturbance effects in bedrooms, the WHO suggests a long term goal noise level of 30 dB(A) L_{eq}.

4.1.2 Australian Standard AS 2107

CWPDC 97(b) makes particular mention of Australian Standard *AS 2107:2000 – Acoustics – Recommended design sound levels and reverberation times for building interiors* (the Standard).

The Standard provides recommended internal noise levels for different types of building occupancies and activities. Table 1 details the recommended internal noise levels for different types of occupancies in a residential building environment.

[1] AS 2107 was updated in 2016. The 2016 version of AS 2107 has been used for this assessment.

Table 1: Recommendation of AS2107.

Type of Occupancy/Activity	Recommended Design Sound Levels (dB(A))
Sleeping areas	35 to 40
Living areas	35 to 45
Work Areas	35 to 45

4.1.3 Minister's Specification SA 78B

The intent of the Minister's Specification *SA 78B Construction requirements for the control of external sound* (SA 78B) is to protect the occupants of residential buildings from the sound intrusion of transport corridors and from mixed use activity. To this end, SA 78B establishes internal noise levels or "performance requirements".

The objective assessment criteria applied to a development for internal noise levels are detailed in Table 2, which are provided by SA 78B.

Table 1: Noise criteria provided by SA 78B for transport corridors.

Type of room	Internal Sound Criteria		Applicable time period
	Average for total number of rooms	Maximum for individual room	
Bedroom	30 *dB(A)* $L_{Aeq,\ 9hr\ (transport)}$ 30 *dB(A)* $L_{Aeq,\ 15min\ (people)}$	35 *dB(A)* $L_{Aeq,\ 9hr\ (transport)}$ 35 *dB(A)* $L_{Aeq,\ 15min\ (people)}$	Night (10pm to 7am)
Other habitable room	35 *dB(A)* $L_{Aeq,\ 15hr}$	40 *dB(A)* $L_{Aeq,\ 15hr}$	Day (7am to 10pm)

For a particular site, the need to comply with SA 78B is established by "designation" in the Development Plan. The subject site has not been designated in the Development Plan and therefore SA 78B does not strictly apply but has been considered to provide the most contemporary approach.

4.1.4 Summary of Assessment Criteria for Noise Ingress

Based on the above, the following criteria are adopted for external noise intrusion into the proposed apartment development:

- an average noise level (L_{Aeq}) of 30 dB(A) across the total number of bedrooms/sleeping areas and a maximum of 35 dB(A) for any bedroom/sleeping area; and,
- an average noise level of 35 dB(A) across the total number of living/lounge/kitchen and common areas and a maximum of 40 dB(A) in any living/lounge/kitchen area;

4.2 Assessment

It is understood that the facade design of the proposed building generally consists of precast concrete walls and glazing.

4.2.1 Method

In order to assess the building construction against the noise intrusion criteria, the external noise levels have been measured and predictions made of the façade constructions required to achieve the criteria.

The most common and contemporary approach for an environment with traffic is to assess the external levels at night over a 9 hour period from 10pm to 7am ($L_{Aeq,9hr}$) and for the day, over a 15 hour period from 7am to 10pm ($L_{Aeq,15hr}$).

The external noise level at 203 North Terrace has been measured at the existing building over a period of 24 hours, as provided in Appendix A. A Rion Class 1 sound level meter was used to measure the noise level at a second story window from 30 to 31 May 2019 on the North Terrace Facade. Based on the measurements, a noise model of the proposed development and the impact of activity on North Terrace has been calibrated to a night time 9 hour average noise level of 62 dB(A) and a day time 15 hour average noise level of 68 dB(A) at the measurement location. The noise model has been used to determine the influence of North Terrace at each of the facades for all levels of student accommodation.

4.2.2 Recommended Acoustic Treatment

Based on the noise model at each of the facades and levels of the proposed development, the following glazing will be required to achieve the criteria within the rooms of the development;

- Minimum 10.38mm thick laminated glass to all northern façade windows up to level 22;
- Minimum 6.38mm thick laminated glass to all other glazed façade elements, including common areas; and
- Acoustic seals to the doors from the common area to outdoor area on level.

5 NOISE FROM THE DEVELOPMENT

Potential noise sources at the development are plant and equipment associated with the mechanical services system, collection of rubbish and patrons in the outdoor area on level 2. The closest noise sensitive locations to the development are the multi-level apartment buildings at 196 and 223 North Terrace.

The designated locations for mechanical plant on top of the roof, within the basement and on level three provide shielding and a good separation distance between the plant and surrounding noise sensitive locations. A preliminary assessment has been conducted to determine whether the established noise criteria can be practicably achieved during the detailed design stage of the mechanical services system.

The outdoor area on level 2 provides a common outdoor space for the occupants of the building. It is not dissimilar in nature to balconies which might otherwise be provided on a room by room basis. Notwithstanding, an objective assessment has been made given the potential for it to be used at a higher frequency and by a higher number of patrons.

5.1 Criteria

5.1.1 Mechanical Plant

Objective criteria have been considered for the design of the mechanical services system in order to prevent adverse impacts at the existing surrounding dwellings.

CWPDC 93 of the City of Adelaide Development Plan provides the relevant objective criteria for noise from mechanical plant and equipment at the development, which are as follows:

- 55 dB(A) L_{Aeq} during the daytime (7am to 10pm); and,
- 45 dB(A) L_{Aeq} during the night-time (10pm to 7am).

The criteria are to be achieved with the noise measured and adjusted at the nearest existing noise-sensitive land use in accordance with the *Environment Protection (Noise) Policy 2007*.

5.1.2 Outdoor Patron Areas

A common method of assessment for patron noise is to compare the predicted noise levels with the background noise level. Where the predicted noise from patrons is no greater than the existing background noise levels, it is considered that there will be no impact on amenity. In this instance, the lowest measured background noise level measured was 50 dB(A) at any time of the day or night and 54 dB(A) at peak activity times when the highest number of patrons would be expected, such as during meal times.

5.1.3 Rubbish Collection

Council-wide Principle 94 of the City of Adelaide Development Plan deals with waste collection and deliveries by effectively limiting the hours to the least sensitive portions of the day. The *Environment Protection (Noise) Policy 2007* (the Policy) has a similar approach but allows rubbish collection to occur at night where the noise does not have an adverse impact on amenity. In accordance with the Policy, rubbish collection will not have an adverse impact on amenity, if the maximum instantaneous noise (L_{Amax}) from the rubbish collection does not exceed the maximum instantaneous noise levels (L_{Amax}) already occurring in the area. The current maximum instantaneous noise in the environment regularly exceeds 80 dB(A) between the proposed rubbish collection times of 4am to 6am.

5.2 Assessment

5.2.1 Mechanical Plant

It is understood that the mechanical plant serving the building will predominantly be water-cooled, with chillers within the level 3 plant room and cooling towers at the roof level.

It is common for final selections and detailed layouts for the mechanical services plant and equipment to not be available at this stage of the project.

As the layouts progress through the detailed design phase of the project, acoustic treatments will be incorporated into the design documentation to ensure compliance with the project criteria recommended above.

Notwithstanding, a preliminary prediction of the noise from typical plant from other similar projects indicates the following acoustic treatment might be required to ensure the provisions of the Development Plan are achieved;

- Upgrading of the ventilation louvres to the level 3 plant room to be acoustically rated; and,
- Specific ventilation to the plant area at the basement level which includes internally lined ductwork which is acoustically rated; and,
- Potential screening of the rooftop plant, depending on final location relative to nearby receivers.

5.2.2 Outdoor Patron Areas

The noise from patrons in the level 2 outdoor area has been predicted based on previous measurements of patrons in a number of outdoor areas of licenced venues.

The predictions have also been based on the assumption of 40 patrons using the outdoor area at peak times and 20 outside of the peak times.

The noise level at the nearby apartments is predicted to be no more than 53 dB(A) during peak meal times and 50 dB(A) outside of these times of high activity. The predicted noise levels are less than the lowest measured background noise levels at the corresponding times and therefore it is considered no unreasonable impact will result from use of the area.

5.2.3 Rubbish Collection

The maximum instantaneous noise level (L_{Amax}) from rubbish collection has been predicted based on previous noise measurements of similar activity including disposal of construction waste. It is understood that rubbish collection at the proposed site will consist of domestic style “wheelie bins” and therefore the predictions provided in this report are expected to be an over estimate of the noise level from the proposed rubbish collection.

Notwithstanding, a noise level of 76 dB(A) at the residences is predicted for rubbish collection at the closest point to the existing residences. Given that existing maximum noise levels during the proposed hours of rubbish collection are frequently above 80 dB(A), it is considered that the noise from rubbish collection will be within the range of existing activity at residences and will therefore not have an adverse impact on amenity.

6 CONCLUSION

A noise assessment has been made for the proposed student housing development at 203 North Terrace, Adelaide.

The external noise ingress into the proposed development includes noise from traffic on surrounding roads and the tram line.

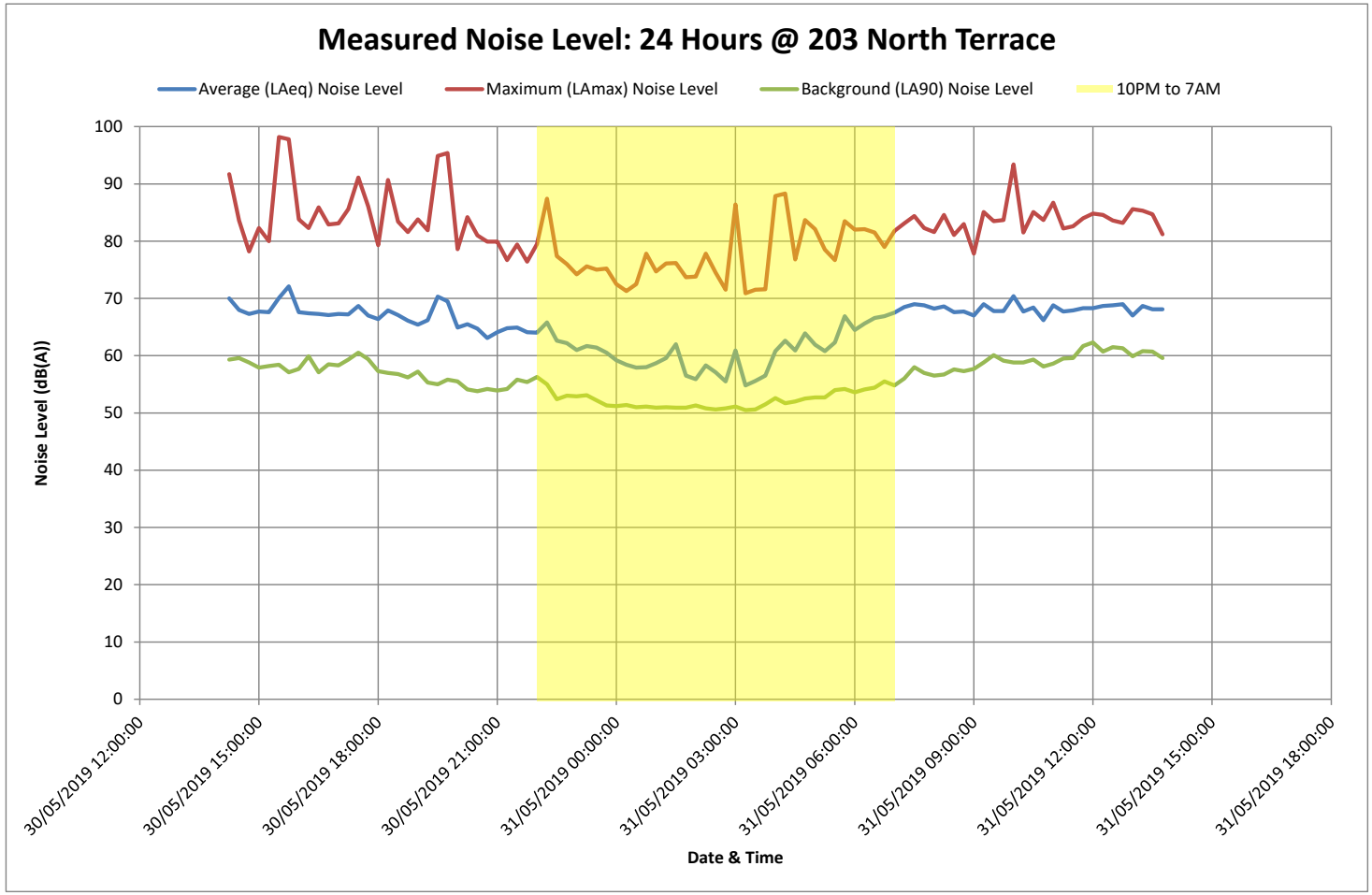
The main noise sources at the proposed development are the mechanical services plant and equipment, patrons in the outdoor area and rubbish collection.

Objective noise criteria have been developed based on the relevant provisions of the Adelaide City Council Development Plan and the *Environment Protection (Noise) Policy 2007* for the above noise sources.

Noise predictions have been made and specific facade treatment has been recommended for the proposed building to satisfy the acoustic requirements of the Adelaide City Council Development Plan.

The noise from mechanical plant at the site should be reviewed as the design selections progress and become available to ensure the noise criteria are achieved. The internal acoustic separation will be considered at the building rules consent stage in accordance with the mandatory criteria of the BCA.

APPENDIX A: Noise Logging Results



Think beyond the square

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Governance
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Student Accommodation Tower

203 North Terrace, Adelaide

ESD Strategy

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1	30/05/2019	First Draft Issue	JB	PD
2	27/06/2019	Second Issue for coordination	JB	PD
3	03/07/2019	Third Issue	JB	PD
4	03/07/2019	Amended to suit Client comments	JB	PD

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1 Introduction

This report proposes the Sustainability Vision and overriding principles proposed for the Student Accommodation Tower at 203 North Terrace, Adelaide, and the Ecologically Sustainable Development (ESD) strategies that will be employed to reduce the development's impact on the environment in both construction and operation.

This report is based on a review of the building design prepared by Brown Falconer, and the commitments made at planning stage by the Client.

A separate "Façade ESD Review" report has been prepared to detail the ESD performance reviews of the façade throughout the design development phase, and should be read in conjunction with this report.

This report has been prepared Paul Davy, a Director of consultancy firm dsquared. Paul has over 30 years' experience in the UK, Europe, Asia and Australia as an engineering, ESD, and sustainability consultant. Paul holds IEng and MCIBSE Accreditation, is a Green Star Certified Assessor, a Green Building Council of Australia Teaching Faculty Member, an Ambassador for the Living Futures Institute of Australia, and a member of the South Australian Government ODASA Design Review Panel.

"A Place for Wellness"

The sustainability vision for the development is to create *a place designed for wellness*, *where the residents can be healthy*, *and* are helped by the built environment to *feel good*.

Drawing on the initiatives and concepts of the International Well Building Institute, the development will offer every opportunity for the residents to experience:

A Healthy Mind

- communal spaces provide opportunities for shared dining, study, and relaxation
- extensive access to outside views, landscaping, and nature
- communal information portal for sharing news and social events

A Healthy Body

- promotion of cycling
- community garden
- easy connectivity to local amenities by foot

Thermal Comfort

- high performance façade and thermal insulation
- computer optimised façade design
- circulation fans for added thermal comfort

Daylight

- windows with high transparency glazing in all bedrooms and common areas
- external mesh screen and internal blinds for glare control

Connectivity

- natural ventilation
- views to outside

Images courtesy of the International Well Building Institute

3 Sustainability Initiatives

3.1 Energy and Greenhouse Gas Emissions

The following Energy initiatives are included:

- The façade will comprise of a high performance low-E glazing system, supplemented with an external mesh shading screen to all elevations. All component selections will be optimised using building energy performance modelling and simulation.
- High efficiency reverse-cycle air conditioning system with individual controls per accommodation unit and common area zone.
- Circulation fans provided within cluster living areas and common areas to reduce occupant demand for air-conditioning.
- 25kW roof mounted solar PV array to provide a source of on-site renewable energy.
- High-efficiency gas-fired centralised domestic hot water systems.
- All lighting to be high-efficiency LED.
- Lighting energy will be reduced via use of daylight and motion-sensor controls in common areas to reduce lighting operation when the space is unoccupied or when daylight levels are sufficient.
- Master shutdown switches will be provided at the entry door to each accommodation unit to enable residents to easily switch off lighting, air-conditioning, and appliances upon leaving the unit.
- Air leakage pressure testing will be performed on a representative sample of the façade to NCC 2019 standards for air tightness, with a targeted maximum air leakage rate of $5m^3$ per sqm at 50Pa when tested to ATTMA TSL2.
- A building energy management system with smart metering will be provided to automatically record and monitor the building's resource use and establish trends and profiles to assist with the ongoing control of energy use. This information will be accessible by facilities management staff.
- External surfaces on roof and building façade will be finished with materials with a high solar reflective index (SRI) to reduce the urban heat island effect.
- All thermal insulation will have an Ozone Depletion Potential (ODP) of zero in both its manufacture and composition.

3.2 Water

The following Water initiatives are included:

1. Selecting water-efficient fittings with the following minimum WELS ratings:
    - Taps - 6 stars
    - WCs - 4 stars
    - Showers - 3 stars
2. Selecting water-efficient whitegoods within one star of the highest available WELS rating.
3. Stormwater systems designed such that historic peak stormwater outflows should not be exceeded, and all stormwater is appropriately treated before discharge to sewer.
4. Fire protection services to be provided with a test water recycling facility.
5. Selecting appropriate landscape and internal planting to minimise irrigation water use. Where fixed irrigation is provided, this will consist of timer-controlled in-ground drip systems.

3.3 Transport

The following Transport initiatives are included:

1. Providing secure bicycle storage facilities for residents and not providing any on-site carparking, to encourage use of low-carbon transport methods.
2. Providing power outlets dedicated for e-bike charging within the bicycle storage room.
3. Facilitating the use of public transport by displaying service scheduling information on interactive touch-screens in common areas.

3.4 Community and Social Sustainability

The following social sustainability initiatives are included:

1. Large, open common areas will be provided for residents' use, including kitchen and dining area, gaming room, study room, and external terrace.
2. A common information and data sharing portal will be used throughout the building, accessible via an online interface available to all residents, and will include ESD-specific information on the building's sustainability initiatives, resource consumption performance including energy and water usage, and electricity generation from the building's solar PV system.
3. All external lighting will be designed to ensure that light levels at neighbouring boundaries are compliant with the obtrusive lighting requirements of AS 4282, and that light spill to the night sky is minimised.

3.5 Occupant Wellness

The following initiatives are included to enhance occupant wellness:

1. Natural ventilation via occupant-controlled windows to all accommodation units.
2. Circulation fans provided in cluster living rooms and common areas for enhanced thermal comfort.
3. Daylight penetration to all bedrooms and common areas, achieving a daylight factor of at least 2% to a minimum of 40% of the floor area.
4. External mesh shading screen to all elevations and internal blinds to reduce glare from solar radiation.
5. Biophilic design principles utilised including use of natural materials and imagery, indoor planting, and views to outside.
6. All toilet, bathroom, and shower areas provided with ducted mechanical exhaust systems discharging to outside and separated from air intake points.
7. External traffic noise reduction such that internal maximum noise levels comply with AS 2107.
8. Shared indoor and outdoor cooking facilities provided to facilitate self-preparation of meals and encourage healthy eating patterns.
9. Using paints, sealants, adhesives, carpets, coverings and furniture with low off-gassing properties (e.g. low VOC and low formaldehyde content).

3.6 Waste

The following Waste initiatives are included:

1. New material construction waste will be minimised through efficient design techniques including standardisation and wherever practicable off-site pre-fabrication.
2. All Construction waste will be managed via the implementation of an approved Environmental Management Plan.
3. A minimum of 90% of all construction waste will be diverted from landfill. All Construction waste will be sorted and binned on site to facilitate ease of recycling.
4. Waste disposal points will be provided on each floor with waste chute droppers provided to deliver waste to a ventilated bin room at ground level. Two chutes will be used to facilitate separation of waste streams. Collection bins for general waste and commingled recycling at ground level will be sized in accordance with best-practice guidelines for waste management.
5. Shared facilities and equipment will be provided in common areas including laundry facilities, cooking facilities, and entertainment/gaming equipment, which will reduce the residents' demand for purchasing such items and hence reduce their material footprint.

3.7 Construction

The following Construction initiatives are included:

1. Selecting locally sourced materials wherever viable.
2. Selecting materials with a comparatively low embodied energy/carbon profile e.g. timber in preference to steel, where practicable.
3. Selecting building materials with a recycled material content e.g. thermal insulation, and reinforcement bar, where viable.
4. Using FSC or AFC certified timber products.
5. Avoiding PVC products where possible, but where essential will be Best Practice Certified PVC.
6. Using off site pre-fabrication techniques to reduce on site construction time, waste, and greenhouse gas emissions, wherever practicable.

203 North Terrace Student Accommodation Tower

Façade ESD Performance Assessment – Rev A – 03.07.2019

Background

The façade scheme presented in the DRP drawing set dated 17th June 2019 by Brown Falconer, which features an external mesh with a proposed free area of 65% suspended to each façade, has been analysed using building performance modelling and simulation to quantify its thermal performance, energy performance, daylight amenity, and quality of views to outside. The previous façade scheme as per the DRP drawing set dated 17th May 2019, which featured horizontal shading blades projecting from the façade at each floor level in lieu of the mesh, has been used as the baseline for comparison to measure the performance of the current scheme.

Executive Summary

North elevation

The proposed option with a 65% free area mesh (based on the GKD "Tigris PC" product – refer appended) achieves a similar level of thermal and energy performance to the previous façade scheme (within 5%), and enables use of a more transparent neutral glazing (50-60% transparent) in lieu of a dark grey glazing (< 30% transparent) while still maintaining compliance with Section J glazing requirements.

If access and support platforms are inserted at each floor level (as opposed to being inserted only on the common area floors, as drawn), these would act as horizontal shades to complement the vertical mesh, and reduce the peak thermal loads by 7% on the north façade. The benefit from this shading also enables a more transparent mesh (up to 75% free area) to be used for the same energy and thermal performance.

East and West elevations

The use of mesh with a 65% free area provides minor improvements to the thermal and energy performance in the common corridors, when compared to the previous façade scheme (7% and 9% improvement, respectively).

Significantly greater performance improvements can be achieved by (a) using a darker glazing type, and (b) using a higher-density mesh (e.g. 50% free area). These options would provide further reductions in cooling energy demand in the common corridors.

South elevation

The use of an external mesh on the south elevation does not provide any benefit to the building's thermal or energy performance.

Analysis

North elevation

The following options have been assessed for the north façade:

- Baseline option: previous façade scheme, as per the DRP drawing set dated 17th May 2019
- Option A: current façade scheme, as per the DRP drawing set dated 17th June 2019, using GKD "Tigris PC" mesh (refer to appended for details)
- Option B: as per Option A but with mesh access and support platforms installed on each floor, which also act as horizontal shading elements
- Option C: as per Option B but with lower-density mesh (75% free area)

Option	Mesh Free Area	Glazing Type	Example glazing product	Solar Heat Gain Coefficient (SHGC)		Visible Light Transmittance (VLT)		A/C Energy Usage		Peak Thermal Load		Daylight		Comment on view to outside
				Glazing only	Glazing + Mesh	Glazing only	Glazing + Mesh	Modelled Result (kWh/m² p.a.)	Comparison to Base Option	Modelled Result (W/m²)	Comparison to Base Option	Modelled Result (average lux level)	Comparison to Base Option	
Base Option	N/A – No mesh used	Single glazing, grey glass	Viridian Enviroshield ITO Grey 33 – 12.76mm	0.30	0.30	25%	25%	33.1	-	82	-	959	-	Low clarity glass.
Option A	65% (Tigris PC)	Single glazing, neutral glass	Viridian ComfortPlus Neutral 10.38mm	0.47	0.28	60%	31%	33.5	+1%	86	+5%	1066	+11%	High clarity glass. View partially obstructed by mesh.
Option B	65% (Tigris PC)	Single glazing, neutral glass	Viridian ComfortPlus Neutral 10.38mm	0.47	0.28	60%	31%	32.2	-2%	80	-2%	1043	+9%	High clarity glass. View partially obstructed by mesh.
Option C	75%	Single glazing, neutral glass	Viridian ComfortPlus Neutral 10.38mm	0.47	0.33	60%	36%	32.8	-1%	81	-1%	1101	+15%	High clarity glass. View partially obstructed by mesh.

Simulation results - north elevation

The external mesh on the north façade enables a neutral glass to be used in lieu of a grey glass (as per Option A), which significantly increases daylight levels without compromising energy performance. The clearer glass also enhances the quality of external views looking north.

Inserting mesh access and support platforms at each floor level (as per Options B and C) provides additional shading which improves the energy performance and reduces the peak thermal loads. This also enables the mesh free area to be increased to 75% on the north elevation (as per Option C), and still achieve Section J compliance using a neutral glass. The higher-transparency mesh increases the daylight levels and enhances the quality of external views, without compromising the energy or thermal performance. (Note that if the free area is increased beyond 75%, the shading benefit of the mesh is lost, and a grey glass would be required to achieve compliance with the Section J Deemed-to-Satisfy glazing requirements.)

East and West elevations

The following options have been assessed for the east and west elevations:

- Baseline Option: previous façade scheme, as per the DRP drawing set dated 17th May 2019
- Option A: current façade scheme, as per the DRP drawing set dated 17th June 2019, using GKD "Tigris PC" mesh (refer to appended for details)
- Option B: as per Option A but with darker glass used for further control of solar loads
- Option C: as per Option B but with mesh access and support platforms installed on each floor, which also act as horizontal shading elements
- Option D: as per Option C but with higher-density mesh (50% free area)

Option	Mesh Free Area	Glazing Type	Example glazing product	Solar Heat Gain Coefficient (SHGC)		Visible Light Transmittance (VLT)		A/C Energy Usage		Peak Thermal Load	
				Glazing only	Glazing + Mesh	Glazing only	Glazing + Mesh	Modelled Result (kWh/m² p.a.)	Comparison to Base Option	Modelled Result (W/m²)	Comparison to Base Option
Base Option	N/A - No mesh	Single glazing, clear glass	Viridian VFloat Clear 6mm	0.80	0.80	85%	85%	222.9	-	181.0	-
Option A	65% (Tigris PC)	Single glazing, clear glass	Viridian VFloat Clear 6mm	0.80	0.56	85%	53%	203.3	-9%	168	-7%
Option B	65% (Tigris PC)	Single glazing, grey glass	Viridian ComfortPlus Grey 37 - 10.38mm	0.37	0.26	36%	22%	128.6	-42%	147.6	-18%
Option C	65% (Tigris PC)	Single glazing, grey glass	Viridian ComfortPlus Grey 37 - 10.38mm	0.37	0.26	36%	22%	109.5	-51%	142.9	-21%
Option D	50%	Single glazing, grey glass	Viridian ComfortPlus Grey 37 - 10.38mm	0.37	0.20	36%	17%	138.1	-38%	126.2	-30%

Simulation results – east/west elevations

The mesh screen provides a minor benefit to the energy and thermal performance (Option A), however much greater performance improvements are achieved through the use of a darker glass on the east and west elevations (Option B).

Inserting mesh access and support platforms at each floor level (Option C) provides some additional shading and results in a minor benefit to the energy and thermal performance.

The use of a higher-density mesh on the east and west elevations (Option D) provides a further reduction in peak thermal load in the corridors. The denser mesh is particularly beneficial for protection against heat gains in the early morning and late afternoon, when the sun projects onto the windows at a lower angle.

Note that daylight and views were not assessed for the east and west facades, as the majority of east and west windows are within corridors that will be used transiently and hence daylight and views are typically less of a concern in these spaces.

South elevation

The glazing requirements for the south elevation are largely unaffected by the type of shading system provided. Therefore the introduction of a vertical mesh does not alter the type of glazing that can be used on the south, nor does it have any benefit on the building's energy or thermal performance.

Glazing performance

Based on the proposed façade design with the external shading mesh, Section J compliance can be achieved using single glazing throughout the development, and hence all options presented in this report are based on single glazing for the purposes of measuring and comparing the impact of the shading mesh on the overall façade thermal performance. However, the option to utilise double glazing in combination with the external mesh for further improved thermal performance will be explored during design development.

Conclusions

The external mesh in the current façade scheme enables a lighter glass to be used on the north elevation, which enhances daylight levels and the quality of external views looking north.

If mesh access and support platforms are inserted at each floor, a more transparent mesh can be used on the north elevation of up to 75% free area.

For the east and west elevations, the use of darker glazing (SHGC 0.35 or less) and a denser mesh (free area 50% or less) is recommended to control thermal loads and reduce cooling demand in the common corridors.

APPENDIX - PROPOSED EXTERNAL MESH SCREEN

Tigris PC

Product Specifications

Rigid

Material	AISI Type 316 SS
Open Area	65%
Weight	1.40 lbs/sqft
Max. width	101"

> 8 ft in both directions must ship flat - contact GKD for larger size restrictions

System Components

Ceiling Clip System
Flat & angle
Flats with flat eye
Flats with clevis
Frame
U-binding frame

Applications

Safety and Security
Custom Metal Wire Mesh Partitions

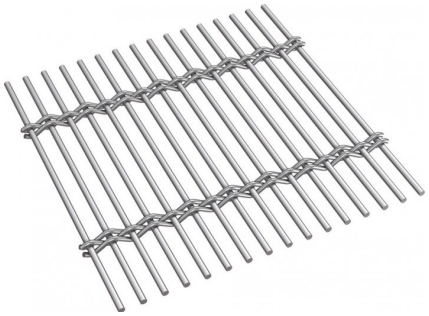
North American Headquarters

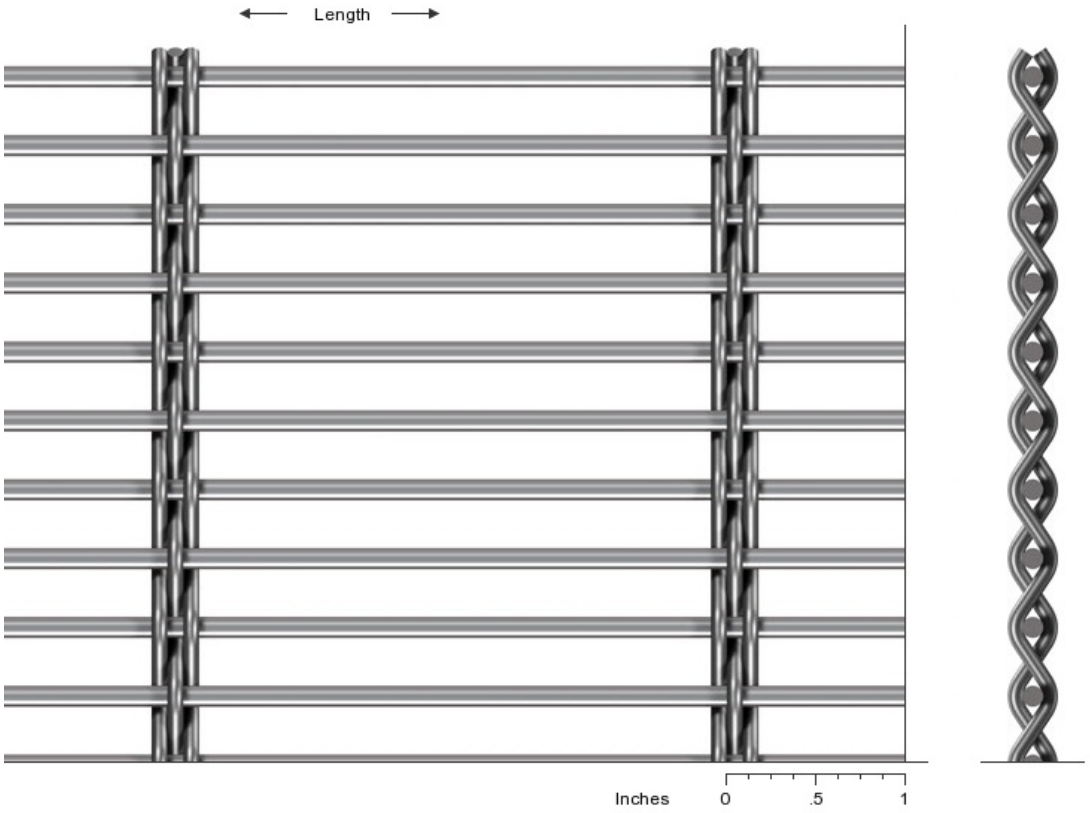
North America
GKD-USA, Inc.

825 Chesapeake Drive
Cambridge MD 21613
Direct: 410.901.8429 or 410.901.8428
Fax: 410-221-0544
metalfabrics@gkdusa.com

SUNSHADING

Please refer to page 2 for Solar Control Data





Tigris PC

SUNSHADING

GKD-USA offers a complete sunshade technical program. Our engineering team works with you to provide an assessment and application analysis to your specific need or project. GKD Metal Fabric Sunshading Façades offer significant energy saving, comfort, and a pleasant work environment by filtering light and providing transparent views to the outside.

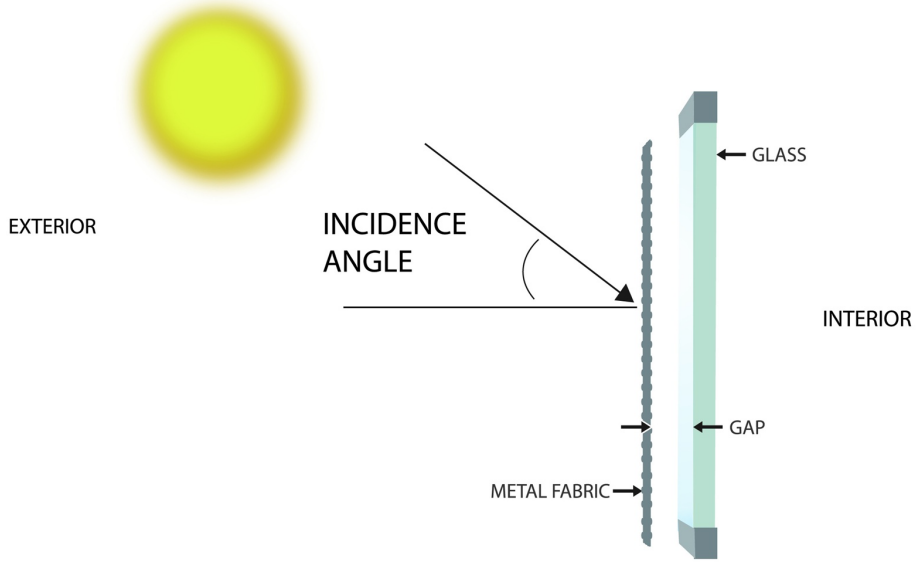
North American Headquarters

North America
GKD-USA, Inc.

825 Chesapeake Drive
Cambridge MD 21613
Direct: 410.901.8429 or 410.901.8428
Fax: 410-221-0544
metalfabrics@gkdusa.com

Solar Control Data

Percentage of Visible Light Transmittance	Minimum 0.47, Maximum 0.67
Percentage of Visible Light Reflectance	Minimum 0.15, Maximum 0.21
Solar Gain Coefficient (SHGC)	Minimum 0.33, Maximum 0.45



SOLAR CONTROL DATA NOTES:

Test per EN 410 "Glass in building - Determination of luminous and solar characteristics of glazing"
SHGC per EN 13363-1 "Solar protection devices combined with glazing - calculation of solar and light transmittance"
Glazing system constants: Uglazing = 1.2 W/m²K, gglazing= 0.60
TVtot = Visible light transmittance
PVtot = Visible light reflectance
gtot = Solar Heat Gain Coefficient (SHGC)

DASH Architects is one of the State's leading practices in the provision of specialist heritage services. Over the past 45 years it has helped establish benchmarks for the approach to management, refurbishment and redevelopment of heritage assets in South Australia.

Operating across the full range of the architectural disciplines enables DASH Architects an appreciation of the role of cultural heritage within the broader design process, as one of many factors that influence project outcomes.

This flexible and integrated approach is based primarily on contemporary community values and traditions. Within this framework there is an acknowledgement that while the preservation of heritage fabric is important, it is only one of many considerations when assessing the cultural significance of a place.

Heritage Impact Statement for Proposed Redevelopment of 203 North Terrace for Student Accommodation

DA173445 – 26.06.2019

1.0 Introduction

DASH Architects has been engaged by Accord Property (the Applicant) to provide heritage advice and to prepare this Heritage Impact Statement (HIS) in relation to the proposed student accommodation redevelopment of 203 North Terrace, Adelaide (the Site).

Specifically, this report has been prepared by David Holland, Director of DASH Architects. I have also provided advice to the Design Team as it prepared the Application. Details of my qualifications and experience are set out below.

In preparing this Heritage Impact Statement, I have:

- Visited the site and locality;
- Attended various meetings with the Applicant's Architects Brown Falconer (the Design Architects);
- Reviewed Adelaide (City) Development Plan (consolidated 07 June 2018) (The Development Plan);
- Reviewed various iterations of design proposals; and
- Reviewed the architectural documents to be lodged for Development Plan Consent (Brown Falconer's Drawings # 2017049 190617 DRP Issue).

As further background, I also oversaw the preparation of a Conservation Management plan for the broader site in 2013 and have previously assisted with other proposals for this site. In the course of this work I have had numerous discussions regarding the property with Peter Wells of The Heritage Branch of the Department for Environment and Water (DEW).

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2.0 About the Author

I am an architect and heritage consultant with over 20 years of consulting experience. Since 2000, I have been a Director of DASH Architects (Danvers Schulz Holland Architects Pty Ltd), a multi-disciplinary practice providing professional services in the fields of Architecture & Interiors, Heritage, and Urban Design. Of the professional services it offers, DASH Architects specialise in contextual architecture and urban design within zones of heritage significance, adjoining heritage items or as extensions and modifications to heritage items themselves.

As part of DASH Architects, I have been responsible for, or overseen, numerous significant heritage projects (including multiple award winners), significant architectural projects, Conservation Management Plans and conservation projects.

As part of Local Heritage PARs/DPAs, or as part of Development Applications or appeals, I have prepared numerous Heritage Significance Reports, assessing properties against the relevant listing criteria and Development Plan provisions, and Heritage Impact Statements, assessing the impact of proposed Development on the heritage values of Places.

I am also regularly asked to provide expert heritage and design advice to other architects, designers and applicants in relation to proposed developments.

I am a Fellow of the Australian Institute of Architects (RAIA). I have previously been its State President, a National Director, and a member of the National Practice Committee. I was also a Chapter Councillor and chair of the State Practice Committee. I have sat on the Architectural Practice Board of South Australia. My practice is a member of the Association of Consulting Architects - Australia and I have been a member of its SA Branch Committee.

I have also been, and continue to be, a member of various State and National Visiting Panels responsible for the accreditation of the Architectural courses at the University of Adelaide and at the University of South Australia.

3.0 Background

3.1 The Site

The Site of the proposed development is highlighted in red on the image below (Image 01). Brown Falconer's Location Plan within the drawing set noted above, shows it in more detail.

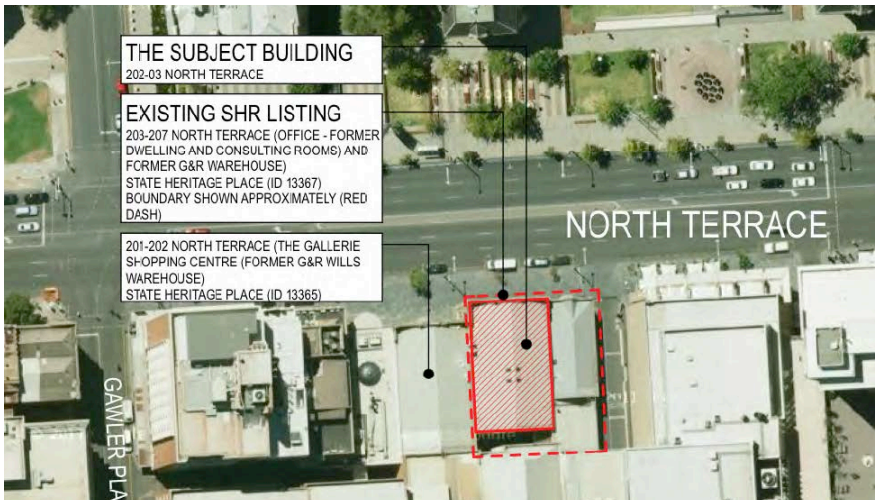


IMAGE 01 – Image showing subject site and extent of associated listing (taken from DASH Architects' CMP 2013).

The Site contains a single building with two above ground storeys and a basement storey. The ground floor is set above the pavement level and the basement has windows to its North Terrace façade (see Image 02 below). The Building is of stone construction with timber floors, ceilings and structure and a metal deck roof with timber structure. It covers most of the site, abutting the boundary to the north, east and west, but there is a small light well at its southern boundary. It has timber framed windows and doors to the north and south and door openings to the west and east connecting it to the adjoining buildings.

The Building was originally part of a wider complex (discussed further below) that included the similar building to its west (200 North Terrace) and the related, but different, former office building to its east. All three buildings are held by different owners and are on separate titles.

The Design Architects and Consulting Planner will, no doubt, describe both the site and the building in further detail as part of their submissions.

IMAGE 02 - Elevation - existing. (taken from previously documented proposal by GHD Woodhead)

3.2 State Heritage Listing

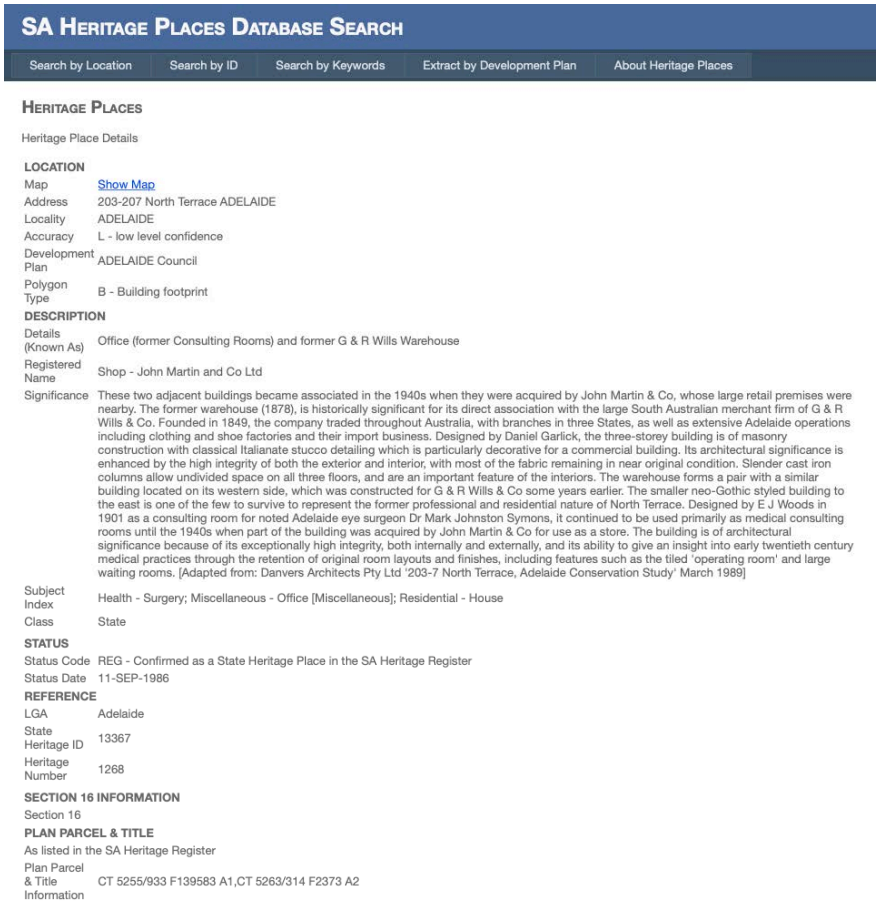
The subject site, 203 North Terrace, is a State heritage listed place.

The current listing includes both the subject building and the neo-Gothic former residence and consulting rooms immediately adjacent to the east. The 2013 DASH Architects' CMP recommended that the current State heritage listing be revised so that each individual building is State heritage listed separately. This has however not occurred.

202-203 North Terrace also relates both architecturally and culturally to the building abutting to the west, which is also a former G & R Wills & Co warehouse, however this building (known as 'The Gallerie') falls under a separate State heritage listing (and is on a separate title).

For ease of identification, in this document I have referred to the subject site as the 'western component' and the former dwelling as the 'eastern component'.

Below (Image 033) is an extract from the SA Heritage Places Database. Further details can be found in DASH Architects' CMP , 2013.



SA HERITAGE PLACES DATABASE SEARCH

Search by Location | Search by ID | Search by Keywords | Extract by Development Plan | About Heritage Places

HERITAGE PLACES

Heritage Place Details

LOCATION

Map	Show Map
Address	203-207 North Terrace ADELAIDE
Locality	ADELAIDE
Accuracy	L - low level confidence
Development Plan	ADELAIDE Council
Polygon Type	B - Building footprint

DESCRIPTION

Details (Known As)	Office (former Consulting Rooms) and former G & R Wills Warehouse
Registered Name	Shop - John Martin and Co Ltd
Significance	These two adjacent buildings became associated in the 1940s when they were acquired by John Martin & Co, whose large retail premises were nearby. The former warehouse (1878), is historically significant for its direct association with the large South Australian merchant firm of G & R Wills & Co. Founded in 1849, the company traded throughout Australia, with branches in three States, as well as extensive Adelaide operations including clothing and shoe factories and their import business. Designed by Daniel Garlick, the three-storey building is of masonry construction with classical Italianate stucco detailing which is particularly decorative for a commercial building. Its architectural significance is enhanced by the high integrity of both the exterior and interior, with most of the fabric remaining in near original condition. Slender cast iron columns allow undivided space on all three floors, and are an important feature of the interiors. The warehouse forms a pair with a similar building located on its western side, which was constructed for G & R Wills & Co some years earlier. The smaller neo-Gothic styled building to the east is one of the few to survive to represent the former professional and residential nature of North Terrace. Designed by E J Woods in 1901 as a consulting room for noted Adelaide eye surgeon Dr Mark Johnston Symons, it continued to be used primarily as medical consulting rooms until the 1940s when part of the building was acquired by John Martin & Co for use as a store. The building is of architectural significance because of its exceptionally high integrity, both internally and externally, and its ability to give an insight into early twentieth century medical practices through the retention of original room layouts and finishes, including features such as the tiled 'operating room' and large waiting rooms. [Adapted from: Danvers Architects Pty Ltd '203-7 North Terrace, Adelaide Conservation Study' March 1989]
Subject Index	Health - Surgery; Miscellaneous - Office [Miscellaneous]; Residential - House
Class	State

STATUS

Status Code	REG - Confirmed as a State Heritage Place in the SA Heritage Register
Status Date	11-SEP-1986

REFERENCE

LGA	Adelaide
State Heritage ID	13367
Heritage Number	1268

SECTION 16 INFORMATION

Section 16

PLAN PARCEL & TITLE

As listed in the SA Heritage Register

Plan Parcel & Title Information	CT 5255/933 F139583 A1,CT 5263/314 F2373 A2

IMAGE 03 – Extract from Heritage Places Database Search (http://maps.sa.gov.au/heritagesearch/HeritageSearchByKeywords.aspx).

3.2.1 Brief History (taken from CMP)

Following is an historical overview of the place, taken from the DASH Architects' CMP, 2013, and images of its 'original' exterior and internal form (Images 04 & 05). Further details can be found within the CMP Itself.

> *"The subject building was constructed by the prominent South Australian company G & R Wills & Co as a warehouse for their business 'importers, wholesale goods warehousemen'. W & R Wills & Co was initially established in a Rundle Street shack, which was stocked with a small supply of goods that the brothers George and Richard Wills brought with them from England when immigrating in 1849. The initial success of the business in South Australia resulted in its expansion to London in 1858 (under the control of George), and branches established in Western Australia, New South Wales and Victoria from 1866.*
>
> *Expansion of G & R Wills & Co necessitated the construction of warehouse facilities in 1865, likely to initially been the adjacent warehouse building – The Gallerie. In the 1870s the warehouse complex was extended (to likely include the subject building) and re-faced to the design of prominent local architect Daniel Garlick. Garlick designed a number of significant buildings in both city and country South Australia, including the Queens Chambers on Pirie Street*

(1869), the original buildings at Prince Alfred College on Dequetteville Terrace, and many churches and residences.

G & R Wills & Co operations in Adelaide developed to such an extent that its shipping department was formed into a separate business in 1881, becoming one of Australia's most important shipping agencies.

For the first 60 years of operation, W & G Wills & Co expanded and developed steadily, growing in pace with the growth of South Australia. However, by 1913 it became apparent that changing conditions would require new methods. Australia's national economy was primarily concerned with the production of wool, wheat and other primary products for export and there were few substantial manufacturing industries, and as such G & R Wills & Co (like other wholesale softgoods warehousemen) were almost entirely dependent on overseas supplies for their stocks. Importation meant large and irregular shipments of goods (mainly from the UK) resulting in an uneconomic turnover. This, together with the slow but spreading development of rural areas and lack of effective price control in the post WW1 boom (resulting in importers holding huge stocks of goods at inflated prices), meant that when the Depression hit Australia in the 1930s, wholesale softgoodsmen were significantly impacted.

G & R Wills reacted to such challenges, and from 1928 based their operations on the new principle of distributing goods for selected Australian manufacturers, as well as overseas manufacturers, on an agency basis. This may be why G & R Wills & Co ceased occupation of the subject building in around 1929. As time went on, the company entered manufacturing also, producing millinery, furnishings, shirts, pyjamas, women's wear and other lines2 .

The passing of ownership from W & G Wills & Co saw a number of changes in the use of the subject building. By 1937 it is reported that the Big Garage Ltd parking station occupied the subject building, assumedly resulting in the replacement of the original pair of segmental arch windows at the western end of the northern façade with double doors and ramp. By 1942 John Martins & Co had storerooms in 202-203 North Terrace, and between 1948 and 1959 various openings were made to connect the subject building to other John Martins & Co properties adjacent.

Much of the significance of the subject building lies in its northern façade presenting to North Terrace, as it retains a high level of integrity and is representative of the Italianate style and original warehouse function, demonstrating important aspects of the evolution of the State, being constructed during prosperous times when the economic growth was being experienced. The current condition of the interior of the subject building is generally dilapidated (other than the recent superficial refurbishment of the ground floor to accommodate temporary offices). The original warehouse use necessitated an open plan layout supported by cast iron and timber columns, which remain today.

It is assumed, however, that originally there was little ornamentation given the functional nature of its warehouse use. This being said, many original finishes including skirtings, the plaster and lath ceiling, cornicing and timber floorboards are either missing or significantly damaged."

IMAGE 04 – Historical image (State Library of South Australia (SLSA)) showing 200 North Terrace (to the right of the photo) and 203 North Terrace (set forward and the left of the photo).

IMAGE 05 - Interior of G & R Wills & Co, 1919 (Image courtesy of the State Library of South Australia)

3.3 Other Heritage Places in the Locality

As noted above, the Site is a State Heritage place. There are also numerous other Heritage Places in the locality of the Site. Image 06 below shows some of them.

IMAGE 06 – Extract from http://location.sa.gov.au/viewer/. The Red shading shows State Heritage areas and places. The Blue shading shows Local Heritage Places. The Green has been added by the author to indicate the Subject Site.

Amongst the Heritage Places within what I consider to be the 'immediate' Locality of the Site, I consider that the following are sufficiently close to the Site to warrant a detailed review of the impact that the works proposed as part of the Application will have on their Heritage values. These include:

- 201-202 North terrace, Adelaide (The former Gallerie Shopping Centre (former G&R Wills Warehouse)) - STATE;
- The Eastern component of 203-207 North Terrace (Office (former Consulting Rooms) and former G & R Wills Warehouse) - STATE

I consider that the other Heritage Places in the Locality are sufficiently distant from the Site such that the work proposed on it will not have an adverse impact on either their physical fabric or their settings. As such I have not considered them further in this Statement.

3.3.1 Heritage Listings

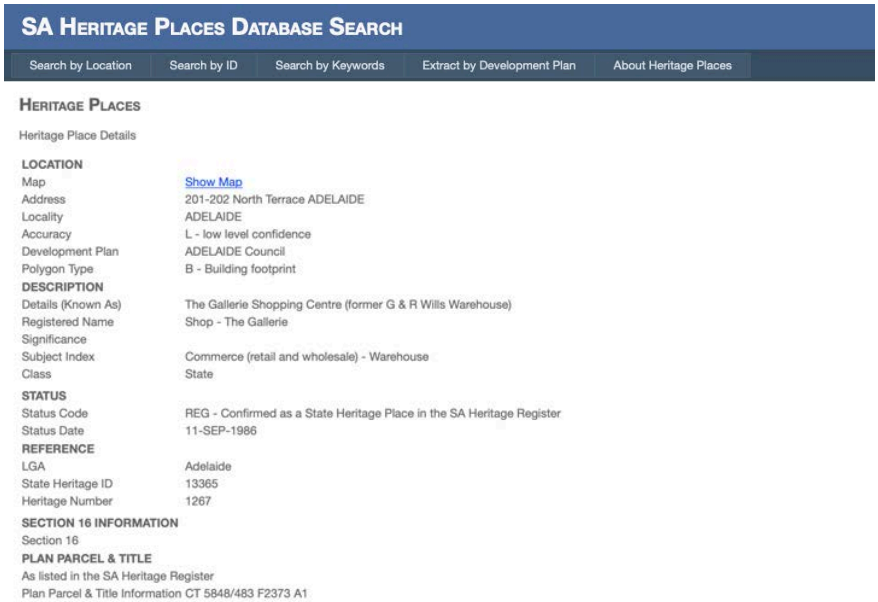
Following are photos, and extracts from the SA Heritage Places database, in relation to:

- 201-202 North terrace, Adelaide (The former Gallerie Shopping Centre (former G&R Wills Warehouse)) - STATE;
- The Eastern component of 203-207 North Terrace (Office (former Consulting Rooms) and former G & R Wills Warehouse).

3.3.1.1 201-202 North terrace, Adelaide (The former Gallerie Shopping Centre (former G&R Wills Warehouse))

IMAGE 07 – 200 North Terrace (by Author)

IMAGE 08 – Fire Booster Box abutting the subject site but located within the adjoining property.



SA HERITAGE PLACES DATABASE SEARCH

Search by Location | Search by ID | Search by Keywords | Extract by Development Plan | About Heritage Places

HERITAGE PLACES

Heritage Place Details

LOCATION	
Map	Show Map
Address	201-202 North Terrace ADELAIDE
Locality	ADELAIDE
Accuracy	L - low level confidence
Development Plan	ADELAIDE Council
Polygon Type	B - Building footprint
DESCRIPTION	
Details (Known As)	The Gallerie Shopping Centre (former G & R Wills Warehouse)
Registered Name	Shop - The Gallerie
Significance	
Subject Index	Commerce (retail and wholesale) - Warehouse
Class	State
STATUS	
Status Code	REG - Confirmed as a State Heritage Place in the SA Heritage Register
Status Date	11-SEP-1986
REFERENCE	
LGA	Adelaide
State Heritage ID	13365
Heritage Number	1267
SECTION 16 INFORMATION	
Section 16	
PLAN PARCEL & TITLE	
As listed in the SA Heritage Register	
Plan Parcel & Title Information	CT 5848/483 F2373 A1

IMAGE 09 – Extract from Heritage Places Database Search (http://maps.sa.gov.au/heritagesearch/HeritageSearchByKeywords.aspx).

3.3.1.2 The Eastern component of 203-207 North Terrace (Office (former Consulting Rooms) and former G & R Wills Warehouse)

IMAGE 10 – Image of Eastern component of 203-207 North Terrace (Office (former Consulting Rooms) and former G & R Wills Warehouse)(by author)

Refer above for extract from Heritage Places Database Search (http://maps.sa.gov.au/heritagesearch/HeritageSearchByKeywords.aspx).

4.0 Proposed Work

4.1 Description

Having reviewed the documents prepared by the Design Architects, I understand that the Development (loosely) comprises:

Main facade

- Conservation works - detail yet to be formally resolved;
- New stormwater overflows (for roof deck) - detail yet to be formally resolved;
- Deletion of current vehicle entrance and reinstatement of that section of the façade;
- Installation of two new exit doors beneath outer windows (using existing lintels as door heads) - detail yet to be formally resolved;
- Installation of services access points into basement windows - detail yet to be formally resolved; and
- Revised main entrance, lowered to address BCA/DDA (reusing doors as shutters at a lower level and expressing the original form) - detail yet to be formally resolved.

West facade

- Conservation works - detail yet to be formally resolved[1];
- Removal of existing stormwater drainage (as this will become redundant through the removal of the main roof); and
- Deletion of redundant fire services into building.

Rear facade

- Conservation works -detail yet to be formally resolved.

Roof

- Deletion of the roof in its entirety (decking, gutters, timbers structure and remnant ceilings).

Interior

- Deletion of basement, ground and first floor structures (with cast iron columns, floor board and timber match board ceilings to be salvaged for reuse wherever possible)
- New internal downpipes (and street connection for stormwater drainage);
- New lift core and structural columns for tower (lift core and columns are set-in from the external walls);
- 'Open plan' layout to the ground and first floors
- New services areas in basement level;
- New exit pathway from basement through new doors in northern façade;
- Conservation works to internal walls (detail yet to be formally resolved);
- Fire separation infill to openings between the subject building and the

[1] Noting that the deletion of the western services enclosure is not possible as this is 'owned' by neighboring property and sits within its title.

neighboring properties (lightweight); and

- New floors and ceilings at same level (possible exception is a higher floor at the front of the first floor to activate the windows). Reusing cast iron columns, floor boards and ceiling boards where possible, concentrating on foyer space.

Tower

- Roof top deck, set behind faced
- New transformer for the site (at current roof level); and
- New tower above.

Again, the Design Architect and Consulting Planner will describe the overall Development in more detail. I have therefore only discussed those elements of the Development that affect, or have the potential to affect, the Heritage Values of the Place, and / or the Heritage Values of the other Heritage Places in the locality.

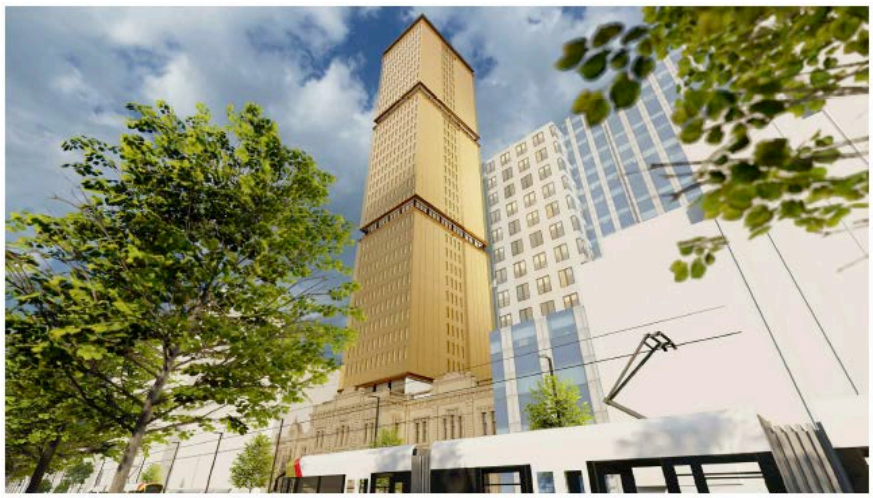


IMAGE 11 – Image of proposed tower (Brown Falconer).

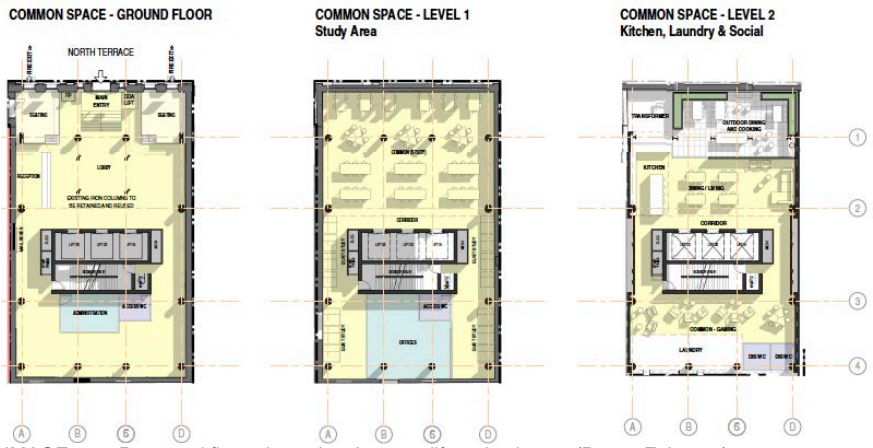


IMAGE 12 – Proposed floor plans showing new lift and columns (Brown Falconer)

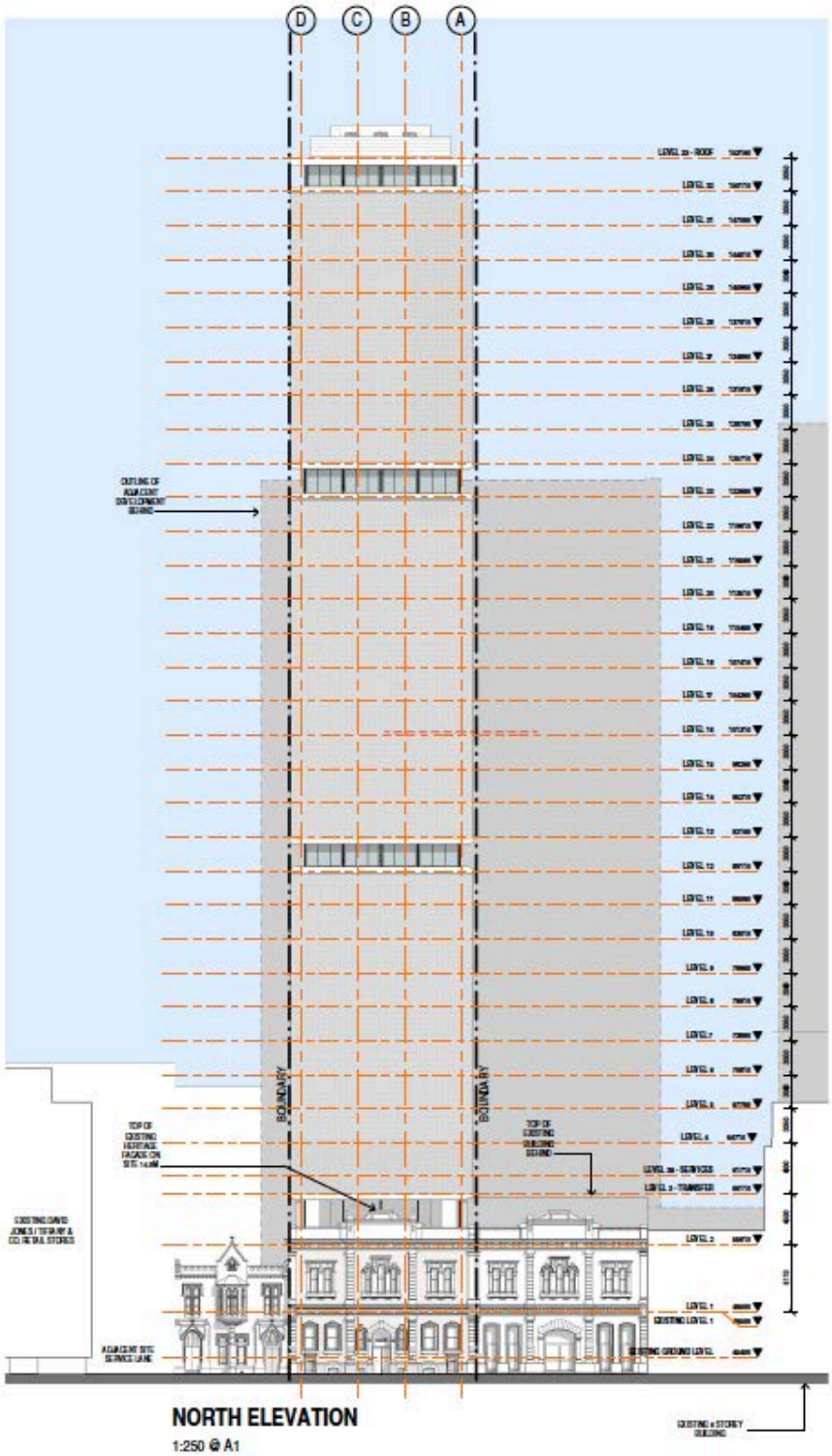


IMAGE 13 – Image of northern elevation of proposed new tower (Brown Falconer)

5.0 Assessment

5.1 Impact on Subject Site

Following is my assessment of the impact that the proposed development would have on the Heritage Values of the Site.

5.1.1 Elemental Assessment

I have used the following table to assess the impacts of the individual elements of work proposed. While this is a crude tool, and an overall assessment has also been made, it is a useful starting point to establish which elements of work will likely affect the heritage values of the place, and in what way.

Rating	General Discussion
1	*Proposed work would have a substantial negative impact on the heritage values of the Place.*
2	*Proposed work would have a negative impact on the heritage values of the Place.*
3	*Proposed work may be considered to have a minor impact on the heritage values of the Place.*
4	*Proposed work may be considered to have an impact on the heritage values of the Place, but this impact would be negligible.*
5	*Proposed work would have a positive impact on the heritage values of the Place.*
6	*Proposed work would have a substantial positive impact on the heritage values of the Place.*
not assessed	*Given the lack of detail provided at this time, we have not been able to assess the impact that the proposed work may have on the heritage value of the Place*

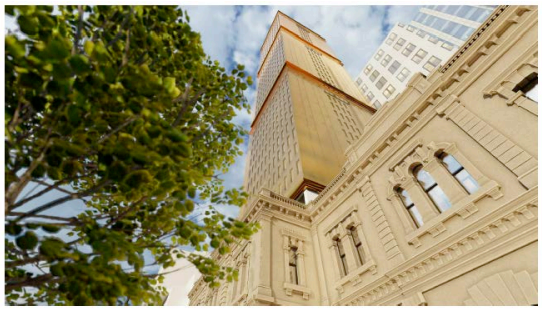
TABLE 01 – Elemental Assessment Key.

5.1.1.1 Table of Elemental Assessment

Proposed Works	Elemental Assessment	Discussion
Main façade		
Conservation works **(detail yet to be formally resolved)**, including Deletion of current vehicle entrance and reinstatement of that section of the façade	**5**	The deletion of the vehicle entrance will make a considerable positive contribution to the heritage values of the Place. This later alteration altered the symmetry of the façade detracted from the main entrance. Additional conservation works relating to the timber door and window joinery, stonework, and restoration of lost / damaged detail would also be desirable and would enhance the heritage values of the Place. Details of what is proposed are yet to be finalized. I suggest that the provision of these details be made a condition of Approval.
New stormwater overflows (for roof deck)	**3**	Stormwater management from the existing roof is poor and has presented issue over recent years. We strongly recommend that the drainage associated with the new roof deck include overflow capacity to North Tce.. I suggest that details of this be made a condition of approval.
Installation of services access points into basement windows **(detail yet to be formally resolved)**	**3**	These elements are essential to buildings of this nature. The locations proposed minimize the impact on the public experience of the building.
Installation of two new exit doors beneath outer windows (using existing lintels as door heads) **(detail yet to be formally resolved)**	**2**	While not ideal, we understand that the addition of separate exit pathways is essential for the type of building being proposed (student accommodation). This proposal seeks to minimise the impact of them within the ground floor interior space and thus maximize the experience of the warehouse spaces. The impact of this however is the installation of new doors in the northern facade. Given they are balanced on the façade, and the original windows can be interpreted (and in the context of the other facade restoration works proposed), on balance, it is likely an acceptable solution.
Revised main entrance, lowered to address BCA/DDA (reusing doors as shutters at a lower	**2**	This change must also be considered in the context of the current legislation. It is reasonable

level and expressing the original form) **(detail yet to be formally resolved)**		to suggest that compliant equitable access is essential for the viable future of any building. Providing it in this location, although it comes at a heritage cost, ensures that the symmetry and significance of the main entrance is maintained.
West façade		
Conservation works **(detail yet to be formally resolved)**, including deletion of redundant fire services into building and removal of existing stormwater drainage (as this will be come redundant through the removal of the main roof)	**5**	Additional conservation works relating to the timber window joinery, stonework, and removal of redundant services would also be desirable and would enhance the heritage values of the Place. Details of what is proposed are yet to be finalized. I suggest that the provision of these details be made a condition of Approval.
Rear façade		
Conservation works **(detail yet to be formally resolved)**	**5**	Additional conservation works relating to the timber door and window joinery, and stonework, would also be desirable and would enhance the heritage values of the Place. Details of what is proposed are yet to be finalized. I suggest that the provision of these details be made a condition of Approval.
Roof		
Deletion of the roof in its entirety (decking, gutters, timbers structure and remnant ceilings)	**1**	While there are major condition issues with the existing roof decking, gutters and structure, the loss of the entire roof will have a substantial heritage impact. Given the nature of the proposed development, it has not been possible to mitigate this impact.
Interior		
Deletion of basement, ground and first floor structures (with cast iron columns, floor board and timber match board ceilings to be salvaged for reuse wherever possible)	**1**	While there are major condition issues with the existing floors, ceilings and structure (particularly at basement level), the loss of all interior fabric of the building will have a substantial heritage impact. Given the nature of the proposed development, it has not been possible to mitigate this impact. The loss of the interior structure will have a substantial heritage impact.
New internal downpipes (and street connection for stormwater drainage)	**4**	As noted above, stormwater management from the existing roof is poor and has presented issue over recent years. We strongly recommend that

		the drainage associated with the new roof deck, include overflow capacity to North Tce.. Internally routed downpipes will be preferable to ones that would be expressed on the main façade. I suggest that details of this be made a condition of approval.
New lift core and structural columns for tower (lift core and columns are set-in from the external walls) and 'Open plan' layout to the ground and first floors 	**3**	The setout of the lift core and columns, set in from the internal walls, reduces their physical impact on the remaining fabric and allows the overall form of the warehouse spaces to be interpreted. 
New services areas in basement level, New exit pathway from basement through new doors in northern façade	**3**	These elements are essential to buildings of this nature. The locations proposed minimize the impact on the public experience of the building.
Conservation works to internal walls **(detail yet to be formally resolved)**	**5**	Conservation works would enhance the heritage values of the Place. Details of what is proposed are yet to be finalized. I suggest that the provision of these details be made a condition of Approval.
Fires separation infill to openings between building and neighboring properties (lightweight)	**4**	We would suggest that these be 'light weight' walls set in form the stone to express the original form of the openings. Given the lack of detail on the drawings I would suggest that the provision of this detail be made a condition of Approval.
New floors and ceilings at same level (possible exception is a higher floor at the front of the first floor to activate the windows). Reusing cast iron columns, floor boards and ceiling boards where possible, concentrating on foyer space. **(detail yet to be formally resolved)**	**4**	The proposed reinstatement of floors at the same level as the current ones, noting the exception at the entrance where DDA access is to be provided form street level, is positive. It will allow users to experience the volume of the building as it was designed. It will also allow the exposure of those elements of the internal walls that were intended to be exposed.

		The reuse of salvaged elements will assist with the interpretation of the space and is a positive contribution (particularly through the use of the columns). Given the lack of detail on the drawings I would suggest that the provision of this detail be made a condition of Approval.
Tower		
Roof top deck, set behind faced	**4**	The setting and nature of this element means that it would have a limited visual impact. It is seen as compatible with the heritage values of the Place.
New transformer for the site (at current roof level)	**3**	The provision of a new transformer on the site is essential to its viable future use. Given the nature of the site (with only a single frontage), the requirements of the utility company, and the heritage fabric on the site, there are very few locations available. Previous proposals for the site have suggested installation at basement level. This was however predicated on the retention of the vehicle entrance. The deletion of this element (and thus the loss of this opportunity) is seen as a positive element of the proposal. While we have not seen the details, we suggest that the transformer can be accommodated on the roof deck with minimal impact on the heritage value of the Place. I suggest however that the final detail be made a condition of Approval.
New tower above 	**3**	The relationship between the existing Heritage Place and the tower proposed above it is critical. The design has addressed this in a number of ways including: • 'shadow' story at the connection; • breaking up of overall height through expression of shared spaces; • setback from North Terrace (to align to the similar building to the west); • symmetry of the façade; and • the materials chosen. The design has been subject of detailed examination through Design review and the PLP process. Overall, I believe that it is successful and that it does not adversely affect the setting of the Heritage Place, and thus its Heritage Values.

5.1.2 Overall Assessment

5.1.2.1 Exterior

There are a number of positive elements to the proposal that will enhance the external appearance and thus this aspect of the overall Heritage Values of the place. These include:

- The removal of the vehicle entrance and reinstatement of that section of the wall
- Conservation works to the external northern and southern facades;

There are however elements of the works that will detract from the external appearance and thus this aspect of the overall Heritage Values of the place. These include:

- Lowering the main entrance door to provide equitable access; and
- Two new egress doors below windows on Northern facade.

Overall, given the need for equitable access (discussed above) and the deletion of the vehicle entrance, the impact on the exterior of the Building is positive and will enhance the Heritage Values of the place.

5.1.2.2 Interior

The conservation works to the interior walls will enhance the internal appearance of these elements and thus this aspect of the overall Heritage Values of the place.

There are, however, a number of elements of the works that will result in the direct loss of significant physical fabric. This will detract from the internal appearance of the building and thus this aspect of its overall Heritage Values of the place. These elements include:

- Deletion of the roof in its entirety (decking, gutters, timbers structure and remnant ceilings)
- Deletion of basement, ground and first floor structures (with cast iron columns, floor board and timber match board ceilings to be salvaged for reuse wherever possible)

While this loss has been mitigated through the retention of the ‘form’ and proportion of the original spaces and through the retention and reuse of some elements it is significant.

5.1.2.3 Setting

The relationship between the existing Heritage Place and the tower proposed above it is critical. The ‘shadow’ story at the connection, breaking up of overall height through expression of shared spaces, setback (to align to the similar building to the west) is important to the success of this, as is the symmetry of the façade and the materials chosen.

The design has been subject of detailed examination through Design review and the PLP process. Overall, I believe that it is successful and that it does not adversely affect the setting of the Heritage Place, and thus its Heritage Values.

The major impact of the tower is that it necessitates the removal of the internal floors and roof. My understanding from this process, and others for the site that I have been involved in, is that this is not reasonably avoided where a tower of any kind is proposed. Given this, an assessment of whether the damage is acceptable falls beyond the scope of purely heritage considerations.

5.1.2.4 Overall

An overall assessment is difficult. The external impact of the proposed development is positive and does not adversely affect the setting of the Place. The internal impact however, through loss of physical fabric, is significant and, it appears, unavoidable for this type of development.

Thus, it may be that if a tower is to be envisaged for this site, as the Development Plan would suggest is the case, the impact to the interior of the building maybe be unavoidable.

The current state of the building is also such that it cannot, in my view and experience, be reasonably occupied. I also understand that economics of rehabilitating it (assuming the need to repair damaged elements, provide equitable access and meet current codes) in its current form (three storeys) are marginal at best, and simply not viable at worst. We investigated such an option for the previous owners, and they found that they simply could not undertake the works and expect anything like a commercial return on the investment.

In this case, the approving authority may form a balanced view that the damage is acceptable, indeed it may be seen as essential to the ongoing viability of the site. From a heritage point of view this decision could be equated to either ‘losing the limb, to save the body’ as opposed to holding out for a ‘miracle cure’.

5.2 Impact on Other Heritage Places

Following is a summary of my assessment of the potential impact of the Development on the Heritage Places in the Locality.

As noted above, this assessment has been limited to those places identified above, within the immediate Locality of the Site that are likely to be affected.

5.2.1 200 North Terrace

The relationship between this building to the East, and the Heritage Place on the site will not be affected by the proposed works, nor will its setting along North Terrace. Although the Application proposes a hi-rise tower above the site, its setback and relationship with the subject site, also assist with its relationship with 200 North Tce..

The Application does not propose any physical intervention into this site.

Given the proximity of this Heritage Place to the Site, the management of construction vibration throughout the process will be critical to avoiding damage to it. I suggest that the preparation of a Vibration Management Plan, to the approval of SCAP (and likely with referral to the DEWNR SHU as part of that) be made a condition of the Approval.

Given the above, and assuming vibration is managed, I do not believe that the proposed works will have any material impact on the heritage value of these places.

5.2.2 Eastern component of 203-207 North Terrace

Similarly to above, the relationship between this building to the West, and the Heritage Place on the site will not be affected by the proposed works, nor will its setting along North Terrace. Although the Application proposes a hi-rise tower above the site, its setback and relationship with the subject site, also assist with its relationship with the eastern component of 203-207 North Terrace.

The Application does not propose any physical intervention into this site.

Given the proximity of this Heritage Place to the Site, the management of construction vibration throughout the process will also be critical to avoiding damage to it. As noted above, I suggest that the preparation of a Vibration Management Plan, to the approval of SCAP (and likely with referral to the DEWNR SHU as part of that) be made a condition of the Approval.

Given the above, and assuming vibration is managed, I do not believe that the proposed works will have any material impact on the heritage value of these places.

5.3 Development Plan Provisions

The site is in the City of Adelaide's Central Business Policy Area within the Capital City Zone.

The Consulting Planner for the Project will undertake a detailed assessment of the Application against the provisions of the Development Plan. For the purposes of the Statement however I have reviewed the above Zone and Policy Area provisions, as well as those within the "Heritage and Conservation" sections of the Development Plan and particularly the following:

The proposed Development meets the intent of most of the Development Plan provisions, with respect to Heritage Matters in that it:

- retains the heritage value (noting the caveat below) and setting of a heritage place and its built form contribution to the locality;
- adaptively reuses buildings comprising a heritage place;
- conserve the elements of heritage value (again noting the caveat below);
- utilises materials, finishes, setbacks, scale and other built form qualities that are complementary to the heritage place;
- is located no closer to the primary street frontage than the adjacent heritage place; and
- is carefully integrated, being located behind the heritage place and does not replicate historic detailing, so as to retain the heritage value of the heritage place.

The caveat to this is, again, the loss of the internal fabric and roof. While this fabric does not contribute to the Heritage Values of the Place as it is perceived from the public realm, it does:

- diminish the overall heritage value of the heritage place; and
- propose the demolition of some elements of heritage value.

On the understanding that an application need not meet all of the provisions of the Development Plan (indeed, few do) and again, given heritage consideration are one of many that the Approving Authority must consider, it may be that the overall assessment is that the proposal does meet the intent of the Development Plan.

6.0 Conclusion

An overall heritage assessment of this proposal is difficult as it has a number of elements, some of which are positive and some of which are negative.

The overall impact of the proposed development on the exterior of the Heritage Place is positive and there is no overall damage to its setting. The overall. impact on the interior of the place however, through loss of physical fabric, is significant, negative and, it appears, unavoidable for this type of development. Thus, it may be that if a tower is to be envisaged for this site, as the Development Plan would suggest is the case, the impact to the interior of the building maybe be unavoidable.

The current state of the building (physical decay and configuration) is also such that it cannot, in my view and experience, be reasonably occupied 'as is'. I also understand that it is economical to rehabilitate it (assuming the need to repair damaged elements, provide equitable access and meet current codes) within its current envelope (three storeys). We investigated such an option for the previous owners, and it found that it simply could not undertake the works and deliver a commercial return on that investment.

In this case, the approving authority may form a balanced view that the loss of fabric, and subsequent impact on the Heritage Value of the Place, is acceptable if ensures the ongoing viability of the site. From a heritage point of view this decision could be equated to either 'losing the limb, to save the body', as opposed to holding out for a 'miracle cure'.

The set-out of the new works, and re-use of some materials in a similar location to original, has mitigated the negative heritage impact attributable to the loss of internal fabric but the overall heritage impact internally remains negative.

This negative impact however must be considered within the overall intent of the Development Plan and a range of other factors beyond the scope of a heritage report. Ultimately it may be that this negative impact is acceptable as it meets other ambitions for the site and locality and will help to ensure that the remaining fabric has a viable future, embedded within a new development.

Similarly, an assessment of the proposal against the Development Plan will see many positive elements but must assess the relative impact of the loss of internal fabric.

7.0 Conservation Works

7.1 Exterior

As noted in the above report, conservation works are proposed to the (front) Northern, (side) western, and (rear) southern facades. While the detail of this work is yet to be formalized it is worth noting that DASH Architects has previously documented conservation works to these areas, that were ultimately not carried out. Based on this experience we suggest the following be incorporated into the Redevelopment of the Site:

1. reinstatement of the missing pediment at the apex of northern façade;
2. repointing of stonework to the façades generally;
3. treatment of parapets and the rear faces of walls generally;
4. repair or replacement of the timber window and door joinery;
5. white ant treatment generally;
6. upgrade of storm water drainage, including overflow pops and connection directly to North Terrace; and
7. removal of redundant services (fire systems to western facade).

7.2 Interior

As also noted above, conservation works are proposed to the internal walls of the building. The proposal also seeks the retention and reuse of some of the internal fabric of the building, namely:

8. cast iron columns;
9. floor boards; and
10. ceiling linings.

We suggest that these materials be combined in a layout that matches the current set out and that their use be concentrated on the new GF entrance foyer.

8.0 Sign off

This report has been prepared for and on behalf of DASH Architects.

David Holland
Architect
Director, DASH Architects

Accord Property 203 North Terrace, Adelaide

Waste Management Plan

Document verification

Date	Version	Title	Prepared by	Approved by
13/06/19	V1	203 North Terrace - Draft waste management plan	Kristian Le Gallou & Jarvis Webb	Matt Allan
3/07/19	V2	203 North Terrace - Draft waste management plan	Kristian Le Gallou & Jarvis Webb	Jarvis Webb

Document summary

This waste management plan (WMP) has been developed at the planning stage of the development. The client, project managers, project architects, and traffic consultant have been consulted and consideration given to the relevant policy requirements (Appendix 1).

The proposed waste management system (WMS) is outlined in this document. This a high-level view and includes a preliminary design that demonstrates waste can be successfully managed at the site. If land uses and waste management arrangements for the development are altered during detailed design work, this WMP may need to be updated.

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1. Development summary

Project	203 North Terrace, Adelaide
Client	Accord Property
Architect	Brown Falconer

1.1. Land use and occupancy

Table 1 outlines the proposed building and land uses of the development. This is based on the most recent architectural plans. The waste resource generation categories are based on the land use outlined in the plans.

Table 1: Land use and occupancy overview

Level	Tenancy	Waste resource generation category[1]	No beds
Ground - Level 32	Student accommodation*	Serviced Apartments, Backpacker, Boarding House	341

**Note that this includes the associated land uses within the building (e.g. kitchens, common spaces, gym). It has been assumed that only residents will have access to these spaces and any waste generated is captured under the waste resource generation category.*

1.2. Waste management considerations

The client and project architect have identified design preferences that may influence waste management (Table 2). These arrangements have been considered when designing the waste management system.

Table 2: Development waste management considerations

Consideration	Description
Chutes and management of basement floor waste room	It is anticipated that the development will have a dual chute system. One of the chutes will have an e-diverter to manage comingled and organics recycling.
Bin hoist	The bin room is in the basement level, which is below the street level. A bin hoist will be installed to allow bins to be raised from the basement level to the street level for collection.

[1] Waste Resource Generation land use categories are based on the SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA, 2014).

1.3. Recommended services

For the development to achieve effective waste and recycling management it's recommended the services outlined in Table 3 be provided.

Table 3: Recommended waste management services

Required/recommended waste and recycling collection services		
	Land use	**Commercial**
	Development land uses	**Student accomodation**
Routine collection (rear lift)	General waste	**X**
	Comingled recycling	**X**
	Organics recycling	**X**
On-call or external drop-off	Hard waste	**X**
	E-waste	**X**
	CFL/Lighting	**X**
	Printer Cartridges	**X**
	Batteries	**X**

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

These recommendations align with the *SA Better Practice Guide – Waste Management in Residential or Mixed-Use Developments* (Green Industries SA, 2014).

2. Waste management analysis

2.1. Estimated waste and recycling volumes

Table 4 below outlines the estimated volumes of waste and recycling produced within the development per stream each week.

Table 4: Estimated waste volumes produced by the development[2]

Estimated waste generation volumes (litres per week)		
Land use type		**Commercial**
Development land use		**Student accomodation**
WRGR classification		*Serviced Apartments, Backpacker, Boarding House*
Waste stream	General waste	10,200
	Comingled recycling	6,800
	Organics recycling	3,400
	Hard waste	2,400
	E-waste	400
Total site volume		**23,200**

*Totals have been rounded and may not equate

NE = Not Estimated as Not Required

2.2. Bin size and collection details

Table 5 below provides estimates of the number of bins and collections per week required to service the development. These figures are based on the total volumes of waste and recycling for the development and the assumption that all waste and recycling would be collected by one service provider.

Table 5: Estimated bin requirements and collections per week

	Bin room		
	Bin size (L)	Number of bins required	Collections per week
General waste	660	8	2
Comingled recycling	660	6	2
Organics recycling	660	3	2
Hard waste	-	-	On call
E-waste	-	-	On call
Total		17	6

*Totals have been rounded and may not equate

[2] Estimates are based on the proposed land use data provided by the client and architect, client expectations and waste management policies (Outlined in Appendix 1) relevant to the developments' land uses. The metrics used are based on those found in The SA Better Guide Practice Guide – Waste Management for Residential and Mixed-Use Developments and developed by Rawtec based on industry knowledge and experience.

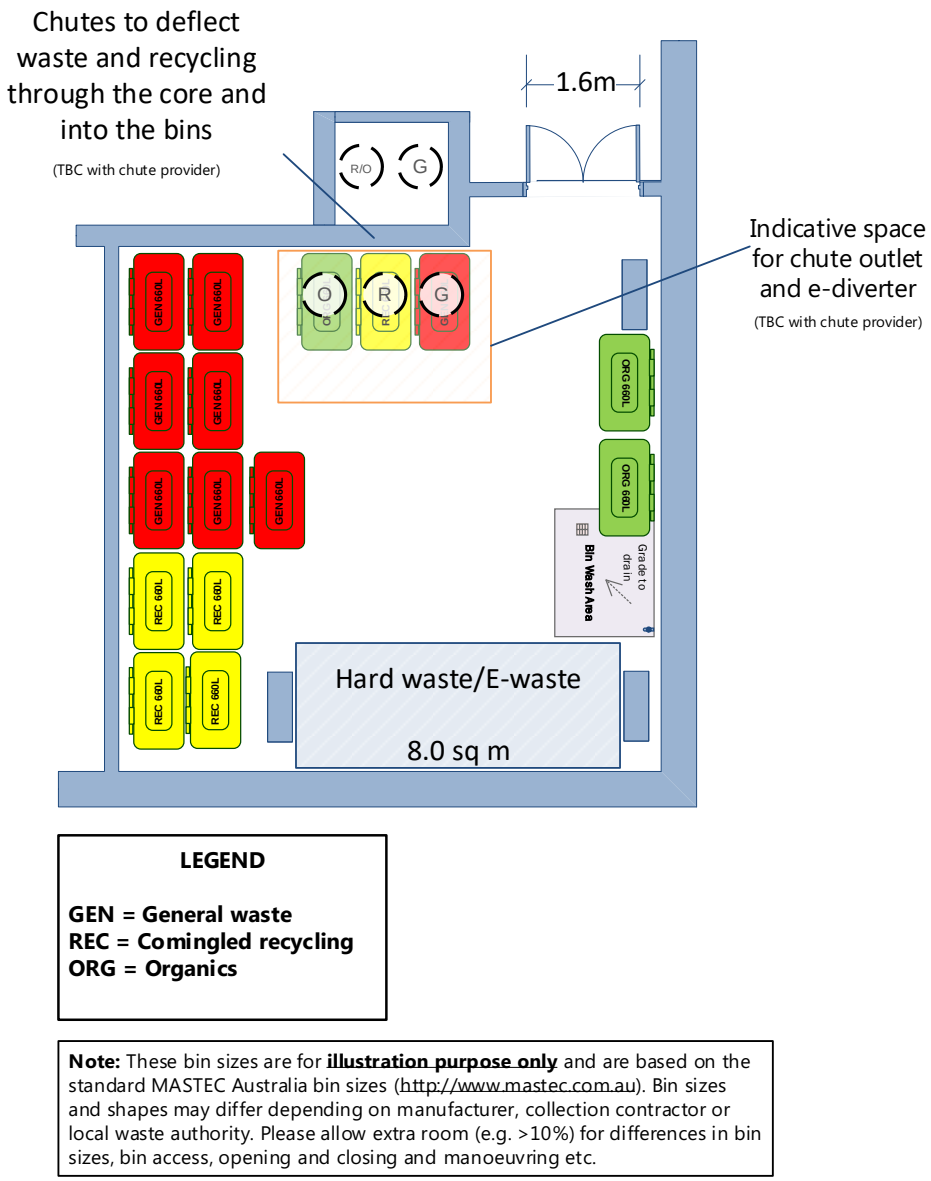
The following irregular waste streams will be managed as they occur onsite:

- Electronic waste (batteries, printer cartridges, lighting)
  - E-waste will be temporarily stored within the development. It would then be taken to an appropriate receival facility by building services (e.g. recycling depot or participating retailer) or collected by a certified collection contractor.
- Hard Waste (during tenancy fit out, or residential land uses)
  - There is some space allocated in the basement level bin room. However, there is additional space that may be available in Furniture & Luggage in the basement if required at peak times.
  - Hard waste will be temporarily stored within the development and 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.

2.3. Waste storage area

Figure 1 outlines an indicative drawing of the waste storage area for the development. This is an example configuration outlining the estimated size and layout of the waste storage area. Additional design advice and other considerations have been included in Appendix 2.

Figure 1: Indicative waste storage area



LEGEND

GEN = General waste
REC = Comingled recycling
ORG = Organics

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 etc.

3. Waste management system

A Waste management system has been developed to effectively manage the waste generated at the development. The WMS outlined in Table 6 addresses each land use within the development and considers the appropriate policies for waste management (Appendix 1).

Table 6: Waste management system for the development

Proposed waste management system	
Waste/recycling services	• General waste • Comingle recycling • Organics recycling
WMS step	**WMS notes**
1. User storage	• Waste and recycling will be stored in bins in student apartments and common areas: – General waste will be collected using black bin liners – Organics will be collected using compostable bin liners – Comingled recycling will be collected loose • Any large pieces of cardboard (during moving in) should be collected loose on each floor. The building manager can then coordinate with the residents to transfer this directly to the waste room comingled recycling bins. • Hard waste or E-waste will be stored in resident's room prior to contacting the building manager.
2. Transfer pathways	• Residents/cleaners to place waste into the general waste chute on each level. • Residents/cleaners to place comingled recycling and organics recycling into the chute with the e-diverter on each level. They will select the appropriate option depending on the material. • Transfer routes must be at least 1.25m wide, free of obstructions and steps and a slope of no more than 1:10.
3. Aggregation & storage	• The waste and recycling will travel via the chutes, be deflected through the core and fall into the bins in the basement floor bin room. • The bins under the chutes may be remotely monitored (possibility to feed into the Building Management System) and swapped over by building management when required.
4. Bin collection	• Waste and recycling will be collected by a commercial contractor in off peak times. • The collection contractor will park adjacent the building on North Terrace and access the ground floor waste room. They will wheel bins to the collection vehicle via the bin hoist, empty and then return the bins to their original positions (ground floor waste room). • Building management may assist in the transfer of bins to reduce the amount of time the contractor needs to be onsite. • Transfer routes must be at least 1.25m wide, free of obstructions and steps and a slope of no more than 1:10. • Further information on collection vehicles is outlined overleaf.

4. Collection requirements

4.1. Vehicle movements per week

The number of collection vehicle movements has been estimated at six per week. This is based on the estimated waste and recycling volumes and service frequency as outlined in Table 5.

4.2. Collection vehicle

Approximate truck dimensions are provided to help the Traffic Consultant's analysis (Table 7). Please note:

- Collection vehicle dimensions and operating requirements vary between waste collection contractors.
- Rawtec does not offer assurance that the collection zone can accommodate waste collection vehicles.
- The Traffic Consultant must independently confirm there is sufficient space for the collection vehicle and that it can enter and exit the development safely.
- The client must ensure the preferred waste collection contractor can service the development before collection can begin.

Table 7: Truck dimensions for consideration

Collection vehicle dimensions[3]		
Vehicle type	Rear Lift	Pan-tech/Flat Bed
Collection type	Collection of bins up to 1100 L	At call waste streams
Dimensions	3.4 minimum, up to 4m (h) x 2.5m (w) x 8.8m minimum, up to 11m (l)	Up to 4.5m (h) x 2.5m (w) x 8.8m (l)
Rear loading space required	2m	-
Operational vehicle height	Up to 4m	Up to 4.5m
Vehicle turning circle	18-25m	10m

[3] Vehicle 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 - Policies

This WMP has been prepared in consideration of the following policies, design and operational requirements:

- The South Australian Environment Protection (Waste to Resources) Policy 2010 (W2REPP) (Government of South Australia, 2011):
  - 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. They must be appropriate to the size and type of development, screened from public, minimises disturbance to residents and provides access to service vehicles.
- The City of Adelaide Operating Guideline – Waste & Recycling Services (The City of Adelaide, previously Adelaide City Council, 2014)
  - Identifies 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).
  - 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 developments.
  - 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: Developments greater than 2,000 square metres of total floor area should manage waste by:
    - Containing a dedicated area for the 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.

Appendix 2 - Additional waste management and design considerations

This table provides additional considerations and advice for the development. This information is based on the SA Better Practice Guide Waste Management for Residential and Mixed-Use Developments.

Area	Consideration
Bin/chute rooms	• Access to bin/chute rooms by mobility impaired persons must be considered. • Allocating chutes in closed waste rooms on each floor may prevent odours or spillage issues compared to providing access directly from a hallway.
Bin design, colours and signage	• Bins and signage should conform to the Australian Standard for Mobile Waste Containers (AS 4213).
Bin transfer routes	• The Better Practice Guide recommends transfer routes be at least 1.25m wide, free of obstructions and steps and a slope of no more than 1:10. • These should not pass through living areas or dwellings.
Bin washing	• A bin washing station must: – Slope to a drain leading to the sewer – Have a tap and a hose with mains supply – Be at least 2m x 2m – Be slip resistant to prevent slippage during washing. • Note: – Line marking and bunding is not required around the bin wash area. – 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).
Detailed design and construction	• This WMP provides a high-level overview of waste management at the development. Appropriate design and construction advice should be sought during the detailed design phase to ensure equipment, infrastructure and building services can fulfil the functions proposed.
Education and training	• The developer should consider providing education and training for residents/tenants in the building's WMS to ensure appropriate waste management practices. • The inclusion of better practice waste management requirements within strata or commercial lease agreements should also be considered.
Hard waste	• An aggregation point for hard waste should be provided that is easy to access for collection vehicles. – This streamlines collection logistics. If stored in individual locations the building services manager, tenant and collection contractor will need to be present for collection. This may increase costs.

Area	Consideration
Health and amenity	• The Better Practice Guide stipulates effective WMS design should: – Minimise and mitigate odour and noise – Consider and preserve visual amenity for residents/tenants, neighbours and the public – Prevent waste spreading beyond the defined location – Specify washable services enabling periodic cleaning – Provide adequate ventilation.
Lid within a lid bin	• Bulk bins (e.g. 1100 litre) with a 'lid within a lid' system can be used to make waste and recycling disposal easier for tenants/residents. – A smaller, lighter lid reduces the weight and risk for people disposing of materials. – The larger lid can be locked, stopping oversize items being put into the bin.
Peak periods	• Peak periods during the year (e.g. Easter, Public Holidays, Christmas) can increase waste generation rates. Additional collections may need to be scheduled in these circumstances.
Waste collection timing	• Waste collection timing and frequency should be scheduled to minimise the impact of noise and traffic on residents, neighbours and the public.
Waste storage area	• A secure storage area should be provided to prevent interference with the bins and equipment from the public. • Residential – Waste storage areas should be external to all living areas and assigned to either locations within the dwelling or tenancy or in a designated area of the common property. – Better practice recommends this distance be no greater than 30 metres. This reduces inconvenience and the likelihood of spillage.
Waste streams	• The SA Better Practice Guide indicates that organics (food and/or garden) is a required/expected service for residents in South Australia. • It is beneficial for disposal points of all three streams (general waste, comingled recycling and food organics) located together.

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PROPOSED STUDENT ACCOMMODATION
203-205 NORTH TERRACE, ADELAIDE

TRAFFIC AND PARKING REPORT

CIRQA™

DISCLAIMER

DOCUMENT CONTROL

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1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for a proposed student accommodation building at 203-205 North Terrace, Adelaide. Specifically, CIRQA has been engaged to provide advice in respect to traffic and parking aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and the associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by Brown Falconer (drawing no. 001A to 012A, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the southern side of North Terrace, Adelaide. The site is bound by North Terrace to the north, and commercial premises to the east, south and west. The City of Adelaide's Development Plan identifies that the site is located within a Capital City Zone (Central Business Policy Area 13) and within the Primary Pedestrian Area of the Adelaide CBD.

The subject site is currently occupied by a two-storey commercial building. Vehicle access is currently provided through a gated opening in the sites' façade (which would restrict access to light vehicles only), albeit it is unknown how many spaces are provided within the site. Pedestrian access is provided via the site's frontage to North Terrace.

2.2 ADJACENT ROAD NETWORK

North Terrace is under the care and control of the City of Adelaide and classed as a 'ceremonial boulevard'. Adjacent the site, North Terrace comprises two traffic lanes in each direction, separated by the North Terrace East tram line extension. The 'Art Gallery' tram stop is located within the centre of North Terrace, within the immediate vicinity adjacent the site. 'No Stopping' zones are enforced (through the presence of yellow lines) on both side of North Terrace.

Traffic data obtained from the Department of Planning, Transport and Infrastructure (DPTI) indicates that this section of North Terrace has an Annual Average Daily Traffic (AADT) volume in the order of 22,800 vehicles per day (vpd), of which approximately 6.5% are commercial vehicles. A 50 km/h speed limit applies on all roads within the CBD, including North Terrace.

Figure 1 illustrates the location of the subject site and associated access with respect to the adjacent road network.

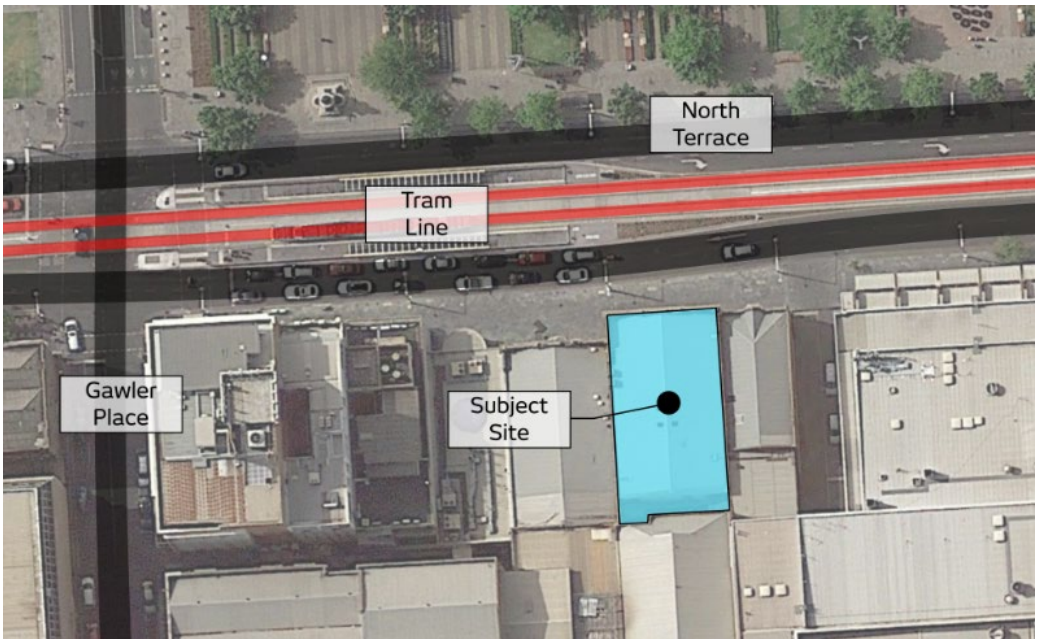

Figure 1 – Location of the subject site and existing access with respect to the adjacent road network

2.3 WALKING AND CYCLING

The subject site is serviced by a high level of walking infrastructure. Wide sealed footpaths are provided on both sides of North Terrace. The footpaths can also legally be utilised by cyclists. The footpaths provide connectivity to the broader pedestrian network via formal pedestrian crossing facilities incorporated into nearby traffic signals.

North Terrace is listed as a 'main road' under the South Australian Government's BikeDirect network. Furthermore, North Terrace is listed as a part of the 'Primary Bicycle Network', 'Primary City Access' and 'Primary Pedestrian Area' in the City of Adelaide's Development Plan.

2.4 PUBLIC TRANSPORT

The subject site is serviced by numerous high-frequency public transport routes. Specifically, the following services operate within close vicinity to the subject site:

- Bus Route 98C – City and North Adelaide Loop;
- Bus Route 99C – City Loop;
- Bus Route 170 – Urrbrae to City;
- Bus Route 171 – Mitcham Square to City;

- Bus Route 171A – City to Highgate;
- Bus Route 172 – Kingswood to City;
- Bus Route 173 – Blackwood Interchange to City;
- Bus Route 174, 178, 178X, 281 – Paradise Interchange to City;
- Bus Route 176, 178M – Athelstone to City;
- Bus Route 176G, 178S – City to Newton;
- Bus Route 281K – City to Klemzig;
- Bus Route 286, 287 – Henley Beach to City;
- Bus Route 286A – City to Underdale;
- Bus Route 288 – West Lakes Interchange to City;
- Bus Route 288S – City to Seaton;
- Bus Route 626 – School Service;
- Bus Route INDB – Bedford Group to City;
- Bus Route N178 (after midnight service) – Newton to City; and
- Tram Route 'Botanic' – Botanic Gardens to Entertainment Centre.

Furthermore, the Adelaide Railway Station is located approximately 500 m walking distance from the subject site (approximately 6 minutes walking time or one tram stop). Frequent train services operating from the Adelaide Railway Station include:

- Train Service – Belair to City;
- Train Service – Gawler to City;
- Train Service – Gawler Central to City;
- Train Service – Glanville to City;
- Train Service – Grange to City;
- Train Service – Noarlunga to City;
- Train Service – Osbourne to City;
- Train Service – Outer Harbour to City;
- Train Service – Salisbury to City;
- Train Service – Seaford to City; and
- Train Service – Tonsley to City.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposed development comprises the partial demolition of the existing building (the building's façade will be retained) and the construction of a multi-storey student accommodation building. Specifically, the building will comprise 208 accommodation 'room clusters' (in effect, self-contained dwellings) facilitating 341 beds, as well as common study, foyer, service and circulation areas.

The site will be serviced by 44 bicycle parking spaces, located within a secure basement bicycle storage room.

3.2 PEDESTRIAN AND BICYCLE ACCESS

Pedestrian and bicycle access are proposed via the site's only road frontage, North Terrace. Given that the existing building's North Terrace frontage will be retained, access will be retained in the same primary location centrally along the site's frontage.

Access to the site's bicycle storage room will be provided via the building's three lift cores as well as a separate access door within the site's existing façade.

3.3 VEHICLE ACCESS

No vehicle parking will be provided on the subject site as part of the subject development. As such, no vehicle access is proposed between the subject site and North Terrace.

The provision of no vehicle access aligns with the City of Adelaide's Development Plan with regard to minimising vehicle access and maintaining pedestrian continuity particularly within the Primary Pedestrian Zone). Specifically, the following Principles of Development Control (PDC) are provided in relation to vehicle access:

> *"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."*

> *"227 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."

" 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."

Given that subject site is located within the 'Primary Pedestrian Area' and that North Terrace is classed as a 'ceremonial boulevard', it is considered that the provision of no vehicle access to/from the subject site is appropriate in this location.

3.4 SERVICE VEHICLES

Refuse collection is proposed to occur via the use of a private contractor. The contractor will be required to service the site during the early hours of the morning (i.e. between 4:00 am and 6:00 am) when vehicle movements and pedestrian activity on North Terrace is low. Further information regarding the frequency of waste collection has been detailed in a report prepared by Rawtec (forming part of the planning submission package).

Given that no vehicle access will be provided to the subject site, refuse collection vehicles will be required to store on North Terrace (directly adjacent the site) momentarily while undertaking refuse collection. It is noted that 'No Stopping' restrictions currently apply on North Terrace within the vicinity of the site. However, discussions were held on Tuesday 4th of June with representatives from the City of Adelaide, during which in-principle support was given for such arrangements (commercial vehicles stopping on North Terrace) noting the restrictions of the subject site (such as no other street frontage, heritage façade etc.).

Similar feedback was received during the project's third Pre-Lodgement Panel (PLP) meeting, with representatives of the City of Adelaide stating that dispensation to the waste operator would be provided. Given that the site is proposed to be serviced in the early hours of the morning and that no high waste generating uses are proposed within the development (such as a café or restaurant), the refuse collection arrangements are considered to be acceptable for the subject site.

4. PARKING ASSESSMENT

4.1 BICYCLE PARKING

The City of Adelaide's Development Plan (Principle of Development Control 234) states that "*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.*" However, Council's Development Plan does not identify a bicycle parking requirement relevant to 'student accommodation'.

The Development Plan does however identify a bicycle parking rate applicable to low, medium and high scale residential development (1 resident space for every dwelling with a total floor area less than 150 m^2 plus 1 visitor space for every 10 dwellings). On the basis of 208 accommodation 'room clusters', the proposal would have a theoretical requirement for 208 resident and 21 visitor bicycle parking spaces.

Use of the above 'residential' bicycle parking rate is considered excessive when applied to the proposed 'student accommodation' development. This is partially due to the differences in 'stay' periods associated with students (average stay of 26 to 52 weeks) and typical residents (in excess of one year) as well as other factors associated with the location of the subject site, namely:

- the subject site is located within close proximity (convenient walking distance) to both the University of Adelaide and University of South Australia campuses;
- high-frequency public transport services operate along North Terrace immediately adjacent the site; and
- numerous retail (including convenience retail) and entertainment offerings are located within close proximity to the subject site.

The proposed development will provide a total of 44 bicycle parking spaces within a secure bike storage area within the site's basement level. Such a provision equates to a rate of 1 bicycle space per 4.72 'room clusters' or 1 bicycle space per 7.75 beds.

In comparison to the proposal, bicycle parking rates at similar nearby student accommodation facilities are as follows:

- Urbanest North Terrace (228-231 North Terrace)
  - 505 'room clusters' (689 beds) and 42 bicycle parking spaces;
  - 1 bicycle space per 12.02 'room clusters' or 1 space per 16.40 beds;

- Urbanest Bank Street (12 Bank Street)
  - 503 'room clusters' and 24 bicycle parking spaces;
  - 1 bicycle space per 20.96 'room clusters';
- Hines Property (29 Twin Street)
  - 168 'room clusters' (510 beds) and 21 bicycle parking spaces;
  - 1 bicycle space per 8.00 'room clusters' or 1 space per 24.28 beds

Furthermore, GTA Consultants provided advice as part of the Urbanest (North Terrace) development application in December 2015. The report submitted as part of the development application identified that a bicycle parking rate of 1 space per 38.6 beds is sufficient to satisfy the average bicycle parking demand of high-rise student accommodation developments reviewed across Australia.

Given that the proposed development will provide bicycle parking at a rate in excess of that identified by GTA and at a higher rate than those of nearby similar student accommodation facilities, and that the site is in close proximity to Universities, public transport and retail/entertainment offerings, the site's bicycle parking provisions are considered to be acceptable and appropriate.

4.2 VEHICLE PARKING

The City of Adelaide's Development Plan does not identify a minimum parking requirement relevant to the proposed development (only a maximum parking rate applicable to 'high-scale residential'). As such, the proposed development satisfies the vehicle parking requirements of Council's Development Plan.

It should also be noted that the site is located within the Primary Pedestrian Zone and that numerous commercial parking facilities are located within close proximity to the subject site. Given that no parking is required (when assessed against Council's Development Plan), that Council's Development Plan seeks minimisation of vehicle access in this area and that commercial facilities are located within the vicinity of the subject site, it is considered that the exclusion of car parking from the proposal is appropriate.

5. SUMMARY

The proposal comprises construction of a multi-storey student accommodation building comprising of 208 'room clusters' and 341 beds (as well as ancillary study, foyer, service and circulation areas).

Refuse collection is proposed to occur on North Terrace within the early hours of the morning, when traffic volumes and pedestrian activity on North Terrace is low. Such an arrangement is considered acceptable (given that the site has frontage

only to North Terrace) and has received in-principle support from representatives of the City of Adelaide.

The site will be serviced by 44 bicycle parking spaces. Council's Development Plan does not identify a bicycle parking rate relevant to 'student accommodation', however, given the site's proximity to Universities, frequent public transport services and retail/entertainment offerings, such a provision is considered to be acceptable. Furthermore, such provisions exceed that of three nearby student accommodation facilities and that of the typical demand of high-rise 'student accommodation' throughout Australia.

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Accord Property Pty Ltd

203 North Terrace, Adelaide

Wind Impact Assessment

30N-19-0085-TRP-6761542-0

31 May 2019

Report Title: Wind Impact Assessment **Job Title: 203 North Terrace, Adelaide**	
DOCUMENT NO: 30N-19-0085-TRP-6761542-0 **PREPARED FOR:** Accord Property Pty Ltd Australia **CONTACT:** Jarrad Haynes **Tel:** 0431220988 **Fax:**	**REPORT CODE:** TRP **PREPARED BY:** Vipac Engineers and Scientists Limited 279 Normanby Rd, Port Melbourne, VIC 3207, Australia **Tel:** +61 3 9647 9700 **Fax**: +61 3 9646 4370
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EXECUTIVE SUMMARY

Accord Property Pty Ltd commissioned Vipac Engineers and Scientists Ltd to prepare a statement of wind effects for the proposed development at 203 North Terrace, Adelaide. This appraisal is based on Vipac's experience as a wind-engineering consultancy.

Drawings of the proposed development were provided by **Brown Falconer** in **May 2019**, as described in Appendix C of this report.

The findings of this study can be summarized as follows:

- With proposed design the development would be expected to have wind conditions in the footpath areas within the walking criterion;
- With proposed design, the entries would be expected to have wind conditions within the recommended standing comfort criterion;
- With the proposed design, the wind levels in the communal terrace areas would be expected to be within the recommended comfort criteria.

The assessments provided in this report have been made based on experience of similar situations in Adelaide and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for all complex flow interactions. Considering the height of the development, we recommend wind tunnel testing be conducted to verify these predictions.

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1 INTRODUCTION

Accord Property Pty Ltd commissioned Vipac Engineers and Scientists Ltd to prepare a statement of wind effects for the proposed development at 203 North Terrace, Adelaide. This appraisal is based on Vipac's experience as a wind-engineering consultancy.

The proposed development site is bounded by North Terrace to the north; and existing buildings in the other directions (See Figure 1). The North elevation of the proposed scheme is shown in Figure 2. The development incorporates a heritage façade for the lower levels.

This report details the opinion of Vipac as an experienced wind engineering consultancy regarding the wind effects in ground level public areas and access-ways adjacent to the development as proposed. No wind tunnel testing has been carried out for this development at this stage. Vipac has carried out wind tunnel studies on a large number of developments of similar shape and having similar exposure to that of the proposed development. These serve as a valid reference for the prediction of wind effects for this development. Empirical data for typical buildings in boundary layer flows has also been used to estimate likely ground level wind conditions adjacent to the proposed development [2] & [3].

Drawings of the proposed development were provided by **Brown Falconer** in **May 2019**, as described in Appendix C of this report.

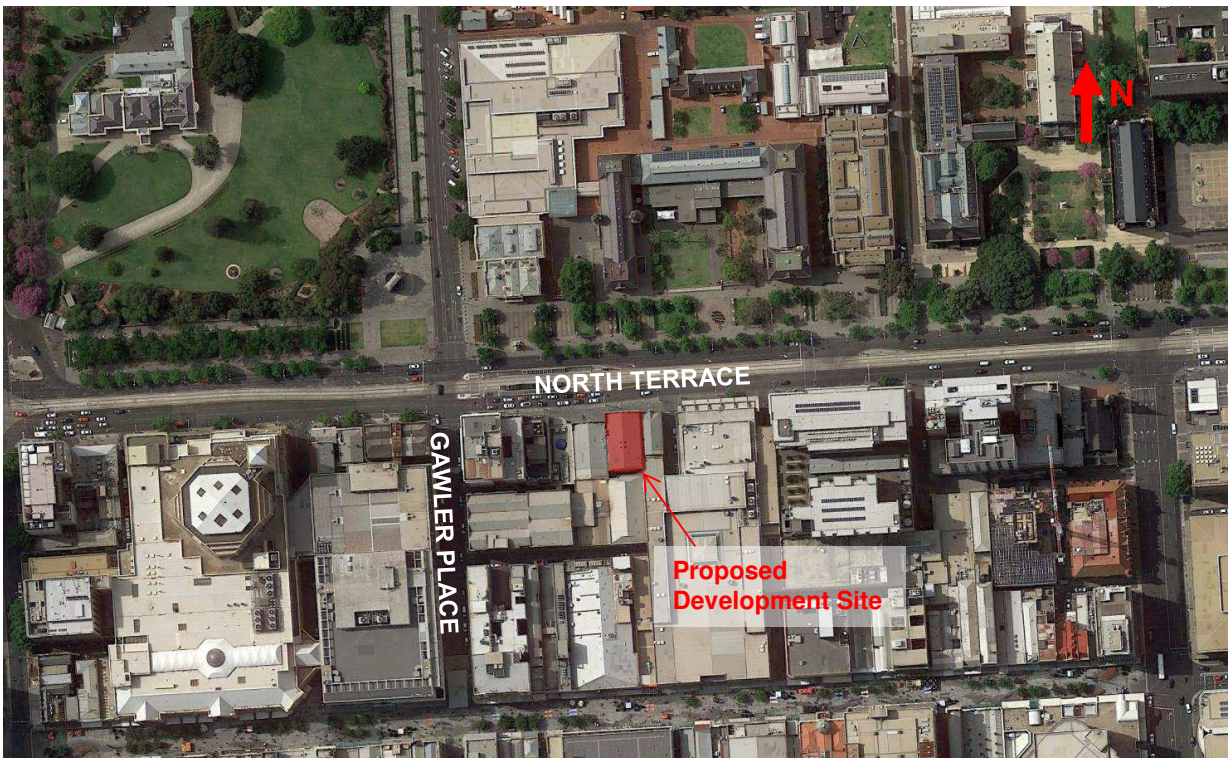


Figure 1: Aerial view of the proposed development site

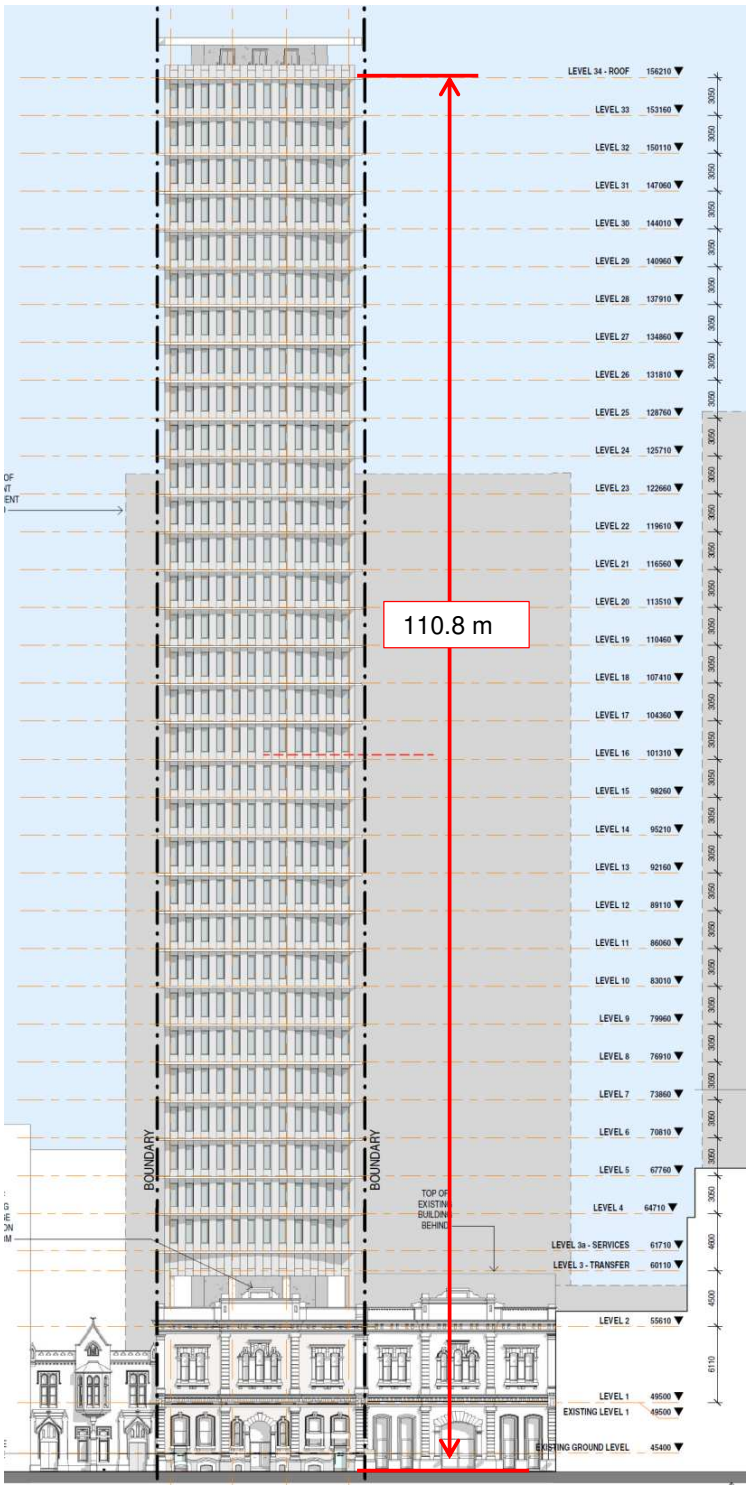


Figure 2: North elevations of the proposed development.

2 ANALYSIS APPROACH

When considering whether a proposed development is likely to generate adverse wind conditions in adjacent ground level areas, Vipac considers five main points:

- The exposure of the proposed development to wind;
- The regional wind climate;
- The geometry and orientation of the proposed development;
- The interaction of flows with adjacent developments;
- The assessment criteria, determined by the intended use of the public areas affected by wind flows generated or augmented by the proposed development.

The pedestrian wind comfort at specific locations around a site may be assessed by predicting the worst annual 3-second wind gust expected at that location. The location may be deemed generally acceptable for its intended use if the annual 3-second gust is within the threshold values noted in Section 2.5. For cases where Vipac predicts that a location would not meet its appropriate comfort criterion we may recommend the use of wind control devices and/or local building geometry modifications to achieve the desired comfort rating. For complex flow scenarios or where predicted flow conditions are well in excess of the recommended criteria, Vipac recommends scale model wind tunnel testing to determine the type and scope of the wind control measures required to achieve acceptable wind conditions.

2.1 SITE EXPOSURE

The proposed development site is located on the north of the Adelaide CBD. The surrounding developments (within 4 km radius) are low rise residential and parklands, with the taller buildings of the CBD to the southerly sector.

Therefore, for the current study, the exposure of the site is considered to be within Terrain Category 3 for all wind directions [1] (see Figure 3).

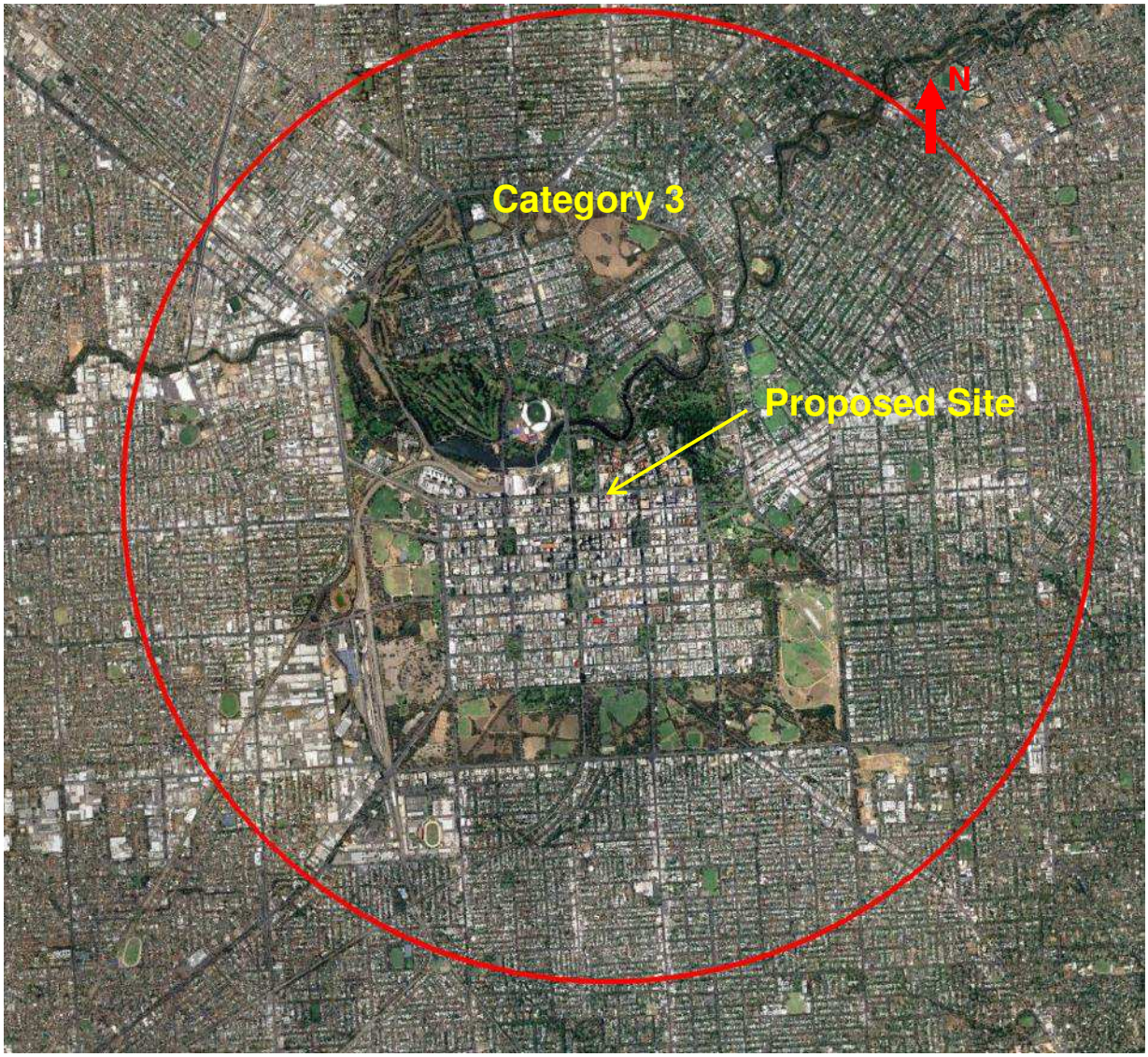


Figure 3: Assumed terrain categories for wind speed estimation.

2.2 REGIONAL WIND CLIMATE

The mean and gust wind speeds have been recorded in the Adelaide area for 30 years. These data have been analysed and the directional probability distribution of wind speeds have been determined. The directional distribution of hourly mean wind speed at the gradient height (≈500m), with a probability of occurring once per year (i.e. 1 year return period) is shown in Figure 4. The wind data at this free stream height are common to all Adelaide city sites and may be used as a reference to assess ground level wind conditions at the site. Figure 4 indicates that the stronger winds can be expected from the south-westerly, north-westerly and westerly directions.

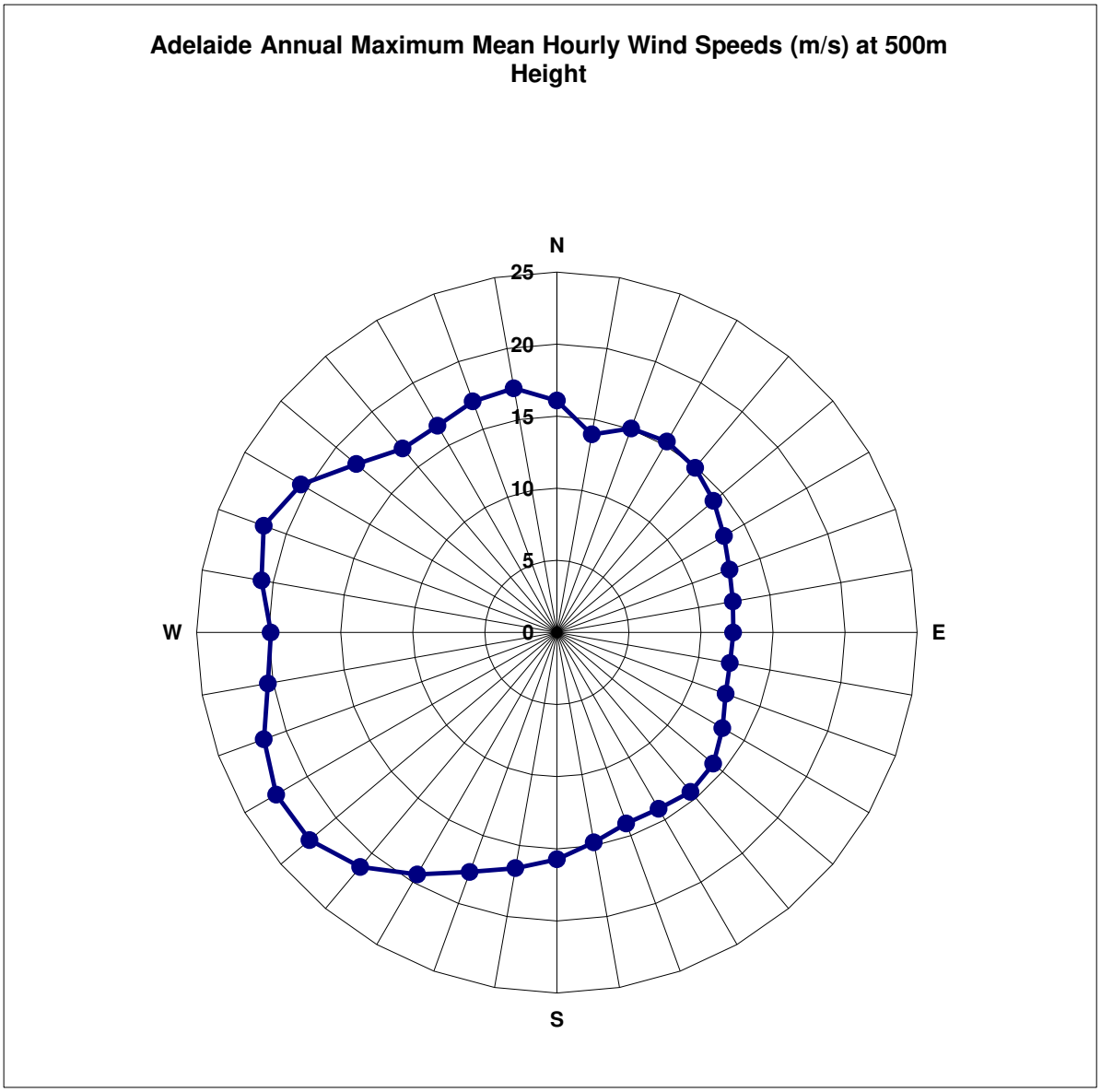


Figure 4: Directional Distribution of Annual Return Period Maximum Mean Hourly Wind Velocities (m/s) at gradient height of 500m in Adelaide.

2.3 SITE GEOMETRY AND ORIENTATION

The proposed development has a rectangular plan with the approximate dimensions of 17 m x 30 m as shown in Figure 5.

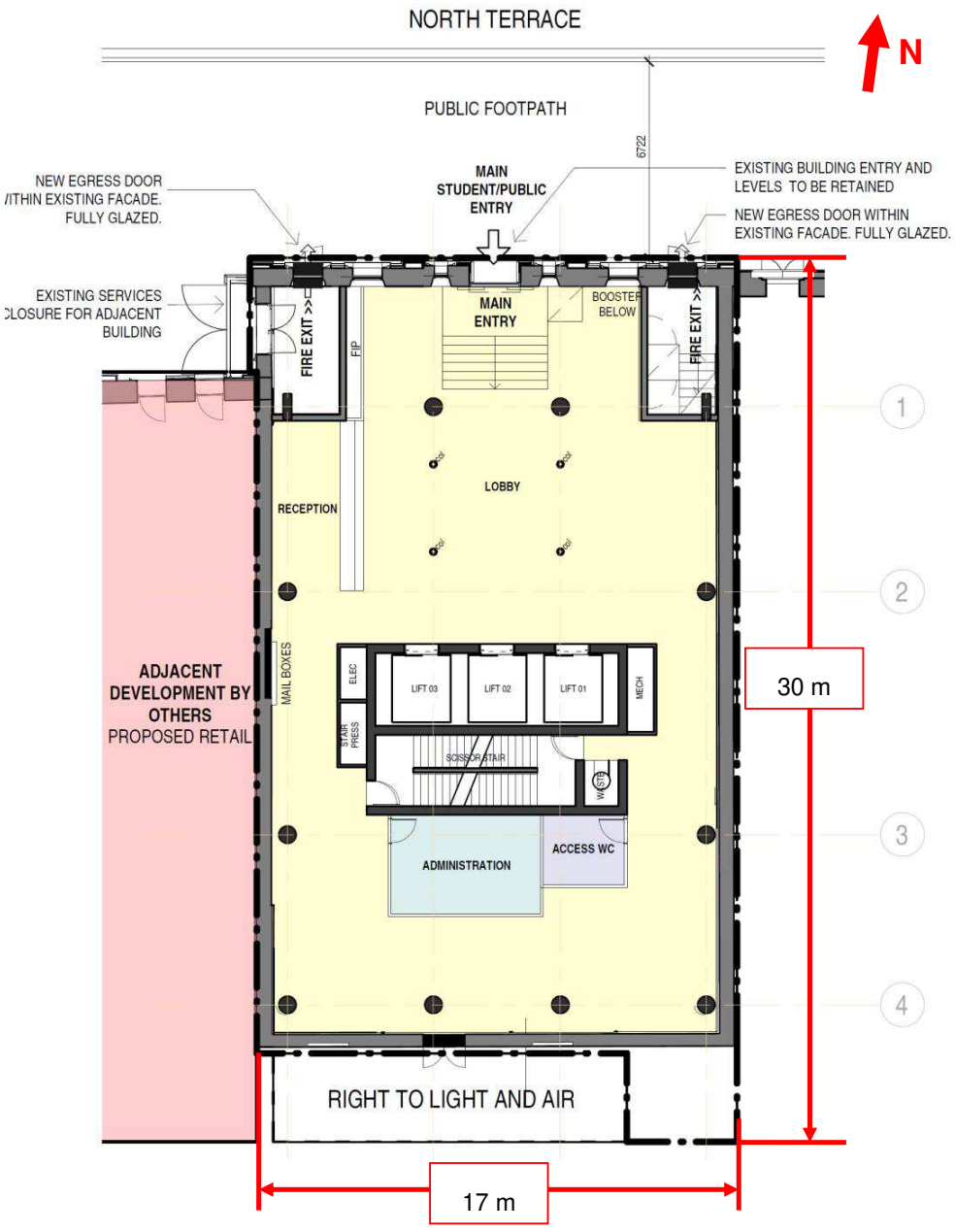


Figure 5: Ground floor plan of the development

2.4 FLOW INTERACTIONS WITH ADJACENT DEVELOPMENTS

The buildings immediately adjacent to the development site, with their approximate height in metres, are shown in Figure 6.

The site is predominately surrounded by 7-20 m buildings, with the Prince Henry Gardens to the north.

The winds from the southwest through west to northwest are high in strength on the proposed site due to the regional wind climate. The 30 m high building to the west will provide some shielding from these predominant winds.

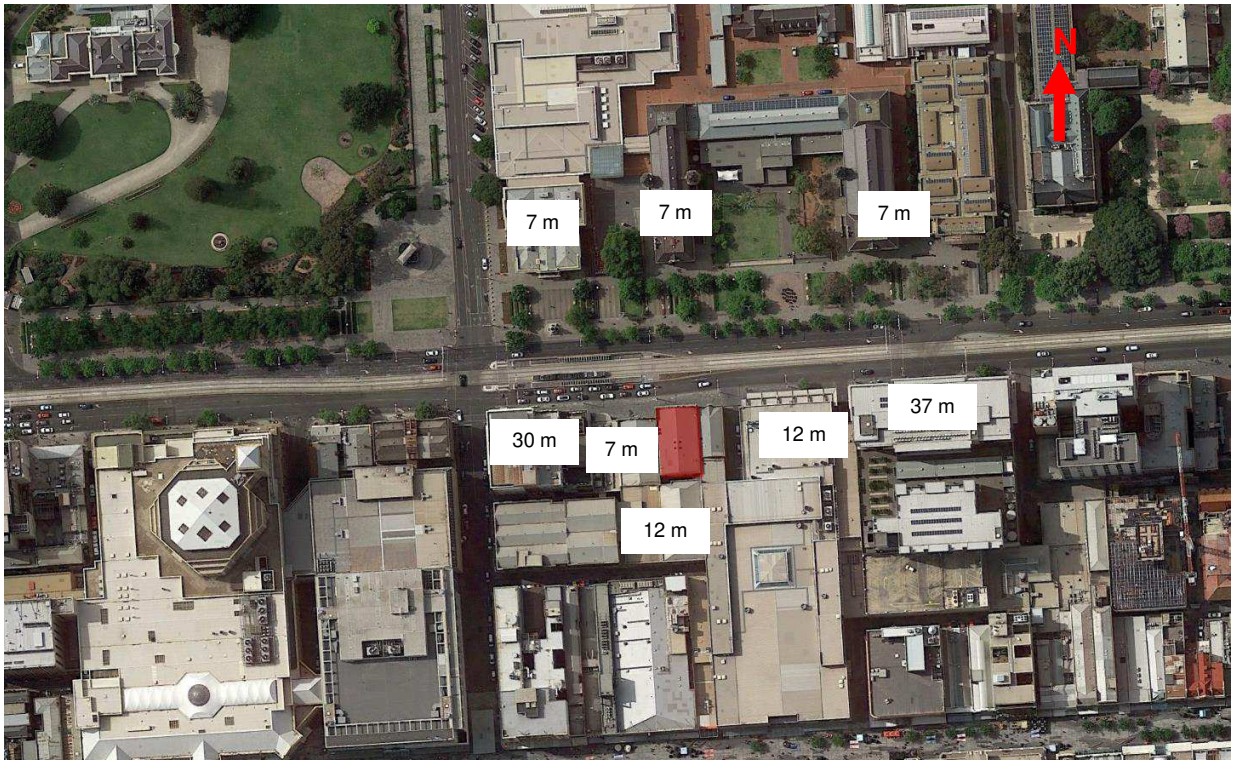


Figure 6: Immediately adjacent buildings and their approximate height in meters (m).

2.5 ASSESSMENT CRITERIA

With some consensus of international opinion, pedestrian wind comfort is rated according to the suitability of certain activities at a site in relation to the expected annual peak 3-second gust velocity at that location for each wind direction. Each of the major areas around the site are characterized by the annual maximum gust wind speeds. Most patrons would consider a site generally unacceptable for its intended use if it were probable that during one annual wind event, a peak 3-second gust occurs which exceeds the established comfort threshold velocity (shown in Table 1). If that threshold is exceeded once per year then it is also likely that during moderate winds, noticeably unpleasant wind conditions would result, and the windiness of the location would be considered as unacceptable.

Table 1: Recommended Wind Comfort and Safety Gust Criteria

Annual Maximum Gust Speed	**Result on Perceived Pedestrian Comfort**
>23m/s	Unsafe (frail pedestrians knocked over)
<20m/s	Acceptable for **fast walking** (waterfront or particular walking areas)
<16m/s	Acceptable for **walking** (steady steps for most pedestrians)
<13m/s	Acceptable for **standing** (window shopping, vehicle drop off, queuing)
<11m/s	Acceptable for **sitting** (outdoor cafés, gardens, park benches)

In a similar manner, a set of hourly mean velocity criteria (see Table 2) with a 0.1% probability of occurrence are also applicable to ground level areas in and adjacent to the proposed development. An area should be within both the relevant mean and gust limits in order to satisfy the particular human comfort and safety criteria in question.

Table 2: Recommended Wind Comfort and Safety Mean Criteria

Mean wind speed exceeded 0.1% of the time	**Result on Perceived Pedestrian Comfort**
>15m/s	Unsafe (frail pedestrians knocked over)
<13m/s	Acceptable for **fast walking** (waterfront or particular walking areas)
<10m/s	Acceptable for **walking** (steady steps for most pedestrians)
<7m/s	Acceptable for **standing** (window shopping, vehicle drop off, queuing)
<5m/s	Acceptable for **sitting** (outdoor cafés, gardens, park benches)

Recommended Criteria

The following table lists the specific areas adjacent to the development and the corresponding recommended criteria.

Table 3: Recommended application of criteria

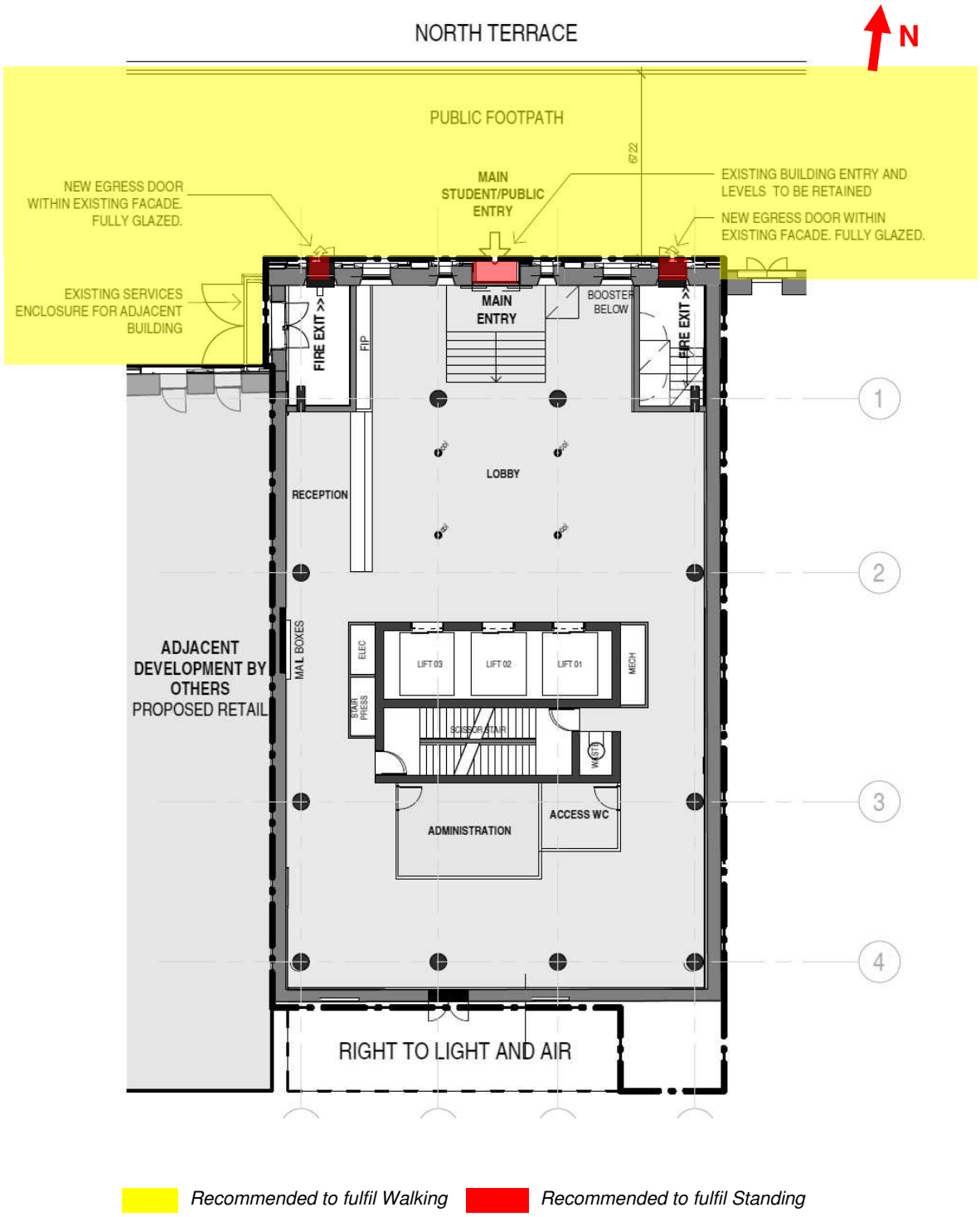
Area	Specific Location	Recommended Criteria
Footpaths	Around the development (Figure 7)	Walking
Building Entrances	North side of the building (Figure 7)	Standing
Communal Terraces/Balconies	Level 2 communal terrace	Walking (Refer to discussion below)

Terrace / Balcony and Rooftop areas Recommended Criterion Discussion

Vipac recommends as a minimum that common terrace areas meet the criterion for walking since:

- these areas are not public spaces;
- the use of these areas is optional;
- many similar developments in Melbourne and other Australian capital cities experience wind conditions on balconies and elevated deck areas in the vicinity of the criterion for walking.

However, it should be noted that meeting the walking criterion on elevated recreation areas will be no guarantee that occupants will find wind conditions in these areas acceptable at all times.



Recommended to fulfil Walking *Recommended to fulfil Standing*

Figure 7: Ground level Plan view of the proposed development with recommended wind criteria overlaid

3 PEDESTRIAN LEVEL WIND EFFECTS AND RECOMMENDATIONS

Ground Level

The development is particularly exposed to the northerly direction due to the open space across North Terrace, however, winds from this direction are expected to be within the walking comfort criterion. Corner acceleration of westerly winds is expected to be the main contributing factor to the adjacent wind environment. However, with the proposed podium setback of the tower, winds will be redirected away from the ground level, and as such, the wind environment is expected to be within the recommended walking comfort criterion along the adjacent footpaths.

The entrances are set back within the façade and are expected to be within the recommended standing comfort criterion.

Level 2 Communal Terrace

The communal terrace is well shielded by the existing parapet and proposed landscaping. It is expected that wind levels will be within the recommended walking comfort criterion with the proposed design.

3.1 RECOMMENDATIONS

After careful consideration of the form and exposure of the proposed development, Vipac predicts that most areas will satisfy the various recommended comfort criteria at the ground elvel and communal terraces. As such, Vipac makes no recommendation for the alteration of the design as proposed.

It should be noted that this study is based on experience only and has not utilised any experimental data for the analysis. Considering the height of the development, we recommend wind tunnel testing be conducted to verify these predictions.

4 CONCLUSIONS

An appraisal of the likely wind conditions for the proposed development at 203 North Terrace, Adelaide has been made.

Vipac has carefully considered the design and exposure of the proposed development, nominated criteria for various public areas according to their function and referred to past experience to produce our opinion of likely wind conditions. Base on this assessment, the following conclusions are drawn:

- With proposed design the development would be expected to have wind conditions in the footpath areas within the walking criterion;
- With proposed design, the entries would be expected to have wind conditions within the recommended standing comfort criterion;
- With the proposed design, the wind levels in the communal terrace areas would be expected to be within the recommended comfort criteria.

The assessments provided in this report have been made based on experience of similar situations in Adelaide and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for complex flow interactions in the vicinity. Considering the height of the development, we recommend wind tunnel testing be conducted to verify these predictions.

This Report has been Prepared

For

Accord Property Pty Ltd

By

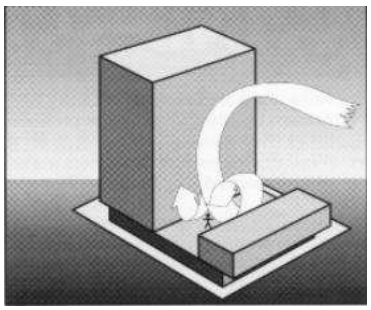
VIPAC ENGINEERS & SCIENTISTS PTY LTD

Appendix A: ENVIRONMENTAL WIND EFFECTS

Atmospheric Boundary Layer

As wind flows over the earth it encounters various roughness elements and terrain such as water, forests, houses and buildings. To varying degrees, these elements reduce the mean wind speed at low elevations and increase air turbulence. The wind above these obstructions travels with attenuated velocity, driven by atmospheric pressure gradients. The resultant increase in wind speed with height above ground is known as a wind velocity profile. When this wind profile encounters a tall building, some of the fast moving wind at upper elevations is diverted down to ground level resulting in local adverse wind effects.

The terminology used to describe the wind flow patterns around the proposed Development is based on the aerodynamic mechanism, direction and nature of the wind flow.



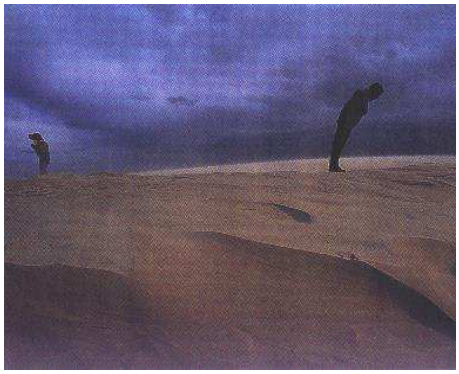
Downwash – refers to a flow of air down the exposed face of a tower. A tall tower can deflect a fast moving wind at higher elevations downwards.

Corner Accelerations – when wind flows around the corner of a building it tends to accelerate in a similar manner to airflow over the top of an aeroplane wing.

Flow separation – when wind flowing along a surface suddenly detaches from that surface and the resultant energy dissipation produces increased turbulence in the flow. Flow separation at a building corner or at a solid screen can result in gusty conditions.

Flow channelling – the well-known “street canyon” effect occurs when a large volume of air is funnelled through a constricted pathway. To maintain flow continuity the wind must speed up as it passes through the constriction. Examples of this might occur between two towers, in a narrowing street or under a bridge.

Direct Exposure – a location with little upstream shielding for a wind direction of interest. The location will be exposed to the unabated mean wind and gust velocity. Piers and open water frontage may have such exposure.



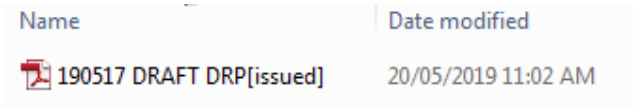
Appendix B: REFERENCES

[1] *Structural Design Actions, Part 2: Wind Actions*, Australian/New Zealand Standard 1170.2:2011

[2] *Wind Effects on Structures* E. Simiu, R Scanlan, Publisher: Wiley-Interscience

[3] *Architectural Aerodynamics* R. Aynsley, W. Melbourne, B. Vickery, Publisher: Applied Science Publishers

Appendix C: DRAWING LIST



12 August 2019

Elysse Kuhar
Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Will

DEVELOPMENT NUMBER: **020/A042/19**
APPLICANT: **203 North Terrace Pty Ltd**
NATURE OF DEVELOPMENT: **Multistorey student accommodation tower**
SUBJECT LAND: **203-205 NORTH TCE ADELAIDE SA 5000**

The application has been assessed and the building at a proposed height of RL 157.660m AHD the application **will** penetrate the Adelaide Airport Obstacle Limitation surfaces (OLS) which is protected airspace for aircraft operations.

The application will require approval in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996 and therefore will be forwarded to the Department of Infrastructure and Regional Development for their approval.

The developments will penetrate the OLS by approximately 28 metres.

If the development is approved by the Department of Infrastructure, Transport, Regional Development and Cities any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.

Crane operations associated with construction, if approved, will also be subject to a separate application.

Should you require any additional information or wish to discuss this matter further please contact the undersigned on 8308 9245.

Yours sincerely,

Brett Eaton
Airside Operations Manager

Adelaide Airport

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Adelaide Airport
South Australia 5950

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Government of South Australia
Department for Environment and Water

Heritage South Australia
Environment, Heritage and Sustainability Division
81-95
Waymouth Street
Adelaide SA 5000
GPO Box 1047
Adelaide SA 5001
Australia
DX138
Ph: +61 8 8124 4922
Fax: +61 8 8124 4980
www.environment.sa.gov.au

Ref: SH/13367D
Date: 11 September 2019

Secretary - Ms Alison Gill
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Attention: Elysse Kuhar

Dear Ms Kuhar

DESCRIPTION: OFFICE (FORMER CONSULTING ROOMS) AND FORMER G & R WILLS WAREHOUSE – ALTERATIONS AND ADDITIONS TO A STATE HERITAGE PLACE AND A MULTISTOREY STUDENT ACCOMMODATION TOWER – 203-205 NORTH TERRACE, ADELAIDE

Application number:	020/A042/19
Referral received:	17/07/2019
State heritage place:	SH/13367—Office (former Consulting Rooms) and former G & R Wills Warehouse, 203-207 North Terrace ADELAIDE
	SH/13365—The Gallerie Shopping Centre (former G & R Wills Warehouse), 201-202 North Terrace ADELAIDE
Documentation:	As lodged

The above application has been referred to the Minister for Environment and Water in accordance with Section 37 of the *Development Act 1993* as development that directly affects a State heritage place or, in the opinion of the relevant authority, materially affects the context within which a State heritage place is situated.

The subject site constitutes the eastern half of the paired former G & R Wills warehouses, of which SH/13365 is the western half. The subject site is listed as SH/13367 in conjunction with the neo-Gothic former consulting rooms to its east. The proposed development directly affects the eastern G & R Wills warehouse building, and materially affects the context within which all three contiguous buildings are situated.

I acknowledge the considerable evolution of this project during the pre-lodgement stage, with a comprehensive re-working of the internal programming (as described in the Ekistics planning statement pages 7-8 and Fig 2.1) aimed at mitigating to some extent the impacts on heritage value inherent in the total internal demolition. The scheme as lodged allows for the salvage and partial re-use of internal fabric and components, in particular floorboards, timber matchboard ceiling linings and decorative cast iron columns from the ground floor.

The application is accompanied by a *Heritage Impact Statement* (DASH Architects, 26/06/2019) that considers the material and contextual impacts of the proposed development on the above State heritage places.

Material impacts

The Burra Charter[1] promotes the following principles (Articles) that may be considered particularly relevant to this project.

[1] *The Australia ICOMOS Charter for Places of Cultural Significance, 2013*

1.11 Compatible use means a use which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

3.2 Changes to a place should not distort the physical or other evidence it provides, nor be based on conjecture.

7.2 A place should have a compatible use.

15.1 Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation.

15.2 Changes which reduce cultural significance should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant fabric of a place is generally not acceptable. However, in some cases minor demolition may be appropriate as part of conservation. Removed significant fabric should be reinstated when circumstances permit.

21.1 Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place.

21.2 Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives.

22.1 New work such as additions or other changes to the place may be acceptable where it respects and does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation.

Section 5.1.1 of the *Heritage Impact Statement* sets out a grading of the project's material impacts on heritage value from Rating 1 (substantial negative impact) to 5 (substantial positive impact). I concur with these attributions of impact as a useful basis for assessment.

The report identifies the conflict evident in the material heritage impacts that the proposed development will have on the heritage place. One the one hand, there is considerable positive impact in the proposed reversal of the 1930s' vehicle entry in the North Terrace frontage and in the conservation proposed for the building's remaining shell. On the other hand, total demolition of the internal fabric and the roof form has a major negative impact on the heritage values of the place. The fact that the neighbouring western portion of the original G & R Wills development was reduced to a masonry shell many years ago only reinforces the significance of the subject building's interiors and roof.

The report makes the following concluding statements about the project's material heritage impacts.

> *In this case, the approving authority may form a balanced view that the loss of fabric, and subsequent impact on the Heritage Value of the Place, is acceptable if ensures the ongoing viability of the site. From a heritage point of view this decision could be equated to either 'losing the limb, to save the body', as opposed to holding out for a 'miracle cure'.*
>
> *The set-out of the new works, and re-use of some materials in a similar location to original, has mitigated the negative heritage impact attributable to the loss of internal fabric but the overall heritage impact internally remains negative.*
>
> *This negative impact however must be considered within the overall intent of the Development Plan and a range of other factors beyond the scope of a heritage report. Ultimately it may be that this negative impact is acceptable as it meets other ambitions for the site and locality and will help to ensure that the remaining fabric has a viable future, embedded within a new development.*
>
> *Similarly, an assessment of the proposal against the Development Plan will see many positive elements but must assess the relative impact of the loss of internal fabric.*

In my opinion, this is a reasonable and balanced summary of the material impacts, subject to a qualification with reference to the second paragraph about the extent to which the proposed

salvage and re-use of some original materials and components succeeds in mitigating the negative impacts. I would consider the mitigation is only partial.

The project as currently presented makes significant and welcome moves in the right direction. The internal programming of the ground and first floors allows a ready appreciation of the original open layouts and spatial qualities of the ground and first floors, and sets up appropriate spaces within which the interpretive component can be delivered.

The extent and detail of this interpretive component is only vaguely understood at this stage. Information in the application as lodged is limited to brief mention in the planning statement (Ekistics, 4/07/2019, page 23) that *"where possible, existing iron columns, floorboards and timber ceilings will be preserved and incorporated into the design of each floor plate"*, and to indications in the architectural drawings and 3D visualisations of some limited degree of reinstatement of ground floor cast iron columns and interpretation of the structural grid.

Bearing in mind that the project fails to satisfy the reversibility principle of Burra Charter Article 15.2 and goes well beyond the minor demolition envisaged by Article 15.3, I consider that a high degree of rigour is appropriate in assessing the extent to which this proposal succeeds in retaining and interpreting cultural significance in accordance with Articles 1.11, 3.2, 15.1, 21.1, 21.2 and 22.1.

I regard the realisation and delivery of this aspect of the proposal as being crucial to the mitigation of heritage impact and consider therefore that it merits the inclusion of a reserved matter as described in the recommendation below.

Contextual impacts

The *Heritage Impact Statement* comments on the impact of the proposed tower component on the setting of the three heritage buildings in Sections 5.1.2.3 and 5.2, generally concluding that there is no impact on their North Terrace setting. While acknowledging that this view is expressed within the report's terms of reference, I make the wider observation that this project contributes to the incremental and fundamental transformation of the scale and character of North Terrace that is being experienced in response to height-related development plan policy settings.

That aside, I concur generally with the following statements.

- In relation to the subject building at 203-205 North Terrace…

  The relationship between the existing Heritage Place and the tower proposed above it is critical. The 'shadow' story at the connection, breaking up of overall height through expression of shared spaces, setback (to align to the similar building to the west) is important to the success of this, as is the symmetry of the façade and the materials chosen.

  The design has been subject of detailed examination through Design review and the PLP process. Overall, I believe that it is successful and that it does not adversely affect the setting of the Heritage Place, and thus its Heritage Values.

- In relation to the western half of the G & R Wills warehouse at 201-202 North Terrace (referred to here as 200 North Terrace)…

  The relationship between this building to the East [West?] *and the Heritage Place on the site will not be affected by the proposed works, nor will its setting along North Terrace. Although the Application proposes a hi-rise tower above the site, its setback and relationship with the subject site, also assist with its relationship with 200 North Tce.*

- In relation to the neo-Gothic building at 206-207 North Terrace…

  Similarly to above, the relationship between this building to the West [East?] *and the Heritage Place on the site will not be affected by the proposed works, nor will its setting along North Terrace.*

Although the Application proposes a hi-rise tower above the site, its setback and relationship with the subject site, also assist with its relationship with the eastern component of 203-207 North Terrace.

I support the overall approach to the tower's external form, setback, symmetry with the heritage place and articulation into three distinct elements through the treatment of the intermediate communal levels. The further setback of the northern wall line at the Level 2 roof terrace is an important part of the tower's articulation in providing a negative interface between the tower and the form of the heritage building. It should not be reduced.

I consider that the proposed façade treatment and material expression as lodged is appropriate to the tower's interface with the settings of the relevant State heritage places. The detailed design of the tower's cladding in the round has been a particular focus at the Design Review stage of the project, and I defer to the Government Architect in the finalisation of this aspect of the proposal.

Recommendation

A. Pursuant to Section 33(3) of the *Development Act 1993*, the following matter/s should be reserved for further assessment prior to the granting of Development Approval, to the satisfaction of the relevant authority in consultation with Heritage South Australia (Department for Environment and Water).

Reserved matter 1: The scheme for the interpretation of the building's original internal structure, construction, materials, finishes and detailing through the incorporation of salvaged original fabric and other appropriate means

A comprehensive concept design, to be followed by detailed design and documentation, shall be developed to demonstrate how the historic character, spatial qualities, construction, materials, finishes and detailing of the original interiors are to be presented and interpreted, particularly at the ground floor and first floor levels.

The brief for the concept design shall consider aspects such as:

a) the 4-bay structural grid;

b) the structural, functional and material hierarchy of the three levels, evident in the differing column types, soffit treatments, materials palette and decorative detail at each level;

c) the stairs;

d) the roof lantern; and

e) the interfaces between old and new.

Reason for reserved matter: The ability of the interpretive reconstruction concept to adequately mitigate the heritage impact resulting from total internal demolition relies on the integrity with which salvaged components and other materials are re-used and the validity of the interpretation they achieve, which should be compelling and meaningful.

B. The following condition/s arising from the recommendations of the *Heritage Impact Statement* should be incorporated into any consent or approval.

Condition 1: Conservation works

a) The scope of conservation works to be undertaken as part of this application are to be confirmed to the satisfaction of the relevant authority in consultation with Heritage South Australia, prior to the granting of Development Approval. The scope should include timber door and window joinery, stonework, and restoration of lost or damaged detail.

b) The scope and detail of external and internal conservation works shall be informed by detailed investigations by suitably a experienced heritage architect. The works

shall be documented to the satisfaction of the relevant authority in consultation with Heritage South Australia.

Reason for condition: The application includes conservation works but their scope and detail has not yet been defined. Appropriate conservation works will assist in maintaining the heritage values of remnant fabric and in mitigating the effects of long-standing neglect.

Condition 2: Alterations to heritage fabric

Details of the following works shall be developed and submitted to the satisfaction of the relevant authority in consultation with Heritage South Australia, prior to the granting of Development Approval. The works shall be informed by a suitably experienced heritage architect. Documentation shall include the specification of materials, methods, workmanship and finishes.

a) The deletion of the current vehicle entrance and the reinstatement of that section of the façade to its original state matching the construction, design, appearance and detail of the extant eastern section of the façade.

b) The forming of two new openings and the installation of two new exit doors beneath the sills of the ground floor windows, including:

i) the approach to forming the openings and the salvage of stone for use elsewhere;

ii) the alignment of jambs relative to the window jambs above;

iii) the reveal detail and interface with the masonry jambs and sills;

iv) the threshold treatment and interface with finished footpath levels; and

v) the design of the new doors including setback, materials, colour, finish, detail and door furniture.

c) The revised main entrance (lowered to address BCA/DDA requirements) including:

i) the re-use of the existing timber doors at the lower level, expressing the original form of the doors and fanlight and resolving the appropriate treatment of the zone between the existing fanlight and the re-positioned doors;

ii) the design, detail and setback of the new glazed entrance doors and the interface with existing fabric including the re-positioned timber doors;

iii) the interpretation of the original stair profile; and

iv) the design and material expression of the new stair and balustrades.

Reason for condition: Detail of the works sufficient to understand its heritage impact has not yet been developed. The proposed works to the North Terrace façade affect fabric classified as being of 'Exceptional' heritage significance.[2] A high standard of design and consideration for heritage fabric should be achieved in the implementation of these works.

Condition 3: Structural and services interventions

Details of the following works shall be developed and submitted to the satisfaction of the relevant authority in consultation with Heritage South Australia, prior to the granting of Development Approval. The works shall be informed by a suitably experienced heritage architect. Documentation shall include the specification of materials, methods, workmanship and finishes.

a) The installation of services access points into basement windows, including:

i) details of existing fabric affected (on the understanding that the masonry openings should not be altered); and

ii) details of the finished appearance of the installation.

---

[2] *'High Level' Conservation Management Plan (DASH Architects, Revision A dated 2/05/2013)*

b) The installation of new stormwater overflows for the new roof deck. The stormwater management from the existing roof is poor and has presented issues over recent years. The drainage associated with the new roof deck should include overflow capacity to North Terrace in a way that is visually discrete and minimises the physical impact on the masonry.

c) The installation of new downpipes, and the street connection for stormwater drainage. It is anticipated that downpipes would be routed internally rather than expressed on the main façade.

d) The fire separation infill to openings between the subject building and neighbouring properties. It is anticipated that these would be of light-weight construction, set in from the masonry face to express the original form of the openings.

e) The installation and screening of the new transformer at the current roof level, including:

i) setbacks from the parapets to allow maintenance access to the masonry; and

ii) details of the height, design, materials, colour and finish of the screens.

Reason for condition: Details of the works sufficient to understand their heritage impacts have not yet been developed. Works should be reversible with minimal material and visual impact on the place.

Condition 4: Protection of historic fabric

The following documentation shall be provided to the satisfaction of the relevant authority in consultation with Heritage South Australia prior to the commencement of works on site.

a) A Vibration Management Plan prepared by the building contractor that establishes:

i) appropriate vibration limits in the proximity of the heritage places as informed by DIN 4150-3;

ii) appropriate construction techniques to limit vibration to the established limits, and set exclusions zones for equipment and construction practices that are likely to exceed these;

iii) risk management procedures for any works that are likely to exceed established limits to ensure the protection and preservation of fabric of heritage significance;

iv) appropriate monitoring techniques to ensure vibration limits are not exceeded; and

v) a regime of regular inspection of the heritage fabric to ensure no damage is arising from the works.

Reason for condition: To protect the material integrity of the State heritage places.

C. The following further conditions should also be incorporated into any consent or approval.

Condition 5: Recording and protection of historic fabric

The following documentation shall be submitted to the satisfaction of the relevant authority in consultation with Heritage South Australia prior to the commencement of works on site.

a) An archival photographic record of the building internally and externally. The record should be in accordance with the recommendations for photographic recording in the publication *How to Prepare Archival Records of Heritage Items* (NSW Heritage Office, Heritage Information Series 1998).

b) A comprehensive 3D laser point cloud scan of the building. The scan shall be of an agreed resolution, and shall at the least include the whole of the building's interior and the external form and detail of the roof.

c) A deconstruction strategy that details a methodology aimed at minimising the damage to fabric being removed and maximises the salvage of fabric for re-use.

d) A Dilapidation Survey recording the condition of the three State heritage listed buildings at 201-207 North Terrace. The structural condition of the fabric of each listed building shall be monitored during the course of ground works and construction to identify any adverse impacts. Immediate action shall be taken to identify and address any structural distress that becomes evident during the demolition, ground works and construction stages.

e) A Heritage Management Plan informed by a suitably experienced heritage architect that clearly identifies:

i) what parts of the place are important and why;

ii) potential risks to the place arising from the works, including those arising from the construction process (footing support, vibration, accidental damage);

iii) mitigation measures employed to avoid identified risks;

iv) identification of persons responsible for managing and reviewing ongoing risks;

v) contractor inductions (with regard to heritage matters/risks—refer to attached DEWNR Site Induction Notes for State Heritage Places).

f) A detailed structural support system and construction methodology for the retention and protection of heritage fabric during the works. Any temporary structural support fixings shall minimise physical damage to original fabric and facilitate repair on removal.

Reason for condition: To provide for an adequate archival record of significant fabric, construction and spaces to be demolished. To adequately manage the inherent risks to the heritage place during the construction phase.

Condition 6: New internal works

Details of the following works shall be resolved and documented to the satisfaction of the relevant authority in consultation with Heritage South Australia, prior to the granting of Development Approval.

a) The interface of the proposed raised platforms flanking the North Terrace entrance with the existing northern windows and western loading doors.

b) The introduction of building services within the listed building.

c) The method and detail for the seismic stabilisation of retained historic fabric.

Reason for condition: Details of the works sufficient to understand their heritage impact have not yet been developed. Works should be reversible with minimal material and visual impact on the place.

Condition 7: Site management

a) A site induction of all contractors and staff undertaking the works shall be undertaken and shall include information about the heritage significance and listing of the three State heritage places. The site induction should highlight good heritage practice and what to do if works vary from the approval. The site induction shall be prepared by a suitably experienced heritage consultant. A generic site induction is attached for reference

b) Site personnel responsible for decisions about the scope and extent of works, extent of removal of damaged fabric, workmanship, repair techniques, materials, colours, finishes, making good, the detail of new fabric or components and other matters concerning the extent and quality of the works shall do so on the basis of possessing or seeking from a suitably experienced heritage consultant appropriate expertise in heritage conservation, traditional practice and the sensitive upgrading of heritage places. Those undertaking the works shall also possess suitable heritage experience and skills to the satisfaction of the site supervisor or heritage consultant.

Reason for condition: To provide for appropriate levels of awareness and decision-making hierarchy.

General notes

1. Should Council not adopt the above recommendation in full, it will be necessary to obtain the concurrence of the State Commission Assessment Panel before a decision is conveyed to the applicant.
2. 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 for Environment and Water, or an additional referral to the Minister for Environment and Water. 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.
3. To ensure a satisfactory heritage outcome, the relevant planning authority is requested to consult the Department for Environment and Water in finalising any conditions or reserved matters above.
4. In accordance with Regulation 43 of the *Development Regulations 2008*, please send the Department for Environment and Water a copy of the Decision Notification.
5. The relevant planning authority is requested to inform the applicant of 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 for Environment and Water.
6. The relevant planning authority is requested to inform the applicant of 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*.

For any enquiries in relation to this application, I can be contacted on telephone 8124 4935 or e-mail peter.wells@sa.gov.au.

Yours sincerely

Peter Wells
Principal Conservation Architect
DEPARTMENT FOR ENVIRONMENT AND WATER
as delegate of the
MINISTER FOR ENVIRONMENT AND WATER

Site Induction Notes for State Heritage Places

Introduction

When undertaking conservation or development works to State Heritage Places, there is the potential to impact upon the heritage values of the place.

To avoid accidental damage, it is important for all contractors working at heritage places to be aware of the place's heritage values, and what procedures and obligations are required.

Before undertaking site works

When undertaking works at State Heritage Places, contractors with appropriate expertise and experience should be engaged.

Due diligence should be undertaken to achieve the appropriate approvals and determine if works are likely to impact on known or potential areas of historical archaeological or Aboriginal heritage significance. Mitigation measures should form part of site induction procedures.

The following notes for the 'induction of contractors' is considered to be minimum requirements. Depending on the nature of the site and nature of the works, other information may be required in the site induction. Information for a site induction at a State Heritage Place should have relevant input from the applicant's heritage consultant or adviser.

Induction of contractors

An **induction of contractors** at work sites for State Heritage Places should include:

1. A brief explanation of **why the place is important**. This may include elements that are being affected by the works, such as a building, or other elements on site, such as road alignments, trees or archaeology. Affected areas may include site works, temporary construction or access areas.

2. A brief explanation of **what to do when a variation of works occurs**. An example may be the poor condition of fabric and requirement to repair or replace more than was stated in the approved works. Such a variation should be discussed with the site supervisor and the applicant's heritage consultant or adviser to understand if this requires a statutory variation to the works, notification to consent authorities, and/or further heritage advice.

3. Relevant **conditions of consent** that apply to protection and conservation of the heritage place. **Protection measures** should be established prior to and for the duration of works around significant built fabric, significant trees or other identified significant site elements in the vicinity of works. Contractors should be made aware of requirements for careful movement of equipment on and around these items.

4. A description on **what to do if works uncover historical archaeological artefacts** under the *Heritage Places Act 1993* (SA). This may include structural remains of buildings, drains, wells or other structures on the site, or associated cultural deposits, such as various fills or archaeological artefacts.

a. In the first instance works should cease in the area of the discovery. If the discovery is a deposit, then work must cease in any affected area.

b. The person discovering the artefact or deposit should notify their site supervisor, who should ensure work is ceased in this area and the site is cordoned off.

c. The supervisor should engage the services of a suitably qualified historical archaeologist to visit the site and advise on the nature and significance of the discovery.

d. If it is determined that the discovery is an archaeological artefact of potential heritage significance, then the supervisor must notify the State Heritage Unit of the Department of Environment, Water and Natural Resources (DEWNR, as delegate of the South Australian Heritage Council) on (08) 8124 4960, as required under Section 27(2) of the Act.

e. The State Heritage Unit of DEWNR will determine if a permit may be required under Section 27 of the Act and what actions are required by the applicant to attain a permit. Works must not re-start in the area until confirmation is received from DEWNR.

Note: Penalties exist under the Act for non-compliance.

5. A description of **what to do if works uncover an Aboriginal object, site or remains** under the *Aboriginal Heritage Act 1988 (SA)*.

a. In the first instance works should cease in the area of the discovery.

b. The person discovering the Aboriginal object, site or remains should notify their site supervisor, who should ensure any work or other activities in the vicinity that may disturb the ground surface or otherwise affect the Aboriginal object, site or remains must be stopped and the site is cordoned off. If required, the area should be stabilised.

c. The supervisor should notify the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division (AARD) of the Department of Premier and Cabinet (delegate of the Minister) on (08) 8226 8900, as required under Section 20(1) of the Act.

d. The Aboriginal Heritage Branch will advise on the appropriate process, which may include recording the site and further action under Sections 12 and/or 23 of the Act. Works must not re-start in the area until confirmation is received from AARD.

Note: Penalties exist under the Act for non-compliance.

Note: Certain landforms are more likely to contain evidence of Aboriginal occupation. Please refer to *Guideline 2: Section 20 of the Aboriginal Heritage Act 1988* for further details, which can be downloaded from the Department of Premier and Cabinet website.

6. A description of what to do if **human remains are discovered** under the *Coroners Act 2003 (SA)* and the *Aboriginal Heritage Act 1988 (SA)*.

a. In the first instance works should cease in the area of the discovery.

b. The person discovering the human remains should notify their site supervisor, who should ensure any work or other activities in the vicinity that may disturb the ground surface or otherwise affect the human remains must be stopped and the site is cordoned off. If required, the area should be stabilised. Do not remove any bones from the site.

c. The supervisor should notify the Police on 131 444, as required under Section 28(1) of the *Coroners Act 2003 (SA)*.

d. The Police may visit the site to determine whether the remains are that of an Aboriginal person, and if so, the Police will contact the Aboriginal Heritage Branch.

e. The Aboriginal Heritage Branch will advise on the appropriate process if human remains are found to be that of an Aboriginal person.

Note: Penalties exist under the both Acts for non-compliance.

Note: Please refer to *Guideline 2: Section 20 of the Aboriginal Heritage Act 1988* for further details, which can be downloaded from the Department of Premier and Cabinet website.

OFFICE FOR DESIGN + ARCHITECTURE SA

Confidential

File No:
2014/11234/01

Ref No:
14492702

17 September 2019

Elysse Kuhar
Planning Officer
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

Elysse.Kuhar@sa.gov.au

203 North Terrace, Adelaide

Further to the referral 020/A042/19 received 17 July 2019, amended documentation received 11 September 2019 and additional information received 13 September 2019 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I am pleased to provide the following comments informed by the Design Review process for your consideration.

The project was presented to the Design Review panel on two occasions, over which period the design response progressed. However, the architectural expression of the currently lodged scheme received 11 and 13 September was not presented to the Design Review panel due to time constraints. A pre-lodgement agreement was not reached in advance of lodgement.

The scheme is for a student accommodation building that incorporates the State heritage listed former W&G Wills & Co. warehouse located at 203 North Terrace. I welcome the ambition to deliver high quality student accommodation in this prestigious location that introduces an active population and removes car parking requirements. I also acknowledge the significant challenges presented by the site, including the limited options for access and servicing.

The site is located on the south side of North Terrace, approximately 30 metres west of the David Jones building and directly opposite the South Australian State Library and South Australian Museum. The North Terrace Art Gallery tram stop is located just west of the site, and there are no vehicle parking or loading zones along this section of North Terrace. North Terrace is a key pedestrian promenade and cultural boulevard that provides an important northern edge to the City. The rectangular site includes a narrow frontage to North Terrace at approximately 16.5 metres, and a depth of approximately 27 metres. It is anticipated that any tall development on this site will be highly visible in the long term, including the building depth in oblique views from the east and west. This is due to the current and envisaged future context, namely the adjoining State heritage place to the east and approved development at 200 North Terrace, which limits redevelopment of the adjoining warehouse to a roof terrace and single storey set back pavilion.

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The existing State heritage listed building located on the site is one of a pair, formerly the W&G Wills & Co. warehouse. Designed by prominent South Australian colonial architect Daniel Garlick, the three storey former warehouse is stepped in plan along the North Terrace frontage and is characterised by masonry construction with classical Italianate stucco detailing. The interior volumes of the former warehouse are undivided with slender cast iron columns on the elevated ground floor. The first floor includes large north facing windows and a lofty timber lined ceiling that features a central light well and skylight. The basement includes street level windows and a non-original vehicle access ramp with an associated opening in the North Terrace facade. The adjoining neo-gothic building to the east is also a State heritage place. The site is land locked on three boundaries, with access only available from North Terrace. I support the restoration of the exterior of the heritage building as part of the project, and the reinstatement of the symmetrical facade, where previously modified to accommodate vehicle access.

The proposal retains the existing floor levels and incorporates partial retention of the heritage interior through a central core and structural system that includes offset circular columns within the heritage building envelope. In my view, the proposed internal program and preliminary concepts for the treatment of the W&G Wills & Co. warehouse building intervention are convincing as they balance essential works with due regard to the heritage conditions. I strongly support the approach that maximises retention of the warehouse character including the undivided floor plate and exposure of the original perimeter walls through the set back central circulation core arrangement. I also strongly support the retention of the existing floor levels that allow for the location of services within the basement, optimise active uses on the ground and first floor levels and present opportunities for reuse/reinterpretation of the existing columns and beams. I support the intent to salvage and repurpose original fabric including the cast iron columns, timber floors and timber ceilings. In my view, the success of this approach is contingent on a meaningful and curated strategy that responds to the historic warehouse quality and contemporary use. To that end, I urge ongoing consideration of the physical and cultural heritage value of the former warehouse through the next stage of design development to guide the final outcome.

Pedestrian access to the elevated ground floor level is via an internal stair leading from the existing central door opening. Two elevated seating platforms are proposed on either side of the stair to accommodate head room clearance for the egress stairs from the basement. The floor levels of the platforms align with the window sills. I support this innovative approach that achieves complex egress requirements, while also contributing to the amenity of the entrance lobby and maximising outlook to North Terrace. I also support the location of services, storage and bicycle parking within the basement as this unlocks the ground floor internal program and maximises the open warehouse character. The proposal removes the existing garage door in the westernmost opening and reinstates the symmetrical facade, which I strongly support. I also support the approach for the expression of the new emergency exit openings, namely solid door insertions that retain the existing stone window sills and respect the material quality of the heritage facade in a contemporary manner. In my view, the success of the new door insertions is contingent on refined detailing and materiality that balances heritage sensitivity with contemporary interventions, which I anticipate will be resolved in consultation with Heritage SA.

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I strongly support the provision of common study, dining, living and recreation spaces on levels one and two, which benefit from the heritage building's unique characteristics including large north facing windows and high ceilings. On level two, the proposed built form of the tower element is set back creating a generous north facing terrace positioned behind the warehouse building parapet, which I also strongly support. A transformer is located in the north west corner of the terrace, which in principle I support as this maximises opportunities for activation of the lower building levels. The transformer is set back and enclosed by a 1.8 metre tall aluminium louvre screen that projects approximately 220mm above the existing heritage parapet. I support the approach that minimises the visual impact of the transformer from both street and terrace levels.

The student rooms are positioned along the northern and southern frontages, and are typically well planned and efficient. The circulation core is set back and located centrally with light access and outlook provided by indented sections in the east and west facades, which I strongly support. Communal spaces are distributed throughout the development on the ground, first and second levels of the heritage building and on levels 12, 23 and 32 of the tower. These communal spaces are intended to be themed by activity and designed as destinations within the overall development. I support the distribution, integration, generosity and envisaged varied character and quality of the communal spaces, which in my view strengthens the intent for a genuine vertical student community. I also support the location of common spaces on the northern frontage, the separation of these spaces from student rooms by the central core and the glazed expression of the common spaces externally. I understand the structural system maintains 2.7 metre ceiling heights in living areas, which is support.

The proposed 32 storey (approximately 112 metre) tall tower is set back approximately 4.6 metres from the heritage frontage to align with the existing step in the adjoining warehouse building line, which I support. The tower is also set back 0.6 metres from the east and west boundaries, with central indent sections that are set back 1.05 metres. The rear setback of the tower is 1.1 metres. I support the proposed tower setbacks that respond to the North Terrace context and the overall composition that achieves a reduced north south building depth and a symmetrical relationship to the W&G Wills & Co. warehouse.

The proposed tower element is characterised by a singular architectural expression with glazed breaks in the facade on levels 12 and 23 and at the top of the building. I support the proposed breaks in the tower massing and the consistent expression of the tower in the round. The transition level between the heritage building and the tower is treated as a recessive element, comprising black stained precast, which I support. The tower walls above comprise Brighton Lite precast panels with a repetitious rebate pattern. In principle, I support the approach for an integral finish to the precast and the visual interest created through a rebate pattern. However, I am somewhat concerned by the tonal relationship of the Brighton Lite finish to the heritage building. I also note the visualisations indicate a yellow toned material finish for the precast, which does not accurately represent Brighton Lite finish. I recommend provision of physical material samples to demonstrate the tonal relationship between the precast panels and the heritage building. I also recommend prototyping of the concrete panels with the rebate pattern to confirm the envisaged visual effect.

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The proposed 0.45 metre deep anodised aluminium vertical fins in Pale Bronze are perpendicular to the building facades and installed using a proprietary channel system that minimises the visual impact of the fixings and junctions. The glazed breaks in the facade feature full height glazing, with prominent anodised aluminium framing in Espresso Bronze. A projecting soffit element in the same material finish extends 0.5 metres to the east and west and 1.2 metres to the north and south to provide sunshading, which I support. I understand glazing selections and colours will be informed by energy modelling, however it is anticipated that glazing will be a different tone at each facade break due to the differing application of sunshading. In my view, an opportunity exists to explore a glazing colour that reinforces a unified singular expression for the facade breaks. A consistent soffit design is also proposed at the transition level, which together with the dark material treatment seeks to provide further definition between the heritage building and the tower, which I support.

The top of the tower features dual soffits separated by an approximately one metre tall band element. I support the approach for the design of the top of the tower, as in my view the consistent application of the projecting soffit contributes to cohesive expression overall. The roof soffit also assists in mitigating the visual impact of the 1.8 metre tall rooftop plant screen, as demonstrated in long view perspectives.
In principle, I support the proposed tower expression and materiality, as in my view the overall composition, simplicity of the design and materiality has a potential to respond appropriately to the heritage building and broader North Terrace context. I also support the approach for integrated shading that contributes to the overall architectural expression. In my view, however, the success of the proposed tower design will be contingent on the precast material quality and detailing of the facade elements. This includes fixing, jointing and termination details of the vertical fins, the soffit design details, the jointing of the precast wall panels including the building corners, the set back of the window frames within the precast panels, the proposed precast panel repetitious rebate pattern and the tonal relationship of the new building elements to the heritage building. As such, I recommend provision of additional information that accurately describes these key details supported by physical material samples.

The proposed waste management system comprises a chute system with a bin room located in the basement. Waste and recycling is to be collected by a contractor in off-peak times, with bins wheeled from the basement to North Terrace via a hoist located adjacent to the eastern egress stair. I acknowledge the limited options available for servicing the site. However, I am concerned by the potential safety, amenity and visual impacts of waste collection off North Terrace, being the city's premier cultural boulevard. As such, I recommend provision of a detailed waste management plan to minimise safety, amenity and visual impacts on the public realm.

Signage elements are proposed on the east and west elevations, namely 9 x 1.8m vertical signage panels at the bottom of the building and 4 x 4m signage panels at the top of the building. I recommend provision of further information regarding building signage, including proposed lighting and the envisaged colour scheme, with the view to achieving an integrated outcome.

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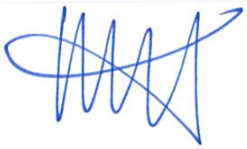
To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider particular aspects of the project, which would benefit from protection as part of the planning permission, such as:

- Provision of physical material samples to confirm selections and delivery of high quality materials and finishes that respond to the heritage masonry fabric and reinforce a unified singular expression for the facade breaks
- Provision of additional information that accurately describes key construction details including fixing, jointing and termination details of the vertical fins, the soffit design details, the jointing of the precast wall panels including the building corners, the set back of the window frames within the precast panels and the proposed precast panel repetitious rebate pattern
- Development of facade design and detailing through prototyping of the patterned concrete patterns during the next phase of design development
- Provision of a detailed waste management plan to minimise safety, amenity and visual impacts on North Terrace
- Development of a signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation

Yours sincerely



Kirsteen Mackay
South Australian Government Architect

cc Ellen Liebelt ODASA Design Advisor ellen.liebelt@sa.gov.au

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CoA Ref: S10/32/2019
SCAP Ref: 020/A042/19

6 August 2019

State Commission Assessment Panel
By email: elysse.kuhar@sa.gov.au
Cc: scapadmin@sa.gov.au

Attention: State Commission Assessment Panel

Dear Sir/Madam

Application: S10/32/2019
Applicant: 203 NORTH TERRACE P/L
Address: 203-205 North Terrace, ADELAIDE SA 5000
Description: Alterations and additions to a State Heritage Place and the construction of a 33 storey student accommodation tower

Council has the following comments to make on the above application:

TECHNICAL COMMENTS

TRAFFIC / TRANSPORT	Waste collections shall occur after 7pm and prior to 7am. Changes to the 'No Stopping Zone' will not be permitted. The applicant must advise Council of the waste service provider and the approximate waste collection times to enable communications to Council's Parking Information Officers.
WASTE	Council is satisfied with the proposal, noting that engaging a private contractor for ongoing bin servicing must occur as the building will not be eligible for Council's waste collection services.

SUGGESTED CONDITION

Footpath Level

The existing footpath level shall not be modified to suit the floor level of the entry point to the development.

Reason:

To ensure public footpaths remain level and as such pedestrian safety and amenity is not compromised.

Yours faithfully

Seb Grose
SENIOR PLANNER - DEVELOPMENT ASSESSMENT

Kuhar, Elysse (DPTI)

From: Kuhar, Elysse (DPTI)
Sent: Friday, 26 July 2019 2:53 PM
To: 'Rob Gagetti'
Subject: RE: 203 North Terrace

Hi Rob

Your email was timely. I was putting together a further information request.

As per discussions in the final Pre-lodgement meeting, The Government Architect requires a materials sample board in order to finalise their referral.

I anticipate the GA would be particularly interested in:

- Mesh modelling to confirm visual impacts internally and from long view perspectives – including optimising solar, ventilation and acoustic performance and testing the optical density of the mesh to determine the visual impact of the wall conditions behind including windows and on internal user amenity - I believe Brown Falconer were progressing this testing based on discussions in the last PLP, so perhaps this could be confirmed
- Physical material sample to demonstrate the mesh quality and colour – I recommend that the sample be of a size to understand its overall effect - i.e. not a A4 sheet – a larger sample of say 1m2 would be ideal, including details/sample of how the sheets are joined/stitched together to achieve the envisaged uniform effect. The finish/colour of the metallic half round shroud elements is also important as the shrouds potentially impact on the uniform expression
- Details on maintenance and longevity of the mesh, including warrantee information – I think this is critical, given the significant extent of mesh (to the full height of the tower, to all elevations) and its visual impact (on Adelaide's cultural boulevard)
- We talked in the PLP about the wind impacts on the mesh – i.e. whistling – I understand the applicant was reviewing this, so perhaps this could be confirmed

A couple of additional questions include:

- Confirmation of the design of the new door insertions – the plans and planning report note fully glazed egress doors, however sheet 003A notes contemporary door insertions with a solid door indicated in the visualisation – a solid metal clad door/frame was also described in DR
- Terrace level transformer configuration and demonstration of visual impact from streetscape and terrace perspective – the planning report notes the transformer is to be screened by a 1.8m tall louvre enclosure, which may have a visual impact from North Terrace

In terms of the strategy for heritage interiors, including salvaging and/or repurposing of original fabric, the planning report notes 'reusing cast iron columns, floorboards and ceiling boards where possible, concentrating on foyer space'. The DR panel supported this approach, in principle, and anticipated resolution through the design development phase. The GA would be interested in any additional information regarding the heritage building interiors.

If you have any questions regarding this matter please feel free to contact me.

Regards

Elysse Kuhar
Senior Planning Officer – Inner Metro Development Assessment
Planning and Land Use Services
Department of Planning, Transport and Infrastructure

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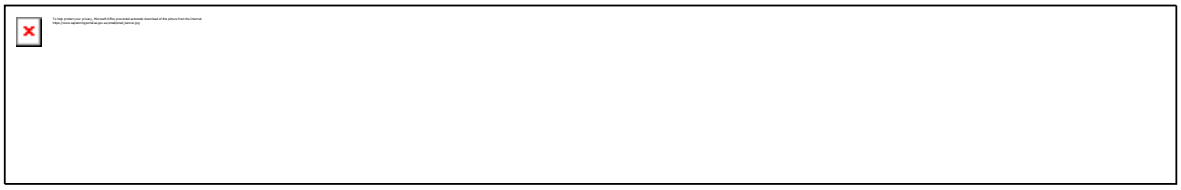

From: Rob Gagetti [mailto:rgagetti@ekistics.com.au]
Sent: Friday, 26 July 2019 9:59 AM
To: Kuhar, Elysse (DPTI) <Elysse.Kuhar@sa.gov.au>
Subject: 203 North Terrace

Morning Elysse,

Further to my voice mail message left today, I am just seeking a status update on the assessment of the Student Accommodation development proposed for 203 North Terrace. Can you confirm if the heritage referral has occurred?

Kind regards,

Rob Gagetti
Associate

ekistics

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w> ekistics.com.au

Kuhar, Elysse (DPTI)

From: Rob Gagetti <rgagetti@ekistics.com.au>
Sent: Wednesday, 11 September 2019 1:43 PM
To: Kuhar, Elysse (DPTI)
Cc: Mario Dreosti (M.Dreosti@brownfalconer.com.au); Jarrad Haynes; Richard Dwyer; Chan, Belinda (DPTI); Mackay, Kirsteen (DPTI); Liebelt, Ellen (DPTI)
Subject: 203 North Terrace, Adelaide - Student Accommodation Development.
Attachments: 190910 DA[B] issued.pdf

Dear Elysse,

Further to our meeting with you on 06 September 2019, we are pleased to provide the revised plans (attached) illustrating an alternate façade treatment for the student accommodation development proposed for 203 North Terrace, Adelaide.

Key changes to the design of the development are summarised below:

- The previously proposed external metal mesh façade has been removed;
- The revised wall façade treatment will consist of 450mm vertical aluminium fins with an anodised finish, protruding from architectural precast walls; and
- 'Building breaks' at levels 12, 23 and 32 have been revised to include a HORIZONTAL planes/soffits which will also act as a screen to roof top mechanical plant

No other changes to the design of the development are proposed.

Further to Ellen's email dated 06 September 2019, we understand that ODASA is comfortable with the alternative façade treatment, subject to the provision of the amended plans addressing each of the following matters:

- *Consideration of overlooking to the south to the adjoining office tower development (previously the mesh solution was assisting in mitigating overlooking impacts)*
- *Consideration of how the facade is expressed in the round, including solar orientation*
- *Expression and detailing of the building breaks, including the soffits (recommend provision of section details to demonstrate this)*
- *Provision of physical material samples to demonstrate compatibility of material tone/texture and overall material quality*
- *Resolution of the treatment of the top of the building*

Each of the above matters are addressed briefly below:

Consideration of overlooking to the south to the adjoining office tower development (previously the mesh solution was assisting in mitigating overlooking impacts)

The previously proposed external mesh cladding was intended to obscure views into southern elevation student accommodation windows from the proposed 19 storey tower development which is to occupy land immediately to the south of the subject site (DA 020/A055/17). In light of the revised external cladding system now proposed, the applicant now proposes to install internal blinds to all habitable rooms along the southern elevation to ensure an appropriate level of privacy and internal amenity is maintained for building occupants.

As mentioned in our Planning Statement, the proposed commercial development to the south will be situated approximately 7.2 metres (minimum) from the southern elevation of the student accommodation. The generous separation distance between the two proposed developments will further assist to minimise direct views into the habitable rooms of student accommodation. Further, this separation distance is consistent with the intent of

Council Wide PDC 67 which seeks to ensure habitable windows are positioned at least three metres from boundaries to ensure an adequate level of amenity and privacy for occupants is maintained.

Recognising that the adjoining commercial development to the south will accommodate office tenancies, we are of the opinion that outward views from the student accommodation is not a relevant consideration in the assessment of this application.

In our opinion, the development has been designed to maintain an appropriate level of privacy and amenity for occupants of the proposed student accommodation, taking into account the proposal to install internal blinds, together with the proposed separation distance between the student accommodation and commercial development to the south. The development is therefore closely aligned with Council Wide PDC 66 and 67 of the Development Plan.

Consideration of how the facade is expressed in the round, including solar orientation

As discussed, the revised façade treatment includes the provision of vertical fins to all elevations. The vertical fins (which are to protrude from the building wall by 450mm) have been selected for their ability to maximise access to natural light into windows along the northern elevation, whilst also providing shade to limit solar heat gain along the western elevation. All resident and private areas are orientated to the north or south with only common areas including east or west facing windows. The windows are limited in number and shaded with vertical fins.

Expression and detailing of the building breaks, including the soffits (recommend provision of section details to demonstrate this)

Revised elevations illustrating each building break are illustrated in the attached plans. The breaks proposed at levels 12, 23 and 32 will be characterised by full height glazing/windows to all elevations. The horizontal planes above levels 12 and 23 will extend 500mm to east and west, and 1200mm to the north and south with an alternate colour paint finish proposed to delineate the break in building form. These elements will articulate the building as well contribute to solar shading.

We also note the materials palette presented at the SCAP meeting scheduled for 26 September 2019 will provide further clarity on material options for the soffits.

Provision of physical material samples to demonstrate compatibility of material tone/texture and overall material quality

As discussed above, material samples will be presented at the SCAP meeting scheduled for 26 September 2019.

Resolution of the treatment for the top of the building

The revised elevations attached to this email illustrate the revised design for Level 32, which has been expressed with capping and materiality similar to the 'building breaks' proposed for Levels 12 and 23. The proposed horizontal plane will also act as a parapet, providing a more suitable and integrated screen to rooftop mechanical plant (when compared with the previously proposed design).

Other Matters

We also refer to our previous email to you dated 08 August 2019, providing further detail on the proposed doors/opening along the northern elevation, together with the screening details for the mechanical plant proposed for the terrace level. We trust these matters have now been addressed to your satisfaction.

We trust the revised plans and our response each of the matters raised satisfactorily address all outstanding enquiries.

However, should you require any further clarification, please do not hesitate to contact me on 7231 0286.

Kind regards,

Rob Gagetti
Associate

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Kuhar, Elysse (DPTI)

Subject: FW: 203 North Terrace - Revised design - materiality
Attachments: 190913 DA[C]issued.pdf

From: Liebelt, Ellen (DPTI)
Sent: Thursday, 12 September 2019 4:43 PM
To: Kuhar, Elysse (DPTI) <Elysse.Kuhar@sa.gov.au>
Subject: 203 North Terrace - Revised design - materiality

Hi Elysse

Re: the materials sent through for the revised design for 203 North Terrace, is it possible to request further information regarding the material finishes? This includes:

- the colour/finish of the precast panels for the tower and confirmation of the three dimensional fold in the panel presented in our meeting last week - Mario described the likely finish as being Brightonlite in the meeting (also refer 'Facade Construction' 3D sketch from last week's meeting pack – this drawing wasn't included in Rob's submission)
  Building materials and colour selection is displayed on the attached eastern elevation (Plan 10C). Brighton Lite precast wall cladding is proposed for the building facades. However, we are proposing a repetitious rebate pattern in lieu of 3D concrete panels. In our opinion, the architectural expression created by the rebate pattern and vertical fins will achieve the desired level of visual interest and colour when viewed from the public realm.
- the colour/finish of the precast panels for the transition floor between the heritage building and tower (level 2) – i.e. is it intended that the same precast colour will apply to the entire building, or will the transition level be distinctive?
  Architectural precast with a penetrating black stain is proposed for the wall cladding of the transition level (Level 02) above the existing State Heritage Place. A darker precast colour is proposed to create a demarcation between the existing SHP and new tower.
- the colour of the anodised finish to the vertical aluminium fins - Mario described the likely finish as being bronze in the meeting
  As agreed, the anodised aluminium vertical fins will be constructed in a 'Pale Bronze' colour.
- the colour/finish of the window frames for the tower
  The window frames will be constructed in anodised aluminium and finished in a 'Pale Bronze colour ' to match the materials and colour of the vertical fins
- the colour/finish of the full height windows to the three facade breaks/common areas - these frames appear to be darker/more pronounced in the renders/elevations
  The windows for each façade break at levels 12, 23 and 32 will be constructed in anodised aluminium and finished in an 'Espresso Bronze' colour.
- the colour/material/finish of the facade break projecting soffits
  The soffits proposed for levels 12, 23 and 32 will be constructed in anodised aluminium and finished in an 'Espresso Bronze' colour to match the windows proposed for these areas.
- Confirmation of whether the same glass colour will be applied universally, or whether the three facade breaks will be treated distinctively with a different glass colour
  Glazing will be a different tone at each 'break level' due to the differing application of sub shading. Generally the glazing will be similar for residential areas, however detailed energy modelling to occur during the detailed design phase will confirm glazing specifications for the different elevations.

I note from Rob's email that the team intends to present the materials palette at the SCAP meeting, however it would be good to cover off the intent for the materiality in the GA's referral response.

Thanks, Ellen

Ellen Liebelt
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We acknowledge and respect Aboriginal peoples as South Australia's first peoples and nations, we recognise Aboriginal peoples as traditional owners and occupants of land and waters in South Australia and that their spiritual, social, cultural and economic practices come from their traditional lands and waters; and they maintain their cultural and heritage beliefs, languages and laws which are of ongoing importance; We pay our respects to their ancestors and to their Elders.

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 though 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.

Figure CC/1

Figure CC/2

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, Benthem 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 though 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 sleeved 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 set-backs.

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, notwithstanding its height, it has regard to the context that forms the positive character of the locality and is sympathetic to the desired character of the Zone or Policy Area and the anticipated city form expressed in Concept Plan Figures CC/1 and 2, and

(a) if the development incorporates the retention, conservation and reuse of a building which is a listed heritage place or an existing built form and fabric that contributes positively to the character of the local area; or

(b) more than 15% of dwellings are affordable housing; or

(c) only if:

(i) at least three of the following are provided:

(1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjacent Zone, Policy Area or building height area on Concept Plan Figures CC/1 and 2;

(2) high quality open space that is universally accessible and is directly connected to, and well integrated with, public realm areas of the street;

(3) high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site;

(4) no on site car parking is provided;

(5) active uses are located on at least 75% of the public street frontages of the building, with any above ground car parking located behind;

(6) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;

(7) the building is adjacent to the Park Lands;

(8) the impact on adjacent properties is no greater than a building of the maximum height on Concept Plan Figures CC/1 and 2 in relation to sunlight access and overlooking; and

(ii) at least three of the following sustainable design measures are provided:

(1) a communal useable garden integrated with the design of the building that covers the majority of a rooftop area supported by services that ensure ongoing maintenance;

(2) living landscaped vertical surfaces of at least 50 square metres supported by services that ensure ongoing maintenance;

(3) passive heating and cooling design elements including solar shading integrated into the building;

(4) higher amenity through provision of private open space in excess of minimum requirements by 25% for at least 50% of dwellings;

(5) solar photovoltaic cells on the majority of the available roof area, supported by services that ensure ongoing maintenance.

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) or the 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

Introduction

The following Council Wide Objectives and Principles of Development Control apply across the area within the boundary of the Adelaide (City) Development Plan, as shown on Map Adel/1, unless otherwise stated. To determine all of the policies relevant to any kind of development, reference should be made to the Council Wide Objectives and Principles of Development Control as well as the Desired Character, Objectives and Principles of Development Control for the relevant Zone and Policy Area/s.

City Living

Housing Choice

OBJECTIVES

Objective 6: A variety of housing options which supplement existing types of housing and suit the widely differing social, cultural and economic needs of all existing and future residents.

Objective 7: A range of long and short term residential opportunities to increase the number and range of dwellings available whilst protecting identified areas of special character and improving the quality of the residential environment.

Objective 8: A broad range of accommodation to meet the needs of low income, disadvantaged and groups with complex needs whilst ensuring integration with existing residential communities.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should comprise of a range of housing types, tenures and cost, to meet the widely differing social and economic needs of residents.

2 Development should provide a variety of accommodation to meet the needs of low income people, student housing, social housing, housing for single people, large and small families, people with disabilities and people with other complex needs These forms of housing should be distributed throughout the Council area to avoid over-concentration of similar types of housing in a particular area and should be of a scale and appearance that reinforces and achieves the desired character of the locality, as expressed in the relevant Zone and Policy Area.

Student Accommodation

OBJECTIVE

Objective 9: High-quality student accommodation that creates an affordable, safe, healthy and comfortable living environment.

PRINCIPLES OF DEVELOPMENT CONTROL

3 Residential development specifically designed for the short-term occupation of students may provide reduced internal floor areas, car parking, storage areas and/or areas of private open space provided that:

(a) residents have access to common or shared facilities that enable a more efficient use of space (such as cooking, laundry, common rooms or communal open space);

(b) every living room has a window that provides an external outlook and maximises access to natural light;

(c) the development is designed to enable easy adaptation or reconfiguration to accommodate an alternative use;

(d) the development is designed to maximise opportunities to access natural ventilation and natural light;`

(e) private open space is provided in the form of balconies and/or substituted with communal open space (including rooftop gardens, common rooms or the like) that is accessible to all occupants of the building; and

(f) the internal layout and facilities provide sufficient space and amenity for the requirements of student life and promote social interaction.

4 Internal common areas should be capable of being used in a variety of ways to meet the study, social and cultural needs of students.

5 Development should provide secure long-term storage space in both communal and private areas.

6 Student accommodation with shared living areas should ensure bedrooms are of a suitable size to accommodate a single bed, book shelves, a desk and workspace, and a cupboard/wardrobe.

Medium to High Scale Residential/Serviced Apartment

OBJECTIVE

Objective 22: Medium to high scale residential (including student accommodation) or serviced apartment development that:

(a) has a high standard of amenity and environmental performance;

(b) comprises functional internal layouts;

(c) is adaptable to meet a variety of accommodation and living needs; and

(d) includes well-designed and functional recreation and storage areas.

PRINCIPLES OF DEVELOPMENT CONTROL

Building Entrances

7 Entrances to medium to high scale residential or serviced apartment development should:

(a) be oriented towards the street;

(b) be visible and easily identifiable from the street; and

(c) provide shelter, a sense of personal address and transitional space around the entry.

8 Entrances to individual dwellings or apartments within medium to high scale residential or serviced apartment development should:

(a) be located as close as practical to the lift and/or lobby access and minimise the need for long access corridors;

(b) be clearly identifiable; and

avoid the creation of potential areas for entrapment.

Daylight, Sunlight and Ventilation

9 Medium to high scale residential or serviced apartment development should be designed to maximise opportunities to facilitate natural ventilation and capitalise on natural daylight and minimise the need for artificial lighting during daylight hours.

10 Medium to high scale residential or serviced apartment development should be designed and located to maximise solar access to dwellings and communal open space on the norther facade.

11 Ceiling heights that promote the use of taller windows, highlight windows, fan lights and light shelves should be utilised to facilitate access to natural light, improve daylight distribution and enhance air circulation, particularly in dwellings with limited light access and deep interiors.

All new medium to high scale residential or serviced apartment development should have direct ventilation and natural light.

12 The maximum distance of a habitable room such as a living, dining, bedroom or kitchen from a window providing natural light and ventilation to that room is 8 metres.

13 Light wells should not be used as the primary source of daylight for living rooms to ensure a sufficient level of outlook and daylight.

14 Medium to high scale residential or serviced apartment development should be designed to ensure living areas, private open space or communal open space, where such communal open space provides the primary area of private open space, are the main recipients of sunlight.

15 Medium to high scale residential or serviced apartment development should locate living areas, private open space and communal open space, where such communal open space provides the primary area of private open space, where they will receive sunlight and, where possible, should maintain at least two hours of direct sunlight solar time on 22 June to:

(a) at least one habitable room window (excluding bathroom, toilet, laundry or storage room windows);

(b) to at least 20 percent of the private open space; and

(c) communal open space, where such communal open space provides the primary private open space for any adjacent residential development.

16 Natural cross ventilation of habitable rooms should be achieved by the following methods:

(a) positioning window and door openings in different directions to encourage cross ventilation from cooling summer breezes;

(b) installing small low level windows on the windward side and larger raised openings on the leeward side to maximise airspeed in the room;

(c) installing higher level casement or sash windows, clerestory windows or operable fanlight windows to facilitate convective currents;

(d) selecting windows which the occupants can reconfigure to funnel breezes such as vertical louvred, casement windows and externally opening doors;

(e) ensuring the internal layout minimises interruptions to airflow;

(f) limiting building depth to allow for ease of cross ventilation; and/or

(g) draught proofing doors, windows and other openings.

Private Open Space

17 Medium to high scale residential development and serviced apartments should provide the following private open space:

(a) studio (where there is no separate bedroom): no minimum requirement but some provision is desirable.

(b) 1 bedroom dwelling/apartment: 8 square metres.

(c) 2 bedroom dwelling/apartment: 11 square metres.

(d) 3+ bedroom dwelling/apartment: 15 square metres.

A lesser amount of private open space may be considered appropriate in circumstances where the equivalent amount of open space is provided in a communal open space accessible to all occupants of the development.

Private open space for 2 or more bedroom dwellings/apartments may be divided into different areas whilst private open space for studios or 1 bedroom dwelling/apartments should be in a single area.

Areas used for parking of motor vehicles are not included as private open space.

Note: In the City Living, Main Street and Institutional Zones, specific landscaped open space and private landscaped open space provisions apply.

18 Medium to high scale residential (other than student accommodation) or serviced apartment development should ensure direct access from living areas to private open space areas, which may take the form of balconies, terraces, decks or other elevated outdoor areas provided the amenity and visual privacy of adjacent properties is protected.

19 Other than for student accommodation, private open space should have a minimum dimension of 2 metres and should be well proportioned to be functional and promote indoor/outdoor living.

Balconies should be integrated into the overall architectural form and detail of the development and should:

(a) utilise sun screens, pergolas, shutters and openable walls to control sunlight and wind;

(b) be cantilevered, partially cantilevered and/or recessed in response to daylight, wind, acoustic and visual privacy;

(c) be of a depth that ensures sunlight can enter the dwelling below; and

(d) allow views and casual surveillance of the street while providing for safety and visual privacy.

20 Secondary balconies, including Juliet balconies or operable walls with balustrades should be considered, subject to overlooking and privacy, for additional amenity and choice.

21 For clothes drying, balconies off laundries or bathrooms and roof top areas should be screened from public view.

22 The incorporation of roof top gardens is encouraged providing it does not result in unreasonable overlooking or loss of privacy.

Visual Privacy

23 Medium to high scale residential or serviced apartment development should be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development.

24 A habitable room window, balcony, roof garden, terrace or deck should be set-back from boundaries with adjacent sites at least three metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites**.**

Noise and Internal Layout

25 Medium to high scale residential or serviced apartment development close to high noise sources (e.g. major roads, established places of entertainment and centres of activity) should be designed to locate noise sensitive rooms and private open space away from noise sources, or be protected by appropriate shielding techniques.

26 Attached or abutting dwellings/apartments should be designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.

Minimum Unit Sizes

27 Medium to high scale residential or serviced apartment development should provide a high quality living environment by ensuring the following minimum internal floor areas:

(a) studio (where there is no separate bedroom): 35 square metres.

(b) 1 bedroom dwelling/apartment: 50 square metres

(c) 2 bedroom dwelling/apartment: 65 square metres

(d) 3+ bedroom dwelling/apartment: 80 square metres plus an additional 15 square metres for every additional bedroom over 3 bedrooms.

Internal structural columns should correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.

Adaptability

28 Within medium to high scale residential or serviced apartment development, dwelling/apartment layouts should be adaptable to accommodate:

(a) a range of activities and privacy levels between different spaces;

(b) flexible room sizes and proportions;

(c) efficient circulation to optimise the functionality of floor space within rooms; and

(d) the future reuse of student accommodation as residential apartments through a design and layout that allows individual apartments to be reconfigured into a larger dwelling or other alternative use.

Outlook

29 All medium to high scale residential or serviced apartment development should be designed to ensure the living rooms have a satisfactory external outlook. Living rooms that do not have an outlook or the only source of outlook is through high level windows or a skylight are not considered to provide an appropriate level of amenity for the occupiers**.**

Note: Outlook is a short range prospect and is distinct from a view which is more extensive and long range to particular objects or geographic features.

30 Light wells may be used as a source of daylight, ventilation, outlook and sunlight for medium to high scale residential or serviced apartment development provided that:

(a) living rooms do not have lightwells as their only source of outlook;

(b) lightwells up to 18 metres in height have a minimum horizontal dimension of 3 metres or 6 metres if overlooked by bedrooms; and

(c) lightwells higher than 18 metres in height have a minimum horizontal dimension of 6 metres or 9 metres if overlooked by bedrooms.

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

31 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.

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

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

33 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.

34 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.

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

35 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

(h) use of landscaping.

36 All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

37 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;

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* *Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.*

(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.

38 Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.

39 New buildings should be readily adaptable to future alternative uses.

40 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.

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

41 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.

42 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.

43 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.

44 Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

45 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.

46 Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.

47 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.

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.

PRINCIPLES OF DEVELOPMENT CONTROL

General

48 Development of a heritage place should conserve the elements of heritage value as identified in the relevant Tables.

49 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.

50 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.

51 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.

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

52 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.

53 Residential development should be designed to create interesting pedestrian environments and resident surveillance of any street, accessway and driveway.