YHL Investments Pty Ltd C/- Future Urban Group

Construction of a 23 storey mixed use building with basement level, ground level café/bar and retail tenancy, 3 levels of car parking, 18 levels of apartments and a rooftop garden

13-21 Coglin Street, Adelaide

020/A022/18

TABLE OF CONTENTS

OVERVIEW

Application No	020/A022/18
Unique ID/KNET ID	2018/07531/01 (12464802)
Applicant	YHL Investments Pty Ltd C/- Future Urban Group
Proposal	Construction of a 23 storey mixed use building with basement level, ground level café/bar and retail tenancy, 3 levels of car parking, 18 levels of apartments and a rooftop garden
Subject Land	13-21 Coglin Street, Adelaide
Zone/Policy Area	Capital City Zone
Relevant Authority	State Commission Assessment Panel
Lodgement Date	15 March 2018
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan consolidated 20 June 2017
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	Government Architect, Minister for Housing and Urban Development (Renewal SA), Secretary of the Department of Transport, Regional Development and Cities (Adelaide Airport Limited)
Report Author	Ben Scholes, Project Officer
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The application is for construction of a multi-level mixed use building comprising basement level services, a café/bar and retail tenancy at ground level, 3 upper levels of car parking, 18 levels of apartments and a rooftop garden.

The application is a merit, Category 1 form of development which is subject to mandatory referrals to the Government Architect, the Minister for Housing and Urban Development through Renewal SA and the Commonwealth Secretary for the Department of Transport, Regional Development and Cities through Adelaide Airport Limited.

A maximum height of 43 metres is recommended for development on the subject land. The proposal seeks to exceed this height by 31.6 metres, or roughly 10 levels, which would constitute a significant departure from the Development Plan's quantitative policy.

Despite this, the application is considered eligible to seek endorsement for this additional height in recognition of the applicant's responses to over-height provisions of the Capital City Zone.

The proposal has been subject to several iterations throughout the pre-lodgement and assessment phases to respond to matters raised by the Associate Government Architect, the City of Adelaide and the Department of Planning, Transport and Infrastructure.

The resulting application is considered to respond well to Development Plan policy guiding design and appearance of high scale development in Adelaide's CBD.

The development is expected to make a positive contribution to the City skyline without imposing unfavourably the concept of City form espoused by the Development Plan, on the setting and intimate scale of Coglin Street or on the nearby Central Market precinct.

Overall the applicant is considered to have successfully addressed key planning, design and technical issues through design adaptation and accordingly the application is deemed to warrant Development Plan Consent, subject to conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

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

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

1.2 Pre-Lodgement Process

The applicant engaged with the Department of Planning, Transport and Infrastructure (DPTI)'s pre-lodgement service from April 2017, participating in 4 pre-lodgement panel meetings and 3 design review sessions through which the concept progressed positively in terms of architectural expression, relationship to context at lower levels and a reduction of building height in the order of 6 storeys.

It should be noted the Development Plan Amendment commenced operation during concept development, leading to adaptation to address amended policy associated with anticipated City form and potential to exceed maximum recommended building heights as defined in Development Plan Concept Plan Figures CC/1 and 2.

2. DESCRIPTION OF PROPOSAL

The application is for construction of a multi-level mixed use building comprising commercial and retail uses at ground floor, 3 upper levels of car parking, 18 levels of residential apartments, a rooftop garden and bar area and communal recreation facilities located intermittently throughout the development. Application plans are contained in **Attachment 1**. A summary of the proposal is provided in the following table:

Land Use Description	Mixed-use building containing restaurant / bar / café and retail tenancies on the ground level, car parking (utilising hoist system system) at levels 2-4, residential accommodation units over level 1-2 and 5-22, and rooftop garden
Building Height	23 levels above ground floor, 74.6 metres to top of lift overrun
Description of levels	**Basement**: Refuse storage area, services infrastructure (fire tanks, fire pumps, NBN, transformer, switch room, car hoist pit, **Ground**: Restaurant / bar / café tenancy, residential apartment entry lobby, retail tenancy, secure bicycle storage, toilet facilities, car lift and services **Level 1**: car hoist, 5 residential apartments (2 x 1 bedroom dwellings, 3 x 2 bedroom dwellings – 1 bedroom on level 2) **Level 2**: car hoist, 13 car parks, secure storage areas **Level 3**: car hoist, 13 car parks, 31 secure bicycle parking spaces, storage lockers **Level 4**: 13 car parks, 31 secure bicycle parking spaces, storage lockers **Level 5**: 3 x 2 bedroom residential apartments, communal terrace **Levels 6, 8-9, 11-12, 15-17 & 20-21**: 5 residential dwellings (1 x 1 bedroom dwellings, 3 x 2 bedroom dwellings, 1 x 3 bedroom dwelling) **Level 7, 10, 14 & 18**: 5 residential dwellings (1 x 1 bedroom dwellings, 3 x 2 bedroom dwellings, 1 x 3 bedroom dwelling) **Level 13**: 4 residential dwellings (2 x 2 bedroom dwellings, 2 x 3 bedroom dwelling)

	Level 19: 4 residential dwellings (3 x 2 bedroom dwellings, 1 x 3 bedroom dwelling) **Roof Garden**: communal garden terrace, outdoor space with overhead canopy, indoor covered space, kitchen, bar area, toilet facilities and services **Rooftop**: solar panels, lift overrun
Apartment floor area (excluding balconies)	1 bedroom apartments: 50m^2 2 bedroom apartments: varies between 65m^2 and 87m^2 3 bedroom apartments: varies between 99m^2 and 104m^2
Private open space	1 bedroom apartments: varies between 9m^2 and 10m^2 2 bedroom apartments: varies between 12m^2 and 43m^2 3 bedroom apartments: varies between 16m^2 and 35m^2
Site Access	Car hoist system integrated in west elevation, accessible from ground level thoroughfare to Coglin Street
Vehicle Parking	39 car spaces over levels 2-4 (utilising car hoist system) 25 secure bicycle parking spaces and 10 visitor bicycle racks at ground level, 62 secure bicycle parks over levels 3-4
Encroachments	North elevation: car park screening devices (Levels 1-5) East elevation: overhead canopy (ground floor) and car park screening devices (Levels 1-5) West elevation: canopy over gas cupboard (ground floor), car park screening devices (Levels 1-5) and folding metal sun shading devices (Levels 6-22)

3. SITE AND LOCALITY

3.1 Site Description

The subject land is an irregularly shaped allotment comprised of approximately 600 square metres located on the western side of Coglin Street, a local road connecting Gouger and Wright Streets. The subject land is formally described below.

Lot No	Plan No	Street	Suburb	Hundred	Title
A694	F183156	Coglin	Adelaide	Adelaide	5502 / 472

Figure 1 – Site Location

The site is bound on 3 sides by one-way public roads all identified as Coglin Street, with only the north-south roadway between Gouger and Wright Streets identified by wayfinding signage. Review of historical land titles suggests this unusual road alignment is a consequence of the conversion of formerly private roadway to public land with previous connectors to adjacent streets removed as land was re-acquired.

Frontages to Coglin Streets east, north and west are approximately 31 metres, 22 metres and 35.5 metres respectively. On-street parking exists on portions of each side of the Coglin Street east roadway, with permit zones and periodic controls restricting the duration of parking at various locations.

The predominantly flat site is bituminised for its current use as a metered car parking area with line marked spaces for 26 cars and additional space for motorcycles or scooters. The northwest corner of the land appears to have been be used as a temporary waste storage area, possibly by restauranteurs operating from the 2 storey red brick building located to the immediate north.

Figure 2 – Subject Land (view to south west)

The site lies within the Development Plan's Primary Pedestrian Area which identifies an opportunity for a pedestrian link to the east between the site's southeast corner to connect with King William Street through the Supreme Court precinct. The subject land is also recognised as a significant redevelopment opportunity in the City of Adelaide's "Our Market District 2017" strategy publication.

Substantial development surrounding the subject land includes the 13 storey Eynesbury College and Espresso Apartment building to the immediate east, the 5 storey Australian Migrant Resource Centre to the immediate south and the 9 storey Wilson car parking facility to the south east.

2 single storey commercial premises and an adjoining row of 6 single storey former houses designated as Local Heritage places located to the west at 20-30 Market Street are designated on Development Plan Table Adel/3 as contributing to townscape character. These buildings are thought to be used for a mix of residential and commercial purposes.

The site is located in a portion of the Capital City Zone in which a recommended maximum building height of 43 metres applies. A portion of the Zone where no prescribed height limit applies is located to the immediate east across Coglin Street.

3.2 Locality

The broader locality is characterised by development of one to 3 storeys in scale, accommodating various commercial and retail uses including restaurants, shops, offices and consulting rooms. The junction of Coglin and Gouger Streets, approximately 45 metres to the north of the subject land, aligns with the southern entry to the Central Market Arcade delineating the eastern edge of Adelaide's Central Market precinct renowned for shopping, dining, tourism and employment opportunities.

The State Commission Assessment Panel has recently granted conditional Development Plan consent for 2 substantial mixed-use developments in the locality, namely a 17 storey hotel and residential apartment building at 23-29 Market Street (under construction) and an 18 storey office, hotel and residential apartment building at 76-88 Wright Street.

Each of these satisfied the current over-height policy and, when considered in the broader context of other nearby developments including the approved 17 storey apartment building at 126 Wright Street and the 22 storey 'Bohem' building constructed at the south east corner of Wright and Morphett Streets, are indicative of a trend towards an emerging City form in this portion of the CBD.

4. STATUTORY REFERRAL BODY COMMENTS

The following agencies constitute mandatory referrals in accordance with Schedule 8 of the *Development Regulations 2008*. The Panel must have regard to the advice received from each referral body, copies of which are provided in **Attachment 4**.

4.1 Secretary of the Department of Infrastructure, Regional Development and Cities

In its capacity as intermediary to the Department of Transport and Regional Services, Adelaide Airport Limited assessed the proposal determining that at a height of 118.9 metres AHD the application will penetrate Adelaide Airport's Obstacle Limitation Surfaces (OLS), protected airspace for aircraft operations, by approximately 24 metres.

On 4 June 2018 the Department of Infrastructure, Regional Development and Cities issued a decision under the *Airports (Protection of Airspace) Regulations 1996* approving the development as a 'controlled activity' for the intrusion of a building into Adelaide Airport's prescribed airspace.

The approval is subject to conditions related to maximum permissible building height, installation of obstacle lighting, advice to Air Services Australia of commencement of the controlled activity and separate approval/s required for any crane operations. These conditions must be adhered to under the *Airports Act 1996*.

4.2 Minister for Housing and Urban Development

As intermediary to the Minister for Housing and Urban Development, Renewal SA has considered the proposal and confirmed the applicant purports to include affordable housing within the development.

The developer has entered into an executed Land Management Agreement with Renewal SA in accordance with Section 57 of the *Development Act 1993* for the purpose of delivering affordable housing outcomes, comprising a total of 16 dwelling units constituting approximately 19 percent of the residential apartment offering.

4.3 Government Architect

The Associate Government Architect (AGA) does not support the proposed height of 23 storeys due to the narrow street condition, in the belief that any development exceeding the recommended maximum height of 43 metres (or roughly 13 levels) in this location would be challenging.

The AGA considers further modulation, sculptural massing and reduction in the proposal's upper level bulk and mass would be necessary to reduce impact of scale and increase streetscape amenity. The AGA also suggests the proposal must offer the highest level of design quality and significant merit in terms of residential amenity, public realm contributions and sustainability initiatives to justify the over-height proposition.

The AGA strongly supports the applicant's ambition to invigorate adjacent laneways and provide physical connections to Gouger and Market Streets by providing active uses at the ground floor and referencing the Market precinct's character through the use of coloured materials. A series of recommendations encourage further attention to the following issues:

- Further consideration of building height to reduce visual and amenity impacts;
- Review of opportunities to relocate above ground car parking to basement level/s;
- Review dimensions and functionality of communal spaces throughout the building;
- Confirmation of materiality, detailing and durability of various external treatments (eg south balcony screens, paint finishes, prefinished panel cladding, glazed brick panels, screen/fins details); and
- Provision of an external materials sample board.

The applicant has provided responses to a range of matters raised in the AGA's referral as discussed in Section 8.

5. COUNCIL TECHNICAL ADVICE

The City of Adelaide provided comment on encroachments, access arrangements, stormwater management, lighting and electrical assets and other technical matters which would generally be addressed as conditions of any consent granted or at the Council's discretion in terms of modification and/or reinstatement of Council infrastructure adjacent the subject land. Council has also commented on planning issues, noting:

- window and balcony setbacks from boundaries fail to meet the 3 metre minimum recommended under the Development Plan's Council Wide (Visual Privacy) policy;
- provision of considerable active frontages to the northern and eastern frontages is commended; and
- upper level car park screening fins over a portion of the northern elevation and gas cupboard hood do not meet Council criteria for minor encroachments and must either be reduced to meet requirements or be removed entirely.

The applicant has provided responses to some of the technical matters raised in Council's referral and other issues as discussed in Section 8. A copy of the Council's referral response is included in **Attachment 5**.

6. PUBLIC NOTIFICATION

The application is a Category 1 development pursuant to PDC 40(a) of the Adelaide (City) Council Development Plan's Capital City Zone. Public notification was not required.

7. POLICY OVERVIEW

The subject site is within the Capital City Zone as shown in Figure 3 and as described within the Adelaide (City) Development Plan Consolidated 20 June 2017. Relevant planning policies are contained in **Attachment 7** and are summarised as follows.

7.1 Capital City Zone

The Capital City Zone is recognised as the principal focus for economic, social and political life of metropolitan Adelaide and the State. The Zone will be the focus of high-rise development in the City and includes significant employment, cultural and retail uses supported by an increase in residential population to reinforce the CBD as a place of diversity and dynamic street life.

The Capital City Zone is intended to be active during the day, evening and night. New development will be predominantly mixed-use, well-designed and contemporary. Development in minor streets and laneways with a high value character will respond to important contextual elements and provide a comfortable pedestrian environment.

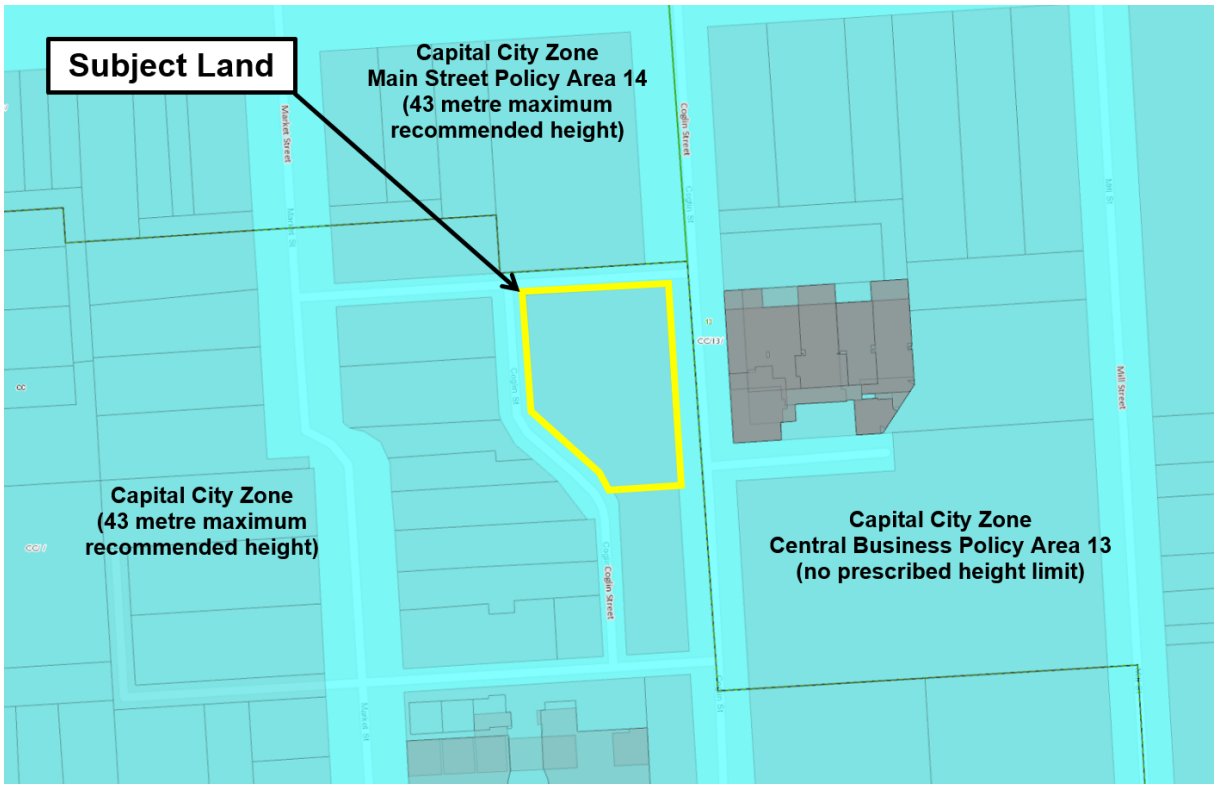

Figure 3 – Zoning Map

7.2 Council Wide

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

7.3 Overlays

7.3.1 Affordable Housing

The proposal is located in an area subject to the affordable housing overlay, which recommends a minimum of 15 percent affordable housing outcomes be included in development comprising 20 or more dwellings.

7.3.2 Adelaide (City) Airport Building Heights

The proposal penetrates the OLS depicted in Development Plan Map Adel/1 (Overlay 5) by approximately 24 metres and has been approved by the

Department of Infrastructure, Regional Development and Cities as a 'controlled activity' in accordance with the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996*.

8. PLANNING ASSESSMENT

The State Commission Assessment Panel is the relevant authority as per Schedule 10(4) of the *Development Regulations 2008*:

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

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan consolidated 20 June 2017, which are contained in **Attachment 7**.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Land Use	A mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living	Ground floor retail, restaurant/bar/café, upper level vehicle parking and 86 residential apartments	YES ☒ NO ☐ PARTIAL ☐	
Affordable Housing	Development comprising 20 or more dwellings should include a minimum of 15 percent affordable housing.	16 affordable housing outcomes constituting approximately 19 percent of the apartment offering	YES ☒ NO ☐ PARTIAL ☐	
Building Height	43 metres (approximately 13 levels above ground)	74.6 metres (23 levels above ground)	YES ☐ NO ☒ PARTIAL ☐	Refer to section 8.3 (over-height provisions are met)
Car Parking	No minimum or maximum provision identified in Development Plan Table Adel/7	39 car parks	YES ☒ NO ☐ PARTIAL ☐	
Bicycle Parking	Residential – 1 for every dwelling <150m2 +1 for every 10 dwellings (for visitors): 95 spaces Café – 1 per 20 employees +1 per 50 seats: 3 spaces Retail – 1 per 300m^2 +1 per 600m^2: 2 spaces Total: 100 spaces	97 spaces (87 secure spaces, 10 visitor spaces)	YES ☐ NO ☐ PARTIAL ☒	Refer to section 8.7
Boundary Setbacks	Habitable room windows, balconies, roof gardens, terraces or decks should be set-back from boundaries with adjacent sites at least 3 metres	North elevation setback varies between 1.2m-3.3m Zero boundary setbacks over east, west and south elevations	YES ☐ NO ☒ PARTIAL ☐	Refer to section 8.4
Apartment Area (excluding balconies)	1 b/r dwelling: 50m^2 2 b/r dwelling: 65m^2 3 b/r dwelling: 80m^2	1 b/r dwellings: 50m^2 2 b/r dwellings: between 65m^2 and 87m^2 3 b/r dwellings: between 99m^2 and 104m^2	YES ☒ NO ☐ PARTIAL ☐	

Private Open Space	1 b/r dwellings: 8m^2 2 b/r dwellings: 11m^2 3 b/r dwellings: 15m^2 Minimum balcony depth of 2 metres	1 b/r dwellings: 9m^2 to 10 m^2 2 b/r dwellings: between 12m^2 and 43m^2 3 b/r dwellings: between 16m^2 and 35m^2 All balconies achieve minimum depths	YES ☒ NO ☐ PARTIAL ☐	
Storage	1 b/r dwellings – 8m^3 2 b/r dwellings – 10m^3 3 b/r dwellings – 12m^3	1 b/r dwellings – 8.4m^3 to 9.7m^3 2 b/r dwellings – 11m^3 to 18.4m^3 3 b/r dwellings – 15.5m^3 to 18.9m^3	YES ☒ NO ☐ PARTIAL ☐	

8.2 Land Use and Character

A mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density residential living are anticipated land uses within the Capital City Zone. The proposed residential and ground floor commercial land uses would contribute to the Zone's desired character by introducing envisaged forms of development and an increased residential population and corresponding increase in activity.

The applicant has also entered into a Land Management Agreement with Renewal SA for the purpose of delivering affordable housing outcomes in the form of 16 apartments, constituting approximately 19 percent of the overall residential offering, exceeding the Affordable Housing overlay's expectations. Accordingly, the proposed mix of land uses is considered highly appropriate and commendable.

8.3 Building Height

A maximum building height of 43 metres or roughly 13 levels is anticipated in this portion of the Capital City Zone, which lies opposite an area of the Zone in which no maximum height limit is prescribed. The proposal seeks to exceed the maximum recommended height by 31.6 metres (roughly 10 levels), equivalent to 173 percent of the envisaged vertical dimension and representing a significant departure from building height policy.

In support of its proposal, the applicant cites 5 examples of CBD laneway conditions featuring tall buildings located in relatively narrow streetscapes to contend that significant building height in streets similar to Coglin Street are not uncommon and would be justifiable in this instance. The AGA, who does not support the proposed building height due to the narrow (9 metre) street condition, believes these 5 examples are not comparable to Coglin Street as each is located within 'no prescribed height limit' areas and all are non-residential uses, acknowledging the 'Urban Nest' student accommodation development in Bank Street.

The AGA considers any development seeking to exceed 43 metres in this location would be challenging, recommending further consideration of building height to reduce visual and amenity impacts on the pedestrian experience at streetscape level through additional modulation, sculptural massing and reduction in upper level bulk and mass.

Capital City Zone policy envisages development not exceeding recommended height unless it is demonstrated the development reinforces the City form anticipated in Concept Plan Figure CC/1 and 2, and only if at least 2 discretional and all 4 compulsory triggers listed in Zone PDC 21 have been satisfied.

Of the 8 discretional triggers listed, the application will provide opportunities for:

- an orderly transition up to a taller (unlimited) prescribed building height in the adjoining Central Business Policy Area 13;
- on-site car parking provision at a rate less than 0.5 spaces per residential dwelling;
- actively occupied uses located on the majority, but not all, of the street facing sides of the building;
- a range of dwelling types including over 10 percent of 3 bedroom apartments; and
- more than 15 percent of dwellings designated as affordable housing outcomes.

Of the 4 compulsory triggers listed in PDC 21, the development will provide opportunities for:

- an adequately sized and serviced rooftop garden area;
- greenwalls which the applicant asserts will be supported by a service and maintenance strategy;
- innovative external shading over the western elevation in the form of folded static metal panels; and
- provision of private open space exceeding minimum requirements, and access to natural light and ventilation to all habitable spaces and common circulation areas.

With respect to the concept of City form detailed in Concept Plan Figure CC/1 and 2, the expectation an orderly transition being provided at interfaces with the Zone's unlimited height areas is an important factor in considering whether the proposal would be likely to reinforce the anticipated City form.

It should also be noted that Development Plan policy is prefaced by a description of envisaged City form which establishes the City's structure will be reinforced (in part) by focusing high-rise development within the Capital City Zone supported by an increase in City residents, each of which would likely be satisfied by the proposal.

On this basis, substantial building height exceeding the recommended maximum can reasonably be considered an envisaged outcome in this location and, due to the applicant's positive responses to PDC 21 requirements, the proposal is eligible to seek endorsement for that additional height.

Capital City Zone PDC 16 advocates for a significantly higher standard of design outcome in relation to qualitative policy where development would significantly exceed quantitative policy provisions, an expectation shared by the AGA. Appropriate responses to adjacent conditions, satisfaction of desired character, amenity contributions and sustainable outcomes are referenced as design objectives and provide guidance on balancing the extent to which departures from quantitative policy could be considered reasonable, or otherwise.

In this case those objectives are considered to have been adequately met as discussed in the following sections and overall, substantial building height is warranted in this location, having regard to satisfaction of relevant policy and future context including potential redevelopment of the Supreme Court precinct to the east.

Despite the AGA's considered view, the proposed height of 23 storeys is seen to be an acceptable built form outcome in this location, the disadvantages of which are expected to be adequately offset by the variety of associated benefits the development has been designed to provide.

8.4 Design and Appearance

Development in the Zone should be of a high standard of architectural design and finish to suit the State's capital. A very high standard of external appearance is anticipated through judicious use of quality materials and finishes, articulation of form and integration with the public realm.

The applicant's design approach focuses on an active and permeable ground floor, articulation and screening to car parking levels using coloured fins referencing the Central Market precinct, horizontal indentations at levels 5, 13 and 19 and vertical expression of the intermediate apartment levels articulated by projecting north-facing balconies at levels 7, 10, 14 and 18 and recessed balconies overall.

Modular features attempt to break up the vertical scale and bulk of the apartment tower to present a sculptural form, with shadow lines created at low and mid-rise indented levels to reference the datum heights of the adjacent Migrant Resource Centre and Eynesbury building.

The applicant has responded to the AGA's concerns regarding streetscape amenity impacts and desire for additional modulation and sculptural massing through the visualisation study below, comparing pedestrian views of the development proposed at 74.6 metres with an alternative shown at the recommended maximum height of 43 metres.

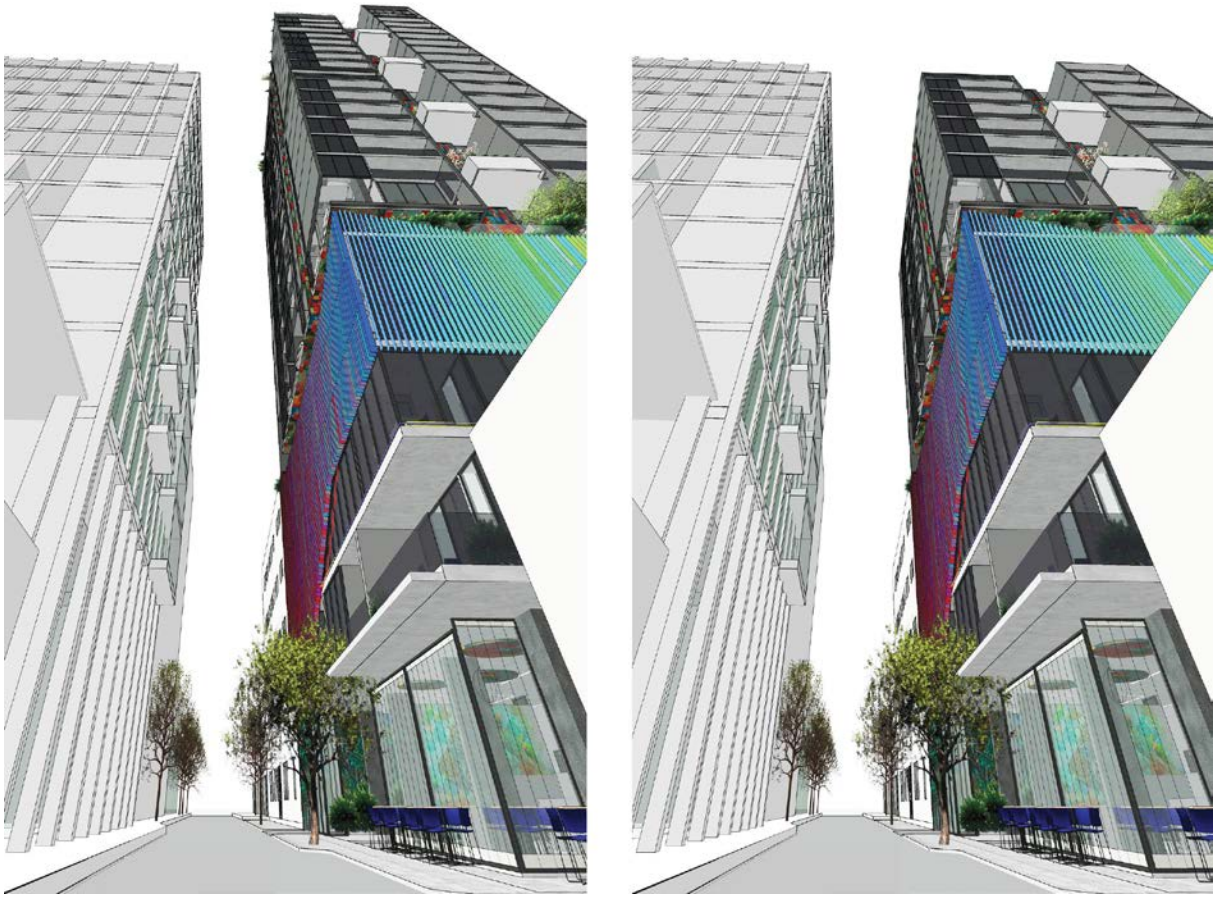

Figure 4 – Building Height Comparison (74.6 metres vs 43 metres)

The applicant argues this comparison demonstrates the visual impact of the differing heights on pedestrian amenity would be minimal, whilst maintaining the proposed built form and scale contributes to a greater sense of enclosure and intimacy of space in part due to the omission of upper level setbacks or a pronounced podium element, to suit the Zone's desired character regarding narrow streets and laneways.

In declaring support for the applicant's intent to use material colour to connect the development contextually with the Market precinct's setting, the AGA reiterated that

the detailing of glazed brick panels and their connection with colour-matched aluminium soffit panels above the Level 5 communal area would be critical to achieving an integrated material outcome and visual consistency. In response, the applicant has deleted the aluminium soffit panels and proposes to only use glazed brick panels where colour matches are intended between vertical and horizontal surfaces to ensure a continuous appearance.

The applicant also prepared an additional plan detailing the proposed 45 degree angle and slab connections for the coloured aluminium fins screening over the north elevation of upper level car parking areas, indicating the means of minimising visibility of parked cars over levels 2-4 when viewed from the north west by limiting the separation of the fins to 100mm at this orientation.

The AGA encouraged further consideration of paint finishes to north-facing balconies and concrete slab edges, which the applicant has addressed by specifying Haymes 'Solashield' paint incorporating a 20-year warranty for projecting balconies, substituting raw concrete panels for painted finishes at slab edges and introducing an acid wash finish for precast panels.

The AGA also encouraged further review of opportunities to relocate above ground car parking to basement level/s to diminish public realm impact. In response and with support from Infraplan as Traffic Engineer, the applicant insists the site's restricted dimensions preclude basement car parking in accordance with accepted vehicle geometry and manoeuvrability, combined with risks to existing structures associated with extensive excavation. Instead, the applicant has nominated a car lift option to connect with upper level car parking as discussed in Section 8.8.

Overall the proposal is expected to deliver a carefully designed built form displaying a contemporary appearance and quality material composition expected to provide an appropriate addition to the City skyline. The applicant's responses to the AGA's recommendations and encouragement for material refinements reflect a commitment to a high degree of design resolution and quality architectural expression.

A condition requiring review of the final external material schedule in consultation with the Government Architect including provision of a physical material sample board is proposed to be assigned to any consent granted, to ensure an acceptable level of confidence in the delivery of the applicant's design intent.

8.5 Interface

The Capital City Zone's interface provisions promote measures to adequately manage amenity impacts on sensitive development in adjacent predominantly residential living Zones caused by overshadowing, massing, building proportions and traffic.

Shadow diagrams included in application details show the extent of shade expected to be cast by the apartment tower over adjacent property, indicating solar access to residential uses along Market Street would be reduced during winter although this would be no less than would be likely to eventuate were the development to adhere to the 43 metre building height recommended for this location.

Some overlooking from apartment balconies into adjacent land and buildings through oblique and long views are expected, however this would not be unreasonable in this central CBD setting. The anticipated low volume of traffic movements associated with the development is not likely to cause unreasonable disruption or safety concerns as discussed in Section 8.8.

Council has recognised that habitable room windows and balconies would be located less than 3 metres from the allotment boundaries, failing to satisfy Council Wide Visual Privacy policy intended to maintain amenity and enable reasonable development of adjacent sites. In response, the applicant asserts the widths of the

surrounding laneways and 1.2 metre setback of north eastern balconies provides adequate separation allowing reasonable amenity and privacy in a City living context. Overall and despite this departure from Council Wide policy, interface conditions expected to arise from the development are considered satisfactory.

8.6 Public Realm

Non-residential land uses are encouraged at ground floor throughout the Zone including shops, cafés and restaurants to generate high levels of pedestrian interest and activity complemented by an appealing urban environment through the use of building articulation and fenestration, façade openings, verandahs, balconies and other forms of weather protection. The AGA also advised the proposal must offer significant merit in terms of public realm contributions to justify building height above the recommended maximum of 43 metres.

A mix of permeable and active edges are proposed at ground level in the form of operable glazed walls along the north frontage enclosing the restaurant/café tenancy, continuing along the east frontage with indented setbacks of the glass line providing outdoor dining opportunities, an entry to the apartment lobby and an adjacent retail tenancy all sheltered by a projecting canopy providing weather protection.

Residential uses would be provided at the first level including a 2 storey dwelling at the northeast corner with the intent to provide meaningful lower level interface with and passive surveillance of the public realm at the site's north and east laneway frontages, for which the AGA offered measured support.

The south portion of the site at ground level would provide shared access to visitor bicycle racks and upper level car parking (discussed in Section 8.8) and to a secondary entrance to the apartment lobby. Motorised bollards, feature paving, planter box landscaping and a public art opportunity using the adjacent party wall would characterise this space as shown in Figure 5.

Figure 5 – Shared Access Route

This use of the land has the potential to assist in realising the 'Proposed Pedestrian Link' to the east through to King William Street identified in the Development Plan's Primary Pedestrian Area Map Adel/1 (Overlay 2A). A site transformer accessible via removable gatic lid would also be located in the basement area beneath this shared

space, reducing the visual impact of services on the streetscape and supported by an infrastructure report by BESTEC included in application details.

The proposed ground level configuration and mix of uses attracted the AGA's strong support in recognition of the applicant's ambition to invigorate surrounding laneways and improve pedestrian experiences, including setbacks of the eastern glass line at ground floor to respond to the Eynesbury building's open colonnade and provide a visual and physical extension of the public realm.

Council initially indicated that encroaching elements at lower levels in the form of a gas enclosure hood to the west of the bicycle storage room and coloured fins below 5 metres at the north elevation did not meet the Council's criteria for minor encroachments and would need to be reduced to meet requirements or be removed entirely.

The applicant responded by deleting the gas enclosure hood and clarifying the coloured fins are designed to encroached a total of 214mm at a height of 3.7 metres over the roadway as outlined Figure 6, where 150mm (or vertical clearance 5 metres) of would be accepted as a minor encroachment.

Figure 6 – Encroachment over Coglin Street (north)

The applicant suggests this should not be unacceptable in this circumstance as the 3.6 metre width of this portion of Coglin Street would likely restrict access for the large vehicles requiring clearance of up to 5 metres.

Council's Traffic Management team considered this view and concurred it would be unlikely that a tall vehicle would use the lane should the development be undertaken, and although this would not be a certainty, any liability for vehicle damage would rest with the land owner and accordingly there would be no objection to the encroachment.

Overall, the proposal would contribute positively to the public realm and generally satisfy the Development Plan's expectations for ground level activation through frequent window openings and land uses that spill onto the footpath.

Combined with opportunities for further improvements and pedestrian connectivity beyond the subject land, the proposed public realm additions would provide some compensation for visual and amenity impacts on the pedestrian experience caused by substantial building height in this location, partially addressing concerns raised by the AGA. Technical issues raised by Council related to modifications to footpaths, kerbs and lighting are intended to be addressed via conditions of any consent granted.

8.7 Occupant Amenity

Council Wide (Medium to High Scale Residential) policy advocates development designed to provide a high standard of amenity and environmental performance through access to natural light and ventilation, outlook, storage area, functional layouts and adaptability to meet changing living needs.

The apartment tower would include adequately sized single, 2 and 3 bedroom dwellings designed to ensure access to natural light and ventilation in all habitable rooms and within circulation areas and communal spaces. Storage areas would be provided in all apartments and over levels 2-4 in the form of enclosed rooms accessible from the stairwell and secure lockers at the southern internal wall, which collectively will exceed minimum storage area recommended per dwelling type.

External balconies accessible from dwelling living areas would provide private open space exceeding minimum dimensions recommended by Council Wide policy, and air conditioning condenser units on balconies would be positioned so as to maintain functional areas without the units being overtly visible from surrounding streets.

Innovative shading devices would be provided in the form of folded metal panels over the building's western elevation, designed to control solar gains to apartments from western windows and create interesting shadow patterns over the west elevation at different times of day.

While the AGA was generally supportive of the proposed mix and layouts of apartments, confirmation of materiality and detailing of fixed screens to south-facing balconies was requested to ensure adequate acoustic amenity and visual privacy. The applicant advised fixed frosted laminated glass screens with black powdercoated framing would be used, replacing clear vision glass with thermal performance coating.

A range of common areas and community facilities would be provided in dedicated spaces with outlook to the north and east over various levels configured as follows:

- a substantial terrace at level 5 offering 138 square metres of area with opportunities for freestanding landscaping and intended for flexible uses;
- projecting balconies over the north elevation at levels 7, 10, 14 and 18 providing intimate 13 square metre spaces with planter boxes and landscaping including edible planting and greenwalls; and
- a combined rooftop garden and function area incorporating indoor covered space with kitchen area, built-in furniture, bar facilities, amenities, outdoor space sheltered by overhead canopy, garden terrace, perimeter planter boxes and landscaping opportunities.

AGA recommended a review of communal spaces at 7, 10, 14 and 18 with a view to confirm how these spaces could accommodate different uses. The applicant has indicated the north-facing communal areas are intended for quiet, individual activities and communal gardening. It should be noted these balconies are designed to exceed dimensions recommended for a 2 bedroom dwelling and are considered appropriate for the intended use.

The larger common area at Level 5 has the potential to accommodate group activities such as yoga, Pilates, art displays, information sessions and small seminars. The

rooftop garden can host activities of a more recreational nature such as shared meals, functions and other celebrations.

In summary building occupants can expect to enjoy a high level of amenity owing to the generous private and communal spaces, and the application of passive design strategies intended to improve the internal environmental and living conditions in general. Development Plan policy related to apartment design and occupant amenity is considered to have been satisfied in this regard.

8.8 Traffic Impact, Access and Parking

Development in the Council area should provide safe, convenient and comfortable movement and access to land by increasing the permeability of the pedestrian network and providing an adequate supply of on-site vehicle parking.

The applicant commissioned InfraPlan consultants at the pre-lodgement stage to assist in investigating a range of car parking and access options including dual lane ramps to upper level parking from separate laneways, reversible lane access from Coglin Street east and rear lane (Coglin Street west) access to basement parking.

These options were not pursued due to the site's spatial limitations compounded by the intent to use 500mm-wide foundations which would generally prohibit minimum-size parking bays and vehicle manoeuvrability within the site boundaries. Council also objected to providing access and servicing via Coglin Street north due to increased traffic congestion on the 1 way carriageway.

InfraPlan subsequently determined a preferred access and parking configuration supported by a traffic impact assessment which concluded the proposed access arrangements were supported from a traffic and parking perspective on the basis of the issues investigated, as discussed in the following sections.

8.8.1 Site Access

Vehicle access to the development would occur via a 6 metre-wide passage through the site's southern portion, designed to enable simultaneous 2-way vehicle movements between east and west sections of Coglin Street to access upper level parking through the use of a car lift located at the site's western boundary.

An automated remotely controlled system compliant with relevant Australian Standards is proposed for residents to operate the lift from their vehicles to coincide with arrival to and departure from designated parking spaces over levels 2-4. Internal and external lighting would assist motorists in entering and exiting the car lift safely, and car lift sensors would determine whether vehicles have cleared the system.

Vehicles exiting the car lift would need to transit along the western portion of Coglin Street before returning to the Coglin Street east via the southern passageway. Motorised bollards and paving treatments at this location would assist in preserving the existing low speed environment and maintain safety for pedestrians and motorists.

InfraPlan considers that drivers exiting the site would have clear view of northbound traffic on Coglin Street, and the glass-encased fire booster box at the south east corner of the ground floor would help to provide adequate sightlines to pedestrians approaching from the north.

In recognition of the substantial investigation into alternative access options in collaboration with Council and DPTI during the pre-lodgement service, and despite the AGA's encouragement of basement parking, the nominated access

arrangement is considered reasonable subject to the satisfaction of technical matters raised by Council which are proposed to be addressed through conditions of any consent granted.

8.8.2 Vehicle Parking

No specific requirement for provision of on-site car parking arises for residential development within the Capital City Zone. A total of 39 car parking spaces would be included over levels 2-4 designed to comply with Australian Standard requirements.

Although multi-level car parks are discouraged at ground floor street frontages in the Primary Pedestrian Area, the proposed treatment of the podium car parking facility is considered to be compatible with the setting of the subject land, as discussed earlier.

While car lifts are reasonably uncommon mechanisms in similar CBD developments, in this case it is considered to provide an effective traffic management solution which removes the need for vehicle ramps and makes efficient use of constrained space.

Bicycle parking is proposed in secure rooms at the ground floor and additional rooms over levels 2-4 and visitor parking spaces at the ground floor to accommodate 97 bicycle parking spaces. Development Plan Table Adel/6 recommends a total of 100 spaces to meet demand from residents, visitors, employees and customers.

Despite the minor shortfall of 3 spaces, the proposed bicycle parking provision is considered acceptable in recognition of the likelihood that residents would also store bicycles within apartment interiors in addition to the secure storage areas to be allocated for use by building occupants.

8.8.3 Traffic Impact

InfraPlan has estimated up to 37 seconds would be required for an entry/exit sequence between the ground floor and the upper most parking level, with reduced times associated with movements to a from lower levels.

The existing use of the land as an at-grade car park is estimated to generate up to 21 arrival trips during the morning and 18 departure trips in the evening, whereas the proposed use is estimated to generate 11 more daily trips but fewer during the morning and evening peak periods. The non-residential uses proposed at ground floor is not expected to generate excessive vehicle movements in the course of operations.

InfraPlan's assessment of traffic generation made use of a steady state analysis to consider potential for vehicle queuing arising from delays in the car lift movement sequence, determining that at a peak morning departure rate of 14 vehicles per hour the calculated likelihood of a single vehicle queue would be 8 percent.

The use of the car lift system may require a vehicle waiting on a parking level to reverse to provide adequate room for a vehicle exiting the lift to manoeuvre and/or access a parking space, however InfraPlan consider the likelihood of such movements to be negligibly low given the 13 parking spaces per floor.

Infraplan has adequately demonstrated the proposed development is expected to generate fewer vehicle movements during peak hours and an insignificant amount of new trips throughout the day, and as such the impacts on the surrounding road network are considered acceptable.

Existing and new crossovers to the land will require modification approval by Council to ensure the relevant standards and Council guidelines are adhered to. These matters are proposed to will be dealt through advisory notes attached to any consent granted.

8.9 Heritage

Council Wide (Heritage and Conservation) policy encourages development that retains the heritage value and setting of a heritage place and its built form contribution to the locality. Capital City Zone PDC 22 establishes that development should have a building height no less than half the maximum shown on Concept Plan Figures CC/1 and 2 unless one of a number of factors applies to the development, including where the site is adjacent to a heritage place.

The proposal would introduce significant built form into the background of views of the six Local Heritage places at 20-30 Market Street. While concerns related to overbearing building height and scale have been made clear, these have not been associated with a perception of impact on the heritage places' setting or on their overall appreciation.

The impacts arising from the development are not expected to unacceptably compromise the historic value of these places nor will they diminish the contribution they are capable of making to townscape character, adequately meeting the intent of Council Wide heritage and conservation policy.

8.10 Environmental Factors

Development in the Council area should be designed to ensure public safety and security are maintained, essential services are provided without unreasonable disruption or disturbance to the community, micro-climatic impacts are minimised and that new built form is compatible with the long term sustainability of the environment.

The development has been designed to moderate and manage conditions and impacts expected to arise from the surrounding environment as discussed in the following sections.

8.10.1 Noise Emissions

Development Plan policy encourages noise sensitive development to incorporate adequate noise attenuation measures to provide occupants with reasonable amenity when exposed to noise sources such as entertainment premises, commercial centres and the like and from activities contemplated in the adjoining areas.

The applicant engaged BESTEC to provide acoustic engineering services during concept design and undertake a preliminary acoustic services report presenting the acoustic design criteria and preliminary recommendations for acoustic treatments to achieve the selected criteria.

Noise surveys were conducted on site in August 2017 and March 2018 to determine existing ambient noise levels and dominant noise sources, identifying traffic flow on Coglin, Gouger and Wright Streets, a Karaoke Bar and Lounge at 39 Gouger Street and associated rooftop plant and equipment as primary noise generators with potential to cause disturbance.

BESTEC nominated a series of building façade and glazing treatments in order to provide sufficient attenuation from identified conditions, construction methodology for walls and floors separating the dwellings to ensure Building

Code compliance and generic recommendations for acoustic treatment of mechanical services.

BESTEC considers these recommendations to be appropriate to meet the acoustic requirements based on the current design progress of the project, although glazing configuration may be subject to change to meet thermal or structural requirements.

Standard conditions requiring acoustic attenuation are proposed to be assigned to any consent granted to ensure the development is constructed and operated such that building occupants and adjacent noise-sensitive uses are not unreasonably disturbed by noise generated by the development, and in doing so ensure the Development Plan's Noise Emissions policy would be satisfied.

8.10.2 Waste Management

Development Plan policy recommends provision of a dedicated area for on-site collection and sorting of recyclable materials and refuse to be provided within all new development. Development greater than 2,000 square metres in floor area should manage waste through the use of a dedicated area for collection and sorting of general waste, recyclables and organic waste.

The applicant engaged InfraPlan to provide advice during design development and undertake a waste management plan for the development proposal as presented in this application based on the Zero Waste SA publication "*Better Practice Guide – Waste Management for Residential and Mixed Use Development*".

An integrated waste chute system would be included for residential use to the north of the lift shaft connecting to the basement waste storage room, including an automated 2 stream diverter system designed to segregate general waste and co-mingled recyclable waste based on user selection, and a separate chute intended for organic waste.

Weight sensors would be used to indicate any need to empty and rotate bins by a Facility Manager tasked with responsibility for managing the capacity of the basement waste management room.

An 8.8 metre waste collection vehicle operated by private waste contractor would reverse into the southern carriageway for collection of refuse generated by the residential and café uses, which would be moved from the basement storage area to ground level via hoist at the development's south western corner. Waste generated by the retail tenancy would be collected separately by the Council.

Residential waste would be collected once per week and that of the café/restaurant tenancy would be collected up to twice per week. Residents and Facilities Management will be able to access up to 12 per year, free, at call hard waste and e-waste collections offered by the City Council.

A condition is recommended to be assigned to any consent granted to ensure waste collection times would be scheduled outside peak periods to minimise impacts to residential amenity and traffic movements along Coglin Street. Council administration has indicated the proposed development is supported from a waste management perspective and accordingly, waste management arrangements are considered appropriate.

8.10.3 Stormwater

Development Plan policy encourages stormwater management systems designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters and protect downstream receiving waters from high levels of flow. The applicant engaged Drew Rudd Engineers to prepare a stormwater management report to investigate existing site conditions, the proposed development and Council's requirements for handling and treatment of stormwater flows anticipated post-development.

Council advised that no on site detention of stormwater is required and that major 1 in 100 year rainfall events are to be catered for in the surrounding street network, with overflows discharging directly to the street.

These requirements have been incorporated in a schematic stormwater management plan included in application details. Technical recommendations are proposed to be addressed through assignment of conditions to any consent granted to ensure Council requirements will be met through detailed design, to integrate with Council infrastructure and achieve the intent of Development Plan policy.

8.10.4 Energy Efficiency

Buildings within the Council area should provide adequate thermal comfort and minimise the need for energy use for heating, cooling and lighting through design measures specified in the Development Plan's Council Wide (Environmental) policy.

The applicant engaged BESTEC to undertake an ecologically sustainable design (ESD) intent report outlining sustainability initiatives associated with mechanical, electrical, vertical transportation, hydraulic and fire protection services to be incorporated in the development.

ESD features will include emphasis on means of achieving energy reduction through passive and active design initiatives, and reduction of potable water use, high indoor environment quality, internal materials and finishes selected for their low volatile organic compound properties, access to natural light and provision of natural ventilation to habitable areas.

The development has been designed to provide a high thermal performance building envelope comprised of walls, suspended floors above unconditioned spaces and roofs) incorporating effective insulation materials to meet the Building Code's energy efficiency requirements.

High efficiency LED lighting will be specified throughout, including motion detection and control capabilities with external lighting controlled by timer. High thermal performance glazing with glare control characteristics would be used to respond to building orientation and address solar heat gains where necessary.

Water efficient sanitary and tap ware would be included and connected to water sub-metering to all dwellings and base building plant and equipment to provide water and energy consumption management and control. The applicant also intends to undertake rainwater collection and re-use for irrigation of green walls and planting within the rooftop garden area, with solar photovoltaic panels to be installed at rooftop level.

An environment management plan and construction waste management plan would be implemented during the construction phase to minimise environmental impacts, maximise recycling and reduce construction and demolition waste diverted to landfill.

Overall the ESD initiatives foreshadowed in application details are considered appropriate and if implemented in association with a planning consent, would adequately address the Development Plan's energy efficiency policy.

8.10.5 Wind Impacts

Development should be designed and sited to minimise micro-climactic impact on adjacent land or buildings, including detrimental effects of wind patterns. The applicant engaged Drew Rudd Engineers to report on the anticipated street level wind effects resulting from the completed development, having regard to the design and nature of the development and the characteristics of surrounding development and the subject land and as it is described in the City of Adelaide's Smart Move Strategy.

The impact of wind activity from all compass directions has been examined and considered from the context of local wind climate, building morphology and topography relative to a scale of wind intensities and associated criteria for comfortable and safe walking, standing and sitting.

Drew Rudd identifies the development would incorporate substantial balconies encouraged by Council Wide PDC 125 as a means of minimising wind tunnel effects. Shelters and perimeter safety barriers integrated with the rooftop garden area are also expected to provide safe refuge opportunities for users in the event of strong wind conditions.

Drew Rudd conclude that portions of the development would be shielded from some wind gusts by nearby buildings and in recognition of expected levels of pedestrian activity and minor to negligible wind impacts, unwelcome effects of wind should be adequately mitigated through a combination of indented balconies and protruding surface features (car parking screens) consistent with the intent of Development Plan policy.

8.10.6 Crime Prevention

Safe and convenient pedestrian movement should be facilitated by a clearly designated, well-lit network of east-west and north-south links connected to public transport and areas of public activity through the promotion of natural surveillance and other suitable environmental design strategies.

The applicant asserts the composition of materials, configuration of built form, lighting of the public realm, and casual surveillance permitted through the proposed uses included in the development is expected to contribute to an environment which would discourages antisocial activity and deters crime.

In the applicant's view, the proposed development would achieve the intent of relevant Development Plan provisions by:

- promoting natural surveillance of the public realm (Coglin Street) from upper level balconies and windows;
- allowing clear sightlines and high visibility to/from the street via the predominately glazed ground floor entry points and east-west pedestrian link and vehicle carriageway;
- avoiding blind corners and creation of any opportunities for concealment;
- separating lobby entrance from the non-residential uses to promote territoriality and a sense of address through the clear delineation between public and private areas;
- securing access to residential levels through individual key card with visitor access permitted by residents via an intercom and control system;

- provision of adequate and consistent lighting of building entrances to permit facial recognition and avoid areas of shadow at night; and
- specification of robust and durable materials and design features to discourage vandalism.

Provided the development is implemented as designed, these features would assist in mitigating risks to safety and security as encouraged by Development Plan policy related to crime prevention.

8.10.7 Site Contamination

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

Application details provide no evidence that any measures have been taken to ascertain whether any potential exists for site contamination caused by previous use of the site. A standard condition is proposed to be assigned to any consent granted that a statement from an appropriately qualified environmental engineer demonstrating suitability of the site for its intended use be provided prior to the commencement of construction.

8.11 Advertising Signage

The applicant identifies that requirements for advertising and / or signage have not been determined at the time of lodgement. Any advertising requiring approval will be the subject of a separate application in due course.

9. CONCLUSION

The applicant seeks consent for development which would substantially exceed the maximum recommended building height within this portion of the City, which the Associate Government Architect does not support on the basis of the narrow streetscape condition and potential for diminished pedestrian amenity.

Although Development Plan policy generally anticipates built form achieving an orderly transition in height in locations adjacent to taller buildings or adjoining Zones and Policy areas prescribing greater height, this assessment has highlighted limitations in policy available for guiding an interpretation of the extent to which such a notable departure from quantitative policy should be considered reasonable.

Positive responses to Capital City Zone PDCs 16 and 21 demonstrate the proposal's eligibility to seek height and scale exceeding the recommended maximum along with the benefits the applicant proposes to compensate for the building height policy departure in terms of desire for increased residential population including affordable housing, ground level activation, pedestrian amenity contributions and sustainability outcomes.

The proposal is considered to adequately reinforce the Development Plan's concept of City form and complement existing built form within the subject land's setting, in recognition of examples of over-height buildings approved, under construction and in operation within the broader locality and the future potential for significant development of the nearby Supreme Court precinct.

The applicant has provided responses to some concerns raised by the Associate Government Architect and City of Adelaide in terms of external materials, communal spaces and facilities, traffic and access arrangements and other technical issues which are proposed to be resolved or managed through the assignment of conditions. Overall

the applicant is considered to have successfully addressed key planning, design and technical issues and accordingly the application is worthy of Development Plan Consent.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.

2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the Adelaide (City) Council Development Plan.

3) RESOLVE to grant Development Plan Consent to the proposal by YHL Investments Pty Ltd C/- Future Urban Group for construction of a 23 storey mixed use building with basement level, ground level café/bar and retail tenancy, 3 levels of car parking, 18 levels of residential apartments and a rooftop garden at 21 Coglin Street, Adelaide subject to the following conditions of consent.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 020/A022/18.

   Plans by JPE Design Studio

Title	Drawing No.	Revision	Date
Existing Site Plan	SK-001	-	09.02.2018
Landscape Floor Plan	SK-002	A	18.05.2018
Basement & Ground Floor Plans	SK-003	A	18.05.2018
Level 1 & 2 Floor Plans	SK-004	-	09.02.2018
Level 3, 4 & 5 Floor Plan	SK-005	A	18.05.2018
Typical Apartment Plans	SK-006	A	18.05.2018
Level 13 & 19 Floor Plans	SK-007	A	18.05.2018
Roof Garden & Roof Plans	SK-008	-	09.02.2018
Apartment Layout	SK-009	-	09.02.2018
Sections	SK-010	-	09.02.2018
Section Details	SK-011	A	18.05.2018
East & North External Elevations	SK-020	A	18.05.2018
West & South External Elevations	SK-021	A	18.05.2018

External Materials

2. Prior to Development Approval for superstructure works the applicant shall submit, in consultation with the Government Architect, and to the reasonable satisfaction of the State Commission Assessment Panel, a final detailed schedule of external materials and finishes, along with a physical materials board with documented performance to demonstrate material quality and design intent.

Traffic and Vehicle Access

3. The recommendations detailed in the Traffic Impact Statement, dated 13 February 2018 by of James Edwards of InfraPlan (Aust) Pty Ltd, forming part of this consent shall be fully incorporated into the development to the reasonable satisfaction of the State Commission Assessment Panel. Such measures shall be made operational prior to the occupation or use of the development.

4. All vehicle car parks, driveways and vehicle entry and manoeuvring areas shall be designed and constructed in accordance with Australian Standards (AS/NZS 2890.1:2004 and AS/NZS 2890.6.2009) and be constructed, drained and paved with bitumen, concrete or paving bricks in accordance with sound engineering practice and appropriately line marked in accordance with AS2890.1 and AS1742 to the reasonable satisfaction of the State Commission Assessment Panel prior to the occupation or use of the development.

5. All bicycle parks shall be designed and constructed in accordance with Australian Standard 2890.3-2015.

6. The hours for waste collection vehicles (operated by private contractor) to enter and exit the site shall be restricted to Monday to Friday, between 7:00am to 9:00am and 3:00pm to 5:00pm with no collection on a Saturday or Sunday

Environmental

7. 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.

8. Levels of any proposed stormwater grated inlet pits or openings within the property boundary must be designed with an adequate freeboard to the 1 percent Annual Exceedance Probability (AEP) flood level assumed to be top of kerb level adjacent to each stormwater discharge point to Coglin Street.

9. All external lighting on the site shall be designed, constructed and installed to conform to Australian Standard – AS 4282-1997 (Control of the obtrusive effects of outdoor lighting).

10. Lighting to the overhead canopy over Coglin Street (east) shall be installed in accordance with City of Adelaide's guideline entitled "Under Verandah/Awning Lighting Guidelines" at all times to the reasonable satisfaction of the State Commission Assessment Panel and prior to the occupation or use of the Development. Such lighting shall be operational during the hours of darkness at all times.

11. Landscaping shown on the approved plans shall be established prior to the operation of the development and shall be maintained and nurtured at all times with any diseased or dying plants being replaced.

12. A Construction Environment Management Plan (CEMP) shall be prepared and implemented in accordance with current industry standards – including the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition" and, where applicable, "Environmental Management of On-site Remediation" – to minimise environmental harm and disturbance during construction.

    Copies of the CEMP shall be provided to the City of Adelaide (Council) and the State Commission Assessment Panel prior to commencement of site works.

13. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc.) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.

Acoustics

14. The acoustic attenuation measures recommended in the Acoustic Services Preliminary Report, dated 14 February 2018 by Saksham Garg of BESTEC Pty Ltd, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the State Commission Assessment Panel. Such acoustic measures shall be made operational prior to the occupation or use of the development.

15. Air conditioning or air extraction plant or ducting shall be screened such that no unreasonable nuisance or loss of amenity is caused to residents and users of properties in the locality to the reasonable satisfaction of the State Commission Assessment Panel.

ADVISORY NOTES

a. All new crossovers or alterations to existing crossovers incorporated in the development will require approval by the City of Adelaide in accordance with the relevant standards and specifications detailed in the Council's City Works Guidelines.

b. The finished floor level of the ground floor level at the entry points to the development including the car park entry and exit points shall match the existing footpath unless otherwise agreed to in writing by the City of Adelaide.

c. An Encroachment Permit will be separately issued for the proposed encroachment into the public realm when Development Approval is granted. In particular, your attention is drawn to the following:

- An annual fee may be charged in line with the Encroachment Policy;
- Permit renewals are issued on an annual basis for those encroachments that attract a fee; and
- Unauthorised encroachments will be required to be removed.

d. Any activity in the public realm, whether it be on the road or footpath, requires a City Works Permit. 48 hours' notice is required before commencement of any activity. The City Works Guidelines detailing the requirements for various activities, a complete list of fees and charges and an application form can all be found on Council's website at www.cityofadelaide.com.au. When applying for a City Works Permit you will be required to supply the following information with the completed application form:

- A Traffic Management Plan (a map which details the location of the works, street, property line, hoarding/mesh, lighting, pedestrian signs, spotters, distances etc.);
- Description of equipment to be used;
- A copy of the relevant Public Liability Insurance Certificate (minimum cover of $20 Million required); and
- Copies of consultation with any affected stakeholders including businesses or residents.

Upfront payment is required for all City Works applications, which can be received by Council via the following:

- Email: cityworks@cityofadelaide.com.au
- Fax: 8203 7674
- In Person: 25 Pirie Street, Adelaide

e. 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.

f. 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.

g. 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).

h. The applicant should ensure there is no objection from any of the public utilities in respect of underground or overhead services and any alterations that may be required are to be at the applicant's expense.

i. As work is being undertaken on or near the boundary, the applicant should ensure that the boundaries are clearly defined, by a Licensed Surveyor, prior to the commencement of any building work.

j. The applicant is reminded of its general environmental duty, as required by Section 25 of the *Environment Protection Act 1993* to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.

k. You are 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; and

(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.

l. 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*.

Ben Scholes
Project Officer
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

JPE

Mixed Use Development

21 Coglin St Adelaide

Planning Application

JPE Design Studio

25 May 2018

Contact Information

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Contents

1.0 Introduction & Development Summary

Introduction

This document has been prepared as part of a Planning Stage development application for the proposed residential development on the subject site at 21 Coglin Street, Adelaide.

The project team comprises of:

YHL Investments Pty Ltd
Client

JPE Design Studio
Architect and Landscape Architect

Future Urban Group
Planning Consultant

InfraPlan
Traffic Engineer
Waste Management Consultant

Bestic
Services Infrastructure
ESD & Sustainability Consultant
Acoustic Engineering

WSP
Engineering consultant
Building Certifiers

Drew Rudd Engineers
Wind Impact Assessment
Stormwater & Civil Engineering

Development Summary

21 Coglin Street					
Level	**Comment Space**	**No. of Apartment**			**No. of Car parking**
		1Bed	2Bed	3Bed	
Level 22	Roof Garden				
Level 21		1	3	1	
Level 20		1	3	1	
Level 19			3	1	
Level 18	Shared Balcony	1	3	1	
Level 17		1	3	1	
Level 16		1	3	1	
Level 15		1	3	1	
Level 14	Shared Balcony	1	3	1	
Level 13			2	2	
Level 12		1	3	1	
Level 11		1	3	1	
Level 10	Shared Balcony	1	3	1	
Level 9		1	3	1	
Level 8		1	3	1	
Level 7	Shared Balcony	1	3	1	
Level 6		1	3	1	
Level 5	Outdoor Terrace		3		
Level 4					13
Level 3					13
Level 2					13
Level 1		2	3		
Ground Floor	Commercial / Services				
Basement 1	Services				
Total		**16**	**53**	**17**	
Total		**86**			**39**
Ratio		20%	61%	19%	45%

2.0 Site & Context Analysis

Site Context Plan

The subject site is Lot 694 or 21 Coglin Street Adelaide which currently accommodates an open air car park.
The site is bounded on 3 sides by public roads but the major road is Coglin Street to the East.

Neighbouring properties include the 5 storey Australian Migrant Centre to the south, one, two and three storey buildings over the road to the north and west and a 12 storey mixed use tower across the road to the east and an 11 storey car park building south of that tower. Several of the properties to the west are locally heritage listed.

The site is connecting to Central Market and Chinatown where is a variety of activities and popular restaurants.

Development Plan Zoning

The subject site at 21 Coglin Street sits in the Capital City Zone.

The Capital City Zone is divided further into areas of different building heights. The subject site sits within the 43m height zone, adjacent to the No Prescribed Height Limit Zone.

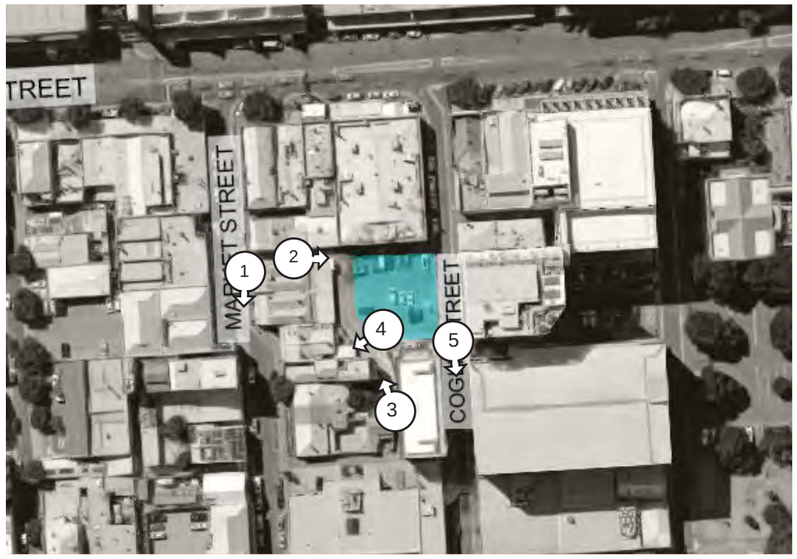
Legend

- Subject Site
- Building Height Guideline (43 meters)
- Building Height Guideline (53 meters)
- No Height Limit

Site Photographs

The following photographs have been taken from street level and show the current building form and landscape context of the subject site.

Site Photographs



Land Title Information

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

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

Certificate of Title - Volume 5502 Folio 472

REAL PROPERTY ACT, 1886 South Australia

Parent Title(s)	CT 3267/110
Dealing(s) Creating Title	CONVERTED TITLE
Title Issued	13/02/1998
Edition	6
Edition Issued	04/08/2016

Estate Type

FEE SIMPLE

Registered Proprietor

COGLIN STREET DEVELOPMENT PTY. LTD. (ACN: 131 379 318)
OF C/- LEVEL 1 5/94 THE PARADE NORWOOD SA 5067

Description of Land

ALLOTMENT 694 FILED PLAN 183156
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title

NIL

Priority Notices

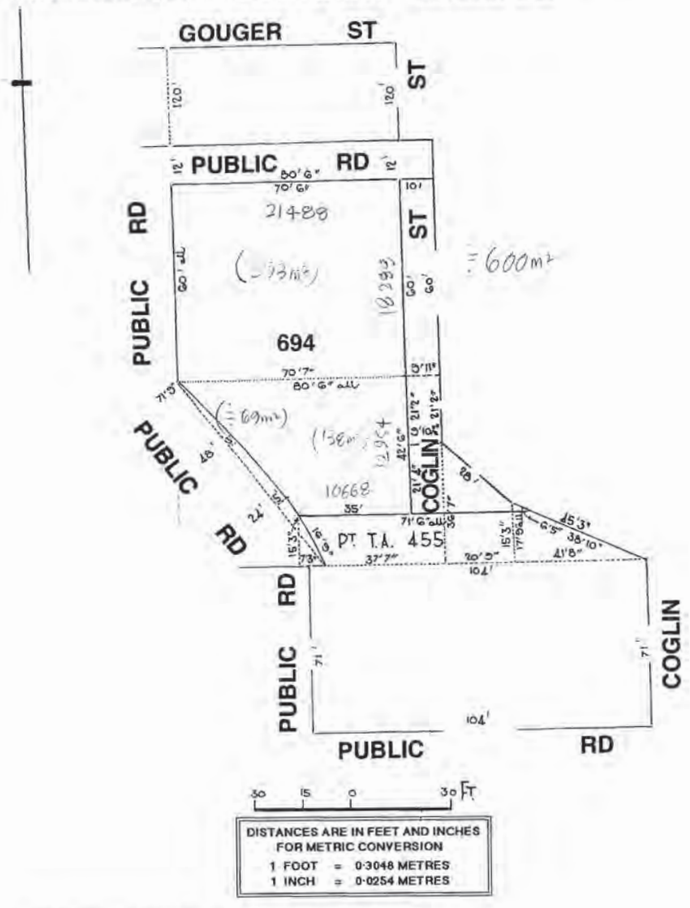
NIL

Notations on Plan

Government of South Australia
Department of Planning, Transport and Infrastructure

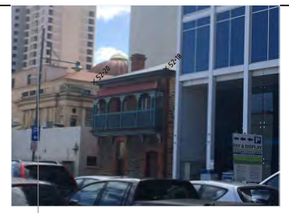
Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

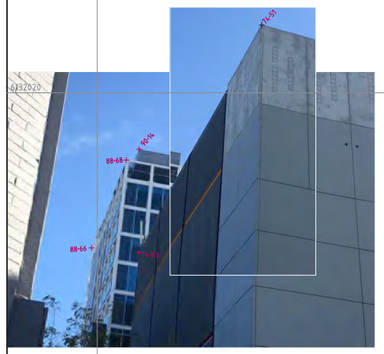
THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 3267/110 LAST PLAN REF: DP 623

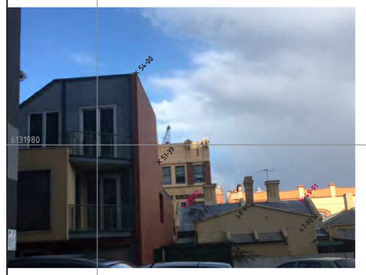


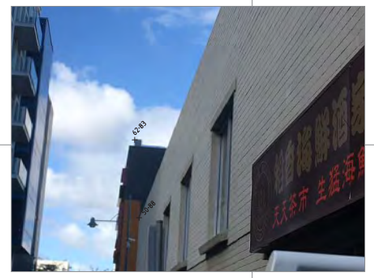
NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

Site Survey









REV.	DATE	DESCRIPTION	LC (Y/N)	BY

Client

JPE DESIGN STUDIO P/L

Project Description

DETAIL SURVEY

21 COGLIN STREET
ADELAIDE
ALLOTMENT 694 IN F183156
CT 5502/472

THIS IS SHEET 1 OF 1 SHEETS

Drawing Scale 1 : 200m — Original Sheet Size A1

0 4 8 12 16 20

Scale — Metres

Notes

Levels are based on the Australian Height Datum derived from P.S.M. 6628/836758
Adopted elevation = 44.087

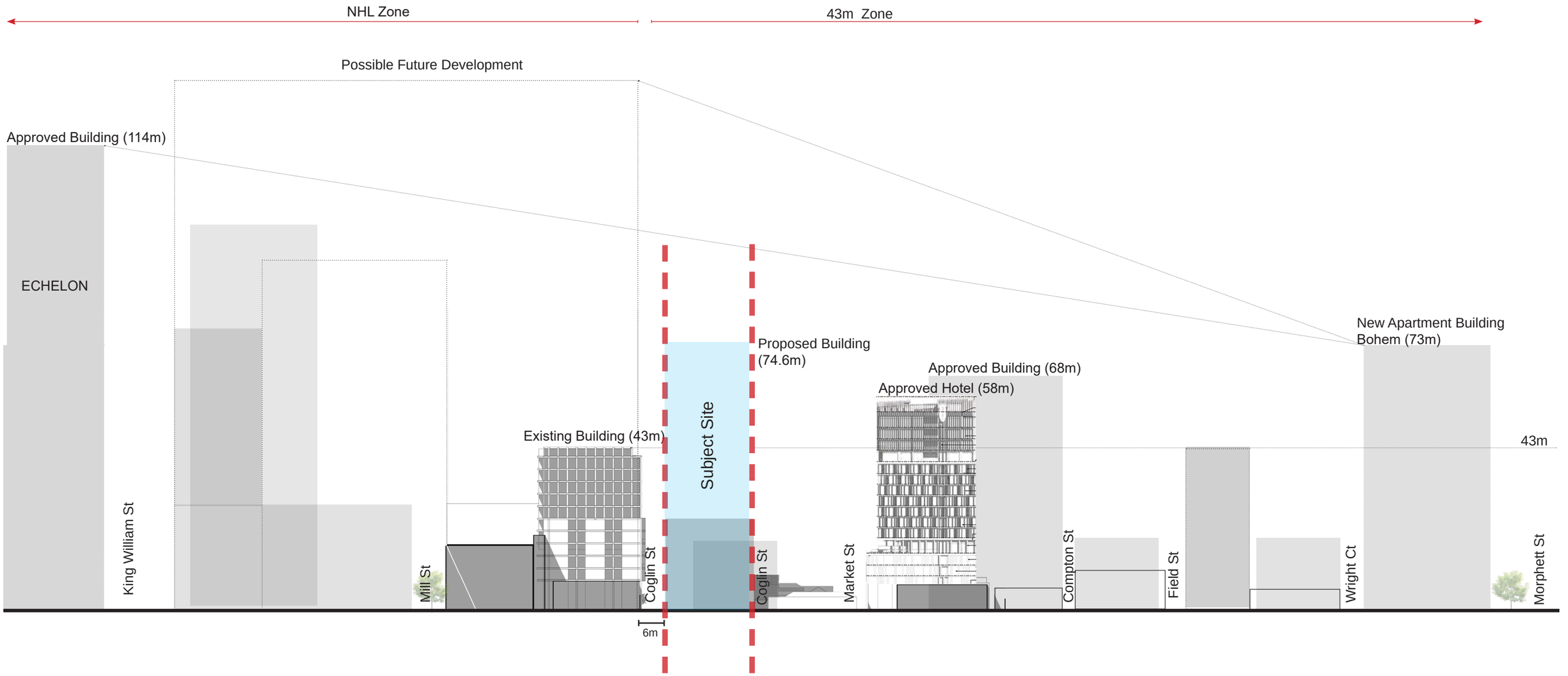
STATE SURVEYS SURVEYORS
465b South Road
Keswick 5035
South Australia
Phone (08) 8293 2939
Facsimile (08) 8293 2949
Email info@statesurveys.com.au

Coord. Datum: ARBITRARY	Surveyed: AP/NP	30.03.17
Height Datum: AHD	Calculated: NP	30.03.17
CALC File: 17140 DETAIL	Drawn: AP	30.03.17
DWG File: 17140 DETAIL	Checked:	

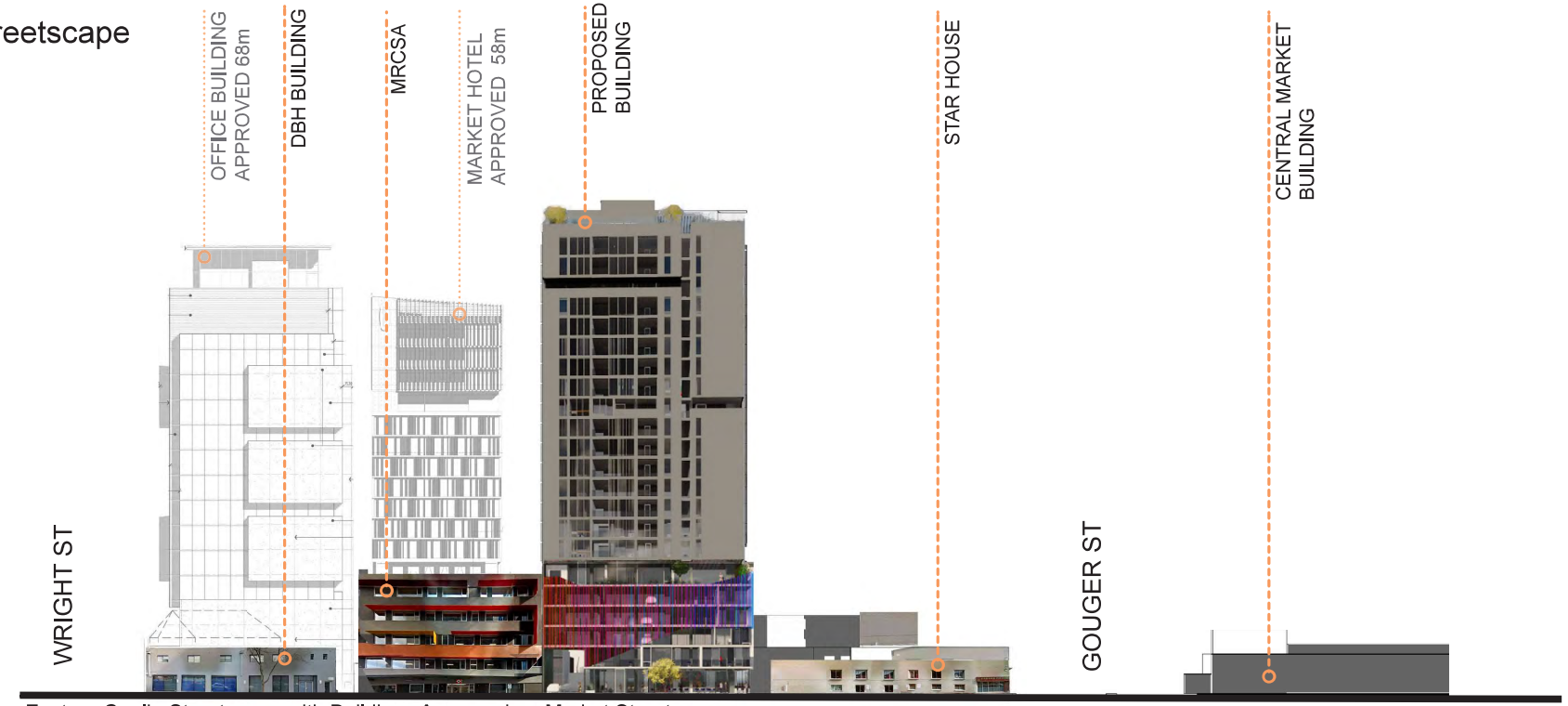
Job Number — Revision

17140

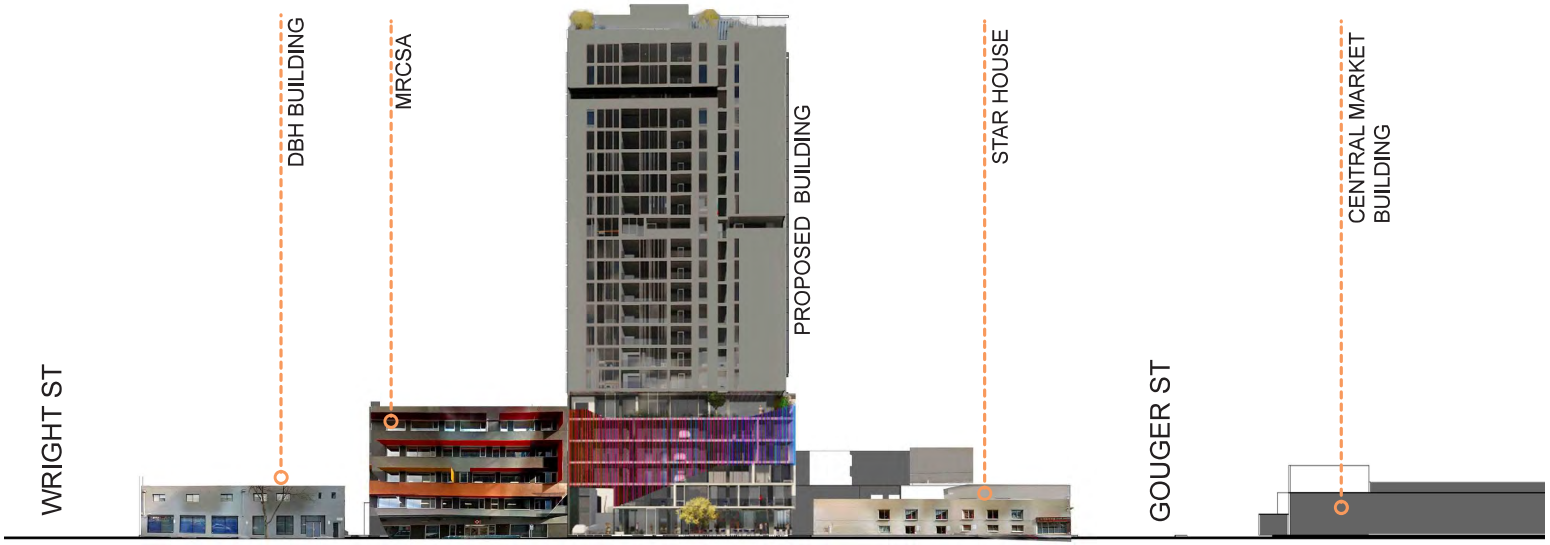
Existing / Future Streetscape Study



Eastern Coglin Streetscape

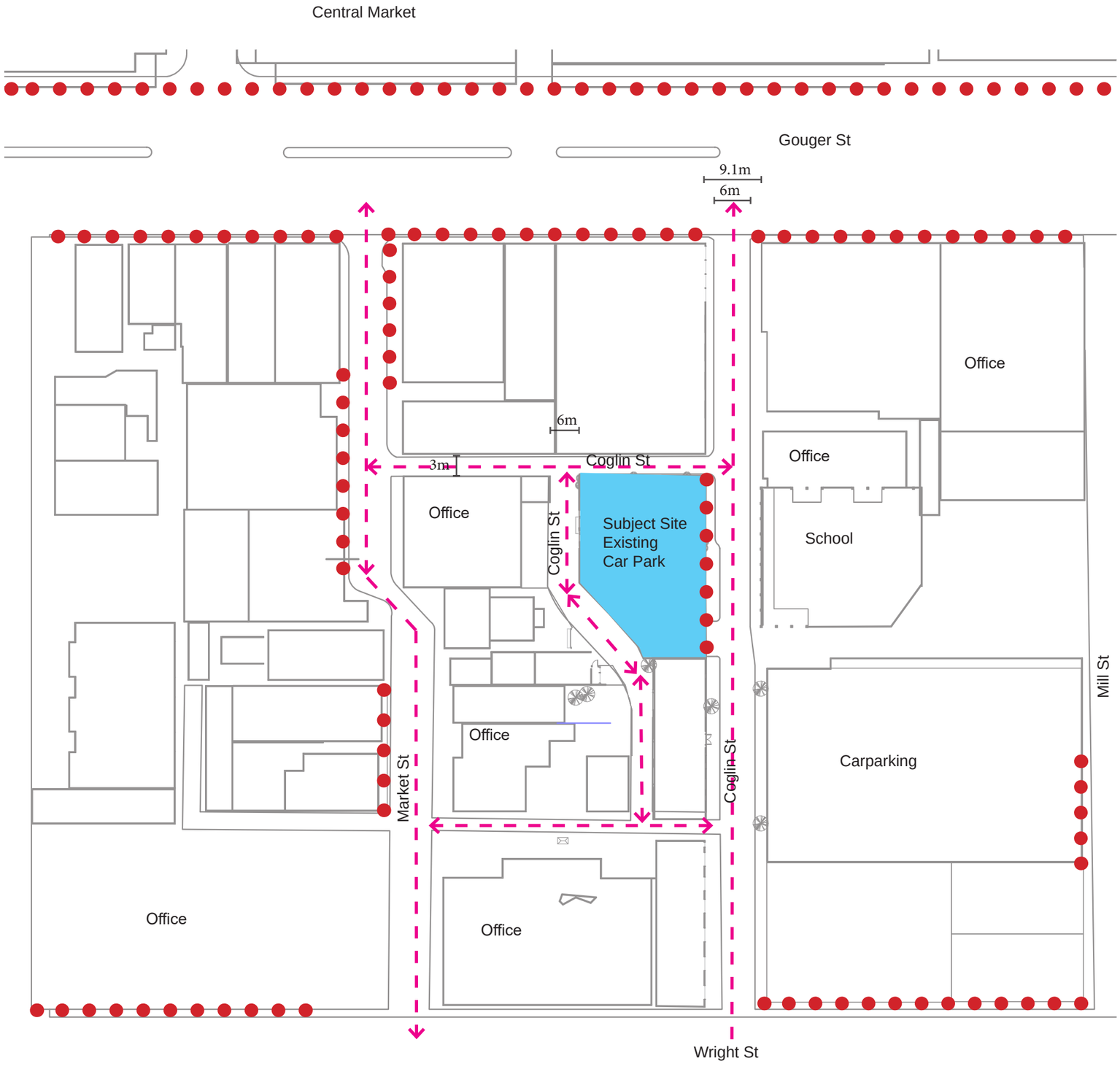


Eastern Coglin Streetscape with Buildings Approved on Market Street



Eastern Coglin Streetscape

Existing Site Plan



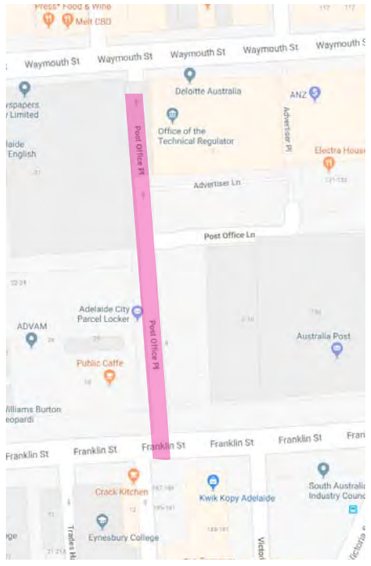
TRAFFIC

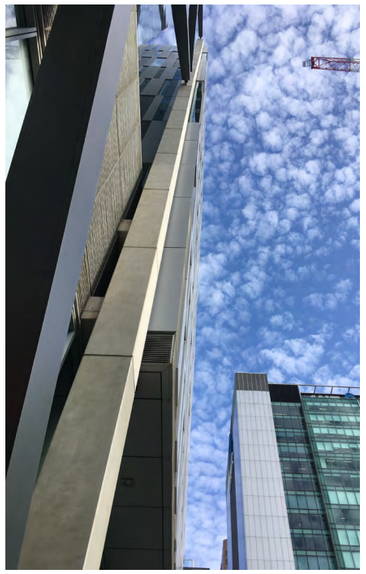
CAFE/RESTAURANT/BAR /RETAIL
- ACTIVATING THE STREET

SUBJECT SITE

Similar Site Context Examples of Narrow Laneway

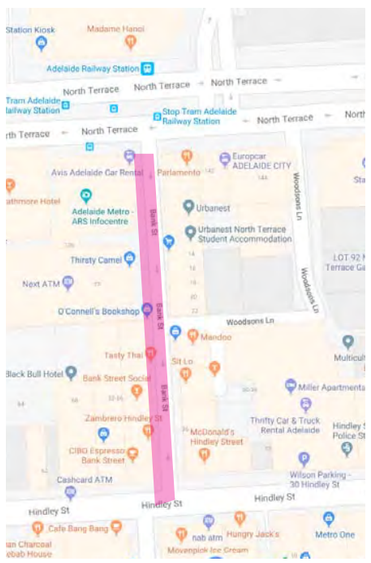
5 comparable examples showing below where tall buildings exist either side of narrow laneways which similar to the subject context, all examples laneways width are about 6m or less which similar to Coglin street .





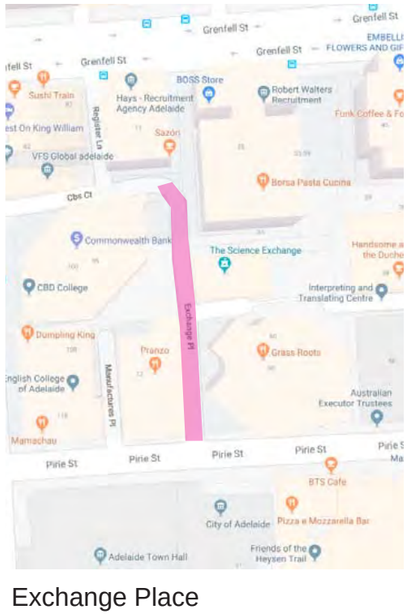
Post Office Place

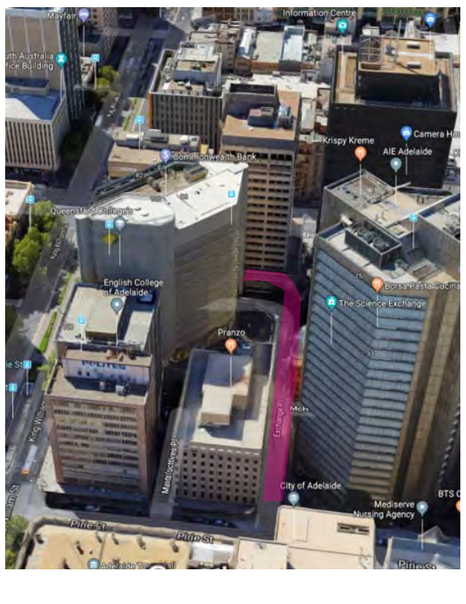
Post Office Place (between Waymouth Street and Franklin Street). The new office tower under construction together with the existing taller buildings either side of the lane.

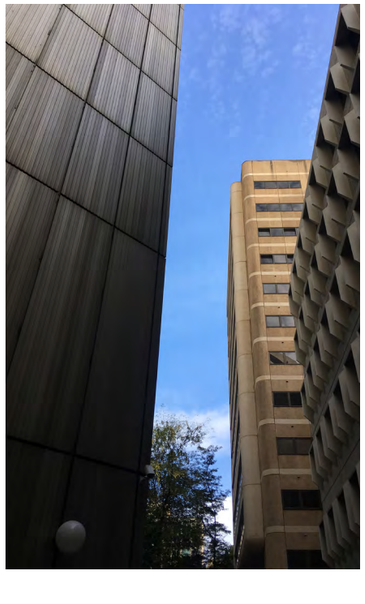


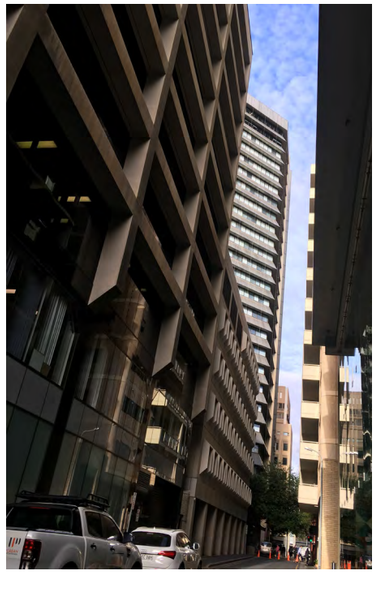
Bank St

Similar Site Context Examples of Narrow Laneway

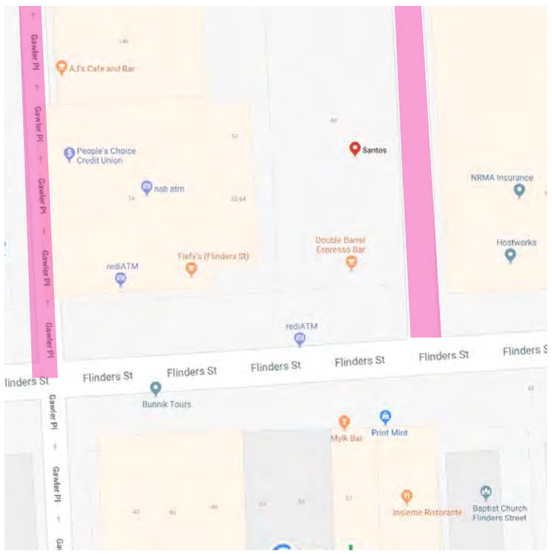


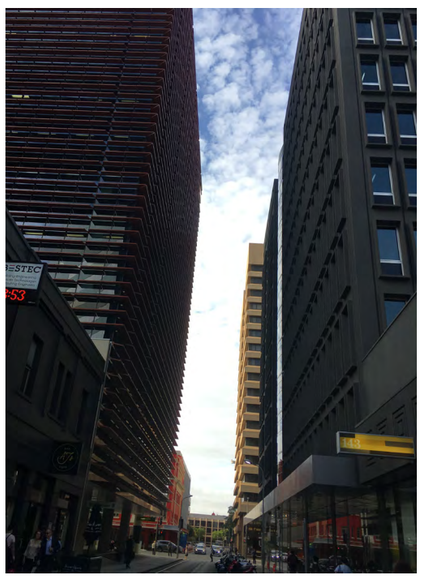


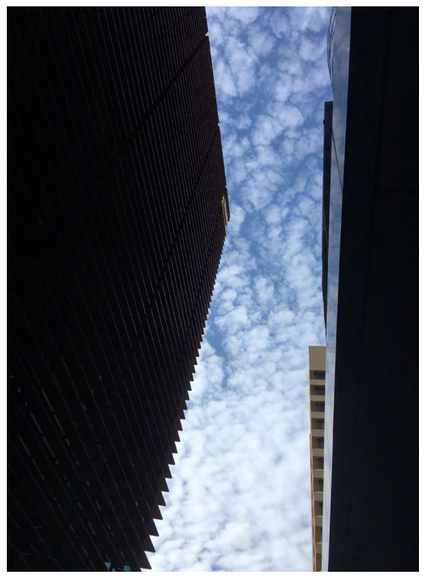


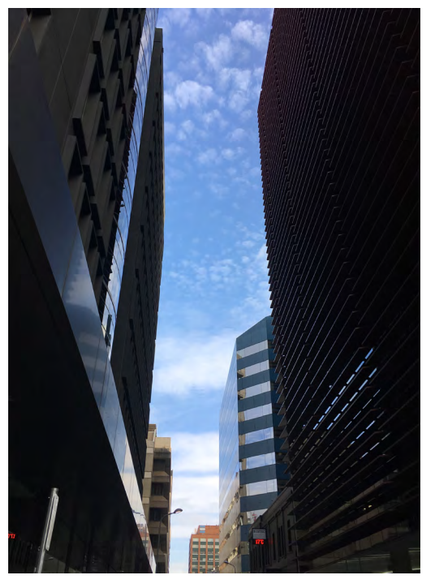


Exchange Place





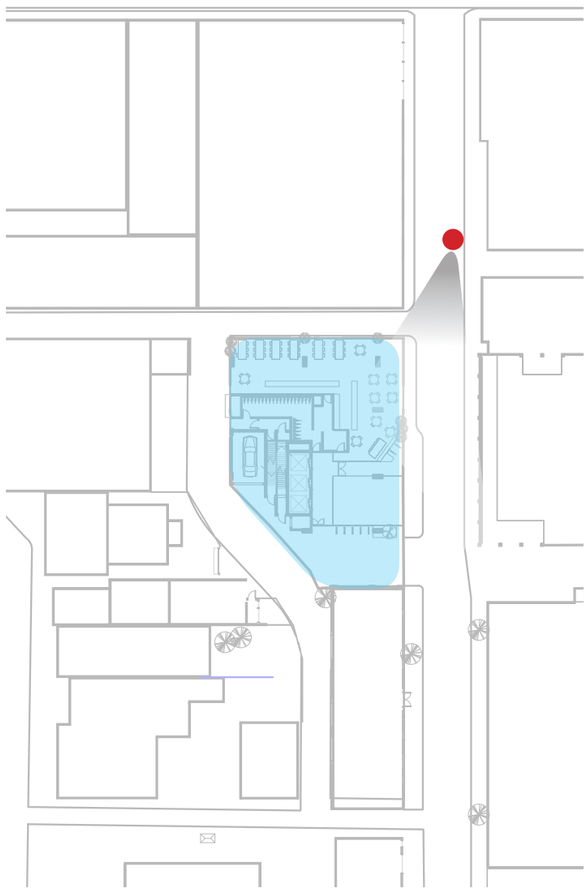




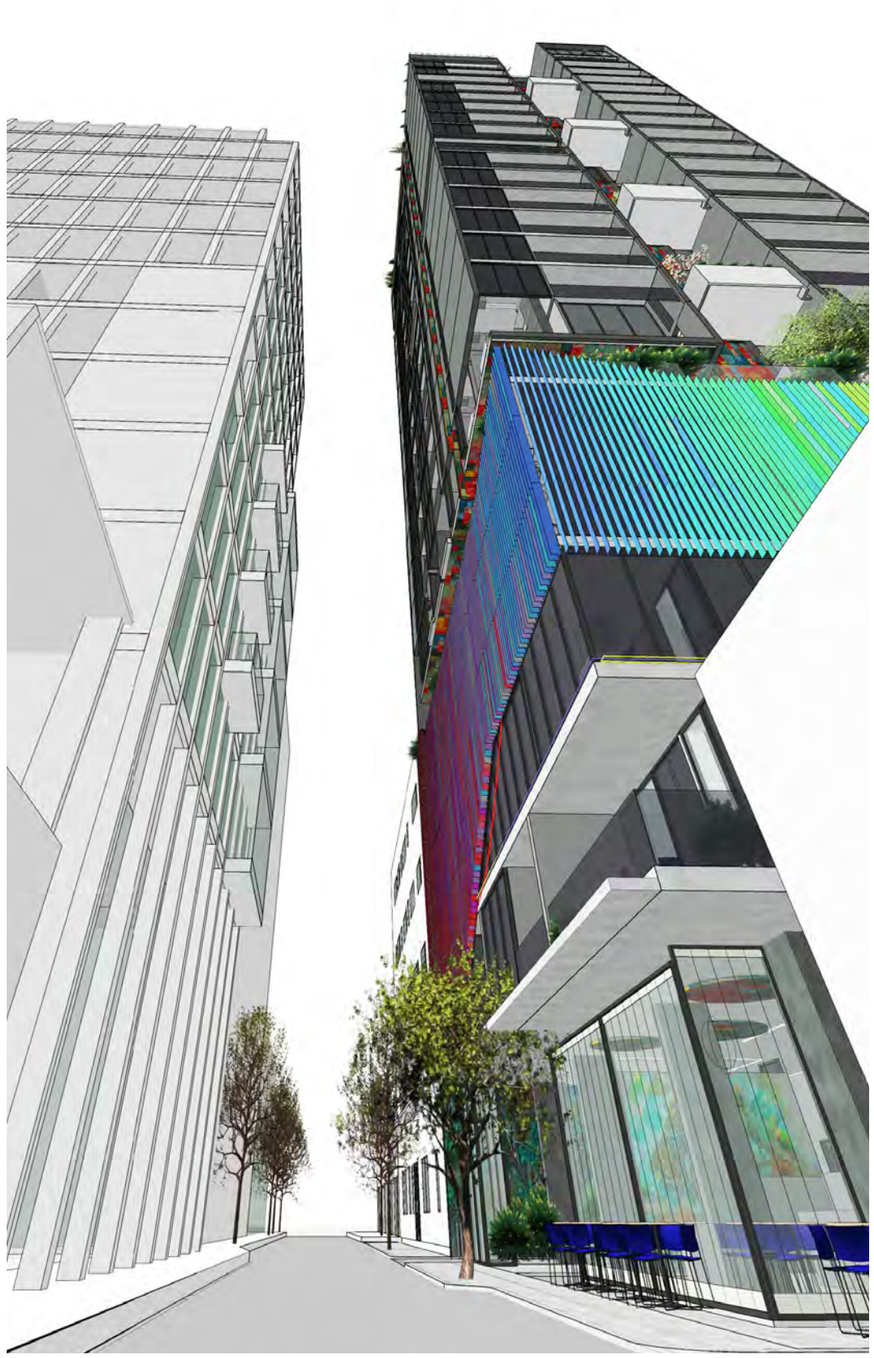
Gawler PL and
Laneway between Santos & SGIC buildings on Flinders St

Different Building Height - Visual Comparison

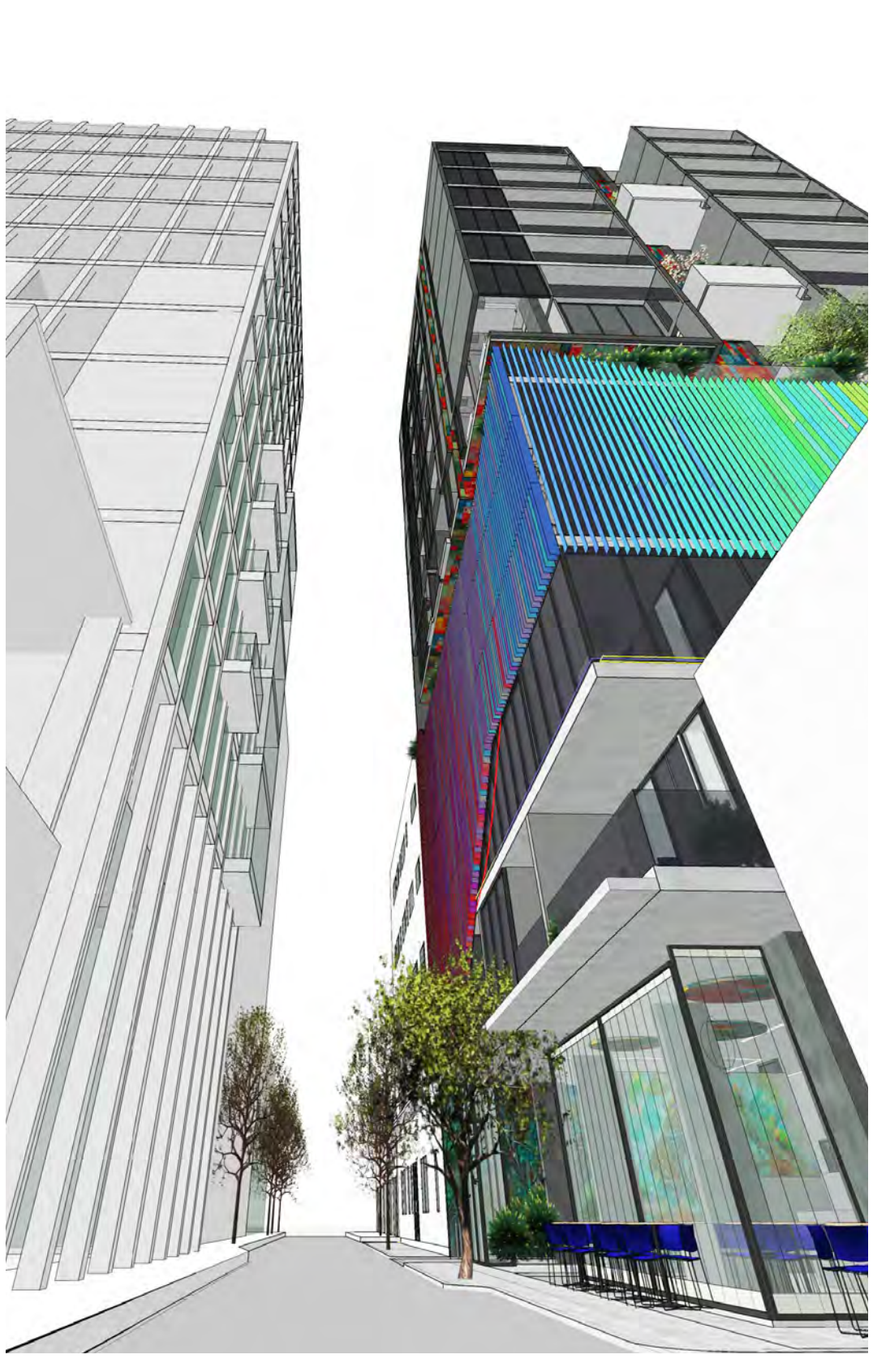
Perspectives below show one with the proposed building at 74.6m and another building height at 43m. The visual impact of these different heights will be extremely minimal in a practical sense.



Site Plan



Perspective: Proposed Building Height at 74.6m



Perspective : Building Height at 43m

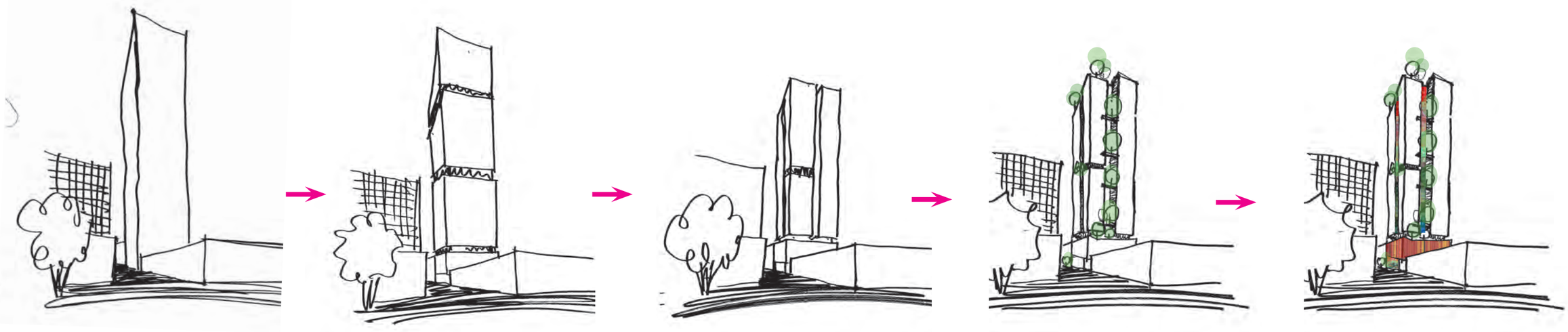
3.0 Design Response
Brief & Form Development

Project Brief

The project brief for the proposed development comprises of the following key items:

- Reconfigured pedestrian walkway through the site, directly linking Eastern Coglin Street to Western Coglin Street.
- Active ground floor level comprising of restaurant, retail space and residential entry lobby.
- 3 levels of above ground carparking with sculptural massing activation facing three side of Coglin Street. Colors and arts reference Markets and culture, reinforcing a positive attitude for residents.
- Flexible and adaptable residential accommodation comprising of a mix of 1, 2 and 3 bedroom apartments.
- Provision of shared recreation and entertainment spaces for residents throughout the new building including full roof level common space and level 5 outdoor terrace. Shared spaces will bring occupants together to create a sense of community and healthy life style
- Vertical gardens promote cooling, enrich facades & spaces and encourage a sustainable healthy lifestyle

Form Development



Stage 1
Block Form

Stage 2
Stacked Form

New Proposal
Expression of Form

Articulated Form
Introduce vertical greening

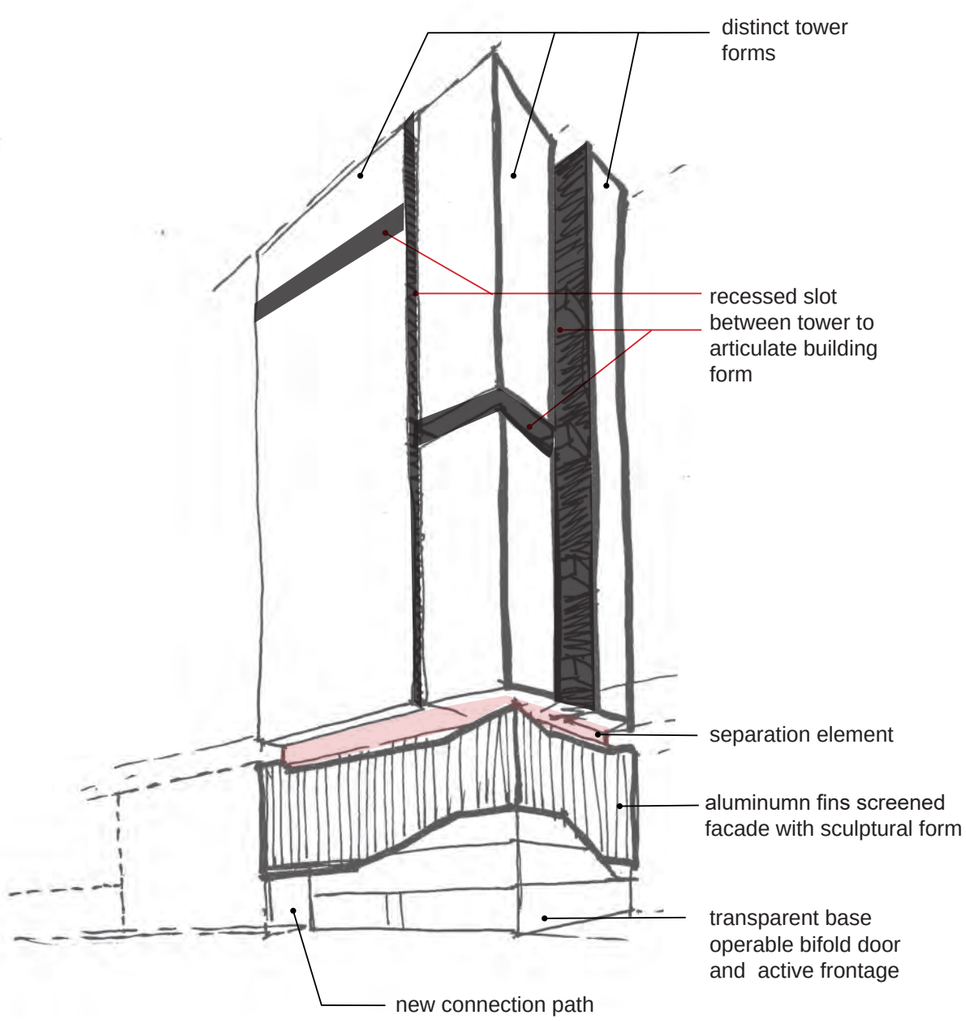
Introduce color reference
Markets and culture

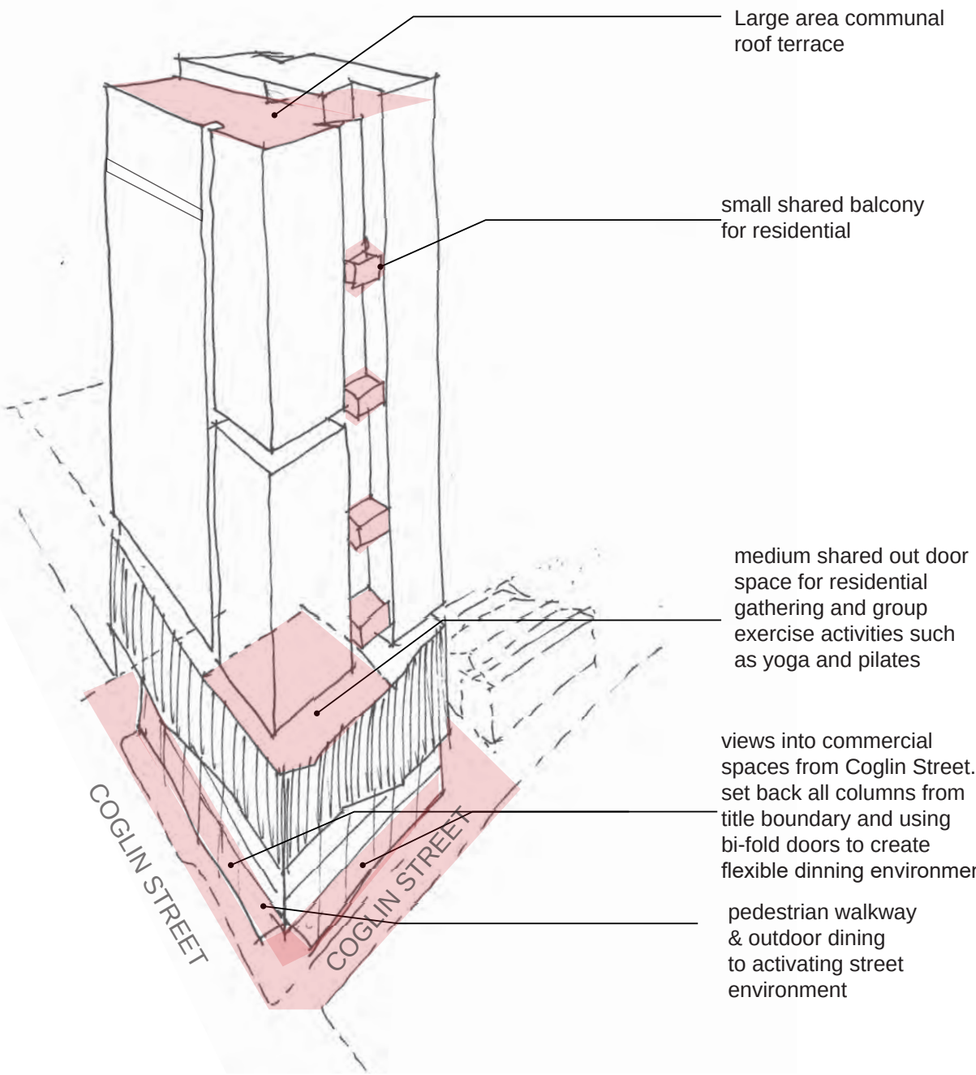
Form Development & Communal Space

The design intent for this project is to visually express the Four main building programs proposed. These are:

- Open/active ground plan
- Screened/articulated podium like carparking facade
- Recessive/horizontal apartment level 5, 13 and 18
- Extended/vertical apartment levels

The resulting form is a clear expression of form and function, that breaks down the building scale with articulation, comprises of a simple composition and grouping of similar elements, provides shading and screening where required, and successfully relates to the existing streetscape context.





This diagram highlights the areas proposed to be used for shared recreation, group gathering and common public realm activity.

Long Distance Views

The following images have been prepared to show the proposed development from four locations further away from the subject site.

View from Victoria Square

View from Gouger St West End

View from Gouger St East End

View from Wright St

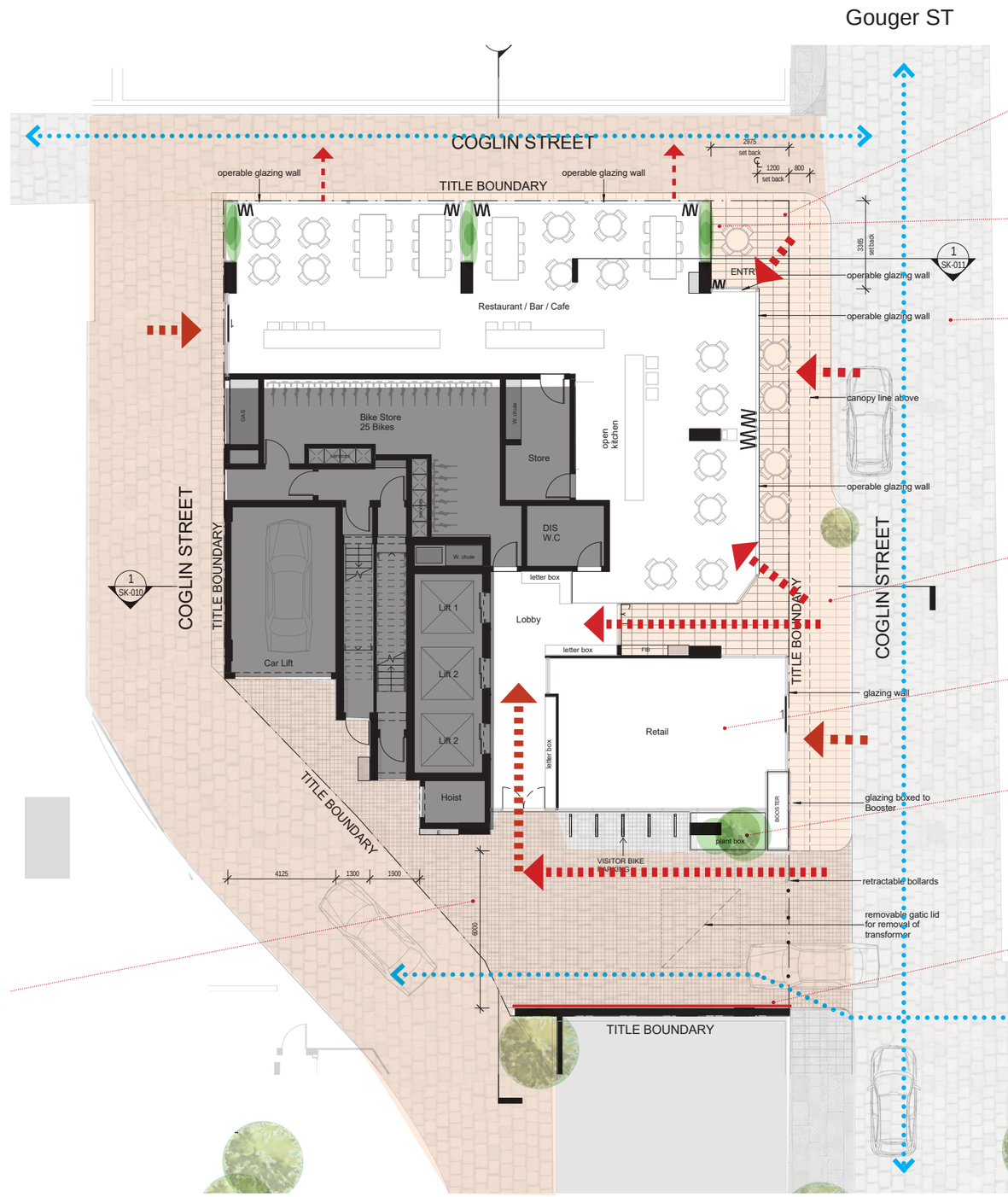
Ground Floor Study & Treatment

Set back columns position from Title Boundary line and using bifold doors around the ground floor to create a outdoor feeling space fronting Coglin Street with new paving.

The new walkway will adapt similar paving treatment to the public roads, with a banded treatment reinforcing the grid of the new building and blurring the title boundary edges to create a consistent public realm.

The outdoor feel restaurant/cafe/ retail area helps to create a more active and vibrant frontage that contributes to visual interest in

CONNECTION
PEDESTRIAN ACCESS
VEHICLE ACCESS



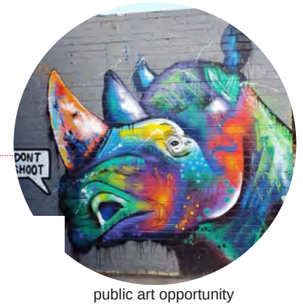

reference street view


vertical greening to entry


suggestion of stone paving (out of scope work)


reference retail street view


plant box

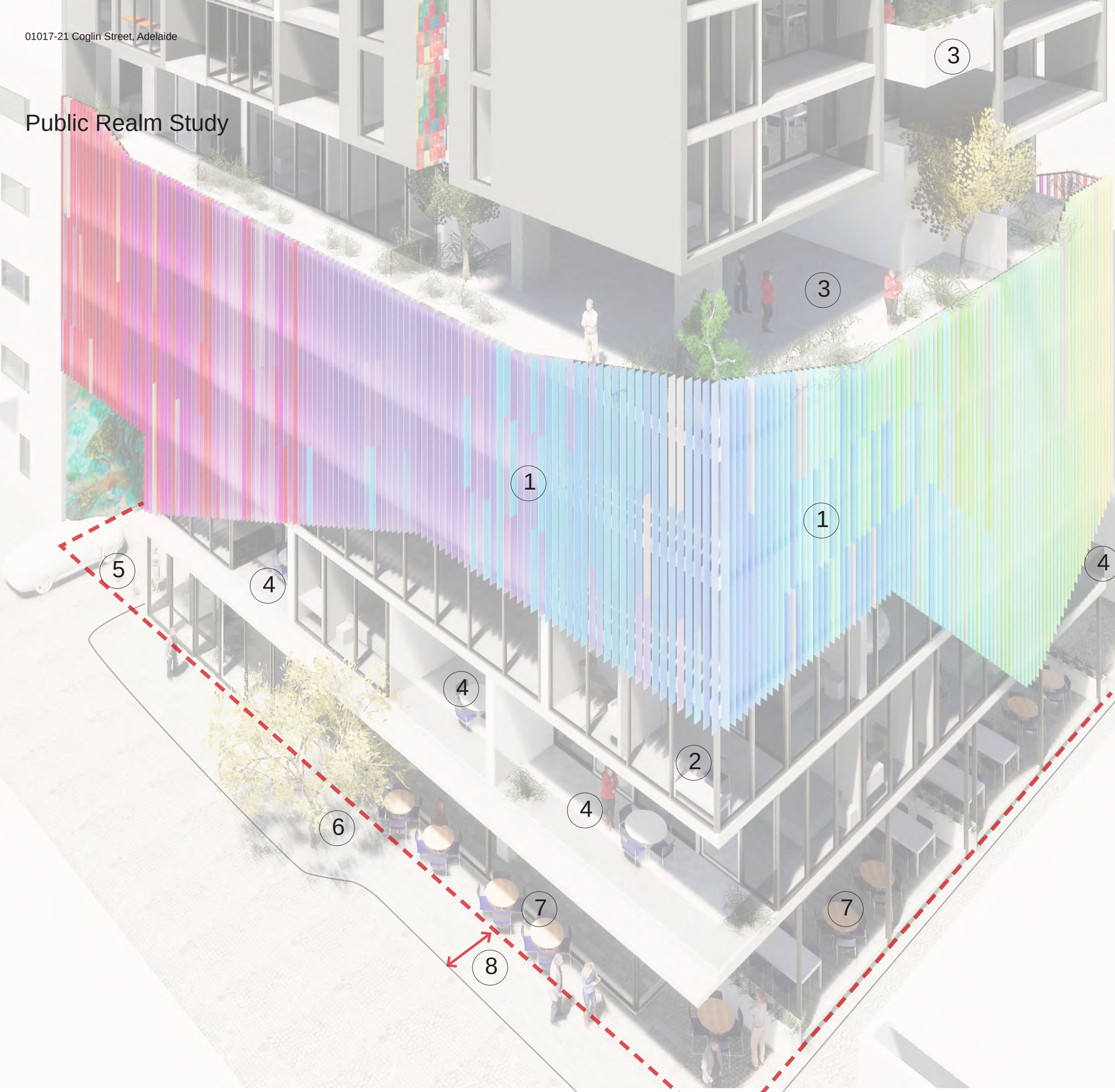


public art opportunity


new path floor paving

Ground Floor Plan
1:200

Public Realm Study



1 Sculptural metal shading to carpark levels prevents views of cars from the public realm.

2 Place a apartment bedroom/study on the North - East corner of level 2 to create better activation on streetscape.

3 Communal outdoor space for residents facing North to Central Market and East Coglin street with edge planting.

4 Balconies facing public realm provides passive surveillance

5 New pathway linking Eastern Coglin street and Western Coglin street

6 Possible new verge treatment & street tree subject to separation application

7 Operable ground floor glazing and outdoor dining to restaurant

8 New paving on existing Coglin Street path

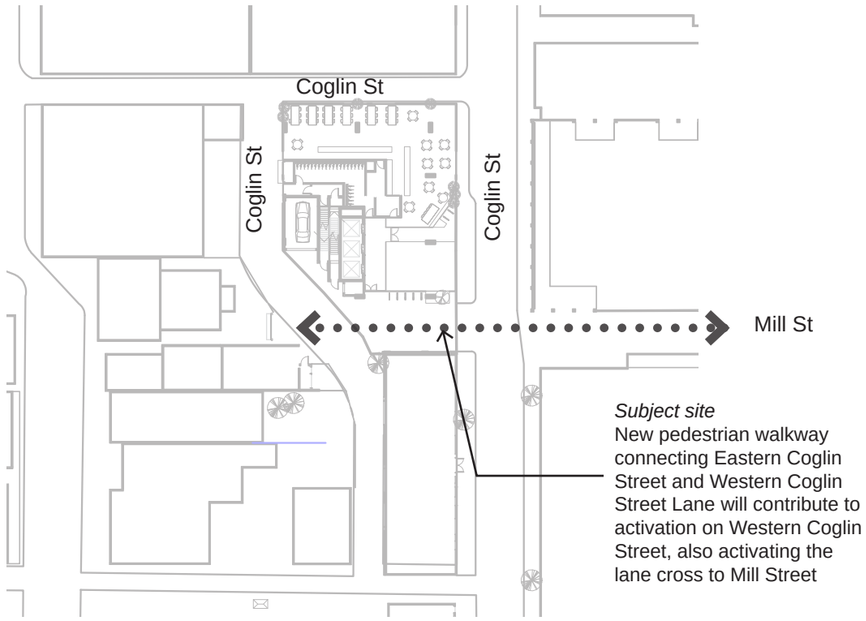
Walkway Activation Concept

The new pedestrian walkway / driveway on the subject site will connect Eastern Coglin Street and Western Coglin Street and will contribute to activation links to Mill Street.

Motorised retractable bollards are introduced to control other public traffic access.

The design of the walkway / driveway will focus on activation and engagement with the pedestrian, public art, greening and Engagement with artists.

Reference Images



Subject site
New pedestrian walkway connecting Eastern Coglin Street and Western Coglin Street Lane will contribute to activation on Western Coglin Street, also activating the lane cross to Mill Street

Indicative view of public art along walkway from East Coglin Street

CPTED & Street Level Interface

The street level interface to Coglin Street and the new walkway/ private driveway has been carefully designed to create a safe and engaging pedestrian experience.

Transparent facades to the restaurant, retail tenancy and residential lobby allow for passive surveillance, it will create active edges. Locating the lobby centrally to the new walkway will ensure constant movement through the space that will be well lit with clear sight lines from Coglin Street

A new path will blur the boundaries between the subject site and Coglin Street by incorporating similar ground surface treatment and materiality.

The ground floor façade to the restaurant has been set back to allow for outdoor dining within the title boundary. This will create a welcoming dining atmosphere when all bi-fold doors are opened.

The three above ground carparking levels have been partially sleeved with active uses in the form of apartments, including a two-level apartment in the North-Eastern corner. This, in conjunction with the communal outdoor space at level 5 will promote day and night passive surveillance of the public realm.

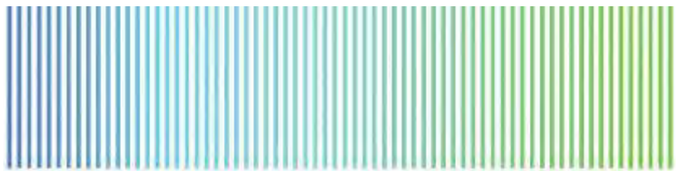
Facade Diagrams

Colourful Market

Taking all colors from Central Market by using gradient color system, applying color from warm to cold and vise verse, to create vibrant atmosphere

Color (Red to Blue) to Eastern Elevation

ML



MR

Plan

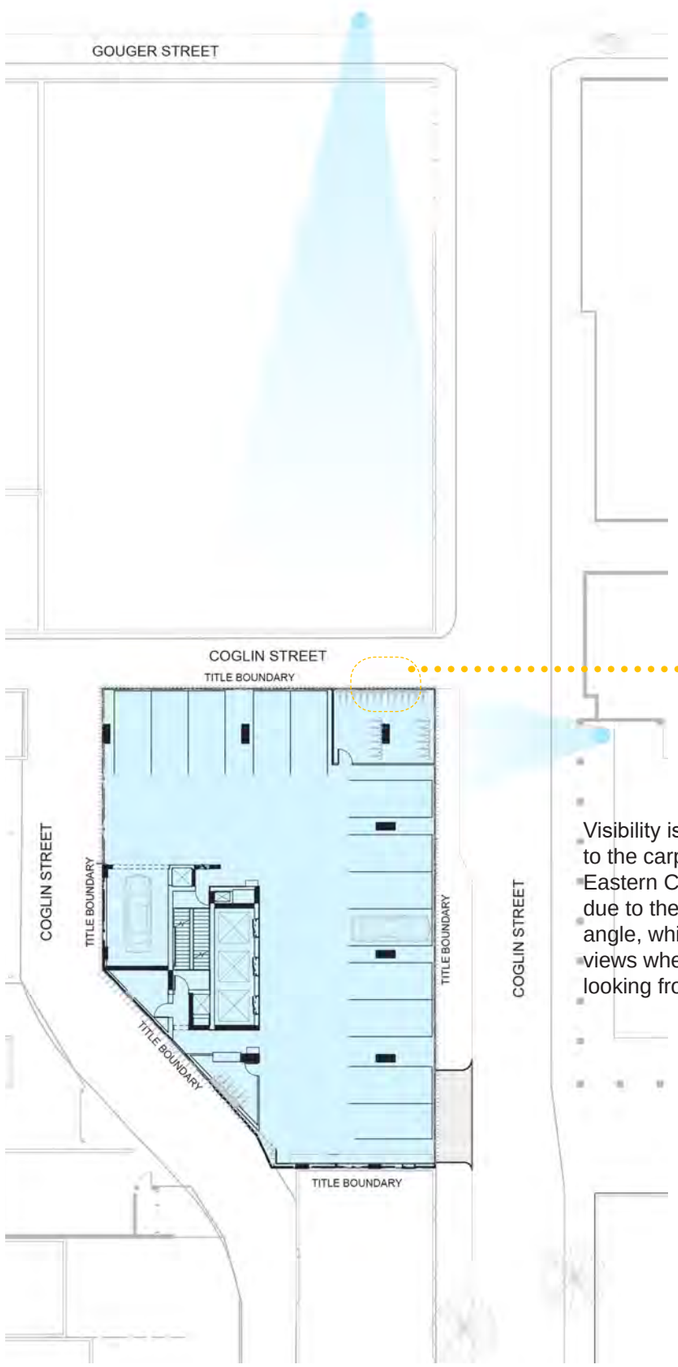
Metal panel shading angled on North Elevation to provide sunshading and prevent view into carparks

North-West Perspective

Folding metal sunshading concept to Western side

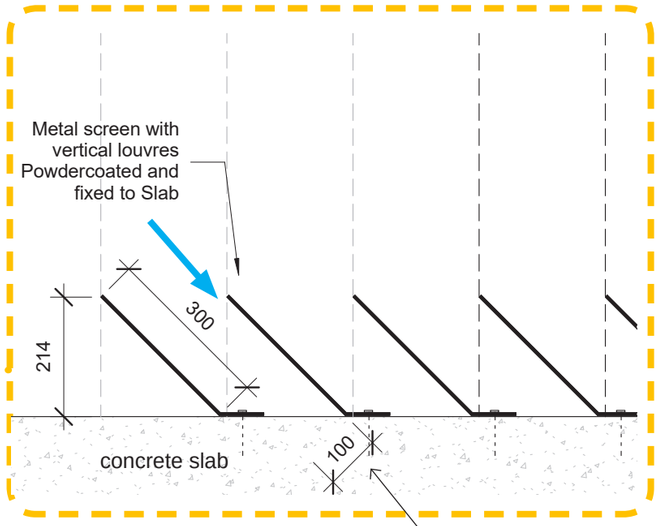
Facade Diagrams

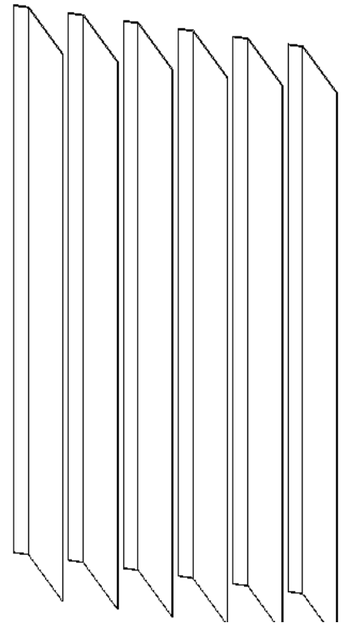
Cars within carpark are hardly visible from Gouger Street, due to the angle of the metal screen to the North and the distance to proposed building



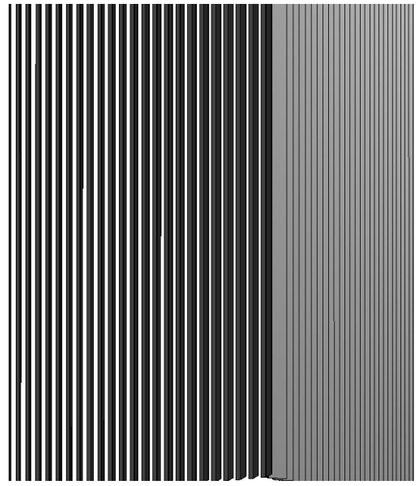
Visibility is restricted to the carpark along Eastern Coglin Street due to the angle, which restricts views when looking from below.

Building facade detail - metal screen with vertical louvers





Metal ScreenView
- metal screen with vertical louvers

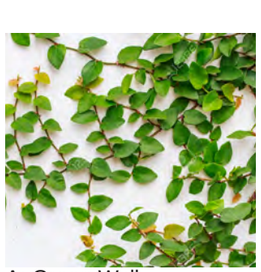


Metal Screen View from North-east corner
- metal screen with vertical louvers

Communal Spaces

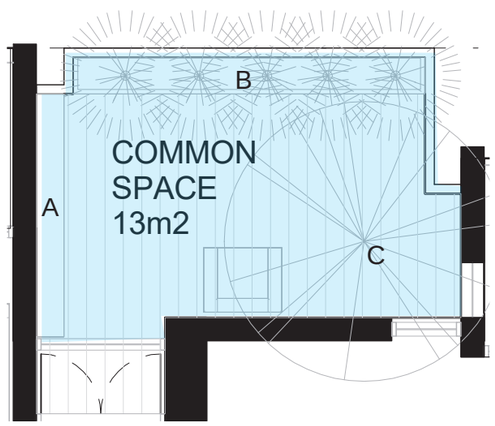
1. Outdoor Shared Space

Provide an open shared space (Herbs and fruits garden) to encourage occupants to engage each other, grow vegetables and get to know their neighbours. Having fresh herbs and fruits just outside your door way.



A: Green Wall

Get to know neighbors



Typical Common Garden Space 13m2
Level 7,10,14,18

B: Herbs & Vegetables

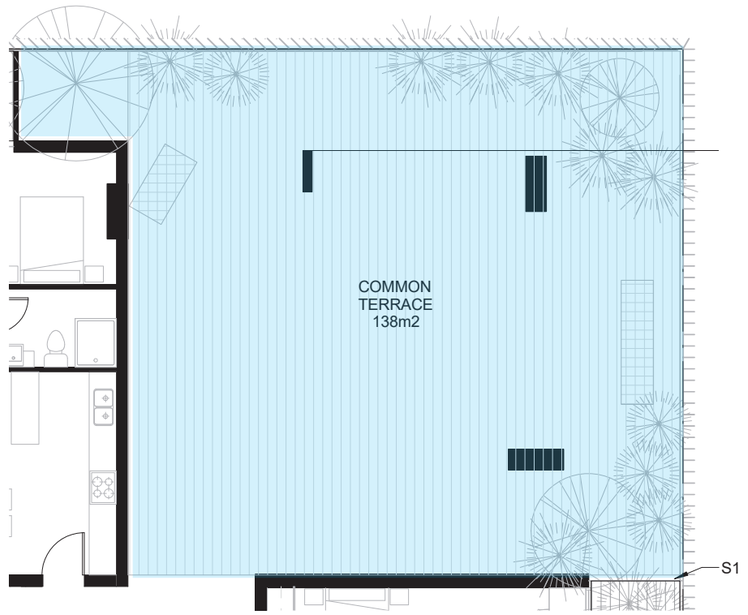
Share Works

C: Fruit Trees

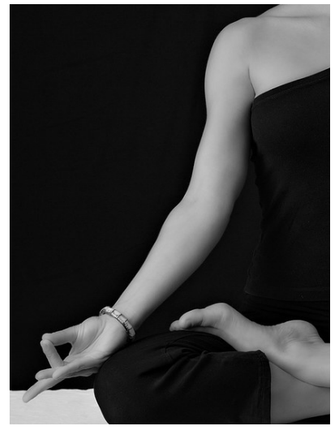
Reading & Relaxing

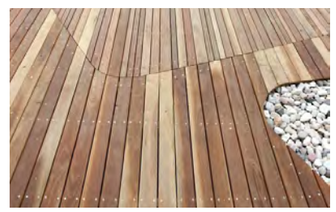
2. Outdoor Shared Space

Provide an open shared space to encourage occupants to engage each other and create a healthy community.
Activities: Picnic and quiet group activities (such as yoga)



Common Terrace 138m2
Level 5

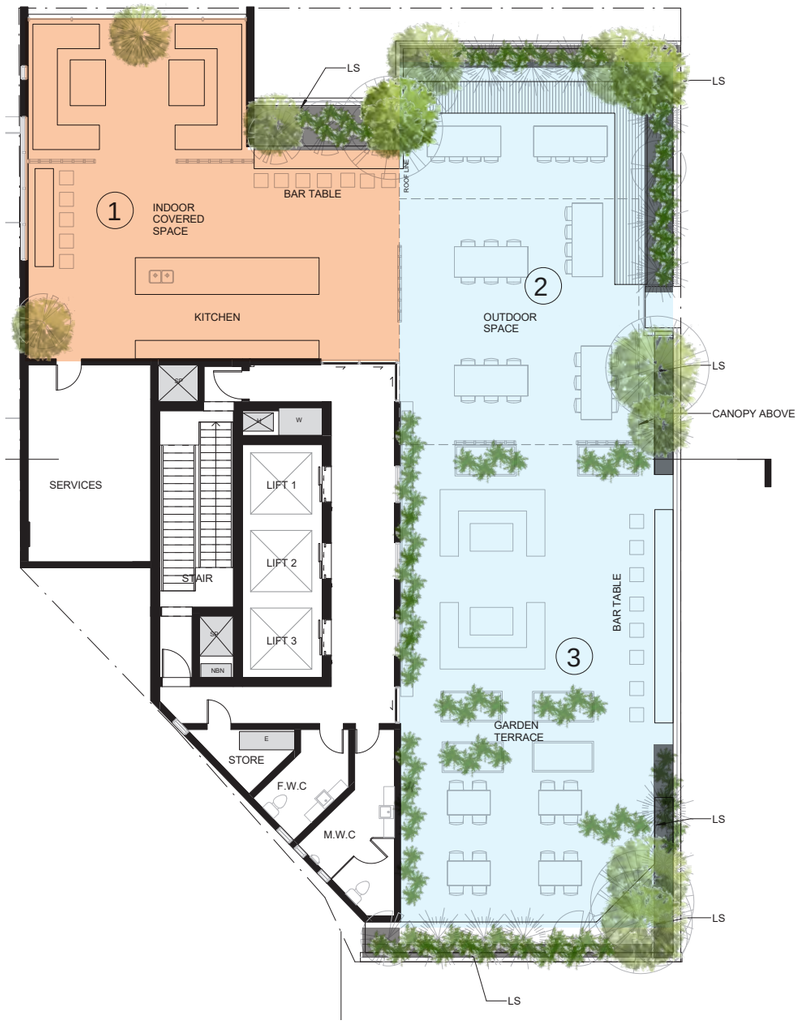




Communal Spaces

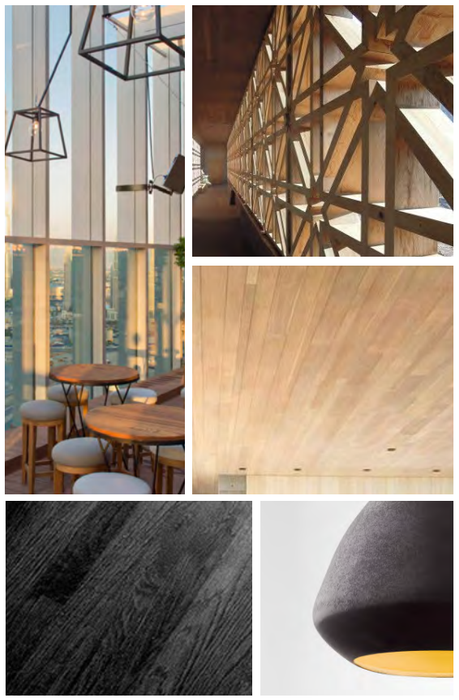
Roof Terrace

The entire roof level is proposed to become a shared use recreation level for residents of the building. It will comprise of both indoor and outdoor recreation spaces for group gatherings and activities, as well as individual and quiet activities.



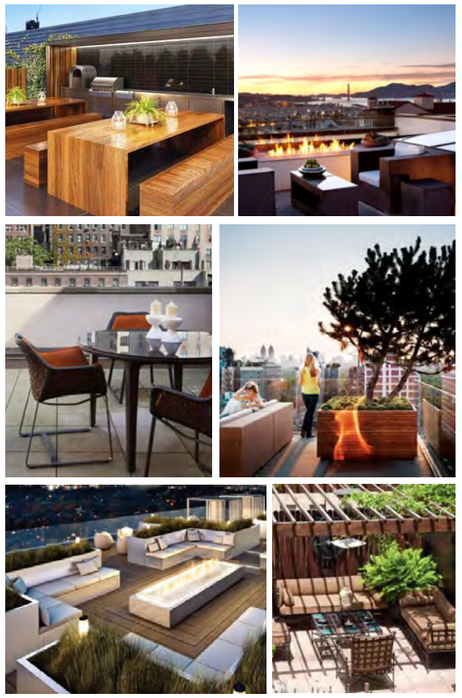
1. Indoor Lounge

- lounge furniture which can be easily reconfigured
- movable intermediary screens (curtains, perforated/patterned metal and timber screens to create a sense of privacy and to emphasis height within the lounge areas
- games area integrated within the lounge including, cards table, mahjong table
- BBQ area / basic kitchen facilities



2. Outdoor Lounge

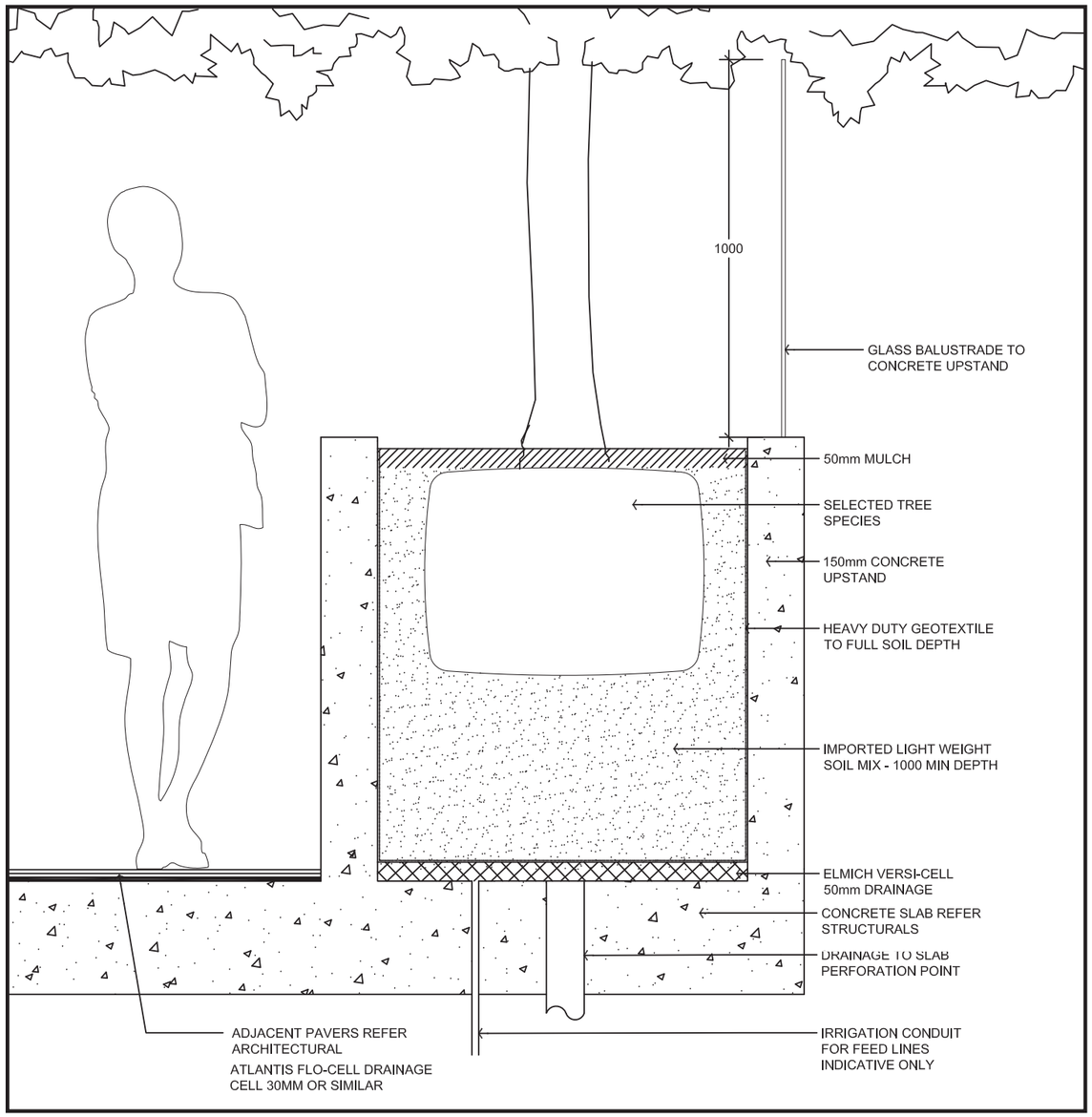
- flexible lounge furniture encourages groups of people
- BBQ area / basic outdoor kitchen facilities
- planting boxes



3. Garden

- garden/landscaped areas
- opportunity for water feature, sculptural furniture or artwork
- informal barbeque area
- areas for reflection
- platforms and built up landscaping to create paths

Planter Detail



Roof Garden Tree Planter Detail

Roof Garden Tree Planter - Irrigation Detail

Irrigation will be via an automated drip system to all planter boxes. Conduits will be concealed within structure and drainage cells provided to the base of all boxes to prevent soil saturation. Drainage from boxes will be via waterproofed perforations in the slab connection to sewer lines, as per attached detail

Irrigation will be integral to the green wall system via a proprietary module such as Fytogreen offer. These modules are equipped with automated
fertigation controllers. Periodic maintenance will be via scissor lift where possible and rope and harness to inaccessible areas only when necessary. Plant species will be chosen to limit maintenance pruning.

See planter detail demonstrating the intended condition where larger trees are to be planted.

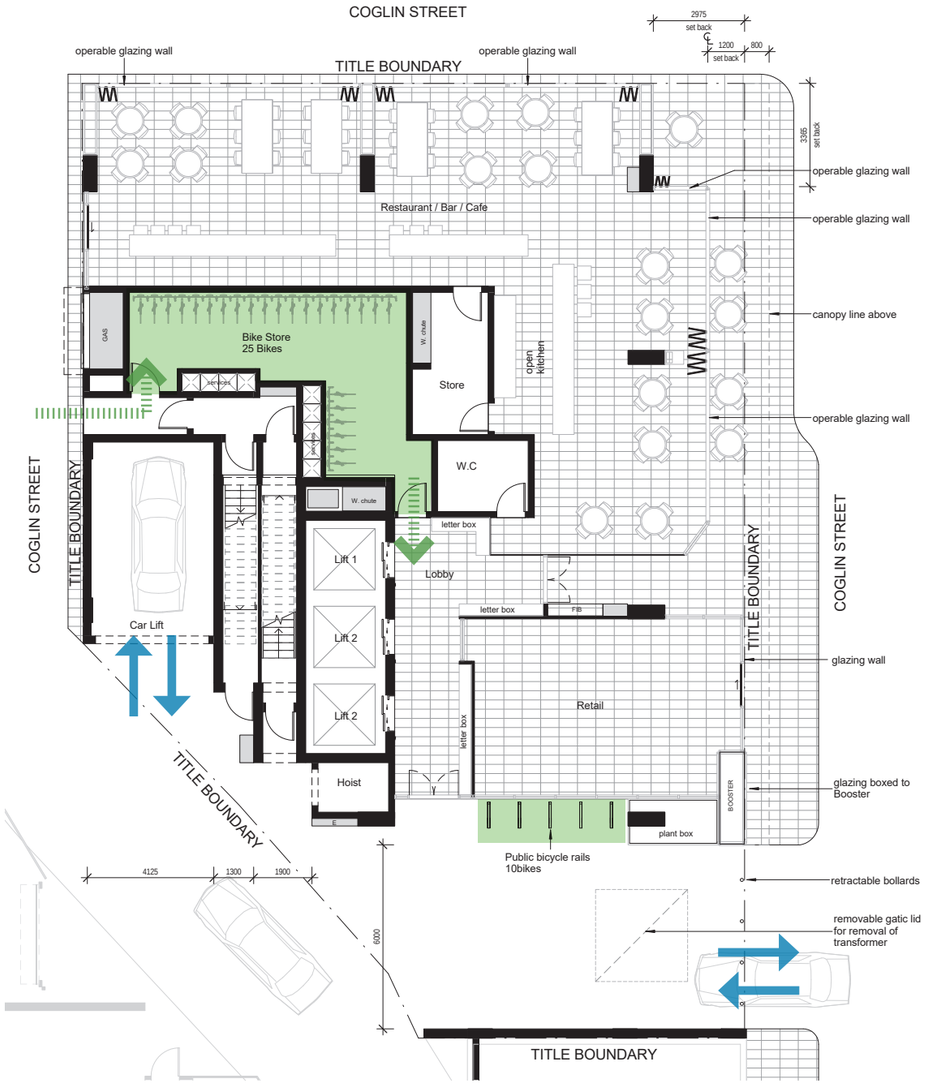
Traffic Management Strategy

There will be multiple bollards (as shown in the perspective on page 18 and on the planning drawings) and they will be motorised, and with a car-lift to carparks on level 2, 3 & 4. A total of 39 carparks.

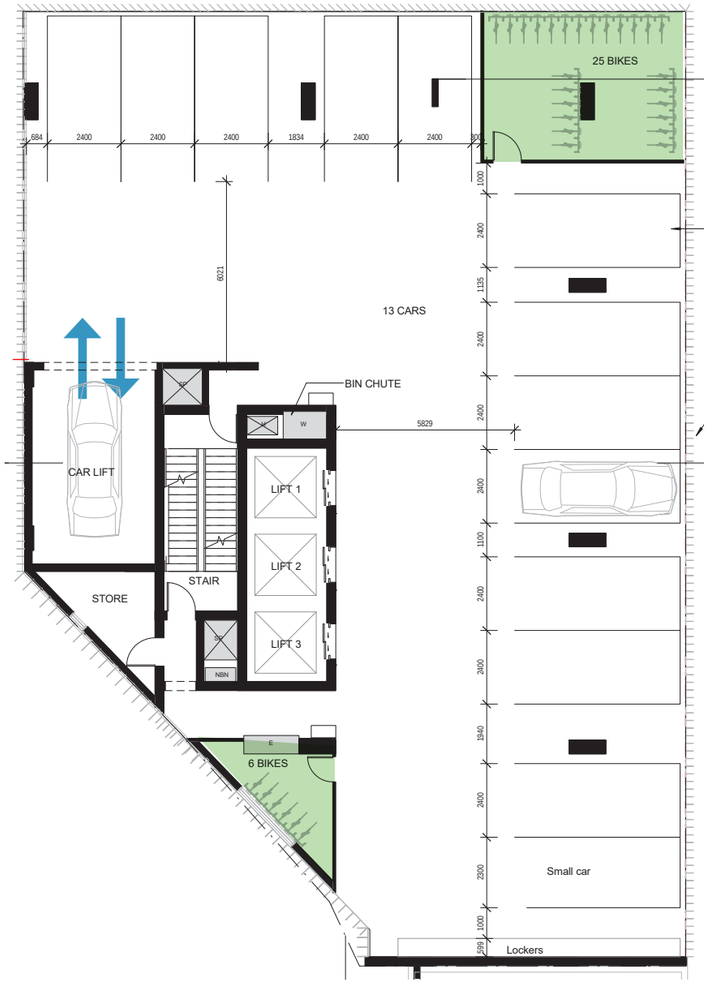
Three bike storage rooms have been provided for residents, staff and visitors of the building. A ground floor bike parking facility is accessed via Western Coglin Street, and will be for residential use. Level 3 bike parking will be for residential use as well.

Customer bike parking has been provided at ground floor within the public realm.

Further information regarding the traffic management strategy can be found in the Transport Impact Assessment prepared by InfraPlan Consultants.



Ground Floor Plan



Level 3&4 Floor Plan

Bicycle movement

Vehicle movement

Statement of Environment Efficiency

Higher Density Living

The high-density nature of this development is inherently more energy efficient than providing the same amount of accommodation over a much larger site, and the central city location of the site lends itself to reduced car dependency with excellent provision of public transport and local amenities in close proximity.

Bike Facility

This development aims to promote bicycle travel as a viable alternative to the car, and offers a dedicted and secure onsite bike parking and storage facility. the bike store will incorporate a bike workshop, giving residents a dedicated place to change tyres, tune and adjust their bikes.

Access to Natural Daylight & Ventilation

Consideration has been given to the internal layouts of all apartments to ensure adequate levels of natural daylight are provided to all living areas and bedrooms.
Corner apartments have access to natural cross ventilation through the incorporation of operable windows and doors, and circulation corridors and lobbies have been designed to allow natural daylight and ventilation.

High Thermal Efficiency

A passive approach to energy efficiency has been adopted with careful consideration of orientation, building organisation and the overall building envelope, with close attention to the location of openings and the maximisation of daylight penetration balanced with solar control.

Shading to glazing

High thermal efficiency is achieved with shading to glazing on the west and north facades and the inclusion of high performance glazing.

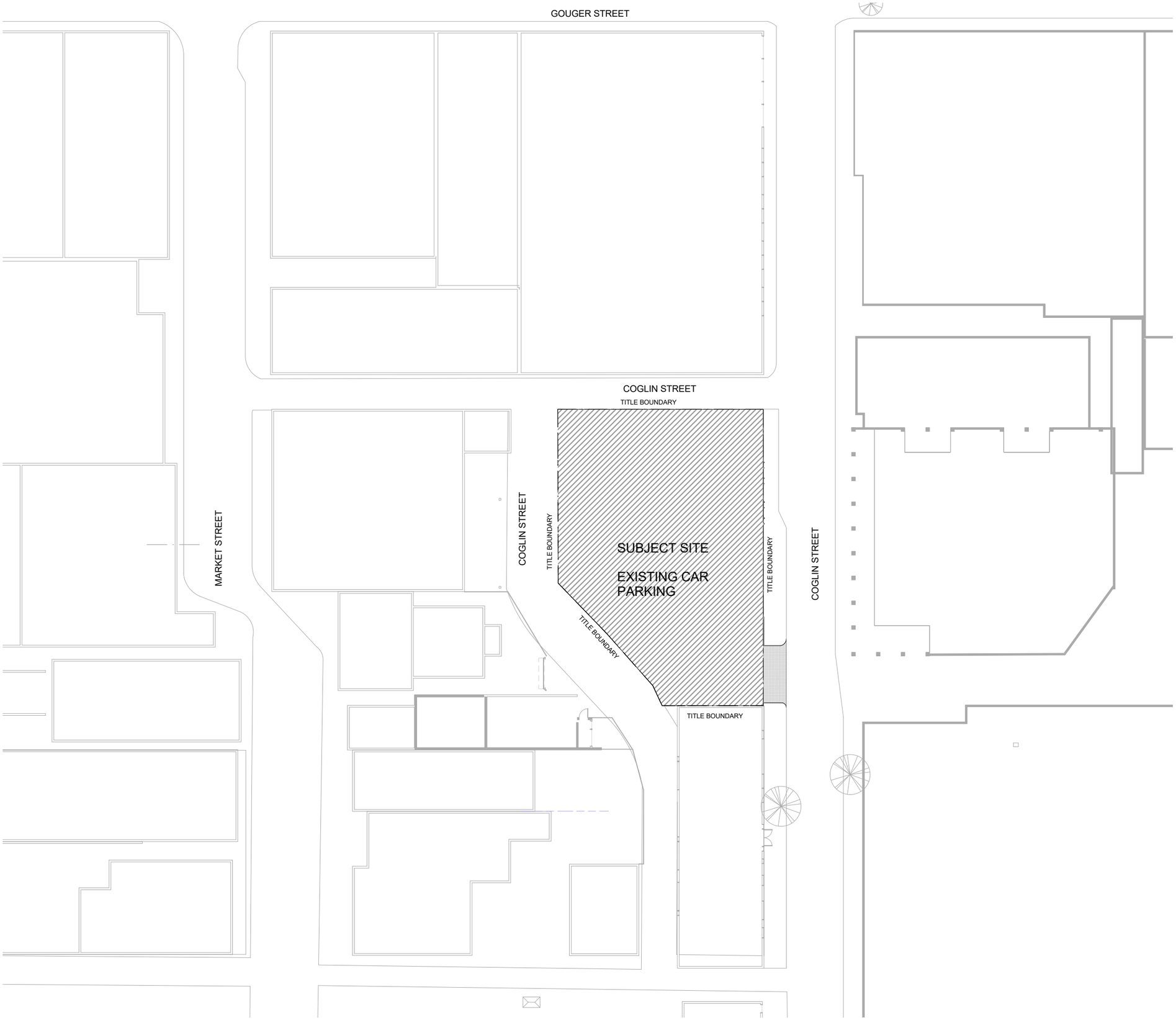
In addition, a number of other energy and water efficient principles have been adopted throughout the development which include:

- Solar panels on the roof to provide electricity for the roof terrace
- High performance glass to habitable spaces
- Energy efficient fixtures and fittings
- Water efficient sanitary ware, appliances and tap ware
- Movement sensor activated lighting in parking and common areas

Level 1 Floor Plan

Typical Floor Plan

4.0 Planning Drawings



Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete panel balustrade with P1 finish
P1	Hight quality paint Colour: White
C1	Precast concrete panel. Raw concrete (Acid wash)
C2	Glazed colour brick. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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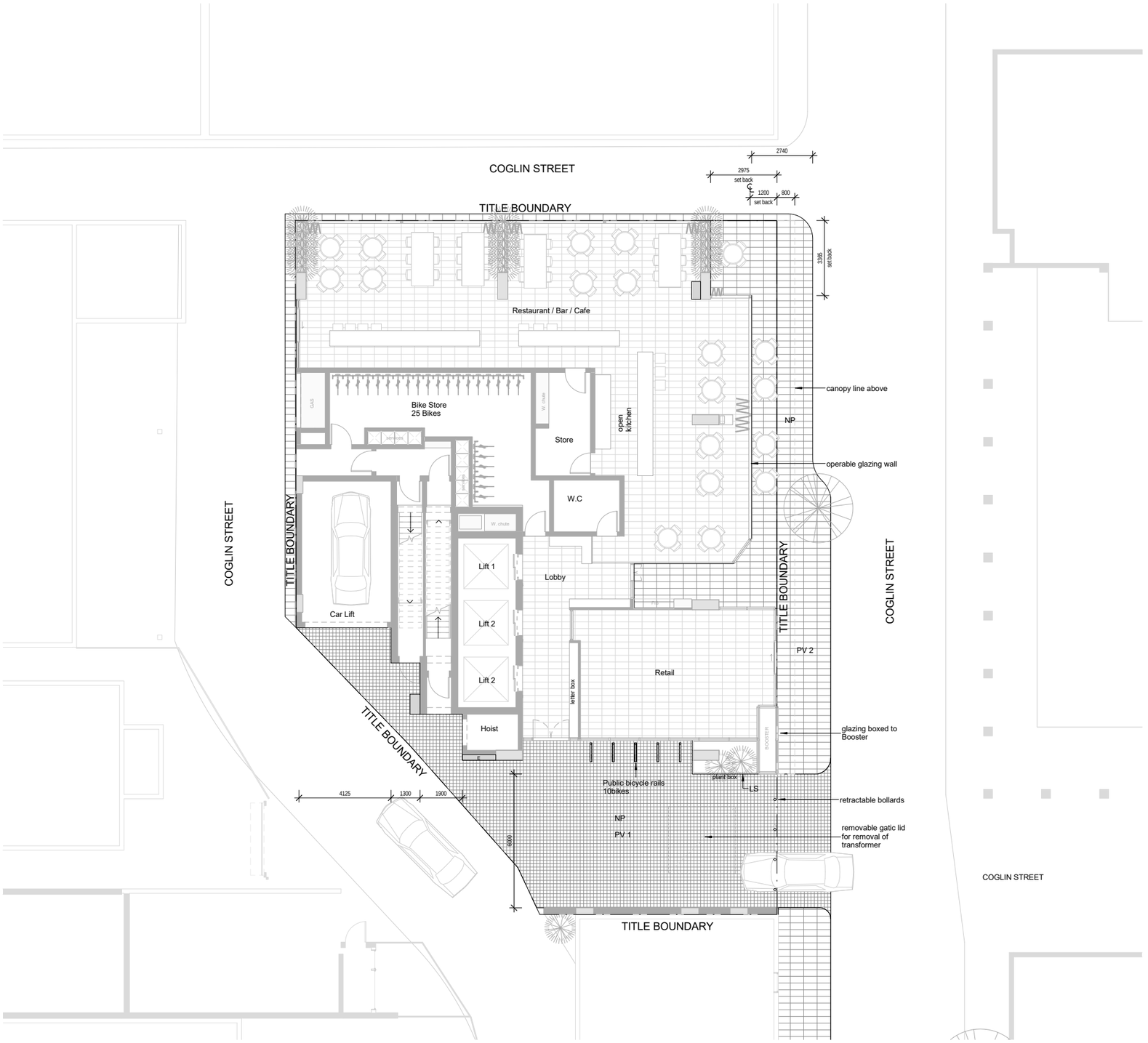
Project: Coglin Street
21 Coglin Street

Title: Existing Site Plan

Scale @ A1: **As indicated**
Revision:
Date:

Project No: 01017
Drawing No: SK-001
Status: DA PLANNING



1 Landscape Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

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S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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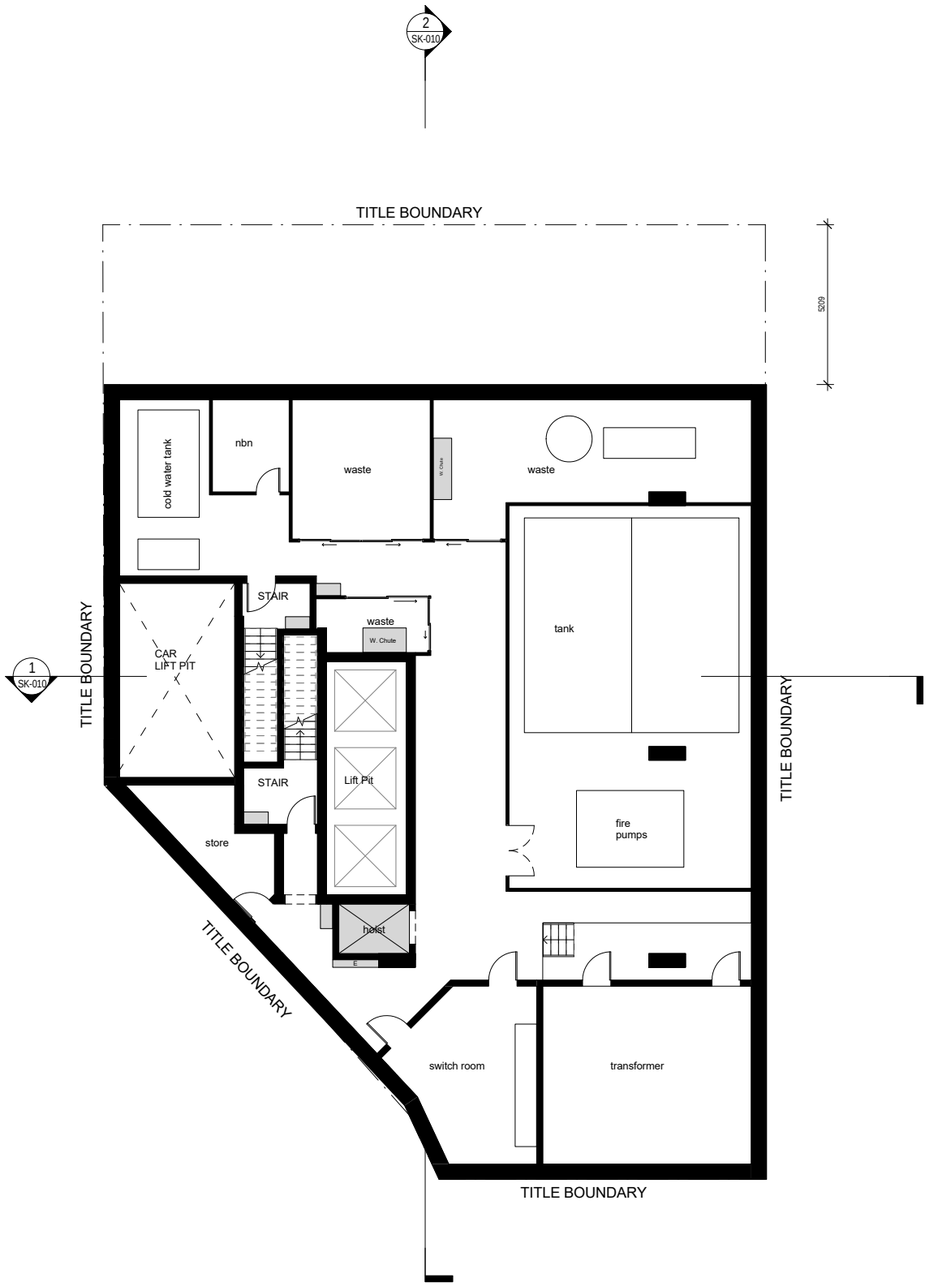
Project: Coglin Street
21 Coglin Street

Title: Landscape Floor Plan

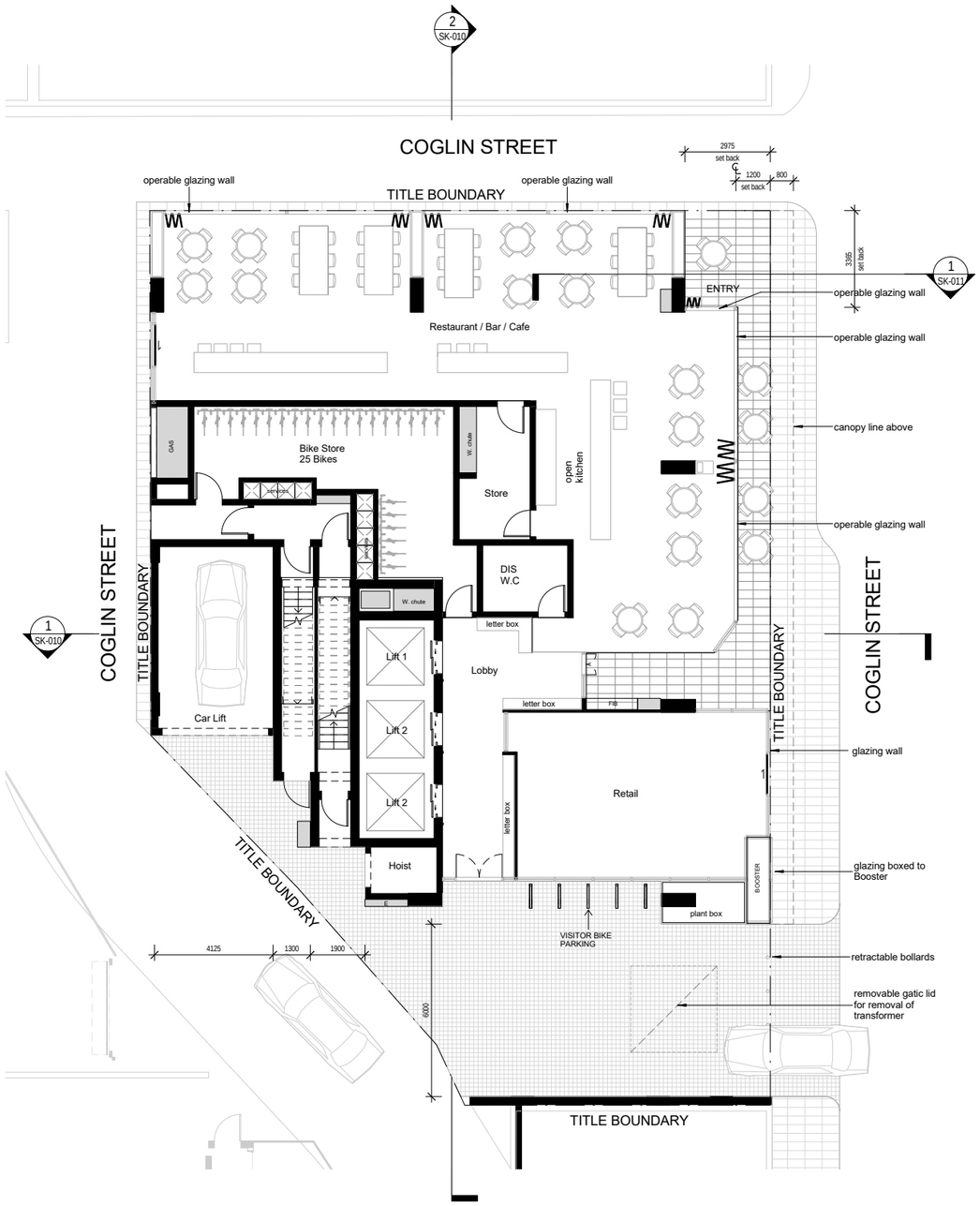
Scale @ A1: 1 : 100
Date: 18.05.2018
Revision: A

Project No: 01017
Drawing No: SK-002
Status: DA PLANNING



1 Basement Floor Plan

Scale 1 : 100



2 Ground Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete panel balustrade with P1 finish
P1	Hight quality paint Colour: White
C1	Precast concrete panel. Raw concrete (Acid wash)
C2	Glazed colour brick. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

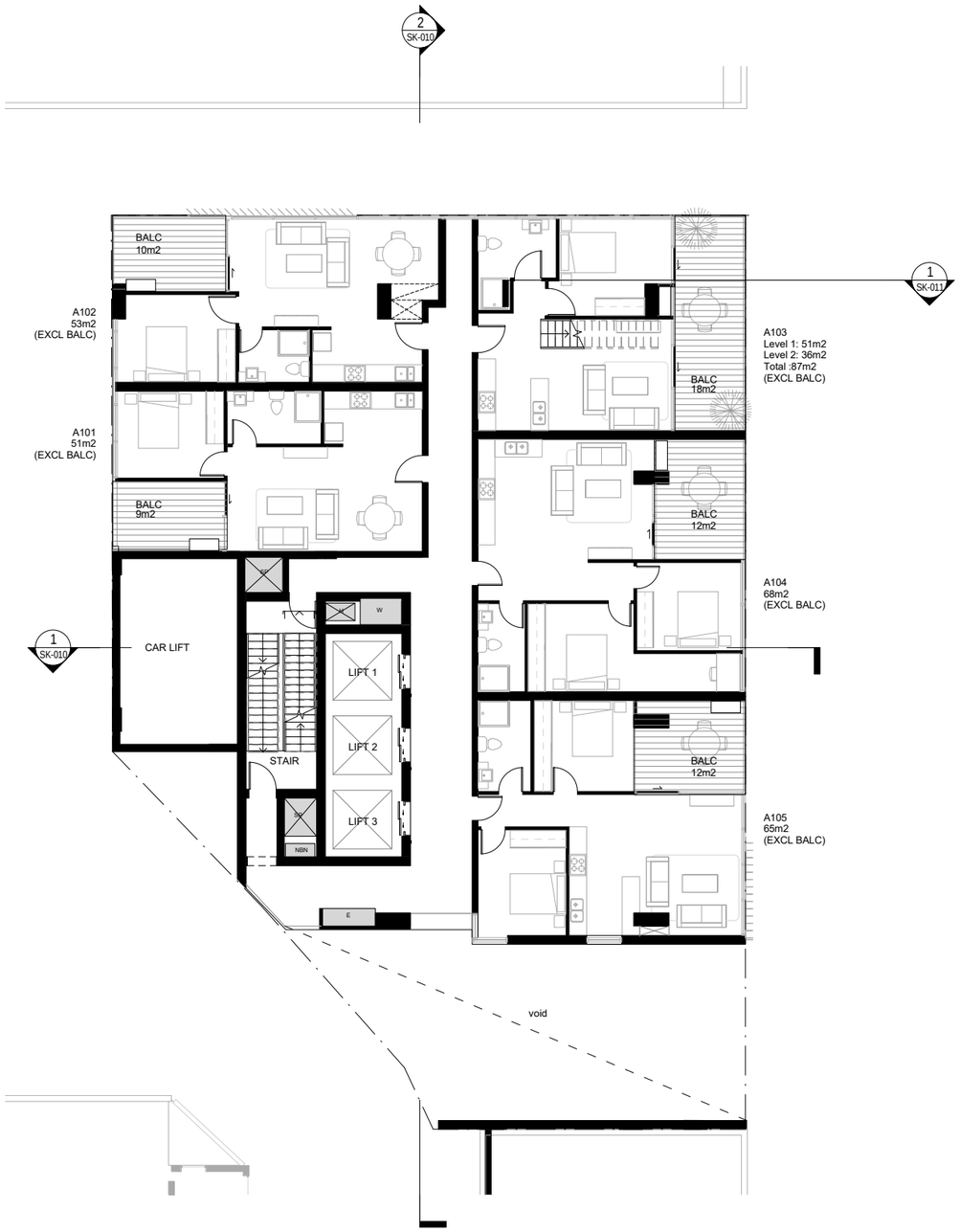
Title: Basement & Ground Floor Plans

Scale @ A1: **1 : 100**
Date: **18.05.2018**
Revision: A

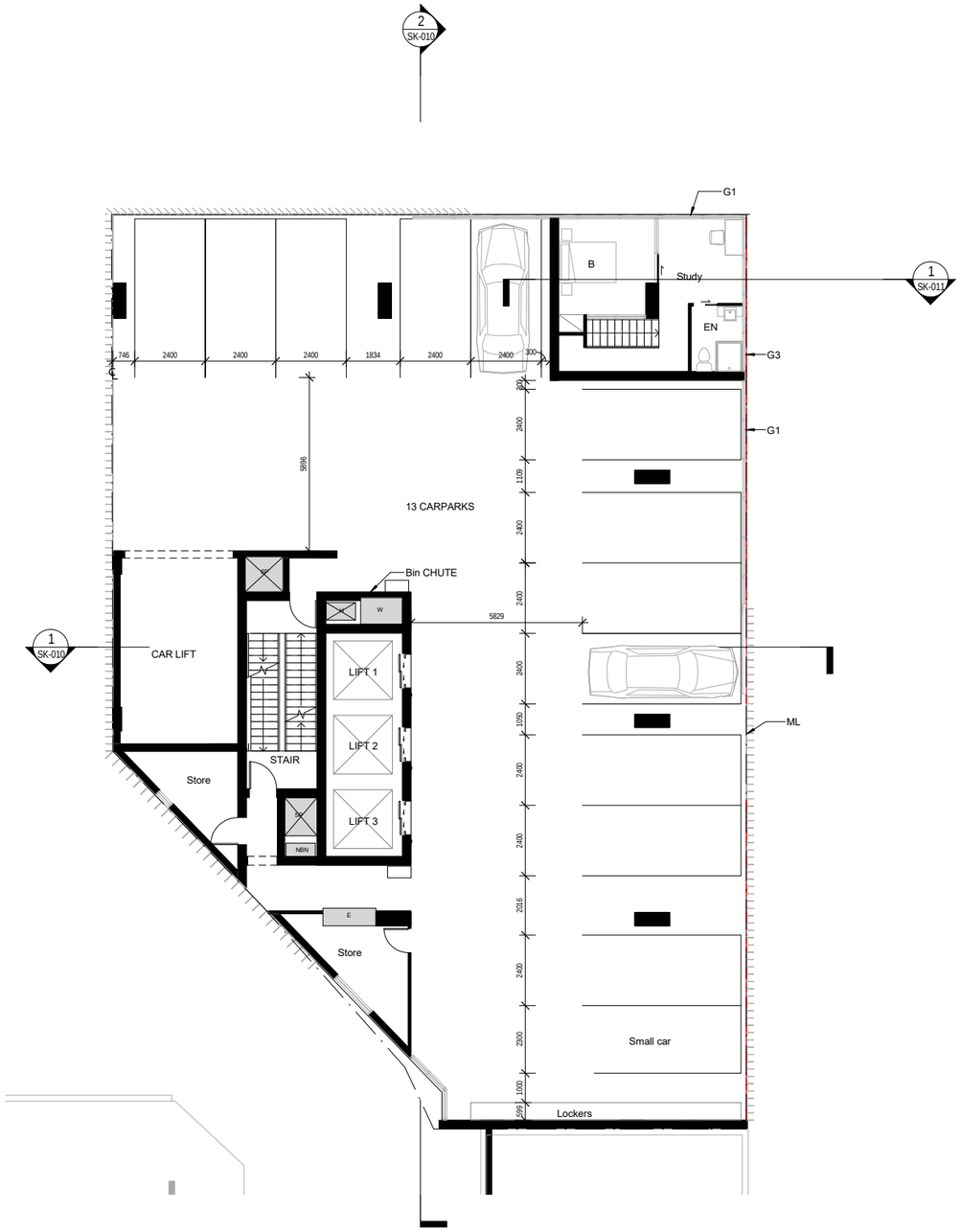
Project No: 01017

Drawing No: SK-003

Status: DA PLANNING



1 Level 1 Floor Plan
Scale 1 : 100



2 Level 2 Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete panel balustrade with P1 finish
P1	Hight quality paint Colour: White
C1	Precast concrete panel. Raw concrete (Acid wash)
C2	Glazed colour brick. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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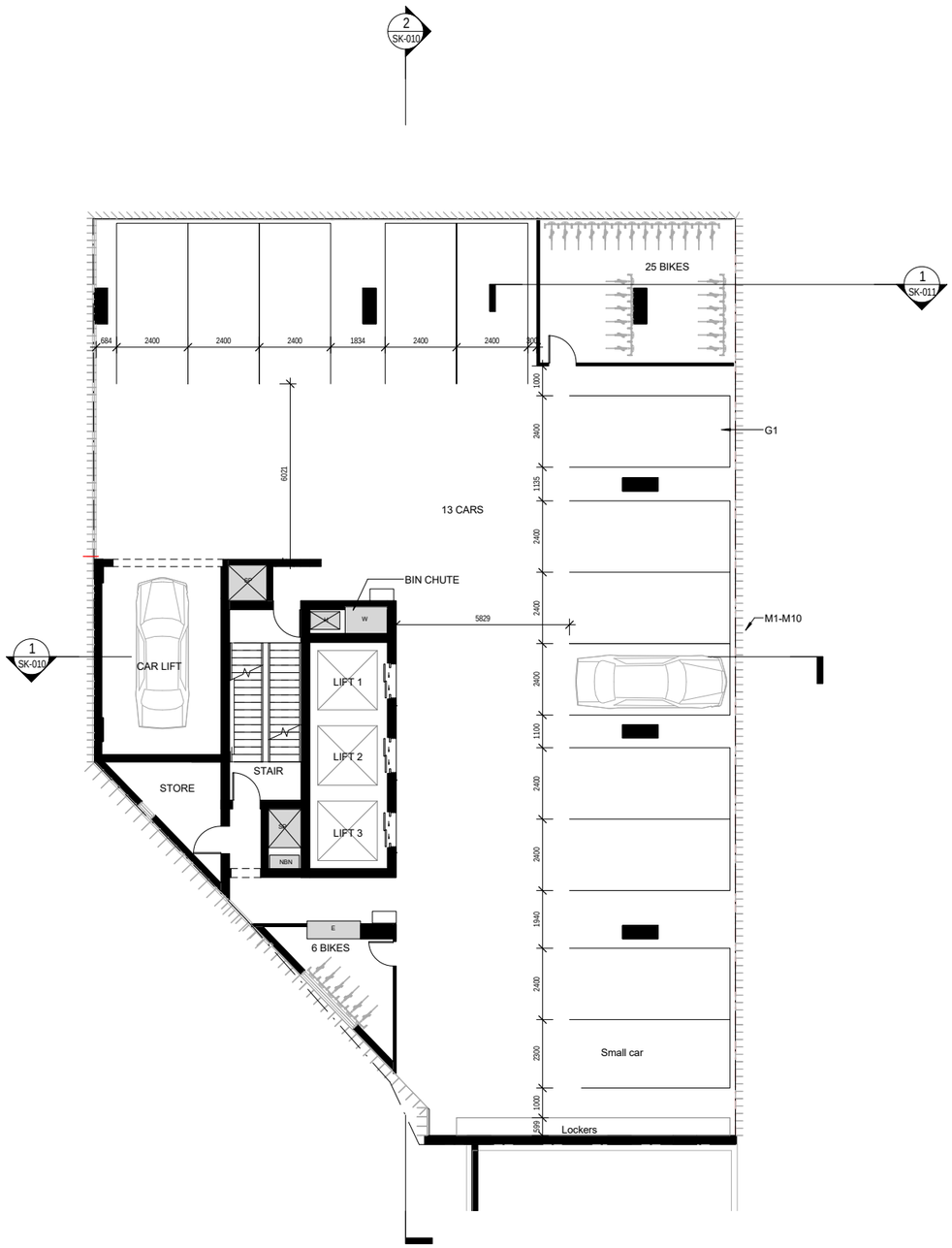
Project: Coglin Street
21 Coglin Street

Title: Level 1 & 2 Floor Plans

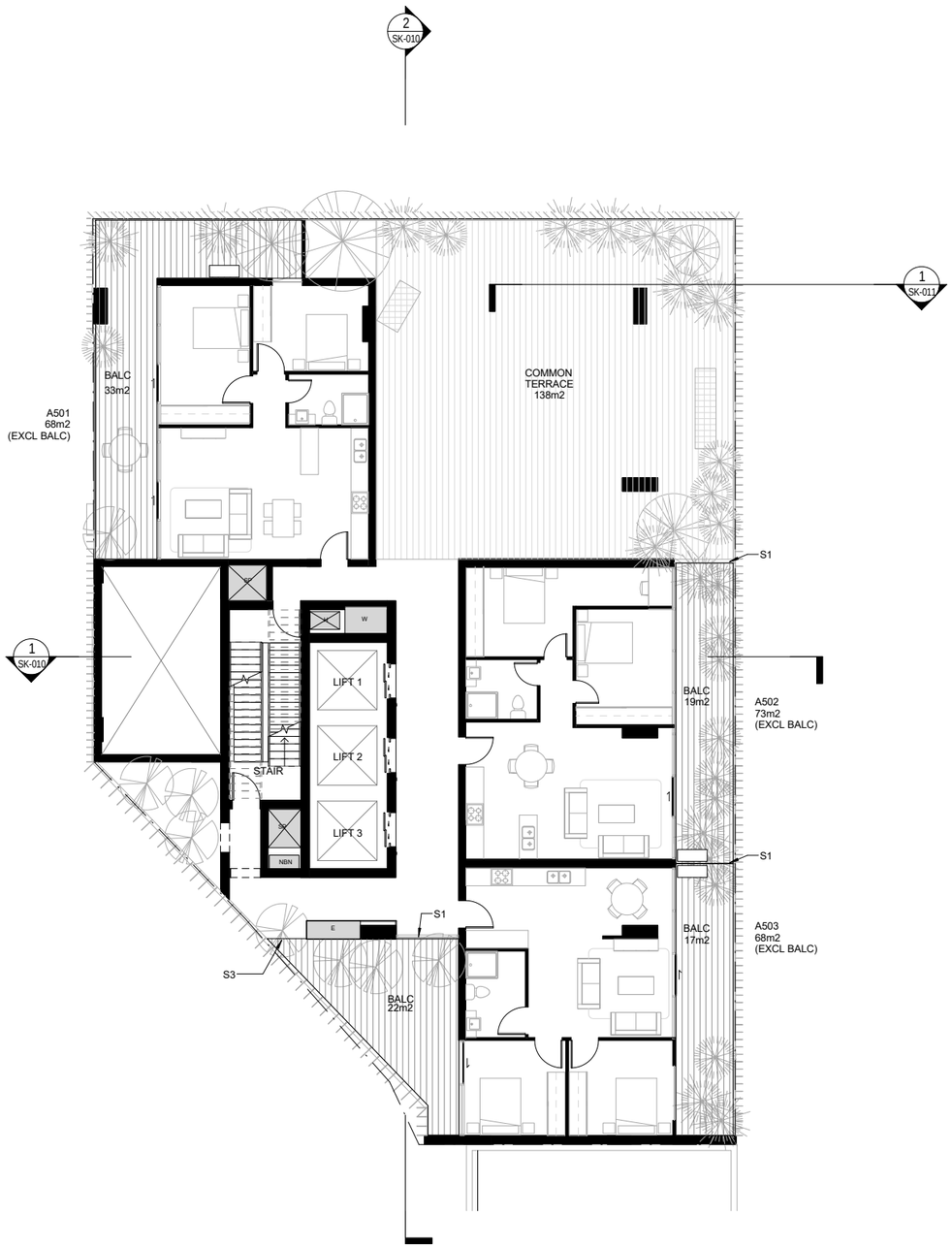
Scale @ A1: **1 : 100**
Revision:
Date:

Project No: 01017
Drawing No: SK-004
Status: DA PLANNING



1 Level 3-4 Floor Plans

Scale 1 : 100



2 Level 5 Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
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MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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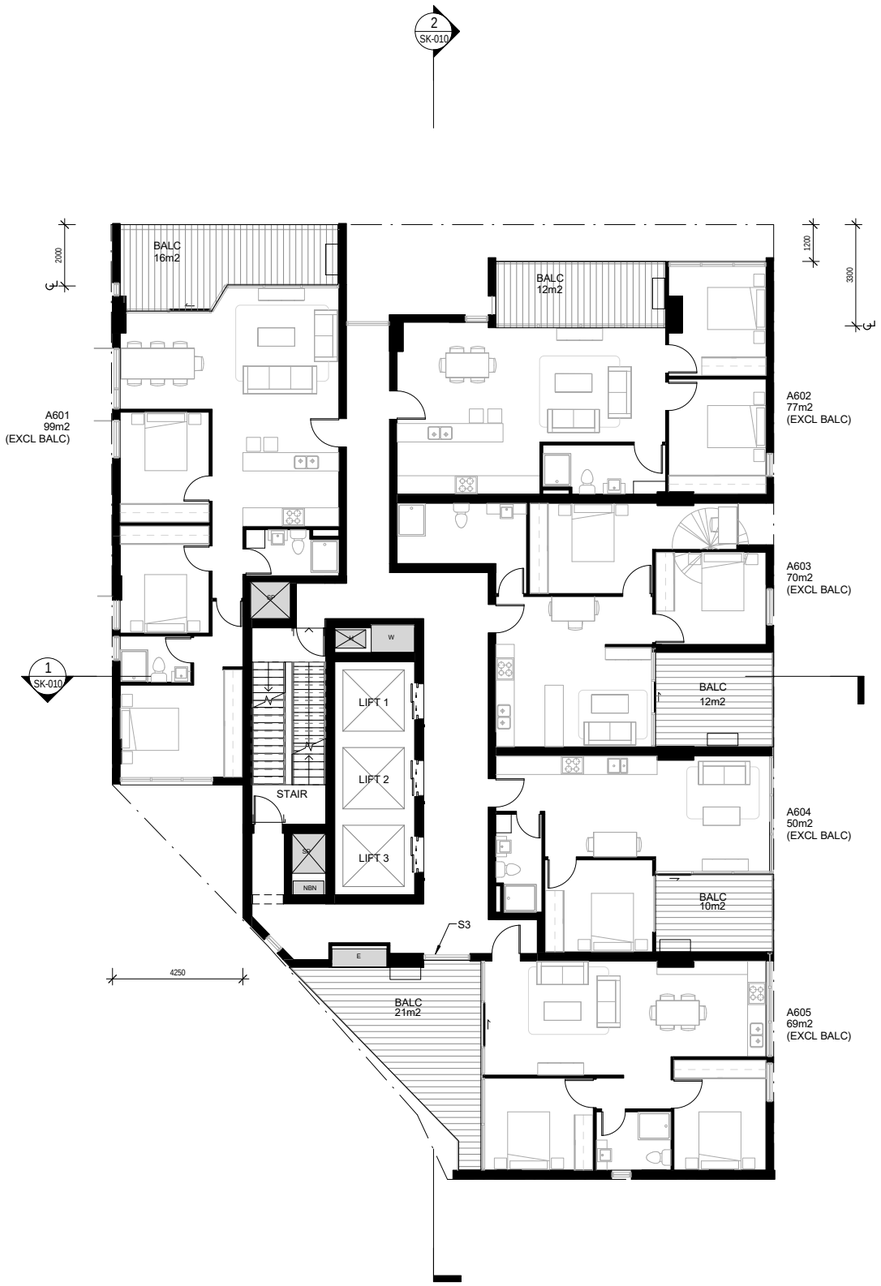
Project: Coglin Street
21 Coglin Street

Title: Level 3, 4 & 5 Floor Plan

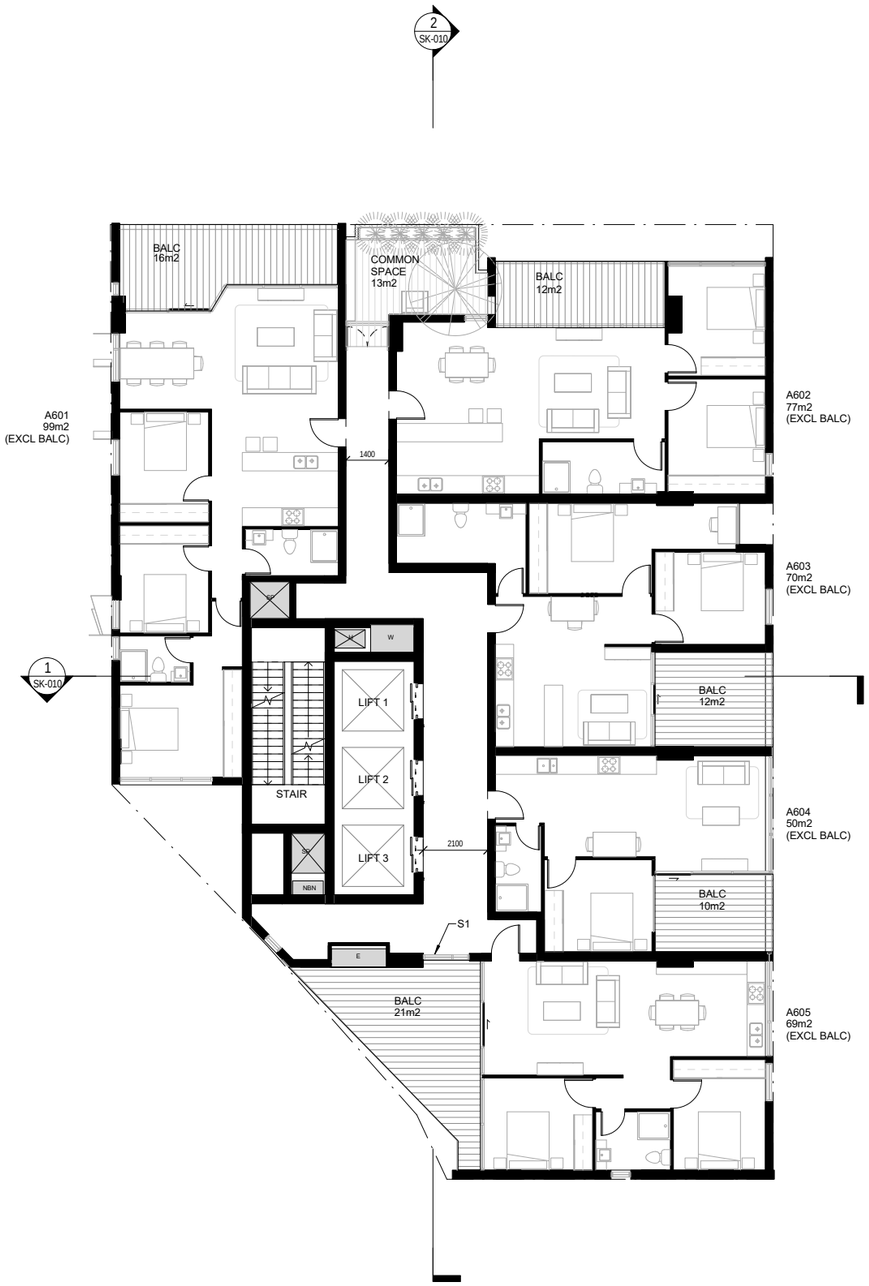
Scale @ A1: **1 : 100**
Date: **18.05.2018**
Revision: A

Project No: 01017
Drawing No: SK-005
Status: DA PLANNING



1 Level 6, 8-9, 11-12, 15-17 & 20-21 Floor Plan

Scale 1 : 100



2 Level 7, 10, 14 & 18 Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
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PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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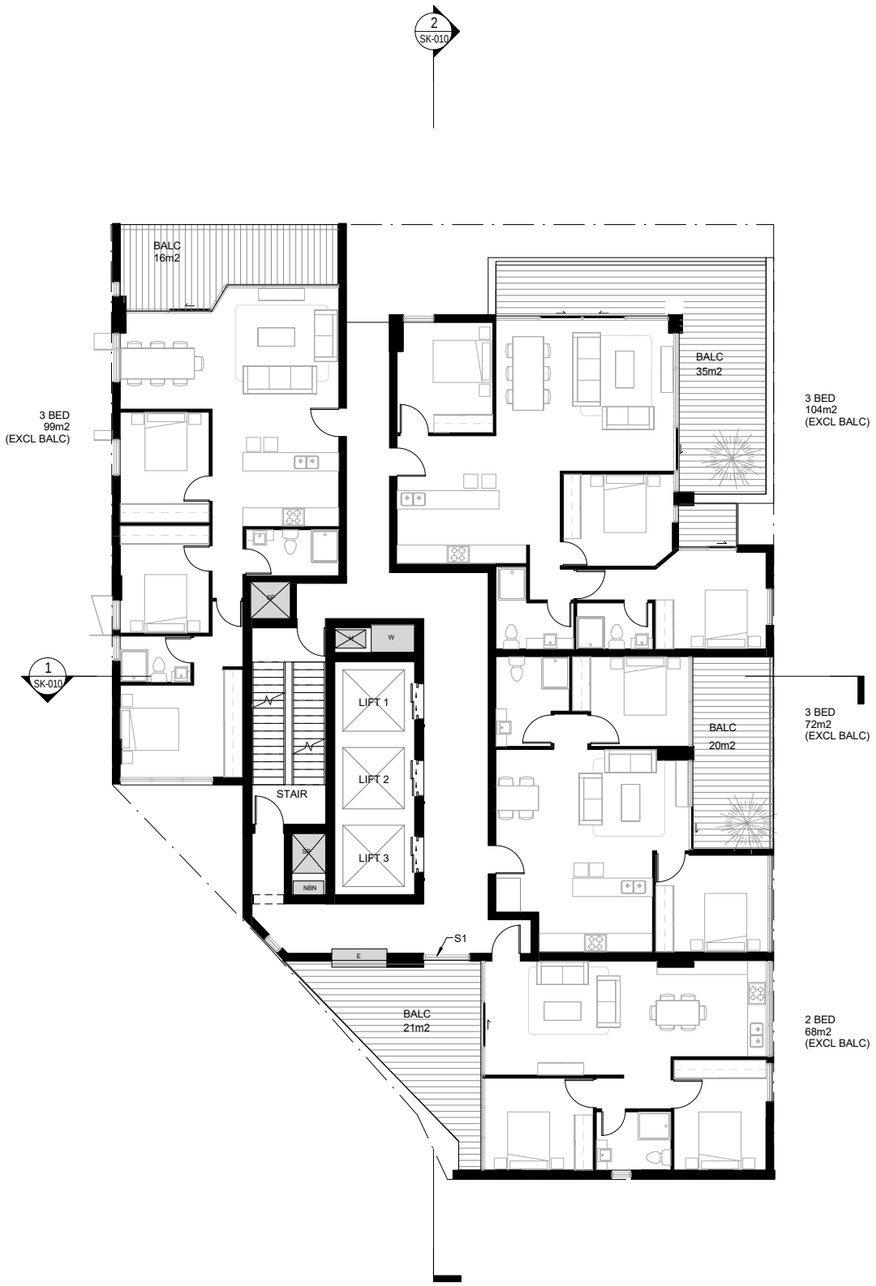
Project: Coglin Street
21 Coglin Street

Title: Typical Apartment Plans

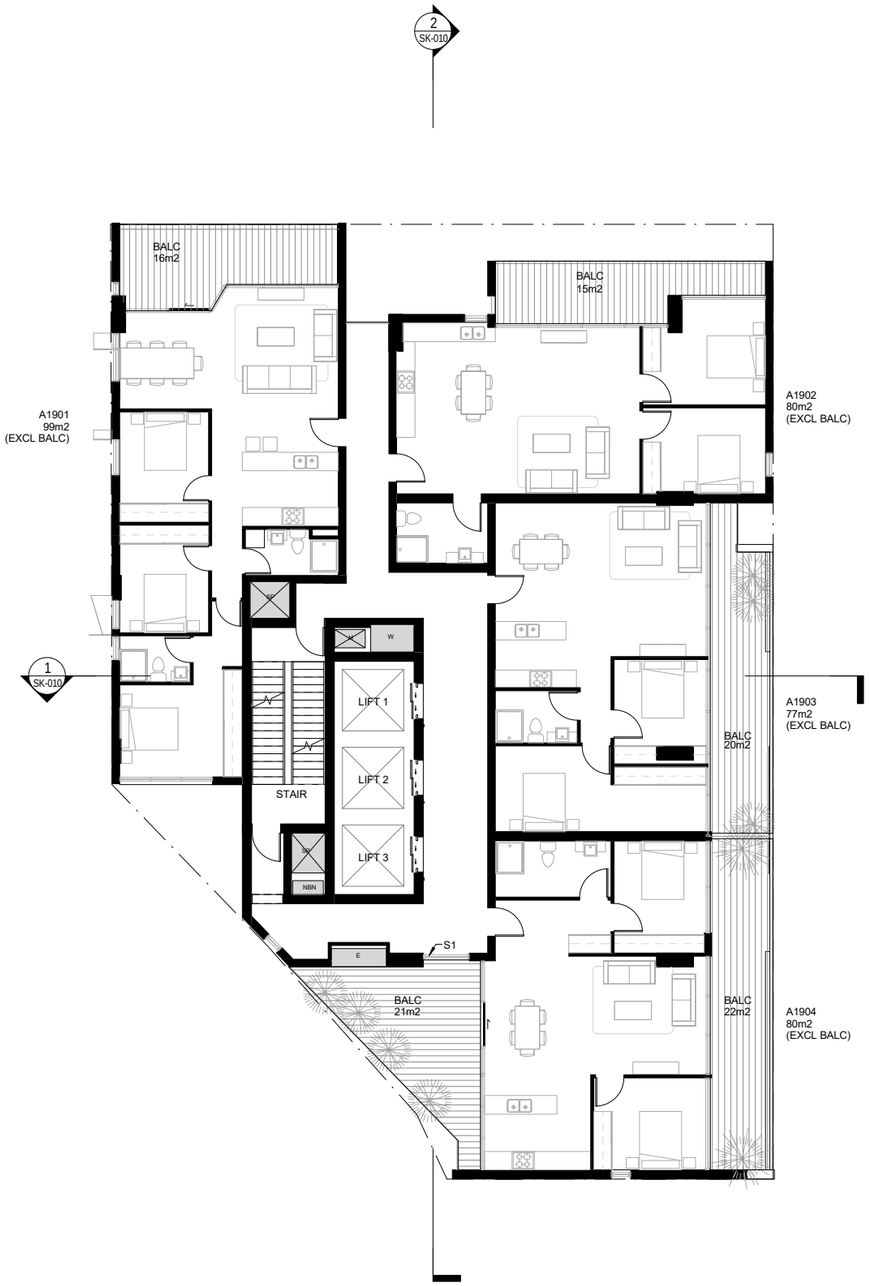
Scale @ A1: **1 : 100**
Date: **18.05.2018**
Revision: A

Project No: 01017
Drawing No: SK-006
Status: DA PLANNING



1 Level 13 Floor Plan

Scale 1 : 100



2 Level 19 Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
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BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

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PAVING

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Project: Coglin Street
21 Coglin Street

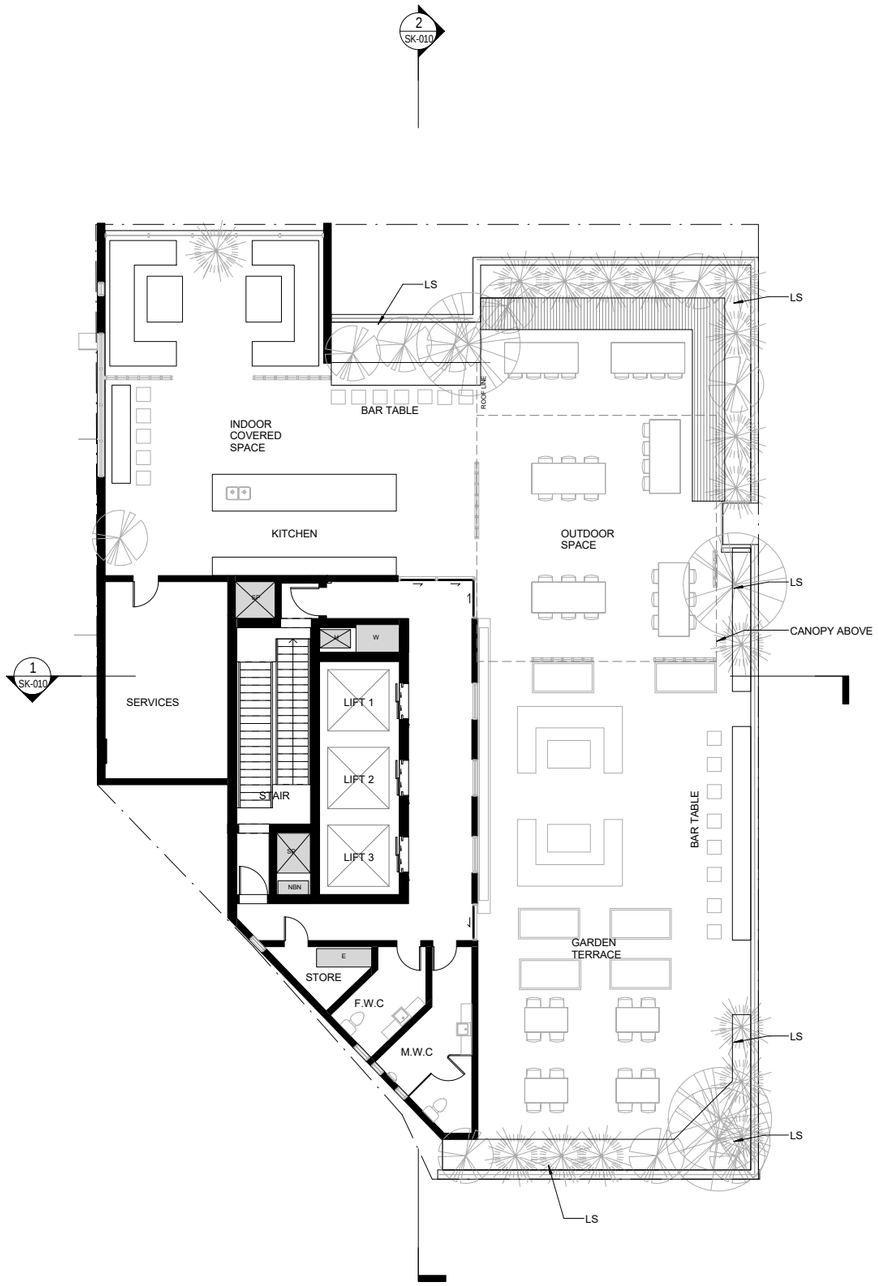
Title: Level 13 & 19 Floor Plans

Scale @ A1: **1 : 100**
Revision: A
Date: **18.05.2018**

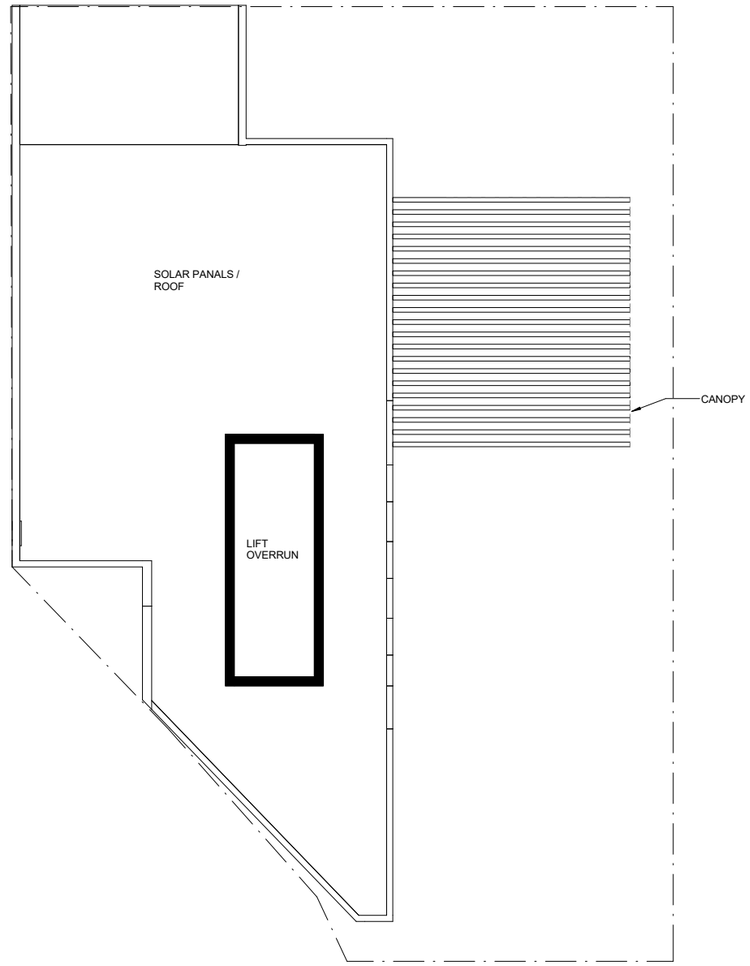
Project No: 01017

Drawing No: SK-007

Status: DA PLANNING



1 Roof Garden Plan
Scale 1 : 100



2 Roof Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
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LD	Laundry
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EXTERNAL FINISHES LEGEND

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PAVING

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PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

Title: Roof Garden & Roof Plans

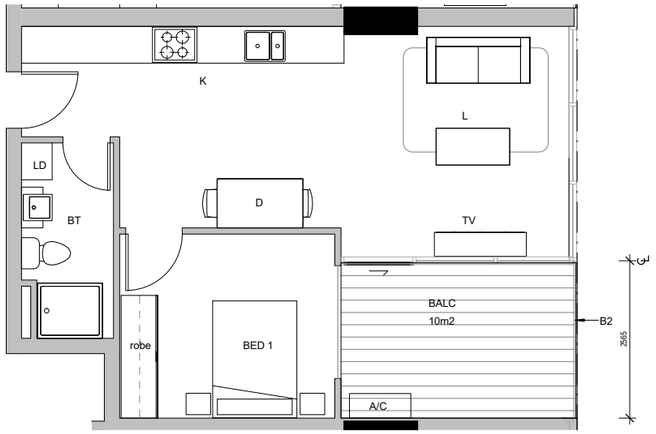
Scale @ A1: **1 : 100** Revision:

Date:

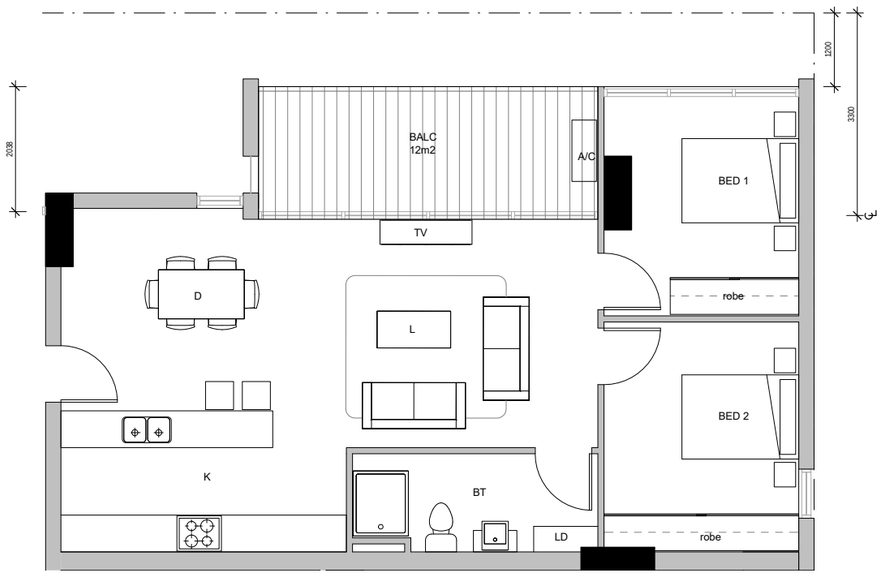
Project No: 01017

Drawing No: SK-008

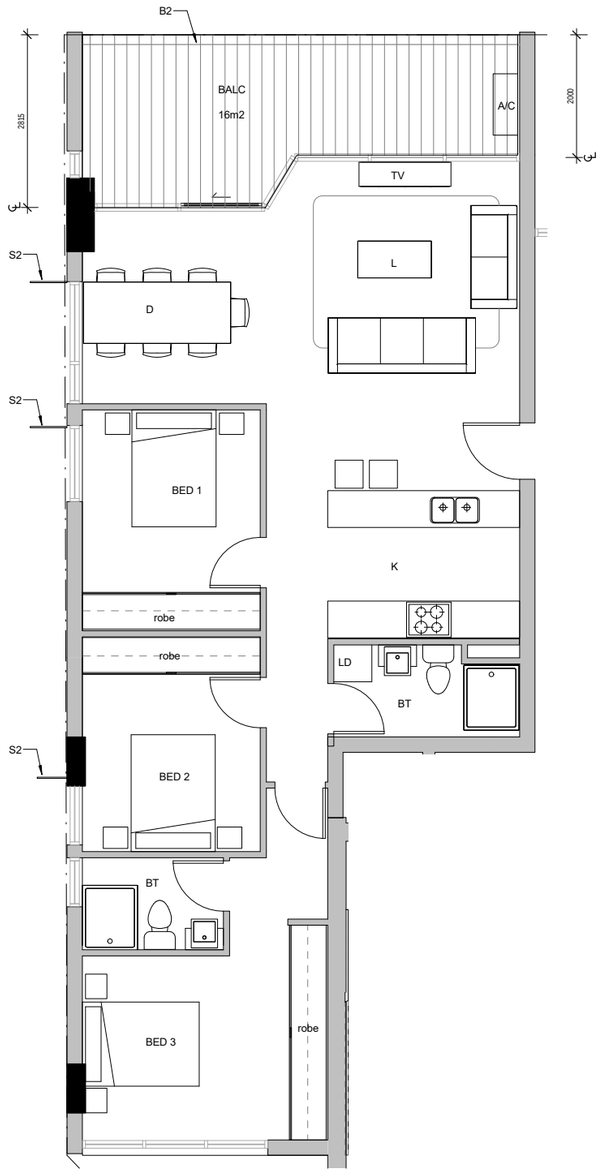
Status: DA PLANNING



3 Typical 1 Bedroom Apartment
Scale 1 : 50



2 Typical 2 Bedroom Apartment
Scale 1 : 50



1 Typical 3 Bedroom Apartment
Scale 1 : 50

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete panel balustrade with P1 finish
P1	Hight quality paint Colour: White
C1	Precast concrete panel. Raw concrete (Acid wash)
C2	Glazed colour brick. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

JPE Design Studio

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ABN 97 007 776 249

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Adelaide 5000
PO Box 6401 Halifax Street
SA 5000

Tel 08 8406 4000
Fax 08 8406 4007
www.jpe.com.au
design@jpe.com.au

Project: Coglin Street
21 Coglin Street

Title: Apartment Layout

Scale @ A1: **As indicated** Revision:

Date:

Project No: 01017

Drawing No: SK-009

Status: DA PLANNING

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

1 E-W Section
Scale 1 : 200

2 N-S Section
Scale 1 : 200

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Project: Coglin Street
21 Coglin Street

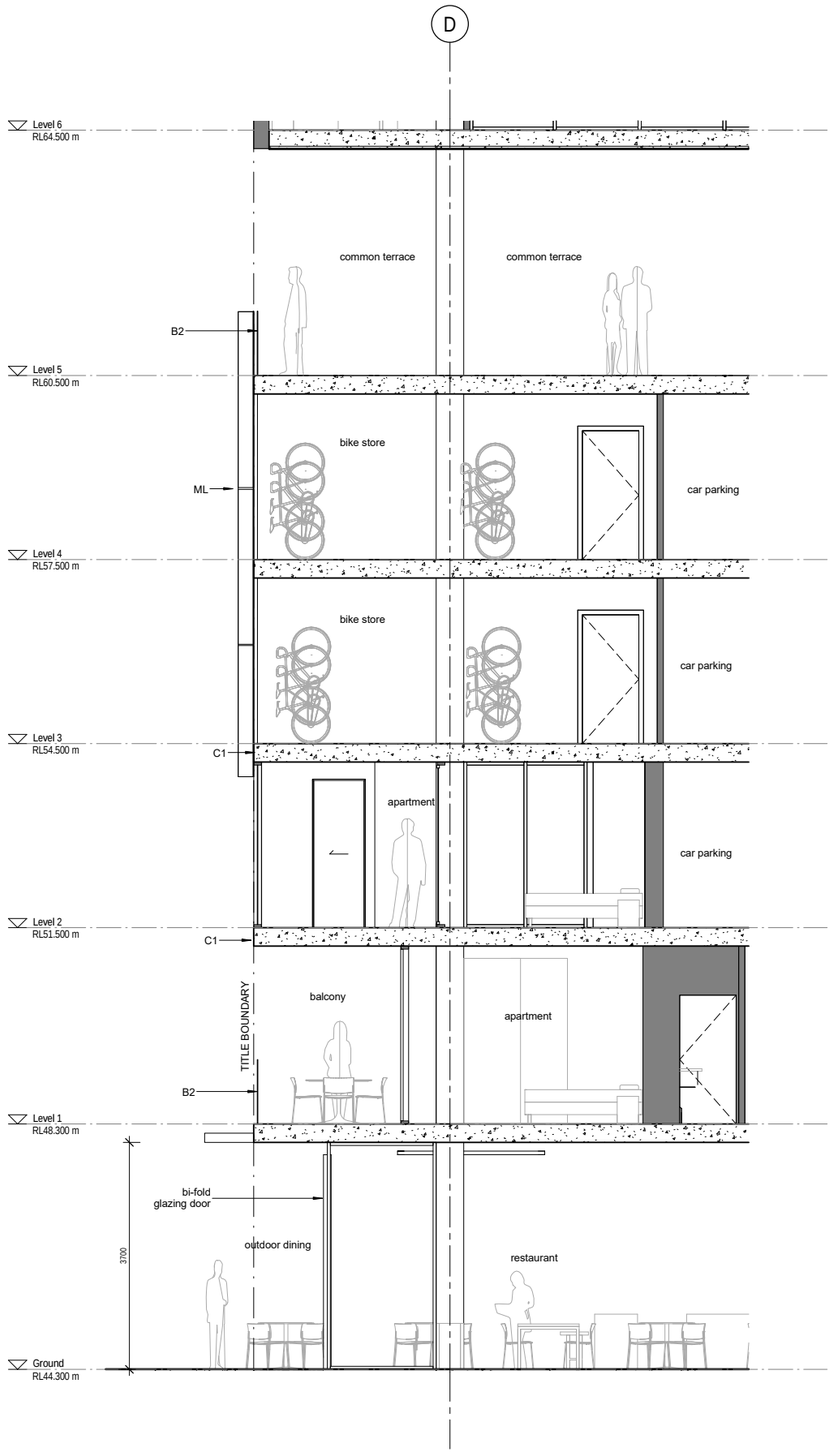
Title: Sections

Scale @ A1: 1 : 200
Revision:
Date:

Project No: 01017

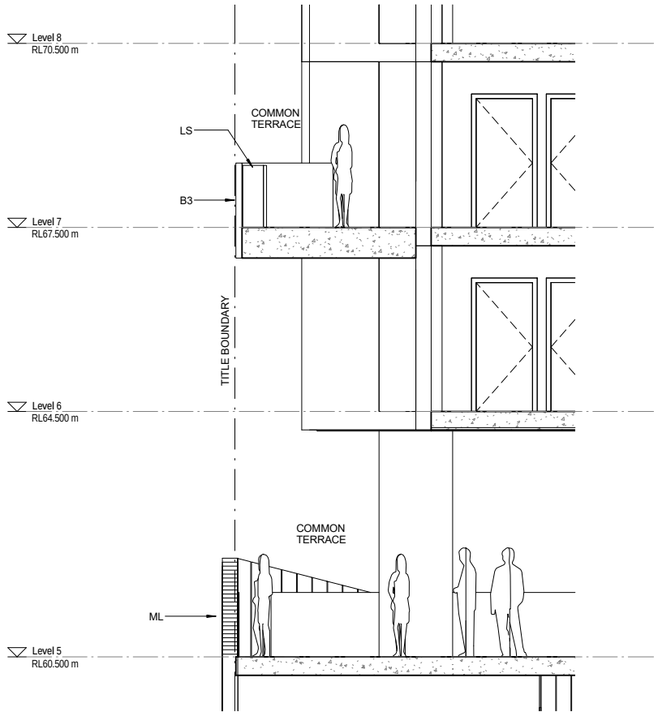
Drawing No: SK-010

Status: DA PLANNING



1 Section Detail - Eastern Facade

Scale 1 : 50



2 Section Detail - Common Space

Scale 1 : 50

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

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P1	Hight quality paint Colour: White
C1	Precast concrete panel. Raw concrete (Acid wash)
C2	Glazed colour brick. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
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PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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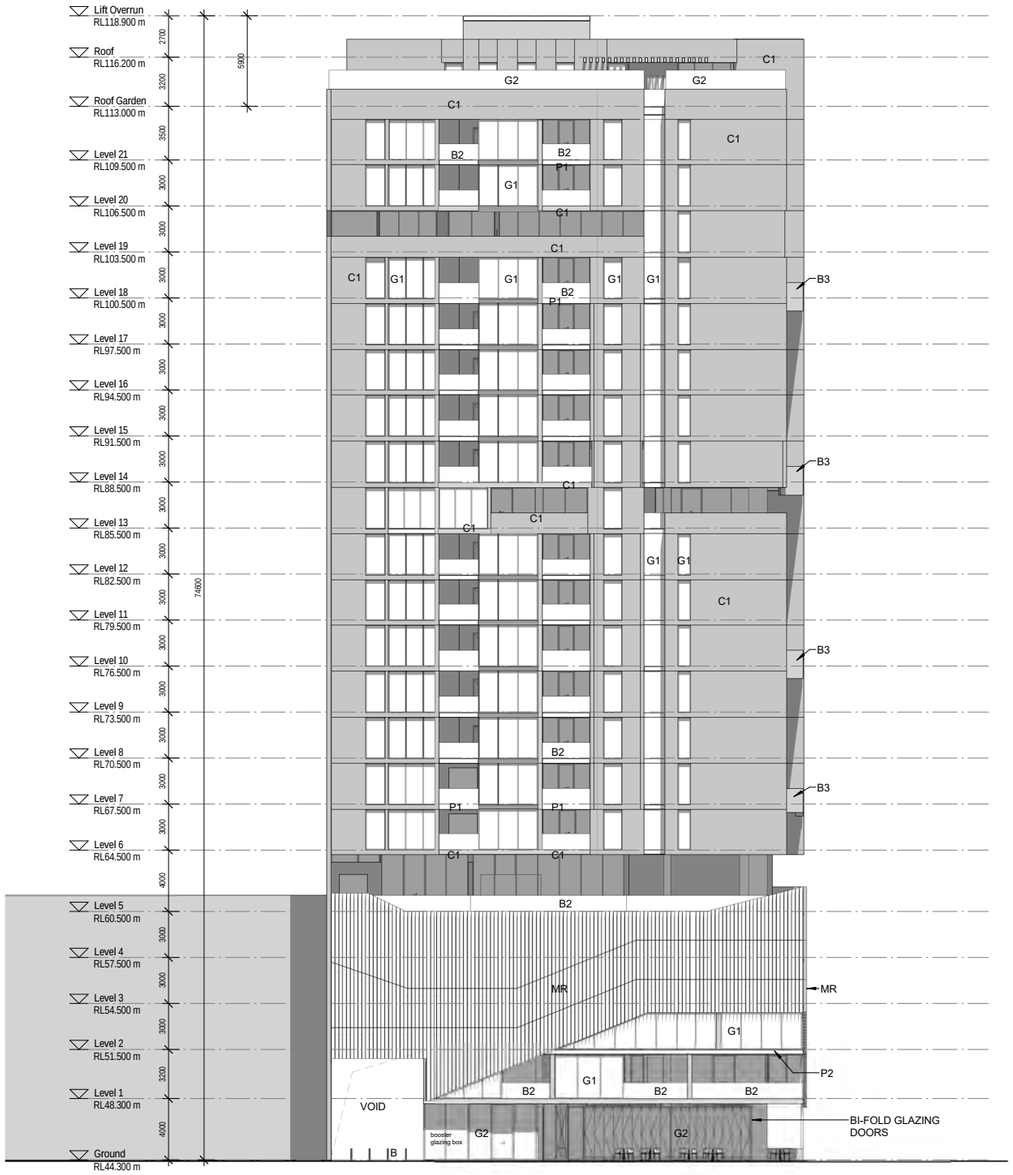
Project: Coglin Street
21 Coglin Street

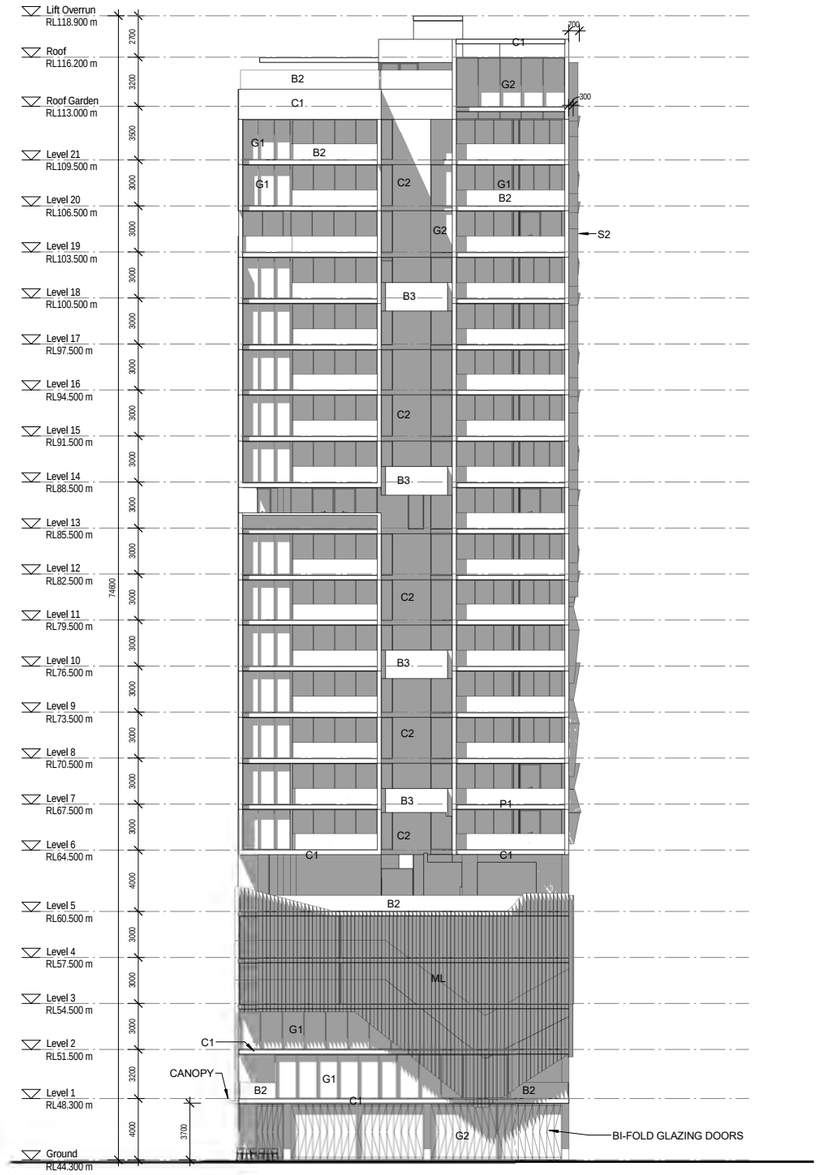
Title: Section Details

Scale @ A1: **As indicated**
Date: **18.05.2018**
Revision: A

Project No: 01017
Drawing No: SK-011
Status: DA PLANNING



1 East
Scale 1 : 200



2 North
Scale 1 : 200

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
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Project: Coglin Street
21 Coglin Street

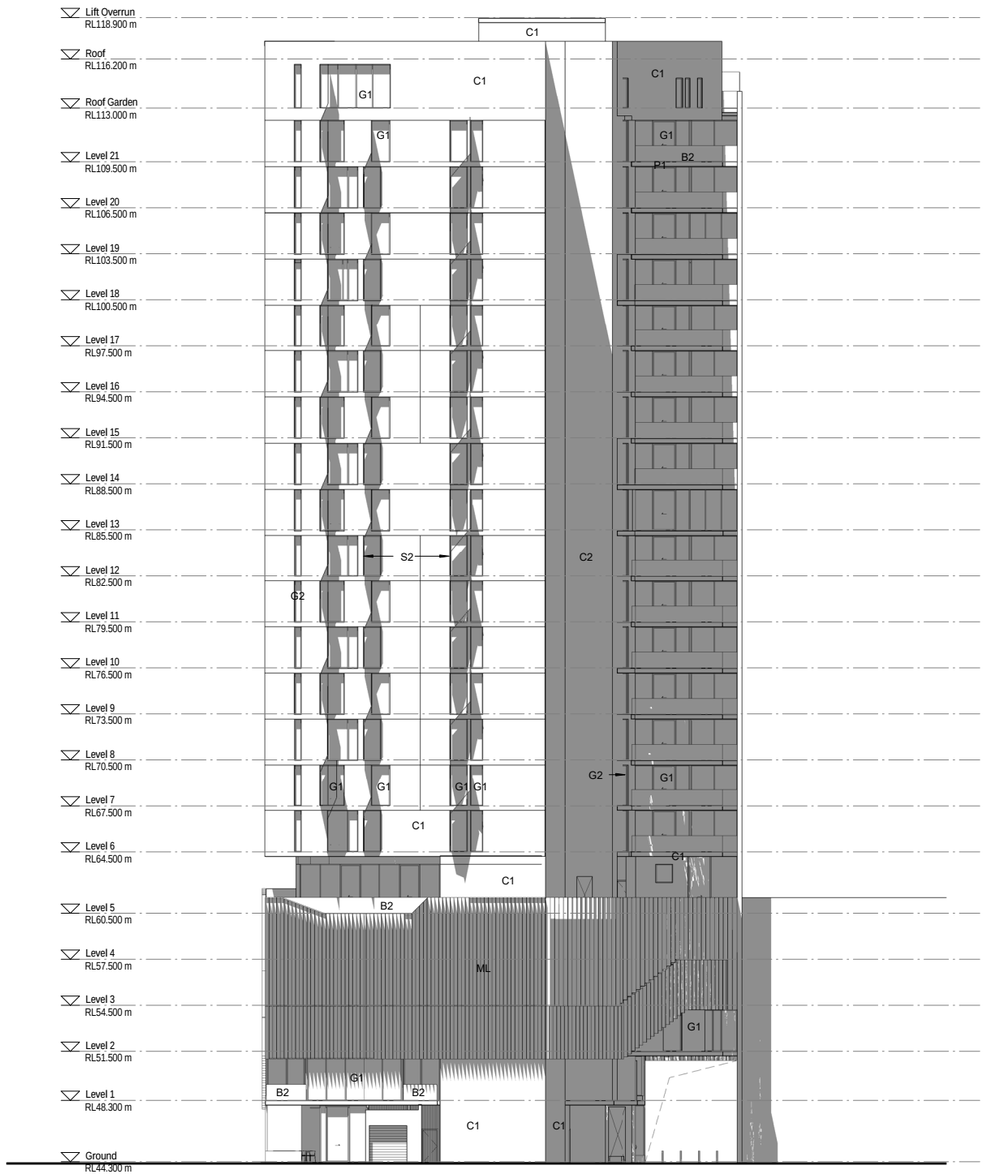
Title: East & North External Elevations

Scale @ A1: **As indicated**
Revision: A
Date: **18.05.2018**

Project No: 01017

Drawing No: SK-020

Status: DA PLANNING



1 West
Scale 1 : 200

2 South
Scale 1 : 200

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018
A	DA Planning Amendment	18.05.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
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B	Bedroom
BALC	Balcony
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PAVING

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Project: Coglin Street
21 Coglin Street

Title: West & South Elevations

Scale @ A1: **As indicated**
Revision: A
Date: **18.05.2018**

Project No: 01017

Drawing No: SK-021

Status: DA PLANNING

5.0 Proposed External Materials

Proposed External Materials

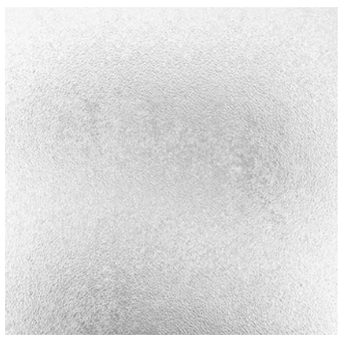
G1	Grey tint vision glass with thermal performance coating
G2	Clear vision glass with thermal performance coating
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Concrete panel balustrade with P1 finish.
P1	Hight quality paint with 20 years life Colour: White
C1	Precast concrete panel Raw concrete (Acid wash)
C2	Glazed colour brick Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed frosted laminated glass screen with black powdercoated framing
S2	Powdercoat finished folded metal panel shading. Colour: to match C1

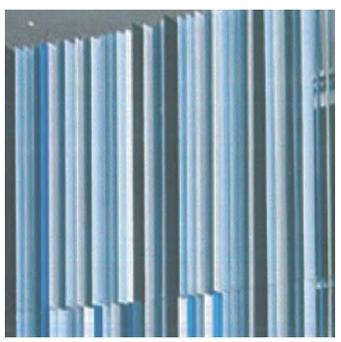

C1

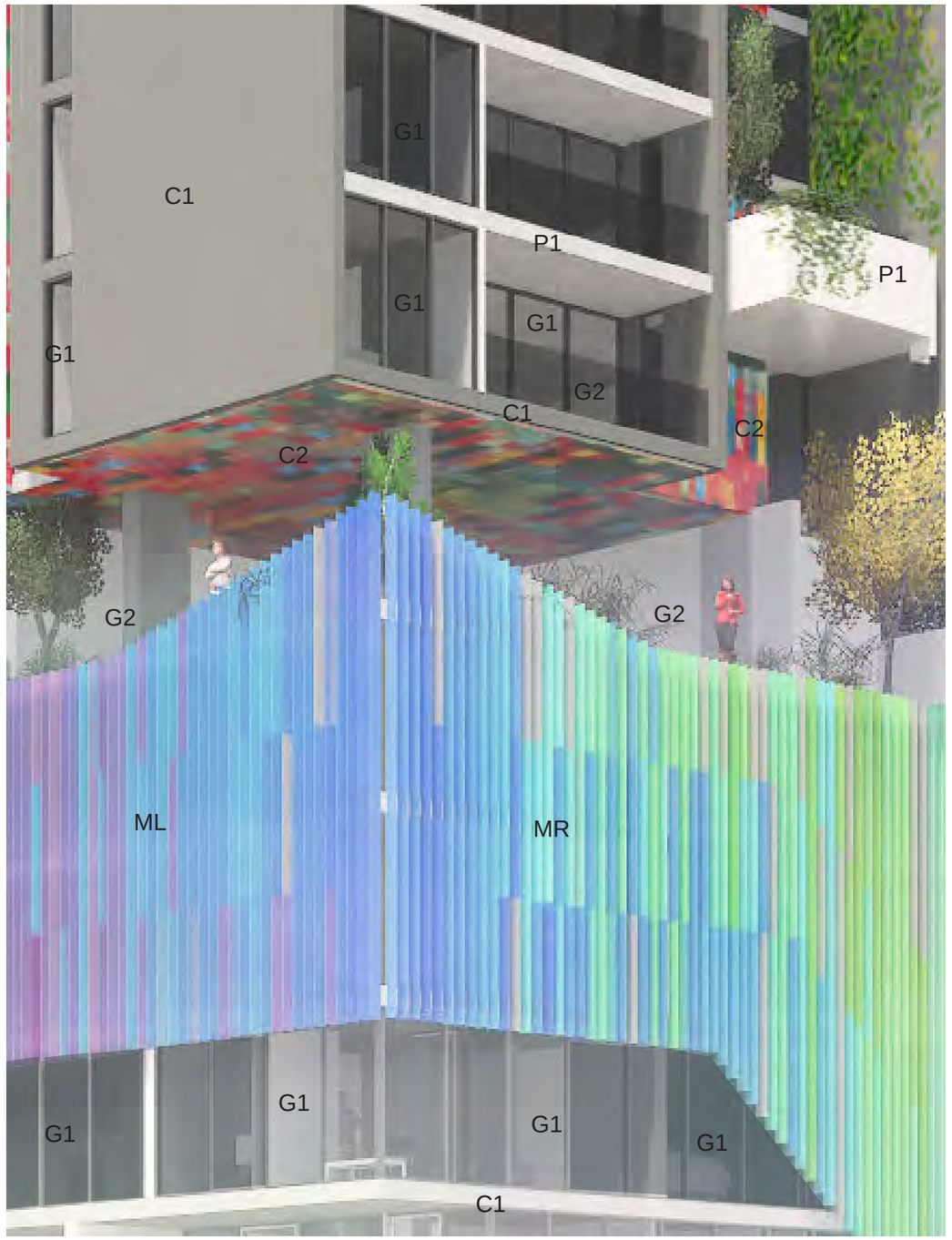

C2


G1

G2


S1


ML / MR



External Materials Samples board

P1: High Quality Paint Finish
(with 20 years warranty)

Haymes Paint guarantees that Solashield Paint will not flake, blister or peel for 20 years. More information refer to Haymes Paint.

6.0 Visualisations

Perspective 1

Perspective 2

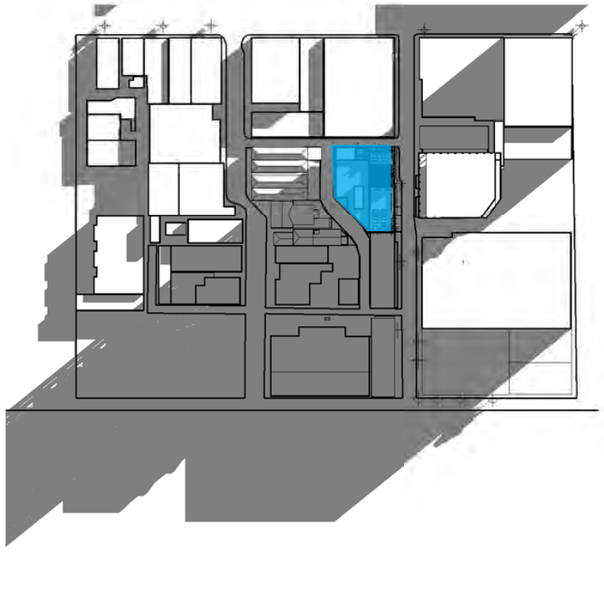
Perspective 3

Perspective 4

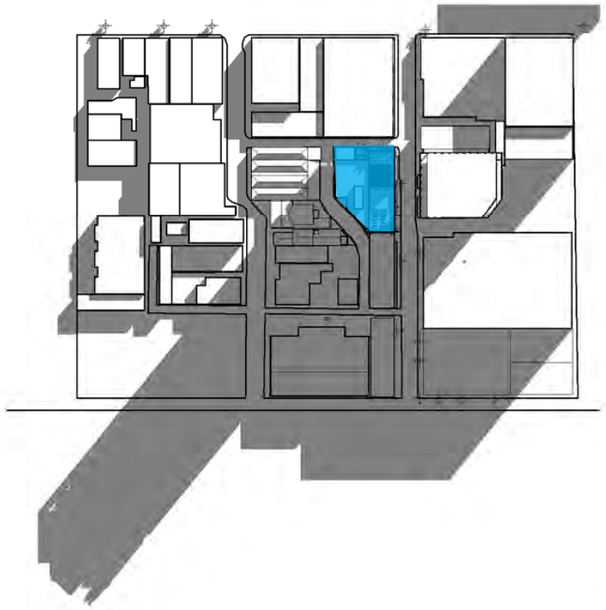
7.0 Shadow Diagrams

Winter Shadows Diagrams- 22 June

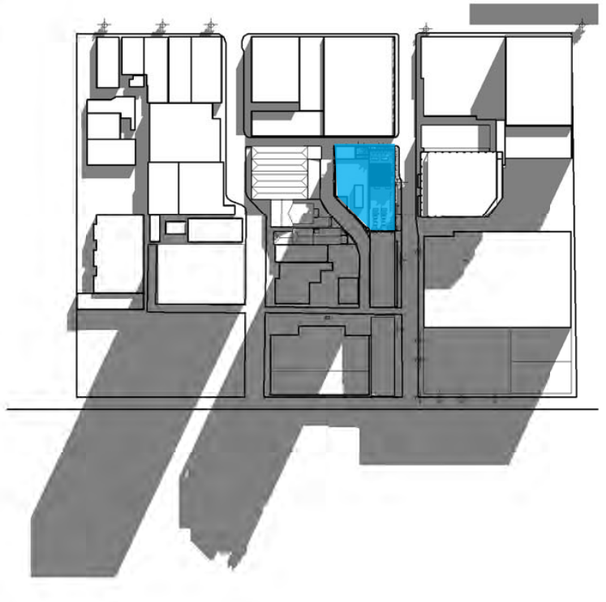
9am



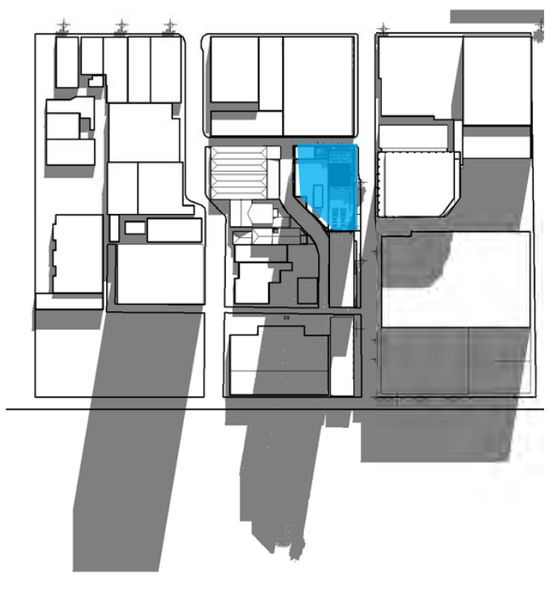
10am



11am



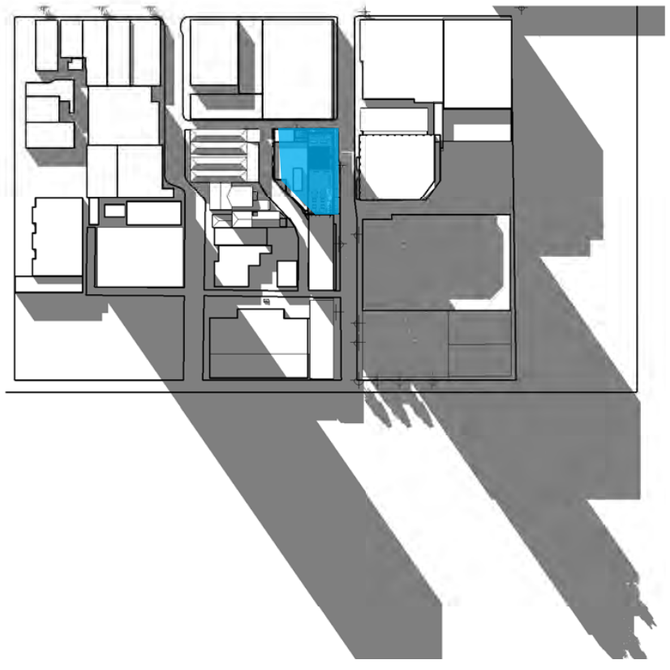
12am



13pm

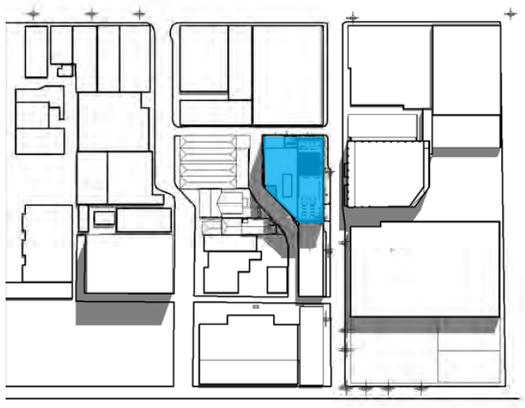
14pm

15pm

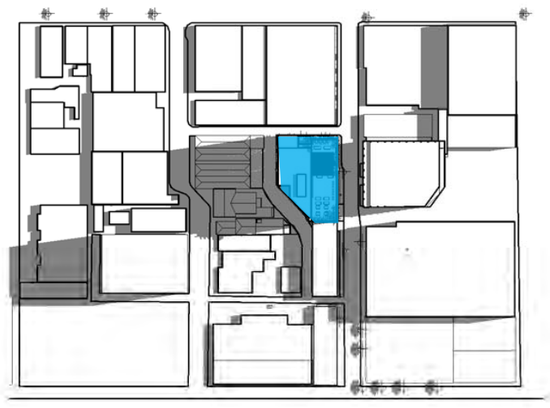


Summer Shadows Diagrams - 21 December

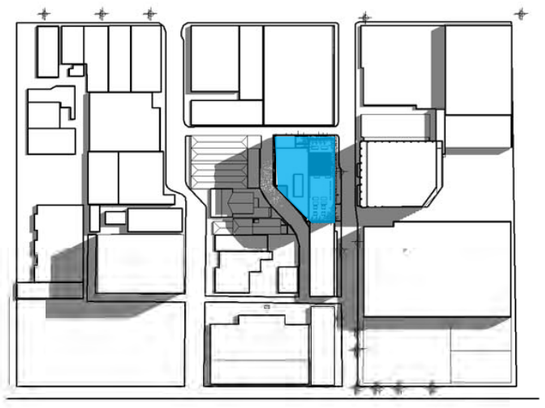
9am



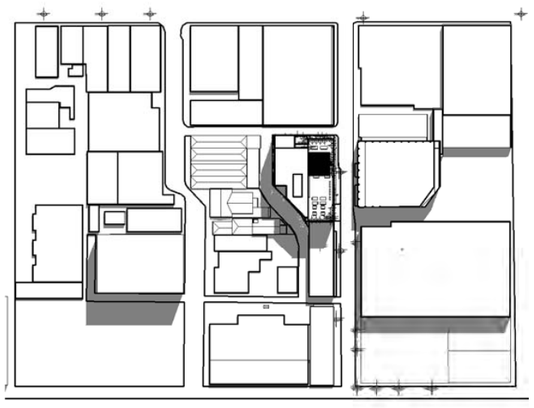
10am



11am



12pm



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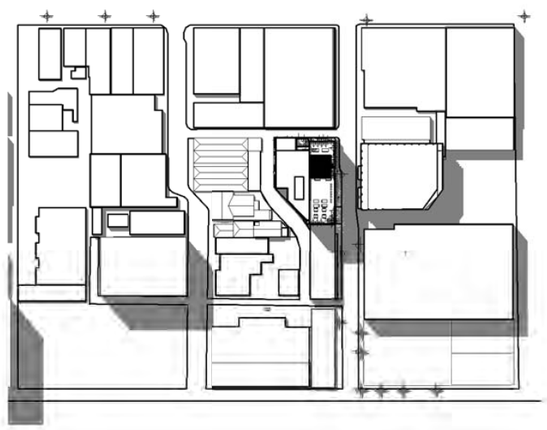


14pm

15pm

Appendix

Design Review Panel Presentation Boards

Appendix
Design Review Panel #1

1.0 Site Context & Analysis

INTRODUCE THE PROJECT:
- SITE LOCATION
- AREA 595m2
- VACANT SITE

Aerial view over Central Markets Area

Subject Site

The subject site at 21 Coglin Street sits in the Capital City Zone.

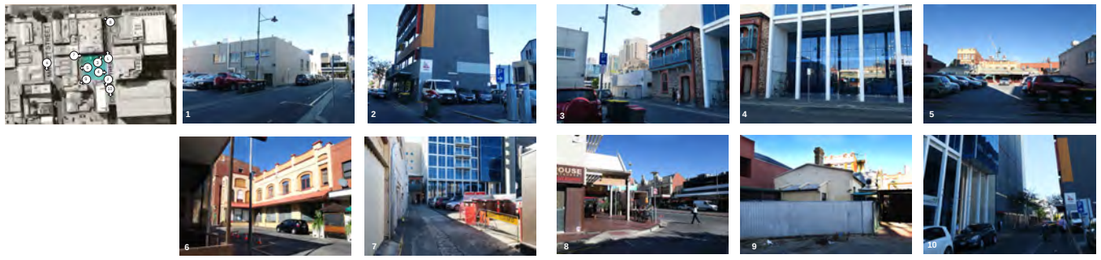
The Capital City Zone is divided further into areas of different building heights. The subject site sits within the No Prescribed Height Limit Zone.

We anticipate an ability to achieve higher height than 43 meters being a transition up to the no height limit zone. This will be tested through the design panel process.

Site Context Plan - Policy Zones & Building Heights

Site Context Photographs

The following images indicate the existing character and context of the built form in the vicinity of the subject site.



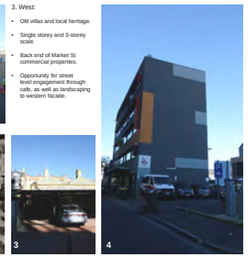
2.0 Context Analysis & Interpretation

Streetscape Character

1. North:
- Restaurant building facing Gouger St.
- Uniform concrete material with punctuated window openings.
- 2-storey scale.
- Street line can be reflected in first floor balcony of apartment.

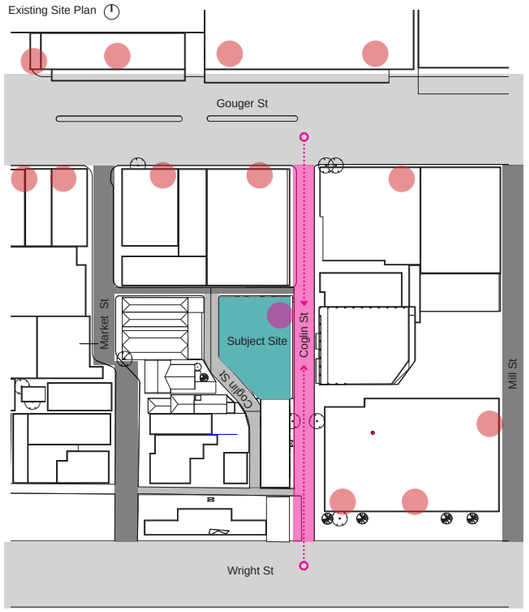
2. East:
- Eynesbury College building.
- 12-storey scale.
- Steel framed structure, white and blue contrasting colours.
- 2 -storey collonade at street level with aggressive projecting balconies and overhangs.
- College at lower levels with 5 levels of apartments above with plant on top.
- Little activation at street level, although students coming and going.
- Need to address overlooking of existing apartments.
- Line of top of building aknowledged in proposed design.

3. West:
- Old villas and local heritage.
- Single storey and 3-storey scale.
- Back end of Market St commercial properties.
- Opportunity for street level engagement through cafe, as well as landscaping to western facade.



4. South:
- AMRC Multicultural Centre building.
- 5-storey scale.
- Horizontal banded windows in simple box form structure.
- Colours used to decorate the block form.
- No street activation.
- Opportunity to line elements of new building with parapet height with AMRC.
- Also possibly align colour pallette
- South-western corner of new building aligned to meet corner of AMRC, rather than create awkward step out.

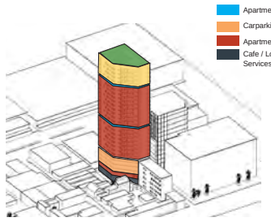
Existing Site Plan



CAFE/RESTAURANT/BAR - ACTIVATING THE STREET

CAFE - ACTIVATING THE STREET
- CONNECTING GOUGER ST AND WRIGHT ST

3.0 Preliminary Massing and Shadow



CONCEPT MASSING DIAGRAM

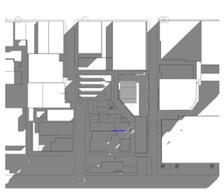
LEGEND
- Roof garden
- Apartments Type 3
- Apartments Type 2
- Carparking
- Apartments Type 1
- Cafe / Lobby / Services

1 COGLIN STREET DEVELOPMENT STREET VIEW DIAGRAM

2 COGLIN STREET DEVELOPMENT STREET VIEW DIAGRAM

3 COGLIN STREET DEVELOPMENT STREET VIEW DIAGRAM

Shadow Diagrams



Shadow Diagrams - Winter Equinox
22 June 9am

Shadow Diagrams - Winter Equinox
22 June 12pm

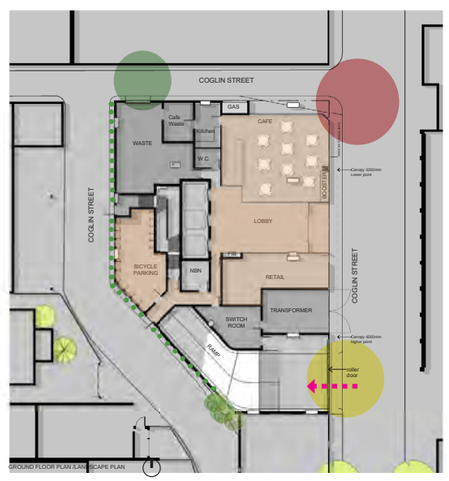
Shadow Diagrams - Winter Equinox
22 June 3pm

4.0 Ground Level

GROUND FLOOR PLAN DEVELOPMENT

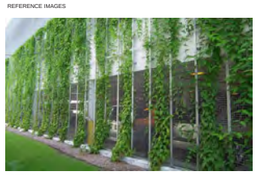
- TRAFFIC ENTRY ON NORTH-WEST CORNER - CREATE TRAFFIC BUSY ISSUE IN COGLIN ST
- CREATE CONNECTION BETWEEN COGLIN ST

- TRAFFIC ON NORTH-EAST -EASY TO ACCESS.
- WASTE AREA ON WEST-SIDE TRUCK ACCESS ISSUE



GROUND FLOOR PLAN /LANDSCAPE PLAN

REFERENCE IMAGES



GREEN WALL

RETAIL

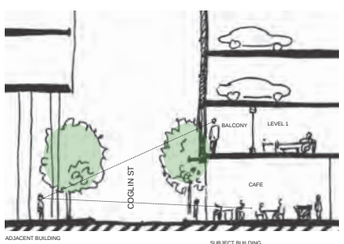
CAFE

- CARPARK ENTRY MOVED FROM NORTH-EAST CORNER
- IMPROVE ACTIVATION ON THE NORTH-EAST CORNER
- IMPROVE ACCESS POINT FOR WASTE AREA

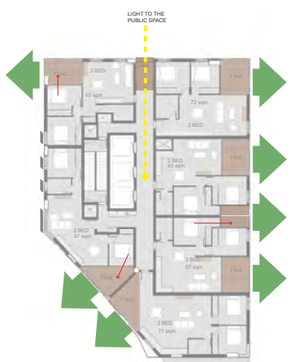
5.0 Typical Carpark & Apartment Levels

PRELIMINARY FLOOR PLANS

1 Bed: 4
2 Beds: 108
3Beds: 12
Total Apartments : 124



- ACTIVE STREET SCAPE
- ENCOURAGING A CONNECTION TO THE STREET



- CREATE CORNER BALCONY SOFTEN EDGES TO TALLER BUILDING FORM
- MOST BEDROOM VIEW TO BALCONY
- INTRODUCE LIGHT TO LIFT CORE

6.0 Preliminary Elevations

PRELIMINARY ELEVATIONS

HISTORY BUILDING MATERIAL REFERENCE IMAGES


COLOR/BRICK

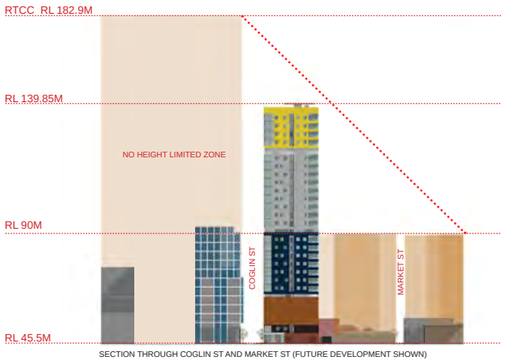

BLUE STONE BRICK


COLOR/PAINTING

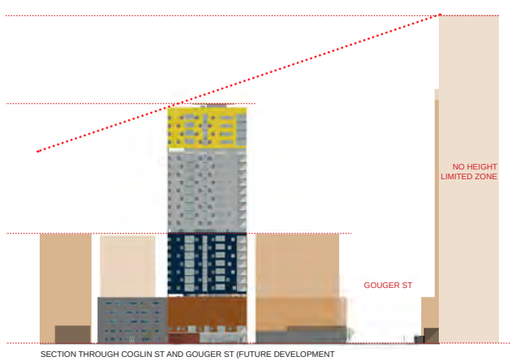

CREAM BRICK

7.0 Context Response

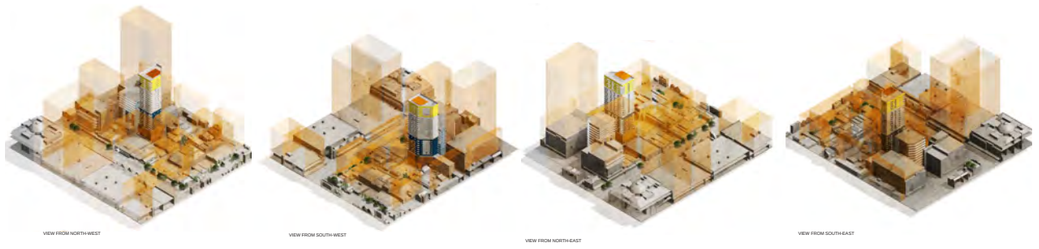
FUTURE DEVELOPMENT SHOWN



SECTION THROUGH COGLIN ST AND MARKET ST (FUTURE DEVELOPMENT SHOWN)

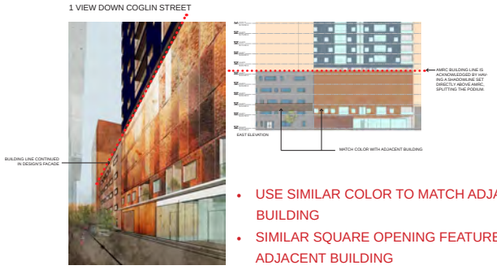


SECTION THROUGH COGLIN ST AND GOUGER ST (FUTURE DEVELOPMENT



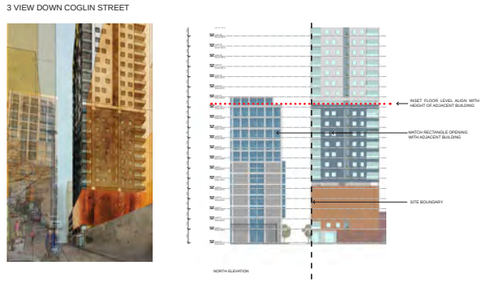
8.0 Context Response

1 VIEW DOWN COGLIN STREET



- USE SIMILAR COLOR TO MATCH ADJACENT BUILDING
- SIMILAR SQUARE OPENING FEATURE TO ADJACENT BUILDING

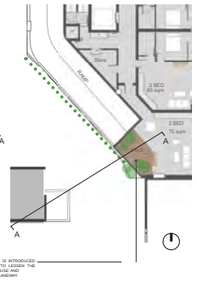
3 VIEW DOWN COGLIN STREET



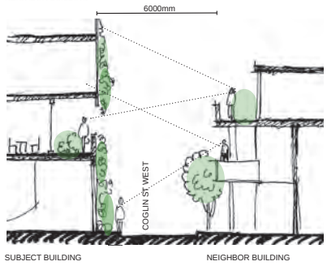
2 VIEW DOWN COGLIN STREET

GROUND FLOOR PLAN

FIRST FLOOR PLAN

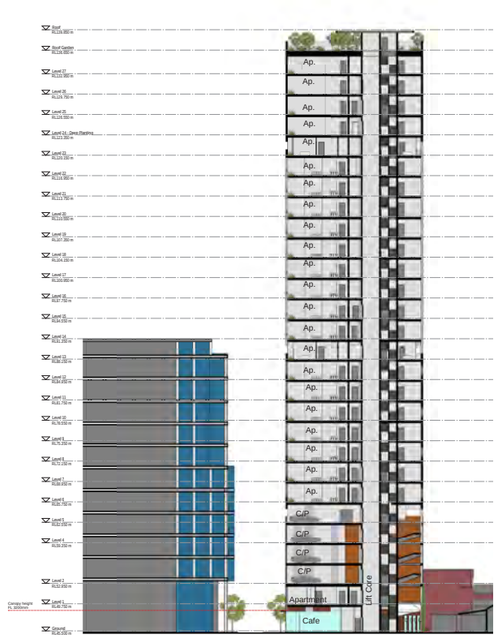


A-A SECTION VIEW WITH NEIGHBOR BUILDING



- STREETSCAPE IS ACTIVATED BY GREEN WALL.
- CREATE GREENERY VIEW FOR NEIGHBOR RESIDENCE

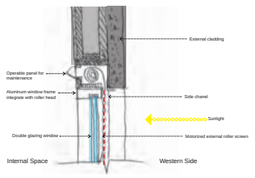
9.0 Preliminary Building Section



EAST - WEST BUILDING SECTION

Sunshading: External Roller Shutter/Blind

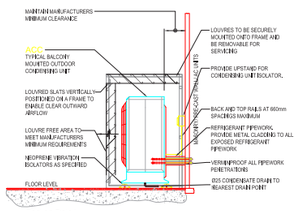
Reference Image



Section Detail

Typical Balcony Mounted Outdoor Condensing Unit with Louverd Enclosure Detail

Reference Image

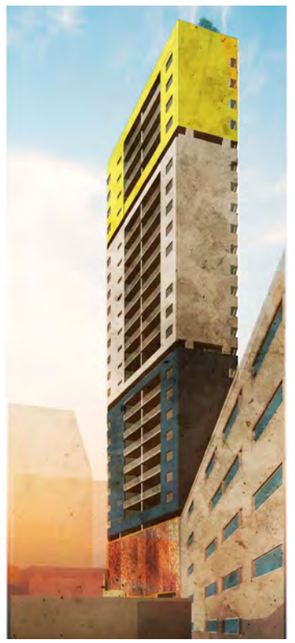


Section Detail

10 Street Views and 3D Perspectives

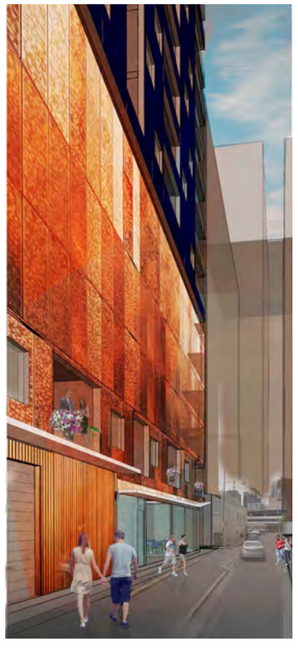
VIEW DOWN COGLIN STREET

VIEW FROM MARKET STREET



VIEW FROM COGLIN STREET

11 Street Views and 3D Perspectives



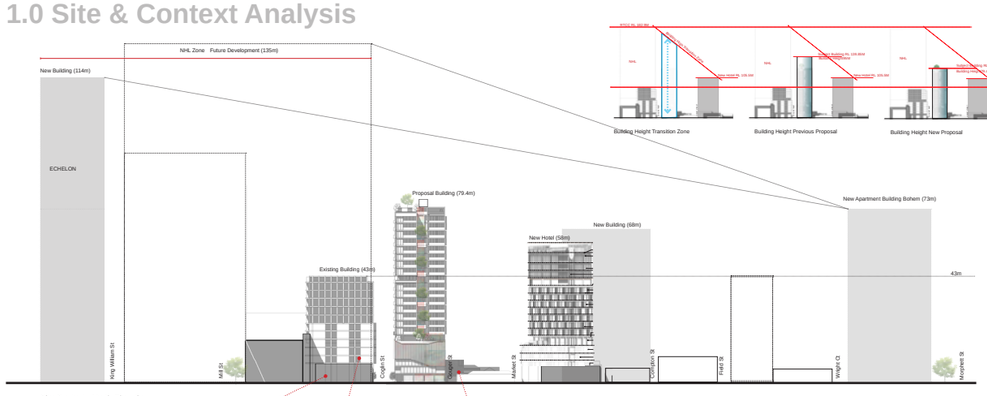
VIEW DOWN COGLIN STREET

VIEW FROM GOUGER STREET

VIEW FROM GOUGER STREET

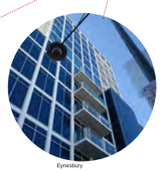
Appendix
Design Review Panel #2

1.0 Site & Context Analysis

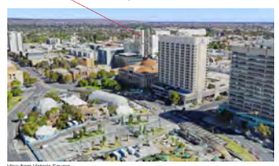


Site Context - North Elevation


Murray Chambers


Eynesbury


24B Market St


View from Victoria Square


Carpenter & Associates

Site Context - East Elevation

2.0 Design Concept

01017 Coglin Street Apartments - Return Brief 6.3.17

Site is Lot 694 or 21 Coglin Street Adelaide which currently accommodates an open air car park. Subject site size about 535m2.
The site is bounded on 3 sides by public roads but the major road is Coglin Street to the East.

Neighbouring properties include the 5 storey Australian Migrant Centre to the south, one, two and three storey buildings over the road to the north and west and a 14 storey mixed use tower across the road to the east and an 11 storey mixed use tower on the south side of Flat Street. Several of the properties to the west are locally heritage listed.

Client is seeking a 22 level building with one basement comprising:

Ground:
Commercial or retail spaces along Coglin Street as well as apartment lobby and car park entry and services

Level 1
Apartments (1, 2 Bed)

Level 2
Apartment / Car parking

Level 3
Car parking

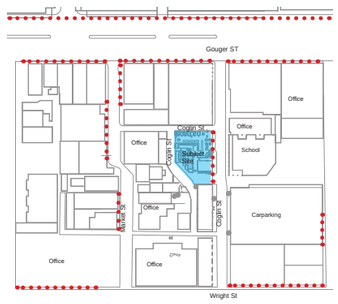
Level 6-21
Apartments (1,2,3 Bed)

Level 22 Roof Garden

Total Apartments: 87

1Bed: 17 (20%)
2Bed: 53 (61%)
3Bed: 17 (19%)

Cars: 39 (45%)

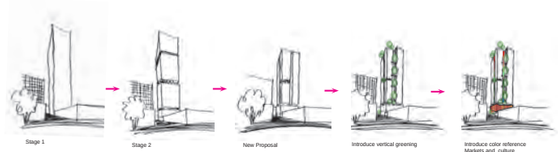


Site Context Plan

- CAFE/RESTAURANT/BAR /RETAIL - ACTIVATING THE STREET
- SUBJECT SITE - CAFE/BAR/RETAIL - ACTIVATING THE STREET - CONNECTING GOUGER ST AND WRIGHT ST

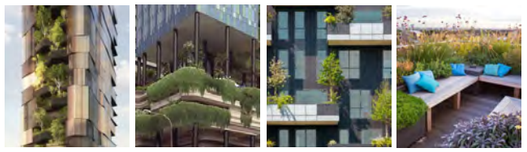
Concept Drivers

- Vertical gardens promote cooling, enrich facades & spaces and encourage a sustainable healthy lifestyle
- Colors and arts reference Markets and culture, reinforcing a positive attitude for residents.
- Shared spaces will bring occupants together to create a sense of community and healthy life style



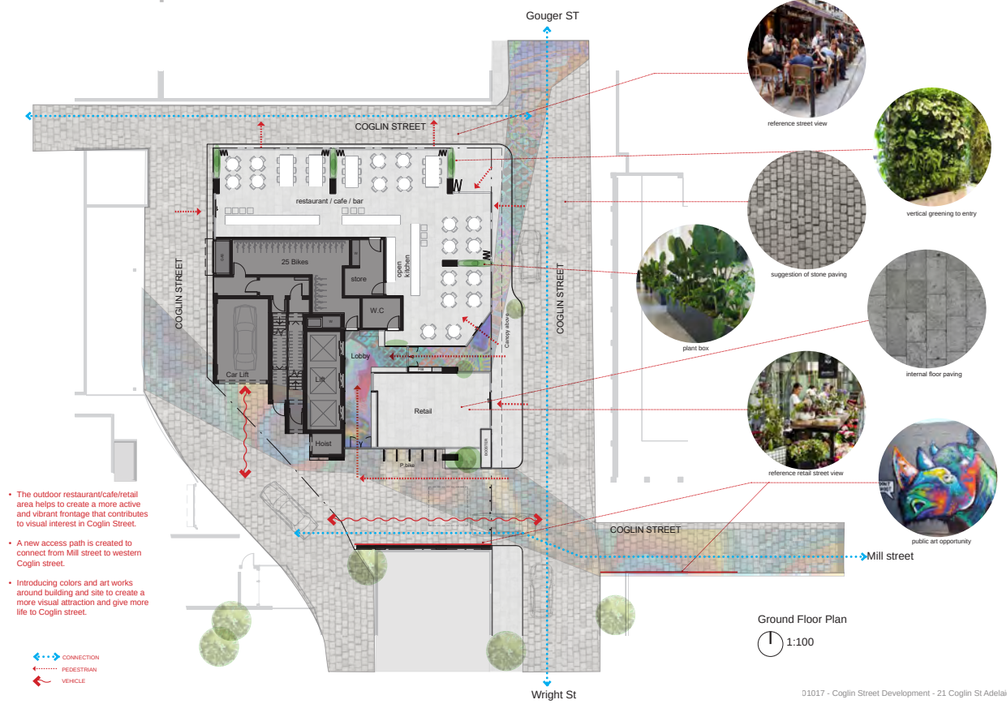
Key design Concept Diagrams - Built Form and Landscape

Design Concept - Vertical Garden



Design Concept - Market Activation, Color Attraction , Culture & Diversity

3.0 Landscape & Urban Realm - Ground Floor Treatment



- The outdoor restaurant/cafe/retail area helps to create a more active and vibrant frontage that contributes to visual interest in Coglin Street.
- A new access path is created to connect from Mill street to western Coglin street.
- Introducing colors and art works around building and site to create a more visual attraction and give more life to Coglin street.

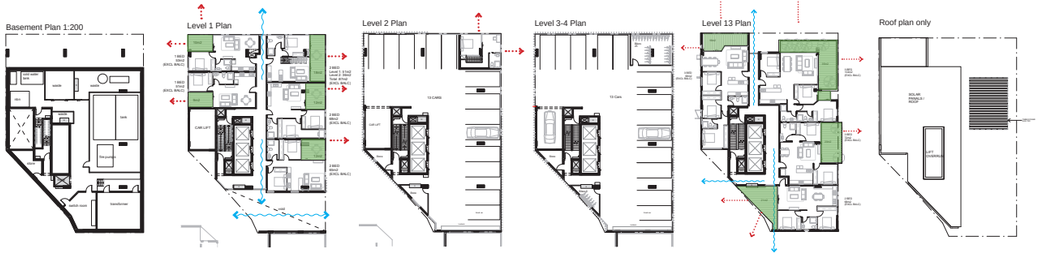
CONNECTION
PEDESTRIAN
VEHICLE

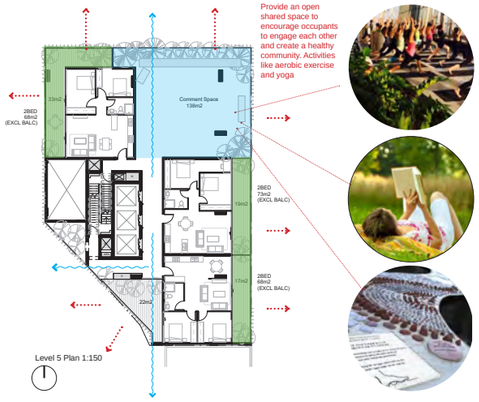
Ground Floor Plan
1:100

4.0 Landscape & Urban Realm - Ground Floor Treatment

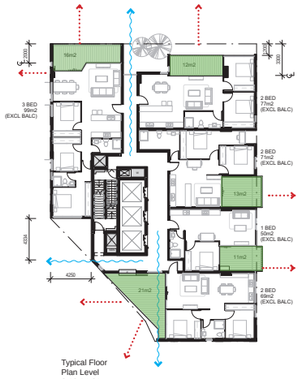
Ground Floor Eastern Coglin Street Perspective

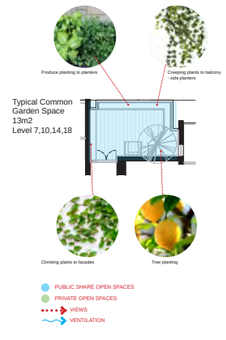
5.0 Preliminary Plans and Built Form



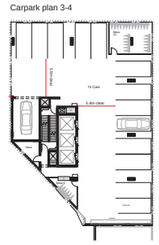


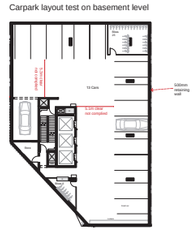
Provide an open shared space to encourage occupants to engage each other and create a healthy community. Activities like aerobic exercise and yoga

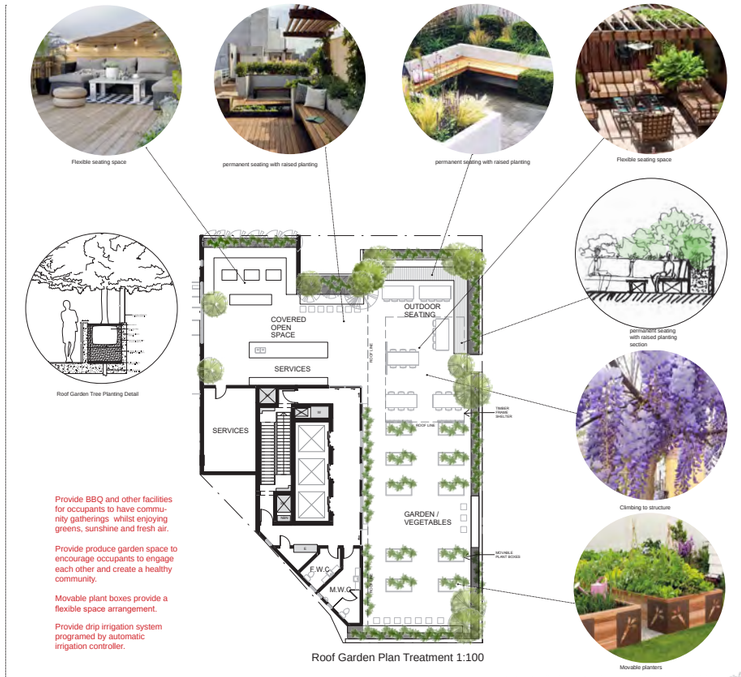




6.0 Carpark Layout Diagram and Roof Plan Treatment







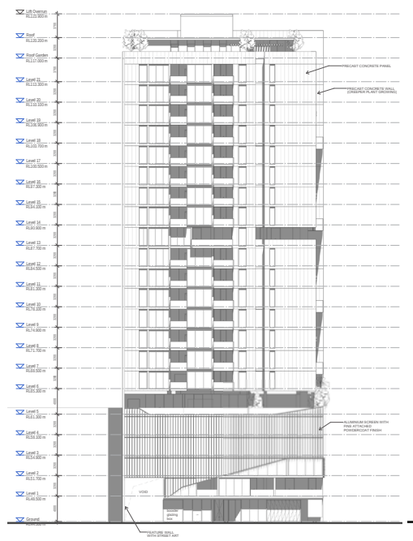
Provide BBQ and other facilities for occupants to have community gatherings whilst enjoying greens, sunshine and fresh air.

Provide produce garden space to encourage occupants to engage each other and create a healthy community.

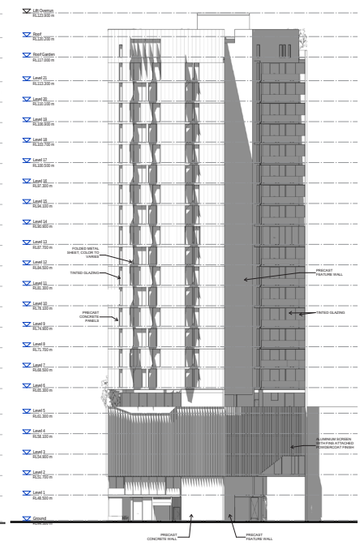
Movable plant boxes provide a flexible space arrangement.

Provide drip irrigation system programed by automatic irrigation controller.

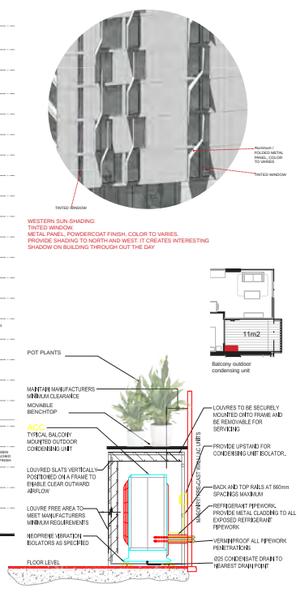
7.0 Preliminary Elevations



East Elevation 1:200

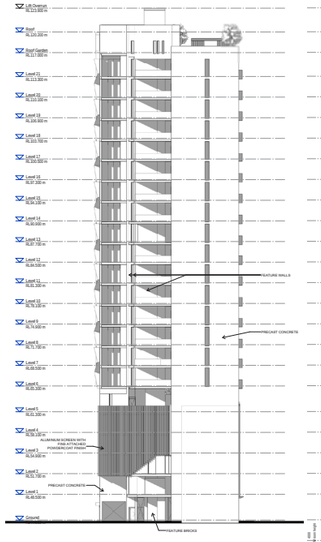


West Elevation 1:200

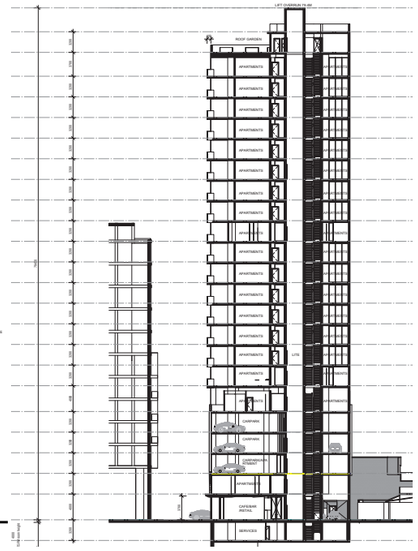


Typical Balcony Mounted Outdoor Condensing Unit with Louvered Enclosure Detail

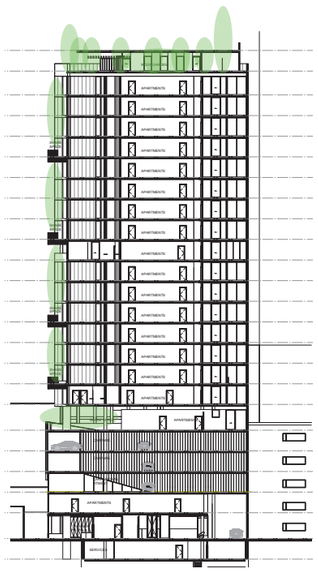
8.0 Preliminary Elevation and Section



South Elevation 1:200



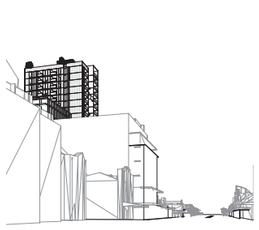
E-W Building Section 1:200



N-S Building Section 1:200

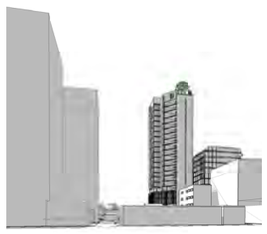
9.0 Street Views and Shadow Diagrams

Victoria Square View



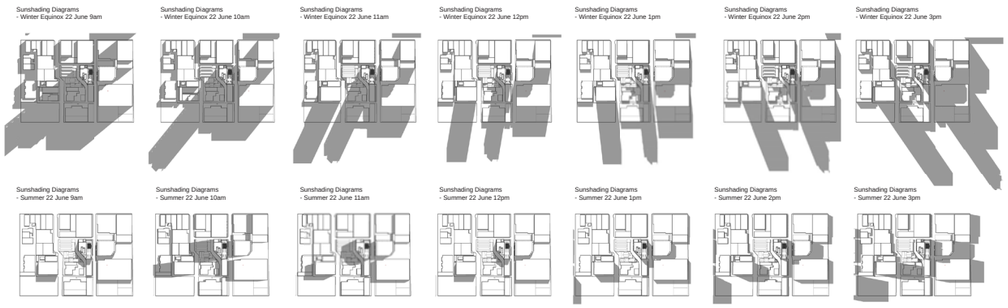
Gouger St from East View

Gouger St from West View



Wright St View

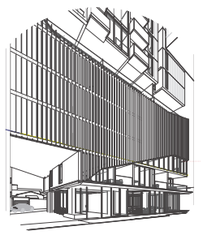
Sunshading Diagrams



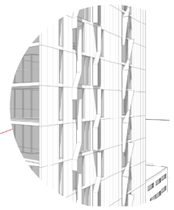
10 Preliminary Elevation and Perspectives

Eastern Coglin Street Sky View

Northern Coglin Street Sky View



North Elevation 1:200



Western Sunshading

Common Balcony view

11 Street Perspectives

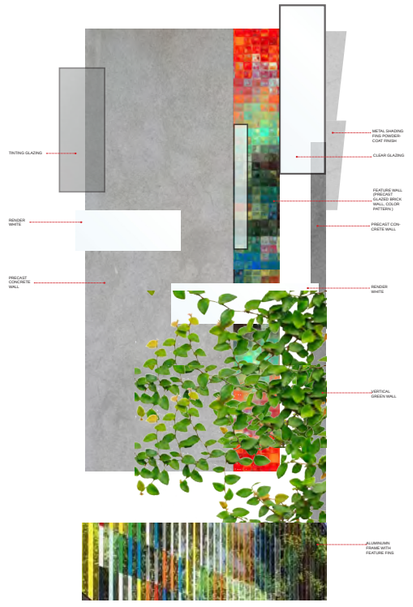
North-East Corner Building

North-West Corner Building

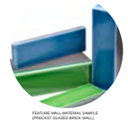
South-West Corner Building

12 Street Perspectives and Material Board

Birdeye Perspective



Main Material Broad



FEATURE WALL MATERIAL SAMPLE (PRECAST GLAZED BRICK WALL)

Subject Land – View to south west

Subject Land – View to south (down Coglin Street east)

Subject Land – View to west (down Coglin Street north)

Subject Land – View to south (down Coglin Street east)

Subject Land – View to south east

Subject Land – View to south (along Coglin Street west)

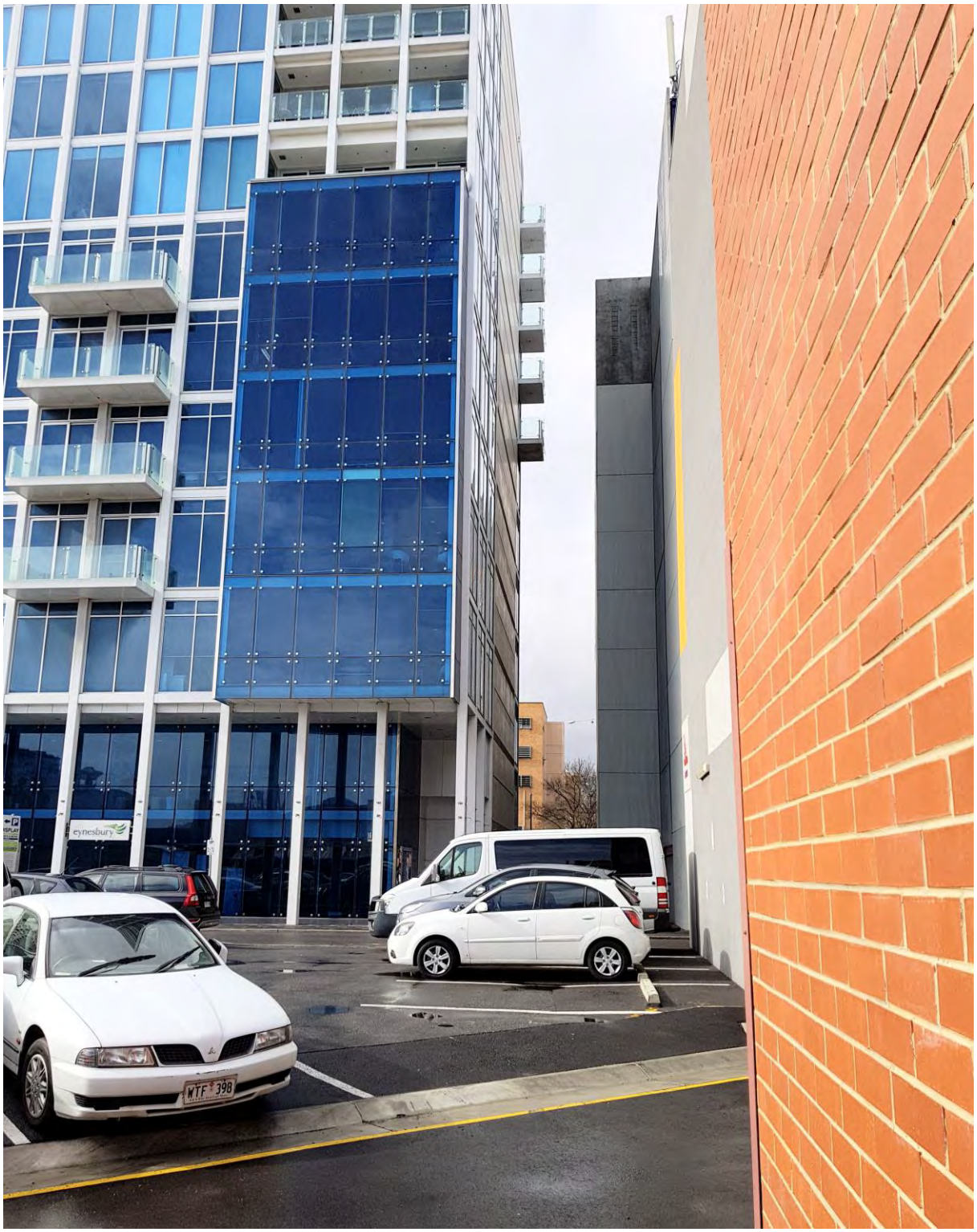
Car parking at rear of Local Heritage Places fronting onto Market Street

Subject Land – View to south east

Subject Land – View to north

Residential extension of Local Heritage Place fronting onto Market Street

Subject Land – View to east (Eynesbury College / apartment building)



Subject Land – View to east (proposed pedestrian connection to King William Street)

View to east along Coglin Street (north)

Subject Land – View to north adjacent Migrant Resource Centre (along Coglin Street west)

Subject Land – View to south adjacent Migrant Resource Centre (along Coglin Street west)

View to west along laneway adjacent Migrant Resource Centre ('Bohem' in background)

View to east (proposed pedestrian connection to King William Street)

Subject Land – view to west from proposed pedestrian connection

Subject Land – view to west from proposed pedestrian connection

Subject Land – view to north from Coglin Street (east)

Local Heritage places at 20-30 Market Street (subject land behind)

Junction of Coglin Street north and Market Street

View towards subject land from Gouger Street

View towards subject land (along Coglin Street east) from Gouger Street

Gouger Street – view to west

Gouger Street – view to east

DEVELOPMENT APPLICATION FORM

AUTHORITY: STATE PLANNING ASSESSMENT COMMISSION

APPLICANT: YHL INVESTMENTS PTY LTD

Postal Address: C / – FUTURE URBAN GROUP

GPO BOX 2403, ADELAIDE, SOUTH AUSTRALIA, 5001

OWNER: YHL INVESTMENTS PTY LTD

Postal Address: SUITE 49, LEVEL 2 BLOCK C

1 RAILWAY PARADE BURWOOD NSW 2134

BUILDER: TO BE CONFIRMED

Postal Address:

Licence No:

CONTACT PERSON FOR FURTHER INFORMATION:

Name: MISS MILLY NOTT

Telephone: (08) 8221 5511

Email: MILLY@FUTUREURBANGROUP.COM

Mobile: 0450 965 858

EXISTING USE:

CAR PARK

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/Concurrence	Type:
❑ DA Commission	Date: / /

	Decision	Fees	Receipt No	Date
Planning:	YES			
Building:				
Land Division:				
Additional:				
Dev Approval:				

DESCRIPTION OF PROPOSED DEVELOPMENT: CONSTRUCTION OF A 23 STOREY MIXED USE BUILDING WITH ONE BASEMENT LEVEL, GROUND LEVEL CAFÉ/BAR AND RETAIL TENANCY, 3 LEVELS OF CAR PARKING, 18 LEVELS OF APARTMENTS, AND A ROOFTOP GARDEN.

LOCATION OF PROPOSED DEVELOPMENT:

House No: 21 Lot No: 694 Road: COGLIN STREET Town/Suburb: ADELAIDE

Section No (full/part): Hundred: ADELAIDE Volume: 5502 Folio: 472

LAND DIVISION:

Site Area (m^2): Reserve Area (m^2): No of Existing Allotments:

Number of Additional Allotments - (Excluding Road and Reserve): Lease: YES: ☐ NO: ☐

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

HAS THE *CONSTRUCTION INDUSTRY TRAINING FUND ACT 1993 LEVY* BEEN PAID? YES: ☐ NO: ☑

DEVELOPMENT COST (Do not include any fit-out costs): $ 22 million

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

SIGNATURE:

Dated: 21 FEBRUARY 2018

ON BEHALF OF YHL INVESTMENTS PTY LTD

DEVELOPMENT REGULATIONS 2008

Form of Declaration

(Schedule 5, Clause 2A)

To:	The State Commission Assessment Panel
From:	YHL Investments Pty Ltd
Date of Application:	Wednesday, 21 February 2018

Location of Proposed Development:

House Number:	21	Lot Number:	694
Street:	Coglin Street	Town/Suburb:	Adelaide
Section No (full/part):		Hundred:	Adelaide
Volume:	5502	Folio:	472

Nature of Proposed Development:

Construction of a 23 storey mixed use building with one basement level, ground level café/bar and retail tenancy, 3 levels of car parking, 18 levels of apartments and a rooftop garden.

I, Milly Nott, in my capacity as a representative of the Applicant, declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the accompanying drawings, 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*.

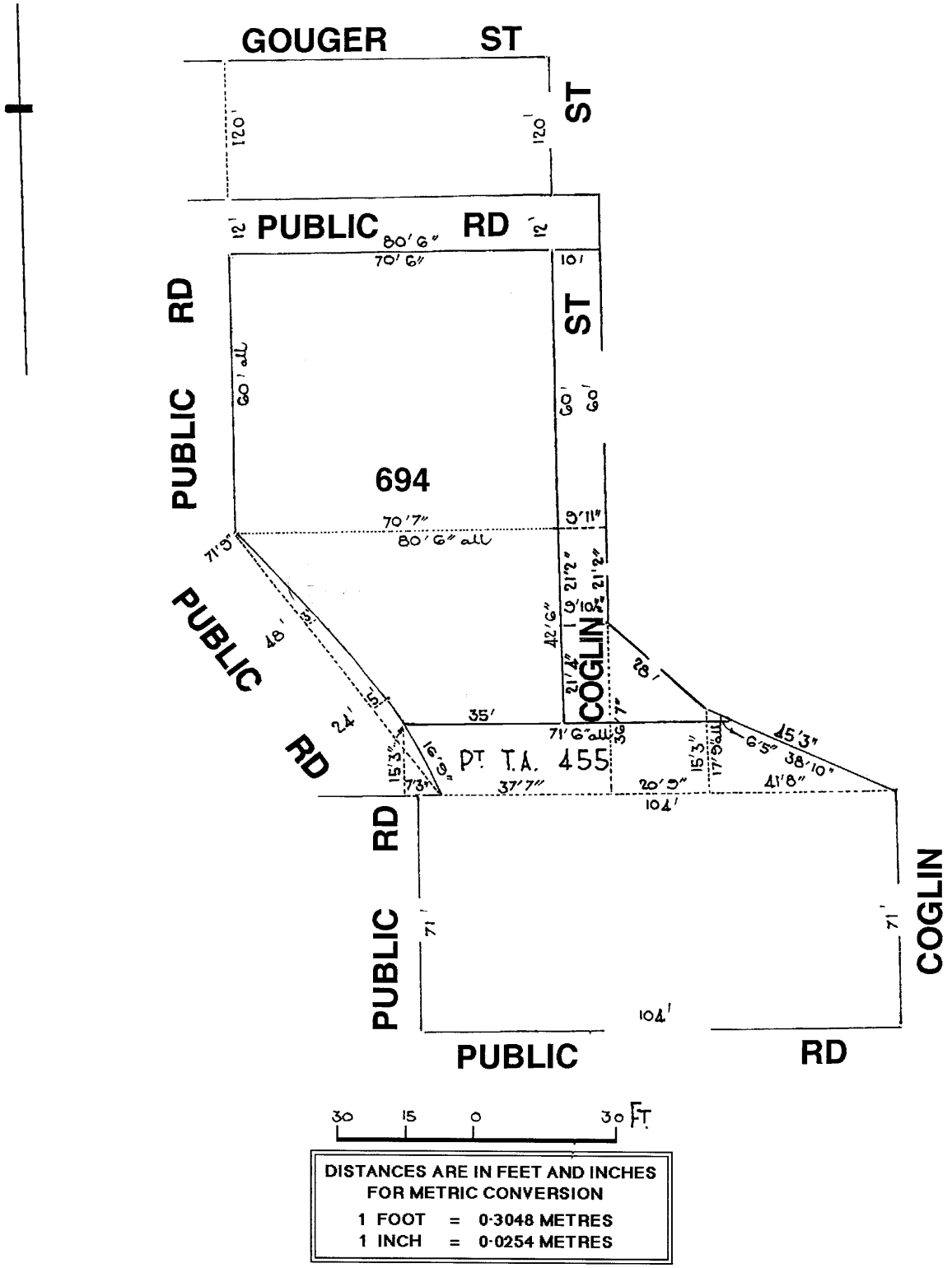
Wednesday, 21 February 2018

Date

Signed

Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 3267/110 **LAST PLAN REF: DP 623**



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION		
1 FOOT	=	0·3048 METRES
1 INCH	=	0·0254 METRES

NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

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

Certificate of Title - Volume 5502 Folio 472

REAL PROPERTY ACT, 1886
South Australia

Parent Title(s)	CT 3267/110
Dealing(s) Creating Title	CONVERTED TITLE
Title Issued	13/02/1998
Edition	6
Edition Issued	04/08/2016

Estate Type

FEE SIMPLE

Registered Proprietor

COGLIN STREET DEVELOPMENT PTY. LTD. (ACN: 131 379 318)
OF C/- LEVEL 1 5/94 THE PARADE NORWOOD SA 5067

Description of Land

ALLOTMENT 694 FILED PLAN 183156
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title

NIL

Priority Notices

NIL

Notations on Plan

NIL

Registrar-General's Notes

AMENDMENT TO DIAGRAM VIDE 11457992

Administrative Interests

NIL

* Denotes the dealing has been re-lodged.

PLANNING REPORT

21 COGLIN STREET, ADELAIDE

PROPOSAL TO CONSTRUCT A 23 STOREY MIXED USE BUILDING

Prepared for:
YHL Investments PTY LTD

Date:
21.02.2018

Proprietary Information Statement

The information contained in this document produced by Future Urban Group is solely for the use of the Client identified on the cover sheet for the purpose for which it has been prepared and Future Urban Group undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.

Document Control

Revision	Description	Author	Date
V1	Draft	TK	19/02/18
V2	Final	TK	21/02/18

CONTENTS

APPENDICES

FIGURES

1. INTRODUCTION

It is proposed to erect and complete a twenty- three (23) storey building comprising:

- Waste storage area and general plant and equipment (switch room, transformer and the like) at basement level;
- Café/bar, retail, entry lobby, bicycle park and car lift at ground level;
- A mix of single and 2 bedroom dwellings at Level 1;
- Car parking and second level to a 2 bedroom dwelling in the north-eastern corner of the building at Level 2;
- Car and bicycle parking facilities through Levels 3 to 4;
- 3, 2 bedroom dwellings and a communal space at Level 5;
- A mix of single, 2 and 3 bedroom dwellings through Levels 6 to 22;
- Community garden and covered community space at roof level; and
- Community spaces at Levels 5, 7, 10, 14 and 18.

Included as appendices to this planning statement are the following documents:

- Appendix 1 – Development Application form;
- Appendix 2 – Electricity Act Declaration;
- Appendix 3 – Certificates of title;
- Appendix 4 – Traffic and Parking Assessment prepared by InfraPlan dated 13 February 2018;
- Appendix 5 – Waste Management Plan prepared by InfraPlan dated 16 January 2018;
- Appendix 6 – Services Infrastructure Report prepared by BESTEC dated 19 January 2018;
- Appendix 7 – ESD Intent Report prepared by BESTEC dated 19 January 2018;
- Appendix 8 – Stormwater Management Report prepared by Drew Rudd Engineers dated 12 February 2018;
- Appendix 9 – Acoustic Report prepared by BESTEC dated 14 February 2018;
- Appendix 10 – Wind Report prepared by Drew Rudd Engineers dated 12 February 2018; and
- Appendix 11 – Plans, Elevations and Drawings prepared by JPE Design Studio dated 20 February 2018.

1. THE SITE AND LOCALITY

The irregular shaped subject land is located on the western side of the principal north-south arm of Coglin Street between Gouger and Wright Streets, is bounded on three (3) sides by Coglin Street proper and its east-west extensions, has street frontages of 31.24 metres, 34.93 metres and 21.487 metres respectively and an area of approximately 599 square metres. The land is currently used for a metered at grade car park for thirty (30) vehicles.

Figure 1.1 *Subject site and locality.*

The locality has a mixed character including commercial, retail, professional services, offices, car parks and educational facilities. There is limited residential development.

The Adelaide Central Market is to the north of the subject land on the northern side of Gouger Street and the law courts are to the north-east and east of the subject land. Chinatown is to the north-west.

To the north of the subject land is the rear of the Star House restaurant that fronts Gouger Street. To the south is the five (5) storey Australian Migration Resource Centre building.

Directly opposite the subject land on the eastern side of Coglin Street is the twelve (12) storey Eynesbury College campus building, which houses educational facilities and apartments.

Along this same side of Coglin Street in a northerly direction towards Gouger Street is a two (2) storey building used as legal chambers and the rear of restaurant facilities fronting Gouger Street.

Further south along this same side of Coglin Street in the direction of Wright Street is a multi- storey car park.

To the west of the subject land is an undercover parking area servicing buildings fronting Market Street. There is a three (3) storey dwelling opposite the south west corner of the site.

The subject site in its current form is underutilised and has a negative streetscape impact, as it presents an undesirable 'gap' in the urban fabric of the immediate locality.

The site presents an ideal opportunity to realise the principal aims and objectives of the Adelaide (City) Development Plan, the objects of the *Development Act 1993*, as amended, and encourage confidence in those investing in the City's continued prosperity.

The subject site and other adjoining properties on the western side of Coglin Street are located within a designated 43 metre height limit area of the Capital City Zone. Whilst the eastern side of Coglin Street is also located within the Capital City Zone, these buildings are within a "no prescribed height limit" area.

2. PROPOSAL DESCRIPTION

It is proposed to erect and complete a twenty- three (23) storey building comprising:

- Waste storage area and general plant and equipment (switch room, transformer and the like) at basement level;
- Café/bar, retail, entry lobby, bicycle park and car lift at ground level;
- A mix of single and 2 bedroom dwellings at Level 1;
- Car parking and second level to a 2 bedroom dwelling in the north-eastern corner of the building at Level 2;
- Car and bicycle parking facilities through Levels 3 to 4;
- 3, 2 bedroom dwellings and a communal space at Level 5;
- A mix of single, 2 and 3 bedroom dwellings through Levels 6 to 22;
- Community garden and covered community space at roof level; and
- Community spaces at Levels 5, 7, 10, 14 and 18.

The materials, colours and finishes, the vertical gardens and screening to the car parking levels have been consciously designed to reflect and respect linkages to the colour and vibrancy of the Adelaide Central Market.

The proposal is fully detailed, including design statements, in the enclosed plans prepared by JPE Design Studio and dated 20 February 2018.

In addition, the specialist reports included in Appendices 4 to 10 describe in detail the following matters:

- car parking, traffic and access;
- waste management;
- services infrastructure;
- environmentally sustainable design initiatives;
- stormwater management;
- environmental noise; and
- wind impacts.

As such, there is no need to unnecessarily repeat the statements made in those reports here.

3. DEVELOPMENT ASSESSMENT

We have assessed the proposed development against the provisions of the Adelaide (City) Development Plan consolidated 20 June 2017 and consider the following to be the most relevant in the assessment of this application.

COUNCIL WIDE

Living Culture:

Objectives: 1-3.

Principles of Development Control (PDC): 1

City Living:

Objectives: 6 and 7.

PDC: 5-7.

Medium to High Scale Residential/Serviced Apartment:

Objective: 22

PDC: 48-73.

On-Ste Parking and Fencing:

Objective: 23

PDC: 76, 77, 80 and 81.

Environmental:

Objective: 24

PDC: 82-85.

Noise Emissions:

Objectives: 26 and 27.

PDC: 93-99.

Waste Management:

Objective: 28

PDC: 101-104.

Energy Efficiency:

Objective: 30

PDC: 106-114.

Micro – climate and Sunlight:

Objectives: 33 and 34.

PDC:119, 120, 122, 123 and 125.

Stormwater Management:

Objectives: 35 – 38.

PDC: 128 – 131.

Infrastructure:

Objectives: 40 and 41.

PDC: 132 – 135.

Built Form and Townscape:

Objectives: 46 – 48.

PDC: 167 – 170, 172, 179, 180, 182 – 190.

Sky and Roof Lines:

Objective: 49.

PDC: 192, 193 and 195.

Active Street Frontages:

Objectives: 50 and 51.

PDC: 196 – 199.

Landscaping:

Objective: 55.

PDC: 207 -208.

Advertising:

Objective: 56.

PDC: 211, 214, 215 and 217.

Transport and Access:

Objectives: 60 – 65.

PDC: 224, 226 -228, 230, 232 -237.

Economic Growth and Land Use:

Objectives; 73 – 76.

PDC: 266, 270 and 271.

OVERLAY 1: AFFORDABLE HOUSING:

Objectives: 1 -4.

PDC: 1 and 2.

CAPITAL CITY ZONE:

Objectives: 1- 6 and 8.

PDC: 1, 4 -9, 11, 12, 14 -16, 21, 26 -29, 32 -35, 38 -40.

Generally speaking, we consider that the majority of the Council Wide guidelines, such as, Living Culture, City Living, Medium to High Scale Residential/Serviced Apartment, Environmental, Noise Emissions, Waste Management, Affordable Housing and the like have been satisfactorily addressed.

The subject land is within the Capital City Zone under the Adelaide (City) Development Plan within which the proposal is neither complying nor non-complying and, accordingly, is for consideration on its merits.

The Capital City Zone is the economic and cultural focus of the State and seeks a vibrant character with a diverse range of land uses and development that achieves high design quality. Opportunities for increased residential populations within the Zone are encouraged.

Following, we comment on the most pertinent planning issues for this particular development application.

3.1 LAND USE

Shops and dwellings are specifically envisaged in the Capital City Zone. The present proposal satisfies this provision.

3.2 FORM AND CHARACTER

Zone PDC 5 provides that development should be consistent with the Desired Character (DC) for the Zone.

There is a possible tension between the DC and Zone PDC 12. Zone PDC 12 provides that buildings should be designed to include a podium/street wall height and upper level set backs in the order of 3 – 6 metres whereas the DC clearly states that in narrow streets, as in the present case, the street set back above the street wall may be non- existent, to create intimate spaces through a greater sense of enclosure.

Notwithstanding, we say that the present proposal respects and is consistent with the DC in that:

- it reinforces the Zone as the economic and cultural focus of the State and provides for an increased population to complement the range of opportunities and experiences;
- it is of a high standard of architectural design and finish;
- it creates a vibrant mix of high density living with high street walls that frame the street;
- it creates an active and interesting pedestrian environment which promotes pedestrian activity and contributes to the City's pedestrian network;
- it creates intimate spaces through a greater sense of enclosure (examples of which have been shown in JPE's architectural package);
- it responds to and complements its surroundings in consideration of the existing and potential built form;
- it rejuvenates the area and restores the urban fabric; and
- it incorporates appropriate ESD principles and provides natural light and ventilation to habitable rooms.

3.3 DESIGN AND APPEARANCE

In our opinion design and appearance are much matters of individual taste and as such, a developer should be allowed a certain freedom of choice. A proposal should only be refused if it is grossly out of harmony with its surroundings. For this purpose, it is generally accepted that buildings can co-exist without having the same density, scale and appearance, particularly in the context of the Capital City Zone. That is to say that harmony should not be confused with sameness.

In this instance the project team has participated in two (2) Design Review sessions. In response to the recommendations contained in the initial review the project has been substantially amended including, but not necessarily limited to:

- Reduction in building height by six (6) storeys;
- Screening of above ground parking and provision of communal space;
- Communal space and north facing landscape areas providing opportunities for a 'vertical village' concept with reference to activities within the Central Market Precinct;
- Creation of visual interest through material colour composition and cues to Central Market street art;
- Relocation of waste and plant and equipment to basement level;
- Creation of more active street frontages;
- Appropriate traffic control systems introduced; and
- Roof top garden and communal open space introduced.

These changes were presented to the Design Review Panel at the projects second Design Review session held on 13 December 2017. By letter dated 21 December 2017, the Associate Government Architect, informed by the Panel, acknowledged the willingness with which the project team has engaged in the Design Review process and commended the team for the progress of the design.

The Associate Government Architect advised that, in principle, he supports a residential development on this site that positively contributes to the activation of this part of the City and welcomes the benefit increased population could bring to the precinct. Whilst he supports the general design direction, which addresses a number of the issues previously raised, he does not support the height of the proposal.

Additional changes to the overall design are recommended which, in the opinion of the Associate Government Architect, will achieve the best possible design outcome for the site. *(Emphasis added)*

The recommended changes have been fully investigated. However, for various reasons, not least practical reality, the changes have been determined not to be feasible. For instance, the restricted dimensions of the site preclude basement car parking in accordance with accepted vehicle geometry and manoeuvrability.

With all due respect to the Associate Government Architect, the Courts have held that it is not the role of a planning authority, or on appeal, the Court, to secure the best possible development on a particular site, but rather a development which is acceptable having regard to the relevant provisions of the Development Plan.

In *Hickinbotham Blue Gum Pty Ltd v Corporation of the City of Campbelltown* (1981) 29 SASR 93 at 101, Jacobs J. states:

> *"There is scarcely any planning proposal, however good, to which some legitimate objection cannot be taken, but that does not mean that it has to be refused. On the contrary, the duty of the Planning Appeal Board is to look at the proposal as a whole, to consider all evidence, including the opinion of expert planners, in support of the proposal as a desirable and sensible form of land use and development, to weigh the legitimate objections and criticisms, with due regard to the public interest, but not ignoring private interests if both such interests can be satisfactorily reconciled, and to determine in the end whether the balance lies in favour of granting or refusing approval."*

Further, it is established law that the provisions of a Development Plan are advisory and not mandatory. Failure to satisfy a particular provision of the Plan is not inevitably fatal to an application if it is demonstrated that the proposal is generally in conformity with the Plan.

In this instance we submit that the proposal is generally in conformity with the Plan in that the proposed building:

- is of a high standard of architectural design and finish;
- achieves a high standard of external appearance by use of high quality materials and finishes, provides a high degree of visual interest through articulation and ensures that the lower levels are integrated with and contribute to a vibrant public realm;
- presents an attractive pedestrian-oriented frontage that adds interest and vitality to the surrounding streets;
- provides direct pedestrian access and street level activation;
- is positioned regularly on the site and built to the street frontages;
- relates to the scale and particular circumstances and context of the site;
- provides a human scale at street level;
- creates a well-defined and continuity of frontage;

- gives definition to the street corners;
- achieves pedestrian comfort by minimising micro climate impacts; and
- presents modelled facades incorporating a vertical composition and consistent architectural detailing.

We now turn specifically to the matter of building height.

3.4 BUILDING HEIGHT

PDC 21 provides that development should not exceed the maximum building height shown in Concept Plan Figures CC/1 and 2 unless:

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

(a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan Figures CC/1 and 2, and

(b) only if:

(i) at least two of the following features are provided:

(1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;

(2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;

(3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;

(4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on Map Adel/1 (Overlay 2A);

(5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;

(6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;

(7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;

(8) more than 15% of dwellings as affordable housing.

(ii) plus all of the following sustainable design measures are provided:

(1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;

(2) a greenroof, or greenwalls / facades supported by services that ensure ongoing maintenance;

(3) *innovative external shading devices on all of the western side of a street facing façade; and*
(4) *higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.*

The logic of reasoning behind these provisions is not particularly clear. It is somewhat incongruous to suggest that buildings may exceed the maximum building height shown on the Concept Plans whilst at the same time reinforcing the anticipated city form (which we assume includes the heights) shown on the Concept Plans?

Having said that, it is clear in this instance, the proposed development meets the listed eligibility criteria for exceeding the maximum building height in that:

- the proposed building height of 74.6 metres (top of the lift overrun) demonstrates a clear transition from the adjacent "No Prescribed Height Limit" area (on the eastern side of Coglin Street), down to the 58 metre height of the approved building on Market St, and the envisaged 43 metre height of future buildings in the designated area along the southern side of Gouger Street and north of Wright Street (Concept Plan Figure CC/1) (PDC 21 (b)(i)(1));
- onsite car parking does not exceed a rate of 0.5 spaces per dwelling (0.45 spaces per dwelling proposed) (PDC 21 (b)(i)(5));
- a range of dwelling types have been provided including more than 10 percent 3 bedroom apartments (19 percent three bedroom apartments are proposed) (PDC 21 (b)(i)(7));
- more than 15 percent affordable housing will be provided (the proposal includes 20 percent affordable housing in the form of 16 apartments) (PDC 21 (b)(i)(8));
- The proposal satisfies all of the following sustainable design measures as listed in PDC 21 (b)(ii) (of which all must be satisfied);
  - a rooftop garden has been provided with facilities for use by future building occupants and their guests;
  - a green roof and green walls are proposed, and are to be supported by services to ensure their ongoing maintenance; and
  - innovative external shading has been included to windows along the northern and western sides of the building. These shading devices are 'folded' static metal panels with powdercoat finishes which have been designed to shelter windows from the western sun and create interesting shadow patterns on the building as the sun moves across the sky.

To reiterate the above, we wish to emphasise the following aspects of the proposal:

- the non-existent setback above the street wall assists in creating "intimate spaces through a greater sense of enclosure" as envisaged in the desired character;
- the development is of benefit to the greater public through the creation of pedestrian link joining Coglin Street east and west, and the widening of the footpath by setting back the ground floor level;

- all apartments and common areas enjoy ample natural light and ventilation, and apartments are also afforded with private open space in excess of the envisaged minimums (between 9 – 11 square metres to 1 bedroom apartments, 12 - 39 square metres to 2 bedroom apartments, and 16 - 35 square metres to 3 bedroom apartments; and
- a multitude of ESD initiatives are included within the building's design and operation.

All of the above elements of the proposal further justify the development's clear qualification to exceed the prescribed height limit of 43 metres.

Further, it is our opinion that the proposed building height of 74.6 metres presents a less abrupt and more subtle gradation from the 'No Prescribed Height Limit' area, of which the eastern boundary of the subject land forms the border, to the basic 43 metres envisaged for the subject land.

3.5 ADVERTISING

Advertising requirements have not been determined at this stage. Any advertising requiring approval will be the subject of a separate application at the appropriate time.

3.6 MOVEMENT

A comprehensive Traffic Impact Statement prepared by Infra Plan, a recognised and suitably qualified expert in this field, accompanies the application. There is no need to rehearse the details here, suffice it to say that the relevant traffic and movement related issues have been properly addressed.

3.7 CRIME PREVENTION

The material composition, built form, lighting, and casual surveillance permitted through the proposed design is anticipated to create an environment which deters crime. In our opinion, the proposed development achieves the intent of the Development Plan provisions through the following:

- promoting natural surveillance of the public realm (Coglin Street) from upper level balconies and windows;
- allowing clear lines and high visibility to/from the street via the predominately glazed ground floor level and open pedestrian link;
- enabling direct sightlines between Coglin Street and the building entrance and lobby;
- avoiding blind corners and creation of any opportunities for concealment;
- lobby entrance separated from the non-residential uses on ground level to promote territoriality and a sense of ownership through the clear delineation between public and private areas;
- entrance to the residential levels will be controlled with a key card, with visitor access being controlled by residents via an intercom system;
- adequate and consistent lighting of building entrances and the pedestrian areas to avoid the creation of shadowed areas; and
- the use of robust and durable design features to discourage vandalism.

As such, we have formed the opinion that the proposal satisfies the relevant provisions relating to crime prevention.

4. CONCLUSION

Having due regard to the nature of the site and its setting and the relevant provisions of the Adelaide (City) Development Plan it is our opinion that the proposed development is not seriously at variance with the provisions of the Plan and is a reasonable form of development that:

- is orderly and economic;
- is well designed and sited in respect to its setting; and
- is in general accord with the overall intent and purposes of the Capital City Zone and the Development Plan as a whole.

For these reasons it is considered that that the proposal has sufficient merit to warrant planning consent.

APPENDIX 1. DEVELOPMENT APPLICATION FORM

APPENDIX 2. ELECTRICITY ACT DECLARATION

APPENDIX 3. CERTIFICATES OF TITLE

APPENDIX 4. TRAFFIC AND PARKING ASSESSMENT

PREPARED BY INFRAPLAN

APPENDIX 5. WASTE MANAGEMENT PLAN

PREPARED BY INFRAPLAN

APPENDIX 6. SERVICES INFRASTRUCTURE REPORT PREPARED BY BESTEC

APPENDIX 7. ECOLOGICALLY SUSTAINABLE DESIGN INTENT REPORT PREPARED BY BESTEC

APPENDIX 8. STORMWATER REPORT

PREPARED BY DREW RUDD ENGINEERS

APPENDIX 9. ACOUSTIC REPORT

PREPARED BY BESTEC

APPENDIX 10. WIND REPORT

PREPARED BY DREW RUDD ENGINEERS

APPENDIX 11. PLANS, ELEVATIONS AND DRAWINGS PREPARED BY JPE DESIGN STUDIO

infraPlan








Traffic Impact Statement

Mixed-use Development, 21 Coglin Street, Adelaide

JPE Design Studio

And YHL Investments Pty Ltd

13th February 2018

Urban and Regional Strategy + Consultation | Transport + Infrastructure Planning | Project Development + Design | Traffic Engineering + Movement Planning

Project Name	Coglin St Mixed-use Development
Client Contact Details	Hector Xu Director, YHL Investments Pty Ltd Suite 49, Level 2, Block C 1 Railway Parade, Burwood, NSW 2134 E: hector@hectorxu.com Adrian Evans Director, JPE Design Studio Level 4, 19 Gilles Street, Adelaide SA 5000 E: aevans@jpe.com.au
Consultant Contact Details	James Edwards Traffic Analyst & Planner InfraPlan (Aust) Pty Ltd Level 3, 66 Wyatt Street Adelaide SA 5000 P: 08 8227 0372 M: 0414 487 636 E: james@infraplan.com.au

Document Control					
Name:	**IP17.012_Coglin Street Mixed Use Development_TIS_R4**				
Version	**Notes**	**Author**	**Date**	**Reviewer**	**Date**
0	Preliminary Draft for information only	JE	21.07.2017	GG	
1	Minor revisions to carpark access numbers and edits	JE	21.08.2017	BM	21.08.2017
2	Updated to changed plans	JE	09.11.2017	GG	09.11.2017
3	Revision for DA Submission	JE	16.01.2018	ES	23.01.2018
4	Minor edits following client review	JE	13.02.2018		

Table of Contents

1. Introduction

InfraPlan has been engaged by YHL Investments Pty Ltd to prepare a Traffic Impact Statement (TIS) for the proposed mixed-use, residential + retail development located at 21 Coglin Street. The plans have been updated since the proposal was taken to the Design Review Panel for a second time and this traffic impact statement updated accordingly.

A location map is included as Figure 1 (overleaf).

This document summarises investigations relating to traffic impacts, access and car parking layout for the proposed development.

In the preparation of this report, we have undertaken the following tasks:

- Design advice and input to the traffic related elements of the proposed development, including entry/exit points for all traffic movements;
- Technical assessment of the layout and operation of the proposed carpark,
- Technical assessment of the capacity of the access/egress points located off Coglin Street;
- Detailed engineering analysis of the likely traffic generation of the proposed development and its impact on the surrounding road network, and
- Recommendation of any changes to the proposed carpark layout, access/egress points to ensure adequate performance of the surrounding road and traffic network.

We have referred to the following documents during this assessment:

- City of Adelaide Development Plan – Consolidated June 2017
- Department of Planning, Transport and Infrastructure, SA (DPTI) – Trip Generation Rates for Assessment of Development Proposals
- Roads and Maritime Services, NSW (RMS) – formerly known as Roads and Traffic Authority (RTA) - Guide to Traffic Generating Developments (herein referred to as the RTA Guide)
- Australian Standards AS2890.1-2004 Off-Street Car Parking
- Australian Standards AS2890.6 Off-street Car Parking for People with Disabilities.

The following drawings issued by JPE Design Studio (JPE) in January 2018 have been referred to in providing the advice contained within this report:

- 180116 - SK-001 - Basement & Ground Floor Plans – to Waste
- 180112 - 01017 Coglin Street Drawings
- Development Summary (January 2018)

2. Existing Conditions

Local Context

The subject site is located on Coglin Street which operates as a one-way (south to north) roadway. Adjacent land uses include offices, retail and commercial activity, and medium to high density residential apartments and housing.

Figure 1: Location map – proposed Mixed-use development

The Adelaide Central Market is located approximately 150 metres to the north of the subject site.

The proposed development site falls within the *Primary Pedestrian Area* as per the most recent development plan adopted by the Adelaide City Council.

Coglin Street is a single lane, one-way street oriented south to north between Wright Street and Gouger Street.

The Adelaide City Development Plan defines Gouger Street as a Local Collector. The Gouger Street carriageway (located to the north of the development site) comprises 2 travel lanes in each direction,

plus a mix of on-street parking including indented parallel and angle parking and a full-time exclusive bicycle lane.

Site location within the Capital City Zone is included as **Appendix A**.

The location of the site within the CBD is well positioned for access by public transport, cycling, and by private car or taxi, as discussed below.

Site Access

The development site has road frontage along three sides: Coglin Street (south-north), Coglin Street (east-west) and a rear laneway. Under existing conditions access from Coglin Street (south-north) operates as a left-in-left-out only. Coglin Street (east-west) is approximately 3.6m wide which is insufficient to support simultaneous two-way traffic movements.

As mentioned above, Coglin Street (south-north) operates as a one-way street requiring vehicles to arrive from the south i.e. from Wright Street and exit to the north to Gouger Street or to the west to Market Street. Exit to Gouger Street is left-turn only.

On-street Parking

On-street, parallel parking is provided on Coglin Street in the vicinity of the site, as summarised below.

Coglin Street (western side) – 1P, 8am – 6pm Monday to Friday and 8am – 12 noon Saturday.

Coglin Street (eastern side) opposite the development site– 1P, 8am – 6pm Monday to Friday and 8am – 12 noon Saturday.

On-street parking is provided along Gouger Street, Wright Street and Market Street in the vicinity of the development site.

Public Transport

Victoria Square, offering high frequency tram and bus services is located approximately 300 metres to the north-east of the subject site.

Bus stops T1 and G2 at Victoria Square are located approximate 300-350m from the development site. King William Street is defined as a high frequency public transport corridor.

Gouger Street and Wright Street are *not* public transport corridors and no bus or tram stops are located on either Gouger or Wright Streets.

Walking

The proposed development site falls within the Primary Pedestrian Area as defined in MAP Adel/1 (Overlay 2A) of Adelaide City Council's Development Plan consolidated 20 June 2017.

Market Street, located approximately 50m west of the development site is identified as a future Pedestrian Link (north south) connecting Gouger Street and Wright Street.

Another pedestrian link between buildings opposite the site provides pedestrian access to Mill Street and King William Street is identified as per ACC development requirements within close vicinity of the proposed development site.

3. Subject Development

Development Details

The proposed development will replace the existing at-grade car park with a mixed-use commercial/residential development. The proposed mixed-use development will have the following

- 206 m^2 café / restaurant on Ground level
- 49 m^2 retail tenancy on Ground level
- 3 levels of above-ground car parking (39 parking spaces)
- 18 levels of residences – total 86 dwelling units with 173 bedrooms

Detailed breakdown of types of dwellings is included as **Table 1** below:

Table 1: Dwelling Unit Details

	Total Units	Total Bedrooms
1 bedroom apartments	16	16
2 bedroom apartments	53	106
3 bedroom apartments	17	51
Total	86	173

Vehicular Access

Coglin Street (E-W) is approximately 3.6m wide which is insufficient for simultaneous two-way traffic movements, the Rear Lane is also narrow, and the alignment creates sightline issues, particularly for vehicles exiting to the south. The development proposal includes a vehicle lift located on the western side of the site and a trafficable width of approximately 6m on the southern edge of the site to provide access from Coglin Street (S-N), utilising a small section of the public access Rear Lane. All resident traffic movements will enter and exit the site in the forward direction, the car lift is accessed from the south side at the ground floor and from the north side on all parking levels.

Waste Collection

The waste storage area is located on the Basement Level and has access for Facilities Management personnel internally via stairs or using the hoist from the shared driveway space. A pair of waste chutes provide residents with the convenience of waste disposal from each residential level. A hoist is shown on the southern side of the ground floor structure, providing mobility for bins between the basement and ground floor levels.

It is understood that a private contractor will be engaged for collection and disposal or recycling of waste. A medium (8.8m long) waste collection truck will be able to reverse into the driveway space on the southern side of the site to empty bins, then exit the site in the forward direction back to Coglin Street (S-N). Refer to the separate Waste Management Report for more detail. The shared driveway space at the southern side of the development has vertical clearance to the underside of the second level, approximately 7m, allowing a variety of waste collection vehicles to operate in this space.

Emergency Access

Emergency vehicles - Ambulance & Metropolitan Fire Service (MFS) will be able to access the development from Coglin Street, a 7m clearance on the southern side of the site provides access through to the western side of the building. Fire escape exits are proposed with egress to the laneway

on the west of the site and at the south-west corner of the site to the driveway with access to Coglin Street (SN).

Figure 2: Ground floor layout and proposed Coglin Street access arrangement

4. Parking Demand

Car Parking Requirements – Residents

Table Adel/7 of the Adelaide City Development Plan (ACDP) does not state a minimum parking provision for *Medium to High Scale Residential or Service Apartment* developments located within the Capital City zone. However, the developer has allowed for a minimum parking provision for apartment units.

A total of 39 parking spaces are proposed across three levels of above ground carpark (levels 3-5).

Car Parking Requirements – Ground Floor Tenancy

ACC Development Plan Table Adel/7 does not state a minimum parking requirement for non-residential developments located within the Capital City zone. As such no parking is provided on-site for the proposed ground floor tenancies (retail and café/restaurant).

Car Parking Requirements – Visitors

ACC Development Plan Table Adel/7 does not specify a minimum parking provision for visitors for *Medium to High Scale Residential or Service Apartment* developments located within the Capital City zone. As such no visitor parking is provided on-site.

It is worth noting that ample on-street parking (1P & 2P, ticketed and free) is available within the immediate vicinity of the development site on Wright Street, Gouger Street and Market Street. Visitors to the proposed development (residences and ground floor tenancies) will be able to use the available on-street parking in the close vicinity.

Bicycle parking

Residential Component

Table Adel/6 of the Adelaide City Development Plan (ACDP) provides rates for bicycle parking provision for various land uses summarised below:

All Low, Medium and High Scale Residential Developments

- 1 space for every dwelling/apartment with a total floor area less than 150 square metres
- 2 spaces for every dwelling/apartment with a total floor area greater than 150 square metres
- 1 visitor space for every 10 dwellings

The proposed residential development with a total of 86 dwelling units (all less than 150 m^2 in area) requires a total of 86 bicycle parking spaces for residents and 9 bicycle parking spaces for visitors.

25 bicycle parking spaces for residents are provided at ground level with access from the lobby and the western side of the site. Additional bike parking is to be provided in the north-eastern corner of car parking levels 3 and 4 with lift access via the lobby. Residents will also be able to take bicycles to apartments using the lifts.

Visitor bicycle parking is provided in the public spaces at street level in the shared space driveway on the southern side of the development (5 rails for 10 bikes, more detail below).

Ground Level Tenancies

A café/restaurant tenancy (210 m^2) and a retail tenancy (50 m^2) are proposed on the Ground Level.

Table Adel/6 of the Adelaide City Development Plan (ACCDP) provides rates for bicycle parking provision for various land uses summarised below:

Café/restaurant

- 1 space per 20 employees
- 1 space per 50 seats for customers/visitors

Retail

- 1 space per 300 m^2 – for employees
- 1 space per 600 m^2 – for customers/visitors

The proposed café/Bar with 76 seats and up to 15 staff is assessed to require 3 bicycle parking spaces. The proposed retail tenancy is estimated to require 2 bicycle parking spaces. Including the 10 residential visitors, this makes a required provision of 15 bicycle parking spaces for non-residents.

The proposed development includes five bicycle hoops on the southern face of the ground floor, with a capacity of 10 bikes, accessible from the driveway off Coglin Street. The calculated shortfall can be accommodated using existing sign posts, street furniture and plantings in the immediate surrounds of the development site. However, due to differing hours of operations for commercial tenancies (café is expected to open for longer hours than the retail outlet) and anticipated visiting times for residents, the three land uses are not expected to have concurrent demand for public bike storage. As such the provision for publicly accessible bike parking should be considered as a shared resource and total requirements should be considered to be lower than the sum of the three land use assessments.

All bicycle parking structures shall be designed and installed in accordance with Australian Standard *AS2890.3 – Bicycle Parking*.

5. Traffic Impact Assessment

Trip generation – Existing Land Uses

The existing site is used as at-grade public car park with a capacity of 30 vehicles.

The subject site was assumed to generate up to 21 trips during morning peak hour (70% of car park being full) and approximately 18 trips (60% leaving) during afternoon peak hour.

A daily trip generation rate of 4 trips/space was assumed which translates into 120 daily trips generated by the existing at-grade car park.

The existing land use of the subject site was estimated to generate in the order of 21 trips during the AM peak, 18 trips during the PM peak and up to 120 trips per day.

Trip generation – Proposed mixed-use development

The Department of Planning, Transport and Infrastructure publication "Trip generation rates for the assessment of development proposals", September 2013 provides ready to use trip generation rates for medium density residential developments. However, no trip generation rates for high-density residential developments were available in this DPTI publication.

InfraPlan have therefore referred to the RTA Guide (Roads and Maritime Services, NSW) for ready to use trip generation rates applicable to high-density residential developments.

Land Use 3.3.3 – High Density Residential developments – Metropolitan Regional (CBD) Centre reflects best with the proposed residential development.

Morning, Evening and daily traffic generation estimates for the proposed development with 92 dwelling units is as shown below.

Exact details of the proposed 150 sqm of commercial tenancy on the ground floor are unknown at such an early stage. The two tenancies are envisaged to be a retail tenancy and café/restaurant. On-site parking is not provided for either. Therefore, no trips are envisaged to be generated by the proposed ground level tenancies, catering to the needs of those currently visiting surrounding shops/offices and serving residents of the proposed development. Any trips generated by these tenancies will be dispersed to the surrounding road network as patrons park their vehicle nearby and walk.

Table 2: Trip Generation Estimate – RTA publication

RTA - Land Use	Weekday Daily	Weekday AM Peak	Weekday PM Peak	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
	Trips / Dwelling Unit					
3.3.3-1 - High density residential flat building - Metropolitan regional (CBD) centres						
132 dwelling units	1.52	0.19	0.15	131	16	13

Using the RTA trip generation rate, the proposed development is estimated to generate 16 trips during the morning peak hour and 13 trips during the afternoon peak hour.

While no splits for in/out were readily available, InfraPlan have assumed the following splits:

- Morning peak hour – 20% arriving, 80% departing
- Afternoon peak hour – 80% arriving, 20% departing

Applying the above assumed split to trip generation the following is estimated:

Table 3: Arrival Departure Pattern – proposed development

Parking Level	AM Peak Hour		PM Peak Hour	
	Arriving	Leaving	Arriving	Leaving
Above Ground Carpark	3	13	10	3
Total Trips	16		13	

Trip Distribution

According to the 2016 census results, viewed at www.profileid.com.au, more than half (55%) of the residents of the City of Adelaide reported to work within the City of Adelaide. Census statistics for the suburb of Adelaide show that less than 30% of respondents drove to work on the day of the census. Consistent with census data, the proposed residential development is envisaged to have the majority of residents working within the Adelaide CBD.

Assuming a 60-40 split for vehicular trips (60% within CBD, 40% out of CBD), the proposed development was estimated to have:

- 10 trips during morning peak hour to/from Adelaide CBD
- 6 trips during morning peak hour to/from outside Adelaide CBD
- 8 trips during afternoon peak hour to/from Adelaide CBD and
- 5 trips during afternoon peak hour to/from outside Adelaide CBD

Net change in Trip Generation

As mentioned previously, the existing land use (at-grade car park) is estimated to generate up to 21 trips during the morning (arriving) and 18 trips during afternoon peak hours (leaving). The proposed mixed used development is estimated to generate 11 more daily trips but fewer during the AM and PM peak periods.

The trips generated by the proposed land use are also predominantly in the reverse direction compared to the existing land use, i.e. AM trips will be mainly leaving the site and PM trips returning to the site. The development proposal directs all residential traffic movements to and from Coglin Street (SN) in a similar case to the existing arrangements.

The residential component of the proposed development is estimated to generate fewer morning and afternoon peak hour and 11 more daily trips compared to existing traffic using Coglin Street to access the site.

It is envisaged that the arrival/departure pattern would be reversed as a result of the proposed development.

Negligible trips are estimated to be generated by retail and café/bar tenancies which will be dispersed through local street network in close vicinity of the development site.

Local Area Traffic Impacts

As explained above, the proposed development is estimated to generate fewer peak hour trips than is currently the case. The arrival/departure pattern will be reversed compared to existing traffic, departing the site during the morning peak hour and returning in the afternoon peak hour. All traffic movements are directed via Coglin Street (SN), entering from Wright Street and exiting to Gouger Street or via Coglin Street (EW) to Market Street and Wright Street.

In summary, the proposed development is estimated to result in reduced vehicular trip generation during peak hours and negligible new trips throughout the day and therefore impacts on the surrounding road network are not significant.

6. Compliance with Standards

The proposed carpark was assessed as *User Class 1A – Residential, Domestic and Employee Parking* (Table 1.1, AS2890.1) for compliance with relevant Australian Standards and Guidelines.

Car park access

Coglin Street (SN) Access

Access to the above ground carpark will be provided from Coglin Street (SN). A left-in left-out operation exists due to the one-way operation of Coglin Street (SN). Residents will enter the private car park via a car lift on the western side of the site, accessed via a shared space on the southern side of the site.

The proposed 6.0m wide driveway crossover at the south-eastern corner of the site provides access from Coglin Street (SN) and is deemed compliant with AS2890.1 requirements for a single lane driveway/access point. This shared space provides space for vehicles to call and wait for the car lift and space for vehicles moving in and out of the lift to pass stationary, waiting vehicles.

Refer to Figure 2 for details on the above ground car park access from Coglin Street (SN).

Car parking bays

Class 1A requires the following minimum dimensions for the provision of 90° parking bays:

- 2.4m wide x 5.4m long – large car bays
- 2.3m wide x 5.0m long – small car bays
- 5.8m wide aisles (minimum width)

These dimensions comply with the requirements of Figure 2.2 of *AS 2890.1:2004-Part 1: Off-street car parking* for large and small car parking spaces. All parking bays have been designed to comply with the clearance envelope shown in Figure 5.2 of AS 2890.1:2004, providing necessary clearance to surrounding columns, walls and obstructions.

The proposed carpark will have a total of three above ground parking levels, each comprising 90° parking. Each level is shown to have 12 standard and one small car space for a total of 39 parking bays on site, including three small car bays.

Car Lift System

The car park is proposed to have single car lift, accessed from the south side at the ground level and the north side at each car park level, facilitating forward movements at all times through the lift. When entering or exiting the lift at the ground floor, vehicles will need to briefly access the public laneway adjoining the south-western corner of the site. Traffic volumes in this lane are unknown but surrounding land uses and access suggests that it provides access to a very limited number of properties. The proximity to the blind corner at the southern end of the lane dictates that traffic in this lane will be operating at very low speeds.

An automated or remote operated system will enable residents to call the car lift from their vehicles both within the car park and on arrival at the site. The remote operation also ensures that car park users are limited to residents and will therefore be familiar with the systems and environment.

The car lift will have internal dimensions greater than those of the bays on site and the system is designed to comply with AS1735.4:1986. Lift systems will be designed and installed by an accredited third-party specialist.

The inclusion of the car lift means no vehicle ramps need to be provided and single vehicle movements are assured at all times. A vehicle waiting on a parking level may need to reverse to ensure a vehicle exiting the lift can manoeuvre around it or access a parking space. Given the limited number of bays per floor, the likelihood of vehicles meeting in this manner is considered to be negligibly low.

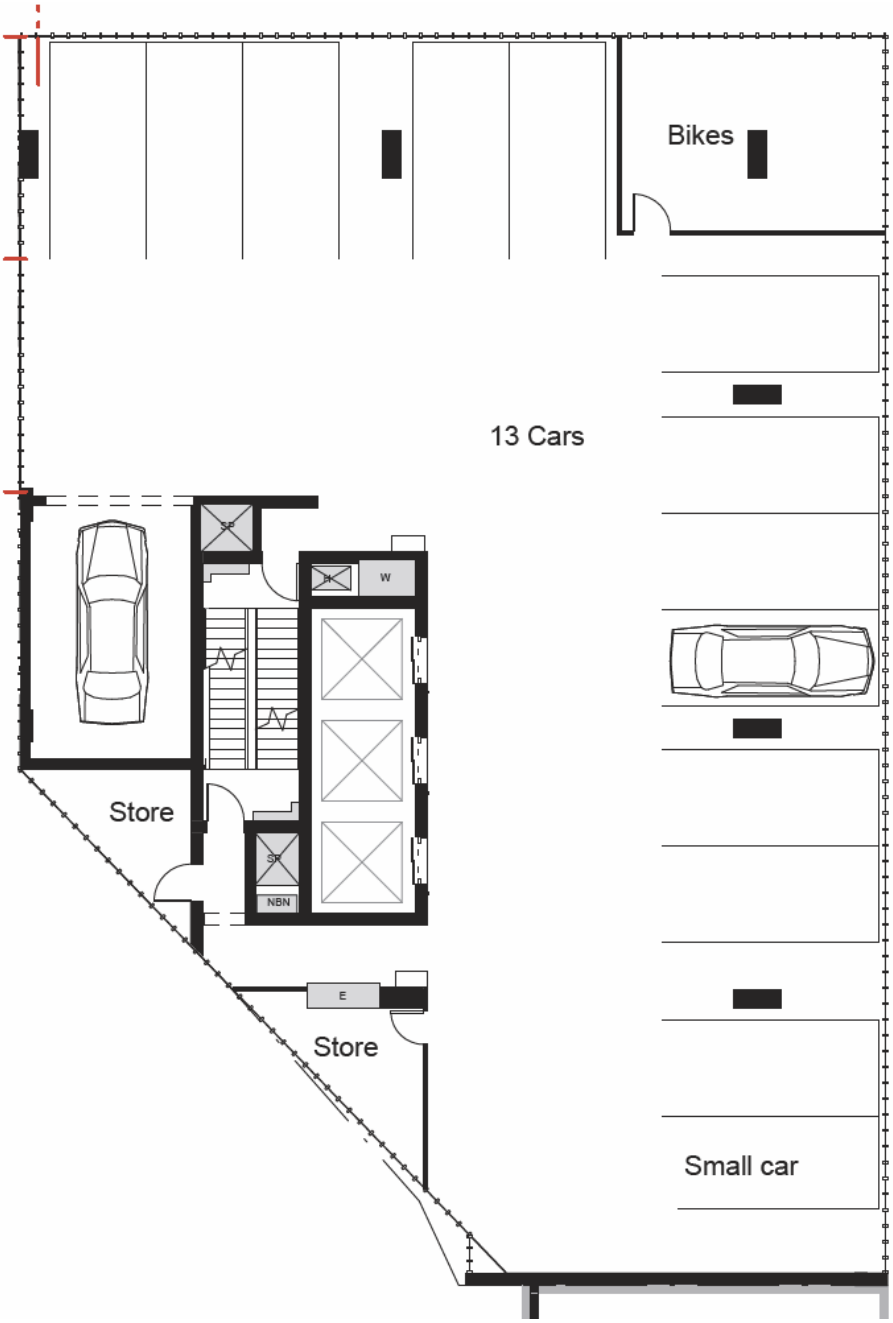


Figure 3 Typical car park level arrangement showing car lift access and parking arrangement

Access Time Calculations

The following conservative assumptions were made when estimating travel times to and from parking levels:

- Time to enter and exit the lift: 10 seconds
- Car lift vertical travel speed: 3.5km/h or 1.0m/s
- Car lift travel time from ground to level 1 (4.0m): 5 seconds
- Car lift travel time between upper floors (3.2m): 4 seconds

Vehicles will only ever move between the ground floor and their designated parking level, this can be controlled by the lift operating system and remote access, lift calling system.

Using the above information, the following time estimates were prepared:

Table 4: Car park movement time estimates

PARKING MANOEUVRE TIMES
To/From Above Parking Levels

Entering ➔

Exiting ↑ Level	0	1	2	3	4
0		15	29	33	37
1	15		15	29	33
2	29	15		15	29
3	33	29	15		15
4	37	33	29	15	

Refer to Appendix B: Car Lift Travel Time Estimates for detailed calculations.

An entering/exiting vehicle to/from the top most parking level (Level 4) is estimated to require up to 37 seconds (a little over half a minute) from the time the lift arrives at the called to the time they have exited the lift.

Queuing

A steady state analysis of queueing used the worst-case scenario where all vehicles in the AM Peak period were exiting the site from the Level 4 car park. In this case the wait period would be from a car loading into the lift at the fourth floor, travelling to the ground, leaving the lift and the lift returning empty to the fourth floor. This time period is conservatively estimated to be 74 seconds. At a peak departure rate of 14 vehicles per hour, there was a calculated likelihood of a single vehicle queue of 8%.

Sensors within the car lift will be used to determine if vehicles (entering/exiting) have cleared the system. An automated, virtual queue system will control lift movements to maximise the efficiency of vehicles moving up and down between floors. Internal and external light signals will assist drivers in entering, safely locating their vehicle in the lift car and exiting the lift.

Any queued cars will be held on the car park level or in the driveway space at ground level when waiting to enter. The driveway provides space for up to two vehicles to wait off-street, thus queueing vehicles are not anticipated to impact traffic movements on Coglin Street (SN).

Parking for people with a disability

No parking spaces for people with disabilities are proposed in the car park. No minimum parking provision for people with a disability is required within the Capital City Zone as per the ACC DP.

A floor to floor height of 3.0m is proposed for upper parking levels such that a floor to ceiling height of 2.5m will be available throughout and would allow for the creation of an accessible car park in the future if deemed necessary. The provision of an accessible parking bay would replace one and force the loss of a second bay.

Turnpath assessment

The Autodesk Vehicle Tracking System (formerly known as AutoTrack) software application was used to assess movements of a B99 and B85 vehicles. It was observed that B99 type vehicles will be able to access and egress the site. Some car parks may require a three-point manoeuvre when assessed using a B99 type vehicle. However, for residential car parks some discomfort (i.e. a three-point turn) is deemed acceptable. As mentioned in this report the proposed carpark will be served with a single car lift with vehicles entering and exiting the lift in a forward motion at all levels.

Columns

Column location have been designed to accommodate the design envelope around a parked vehicle as shown in Figure 5.2 of AS 2890.1:2004. Any future amendments to the car park layout shall be designed in accordance with this and other requirements as stipulated in AS 2890.1:2004.

Headroom

It is understood that a floor to floor height of 3.0m is proposed for all parking levels. The proposed car lift avoids the need for circulation ramps and thus ensures vertical clearance in accordance with AS2890.1-2004 requirements.

It is recommended that the proposed car park shall have a minimum vertical clearance of:

- 2.2m between the floor and any overhead obstruction (if lower than ceiling) for all parking spaces excluding accessible parking bays.
- 2.5 m between the floor and any overhead obstruction (if lower than ceiling) for all car parks for people with disabilities.

Sight distance

Carpark Access – Coglin Street (SN)

Vehicles exiting the site have a clear view of oncoming traffic northbound on Coglin Street. Drivers will be able to observe traffic as it enters Coglin Street from Wright Street to ensure safe movements out of the site. A fire booster box is shown at the south-eastern corner of the ground floor. This box will be a glass encasement, allowing drivers exiting the shared driveway to see pedestrians and footpath traffic approaching from the north.

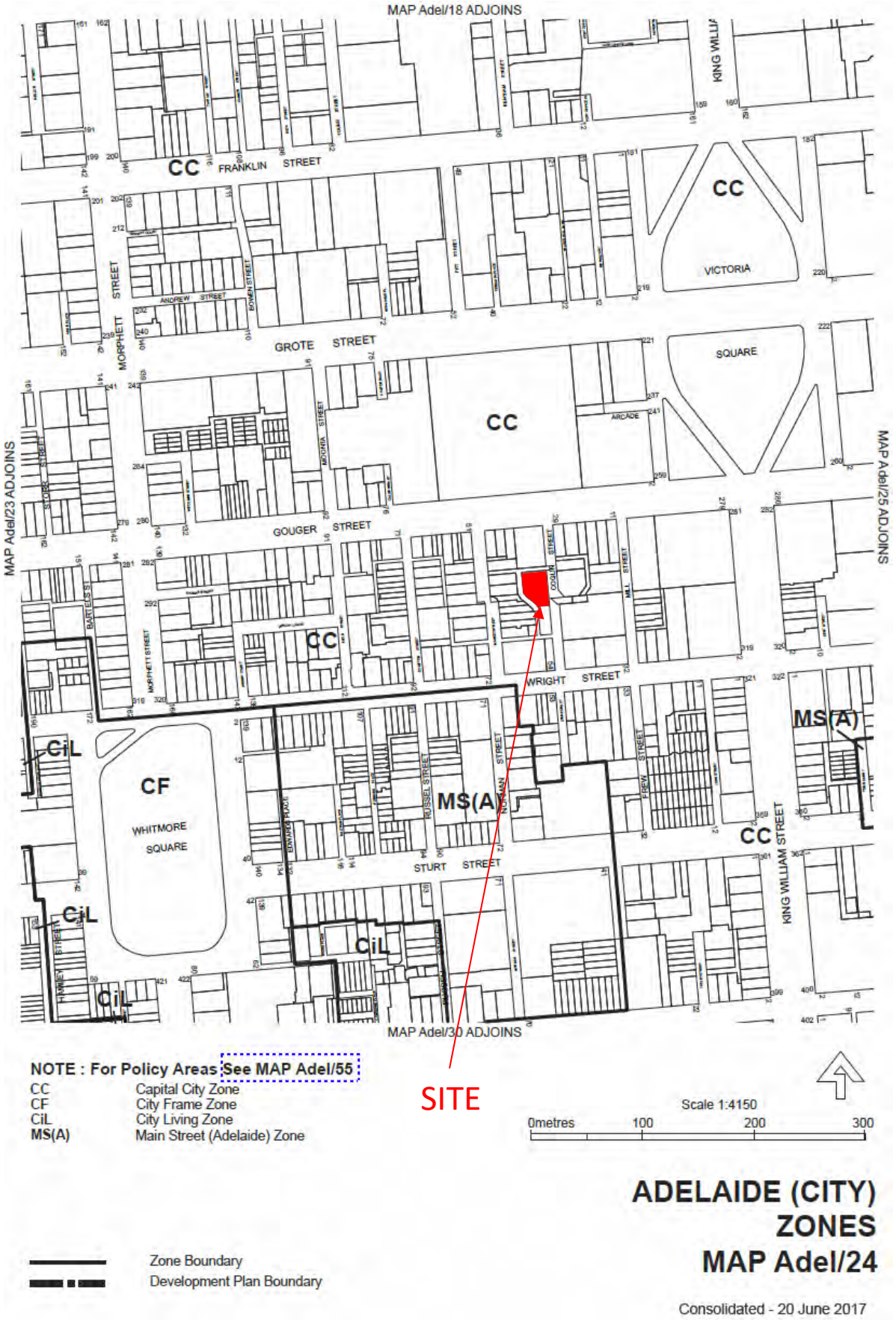
7. Summary and Conclusion

The proposed mixed-use (residential + commercial) development has been assessed for accessibility, parking provision and traffic impact on the surrounding street network. A summary of the findings of this assessment is presented below.

1. The subject development will replace existing at-grade car park with 30 parking bays.
2. A total of 39 parking spaces are proposed in three above ground parking levels.
3. No visitor parking is proposed on-site, visitors can use on-street parking along Wright Street, Coglin Street, Market Street and Gouger Street.
4. Existing access to at grade carparks from Coglin Street (NS) will be removed reducing the number of driveway crossovers to the site from Coglin Street (SN) – improving pedestrian amenity.
5. No changes are proposed to traffic movements along Coglin Street given the existing car park has access and egress from this roadway.
6. The proposed carpark will include a signalling system to control access to and from the car lift. Such signalling systems are included in the design and installation of a car lift by specialised designers and suppliers.
7. The shared driveway space at street level provides sufficient space for waiting vehicles and passing space for the vehicle exiting the lift.
8. A total of 107 bicycle parking spaces for visitors/customers are required for the proposed development with 92 dwelling units and ground floor commercial tenancies.
9. A minimum of 92 bicycle parking spaces for residents will be accommodated in three storage spaces; on the ground floor and within the third and fourth floor car parks.
10. 10 parking spaces for residential visitors and five spaces for staff and customers of the ground floor tenancies will be accommodated in the public spaces at street level.
11. All bicycle parking provision shall comply with *AS2890.3 – Bicycle Parking.*
12. The proposed carpark design was assessed and found to be in general compliance with Australian Standards. Any deviation from standards have been identified and mitigation measures recommended to improve compliance.
13. The waste storage area is proposed on the basement level. The collection point is at ground level in the shared driveway space with vehicular access from Coglin Street (SN). Please refer to separate Waste Management Report for details on proposed Waste Management System.

On the basis of the issues investigated, it is considered that the proposed development is supported from a transport and parking perspective.

8. Appendix A: Relevant Development Plan Zone Maps



9. Appendix B: Car Lift Travel Time Estimates

Travel Time Calculations	INPUTS				
Carpark Speed	10	km/h			
	2.8	m/s			
Lift Speed	3.5	km/h			
	1.0	m/s			
Entry/exit delay time				10	sec
Lift Travel (d1) - GL to UL1	4	m	time taken	5	sec
Lift Travel (d1) - all other levels	3.2	m	time taken	4	sec
Circulation on parking floor (d2)	0	m	time taken	0	sec

PARKING MANOEUVRE TIMES

To/From Above Parking Levels

Entering → (columns); Exiting ↑ (rows)

Level	0	1	2	3	4	5
0		15	29	33	37	41
1	15		15	29	33	37
2	29	15		15	29	33
3	33	29	15		15	29
4	37	33	29	15		15
5	41	37	33	29	15	
6	45	41	37	33	29	15
7	49	45	41	37	33	29

NO CIRCULATION REQUIRED, LIFT MOVEMENTS BETWEEN FLOORS.
MOVEMENTS BETWEEN LIFT AND PARKING BAY PER FLOOR ONLY. ALL FORWARD

Levels accessed		Total Time (Sec)	
GL - Level 1	1	15	Manoeuvre time + Ground to L1 travel time
GL - Level 2	2	29	GL to L1 + floor-to-floor travel time
GL - Level 3	3	33	GL to L2 + floor-to-floor travel time
GL - Level 4	4	37	GL to L3 + floor-to-floor travel time
GL - Level 5	5	41	GL to L4 + floor-to-floor travel time

10. Appendix C: Design Evolution

The design of the proposed development for this site included assessment of various access arrangements, as well as consultation with City of Adelaide officer Trudy Angrave. Dual lane ramps were dismissed early in the design process due to the limited available space on each parking floor. If a dual lane system were to be included, the site dimensions would not allow sufficient space to include minimum size parking bays.

The design team proposed, sketched and assessed a range of access arrangements including:

- Dual ramps with access from both Coglin Street (EW) and the rear lane. Both ramps would need to be reversible but access different areas with rear lane access to underground parking and Coglin Street (EW) access to upper levels.
- Single (reversible) ramp access from Coglin Street (EW).
- Reversible lane access from Coglin Street (SN).
- Car lift arrangements with access from Coglin Street (SN) as presented in this report.

Rear lane access was discounted due to sight line concerns for vehicles moving along the rear lane and at the entrance to the rear lane from the E-W lane south of the site, between Coglin Street (SN) and Market Street. Vehicle operations along the narrow rear lane would also have access control requirements, which would have extended well beyond the site boundaries and would impact on neighbouring properties.

Car park access from Coglin Street (EW) was rejected by the City of Adelaide officer citing concerns with increasing traffic on Coglin Street (EW) and at the intersection with Market Street. The option to direct all traffic in and out of Coglin Street (SN) was recommended to mitigate these traffic concerns.

The dual lane entry/exit point shown in Figure 2 was adopted to provide off-street waiting space, reducing the likelihood of cars blocking traffic movements along Coglin Street (NS). This wide driveway crossover provides exiting vehicles waiting space that obscures neither the roadway nor the footpath and allows entering vehicles to leave the roadway while waiting for an exiting vehicle, further reducing potential impediment to other traffic on Coglin Street (SN).

Single lane ramp options were eventually rejected after a Design Review Process as parking on lower levels was discouraged and ramp lengths required to access higher levels at acceptable maximum grades became prohibitive. Below ground parking would require extensive site excavation, presenting issues due to the small footprint and proximity to surrounding structures. The car lift option was eventually pursued despite significant additional development expense, as the only viable option on the constrained site. The access arrangements shown were developed following previous advice from Adelaide City Council officers and the outcomes of the Design Review Process.

Underground parking options were considered but rejected due to spatial constrains making this option prohibitive. The requirement to provide 500mm wide foundations leaves insufficient width (E-W) on the site for the car lift, emergency stairs, lift core, circulation lanes and parking bays. All of these items are shown on the plans at minimum specification, requiring the full width of the site to fit side-by-side. Alternative car lift locations would force compromise design solutions at the ground floor, in contravention of street frontage and activation targets.

infraPlan




Waste Management Plan

Mixed-use Development, 21 Coglin Street, Adelaide

JPE Design Studio

And YHL Investments Pty Ltd

16th January 2018

Urban and Regional Strategy + Consultation | Transport + Infrastructure Planning | Project Development + Design | Traffic Engineering + Movement Planning

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2	Final Draft Report for Design Review	JE	06.12.2017	GG	06.12.2017
3	Revision for DA Submission	JE	16.01.2018	ES	23.01.2018

Table of Contents

1. Development Details

InfraPlan has been engaged by YHL Investments Pty Ltd to prepare a waste management plan for its proposed mixed-use residential and commercial development at 21 Coglin Street, Adelaide.

Development Details

A total of 86 dwelling units are proposed in a 22-story building.

Development details considered for preparing this report are provided below:

Land Use: Residential + Commercial (café and retail)

Site Area: 600 m^2 (approx.)

No. of Dwellings: 86

Dwelling Density: >1,000 dwellings per ha

Type	Units	Bedrooms
1 bedroom apartments	16	16
2 bedroom apartments	53	106
3 bedroom apartments	17	51
Totals	**86**	**173**

Commercial	Area (m^2)
Retail	49
Café	206

The proposed mixed-use development, with a dwelling density greater than 75 dwellings per hectare is considered as a *high density residential development*.

The development proposal includes vehicular access from Coglin Street at the south-eastern corner of the property. Pedestrian access would be provided from Coglin Street on the east.

The waste storage area is on the northern side of the basement level, with a hoist (service lift) provided to move bins between the loading area at the street level and the basement. Separate waste storage areas are provided for the residential and commercial tenancies. Waste collection vehicles will load at the street level in the driveway space on the southern side of the development site.

Figure 1 Location map – proposed mixed-use development

2. Type of Waste System

For the purpose of developing a waste management plan InfraPlan have referred to the "*Better Practice Guide Waste Management for Residential and Mixed Use Developments*" published by Zero Waste SA (ZWSA) in 2014.

The proposed development will be a high-density development (10 or more dwellings). Using ZWSA guidelines a **Complex Waste Management System** is recommended for the proposed development.

To further promote tenant awareness of recyclable waste streams, the developer will access at-source waste sorting bins provided free of charge by the Adelaide City Council to facilitate the use of disposal chutes for pre-sorted waste. InfraPlan has been advised that the *Murphy* recyclable waste caddy, designed to be stored under a kitchen sink and a bench-top green organics kitchen caddy with corn starch liner bags can be provided free of charge to each residential apartment.

3. Waste System Sizing

Bin sizes

The following waste bins, as per the Adelaide City Council standard arrangements, have been proposed for use at the subject development.

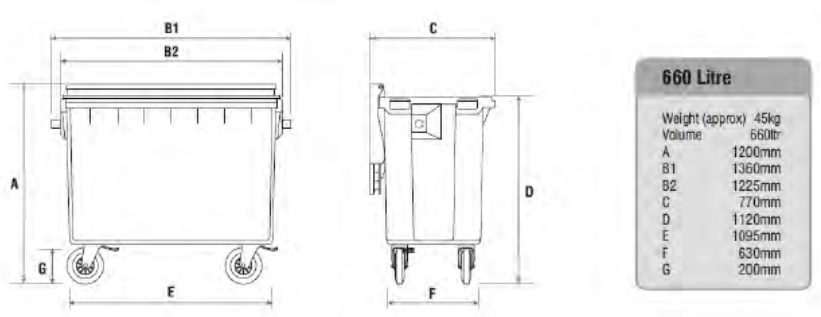
Capacity	Dimensions	
1,100 Litres	1,360 L x 1,090 W x 1,390 H	
660 Litres	1,360 L x 770 W x 1,200 H	
		 General Waste Co-mingled Recyclables Food/Organics

Table 1 Waste bin sizes

Projected Waste Generation and Storage provision

Ready to use *Waste Resource Generation Rates (WRGRs) by land use type* provided in Table C.2 of ZWSA guide were used to estimate waste generation from the proposed development.

The projected waste generation volumes from the proposed development are presented in Table 2 below.

Table 2 Waste generation: Residential

WASTE STREAM (weekly collection)	ZWSA Waste Generation Rates [L/bedroom/week]	No of Bedrooms	Projected Weekly Waste Generation
Non-recyclable waste to landfill	30	173	5,190 L
Co-mingled recycling	25	173	4,325 L
Organic [food] waste	10	173	1,730 L

It is recommended that a weekly waste collection for all three waste streams be provided for residential waste.

Table 3 Waste storage provision: Residential

WASTE STREAM (weekly collection)	Total Waste Storage required	Number and size of bins provided	Total waste storage capacity provided
Non-recyclable waste to landfill	5,190 Litres	3 x 1,100 L 3 x 660 L	5,280 L
Co-mingled recyclable waste	4,325 Litres	4 x 1,100 L	4,400 L
Organic [food] waste	1,730 Litres	3 x 660 L	1,980 L

Table 4 Waste generation: Commercial – Café Tenancy

The Café tenancy has a floorspace of 206m^2 on the northern and eastern sides of the ground floor, including a small area of outdoor seating on the eastern side.

WASTE STREAM (weekly collection)	ZWSA Waste Generation Rates [L/10m^2/day]	Projected Weekly Waste Generation for Café Tenancy = 210m^2
Non-recyclable waste to landfill	30	4,326 L
Co-mingled recycling	20	2,884 L
Organic [food] waste	40	5,768 L

Table 5 Waste storage provision – Café Tenancy

WASTE STREAM (twice a week collection)	Total Waste Storage required for twice weekly collection	Number and size of bins provided	Total waste storage capacity provided
Non-recyclable waste to landfill	2,163 L	2 x 1100 L	2,200 L
Co-mingled recyclable waste	1,442 L	1 x 1,100 L 1 x 660 L	1,760 L
Organic [food] waste	2,884 L	5 x 660 L	3,300 L

It is recommended that the café tenancy be provided twice a week collection of waste through a commercial contract with a private contractor. It is also recommended that physical separation be put in place between the waste storage areas for residential and commercial tenancies. Waste storage areas for residential and commercial tenancies are shown in Appendix A. A Facilities Manager will be responsible for monitoring the waste storage capacity. The bin storage area has capacity to accommodate additional bins if necessary.

The waste generation rates for retail tenancies is far lower than that of a café and in this development the retail tenancy does not have direct access to the waste storage room. The retail tenancy will have direct footpath access to present bins for council's normal kerbside collection routine. Calculations are based on a weekly collection of general waste and a fortnightly collection of co-mingled recyclables.

Table 6 Waste generation: Commercial – Retail Tenancy

The retail area has a lettable floor area of 49m^2 on the ground floor.

WASTE STREAM (variable collection)	ZWSA Waste Generation Rates [L/10m^2/day]	Projected Waste Generation for Retail Tenancy = 50 m^2
Non-recyclable waste to landfill (weekly collection)	5	172 L per week
Co-mingled recycling (fortnightly collection)	2.5	172 L per fortnight
Organic [food] waste	0.25	17 L per fortnight

The retail tenancy will be required to accommodate one 240L general waste bin and one 240L co-mingled recyclables bin within the tenancy. Organic waste volumes are minor so will be included with general waste, no green organics bin is provided for this tenancy. The retail tenancy is not permitted to use and will not have access to either of the waste storage areas located on the basement level, provided for residents and the café tenancy.

Bins are to be presented for collection on the footpath of Coglin Street, north of the carpark entrance at the south-eastern corner of the development site as shown in Figure 2. This presentation area allows for automated, on-street collection as per normal council activities while minimising delay to street traffic and obstruction of vehicular access tot his and neighbouring sites.

Hard Waste and e-waste

As per the ZWSA guide, a total 66.2 m^3 (173 bedrooms x 0.77 m^3/room) would be required to store annual hard waste and e-waste for the proposed development. It is understood that ACC offers free, at-call hard waste collection service to residents. Considering that up to 12 at-call services (1 per month) can be availed by residents of the proposed development, a total of 5.5 m^3 is required to store hard waste generated by the proposed development.

A 4.0m^2 area (approx.) is proposed within the bin storage area for storing hard and e-waste. The proposed storage area allows for stacking of hard/e-waste to a height of 1.5m. Thus, a total up to 6.0m^3 of space will be available to store hard and e-waste within the basement area. Waste storage areas, including hard and e-waste storage are shown in Appendix A.

On site storage and on-demand council collection would minimise and possibly eliminate unwanted furniture, bulk waste and e-waste items ending up on the kerbs. A Facilities Manager may be required to assist residents to transport items from residences to the storage area in the basement and to present items at the collection point at street level.

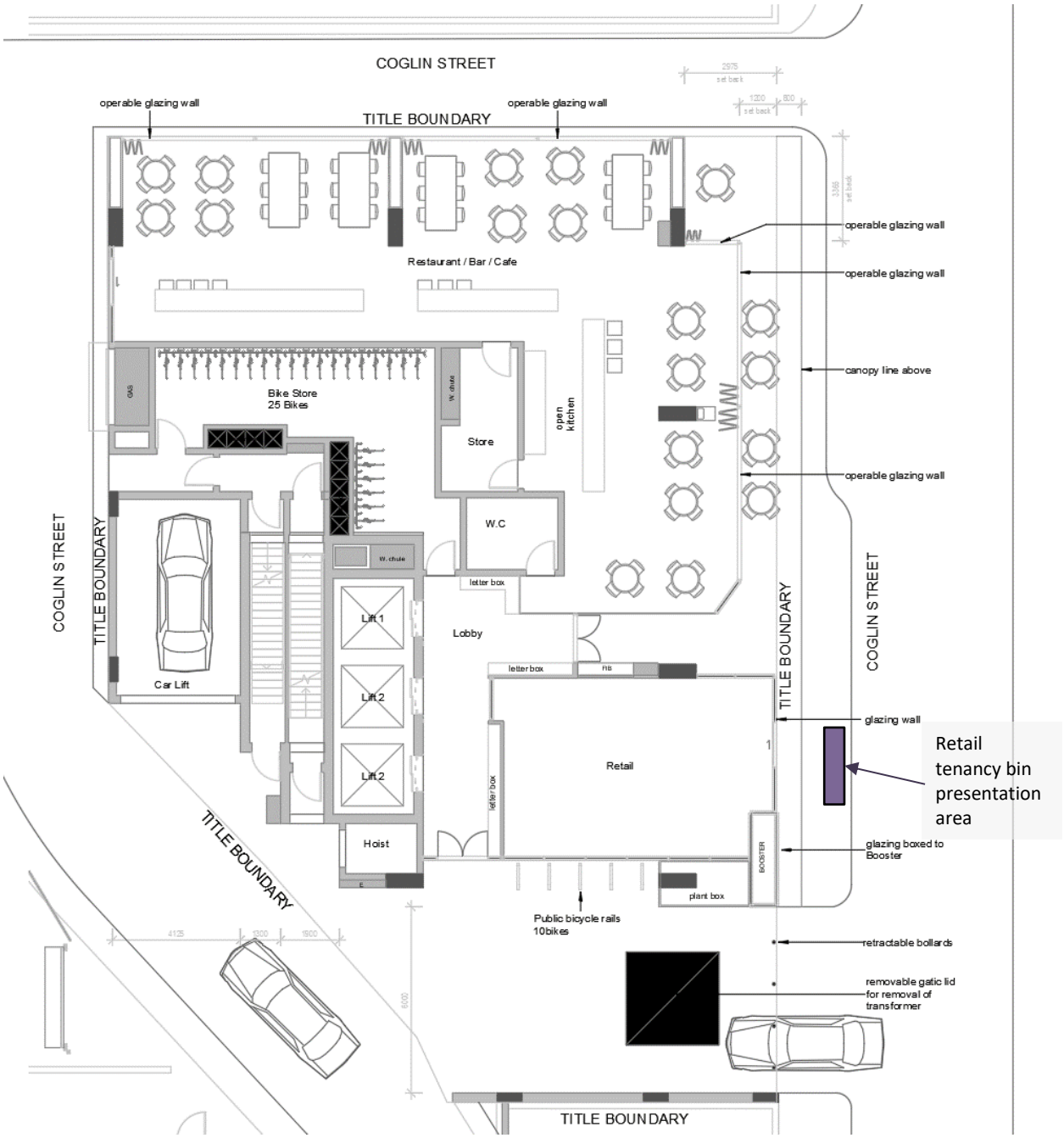


Figure 2 Ground floor plan showing retail tenancy bin presentation area

Retail tenancy bin presentation area

4. Bin Storage Location

The residential bin storage area is located on the northern edge of the basement opposite the residential bin chute location. When bins under the chutes are full, the facilities manager will open both areas and move bins between them. Both areas are lockable and will be provided with adequate ventilation.

The enclosed bin storage area for the café tenancy is located in the north-eastern section of the basement, directly below the café kitchen and store. Simple chutes will be used to deposit waste from the ground floor into bins below. The café waste storage area is separated from the residential bin storage area and access restricted behind lockable doors. The basement level will be provided with ventilation (to be defined) and provides protection from weather and pests. Café management will be responsible to ensure bins are rotated to prevent overfilling.

The bin storage areas will have a concrete floor to facilitate easy manoeuvring of bins within and outside of the storage area. A hose and sink are provided outside the storage rooms to be shared by both the café tenancy and residential facilities manager. Floor drainage will be provided to allow for bin cleaning within the basement area, the Facilities Manager and operational requirements will need to ensure floors are left dry after cleaning. A dedicated lift (marked HOIST on the plans) is provided to move bins between the basement and the ground level for collection.

5. Bin Chute with Diverter system

The proposed residential development will have an integrated waste chute system. Two chutes will be required for the residential waste streams with one to have a two-stream diverter system attached. Access to the waste chutes is proposed via wall hatches to the north of the lifts on each floor. The proposed chute system will have an automated diverter that will segregate general waste and co-mingled recyclable waste based on user selection as described below. Organic (green) waste is to have a dedicated chute.

Key principles of the diverter system are listed below:

- Resident selects type of waste being deposited
- Waste diverter shifts to guide waste to the correct receiving bin
- Waste chute door unlocks, user opens hatch and waste is placed in the chute
- Waste is deposited in selected bin in the ground level bin storage area
- The Facilities Manager will be required to assist residents to take large items, hard and e-waste to the waste storage area on the ground floor.

The proposed system will require initial monitoring to determine the frequency for replacing filled bins with empty bins under the chute. Weight sensors can be employed to alert the Facilities Manager to the need to rotate bins. The current arrangement of bins and chutes in the basement would preclude use of automated rotation systems.

Refer to Figure 3 for a typical 2-stream chute diverter system.

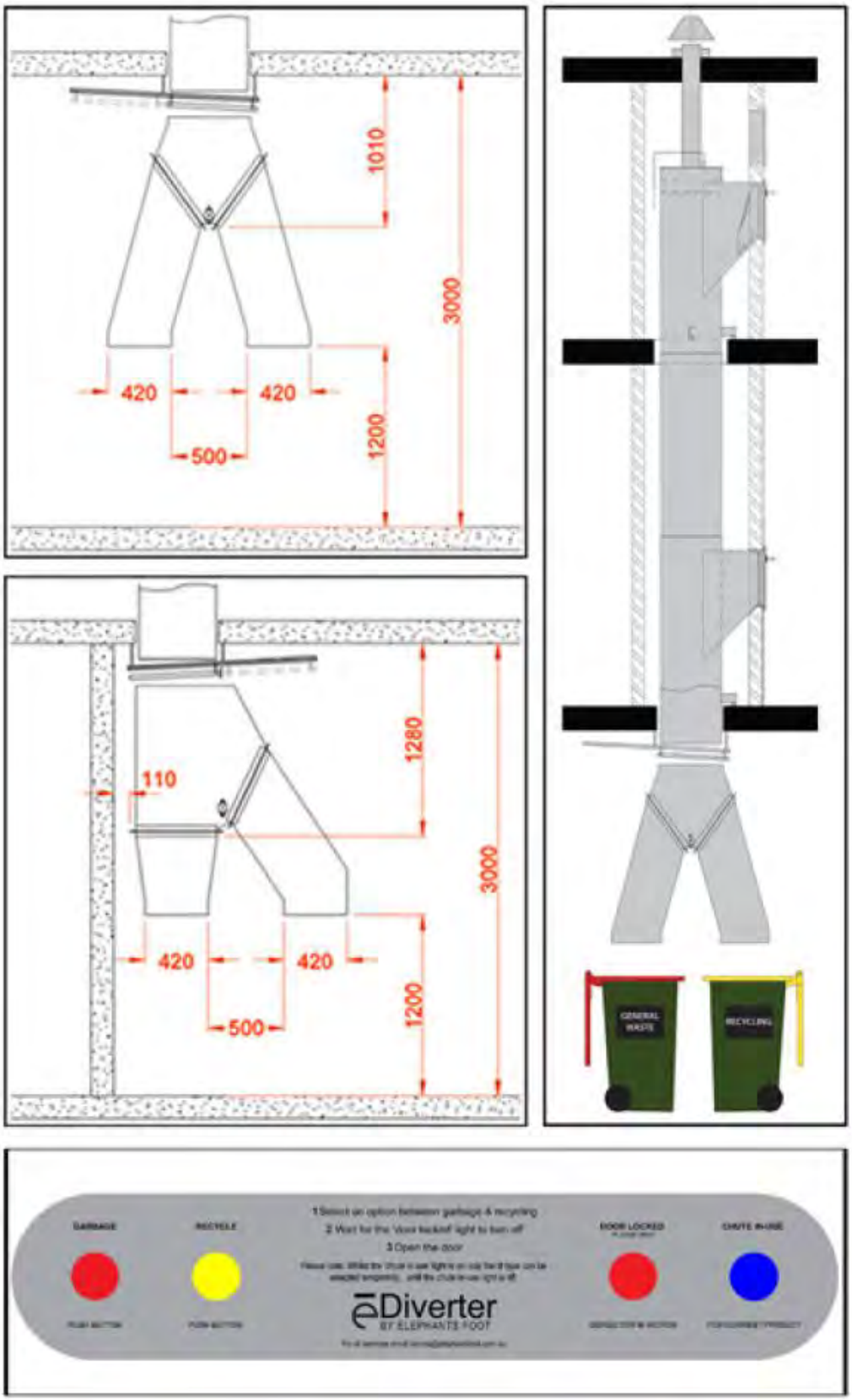


Figure 3: Typical waste chute diverter system (source: eDiverter system by Elephant's Foot). Note that this proposal recommends only 660L and 1100L bins be used with chute systems.

6. Bin Presentation and collection

Bin Presentation Area

A private contractor will be engaged to collect waste generated from the proposed development for both residential and café tenancies.

A medium sized (8.8m) vehicle operated by a private contractor will be able to enter the shared space driveway in a reverse direction, collect waste and exit to Coglin Street (SN) in a forward direction. The shared driveway space has vertical clearance through the ground and first floors, a height of approximately 7.2m, providing sufficient vertical clearance for a wide variety of collection vehicles to operate. Refer to AutoTrack turn paths included in Appendix B for vehicle access paths.

A Facilities Manager or the driver / attendant of the waste collection truck will be required to wheel bins from the storage areas at the northern end of the basement to the collection area on the ground floor using the lift (Hoist) supplied for this purpose on the northern side of the driveway. A flat floor is provided at both levels for ease of movement, to prolong the life of the bins and reduce noise associated with bin movement.

Collection Times

It is recommended that waste collection should be done outside peak periods (7-9am, 3-6pm) to minimise impacts to residential and Coglin Street traffic. The driveway is wide enough for a vehicle to pass a stationary waste collection vehicle, but access will be restricted to one lane for both entering and exiting vehicles during this time.

Please refer to Appendix A for details of waste storage provisions and Appendix B for waste collection point for residential and café waste.

A private waste collection contractor will be engaged to collect & dispose of all co-mingled recycling, non-recyclable and organic food waste generated on site.

7. Waste Collection Frequency and Method

Residential Waste

A private waste operator will be engaged to collect all waste streams: co-mingled recyclable, non-recyclable general waste and organic waste from the proposed development. This Waste Management Plan has been developed on the basis that all three waste streams from the residential tenancies are collected on a weekly basis. On the day of collection, the private waste operator will wheel out filled bins for collection and wheel empty bins back in the bin storage area.

Café Tenancy

Waste generated by the café is proposed for a twice-weekly collection. Details of collection days will be finalised based on discussions between management of the café tenancy and the waste collection contractor. On the day of collection, the private waste operator will wheel out filled bins for collection and wheel empty bins back into the separated bin storage area.

Retail Tenancy

The retail tenancy fronting Coglin Street is proposed to arrange bin collection by Adelaide City Council. Bins are to be placed on the footpath in front of the retail tenancy for kerbside collection.

Collection frequency will be as per the established Council schedule in the local area. General waste is collected weekly and Recyclable waste is collected fortnightly. No organic waste collection is proposed for this tenancy due to the extremely low volume predicted.

Hard waste and e-waste

ACC offers up to 12 free services to collect hard and e-waste from large residential developments. Residents/tenants of the proposed development can avail this free service by storing waste in the hard/e-waste storage area in the basement. A Facilities Manager or waste room attendant will be able to arrange collection through Council as required.

8. Conclusions

Based on the calculations and methodology presented in this report in relation to waste generation and collection at the proposed mixed-use, commercial and high density residential development at 21 Coglin Street, Adelaide the following can be concluded:

- Waste generation for the proposed residential and retail development was estimated using Zero Waste SA (ZWSA) guidelines.
- Using ZWSA guide, a Complex Waste Management System is recommended for the proposed high density mixed-use development.
- A private waste collection operator will be engaged to collect waste generated from the proposed development.
- Separate waste storage areas will be provided for residents and café tenancies.
- Residential waste is proposed for weekly collection; café tenancy is proposed to have twice a week waste collection.
- The retail tenancy will be required to store their own bins and collection of this waste is assumed to be part of the normal weekly and fortnightly collections by council.
- Sufficient waste storage capacity for each of the three waste streams has been provisioned on-site to meet estimated waste generation demand.
- Sufficient hard waste and e-waste storage area is provisioned within the bin storage area.
- Residents and Facilities Management will be able to access up to 12 per year, free, at call hard waste and e-waste collections offered by ACC.
- The bin storage area will be located at the northern side of the development site with pedestrian access from the lobby via stairs or via the Hoist from the driveway / shared space.
- A shared bin cleaning facility is provided in the basement and drainage provided. Management will need to ensure that when bins are cleaned, excess water is removed from the floor to minimise the risk of injury due to standing water and slippery floors.
- A Facilities Manager or community attendant will be required to periodically monitor bin capacity under bin chutes and replace filled bins with empty bins. Weight sensors can be installed to provide alerts to the management.
- The attendant will also be responsible for upkeep of the bin storage area.
- Medium (8.8m) waste collection vehicles will be able to access the driveway / shared space at the southern side of the development by reversing from Coglin Street (SN) and exiting to Coglin Street (SN) in the forward direction, toward Gouger Street.
- A truck stopped for waste collection at the site will need to ensure there is space for another vehicle to pass the stationary collection vehicle.
- It is recommended that bin collection times be strictly adhered to by the operator to minimise impacts to residents and surrounding businesses.

The proposed number of bins are deemed sufficient for the proposed development, applying the recommended collection frequency by private operators and council.

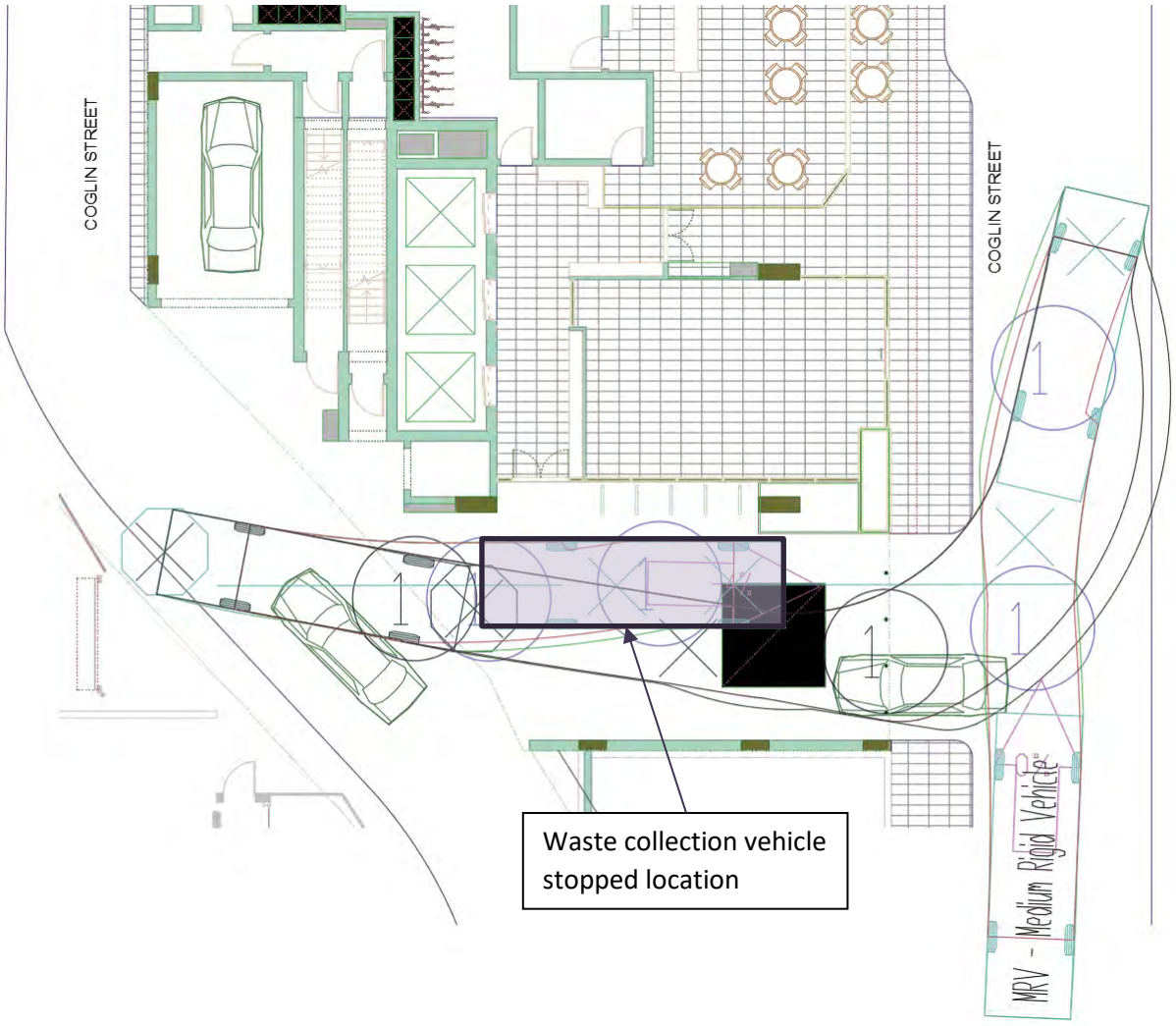
9. Appendix A

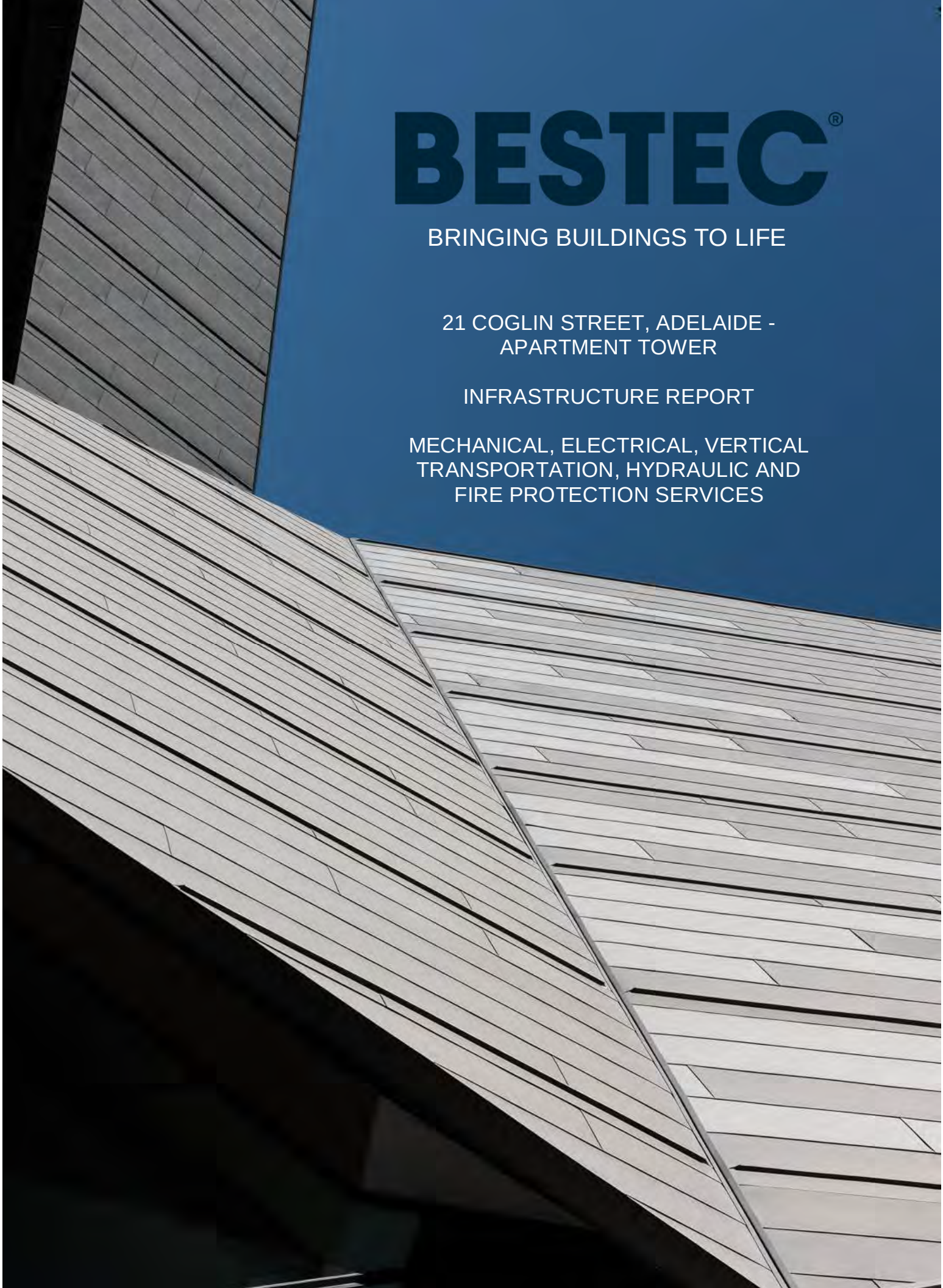
Basement Floor layout plan showing;

- Residential Waste Storage Area
- Residential Waste Chute arrangements
- Commercial (café) Waste Storage Area including waste chutes
- hard and e-waste storage space
- bin cleaning facilities

10. Appendix B

AutoTrack turnpath assessment for Waste Collection Vehicles





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21 COGLIN STREET, ADELAIDE - APARTMENT TOWER

INFRASTRUCTURE REPORT

MECHANICAL, ELECTRICAL, VERTICAL TRANSPORTATION, HYDRAULIC AND FIRE PROTECTION SERVICES

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
01	19.01.18	Preliminary Issue

CONTENTS

Infrastructure

The following infrastructure and plant arrangement has been proposed for the Mechanical, Electrical, Vertical Transportation, Hydraulic and Fire Protection Services for the above development.

Mechanical Services

- General exhaust systems serving the fire pump room and SAPN transformer room.
- Stair pressurisation and relief systems incorporating roof mounted fans and associated air distribution.

Electrical Services

- The Building will be provisioned with a new high voltage supply from Coglin Street into a new dedicated 3 hour fire rated SA Power Networks substation room located within the basement.
- The substation room will house a new SA Power Networks pad mounted transformer of which a new low voltage supply will be provisioned from the transformer to a new main switchboard to feed the building.
- A site main switchboard will be located in a new dedicated 2 hour fire rated switchroom located adjacent to the substation room. The site main switchboard will be a form 3bih and incorporate fire and life safety services, retailer metering for landlord and retail tenancies, supplies to landlord distribution boards and apartment retailer metering cubicles.
- Apartment retailer metering cubicles will be located at various levels, providing retailer electricity metering facilities for all apartments and tenancies. Each apartment is supplied via a dedicated electrical load centre fed from the respective apartment retailer metering cubicle.
- Landlord distribution boards will be located on basement, ground floor and levels 3, 7, 11, 15, 19 and the roof garden level to serve the common area power and lighting throughout.
- Each retail tenancy will be provided with a dedicated tenancy distribution board with retailer metering facilities incorporated within the site main switchboard.
- A dedicated communications room is located within the basement. This room will incorporate the NBN Premises Distribution Hub for termination of telecommunications lead-in services and reticulation will be provided throughout for reticulation of NBN infrastructure to all apartments and tenancies. The communications rooms will also house the building security head end equipment.
- Shared communications, security, NBN and MATV riser cupboards are located on each floor of the building to house NBN equipment, security control equipment, MATV distribution equipment and rising cabling services.
- Telephone, internet and communication services will be provided to each apartment via the NBN Co Network Termination Device (NTD) unit. Each apartment NTD will be connected to the NBN Co fibre network via the respective floor Communications/Security/NBN/MATV riser cupboard.

Vertical Transportation Services

- Three gearless machine-room-less traction passenger lifts will be provided serving ground floor and levels 1 to 21 inclusive and roof garden.
- Lift cars are sized to meet minimum disability access requirements, stretcher facilities and to accommodate furniture removals.

- One goods hoist will be provided serving basement and the ground floor.

- One car lift will be provided serving the ground floor and levels 1 to 4 inclusive.

Hydraulic Services

- SA Water are now enforcing a specific clause within the Water Supply Association of Australia (WSAA) Water Supply Code (WSAA 03-2011-v3.1), which states that all developments above 8 storeys in height require connection to a SA Water towns main of minimum 200mm diameter. This clause has existed within the WSAA Water Supply Code since 2011, however, SA Water have to date not enforced this requirement through their internal water supply policy and technical standards for any developments. As such, the 150mm SA Water Corporation Water main located within Coglin Street will require upgrading to 200mm diameter.

- Domestic cold water will enter the building via 2 off 50mm diameter South Australian Water Corporation water meters from the authority owned main located within Coglin Street. Domestic cold water will then reticulate, under mains pressure, to a 20,000 litre transfer tank. A domestic cold water pressure pump set located adjacent the tank will deliver water under pump pressure to all fixtures.

- A natural gas fired, instantaneous type domestic hot water plant will be located at roof plant level. The hot water plant will be modular in design such that burners can be removed and replaced.

- A forced circulation domestic hot water flow and return pipe work system will reticulate hot water throughout the building. The flow and return pipe circuit will prevent long draw off times at fixtures thus reducing water and energy wastage.

- A 5,000 litre pre-cast concrete grease arrestor will be installed below ground within the basement carpark for the purpose of treating grease waste from the retail tenancies. The grease arrestor will be provided with heavy duty cast iron covers and as such will be fully trafficable.

- Below ground, pre-cast concrete sewer ejector pumping station serving drainage reticulated from basement level complete with heavy duty, cast iron trafficable lids.

- Sewer drainage will exit the building utilising the fully vented modified system of plumbing drainage and will be discharged to the SA Water Corporation sewer mains located within Coglin Street.

- APA group natural gas meter to serve domestic hot water heating and retail tenancies. Meter's will be located within full height enclosure complete with fully louvred doors.

- The 2 off retail tenancies located at ground level will incorporate the following:-

    - 2 off 110mm diameter grease waste shop riser per tenancy.

    - 1 off 20mm diameter SA Water Corporation water meter serving tenancy 1. A valved isolation point will be provided within the ceiling space for connection and extension to the future fitout works.

    - 1 off 20mm diameter SA Water Corporation water meter serving tenancy 2. A valved isolation point will be provided within the ceiling space for connection and extension to the future fitout works.

    - 1 off authority owned natural gas meter will be provide at the Coglin Street property boundary. Private pipe work from this meter to each of the retail spaces, complete with valved isolation point located within ceiling space for connection and extension as part of future fitout works.

Fire Protection Services

- A 150mm diameter fire service connection to the 200mm diameter (upgraded from 150mm dimeter) South Australian Water Corporation town main in Coglin Street will supply make-up water to the Fire Protection Services water storage tanks located at ground floor. The fire service connection will also serve the town main suction connections in the South Australian Metropolitan Fire Services (SAMFS) booster assembly.

- 80,000 litres effective capacity water storage tanks located in the ground floor fire pump and tank room. The tank will be divided into 2-off 50% capacity compartments.

- 2-off diesel driven fire pumps drawing directly from the water storage tanks to serve the combined fire sprinkler and fire hydrant riser infrastructure.

- A SAMFS suction and booster assembly located at the Coglin Street frontage. The equipment will be contained in a separate enclosure, with direct access from Coglin Street.

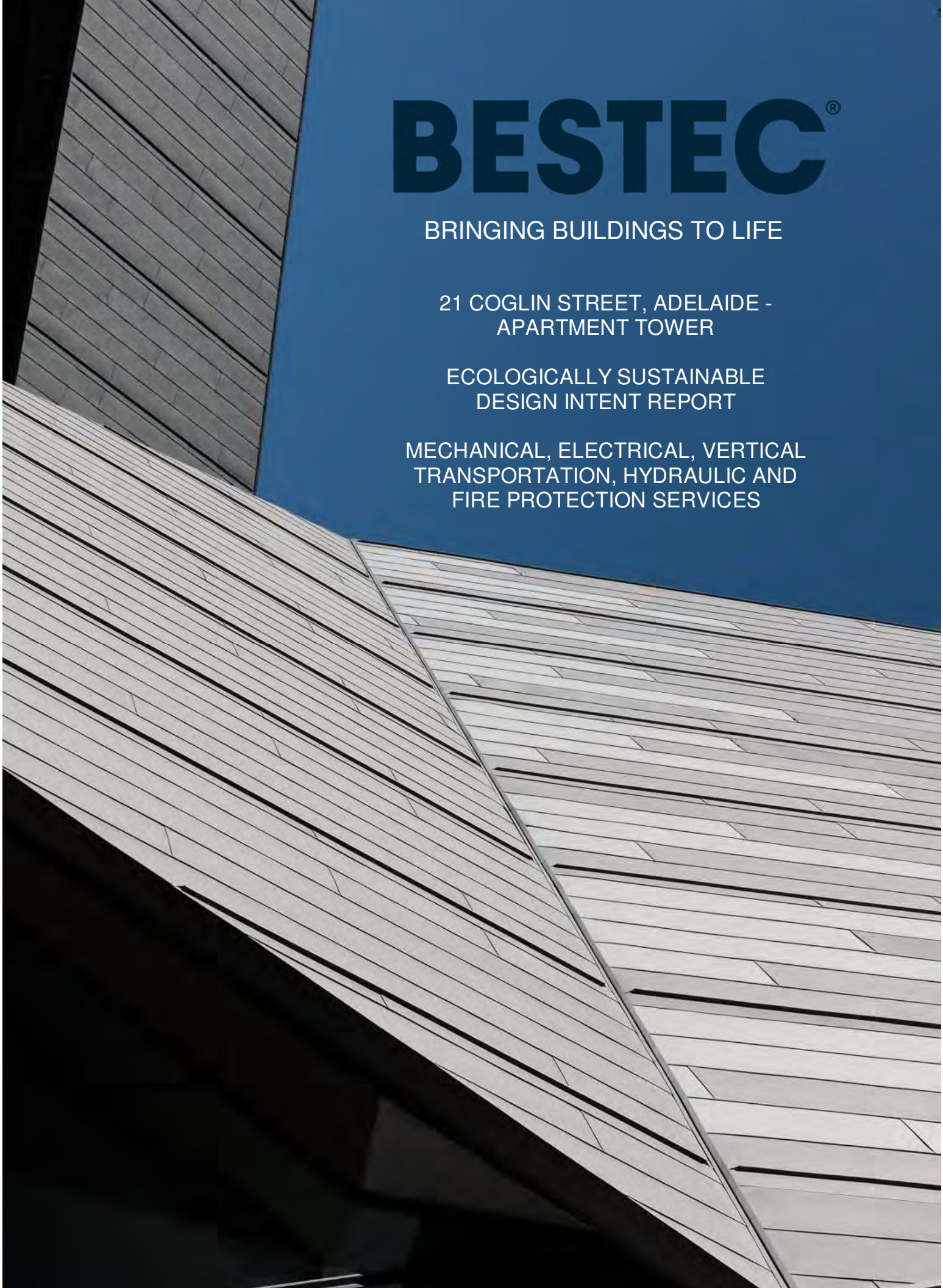
- Combined fire sprinkler and fire hydrant system riser infrastructure will comprise riser mains in each fire stair. Due to the height of the building, the infrastructure will be configured as 2 pressure stages, “high zone” and “low zone”.

- Fire hydrants will be provided at each floor level of each fire stair.

- Fire sprinkler system control valves will be located at each floor level within the northern fire stair to independently serve each floor level.

- A Fire Indicator Panel (FIP) will be located in a dedicated sign posted cupboard in the ground floor residents lobby to provide control, monitoring indication functions and fire alarm transmission to SAMFS.

- A Master Emergency Control Panel (MECP) will be located in the dedicated sign posted cupboard in the ground floor lobby to provide the distribution of “alert” and “evacuation” tones, recorded voice message and emergency public address throughout the building via the Emergency Warning and Intercommunication System (EWIS).



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21 COGLIN STREET, ADELAIDE - APARTMENT TOWER

ECOLOGICALLY SUSTAINABLE DESIGN INTENT REPORT

MECHANICAL, ELECTRICAL, VERTICAL TRANSPORTATION, HYDRAULIC AND FIRE PROTECTION SERVICES

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
01	19.01.18	Preliminary Issue

CONTENTS

PAGE

Introduction

The following report outlines the proposed Ecologically Sustainable Design (ESD) design initiatives associated with the Mechanical, Electrical, Vertical Transportation, Hydraulic and Fire Protection Services for the above development.

The proposed building and all associated services will be designed to achieve high outcomes in relation to Ecological Sustainable Development. These will include emphasis on the reduction of energy through passive and active design initiatives, reduction of potable water use, high indoor environment quality, low VOC materials and finishes, access to natural light and provision of natural ventilation opportunities.

Ecologically Sustainable Design

The following Ecologically Sustainable Design (ESD) Initiatives are proposed for incorporation into the building design and into the Mechanical, Electrical, Vertical Transportation, Hydraulic and Fire Protection Services design for the redevelopment.

Mechanical Services

- High efficiency inverter type reverse cycle air conditioning systems to serve each apartment.
- Apartments designed to achieve individual 5 star energy efficiency ACCURATE rating and average 6 star energy efficiency collectively.

Electrical Services

- Provision of a high efficiency LED lighting throughout all areas.
- Lighting configured to provide motion detection controls to luminaires within common area corridors and plant areas. Lighting circuits to be zoned to suit functional spaces and incorporate time scheduling where appropriate.
- External lighting systems controlled by time clock and photocell and incorporating high efficiency luminaires (>65 lumens/watt).
- Provision of separate sub-metering of power and lighting for all new switchboards for energy management and control.

Vertical Transportation Services

- Permanent magnetic synchronous motors with solid state variable speed drives to minimise energy consumption.
- Regenerative drives to recover energy during braking and return it to the building's power grid for use elsewhere.
- Timer systems on lift car lights and fans to shut them off when the lifts are idle.
- LED lighting in the lift cars to minimise energy consumption.

Hydraulic Services

- Provision of low flow water efficient sanitary and tap ware fixtures and fittings in accordance with Water Efficiency Labelling Scheme (WELS).
- Provision of 4.5/3 litre dual flush water efficient WC suites
- Natural gas fired, domestic hot water plant.
- Forced circulation domestic hot water flow and return pipe work loop to prevent long draw off times at fixtures and subsequent water and energy wastage.
- Thermal insulation of all main domestic hot water flow and return pipe work to reduce energy wastage associated with hot water delivery throughout the building.
- Water sub-metering to all units and to base building plant and equipment for water and energy consumption management and control.

Fire Protection Services

- Routine testing of the 2 diesel fire pumps will recirculate approximately 25,000 litres of diesel engine cooling water and pump casing relief valve discharge to the fire water storage tanks annually.
- Annual flow testing of the fire protection services system will recycle approximately 5,000 litres of water to the fire water storage tanks.
- Fire sprinkler system weekly test water is not suitable for re-use and will be discharged to sewer. This represents approximately 300 litres of water discharge to sewer on a weekly basis.

Built Form

- High thermal performance glazing that responds directly to the building orientation and addresses solar heat gain on orientations subject to direct sunlight and controls conduction heat gains and losses on all orientations.
- Glazing selection with high glare control characteristics to minimise glare and harmful UV radiation while maximising natural daylighting of the internal spaces.
- High thermal performance building envelope (walls, suspended floors above unconditioned spaces and roofs) incorporating high levels of insulation to meet the requirements of the Building Code of Australia, Section J Energy Efficiency, as a minimum.

Environmental and Waste Management

- Performing comprehensive commissioning and building tuning to ensure the building operates as intended by the design team to maximise optimum occupant comfort and reduce of carbon emissions through effective use of energy throughout the building's lifecycle.
- Implementing an effective environment management plan for construction phase activities to minimise noise and dust pollution, manage any latent contamination conditions or accidental contamination caused during construction and manage stormwater runoff during construction.
- Implementing an effective Construction Waste Management plan to minimise construction and demolition waste sent to landfill and maximise re-use and recycling of construction waste.

Indoor Environment Quality

- Facade design that encourages a high level of day light penetration into the space while mitigating solar heat gain and glare in summer through the use of external shading.
- Façade design aimed at minimising thermal discomfort caused by variable radiant heating or cooling of façade envelope.
- Appropriate acoustic design to maintain acoustic privacy and prevent unnecessary ingress of external noise.
- Selection of paints, sealants and finishes with low Volatile Organic Compound (VOC) content to minimise off-gassing and associated potential adverse health effects.
- Selection of composite engineered wood products with low formaldehyde content, again to minimise off-gassing and associated potential adverse health effects.

Transport

- Provision of bicycle storage facilities to encourage and promote the use of bicycles as a mode of transport for the retail component employees.

Water

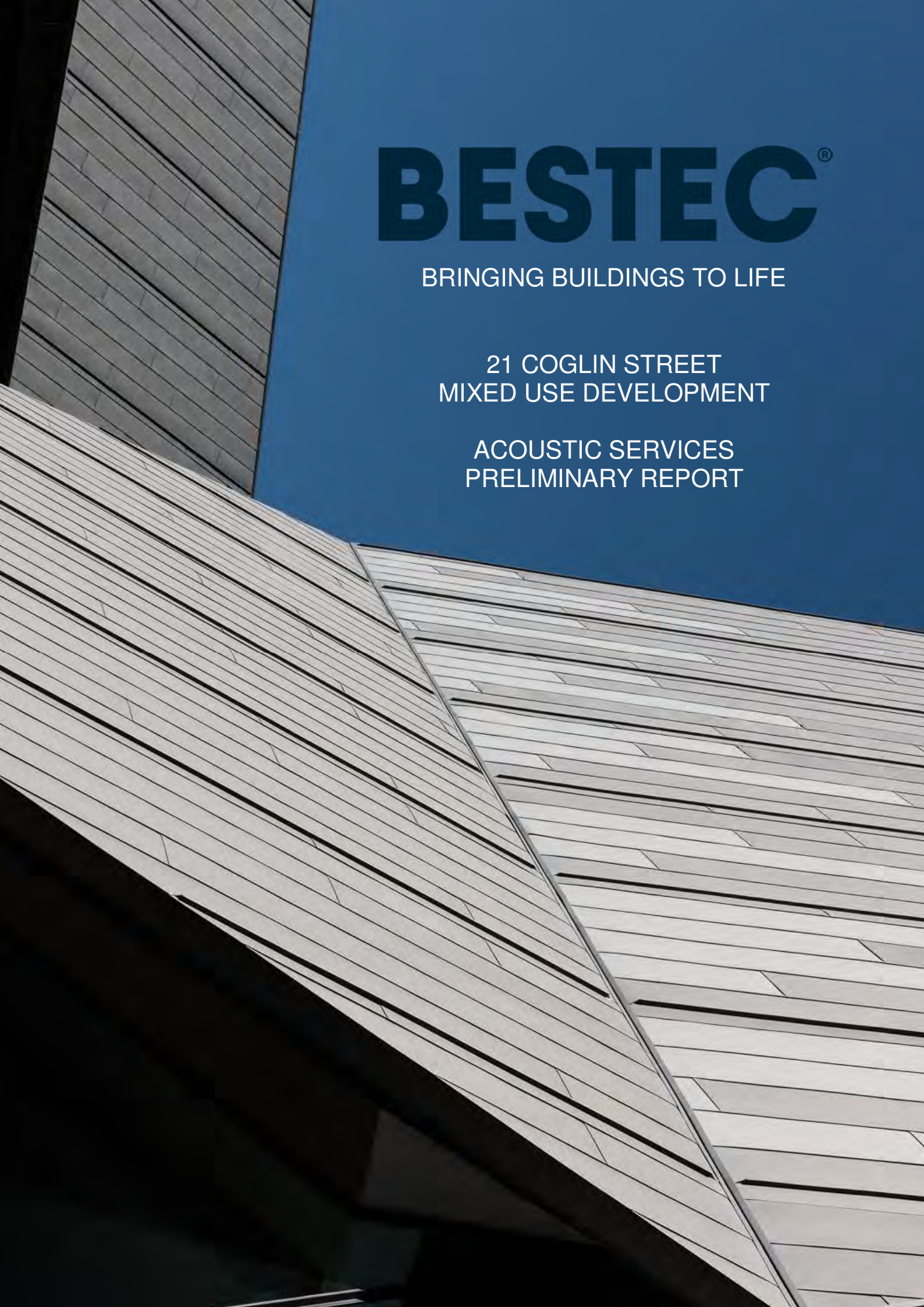
- Landscape design incorporating plants requiring minimal water after establishment.

Materials

- Provision of dedicated recycling waste storage area for the segregation of waste products to maximise recycling opportunities and minimise waste sent to landfill.
- Use of structural steel products manufactured in low energy furnaces and containing recycled content to reduce embodied energy and resource depletion.
- Selection of timber materials sourced from certified environmentally responsible managed forests.

Emissions

- The use of refrigerants with zero ODP to minimise impact on the ozone layer through accidental leakage
- The use of insulants manufactured form processes and products with zero ODP.
- Reducing peak stormwater flows and contamination of the waterways through the introduction of pollutant traps and flow management practices.
- Reducing light pollution by avoiding the use of light sources which are directed towards the sky and spill into adjacent areas surrounding the site.



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21 COGLIN STREET
MIXED USE DEVELOPMENT

ACOUSTIC SERVICES
PRELIMINARY REPORT

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SGA:HAC
55484/6/1
13 March 2018

JPE Design Studio
Level 4, 19 Gillies Street
ADELAIDE SA 5000

Attention: Mr A Evans

Dear Sir

21 COGLIN STREET MIXED USE DEVELOPMENT
ACOUSTIC SERVICES

As requested, we enclose a copy of our preliminary report on the Acoustic Services for the above project.

We trust that the report provides sufficient information for your immediate purpose and we would be most pleased to further discuss any aspect upon your request.

Yours faithfully
BESTEC PTY LTD

SAKSHAM GARG
ACOUSTIC SERVICES ENGINEER

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
00	28.08.17	Initial Issue
01	17.01.18	Revised Issue
02	14.02.18	Revised Issue
03	13.03.18	Revised Issue (updated unattended continuous noise survey results)

CONTENTS

Introduction

BESTEC Pty Ltd was engaged to provide acoustic engineering services during the design and construction stages of the proposed mixed-use development, located on 21 Coglin Street, Adelaide. This document presents the proposed acoustic design criteria, the results of our traffic noise assessment and preliminary recommendations for acoustic treatment to achieve the selected design criteria.

Executive Summary

In summary:

- The most recent architectural drawings of the proposed development (received 12 January 2018) were reviewed.
- An attended noise survey was conducted on site on the 25 August 2017 and an unattended continuous noise survey was conducted between 02 March 2018 and 08 March 2018 to determine the existing ambient noise levels and dominant sources of noise.
- Appropriate acoustic design criteria were nominated.
- Preliminary acoustic design recommendations to achieve the selected criteria were provided, including:
    - Appropriate constructions of the building façade and glazing were nominated in order to provide sufficient attenuation from local traffic noise, music and venue noise from The Voice Karaoke Bar and Supper Lounge and from the operation of engineering services infrastructure from surrounding existing developments, at proximity to the proposed development.
    - Appropriate constructions of the walls and floors separating the apartments were nominated to ensure compliance with the requirements of National Construction Code Series 2016, Building Code of Australia - Section F5.
- Generic recommendations for acoustic treatment of mechanical services were provided.
- The noise impact to the nearest noise sensitive receivers associated with rubbish collection, pump operation and car lift access and operation has been provided.

Acoustic Analysis

References

The following documents have been referenced within the preparation of this report

[1] Adelaide (City) Development Plan, Consolidated – 20 June 2017.

[2] SA Environment Protection (Noise) Policy 2007.

[3] World Health Organisation (1999) "Guidelines for Community Noise".

[4] AS/NZS 2107:2016 - "Acoustics – Recommended design sound levels and reverberation times for building interiors".

[5] National Construction Code Series 2016, Building Code of Australia, Class 2 to Class 9 Buildings.

[6] AS ISO 140.4–2006 - "Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4: Field measurements of airborne sound insulation between rooms".

[7] Minister's Specification SA 78B February 2013, "Construction requirements for the control of external sound".

[8] Technical Information Sheet 8, Noise and air emissions – Overlay 3, South Australian Planning Policy Library, April 2013.

[9] Architectural Plans, provided by JPE Design Studio, *dated 12 January 2018*.

[10] "Metropolitan Traffic Estimate Maps''- Department of Planning, Transport and Infrastructure, Government of South Australia, 14 September, 2016.

[11] Development proposal assessment for venues where music may be played, EPA Guidelines, September 2003.

[12] The City of Adelaide Smart Move – Transport and Movement Strategy 2012-22, November 2012.

[13] Traffic Impact Statement – Mixed use development, 21 Coglin Street, Adelaide, dated 16 January 2018.

[14] Waste Management Plan – Mixed use development, 21 Coglin Street, Adelaide, dated 16 January 2018.

Existing Development

Currently there is public carpark under operation at the proposed site. The site is located in a zone designated "Capital City" zone in the Adelaide (City) Development Plan [1], with the following boundaries:

- Western Boundary: Coglin Street separating the site from commercial developments.
- Southern Boundary: 5 storey commercial development.
- Eastern Boundary: Coglin Street separating the site from 13 storey commercial development (Eynesbury College).
- Northern Boundary: 2 storey commercial development (restaurants and Karaoke bar/lounge).
- South Western Boundary: Three storey residential development.

Proposed Development and Conditions

A new mixed-use development is proposed to be constructed on the site, comprising of the following components:

- Basement Level - Waste and Refuge, Fire, Electrical, Data and Hydraulics Infrastructure, Storage
- Ground floor: Café/Restaurant/Bar, Retail Space, Amenities, Bicycle Store, Car Lift Access
- Level 1: 4 off 2 - bedroom apartments, Car Lift Run
- Level 2 - 4: Car Lift Egress to Residential Car Parking on each level (total 39 parking spaces)
- Level 5: 3 off 2 - Bedroom apartments, Shared Space
- Levels 6 - 21 (Excluding Level 13): 3 off 2 - Bedroom, 1 off 3 Bedroom and 1 off 2 Bedroom Apartments on each floor.
- Level 13: 4 off 3 - Bedroom Apartments.
- Roof Deck: Shared Open Spaces, Amenities, Services

Unattended Continuous Noise Survey

For an explanation of acoustic terms, please refer to the Glossary of Acoustic Terminology attached to this document (Appendix E).

An automatic noise logger was installed on a neighbouring property at 12 Coglin Street (Murray Chambers, separated by Coglin street) and set to continuous record the noise levels in the area over a 7-day period. The survey was conducted between Friday, 02 March 2018 and Thursday, 08 March 2018. The logger installed on site was RION Type 2 Sound Level Meter NL-21 (Serial Number 00310419, due for calibration 14 October 2018).

The noise logger was programmed to continuously measure the sound pressure levels and automatically average them and record them over successive 15-minute sample periods, measuring the statistical descriptors L_{Aeq}, L_{Amax}, L_{A10} and L_{A90}.

The monitoring was conducted at the location highlighted in Figure 1 below (at Level 1 of an existing building at 12 Coglin Street, indicated as location U1), with average daily results of the logging summarised in Table 2, in accordance with AS1055 and with an approved windshield fitted at all times. Please refer to Appendix D for the detailed survey results.

Figure 1: Unattended continuous noise survey location (U1) with respect to the proposed development site

Day	Average Day-time (7:00 to 22:00)				Average Night-time (22:00 to 7:00)			
	L_{Aeq}	L_{Amax}	L_{A10}	L_{A90}	L_{Aeq}	L_{Amax}	L_{A10}	L_{A90}
Friday, 02 March 2018	64	77	65	63	61	75	62	59
Saturday, 03 March 2018	64	75	64	62	57	74	58	53
Sunday, 04 March 2018	63	74	64	61	55	71	57	51
Monday, 05 March 2018	63	76	64	61	56	72	57	52
Tuesday, 06 March 2018	63	76	64	61	56	72	57	51
Wednesday, 07 March 2018	63	76	64	62	57	73	58	52
Thursday, 08 March 2018	63	76	64	61	57	73	58	53

Table 1: Summary of day time and night time average noise levels (dBA) for each recorded statistical descriptor

Attended Noise Survey

An attended noise survey was conducted on the proposed site between 20:00 - 20:30, on the 25 August 2017 in order to determine the existing noise levels (and identify the dominant noise sources) in the vicinity of the development site.

Attended measurements were undertaken using a Brüel and Kjær Hand-held Analyser Type 2270 Sound Level Meter (Serial Number: 3003020, last calibrated on the 8 November 2016, due for calibration 8 November 2017), with an approved windshield fitted at all times. The calibration of the analyser was spot checked before and after the measurements and no drift was measured.

The noise measurements were conducted at locations (L1, L2, L3 and L4) indicated in Figure 2, with the measured data shown in Table 2 below.

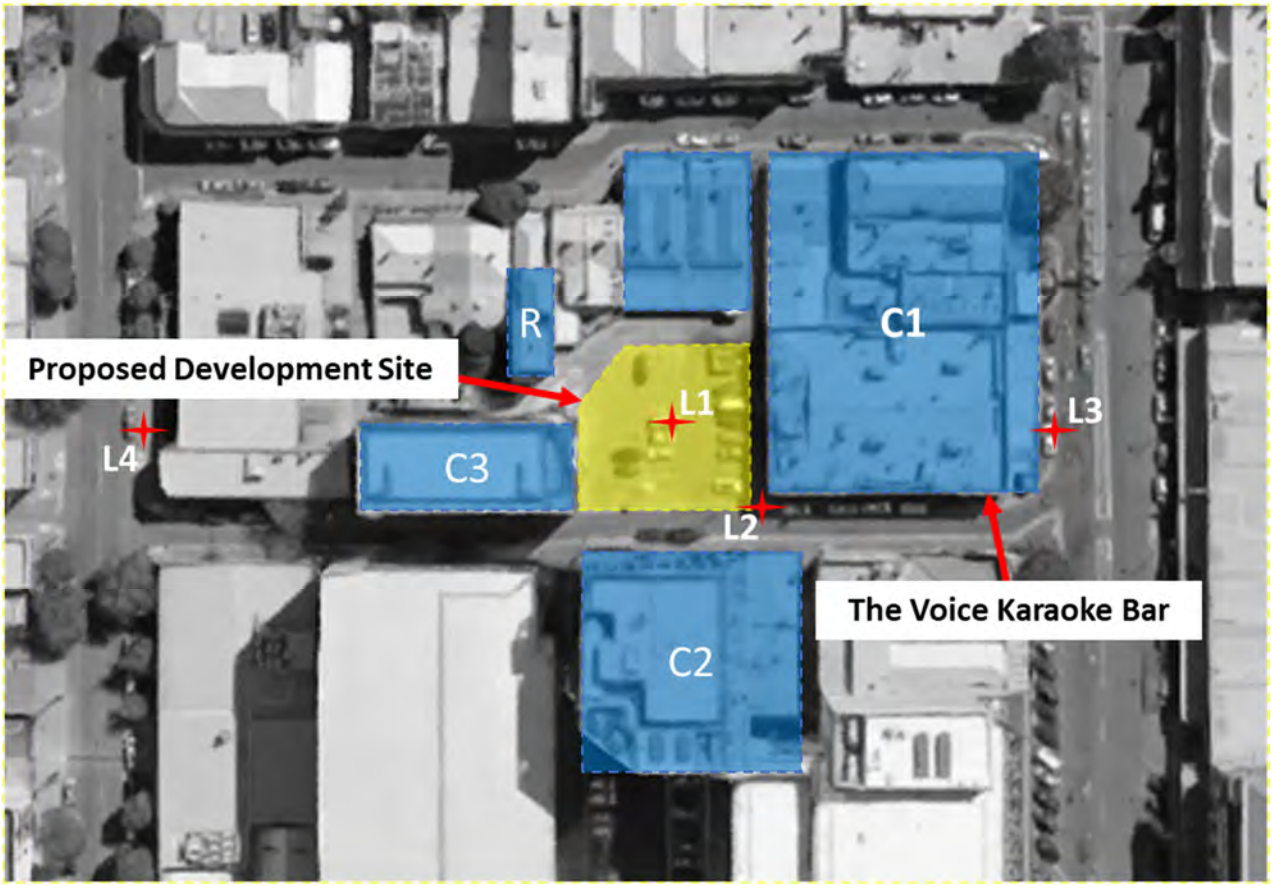


Figure 2: Location of Attended Measurements (L1, L2, L3 and L4) and the nearest commercial (C1, C2 and C3) and residential (R) noise sensitive receivers with respect to the proposed development

Location	Time	L_{Aeq}, dB(A)	L_{A10}, dB(A)	L_{A90}, dB(A)	L_{Amax}, dB(A)	Notes
1	21 August 2017 20:00	55	57	54	70	Moderate traffic flow along Coglin Street; Mechanical Services noise from nearby developments
2	21 August 2017 20:15	59	61	56	79	
3	21 August 2017 20:30	67	70	61	87	Heavy traffic on Gouger Street
4	21 August 2017 20:45	59	63	50	77	Moderate traffic on Wright Street
U1	09 March 2018 14:10	64	65	63	76	Noise from 39 Gouger Street roof plant and traffic noise from Coglin Street

Table 2: Summary of the measured noise levels during the attended noise survey at 21 Coglin Street

Design Criteria

Environmental Noise

Continuous Noise

This criterion will be relevant to noise emitted from the proposed development resulting from operation of engineering services, operational noise from the commercial component, car park etc.

The continuous noise emissions will be assessed against the criteria set in accordance with Environment Protection (Noise) Policy 2007 [2] and the principles of development control in the Adelaide City Council Development Plan [1] references.

The Adelaide City Council principle of development control 93 sets the criteria for continuous noise in accordance with the Zone where the proposed development is located as follows:

"93 Mechanical plant or equipment, should be designed, sited and screened to minimize 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 Residential 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."

The Environment Protection (Noise) Policy 2007 [2] sets out the maximum allowable continuous noise in terms of A-weighted Equivalent Continuous Noise Level (L_{Aeq}) based on the time of day and zoning / use of land in which the noise source and receiver are located. With reference to the Adelaide City Council Development Plan [1], we note that the proposed development is located within the Capital City Zone. The Capital City Zone is an essentially Mixed-Use zone comprising a mixture of Commercial and Residential uses. Table 3 shows the indicative noise factors based on time of day and land-use as stipulated in Table 2 of the EPP 2007 [2].

Land Use Category	Day Time (07:00 to 22:00)	Night Time (22:00 to 07:00)
Commercial	62	55
Residential	52	45

Table 3: Indicative noise factors based on time of day and land use of immediate redevelopment locale

Since the Mixed-Use area is intended for commercial and residential purposes, the Environment Protection (Noise) Policy 2007 [2] states that the indicative noise level is the average of the indicative noise factors for the land use categories. In addition, the EPP 2007 states that the predicted continuous noise due to the

proposed development (for application for development authorisation) should not exceed the indicative noise level, minus 5dBA. Based on the average of the "Commercial" and "Residential" land use categories, minus 5dBA for planning purposes, the applicable day and night time noise criteria would be as follows:

- Day-time (7:00 a.m. to 10:00 p.m.): 52 dB(A)
- Night-time (10:00 p.m. to 7:00 a.m.): 45 dB(A)

Note that if noise emitted by the proposed development contains any tones, modulation, impulsive or low frequency characteristics, the continuous noise level of the noise source must be adjusted as follows:

- Noise containing 1 characteristic – 5 dB(A) penalty added to source continuous noise level;
- Noise containing 2 characteristics – 8 dB(A) penalty added to source continuous noise level;
- Noise containing 3 or 4 characteristics – 10 dB(A) penalty added to source continuous noise level.

Intermittent Noise

This criterion will be relevant to noise emitted from the proposed development resulting from short term noise events – rubbish collection, car door slams, etc.

The criteria provided in the above sections relate to continuous noise sources, and do not cater for intermittent noise events, such as slamming of car doors, car horns sounding, etc. We recommend the use of the World Health Organisation (WHO) Guidelines [3], which recommends a maximum A-weighted noise level L_{Amax}, of 45 dB(A) in a bedroom, which is equivalent to approximately 55 dB(A) to 60 dB(A) at the façade of the residential building with windows partially open.

In addition, the EPP 2007 provides assessment criterion of L_{Amax} of 60 dB(A) for night-time for the proposed development (for application for development authorisation) [2], which agrees with the criterion stipulated by the WHO [3].

Building Acoustics

The level of background and transient/intermittent noise, the speech privacy rating and the room acoustics define the quality of the acoustics within a building. The recommended criteria for each space are shown in Table 4 below. Please refer to each individual section below for interpretation of the criteria.

Type of Occupancy/ Activity		Background Noise L_{Aeq}, dB(A)	Reverberation Time Sec	Weighted Sound Reduction Index with Spectrum Adaptation Term, $R_W + C_{tr}$	Speech Privacy Rating, D_W
Sole Occupancy Units	*Living areas*	35 - 45		50[1]	
	Bedrooms	30 - 40			
Café (Ground Floor)		45 - 50	Minimise as practical		40 - 45
Amenities		50 - 55	N/A		40 - 45
Carpark		< 65	N/A		N/A
Entrance lobby (Ground Floor)		40 - 45	Minimise as practical		N/A
Retail Shop (Ground Floor)		45 - 50	Minimise as practical		40 - 45

Table 4: Proposed building acoustic design criteria for the development at 21 Coglin Street

Background Noise

These criteria will be relevant to the assessment of continuous noise from sources such as traffic, engineering services etc.

AS/NZS 2107-2016 [4] sets the criteria for background noise in terms of A-weighted equivalent continuous sound pressure level over 15-minute intervals ($L_{Aeq, 15min}$) in accordance with the use of the spaces and the location of the buildings. For apartments and houses located near major roads, the Standard recommends criteria for background noise levels for bedrooms, living areas and work areas with no reference to the time of the day.

[1] Between apartments

In addition, the Minister's Specification SA 78B [7] stipulates that the attenuation provided by the building envelope must be sufficient to provide sufficient attenuation of traffic noise so the internal sound levels do not exceed the internal sound criteria values stated in Table 2 of the Specification as follows:

Type of room	Internal sound criteria		Applicable time period
	Building design target averaged over the total number of such rooms in the building	Maximum allowable for individual rooms in the building	
Bedroom	30dBA $L_{eq,\ 9hr\ (transport)}$ 30dBA $L_{eq,\ 15min\ (people)}$	35dBA $L_{eq,\ 9hr\ (transport)}$ 35dBA $L_{eq,\ 15min\ (people)}$	Night (10pm to 7am)
Habitable rooms other than bedroom	35dBA $L_{eq,\ 15hr}$	40dBA $L_{eq,\ 15hr}$	Day (7am to 10pm)

Table 5: Minister's Specification SA 78B criteria for noise intrusion (Table 2 of Specification SA 78B reproduced)

The Minister's Specification SA 78B [7], stipulates that for traffic noise, the source level for an acoustic assessment is determined from Table 3: Road sound source levels. This requires that the road source be a Type A, B or R road, as indicated by the council development plan applicable at the site. The Adelaide (City) Development Plan [1] does not specify any particular classification for Wright Street or Coglin Street.

The Technical Information Sheet regarding noise and air emissions [8] states that there are several criteria that can be used to determine a road's classification type. For a road traffic density of 50,000 vehicles per day, a road is given Type A and for 25,000 – 50,000 vehicles per day, Type B. The City of Adelaide Smart Move Transport and Movement Strategy 2012-2022 [12] indicate the daily average traffic estimates of up to 8,000 vehicles on Wright Street but does not provide any traffic volume estimates for Coglin Street. Therefore, we consider that there is limited applicability of the Minister's Spec 78B [7] and consider in-situ noise measurements in conjunction with the background noise criteria set by AS/NZS 2107:2016 [4] to be appropriate.

Music Noise

These criteria will be relevant to the assessment of music emissions (live or pre-recorded) from entertainment venues.

We note that noise from the venue in question, incident on the development, will be from the Voice Karaoke Bar and Supper Lounge at Level 1, 39 Gouger Street, Adelaide. EPA provides guidelines for assessment of music emissions from entertainment venues [11], which is used for acoustic assessment for development approval purposes as well as for acoustic design of residential developments in the vicinity of existing entertainment venues. The criterion is set as follows:

> *"The music noise ($L_{10,15min}$) from an entertainment venue when assessed at the nearest noise sensitive location should be:*
>
> - *less than 8 dB above the level of background noise ($L_{90,15min}$) in any octave band of the sound spectrum, and*
> - *less than 5 dB(A) above the level of background noise ($L_{A90,15min}$) for the overall (sum of all octave bands) A-weighted levels."*

Typical background noise levels (L_{90}) in an apartment bedroom with air-conditioning operating are provided in AS/NZS 2107-2016, Appendix C, Table C1 [4] as detailed in below along with the calculated relevant music noise criteria.

	Octave band sound pressure level dB re 20µPa									Overall level, dBA
	31.5	63	125	250	500	1000	2000	4000	8000	
Background noise level $L_{90,\ 15min}$ (AS/NZS 2107-2016)	70	52	42	34	29	25	22	20	18	30
Maximum allowable exceedance	8	8	8	8	8	8	8	8	8	5
Maximum allowable music noise level, $L_{10,15min}$	78	60	50	42	37	33	30	28	26	35

Table 6: Typical background noise level $L_{90,15min}$ in apartment with the air-conditioning on (AS/NZS 2107-2000) and the relevant music noise criteria

In addition, Adelaide City Council principle of development control 91 states

"91 Development of licensed premises or licensed entertainment premises or similar in the Capital City, Main Street, Mixed Use and City Frame Zones should include noise attenuation measures to achieve the following when assessed at:

(a) the nearest existing noise sensitive location in or adjacent to that Zone:

(i) music noise ($L_{10,\ 15\ min}$) less than 8 dB above the level of background noise ($L_{90,15min}$) in any octave band of the sound spectrum; and

(ii) music noise ($L_{A10,\ 15\ min}$) 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; or

(b) the nearest envisaged future noise sensitive location in or adjacent to that Zone:

(i) music noise ($L_{10,\ 15\ min}$) less than 8dB above the level of background noise ($L_{90,15min}$) in any octave band of the sound spectrum and music noise ($L_{10,\ 15\ min}$) less than 5dB(A) above the level of background noise ($L_{A90,15\ min}$) for the overall (sum of all octave bands) A-weighted levels; or

(ii) music noise ($L_{10,\ 15\ min}$) less than 60dB(Lin) in any octave band of the sound spectrum and the overall ($L_{A10,15\ min}$) noise level is less than 55 dB(A)."

Sound Insulation

Residential Component

For enclosed spaces, the noise from activities in the adjacent rooms transmitted through walls, floors, ceilings etc. increase the background noise level similarly to the noise intrusion from any outside sources. The level of noise transmitted from the adjacent rooms and the level of sound insulation/speech privacy is controlled by the design of building elements and providing adequate level of sound attenuation through specifying appropriate construction types for walls, floors, doors, ceilings etc.

The minimum requirements for sound insulation for the residential component (Buildings Class 2) are set by the National Construction Code Series 2016, Building Code of Australia [5] stipulates the required weighted sound reduction index (R_W), weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) and weighted normalised impact sound pressure level term ($L_{n,w}$) for building elements separating sole-occupancy units. We note that the proposed residential apartments would be classified as Class 2 buildings, and therefore note the following criteria are applicable to the proposed development:

"A floor in a Class 2 or 3 building must have $R_W + C_{tr}$ (airborne) not less than 50 and an $L_{n,w}$ (impact) not more than 62 if it separates –

(i) Sole occupancy units; or
(ii) A sole occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of different classification"

"A wall in Class 2 or 3 building must –

(i) Have an $R_W + C_{tr}$ (airborne) not less than 50, if it separates sole-occupancy units; and
(ii) Have an R_W (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and
(iii) Be of discontinuous construction if it separates –
(A) A bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than kitchen) in an adjoining unit; or
(B) A sole-occupancy unit from a plant room or lift shaft."

"A door may be incorporated in a wall of Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_W not less than 30."
"Where a wall required to have sound insulation rating has a floor above, the wall must continue to-

(i) The underside of the floor above; or
(ii) A ceiling that provides the sound insulation required for the wall."

Where a wall required to have sound insulation has a roof above, the wall must continue to—

(i) the underside of the roof above; or
(ii) a ceiling that provides the sound insulation required for the wall.

"If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_W + C_{tr}$ (airborne) not less than –

(i) 40 if the adjacent room is a habitable room (other than a kitchen); or
(ii) 25 if the adjacent room is a kitchen or non-habitable room."

Commercial Component

There is no Australian or International Standard for sound insulation between rooms in commercial buildings. Instead, criteria for sound insulation / speech privacy are based on Client's requirements, budget constraints and experience from previous projects. The criteria for speech privacy proposed in Table 4 are presented in terms of D_W rating (Weighted Sound Level Difference as defined by AS ISO 140.4–2006 [6]), which is related to the sound level difference between two spaces. The criteria are based on our experience in the acoustic design of similar facilities. Table 7 details the subjective response of individuals to the proposed privacy ratings for interpretation of the recommendations.

D_W Rating	Subjective Rating
50 - 55	Confidential privacy
45 - 50	Very good privacy. Speech inaudible unless raised
40 - 45	Good privacy. Speech audible but unintelligible
35 - 40	Normal privacy. Neighbouring conversations are audible and may be understood
< 35	Privacy not required

Table 7: Subjective perceptions for various privacy ratings

Assessment and Recommendations

General

Acoustic Sealants

We note that for the acoustic integrity of building elements to be maintained, all gaps and interfaces along the junctions and joints of linings must be sealed with an appropriate acoustic grade sealant. Penetrations for mechanical or electrical services must be properly caulked and sealed around the ductwork and cabling to ensure the intended acoustic rating of the partition is retained.

Appropriate acoustic caulking products include:

- Bostik Firemastic.
- Bostik Seal-n-flex 2637.
- Pyropanel Multiflex.
- Dow-Corning 790 Silicone.
- Dow-Corning 795 Silicone.
- Sika Sikaflex-11 FC.
- Fosroc Flamex 3.

Cavity Infill

- Fibreglass – 50mm, 12kg/m^3.
- Rockwool – 50mm, 38kg/m^3.
- Polyester – 900gsm.

Ceiling Overlay

Where a ceiling overlay is recommended, equivalent alternatives are-

- Glasswool – 100mm, 12kg/m^3.
- Rockwool – 100mm, 38kg/m^3.
- Polyester – 100mm, 32kg/m^3.

Water Resistance and Durability

Where higher durability and/or water resistance is required, the following alternatives are acceptable from an acoustics point of view:

- 6 mm fibre cement in lieu of 13mm plasterboard
- 6 mm compressed fibre cement in lieu of the 13 mm fire-rated plasterboard
- 9mm compressed fibre cement in-lieu of 16 mm fire-rated plasterboard.

Noise Intrusion

Music Noise

We note that the Voice Karaoke Bar and Supper Lounge is in the vicinity of the proposed development. We reviewed their liquor license (see attached, Appendix C) and note the following trading hours as indicated on the licence:

- The Voice Karaoke Bar and Supper Lounge license states:

  "The venue's extended trading hours:

  - *Sunday to Wednesday – midnight to 3am the following day*
  - *Thursday to Saturday – midnight to 3am to the following day*
  - *Day preceding public holidays – midnight to 3am the following day*

  The premises shall not re-open before 10am on any day."

  "Condition 5: There shall be no loudspeakers placed on or in the fascia of the premises, balcony or in any adjacent outdoor area."

In addition to above, the licensing conditions restrict the number of patrons in each area, and the total number of patrons in the bar at one time (maximum 200 patrons).

Please note that the façade construction recommendations provided below considers the music noise impact from the adjacent Voice Karaoke Bar (music noise levels in accordance with unattended continuous noise survey taken into consideration).

Traffic Noise

The recommendations below are based on the traffic noise levels measured during the attended and unattended noise survey (refer Table 1 and Table 2 above). We note that the noise levels measured during unattended noise survey correlate well with the noise levels measured during unattended noise survey.

The architectural drawings do not indicate the extent of glazing, therefore, for the purpose of this assessment we have assumed 5m^2 glazing to each bedroom and living area and 10m^2 glazing to the Retail and Café tenancy.

Based on the results of our assessment, we make the following preliminary recommendations for construction of the building envelope[2]:

- Solid façade – the following construction are acceptable from acoustic point of view:
  - 150mm precast concrete. Please note that this construction is sufficient from acoustic point of view, however, it might require additional thermal insulation.
  - 200mm aerated autoclaved concrete block with 1 layer of 13mm plasterboard on 25mm furring channels and cavity infill of 25mm, 14kg/m^3 glasswool or equivalent; or
  - 75mm Hebel Powerpanel to the external side of 92mm steel studs and 1 layer of 13mm plasterboard to the internal side and cavity infill as specified; or
  - Composite light weight façade constructed of 9mm fibre cement to the external side of minimum 92mm steel studs and 1 layer of 13mm plasterboard to the internal side with cavity infill as specified above.

[2] *Please note that these recommendations are based on traffic noise only and will be revised once details about the engineering services plant are available.*

- Glazing[3]
  - Level 1 Apartments
    - Bedrooms – Minimum double-glazing system of 6.38 mm laminated glass, 12 mm air-gap and 6 mm glass.
    - Living areas – Minimum 6.38mm laminated glass
  - Level 5 – 21 Apartments
    - Bedrooms – minimum 6.38 mm laminated glass
    - Living areas – minimum 6 mm glass
  - Retail and Café/Bar/Restaurant: minimum 6.38mm laminated glass throughout.

We consider the above recommendations to be appropriate to meet the acoustic requirements based on the current design progress of the project. We note however, that the glazing configuration may be subject to change to meet thermal or structural requirements. Further, the above recommendations may be revised in response to changes to architectural scope and the development progress.

Please note that where operable glazing is considered, it should be fitted with compressible acoustic seals (Raven or Schlegel ranges).

Sound Insulation

To achieve the NCC 2016 requirements and the criteria stipulated in Table 4, we recommend:

- Walls
  - Walls between sole-occupancy units – 2 layers of 13mm plasterboard to one side of two rows 64mm separate steel studs offset from each other by minimum 20mm air space and 2 layers of 13mm plasterboard to the other side extending to the structure above and with cavity infill as specified above.
  - Walls separating sole-occupancy units from corridors and lobbies – 2 layers of 13mm plasterboard to one side of 64mm staggered steel studs in minimum 92mm track and 1 layer of 13mm plasterboard to the other side extending to the structure above and cavity infill as specified.
  - Walls separating sole occupancy units from lift shafts, car parking, car lift runs and stairwells - assuming that the lift shafts, car lifts, car parking and stairwell walls would be minimum 200mm thick precast concrete panels, we recommend construction consisting of 1 layer of 13mm plasterboard installed to apartment side of 64mm steel studs offset from the precast concrete panel by minimum 20mm gap, with cavity infill of 50mm, 12kg/m^3 glasswool.
  - Partitions separating the café/restaurant/bar, retail and amenities from other areas – 1 layer of 13mm plasterboard to one side of minimum 64 mm steel studs and 2 layers of 13mm plasterboard to the other side with 1 layer of plasterboard extending to the structure above and cavity infill as specified above. For partition construction detail, please see Detail 1, Appendix A.
  - Partitions separating plant rooms from other spaces (applicable in context to Level 1 and above) – 2 layers of fire rated plasterboard on each side of minimum 64mm steel studs with all layers of plasterboard extending to the structure above and cavity infill as specified above. For partition construction detail, please see Detail 2, Appendix A.
  - Walls separating sole occupancy units from garbage disposal chutes – 2 layers of 16mm fire rated plasterboard to the apartment side of 102mm C-H stud and 1 layer of 25mm Shaftliner to the chute side with cavity infill of 50mm, 12kg/m3 glasswool.
  - Internal Partitions - The NCC does not specify any particular requirements for the separation of internal spaces within sole-occupancy units and as such, 1 x 13 mm plasterboard to each side of steel studs will be acceptable.

[3] *The glazing recommendations will be reassessed in greater detail, once the appropriate drawings, elevations and schedules are available*

- Doors
  - Sole occupancy unit entry doors – minimum 45mm thick solid core doors with compressible seals (e.g. Raven or Schlegel ranges).
  - Stairwells – we recommend the stairwell doors to be 55 mm solid core. In order to avoid noise from slamming of stairwell doors into the apartment lobbies, we recommend installing a soft closer mechanism (e.g. damping piston) to the stairwell doors.
  - Services Plant rooms – 55mm thick solid core doors with heavy duty acoustic perimeter seals (e.g. Raven RP47Si, RP70 and RP16Si).
  - Doors to café/restaurant/bar and retail tenancy – 45mm thick solid core doors or hinged aluminium framed doors with 10.38 mm laminated glass. We recommend medium duty acoustic seals be installed (Raven RP8 and RP10).
  - Amenities (Ground Floor) – 45mm solid core doors would be acceptable.
- Internal glazing
  - Café/restaurant/bar and Retail tenancy – We recommend a single glass pane minimum 10.38 mm laminated glass be used. An acoustic baffle consisting of either one layer of 13 mm plasterboard or AUTEX QuietSpace Baffle Block will be required above the ceiling. If the baffle is constructed of 1 layer of 13mm plasterboard, it should extend to the structure above with all interfaces and junction blocked off and sealed. If BaffleBlock is used, it should have minimum density of 16kg/m^3, should extend 300mm each side of the partition and must be minimum 30% compressed between the ceiling and the structure above.
- Floor/Ceiling and Roof
  - Floors between sole occupancy units – 200mm concrete with ceiling of 1 layer of 13mm plasterboard with ceiling overlay as specified above. Where a hard floor finish is used in a room above habitable spaces (bedrooms and open plan living / kitchen areas for example), for NCC compliance they must be installed on resilient underlay (e.g. Construction Chemicals Acoustibond, Thermotec Impact Foam, Regupol, Damtec). The resilient underlay is not required for where bathrooms and balconies are stacked (located above/below each other).
  - Floor between level 1 apartments and level 2 carpark - we note that 200mm thick in-situ concrete with ceiling if 1 layer of 13mm plasterboard with ceiling overlay as specified above will provide sufficient sound transmission loss between the level 2 carpark and the apartments on level 1.
  - Floor between level 4 carpark and level 5 apartments - we note that 200mm thick in-situ concrete will provide sufficient sound transmission loss between the level 4 carpark and the apartments on level 5.
  - Roof deck to sole occupancy units below - Based on the impact performance for a 200 mm thick concrete slab, to reduce to the impact of footfall noise and vibration transfer to the apartments below from residents utilising the roof deck space, we recommend that a resilient underlay, such as a rubber screed or similar be used, for solid tile or brick roof terrace construction.

Hydraulics

The following stipulates recommend design in order to reach NCC compliance with hydraulic systems. Where a wall separates a room of a sole-occupancy unit from a duct, soil, waste or water pipe serving or passing through more than one sole-occupancy unit, we recommend the following constructions:

- Where the adjacent room is a habitable room (i.e. bedroom, open plan living room, etc.), the pipes should be lagged with Soundlag 4525C or equivalent and enclosed with 1 layer of 13mm fire-rated plasterboard with cavity infill as specified in the General Recommendations (See Appendix B, Figure B- 1).
- Where a waste water pipe is running within the ceiling space of a habitable room or the waste water pipe is running within the ceiling space next to a habitable room, the pipes should be lagged with Soundlag 4525C or equivalent with ceiling overlay of 100mm, 32kg/m^3 polyester extending minimum 1,200mm each side of the pipe. Please note that down lights should be avoided in these areas (See Appendix B, Figure B- 2).

We note that the specified constructions above will achieve a rating of $R_W + C_{tr}$ 40 and will meet the NCC requirements for a services riser adjoining a habitable space.

- Where the room is a non-habitable room (See Appendix B, Figure B- 3)
  - The pipes should be lagged with Soundlag 4525C or equivalent, and the wall construction would be as per architectural requirements, or
  - The pipes left unlagged and enclosed with 1 layer of 13mm fire-rated plasterboard with cavity infill as specified.

We note that both the constructions specified will achieve a rating of $R_W + C_{tr}$ 25, and will meet the NCC requirements for services riser adjoining a kitchen or non-habitable room.

A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump, as to avoid vibration from pump operation be transmitted into the building structure, which could lead to structure borne noise.

Environmental Noise

Intermittent Noise

Noise Associated with Rubbish Collection

Based on the Waste Management Plan [14], we note that the rubbish vehicle will access the rubbish collection zone via shared driveway in reverse direction, collect waste from the collection zone and exit via Coglin Street (S-N). Based on this we assessed the noise impact to the surrounding noise sensitive receivers (refer Figure 2 above) resulting from noise emissions from typical rubbish collection vehicle activities.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) assuming the following activity/event durations and the corresponding noise levels measured on a previous project:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm) – 60 seconds, 70dBA at 5m.
- Rubbish collection – 2 minutes, 65dBA at 5m.
- Rubbish vehicle departing – 60 seconds, 73dBA at 5m.
- The balance of a 15-minite interval – 11 minutes, 56 dBA ambient noise levels (refer Table 2 above)

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval resulting rubbish collection activities listed above, which we used in the assessment was 62dBA at 5m.

Based on the above, we predicted incident noise levels of 54 dBA at the façade of the nearest noise sensitive receiver, which marginally exceeds the stipulated day-time environmental noise criterion (52 dBA). However, based on attended noise survey results, we note that the measured ambient noise levels (up to 56 dBA) exceeded the predicted incident noise levels of 54 dBA.

Therefore, we note that the noise emissions resulting due to rubbish collection activities are within the existing day-time noise levels and in order to ensure the amenity of the residents is preserved, we recommend the rubbish collection be restricted to the EPA stipulated day time only (i.e., after 7:00AM) Monday to Friday and after 9:00AM on Saturday and Sunday (if applicable).

Transient Noise

Noise Associated with Delivery Vehicles

The L_{Amax} noise levels associated with loading / unloading activities result mainly from reverse alarm when the vehicle is manoeuvring and impacts when the goods are wheeled in and out. We will assess the noise impact associated with deliveries once the design is sufficiently developed.

Continuous Noise

Noise Associated with Engineering Plant Infrastructure

Details of the engineering plant infrastructure that will be serving the development are not available at this stage (Air conditioning selection and strategy, fire pump details, hydraulic pumps, Gensets etc).

However, we note that the airborne noise associated with the engineering services will be controlled by design of appropriate attenuators, duct lagging and acoustic enclosures. This will include noise intrusion from the plant, as well as the environmental noise to the surrounding noise sensitive receivers.

The vibration and structure borne noise will be controlled by design of appropriate vibration isolators (double deflection mounts, spring isolators with appropriate translational restraints etc.).

Noise Associated with Car Park

Based on the architectural drawings [9] and the Traffic Impact Statement [13], we note a 3-storey carpark with total 39 carpark spaces with access via Coglin Street (S-N) serving the development. We have investigated the potential environmental noise impact the carpark movements will have on the surrounding noise sensitive receivers (refer Figure 2 above) using a time-weighted average approach to estimate an average A-weighted equivalent continuous noise level ($L_{Aeq,15min}$), considering the following[4]:

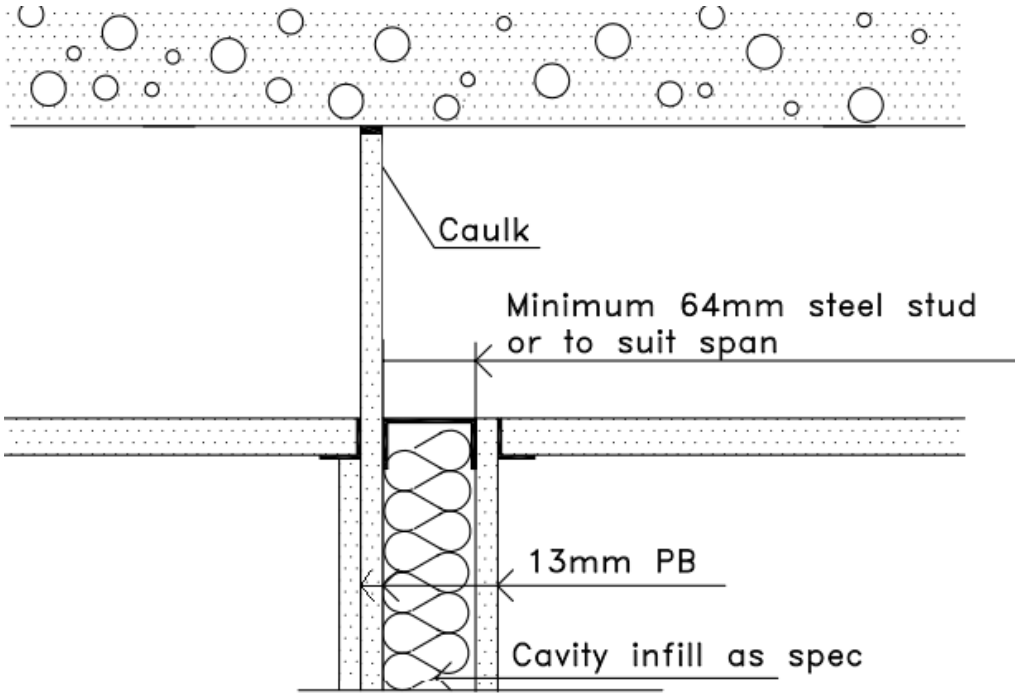
- Idling and take off at the car lift space,
- 16 vehicles entering/exiting per hour during peak hour time period [13], which equates to 4 vehicle entry/exit during a 15-minute interval,
- Time to enter/exit car lift – 10 seconds/car (lift access restriction of one car per run)

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) resulting from carpark use, which we used in the assessment was 58dBA at 6m.

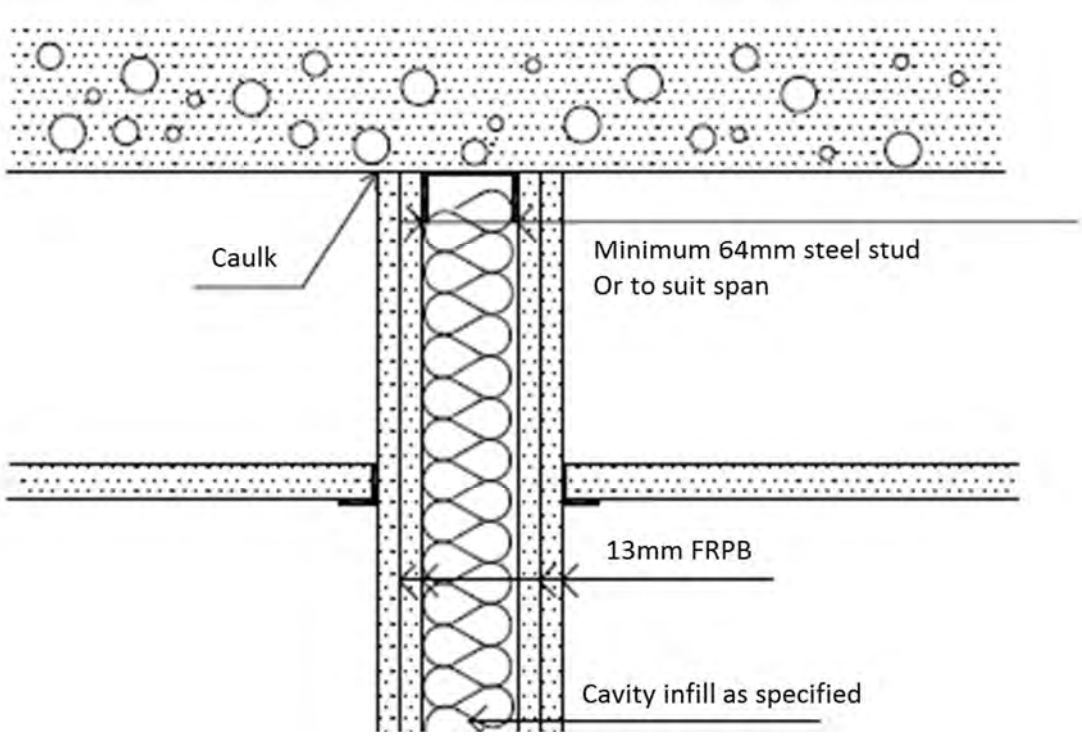
Our assessment reveals that the predicted noise levels at the façade of the nearest noise sensitive receiver readily achieves the criteria for continuous environmental noise (for criteria please refer to sub-section Environmental Noise above).

[4] These activities/events are based on the Traffic Impact Statement [13]

Appendix A – Partition Construction Details



Detail 1: Good Privacy, D_W 40 - 45



Detail 2: Proposed Construction for partitions separating Plant Room from adjacent spaces

Appendix B – Pipe work details to achieve NCC compliance

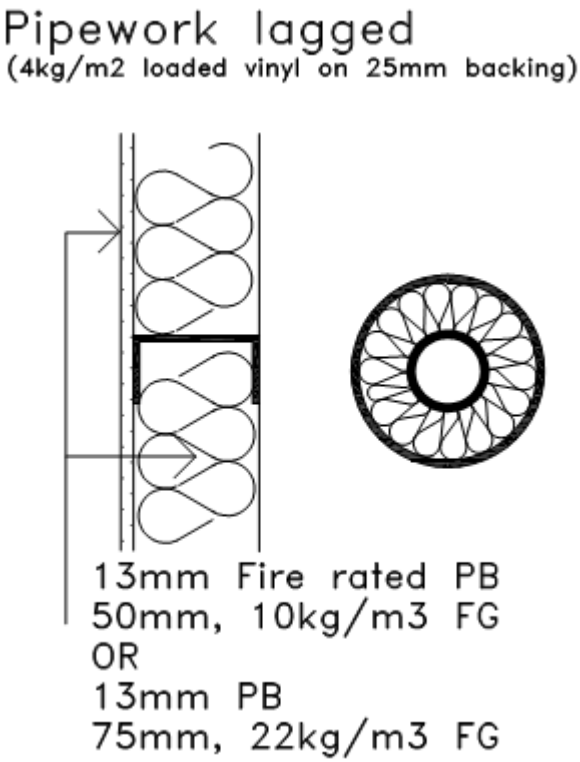


Figure B- 1: Construction to achieve R_w+C_{tr} 40, for pipes running adjoining habitable spaces (Bedroom, Living)

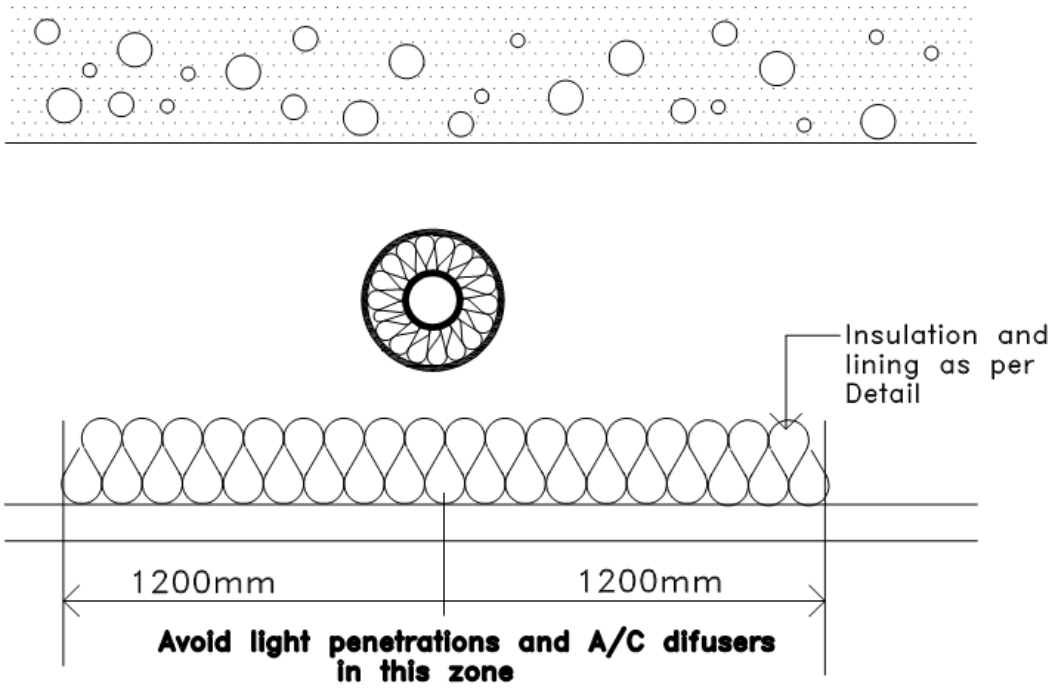


Figure B- 2: Construction for pipes running through ceiling of habitable spaces

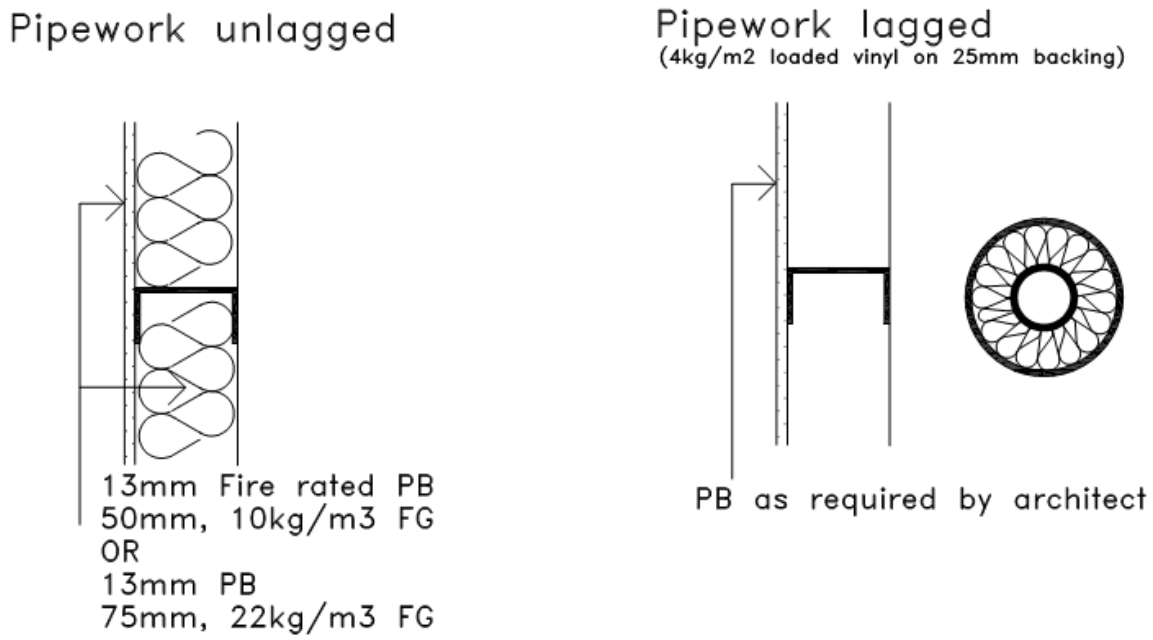


Figure B- 3: Construction to achieve R_w+C_{tr} for pipes adjoining non-habitable spaces (e.g. Bathroom, Laundry)

Appendix C – The Voice Karaoke Liquor License

Liquor Licensing Act 1997

Entertainment Venue Licence
50501420

PREMISES NAME:	**THE VOICE KARAOKE**
PREMISES ADDRESS:	**1st Floor, 31-39 Gouger Street, Adelaide**
LICENSEE:	**WL Yang Investments Pty Ltd**
LICENSED PREMISES:	**Outlined in red on the approved plan**
AUTHORISATION:	**To sell and supply liquor in accordance with Section 35 of the *Liquor Licensing Act 1997* and any other conditions of the licence** **This licence does not authorise the sale or supply of liquor on the licensed premises between the hours of 3am and 10am**
EXTENDED TRADING AUTHORISATION:	**Outlined in pink on the plan and shown as Areas 1 to 18** **Sunday to Wednesday midnight to 3am the following day** **Thursday to Saturday midnight to 3am the following day** **Days preceding public holidays midnight to 3am the following day** **The premises shall not re-open before 10am on any day**
ENTERTAINMENT CONSENT:	**Outlined in blue on the plan and shown as Areas 1 to 18**
DESIGNATED AREAS:	**Dining Outlined in green on the plan and shown as Areas 1 to 18**
CAPACITIES:	**Refer Page 2**
CONDITIONS:	**Refer Pages 2 to 4**

Date of issue: 21 DECEMBER 2016 **LIQUOR AND GAMBLING COMMISSIONER**

Page 2

CAPACITIES:

Area 1 - 15 persons	Area 6 - 13 persons	Area 11 - 15 persons
Area 2 - 15 persons	Area 7 - 13 persons	Area 12 - 13 persons
Area 3 - 33 persons	Area 8 - 20 persons	Area 13 - 35 persons
Area 4 - 17 persons	Area 9 - 9 persons	Area 14 - 21 persons
Area 5 - 11 persons	Area 10 - 9 persons	Area 15 - 90 persons
Area 16 - 14 persons	Area 17 - 8 persons	Area 18 - 8 persons

(Capacity shall not exceed 200 persons due to limited toilets).

CONDITIONS:

1. **The premises shall not re-open before 10.00am on any day.**

2. **From midnight the licensee shall ensure patrons do not enter or exit from the rear of the premises unless in the case of emergency.**

3. **The licensee, its employees or entertainers shall not advertise or promote the premises the subject of this licence, or the entertainment to take place within the licensed premises, by way of posters or other advertising material fixed, attached or marked, on any Council property without the prior written permission of the Corporation of the City of Adelaide or authorisation of the landlord of any private property.**

4. **The music noise source in each booth is to be restricted to 96dB(A) as per the spectra detailed in condition 2 of the attached Provisional Development Plan Consent.**

5. **There shall be no loudspeakers placed on or in the fascia of the premises, balcony or in any adjacent outdoor area.**

6. **Loudspeakers are to be directed away from any entrance to or exit from the premises and be directed into the premises proper.**

7. **All doors into Karaoke booths shall not comprise any form of locking device and shall be able to be opened at all times.**

8. **No garbage or refuse (including empty bottles and cans) is to be moved from inside the premises to outside storage bins between the hours of 11.00pm and 7.00am of the following morning.**

9. **Garbage or refuse (including empty bottles and cans) is not to be available for collection by waste disposal or similar contractors (other than operators employed by or organised by the Corporation of the City of Adelaide) between the hours of 11.00pm and 7.00am of the following morning.**

Date of issue: 21 DECEMBER 2016 **LIQUOR AND GAMBLING COMMISSIONER**

Page 3

CONDITIONS: (continued)

10. On a Saturday night when a dedicated DJ is provided by the licensee then the licensee shall provide an approved crowd controller from 11pm to 2am the following day.

11. At all times while open for trade, the licensee must have a digital CCTV system in place to take visual recordings at all entry and exit points, the footpath immediately adjacent to the premises and all other internal and external licensed areas of the premises (excluding toilets) to which customers have access.

12. The digital CCTV system must operate continuously while the premises is trading and must continue to operate for at least one hour after the premises ceases to trade.

13. The digital CCTV system must record the correct date and time in English.

14. The licensee must ensure that while the digital CCTV system is in use, the level of lighting at all entry and exit points is adequate so as to allow clear visual recordings to be taken.

15. The licensee must ensure that the visual recordings are securely stored so as to prevent unauthorised access, for a period of time not less than 28 days.

16. The licensee must ensure that the visual recordings can be easily downloaded via disk and USB and must be compatible with contemporary operating systems.

17. The licensee must ensure that the visual recordings and any information relating to the visual recordings is made available as soon as practicable upon the request of an authorised officer acting in the course of his or her official duties (noting that the authorised officer must identify the date, time and location of the premises to which the request relates as well as the reasons for the request).

18. The licensee must take all practicable steps to ensure that the CCTV system is in good working order at all times and, in the event of any cessation in the operation of the CCTV system, the licensee bears the onus of proving that such steps have been taken.

19. Each individual karaoke room door fitted with a transparent window to allow monitoring of these Areas.

Date of issue: 21 DECEMBER 2016 **LIQUOR AND GAMBLING COMMISSIONER**

Page 4

CONDITIONS: (continued)

20. Each individual karaoke room must be fitted with a working audible smoke alarm.

21. Liquor must not be provided in larger quantities than two per person per group of patrons of 375ml bottles of beer or ready to drink (RTD) type drinks. Spirits must not be provided in more than 60ml serves per glass. No more than 120mls of spirits is to be served per jug with mixer and no more than 2 jugs of mixed spirits are to be served at any one time. Whole bottles of spirits and cartons of beer/ready to drink RTD's are not be provided to patrons.

22. Between 12.01am and 7.00am or closing time (whichever is earlier), the licensee must ensure that at any given time, at least one person who is approved as a Responsible Person under the Liquor Licensing Act 1997 is performing the duties of a drink marshal.

23. The duties of a drink marshal are to monitor compliance with section 108 of the Liquor Licensing Act 1997 and the Liquor Licensing General Code of Practice and, in particular, to monitor the behaviour and alcohol consumption of customers to reduce the likelihood of incidents of intoxication and/or disorderly, offensive, abusive or violent behaviour on licensed premises.

24. The drink marshal must patrol the whole of the licensed premises accessible to and occupied by customers, and must alert bar and serving staff to any concerning behaviour that is taking place by customers on the licensed premises.

25. If the drink marshal suspects that person is intoxicated or observes someone behaving in a disorderly, offensive, abusive or violent manner, he/she may exercise the powers that they have under the Liquor Licensing Act 1997 as a Responsible Person or they must immediately report this to the licensee or manager/supervisor on duty for appropriate action to be taken.

26. There shall be no DJs permitted between 1.00am and 2.00am Sunday to Thursday nights.

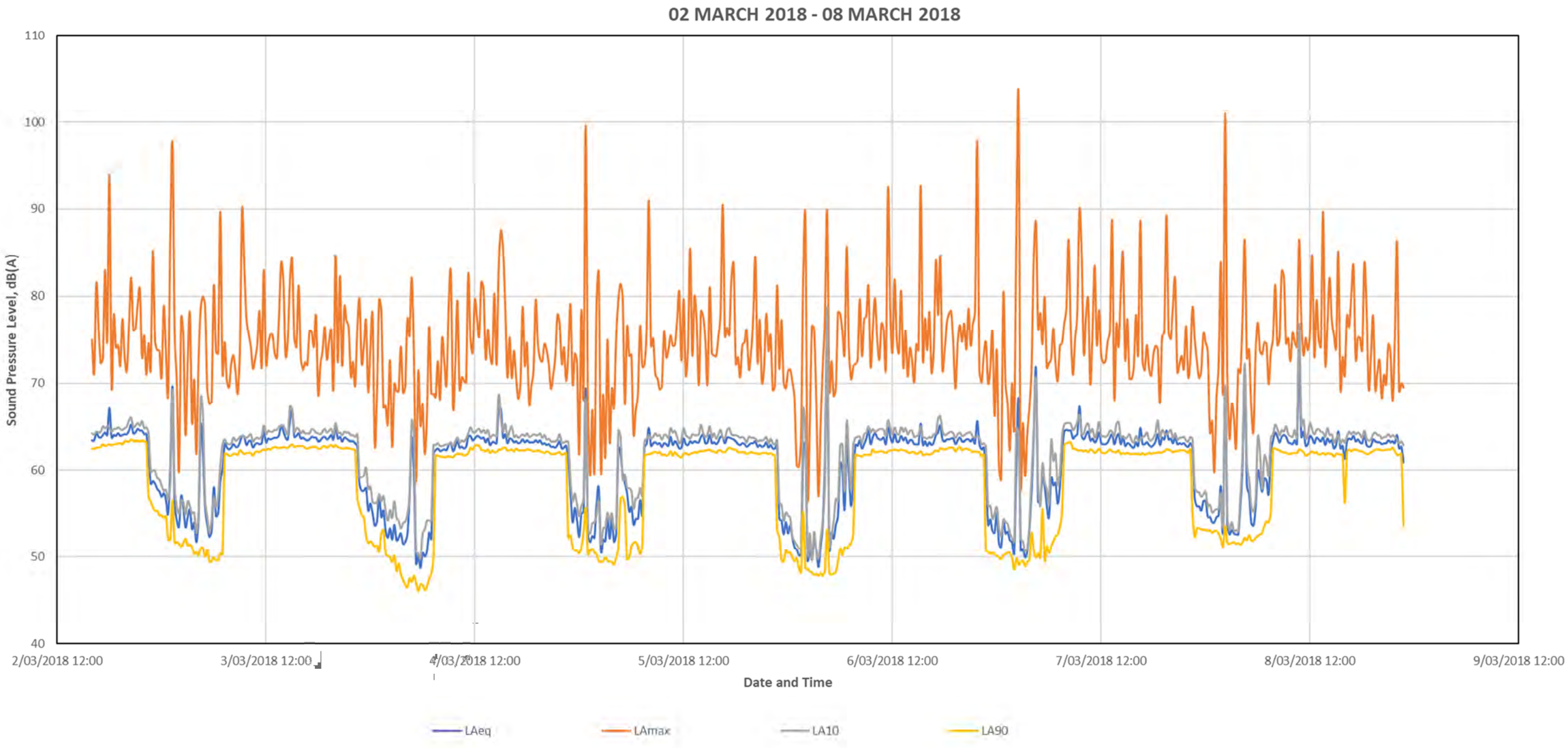
27. The licensee shall display signage at the points of entry and exit of the licensed premises along the lines of:

    "patrons do not stand in front of doorways to neighbouring premises"

    I refer to Order No 204494 dated 21 December 2016 and note the further consideration to the application will be made on an ongoing basis at 2:15pm Tuesday 21 February 2017.

Date of issue: 21 DECEMBER 2016 **LIQUOR AND GAMBLING COMMISSIONER**

Appendix D – Plot Summary of Unattended Continuous Noise Survey



Appendix E – Glossary of Acoustic Terminology

dB(A) Also referred to as dBA. A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate human ear response at a loudness level of 40 phons. The table below outlines the subjective rating of different sound pressure levels.

Noise Level (dBA)	Subjective Rating
25-30	Barely audible and very unobtrusive.
30-35	Audible but very unobtrusive.
35-40	Audible but unobtrusive.
40-45	Moderate but unobtrusive.
45-50	Unobtrusive with low levels of surrounding activity.
50-55	Unobtrusive with high levels of surrounding activity.

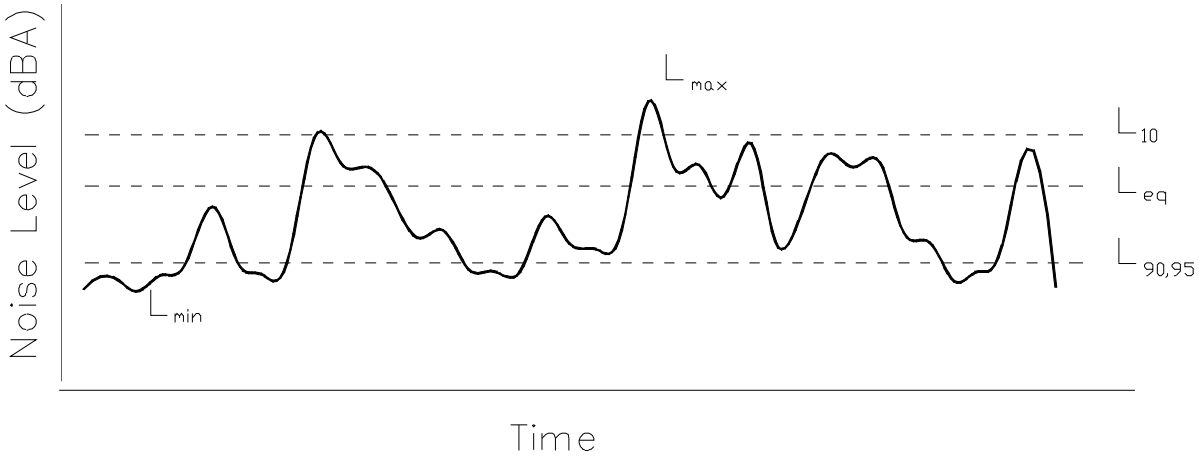
L_1 The noise level which is equalled or exceeded for 1% of the measurement period. L_1 is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L_{10} The noise level which is equalled or exceeded for 10% of the measurement period. L_{10} is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L_{90}, L_{95} The noise level which is equalled or exceeded for 90% of the measurement period. L_{90} or L95 is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise (usually in dBA).

L_{eq} The equivalent continuous noise level for the measurement period. L_{eq} is an indicator of the average noise level (usually in dBA).

L_{max} The maximum noise level for the measurement period (usually in dBA).



Note: The subjective reaction or response to changes in noise levels can be summarised as follows: A 3dBA increase in sound pressure level is required for the average human ear to notice a change; a 5dBA increase is quite noticeable and a 10dBA increase is typically perceived as a doubling in loudness.

STC/R_W Sound Transmission Class or Weighted Sound Reduction Index. Provides a single number rating (from the sound transmission loss or sound reduction index for each frequency band) of the sound insulation performance of a partition. The higher the value, the better the performance of the partition. The subjective impression of different ratings is shown in the table below.

Type of noise source	STC/Rw Rating				
	40	45	50	55	60
Normal Speech	Audible	Just Audible	Not Audible		
Raised speech	Clearly Audible	Audible	Just Audible	Not Audible	
Shouting	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Small television/small entertainment system	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Large television/large hi-fi music system	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Just Audible
DVD with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible
Digital television with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible

FSTC/R_W' The equivalent of STC/R_W, unit for sound insulation performance of a building element measured in the field.

C_I, C_{tr} The ratings (R_W, D_{nTw}, L_{nTw}) are weighted in accordance to a spectrum suited to speech. This term modifies the overall rating to account for noise with different spectra, such as traffic (C_{tr}) or footfalls (C_I). The ratings may be written as R_W+C_{tr}, or $D_{nTw}/L_{nTw}+C_I$.

NNIC/D_{nTw} Normalised Noise Isolation Class, or Weighted Standardised Sound Level Difference. Provides a single number rating of the sound level difference between two spaces, and incorporates the effects of flanking noise between two spaces. This rating is generally accepted to be about 5 points less than the STC/R_W rating.

IIC/L_{nw} Impact Insulation Class, or Weighted Normalised Impact Sound Level. L_{nw}=110-IIC. The higher the IIC rating, or the lower the L_{nw} rating the better the performance of the building element at insulating impact noise. The table below gives the subjective impression of different ratings:

IIC	Lnw	Subjective Rating
40	70	Clearly Audible
45	65	Clearly Audible
50	60	Audible
55	55	Audible
60	50	Just Audible
65	45	Inaudible

FIIC/L_{nTw}' The equivalent of IIC/L_{nw}, but the performance is for the building element measured in the field.

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Adelaide SA 5000

JPE Design Studio Pty Ltd
L4,19 Gilles St St
ADELAIDE SA 5000
Attn Natasha Qiu

12th February 2018

Dear Natasha,

PROPOSED DEVELOPMENT 21 COGLIN ST ADELAIDE
STORMWATER MANAGEMENT

This report discusses the existing site conditions, the proposed development and the council requirements for handling and treatment of stormwater flows resulting from the development of the site.

Existing site details:

- Area 597 sqm
- Total Impervious 597 sqm
- Landscaped areas Nil

The site falls minimally to the east. The surrounding streets fall as follows:

- Eastern side of the block – falls to the north
- Northern side of the block – falls to the west
- Western side of the block – falls to the north

Discharge to the street drainage system is via ground level discharge through the existing crossovers on the Eastern Boundary.

Proposed development:

The proposed development consists of apartments, retail tenancies and associated carparking.

- Area 597 sqm
- Total Impervious 597 sqm
- Landscaped area Nil

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Stormwater System:

Council has advised that since the impervious proportion of the site remains unaltered that no on site detention of stormwater is required.

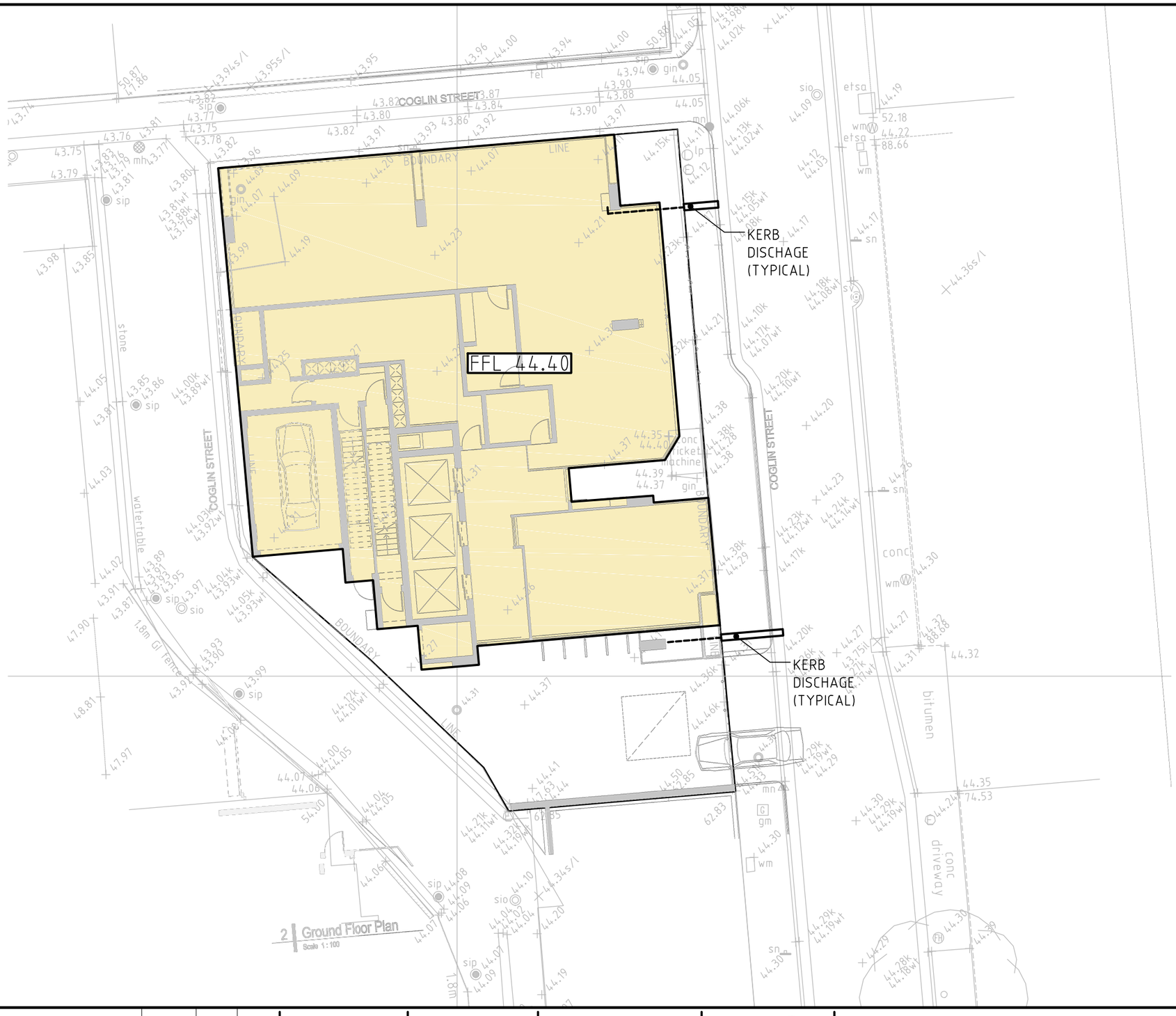
Major flood events (1 in 100 year ARI event) are catered for within to the surrounding streets. Overflows from the roof will discharge directly to the street. Ground floor level will be set above back of existing footpath levels in accordance with council requirements.

This proposal is consistent with the natural grade on the site.

Refer to the attached sketch drawing SK1 for a schematic stormwater management plan.

Regards,

Jon Rudd
Partner



REV	DESCRIPTION	DATE	BY	APP
A	ISSUED FOR APPROVAL	12.02.18	PGH	JR

DREW RUDD ENGINEERS

DESIGNED	JR	SCALE	1:100,20
DRAWN	PGH	DATE	FEB '18

NORTH

PROJECT REF. 1817273

SHEET No. SW1

REV A

SHEET TITLE
STORMWATER MANAGEMENT PLAN

PROJECT NAME
21 COGLIN ST ADELAIDE

Project: COLLINS ST APARTMENTS Page: 1

Subject: STORMWATER Date: FEB/18

DREW RUDD ENGINEERS

CHECK 100YR DISCHARGE RATES. (NO STREET PIPED SYSTEM)

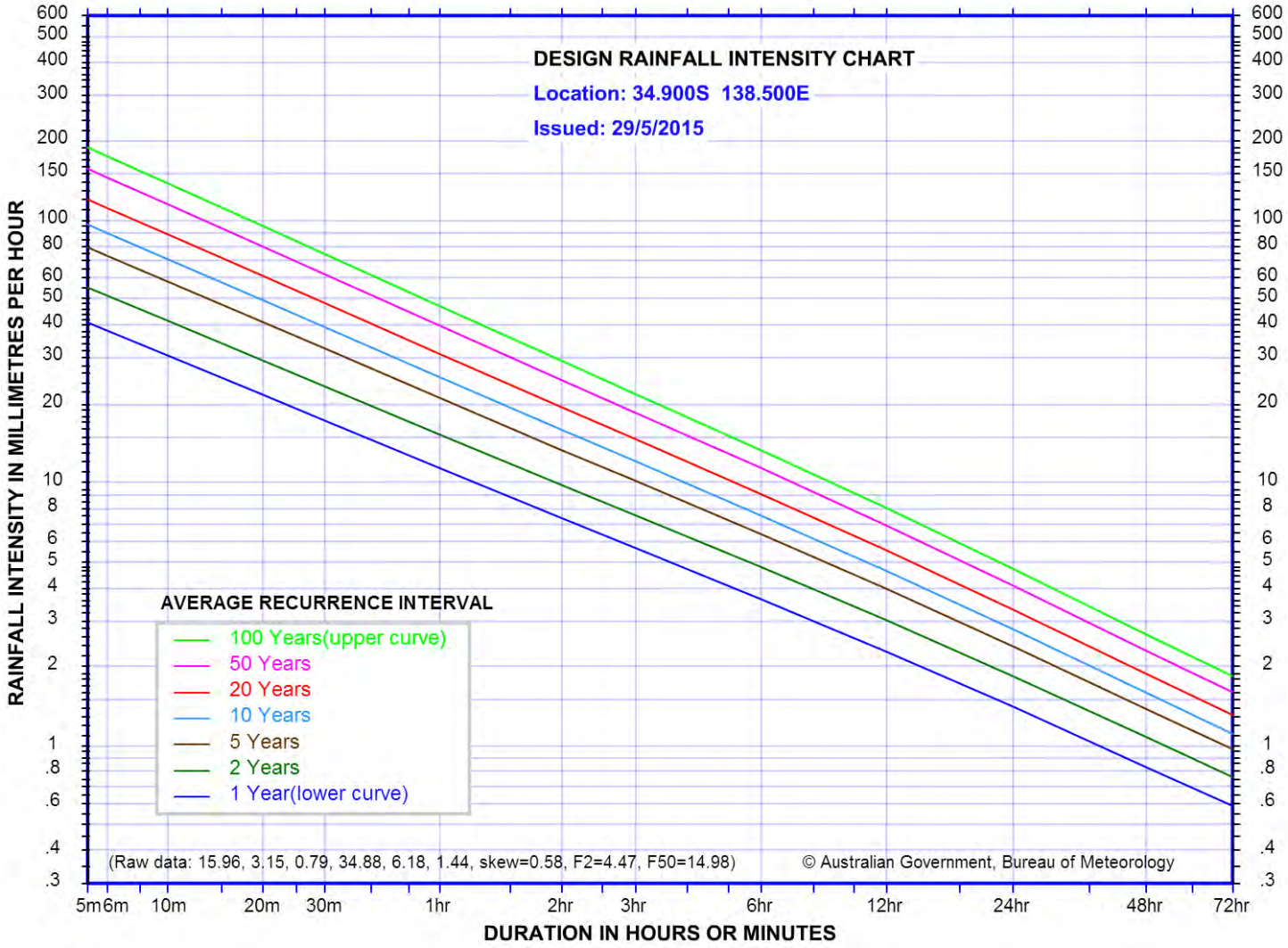
SITE AREA 597 l/s.

20 YR ARI

t_c = 5 mins (SMALL SITE)

$$q = \frac{1.0 \times 597 \times 120}{3600} = 20 \text{ l/s.}$$

→ SPLIT TO 2 DISCHARGE POINTS.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Issued: 29/5/2015
RAINFALL INTENSITY IN MILLIMETRES PER HOUR
600
500
400
300
200
150
100
80
60
50
40
30
20
10
8
6
5
4
3
2
1
.8
.6
.4
.3
AVERAGE RECURRENCE INTERVAL
100 Years(upper curve)
50 Years
20 Years
10 Years
5 Years
2 Years
1 Year(lower curve)
(Raw data: 15.96, 3.15, 0.79, 34.88, 6.18, 1.44, skew=0.58, F2=4.47, F50=14.98)
© Australian Government, Bureau of Meteorology
5m
6m
10m
20m
30m
1hr
2hr
3hr
6hr
12hr
24hr
48hr
72hr
DURATION IN HOURS OR MINUTES

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Adelaide SA 5000

JPE Design Studio Pty Ltd
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ADELAIDE SA 5000
Attn Natasha Qiu

12th February 2018

Dear Natasha,

PROPOSED DEVELOPMENT 21 COGLIN ST ADELAIDE
RESULTANT WIND EFFECTS AT STREET LEVEL

This report is in relation to the proposed development at 21 Coglin St Adelaide and presents an opinion on the likely impact of the proposed development on the wind environment on the critical areas within and around the proposed development. The impact of wind activity is examined for wind from the north, south, east and west. The analysis of the wind effects relating to the proposal was carried out in the context of local wind climate, building morphology and land topography.

The conclusions of this report are drawn from experience in this field, and based upon examination of the architectural drawings which have been prepared by JPE Design Studio. No wind tunnel testing has been undertaken. As such, this report addresses only the general wind effects and any localised effects that are identifiable by visual inspection. Any recommendations in this report are made only in principle and are based upon our experience in the study of wind environment effects around buildings.

Wind Climate of the Adelaide Region

The Adelaide region is subject to varied winds from different directions at different times of the day and at different times of the year. These variables are measured at the Adelaide Airport and the data is presented in the form of Wind Roses. The wind roses are included as appendix A. It is clear that the critical wind directions are North Northeast in the mornings and the Southwest in the afternoon.

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Wind Effects on People

The acceptability of wind in any area is dependent upon its use. The following table describes the effects of various wind intensities on people (Penwarden, 1975)

Type of Winds	Beaufort Number	Gust Speed (m/s)	Effects	Applicability
Calm, light air	1	0 - 1.5	Calm, no noticeable wind	Generally acceptable for Stationary, long exposure activities such as in outdoor restaurants, landscaped gardens and open air theatres.
Light breeze	2	1.6 - 3.3	Wind felt on face	
Gentle breeze	3	3.4 - 5.4	Hair is disturbed, Clothing flaps	
Moderate breeze	4	5.5 - 7.9	Raises dust, dry soil and loose paper - Hair disarranged	Generally acceptable for walking & stationary, short exposure activities such as window shopping, standing or sitting in plazas.
Fresh breeze	5	8.0 - 10.7	Force of wind felt on body	Acceptable as a main pedestrian thoroughfare
Strong breeze	6	10.8 - 13.8	Umbrellas used with difficulty, Hair blown straight, Difficult to walk steadily, Wind noise on ears unpleasant.	Acceptable for areas where there is little pedestrian activity or for fast walking.
Near Gale	7	13.9 - 17.1	Inconvenience felt when walking.	
Gale	8	17.2 -20.7	Generally impedes progress, Great difficulty with balance.	Unacceptable as a public accessway.
Strong gale	9	20.8 - 24.4	People blown over by gusts.	Completely unacceptable.

The criteria for acceptance of wind conditions for various activities is shown in the table below:

Comfort Criteria	Beaufort Scale Equivalent
Safety	9 – Strong Gale
Walking	5 – Fresh Breeze
Standing	4-5 – Moderate to Fresh Breeze
Sitting	<4 – Moderate Breeze

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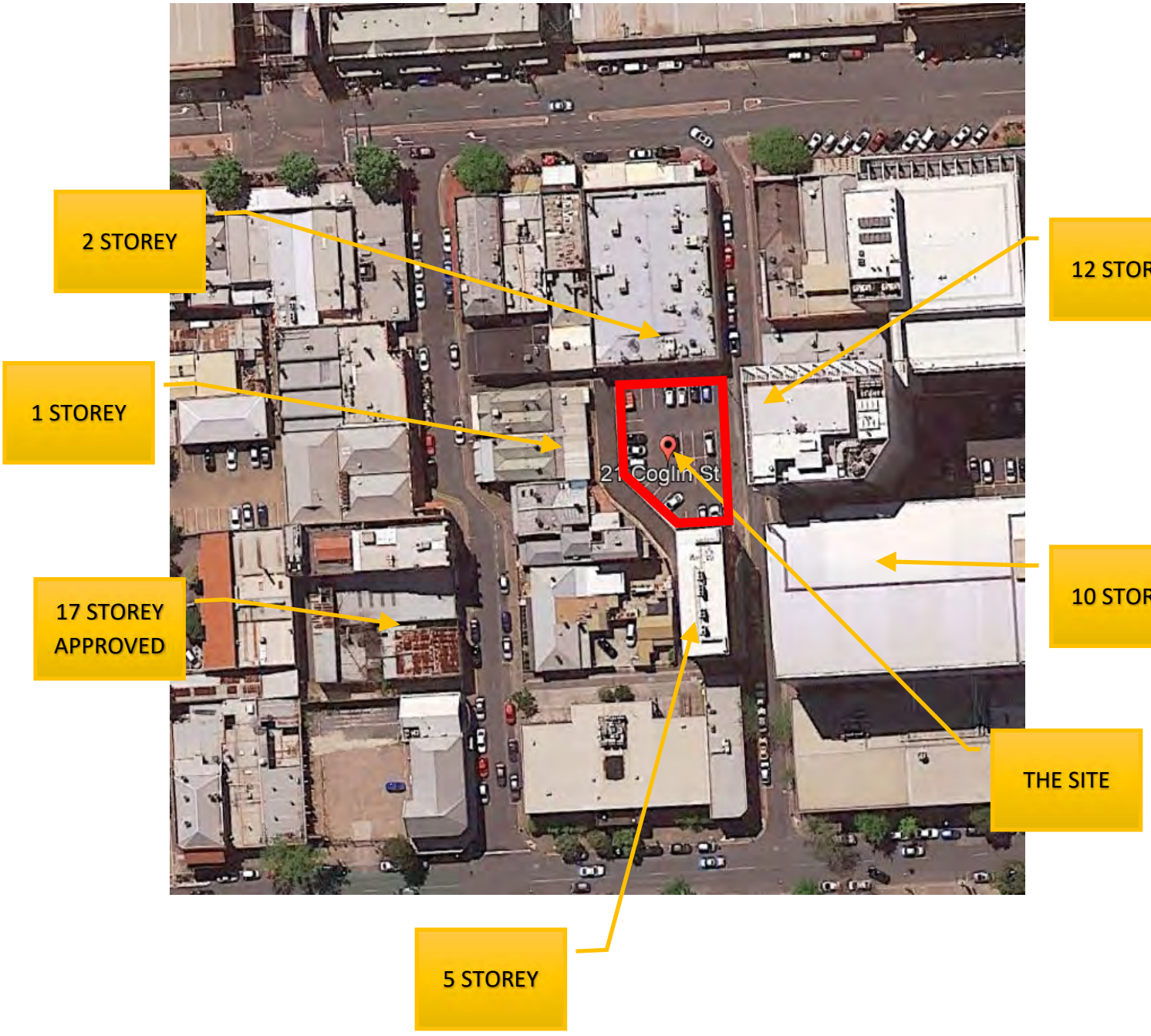
Description of the proposed Development and Surrounds

The proposed development consists of a 23 storey apartment building. The building footprint is approximately 21.6x x 31 metres and covers the site to the street boundaries on the east, north and west sides and against an existing six level office building to the south. The tower is immediately bounded by existing buildings in the range of 1 to 12 storeys There is a 17 storey apartment building approved some 50m to the southwest on Market St

The surrounding topography is generally flat.



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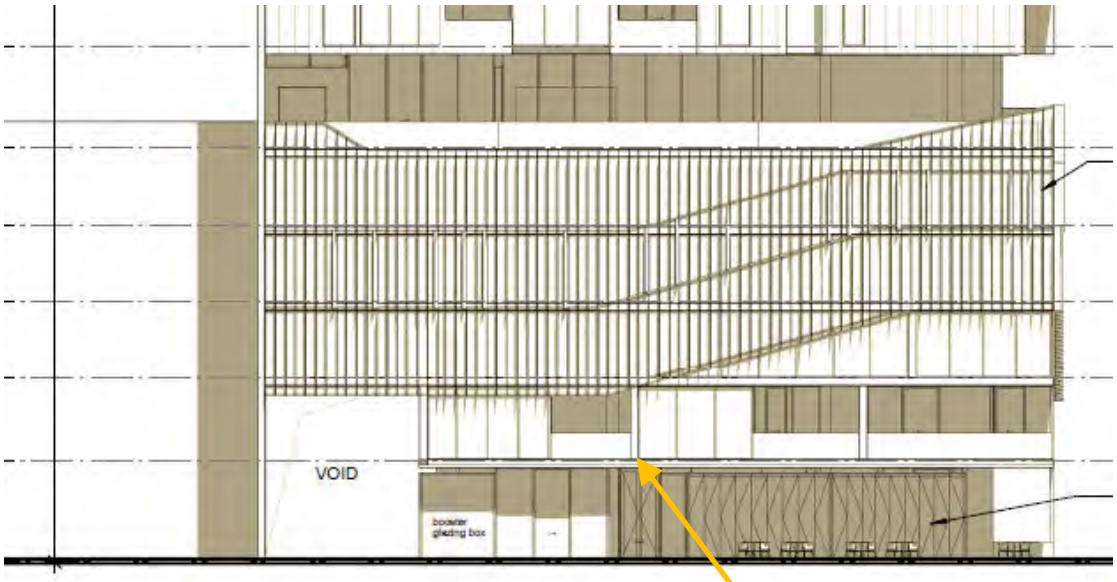
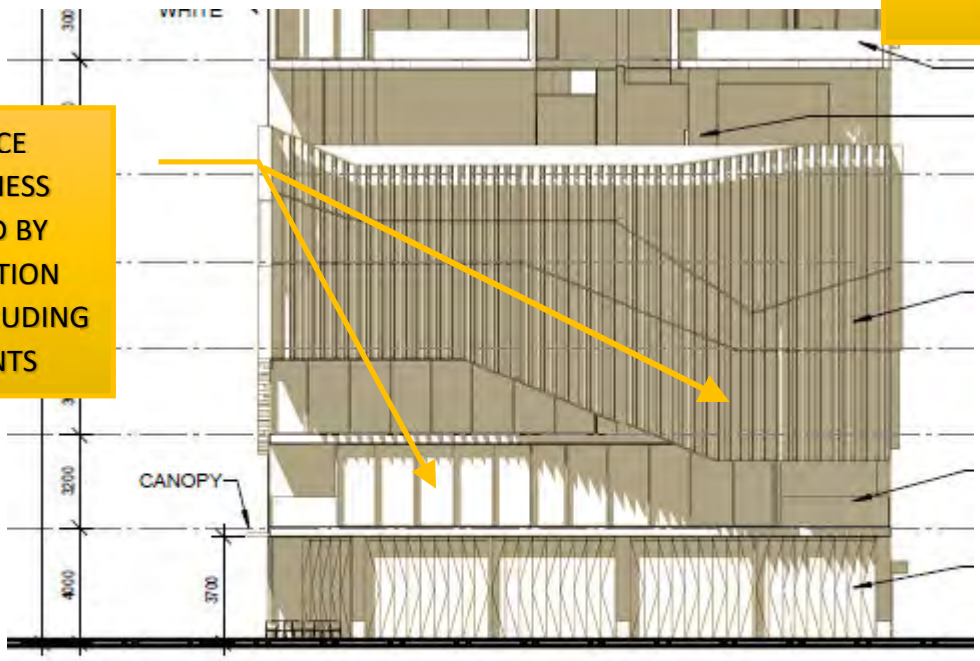


East

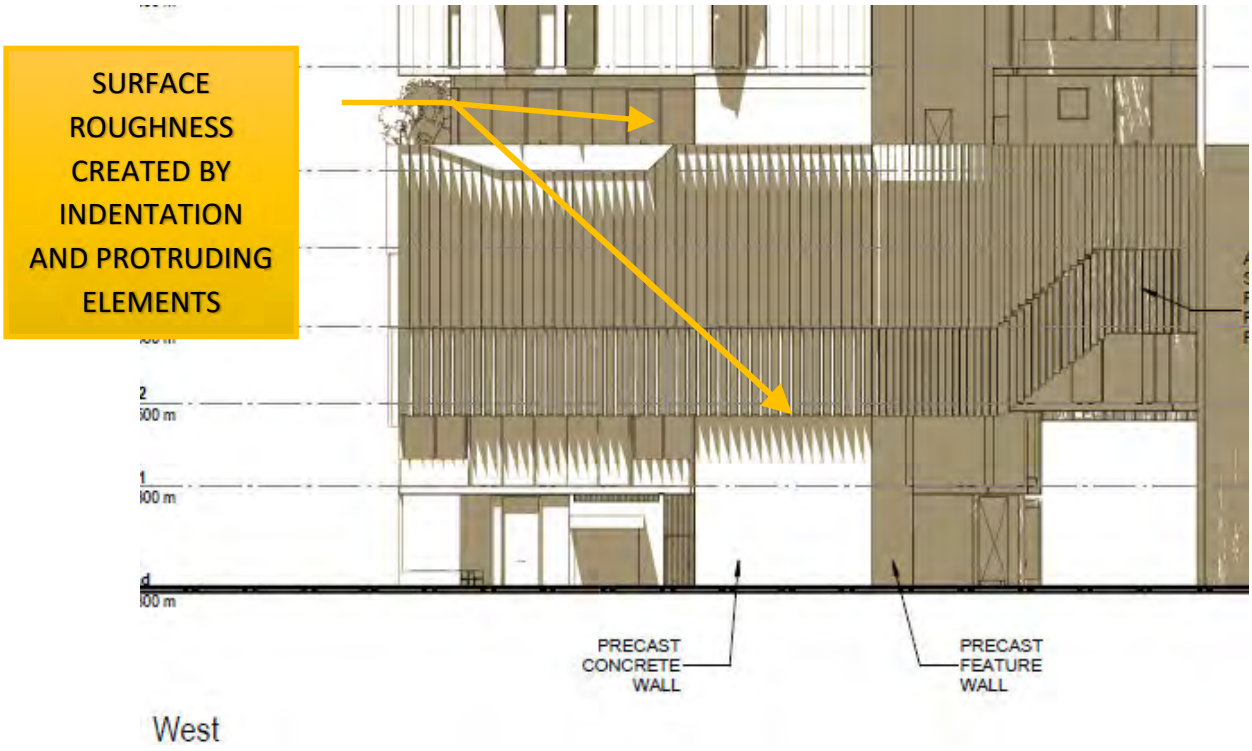
CANOPY

SURFACE ROUGHNESS CREATED BY INDENTATION AND PROTRUDING ELEMENTS



North

DREW RUDD
ENGINEERS
L4 190 Flinders St
Adelaide SA 5000



West

The outdoor trafficable areas within and around the subject development site are summarised as follows:

- Coglin St to the East — Pedestrian footpaths under canopy structures
- Coglin St to the North — Street – no footpath
- Coglin St to the West — Street – no footpath

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ENGINEERS
L4 190 Flinders St
Adelaide SA 5000

Assessment and Discussion

The interaction between the prevailing winds and the building morphology has been considered.

Coglin St to the East - Footpaths

Easterly quadrant winds are shielded by adjacent taller buildings on the east side of the street. Northerly and southerly winds flowing along Coglin St are continuously disrupted by medium rise buildings. Downwash on the eastern façade is disrupted by indented balconies and protruding surface features, and a street level canopy structure is proposed to protect pedestrians.

Coglin St to the North – Single lane road only
Winds from all directions are shielded at lower levels by medium rise buildings. Downwash on this Northern façade is disrupted by indented balconies and protruding surface features, reducing the effect at street level to an insignificant level.

Coglin St to the West – Single lane road only
Winds from all directions are shielded at lower levels by medium rise buildings. Downwash on this Western façade is disrupted by indented balconies and protruding surface features, reducing the effect at street level to an insignificant level. Several proposed taller buildings will provide additional shielding at upper levels wind from the West.

Rooftop garden
Wind from all directions is unobstructed at this level. Perimeter barriers at least 1.5m high are therefore proposed to all sides.

Summary

The site is situated within a district/neighbourhood pedestrian movement zone as defined in the City of Adelaide Smart Move Strategy. The main pedestrian activity is considered to be people walking from parked cars & residences to and from the central market throughout the working week, on weekends and evenings.

Wind impact from the proposed development is assessed as negligible to minor to pedestrian traffic on all three sides.

The relevant provisions of the City of Adelaide Development plan, consolidated on 20 June 2017, are as follows:

> **PDC 119** Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.

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Adelaide SA 5000

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.
Design Techniques *(these are ONE WAY of meeting the above Principle)*
125.1 *Methods to reduce the potential for a wind tunnel effect may include:*
(a) a podium built at the base of a tall tower and aligned with the street to deflect wind away from the street;
(b) substantial verandahs around a building to deflect downward travelling wind flows; and/or
(c) placing one building windward of another building.

The development has been designed incorporating method (b).

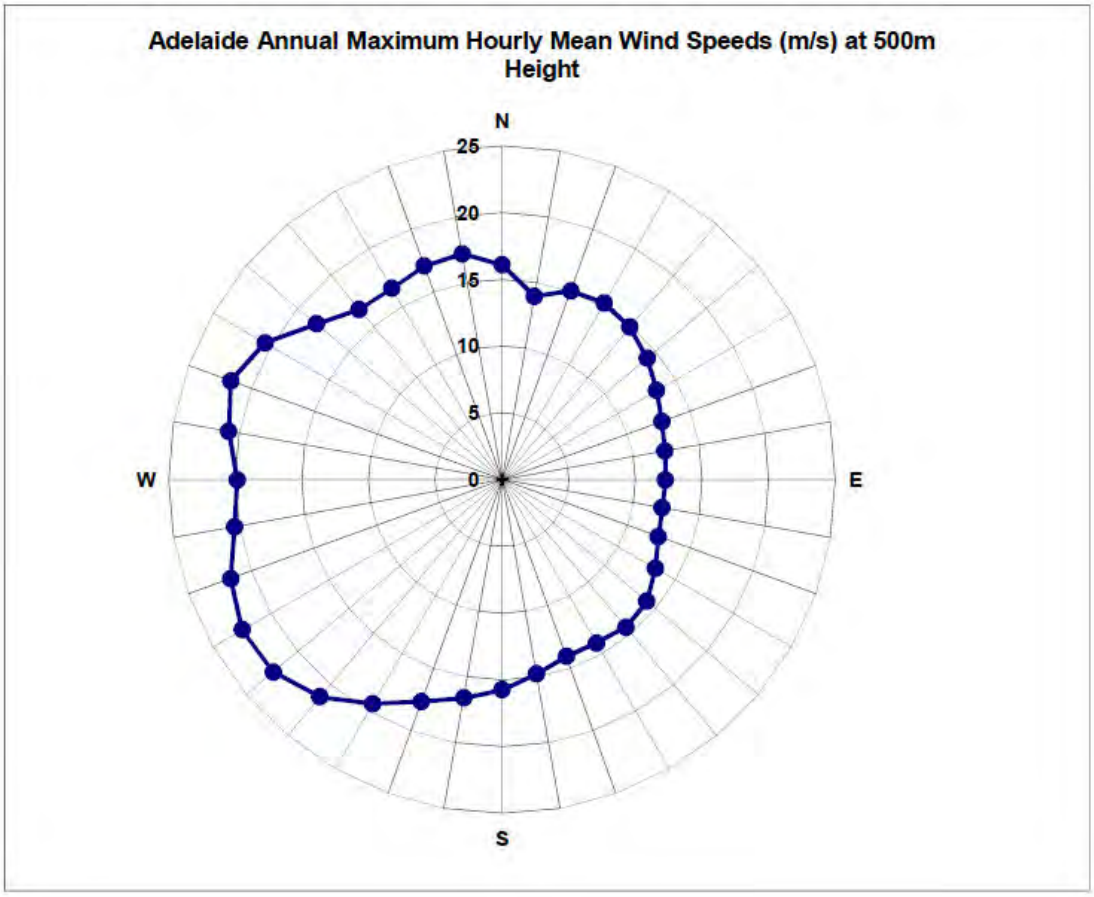
Given the level of pedestrian activity, and minor to negligible wind impact the development is considered to be in keeping with these provisions in that it will create minimal wind tunnel effects, and have minimal detrimental effect on pedestrians.

Regards,

Jon Rudd
Partner

DREW RUDD
ENGINEERS
L4 190 Flinders St
Adelaide SA 5000

APPENDIX A –



DREW RUDD
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Adelaide SA 5000

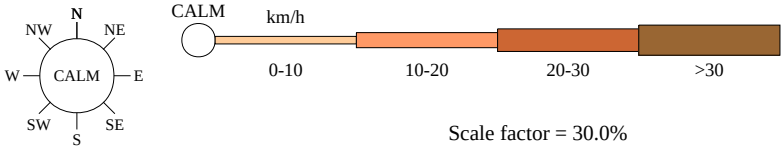
APPENDIX B

WIND ROSES

WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

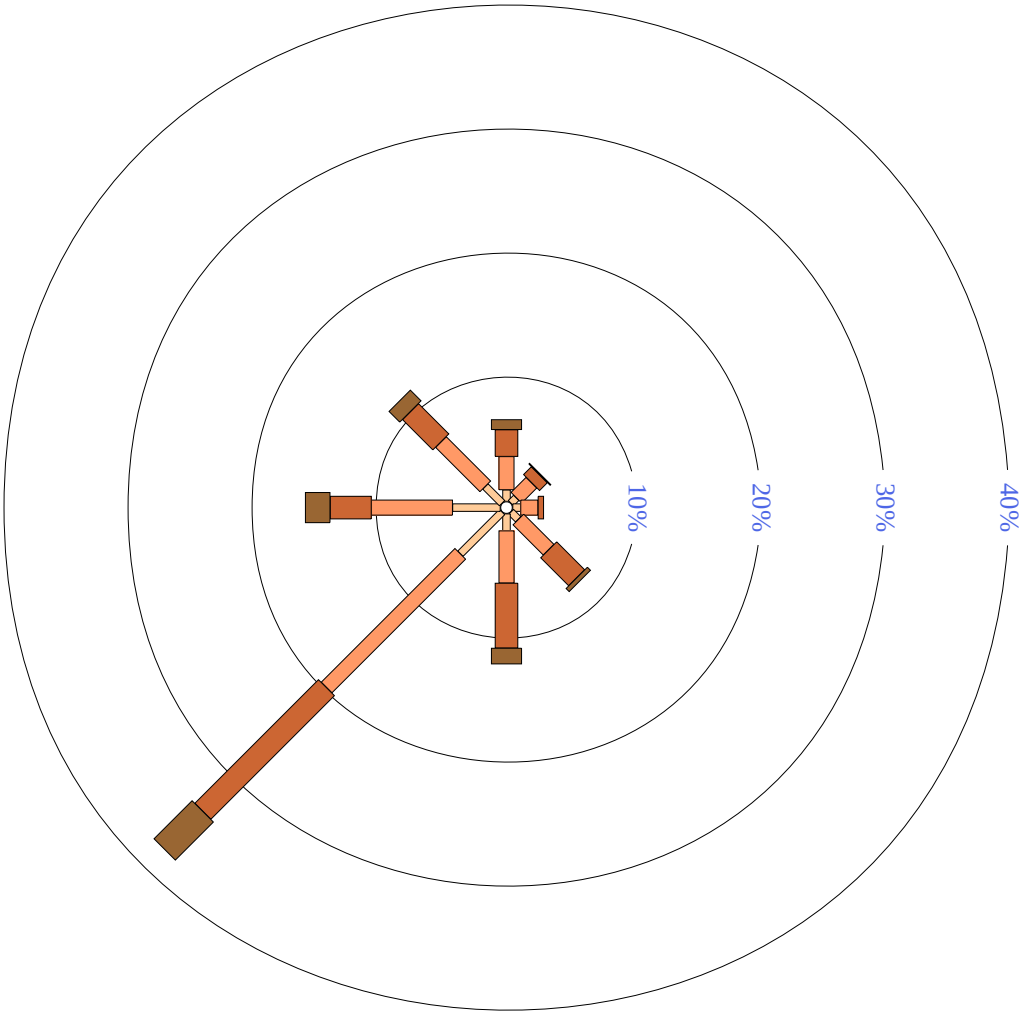
Latitude: -34.95 ° Longitude: 138.52 °



3 pm Autumn
4598 Total Observations (1955 to 2004)

Scale factor = 30.0%

Calm 2%

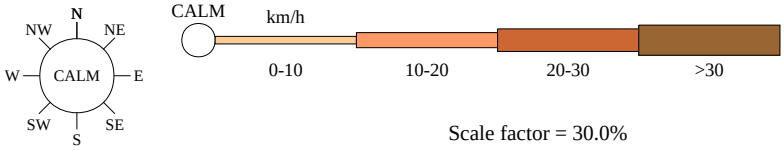


Wind directions are divided into eight compass directions. Calm has no direction.
An asterisk (*) indicates that calm is less than 1% .
An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.

WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

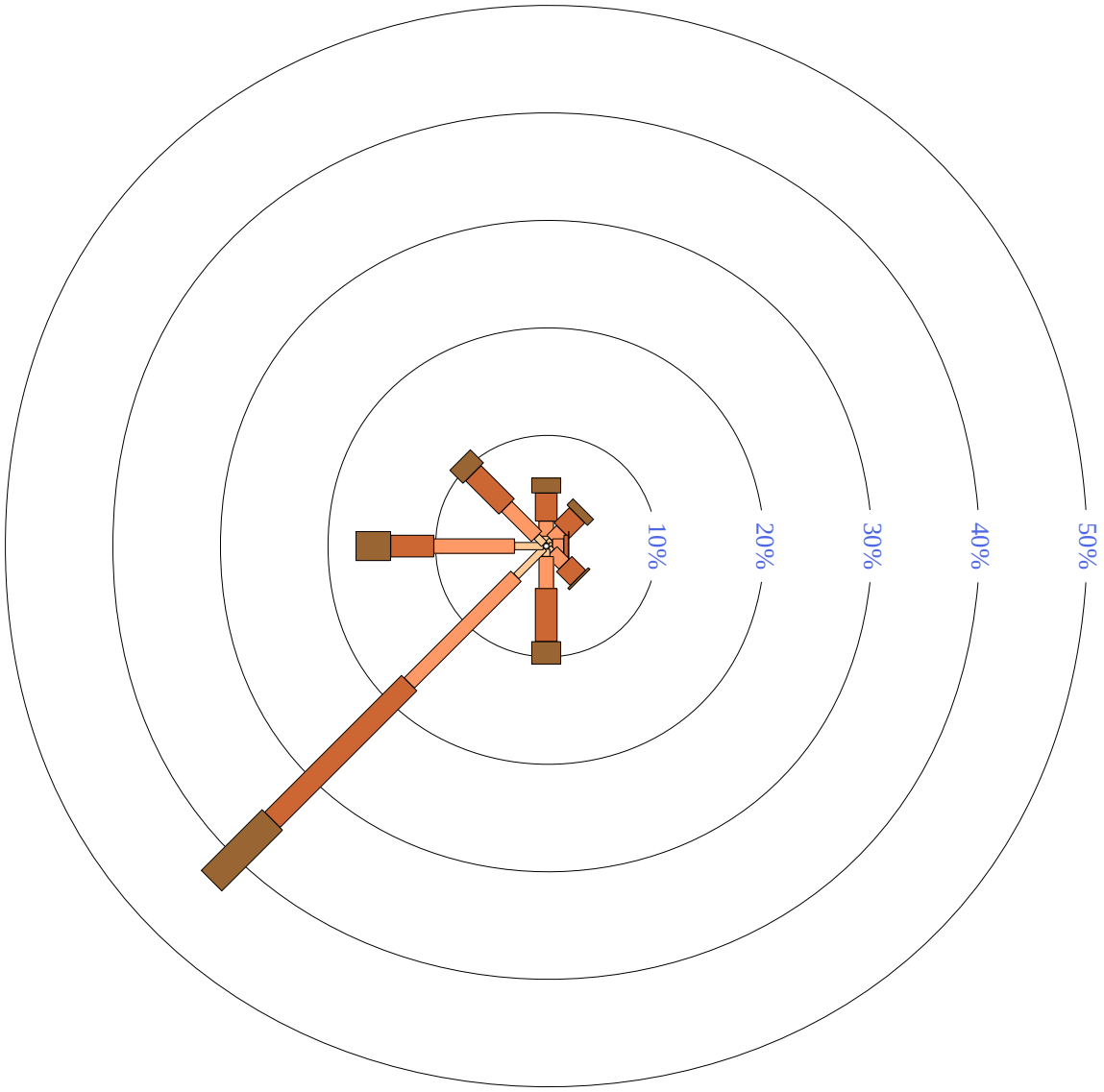
Latitude: -34.95 ° Longitude: 138.52 °



3 pm Spring
4424 Total Observations (1955 to 2004)

Scale factor = 30.0%

Calm 1%



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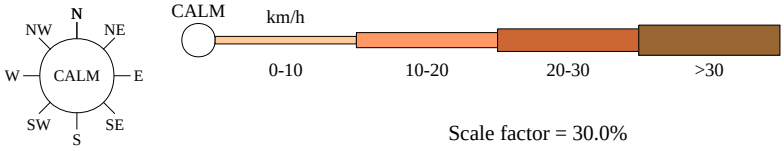
WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

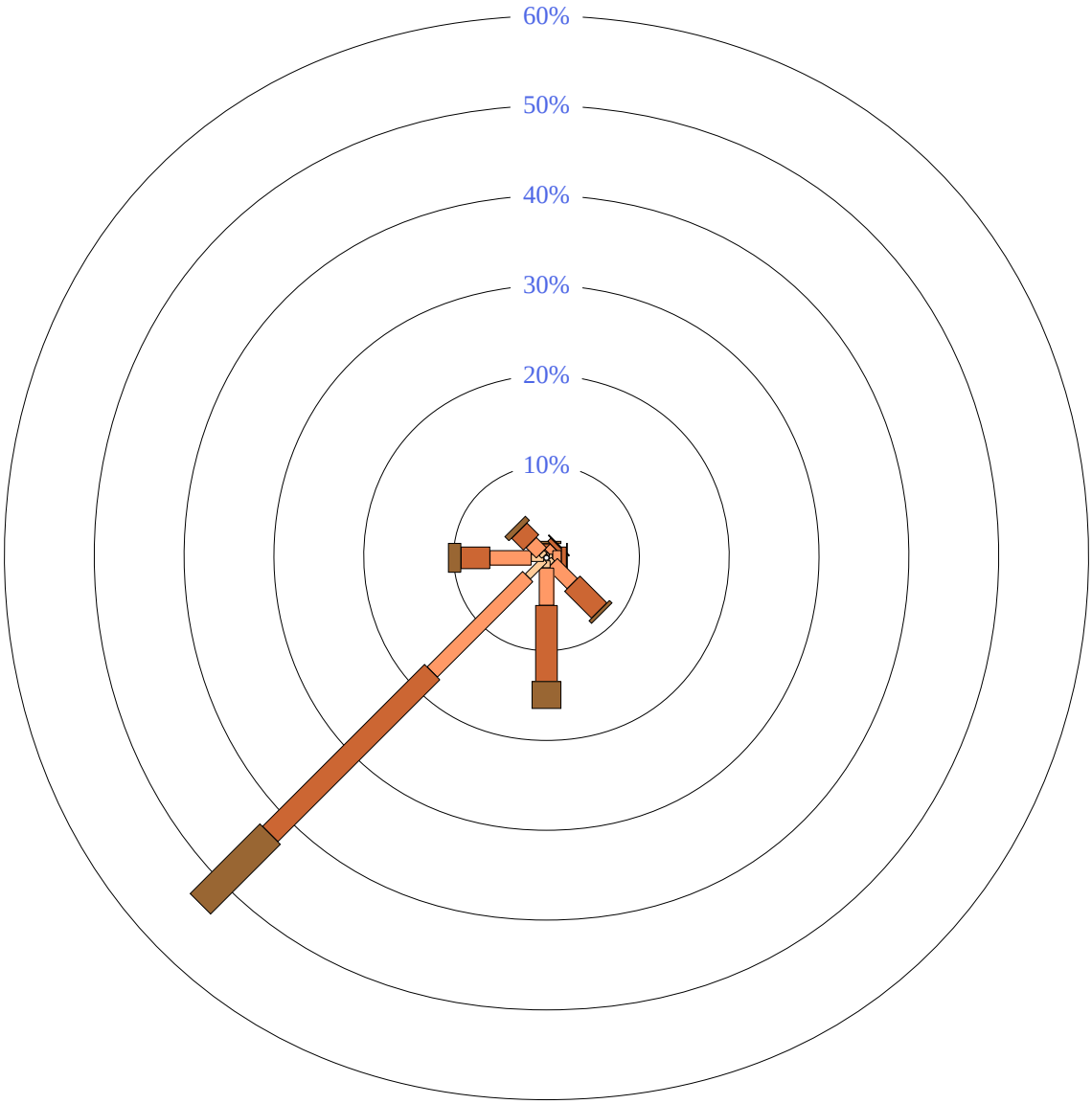
Latitude: -34.95 ° Longitude: 138.52 °



3 pm Summer
4348 Total Observations (1955 to 2004)

Scale factor = 30.0%

Calm 1%



Wind directions are divided into eight compass directions. Calm has no direction.
An asterisk (*) indicates that calm is less than 1% .
An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.

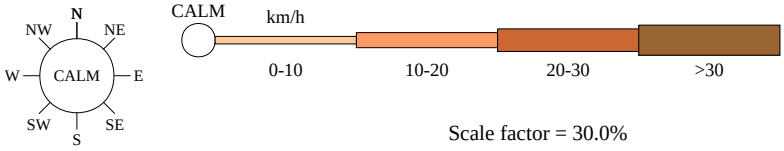
Australian Government
Bureau of Meteorology

Prepared by the National Climate Centre of the Bureau of Meteorology.
Contact us by phone on (03) 9669 4082, by fax on (03) 9669 4515, or by email at webclim@bom.gov.au . We have taken all due care but cannot provide any warranty nor accept any liability for this information.

WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

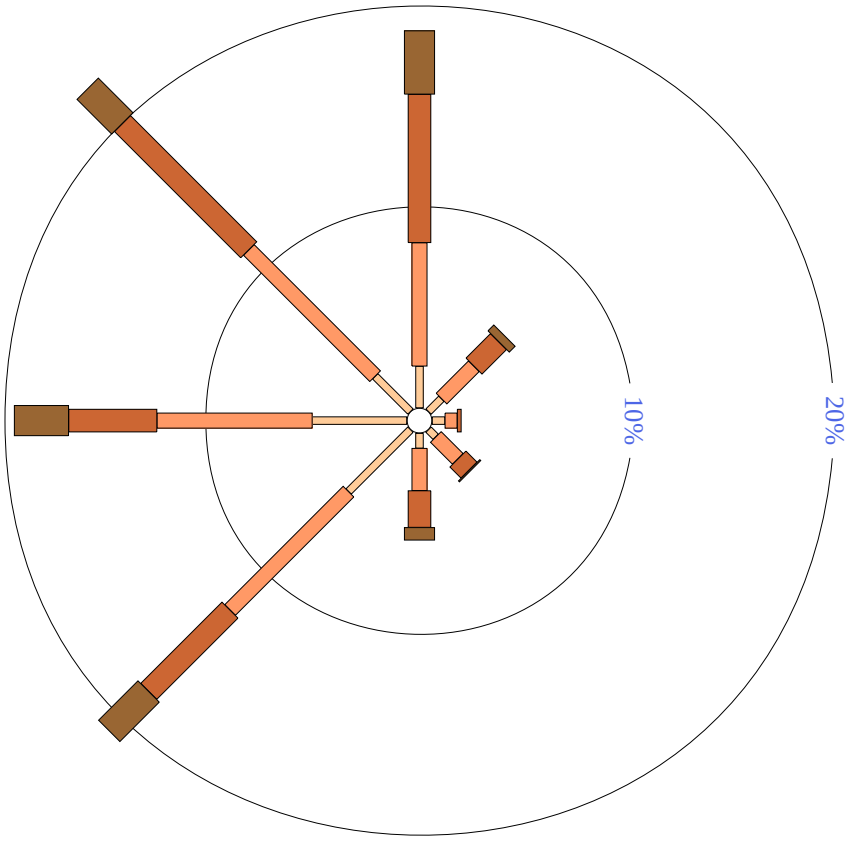
Latitude: -34.95 ° Longitude: 138.52 °



Scale factor = 30.0%

3 pm Winter
4507 Total Observations (1955 to 2004)

Calm 3%

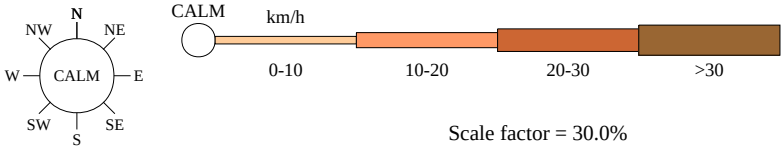


Wind directions are divided into eight compass directions. Calm has no direction.
An asterisk (*) indicates that calm is less than 1% .
An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.

WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

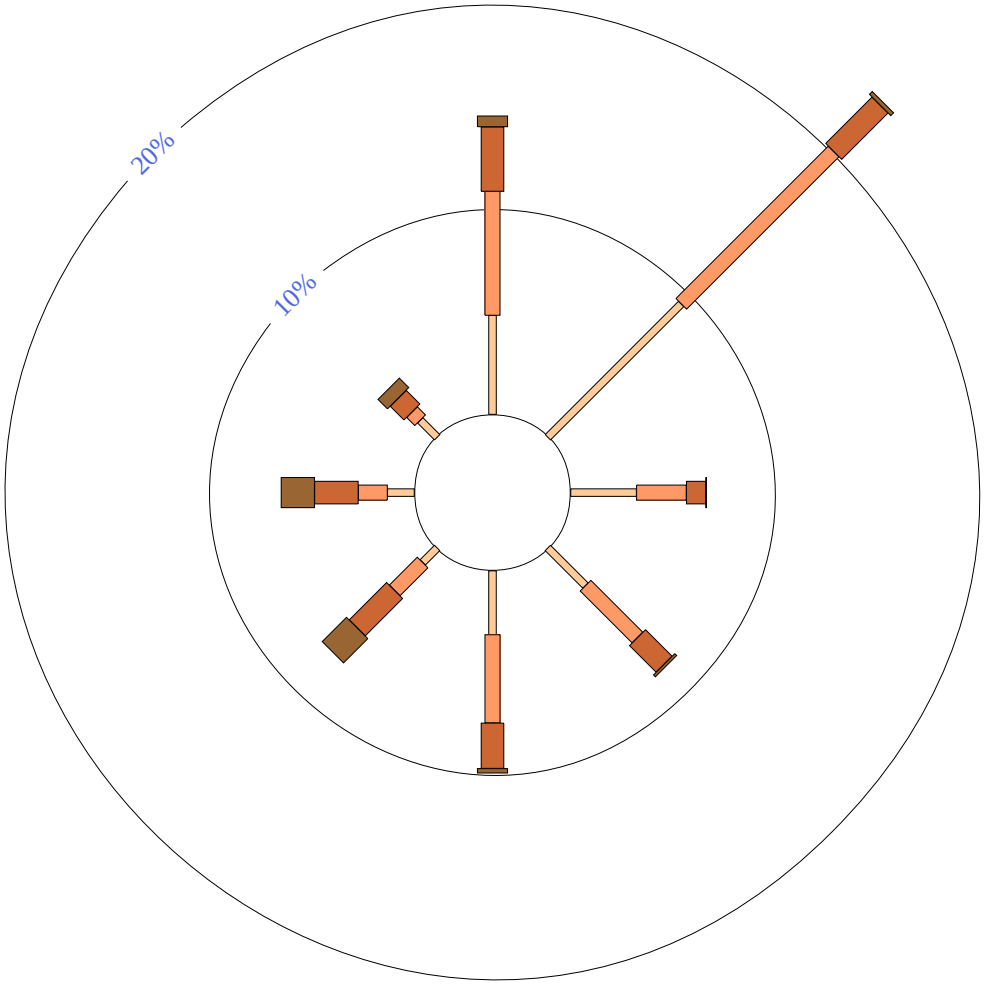
Latitude: -34.95 ° Longitude: 138.52 °



Scale factor = 30.0%

9 am Autumn
4594 Total Observations (1955 to 2004)

Calm 19%



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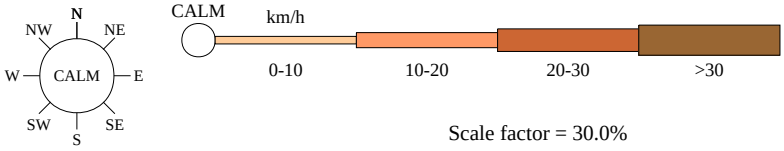
WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

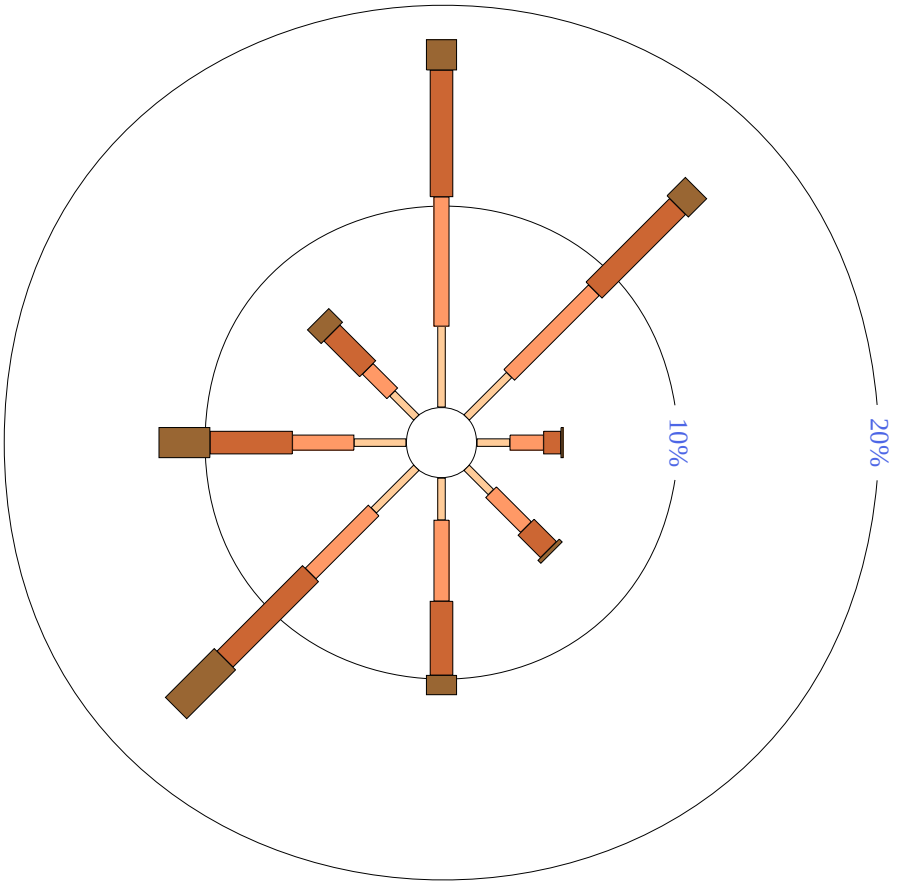
Latitude: -34.95 ° Longitude: 138.52 °



Scale factor = 30.0%

9 am Spring
4423 Total Observations (1955 to 2004)

Calm 9%



Wind directions are divided into eight compass directions. Calm has no direction.
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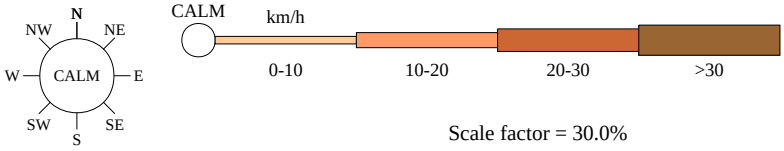
An observed wind speed which falls precisely on the boundary between two divisions (eg 10km/h) will be included in the lower range (eg 1-10 km/h). Only quality controlled data have been used.

WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

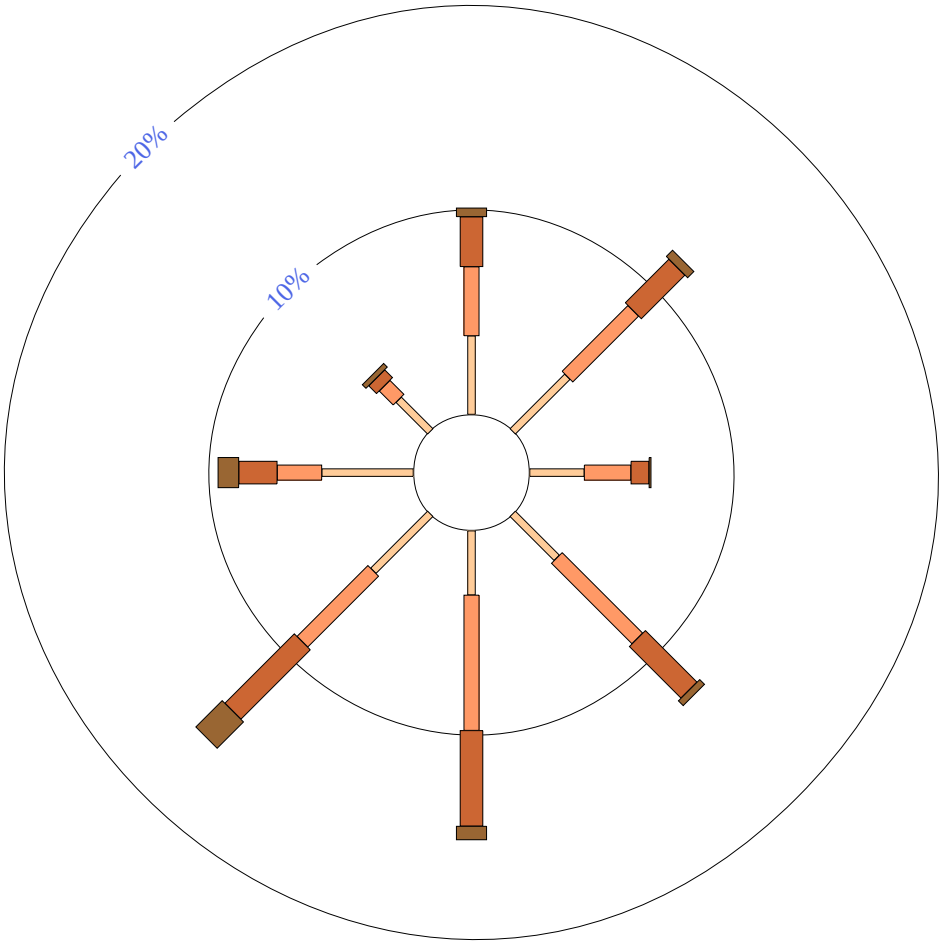
Latitude: -34.95 ° Longitude: 138.52 °



Scale factor = 30.0%

9 am Summer
4346 Total Observations (1955 to 2004)

Calm 14%



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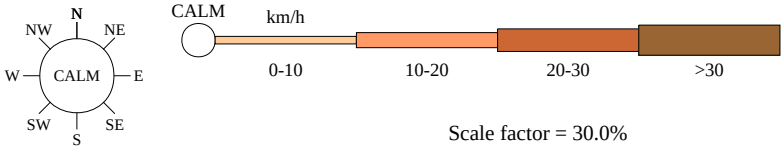
WIND FREQUENCY ANALYSIS (in km/h)

ADELAIDE AIRPORT STATION NUMBER 023034

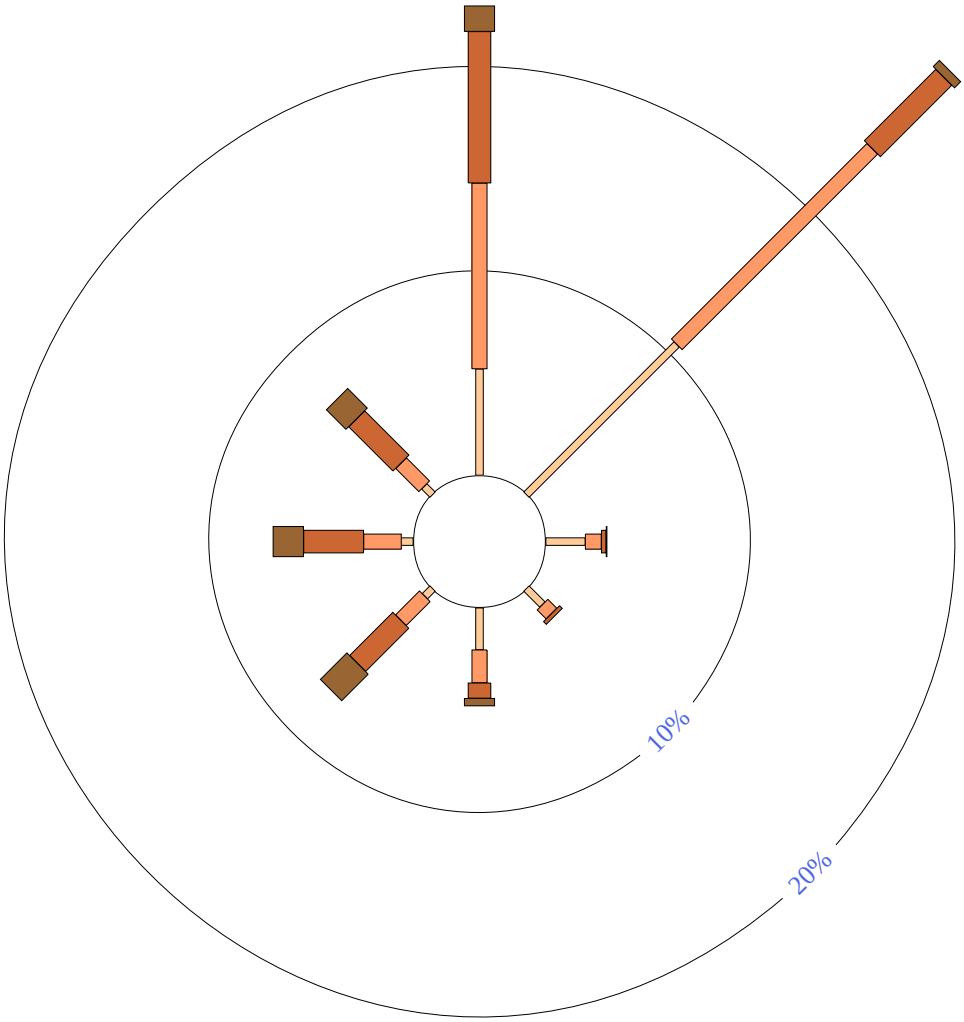
Latitude: -34.95 ° Longitude: 138.52 °



9 am Winter
4502 Total Observations (1955 to 2004)

Scale factor = 30.0%

Calm 16%



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JPE

Mixed Use Development

21 Coglin St Adelaide

Planning Application

JPE Design Studio

20 February 2018

Contact Information

JPE Design Studio Pty Ltd

Level 4
19 Gilles Street
Adelaide 5000
South Australia
Australia

Tel 08 8406 4000
Fax 08 8406 4007
design@jpe.com.au
www.jpe.com.au

Contents

1.0 Introduction & Development Summary

Introduction

This document has been prepared as part of a Planning Stage development application for the proposed residential development on the subject site at 21 Coglin Street, Adelaide.

The project team comprises of:

YHL Investments Pty Ltd
Client

JPE Design Studio
Architect and Landscape Architect

Future Urban Group
Planning Consultant

InfraPlan
Traffic Engineer
Waste Management Consultant

Bestic
Services Infrastructure
ESD & Sustainability Consultant
Acoustic Engineering

WSP
Engineering consultant
Building Certifiers

Drew Rudd Engineers
Wind Impact Assessment
Stormwater & Civil Engineering

Development Summary

21 Coglin Street					
Level	**Comment Space**	**No. of Apartment**			**No. of Car parking**
		1Bed	2Bed	3Bed	
Level 22	Roof Garden				
Level 21		1	3	1	
Level 20		1	3	1	
Level 19			3	1	
Level 18	Shared Balcony	1	3	1	
Level 17		1	3	1	
Level 16		1	3	1	
Level 15		1	3	1	
Level 14	Shared Balcony	1	3	1	
Level 13			2	2	
Level 12		1	3	1	
Level 11		1	3	1	
Level 10	Shared Balcony	1	3	1	
Level 9		1	3	1	
Level 8		1	3	1	
Level 7	Shared Balcony	1	3	1	
Level 6		1	3	1	
Level 5	Outdoor Terrace		3		
Level 4					13
Level 3					13
Level 2					13
Level 1		2	3		
Ground Floor	Commercial / Services				
Basement 1	Services				
Total		**16**	**53**	**17**	
Total			**86**		**39**
Ratio		20%	61%	19%	45%

2.0 Site & Context Analysis

Site Context Plan

The subject site is Lot 694 or 21 Coglin Street Adelaide which currently accommodates an open air car park.
The site is bounded on 3 sides by public roads but the major road is Coglin Street to the East.

Neighbouring properties include the 5 storey Australian Migrant Centre to the south, one, two and three storey buildings over the road to the north and west and a 12 storey mixed use tower across the road to the east and an 11 storey car park building south of that tower. Several of the properties to the west are locally heritage listed.

The site is connecting to Central Market and Chinatown where is a variety of activities and popular restaurants.

Development Plan Zoning

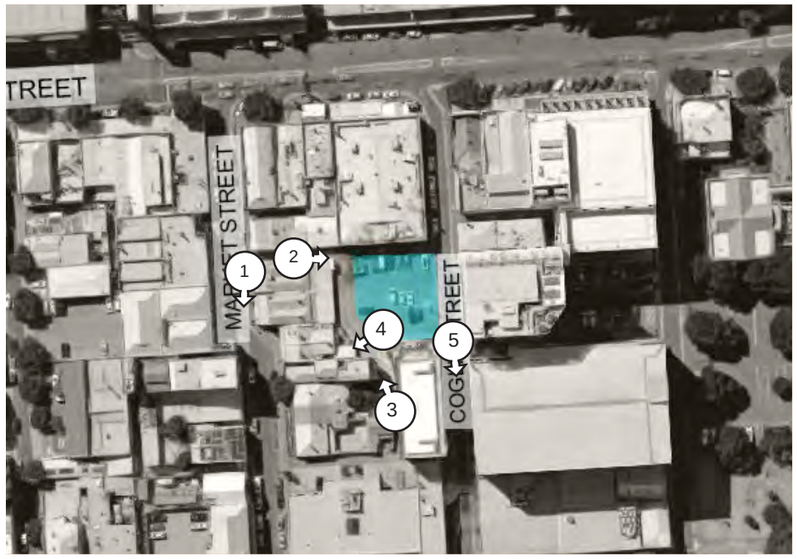
The subject site at 21 Coglin Street sits in the Capital City Zone.

The Capital City Zone is divided further into areas of different building heights. The subject site sits within the 43m height zone, adjacent to the No Prescribed Height Limit Zone.

Site Photographs

The following photographs have been taken from street level and show the current building form and landscape context of the subject site.

Site Photographs



Land Title Information

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

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

Certificate of Title - Volume 5502 Folio 472

Parent Title(s)	CT 3267/110
Dealing(s) Creating Title	CONVERTED TITLE
Title Issued	13/02/1998
Edition	6
Edition Issued	04/08/2016

REAL PROPERTY ACT, 1886 South Australia

Estate Type

FEE SIMPLE

Registered Proprietor

COGLIN STREET DEVELOPMENT PTY. LTD. (ACN: 131 379 318)
OF C/- LEVEL 1 5/94 THE PARADE NORWOOD SA 5067

Description of Land

ALLOTMENT 694 FILED PLAN 183156
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title

NIL

Priority Notices

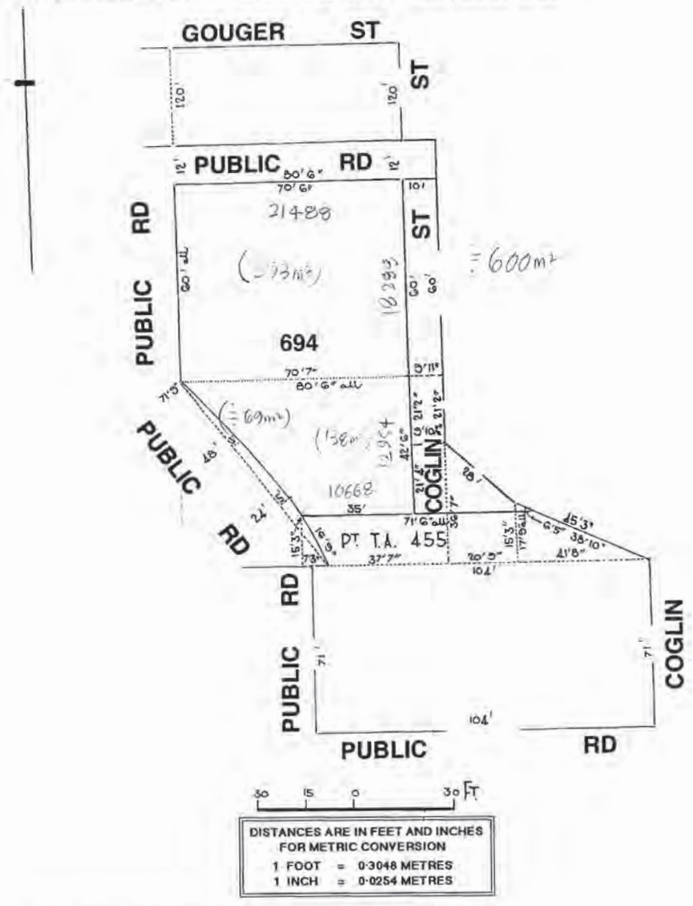
NIL

Notations on Plan

Government of South Australia
Department of Planning, Transport and Infrastructure

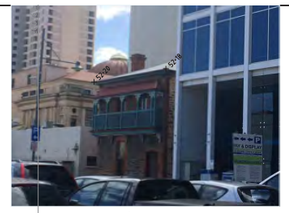
Product	Register Search
Date/Time	24/08/2016 11:17AM
Customer Reference	1088-ct-Coglin St
Order ID	20160824003964
Cost	$27.75

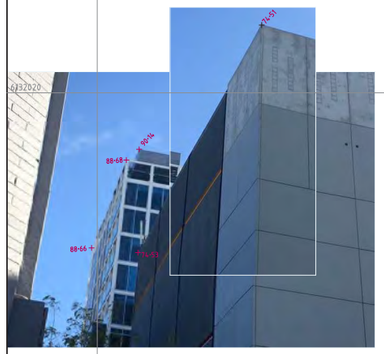
THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 3267/110 LAST PLAN REF: DP 623

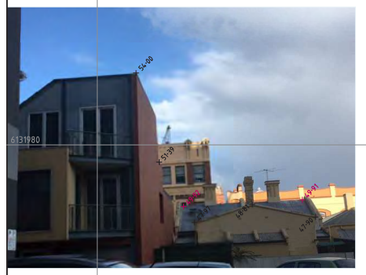


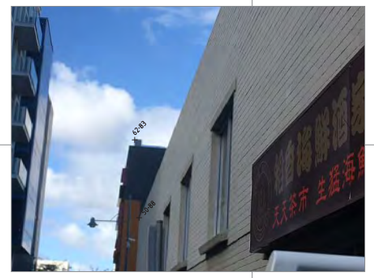
NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

Site Survey



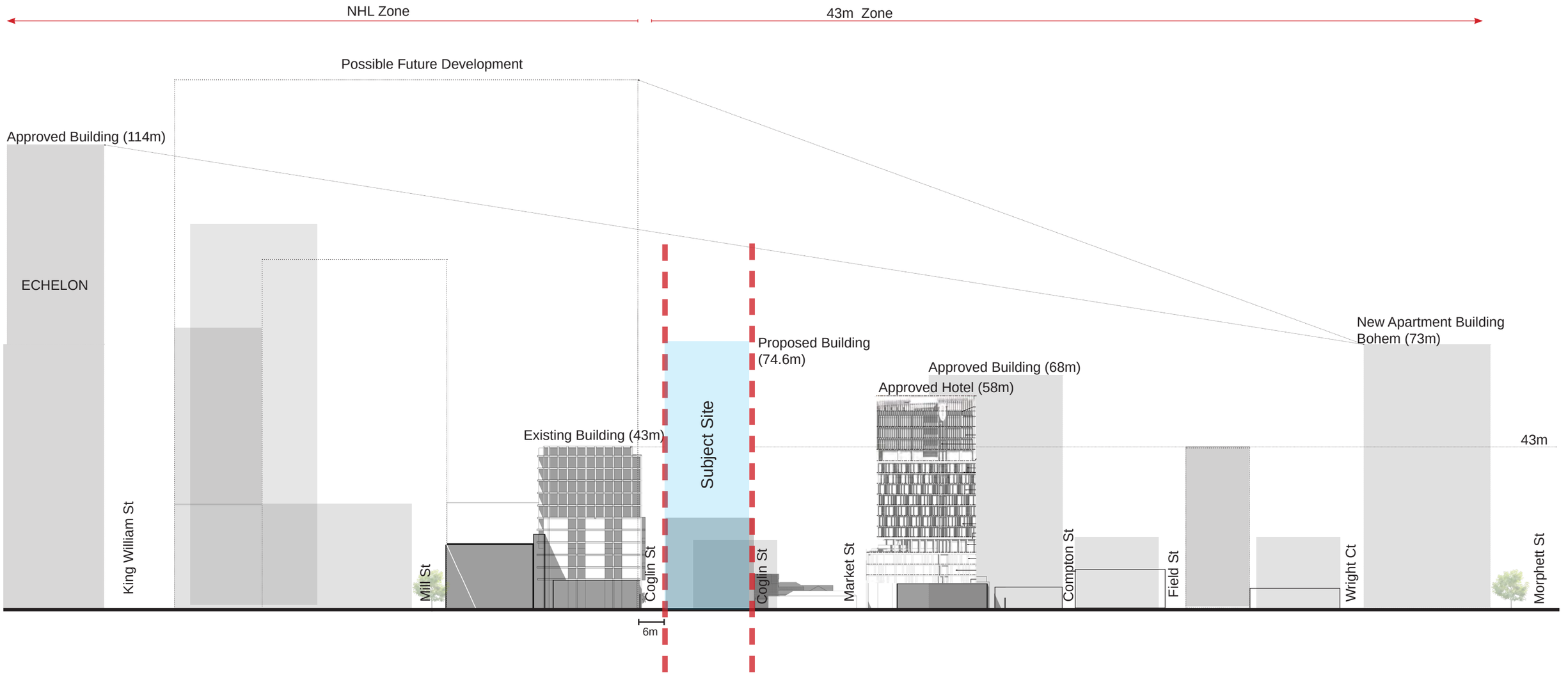




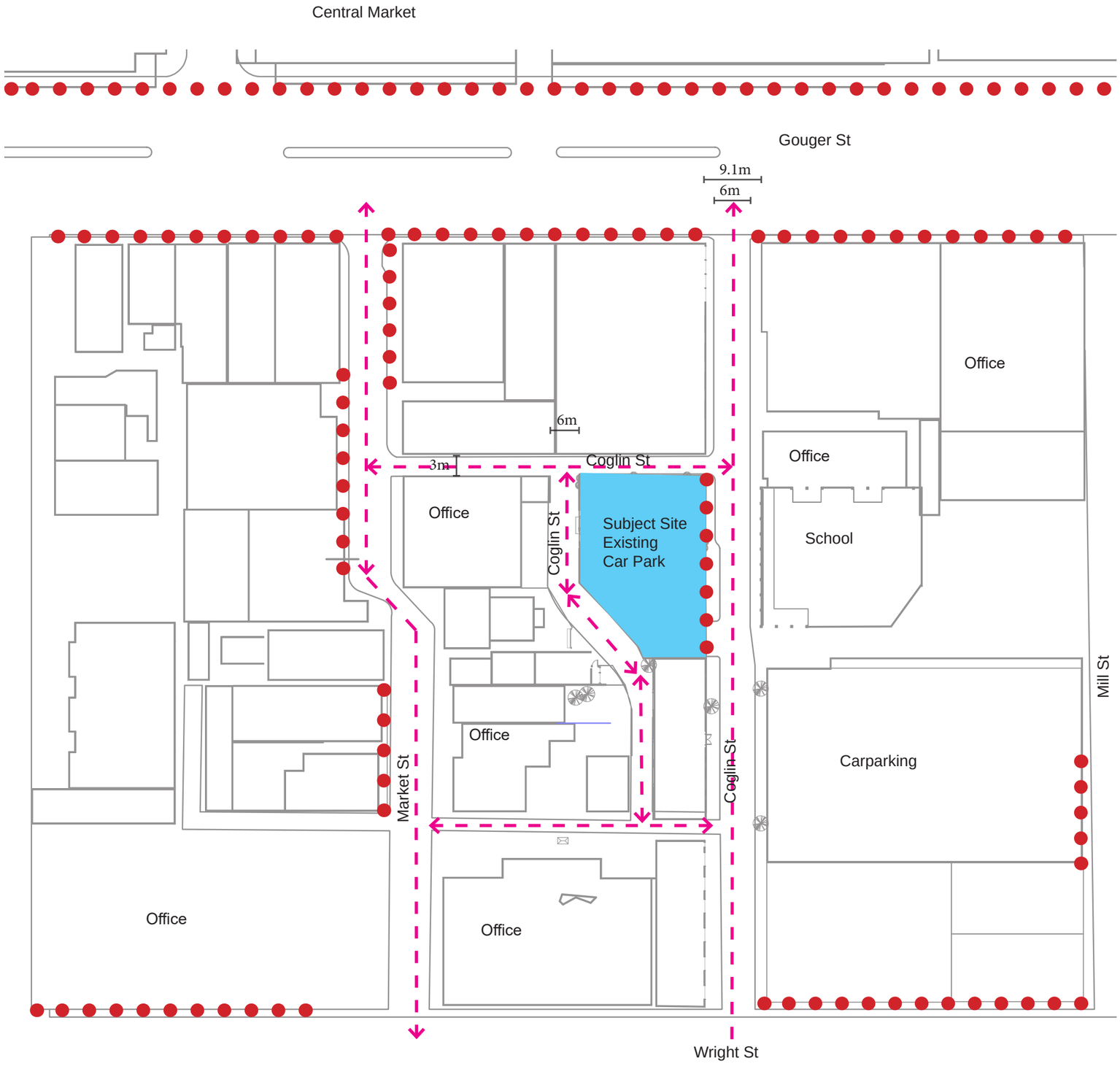


GOUGER STREET
COGLIN STREET
MARKET PLACE
COGLIN STREET
COGLIN
EXISTING BUILDING
ALLOTMENT 694
F183156
D91296
BITUMEN CARPARK
CARPORT
TBM : Masonry nail in the top of kerb
Adopted elevation = 44.29m
NOTE :
1. TITLE ALLOTMENT BOUNDARIES SHOWN HEREON ARE APPROXIMATE ONLY AND HAVE NOT BEEN SURVEYED.
2. REFER TO THE CERTIFICATE OF TITLE FOR EASEMENT DETAILS (IF ANY).
3. THIS IS NOT A CERTIFIED SURVEY FOR THE PURPOSES OF THE REGULATIONS UNDER THE SURVEY ACT, 1992. THIS PLAN WILL NOT BE EXAMINED FOR BOUNDARY DEFINITION OR OTHERWISE BY THE REGISTRAR-GENERAL'S OFFICE. FUTURE RESURVEY OF ADJOINING LAND OR SUBSEQUENT REGISTRATION OF CERTIFIED SURVEY PLANS MAY ALTER THE BOUNDARY DEFINITION OR INFORMATION SHOWN HEREON.
4. THIS PLAN WAS PREPARED FOR THE EXCLUSIVE USE OF JPE DESIGN STUDIO P/L FOR THE PURPOSE OF SITE REDEVELOPMENT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
5. NO UNDERGROUND SERVICES HAVE BEEN LOCATED, PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE, PLEASE MAKE USE OF THE "DIAL-BEFORE-YOU-DIG" SERVICE.
LEGEND
Permanent survey mark
Temporary bench mark
Peg
Spike
Metal pin
GI nail
Masonry nail
Drill hole
Scribe
Texta
Picket
Spot height
Unknown point
Grated inlet pit
Domestic outlet
Invert
Downpipe - open
Downpipe - underground
Sump
Stormwater IP
Stormwater manhole
Sign
Letter box
Trafic light
Speed camera
TSA junction box
Bollard
Phone box
Floor level
Step level
Watertable level
Back of kerb
Rubbish bin
Flagpole
Column centres
Stobie pole
Light pole
ETSA pillar
ETSA service
ETSA cable marker
ETSA earth
Telstra JB
Telstra pillar
Telstra cable marker
Communication JB
Gas meter
Gas service
Gas marker
Sewer manhole
Sewer IP
Sewer IO
Gully trap
Sewer vent
Sewer marker
Stop valve
Fire hydrant
Control value
Fire hose
Water meter
Tap
Garden control
Sprinkler
Bore
Water marker
Railway signal pole
Railway signal box
Railway signal marker
Fuel pump
Fill point
Dip point
Air vent
Cathodic Protection
Wooden pole
Offset line
Grid line
Top of bank
Bottom of bank
Change of grade
Top of levee bank
Bottom of levee bank
Edge of vegetation
Edge of lawn
Centreline creek/drain
Edge of water
Stormwater pipe
Bridge deck
Edge of bitumen
Edge of unmade road/track
Edge of shoulder
Watertable
Back of kerb
Edge of gravel
Edge of concrete
Edge of pavers
Underground TSA
Building
Building GI
Verandah/Pergola
Landing
Carport
Door opening
Eaves
Roof outline
Edging sleeper/log/concrete
Underground ETSA
Overhead ETSA
Underground Telstra
Overhead Telstra
U/G communication cables
O/H communication cables
Underground gas
Underground sewer pipe
Above-ground sewer pipe
Underground water pipe
Above-ground water pipe
Railway track
Underground railway cables
Above-ground railway cables
Underground fuel pipe
Above-ground fuel pipe
Unknown trench, service etc
Brick fence
Stone fence
Cyclone fence
Post & wire fence
Brush fence
Picket fence
Tubular fence
GI fence
Colorbond fence
Log fence
Guardrail
Giveway line
Continuity
Lane line 9x3
Lane line 6x6
Fence post
Stump
Tree
Shrub
DIAL1100 BEFORE YOU DIG
NORTH
REV. DATE DESCRIPTION LC (Y/N) BY
Client
JPE DESIGN STUDIO P/L
Project Description
DETAIL SURVEY
21 COGLIN STREET
ADELAIDE
ALLOTMENT 694 IN F183156
CT 5502/472
THIS IS SHEET 1 OF 1 SHEETS
Drawing Scale 1 : 200m
Original Sheet Size A1
0 4 8 12 16 20
Scale Metres
Notes
Levels are based on the Australian Height Datum derived from P.S.M. 6628/836758
Adopted elevation = 44.087
STATE SURVEYS SURVEYORS
465b South Road
Keswick 5035
South Australia
Phone (08) 8293 2939
Facsimile (08) 8293 2949
Email info@statesurveys.com.au
Coord. Datum: ARBITRARY
Height Datum: AHD
CALC File: 17140 DETAIL
DWG File: 17140 DETAIL
Surveyed: AP/NP 30.03.17
Calculated: NP 30.03.17
Drawn: AP 30.03.17
Checked:
Job Number
17140
Revision

Existing / Future Streetscape Study



Existing Site Plan



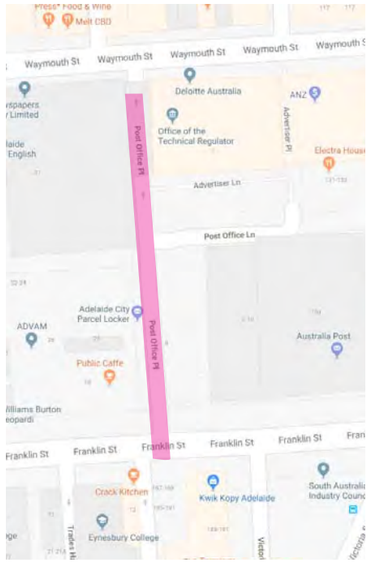
TRAFFIC

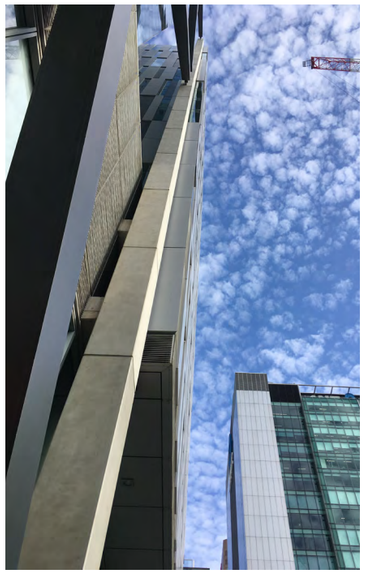
CAFE/RESTAURANT/BAR /RETAIL
- ACTIVATING THE STREET

SUBJECT SITE

Similar Site Context Examples of Narrow Laneway

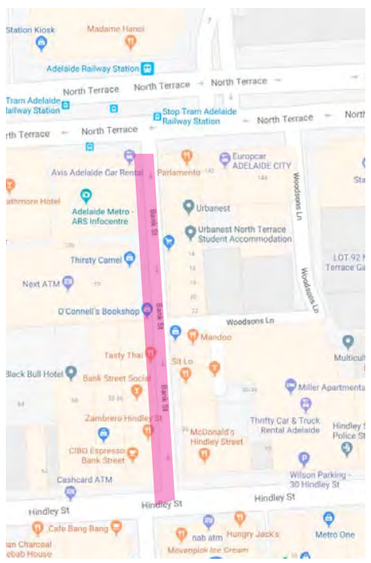
5 comparable examples showing below where tall buildings exist either side of narrow laneways which similar to the subject context, all examples laneways width are about 6m or less which similar to Coglin street .





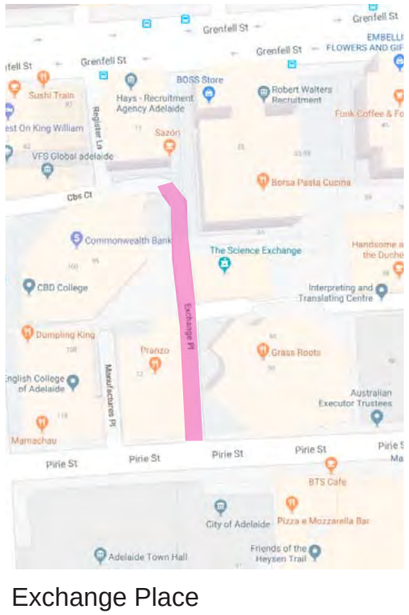
Post Office Place

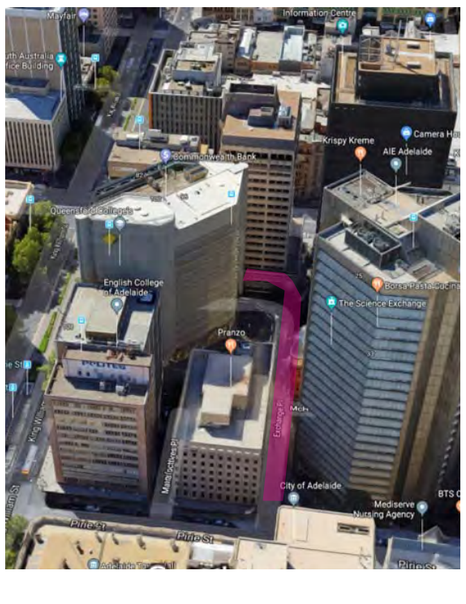
Post Office Place (between Waymouth Street and Franklin Street). The new office tower under construction together with the existing taller buildings either side of the lane.

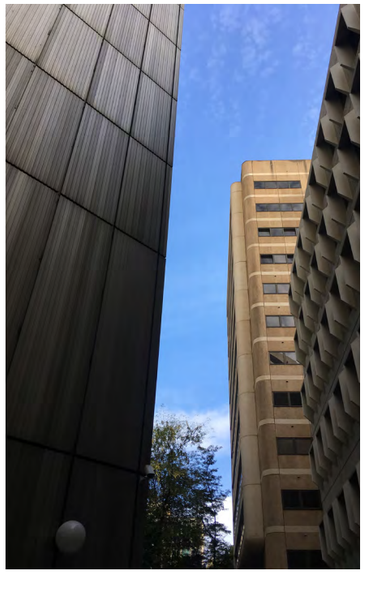


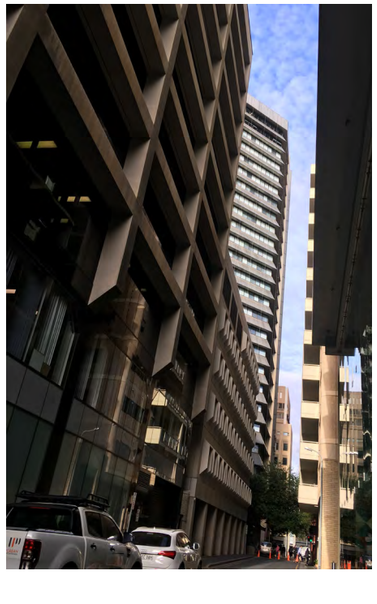
Bank St

Similar Site Context Examples of Narrow Laneway

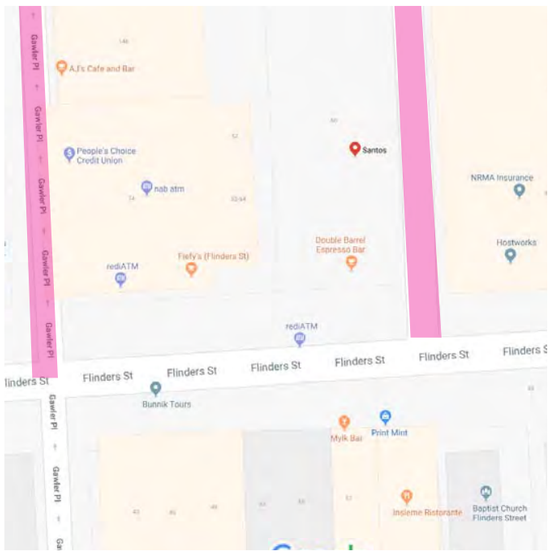


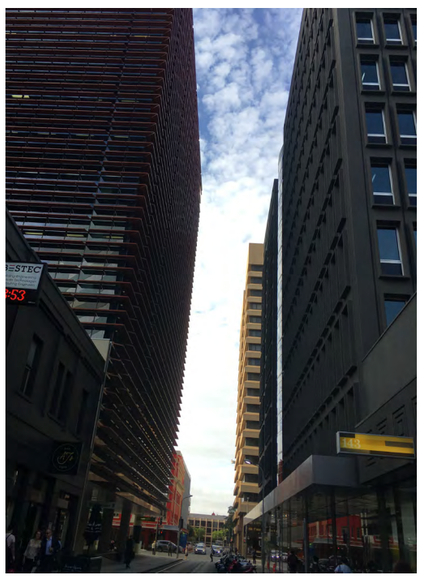


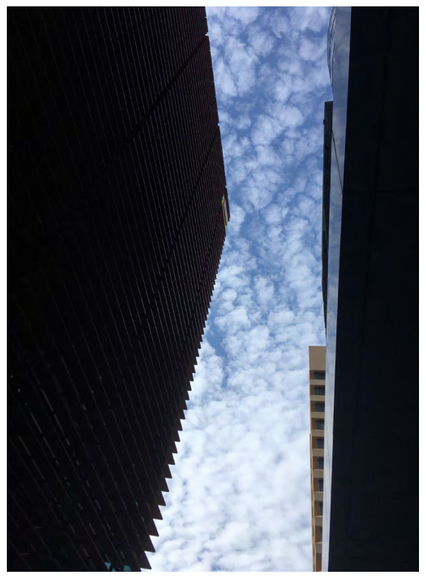




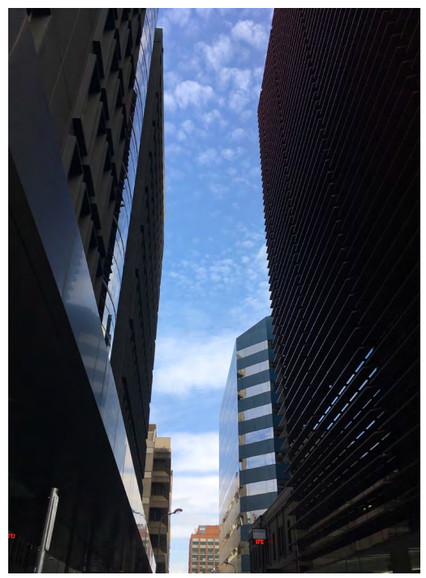
Exchange Place







Gawler PL and
Laneway between Santos & SGIC buildings on Flinders St



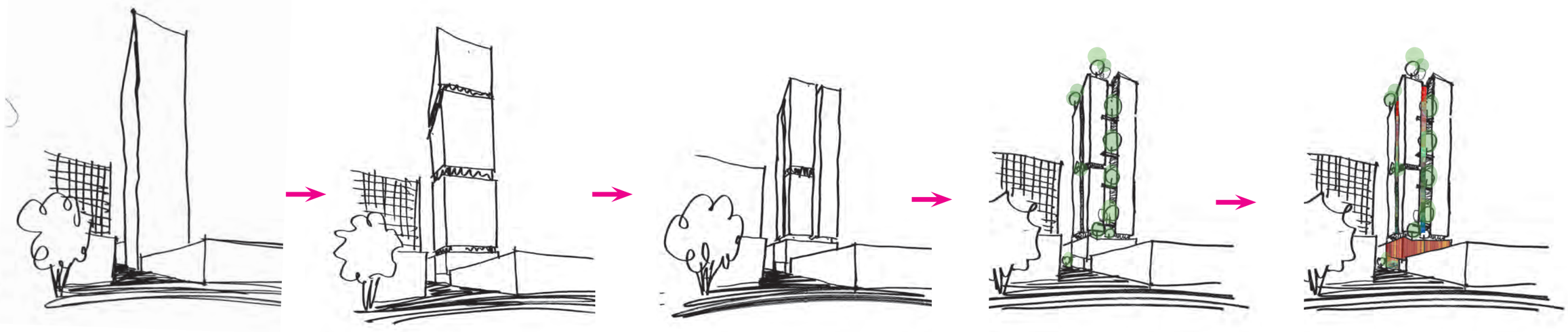
3.0 Design Response
Brief & Form Development

Project Brief

The project brief for the proposed development comprises of the following key items:

- Reconfigured pedestrian walkway through the site, directly linking Eastern Coglin Street to Western Coglin Street.
- Active ground floor level comprising of restaurant, retail space and residential entry lobby.
- 3 levels of above ground carparking with sculptural massing activation facing three side of Coglin Street. Colors and arts reference Markets and culture, reinforcing a positive attitude for residents.
- Flexible and adaptable residential accommodation comprising of a mix of 1, 2 and 3 bedroom apartments.
- Provision of shared recreation and entertainment spaces for residents throughout the new building including full roof level common space and level 5 outdoor terrace. Shared spaces will bring occupants together to create a sense of community and healthy life style
- Vertical gardens promote cooling, enrich facades & spaces and encourage a sustainable healthy lifestyle

Form Development



Stage 1
Block Form

Stage 2
Stacked Form

New Proposal
Expression of Form

Articulated Form
Introduce vertical greening

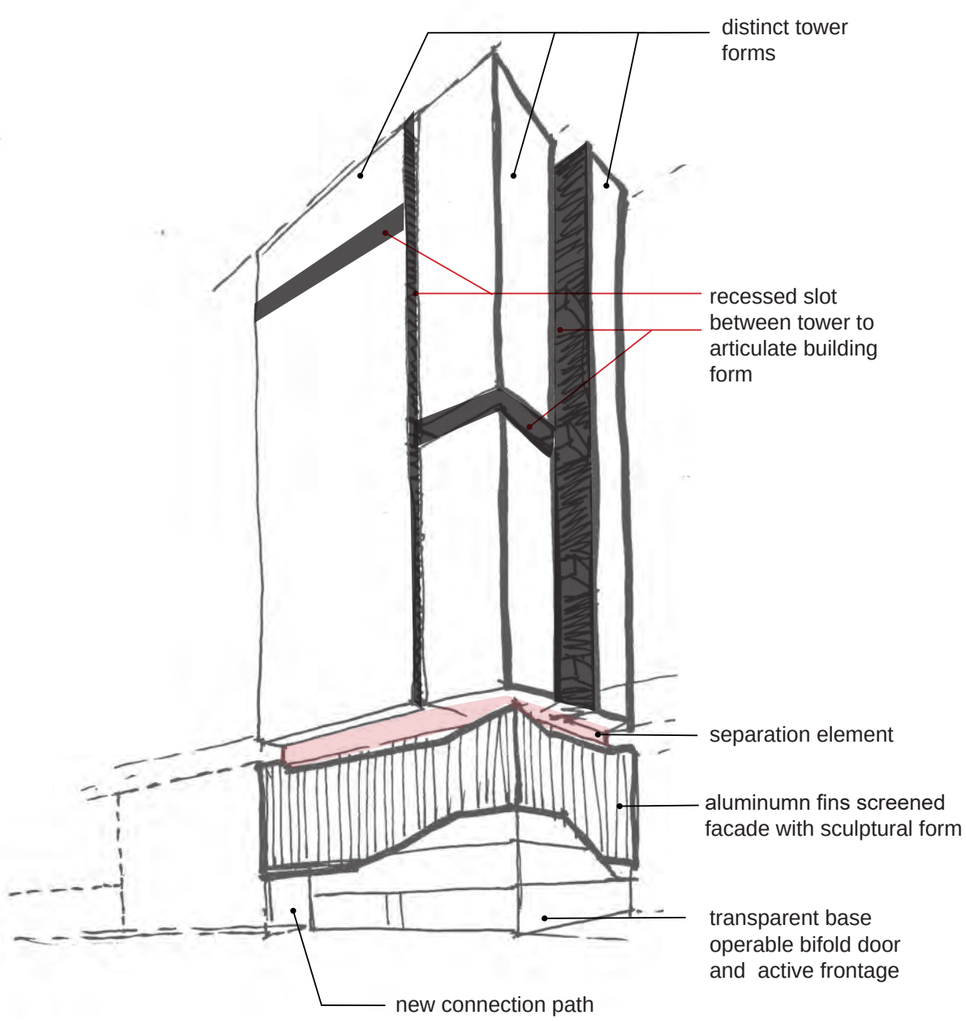
Introduce color reference
Markets and culture

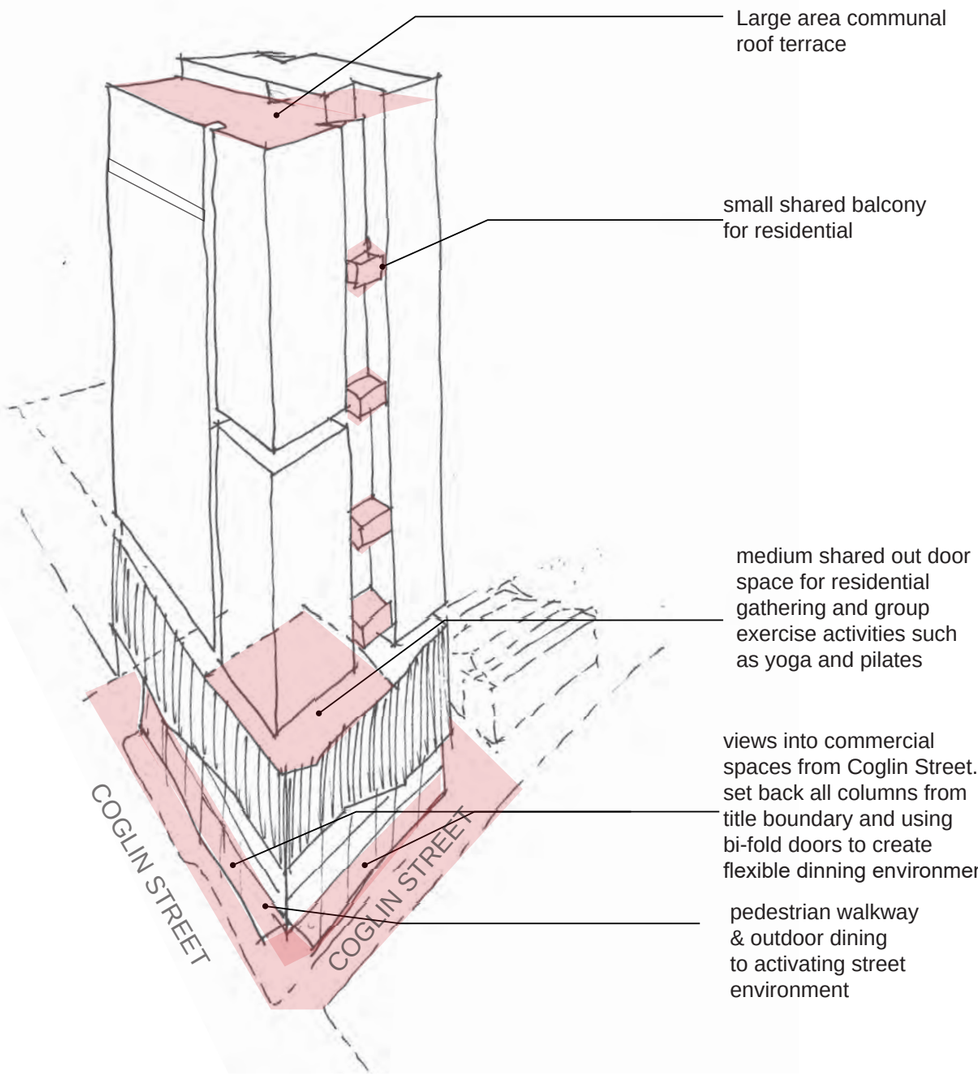
Form Development & Communal Space

The design intent for this project is to visually express the Four main building programs proposed. These are:

- Open/active ground plan
- Screened/articulated podium like carparking facade
- Recessive/horizontal apartment level 5, 13 and 18
- Extended/vertical apartment levels

The resulting form is a clear expression of form and function, that breaks down the building scale with articulation, comprises of a simple composition and grouping of similar elements, provides shading and screening where required, and successfully relates to the existing streetscape context.





This diagram highlights the areas proposed to be used for shared recreation, group gathering and common public realm activity.

Long Distance Views

The following images have been prepared to show the proposed development from four locations further away from the subject site.

View from Victoria Square

View from Gouger St West End

View from Gouger St East End

View from Wright St

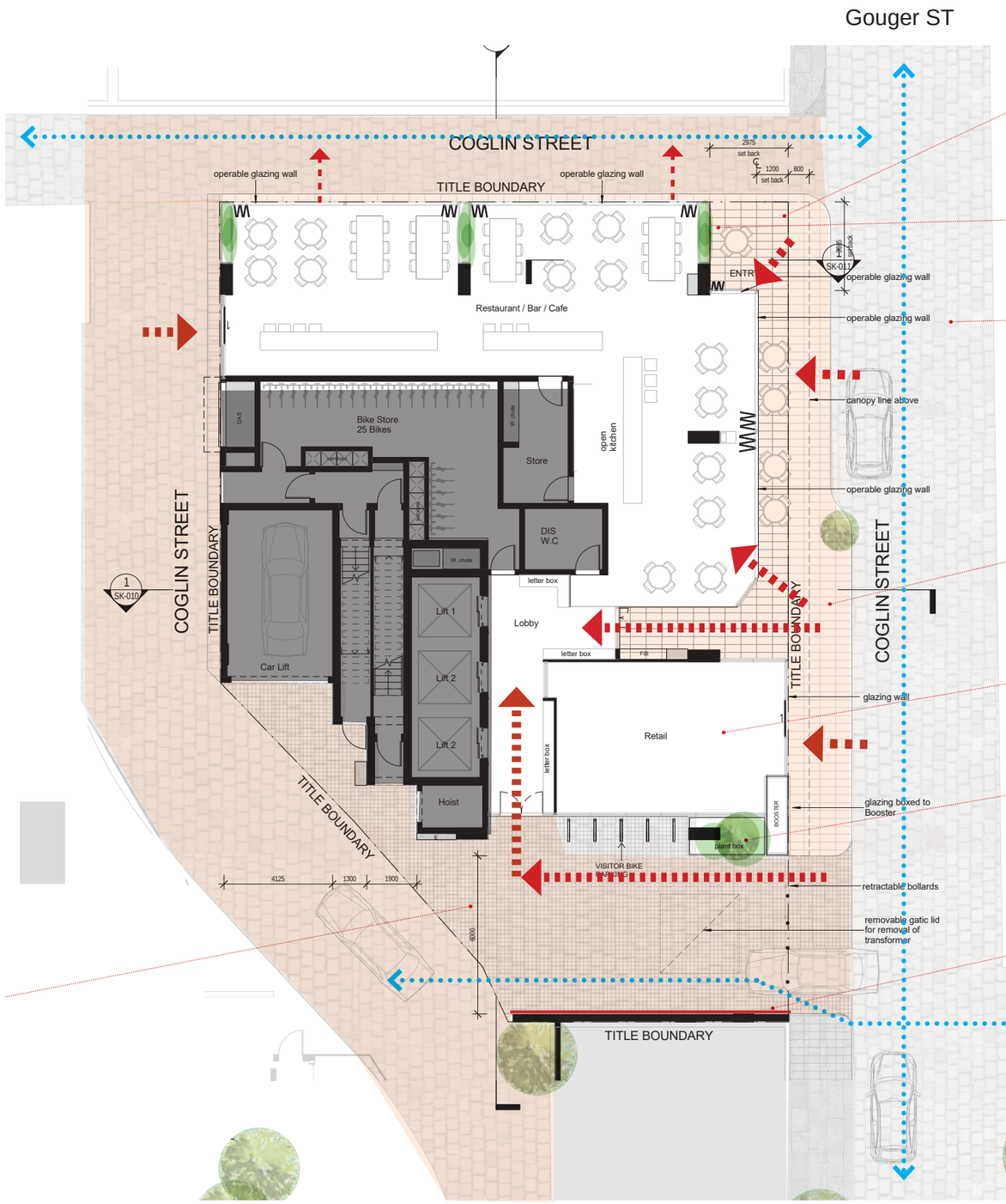
Ground Floor Study & Treatment

Set back columns position from Title Boundary line and using bifold doors around the ground floor to create a outdoor feeling space fronting Coglin Street with new paving.

The new walkway will adapt similar paving treatment to the public roads, with a banded treatment reinforcing the grid of the new building and blurring the title boundary edges to create a consistent public realm.

The outdoor feel restaurant/cafe/ retail area helps to create a more active and vibrant frontage that contributes to visual interest in

CONNECTION
PEDESTRIAN ACCESS
VEHICLE ACCESS



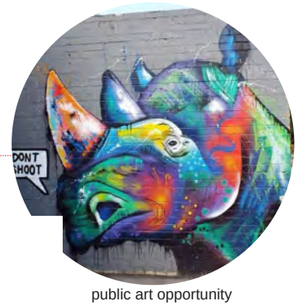

reference street view


vertical greening to entry


suggestion of stone paving (out of scope work)


reference retail street view


plant box

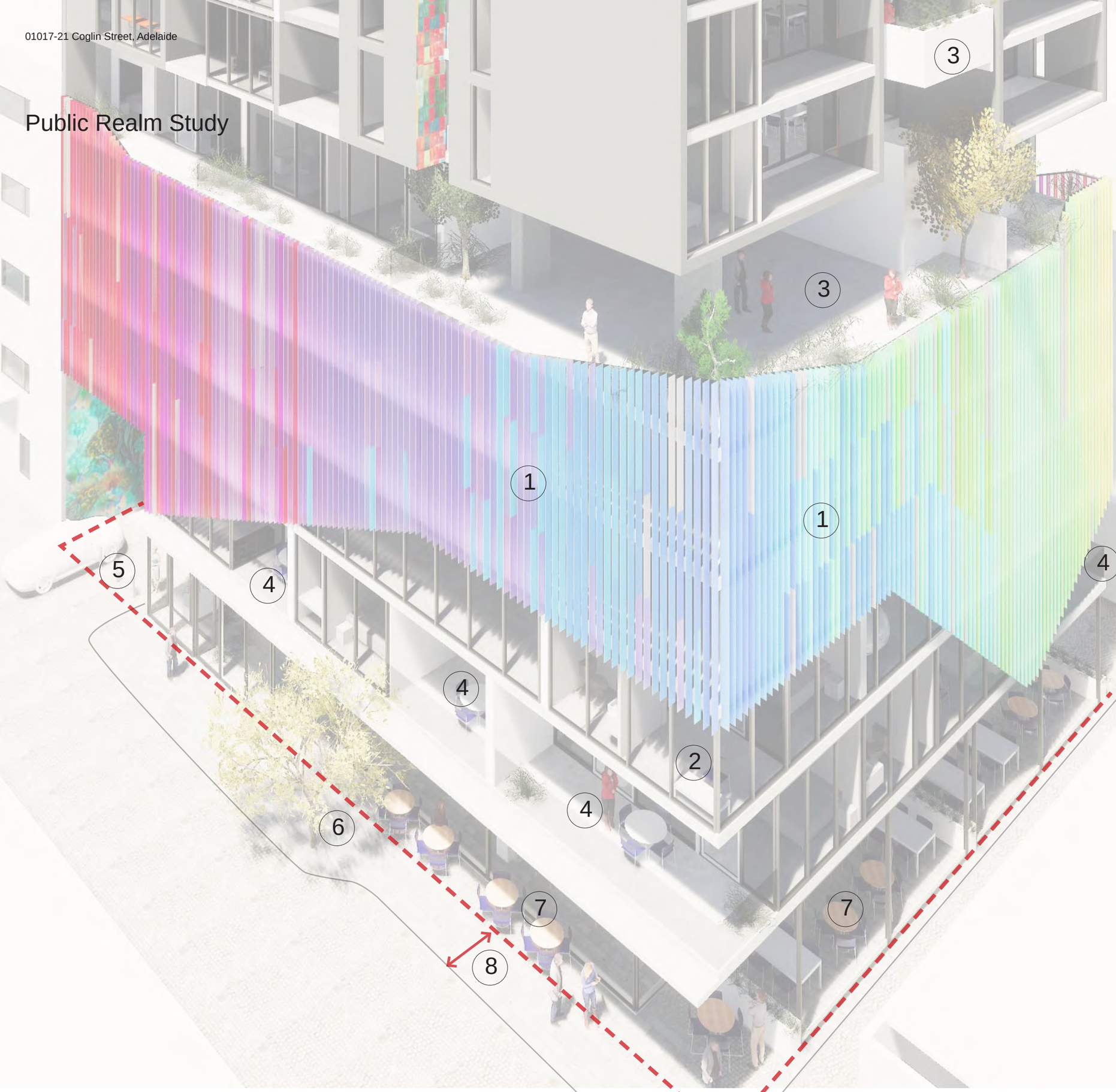


public art opportunity


new path floor paving

Ground Floor Plan
1:200

Public Realm Study



1 Sculptural metal shading to carpark levels prevents views of cars from the public realm.

2 Place a apartment bedroom/study on the North - East corner of level 2 to create better activation on streetscape.

3 Communal outdoor space for residents facing North to Central Market and East Coglin street with edge planting.

4 Balconies facing public realm provides passive surveillance

5 New pathway linking Eastern Coglin street and Western Coglin street

6 Possible new verge treatment & street tree subject to separation application

7 Operable ground floor glazing and outdoor dining to restaurant

8 New paving on existing Coglin Street path

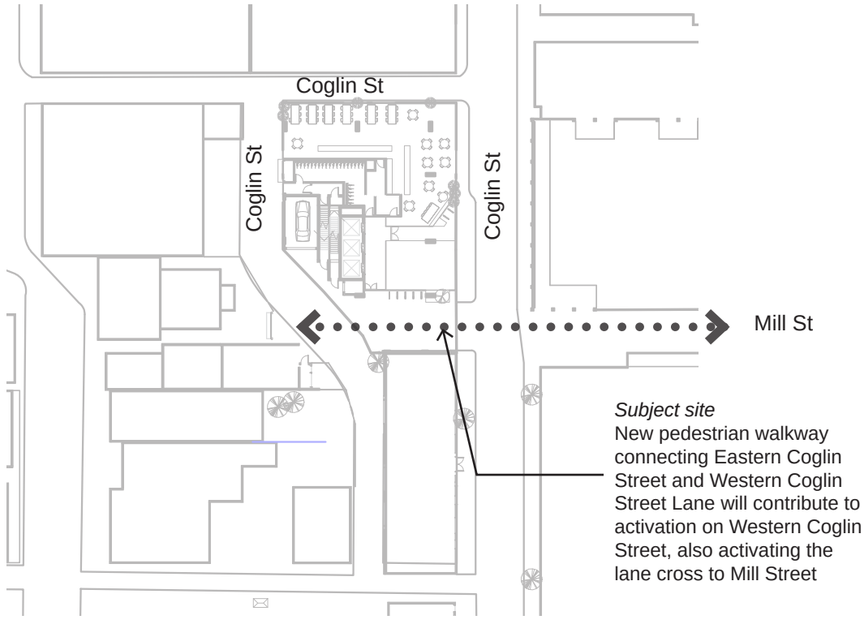
Walkway Activation Concept

The new pedestrian walkway / driveway on the subject site will connect Eastern Coglin Street and Western Coglin Street and will contribute to activation links to Mill Street.

Motorised retractable bollards are introduced to control other public traffic access.

The design of the walkway / driveway will focus on activation and engagement with the pedestrian, public art, greening and Engagement with artists.

Reference Images



Subject site
New pedestrian walkway connecting Eastern Coglin Street and Western Coglin Street Lane will contribute to activation on Western Coglin Street, also activating the lane cross to Mill Street

Indicative view of public art along walkway from East Coglin Street

CPTED & Street Level Interface

The street level interface to Coglin Street and the new walkway/ private driveway has been carefully designed to create a safe and engaging pedestrian experience.

Transparent facades to the restaurant, retail tenancy and residential lobby allow for passive surveillance, it will create active edges. Locating the lobby centrally to the new walkway will ensure constant movement through the space that will be well lit with clear sight lines from Coglin Street

A new path will blur the boundaries between the subject site and Coglin Street by incorporating similar ground surface treatment and materiality.

The ground floor façade to the restaurant has been set back to allow for outdoor dining within the title boundary. This will create a welcoming dining atmosphere when all bi-fold doors are opened.

The three above ground carparking levels have been partially sleeved with active uses in the form of apartments, including a two-level apartment in the North-Eastern corner. This, in conjunction with the communal outdoor space at level 5 will promote day and night passive surveillance of the public realm.

Facade Diagrams

Colourful Market

Taking all colors from Central Market by using gradient color system, applying color from warm to cold and vise verse, to create vibrant atmosphere

Color (Red to Blue) to Eastern Elevation

ML

MR

Plan

Metal panel shading angled on North Elevation to provide sunshading and prevent view into carparks

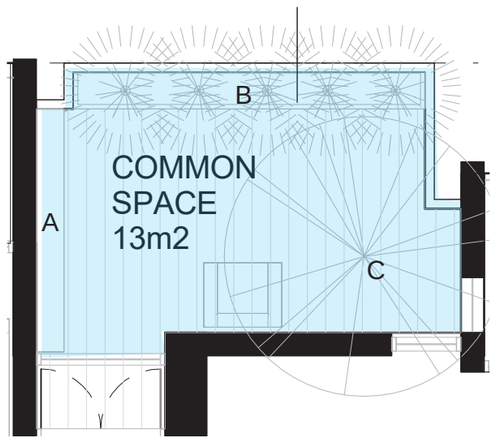
North-West Perspective

Folding metal sunshading concept to Western side

Communal Spaces

1. Outdoor Shared Space

Provide an open shared space (Herbs and fruits garden) to encourage occupants to engage each other, grow vegetables and get to know their neighbours. Having fresh herbs and fruits just outside your door way.



Typical Common Garden Space 13m2
Level 7,10,14,18

A: Green Wall

Get to know neighbors

B: Herbs & Vegetables

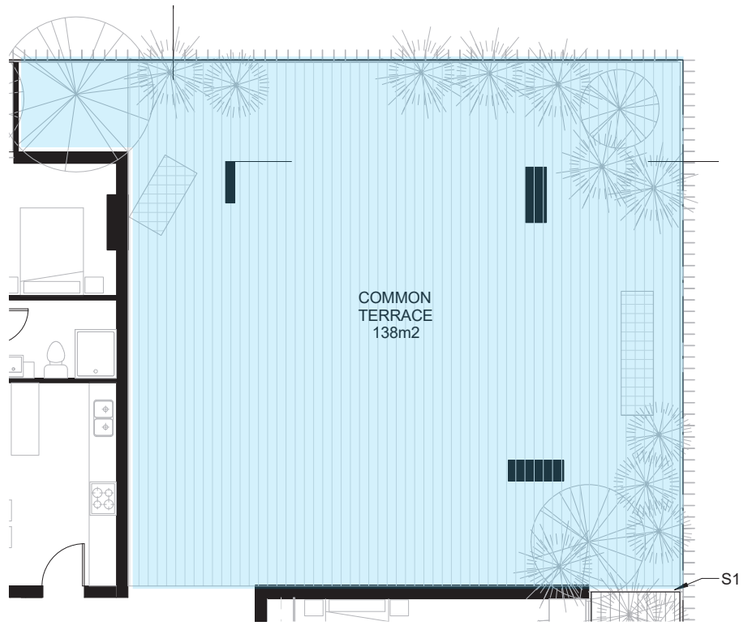
Share Works

C: Fruit Trees

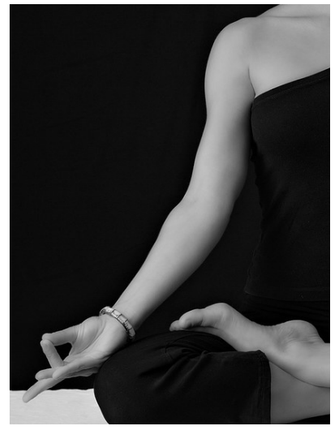
Reading & Relaxing

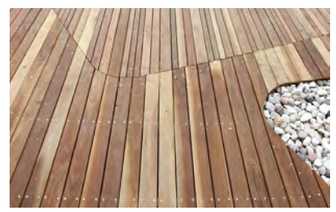
2. Outdoor Shared Space

Provide an open shared space to encourage occupants to engage each other and create a healthy community.
Activities: Picnic and quiet group activities (such as yoga)



Common Terrace 138m2
Level 5





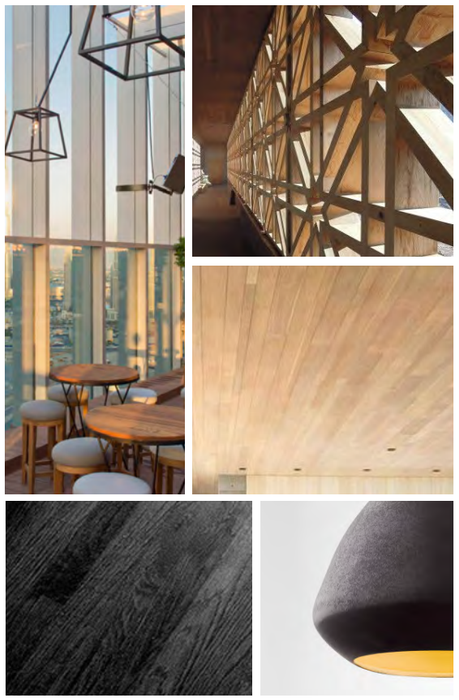
Communal Spaces

Roof Terrace

The entire roof level is proposed to become a shared use recreation level for residents of the building. It will comprise of both indoor and outdoor recreation spaces for group gatherings and activities, as well as individual and quiet activities.

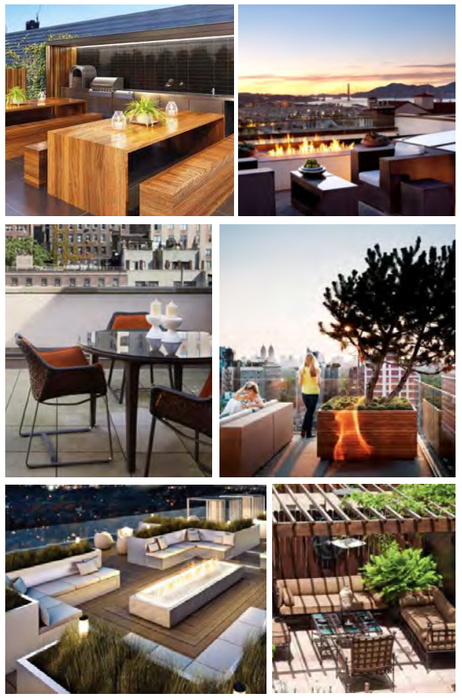
1. Indoor Lounge

- lounge furniture which can be easily reconfigured
- movable intermediary screens (curtains, perforated/patterned metal and timber screens to create a sense of privacy and to emphasis height within the lounge areas
- games area integrated within the lounge including, cards table, mahjong table
- BBQ area / basic kitchen facilities



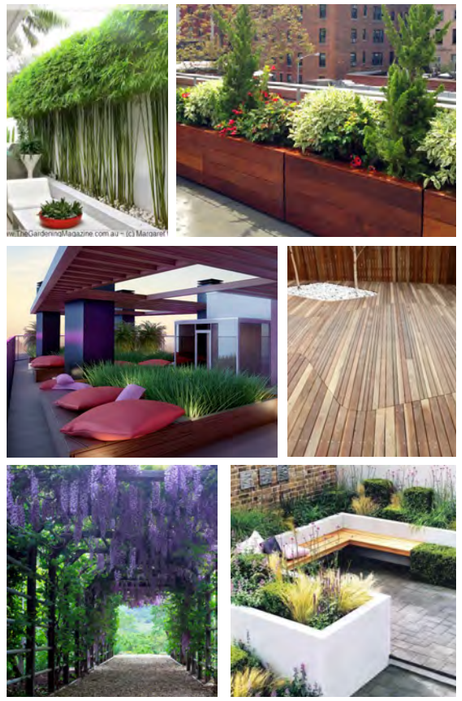
2. Outdoor Lounge

- flexible lounge furniture encourages groups of people
- BBQ area / basic outdoor kitchen facilities
- planting boxes



3. Garden

- garden/landscaped areas
- opportunity for water feature, sculptural furniture or artwork
- informal barbeque area
- areas for reflection
- platforms and built up landscaping to create paths



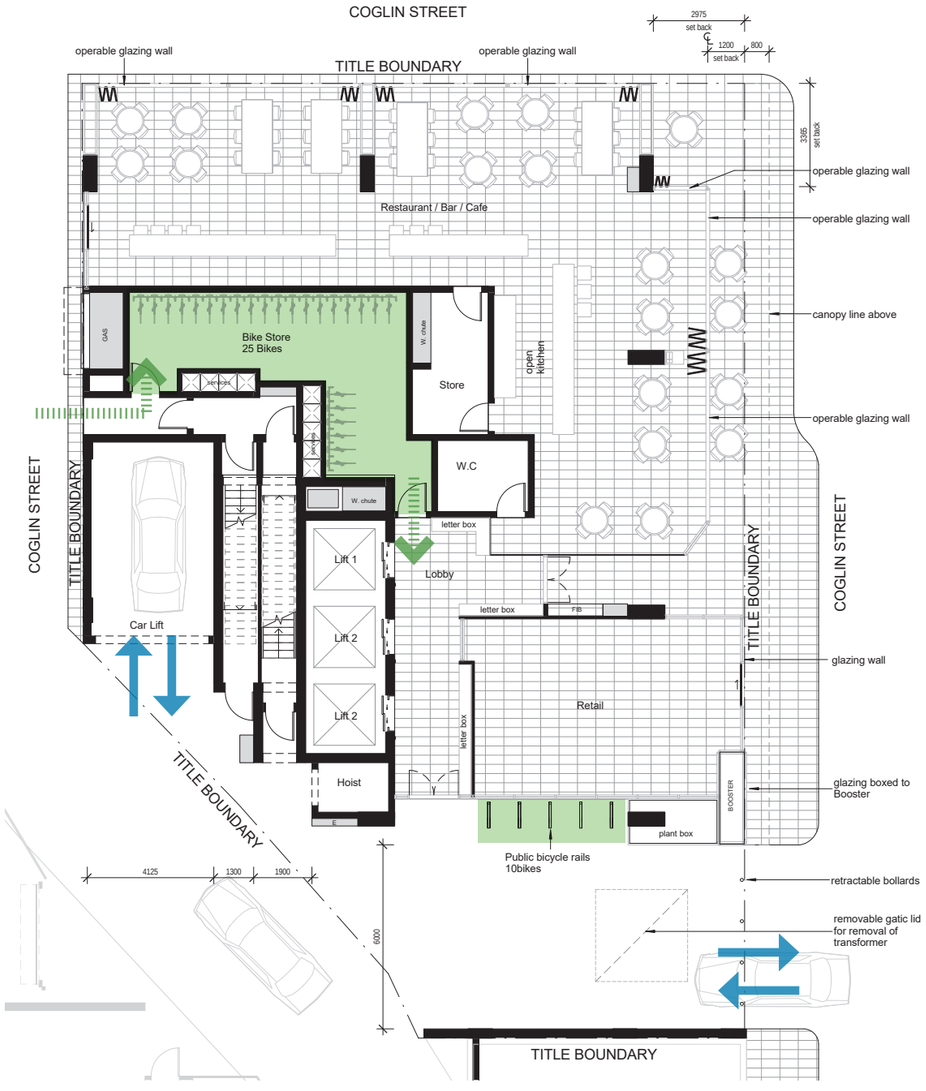
Traffic Management Strategy

There will be multiple bollards (as shown in the perspective on page 18 and on the planning drawings) and they will be motorised, and with a car-lift to carparks on level 2, 3 & 4. A total of 39 carparks.

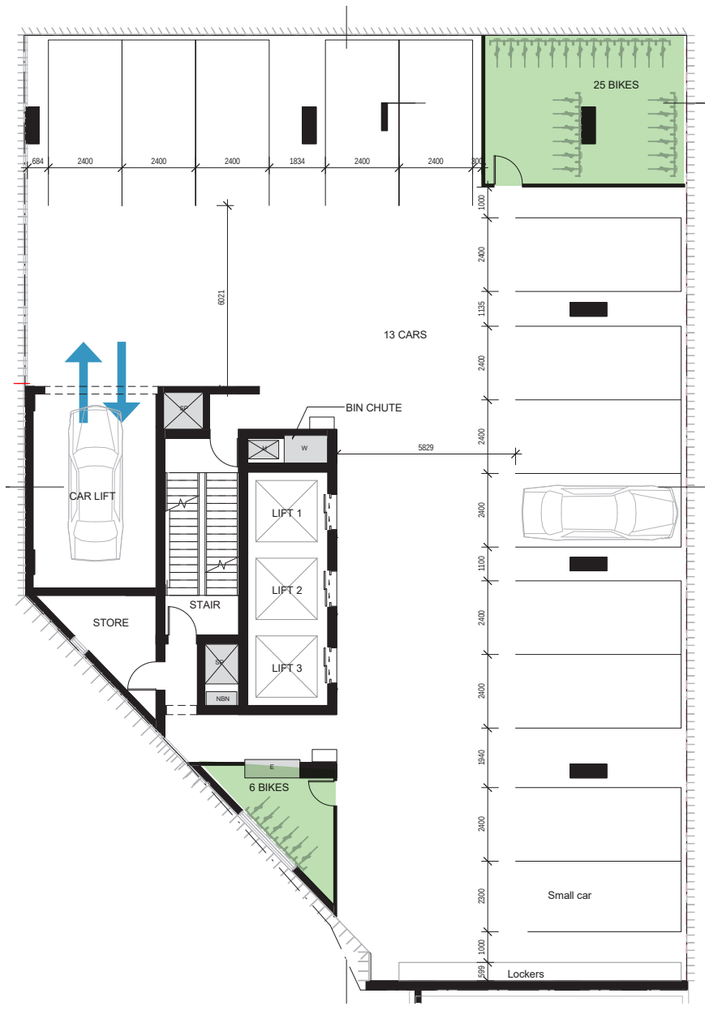
Three bike storage rooms have been provided for residents, staff and visitors of the building. A ground floor bike parking facility is accessed via Western Coglin Street, and will be for residential use. Level 3 bike parking will be for residential use as well.

Customer bike parking has been provided at ground floor within the public realm.

Further information regarding the traffic management strategy can be found in the Transport Impact Assessment prepared by InfraPlan Consultants.



Ground Floor Plan



Level 3&4 Floor Plan

Bicycle movement

Vehicle movement

Statement of Environment Efficiency

Higher Density Living

The high-density nature of this development is inherently more energy efficient than providing the same amount of accommodation over a much larger site, and the central city location of the site lends itself to reduced car dependency with excellent provision of public transport and local amenities in close proximity.

Bike Facility

This development aims to promote bicycle travel as a viable alternative to the car, and offers a dedicted and secure onsite bike parking and storage facility. the bike store will incorporate a bike workshop, giving residents a dedicated place to change tyres, tune and adjust their bikes.

Access to Natural Daylight & Ventilation

Consideration has been given to the internal layouts of all apartments to ensure adequate levels of natural daylight are provided to all living areas and bedrooms.
Corner apartments have access to natural cross ventilation through the incorporation of operable windows and doors, and circulation corridors and lobbies have been designed to allow natural daylight and ventilation.

High Thermal Efficiency

A passive approach to energy efficiency has been adopted with careful consideration of orientation, building organisation and the overall building envelope, with close attention to the location of openings and the maximisation of daylight penetration balanced with solar control.

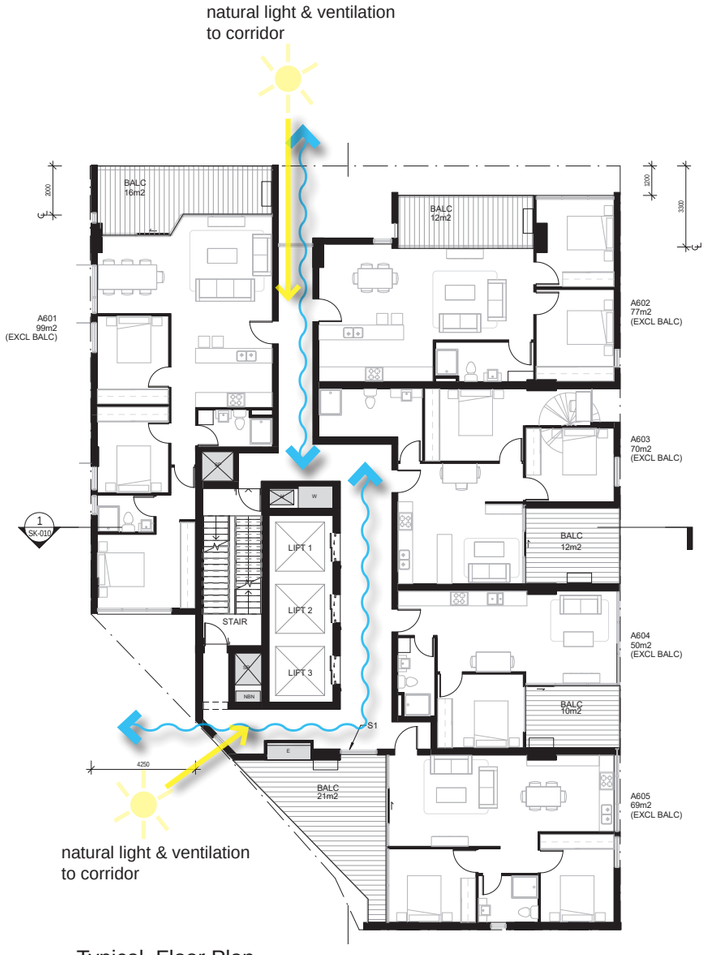
Shading to glazing

High thermal efficiency is achieved with shading to glazing on the west and north facades and the inclusion of high performance glazing.

In addition, a number of other energy and water efficient principles have been adopted throughout the development which include:

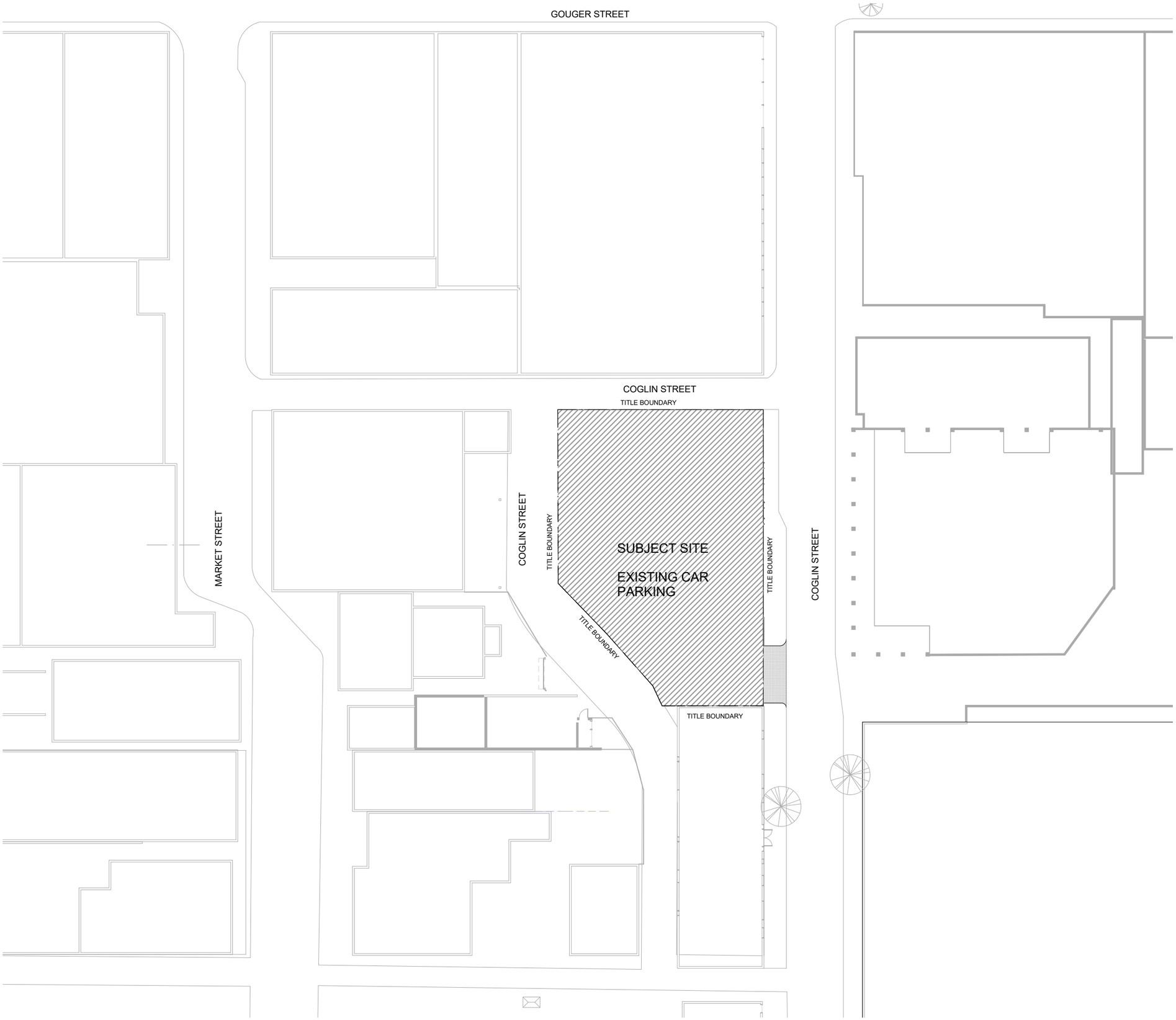
- Solar panels on the roof to provide electricity for the roof terrace
- High performance glass to habitable spaces
- Energy efficient fixtures and fittings
- Water efficient sanitary ware, appliances and tap ware
- Movement sensor activated lighting in parking and common areas

Level 1 Floor Plan



Typical Floor Plan

4.0 Planning Drawings



Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

JPE Design Studio

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SA 5000

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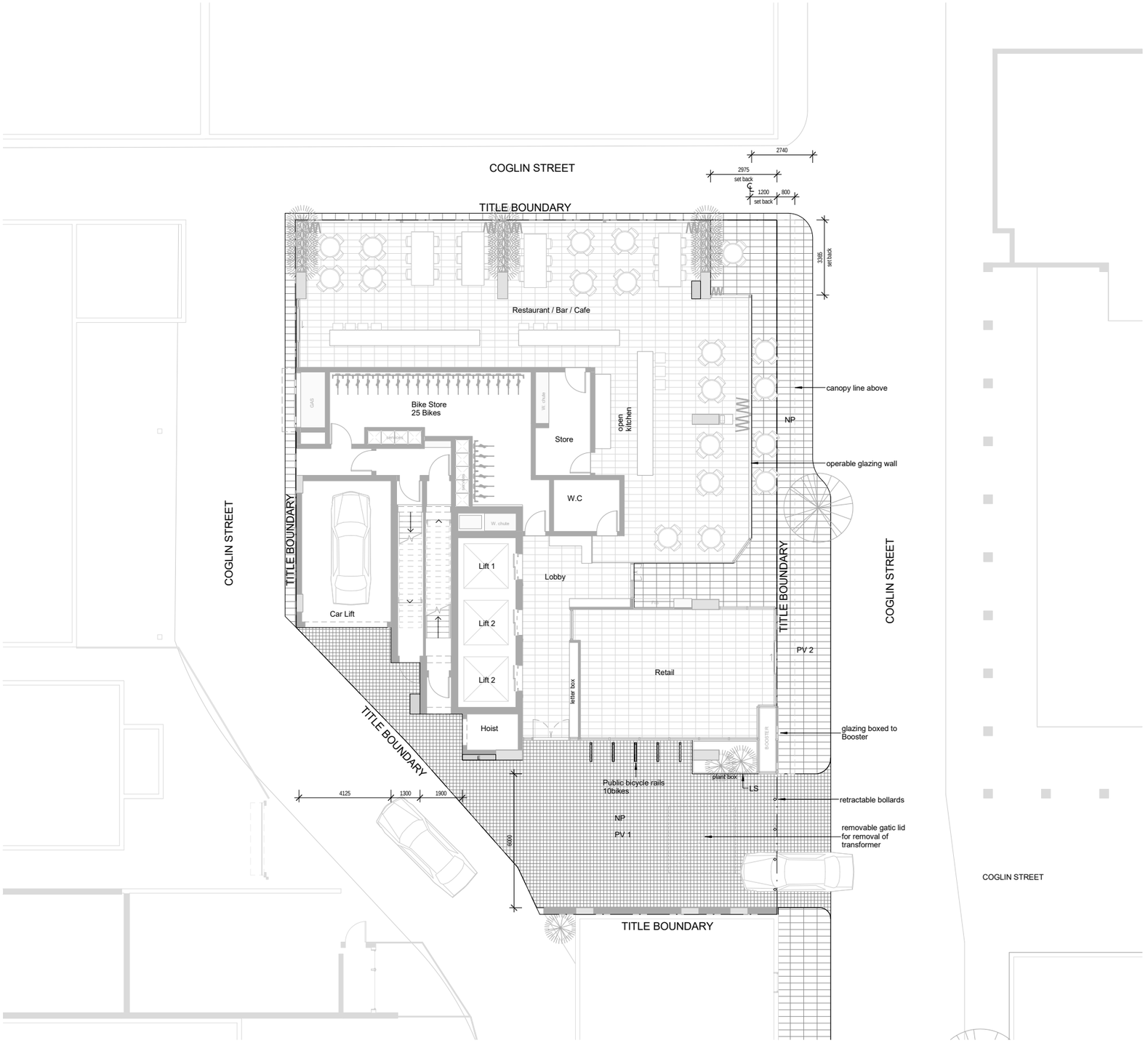
Project: Coglin Street
21 Coglin Street

Title: Existing Site Plan

Scale @ A1: **As indicated**
Revision:
Date:

Project No: 01017
Drawing No: SK-001
Status: DA PLANNING



1 Landscape Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
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EN	Ensulte
LD	Laundry
A/C	Condenser unit

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P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
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S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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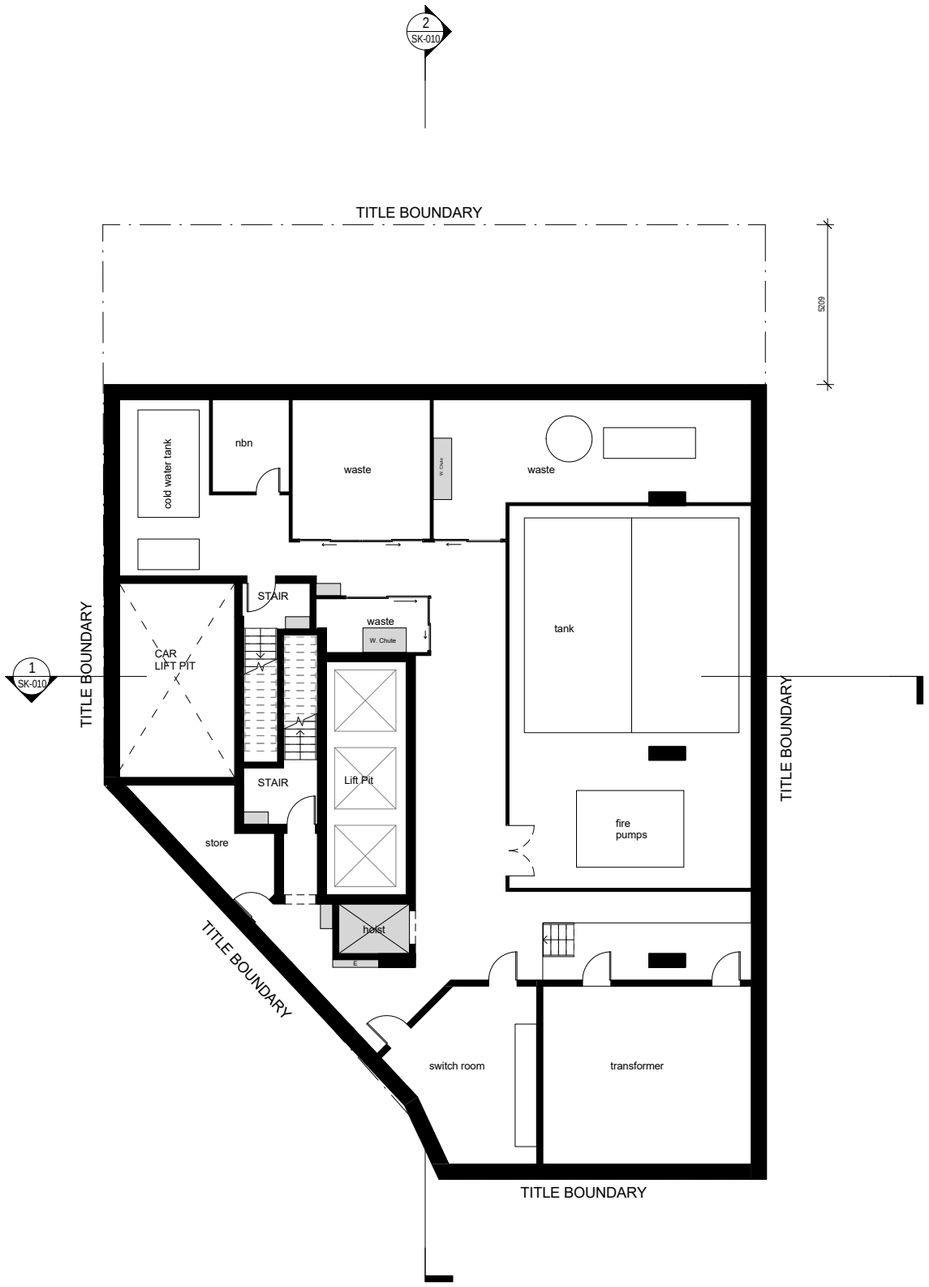
Project: Coglin Street
21 Coglin Street

Title: Landscape Floor Plan

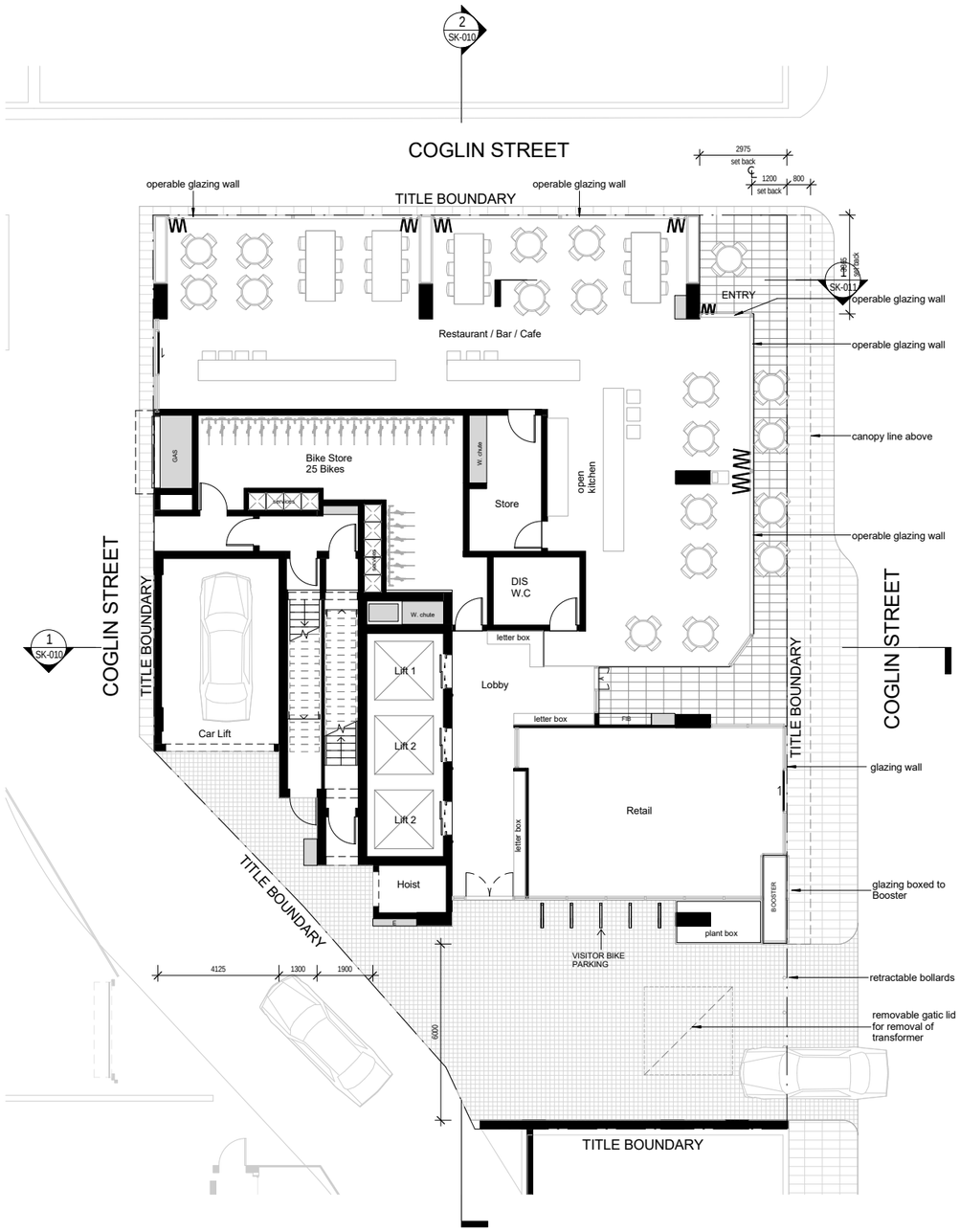
Scale @ A1: **1 : 100**
Revision:
Date:

Project No: 01017
Drawing No: SK-002
Status: DA PLANNING



1 Basement Floor Plan

Scale 1 : 100



2 Ground Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

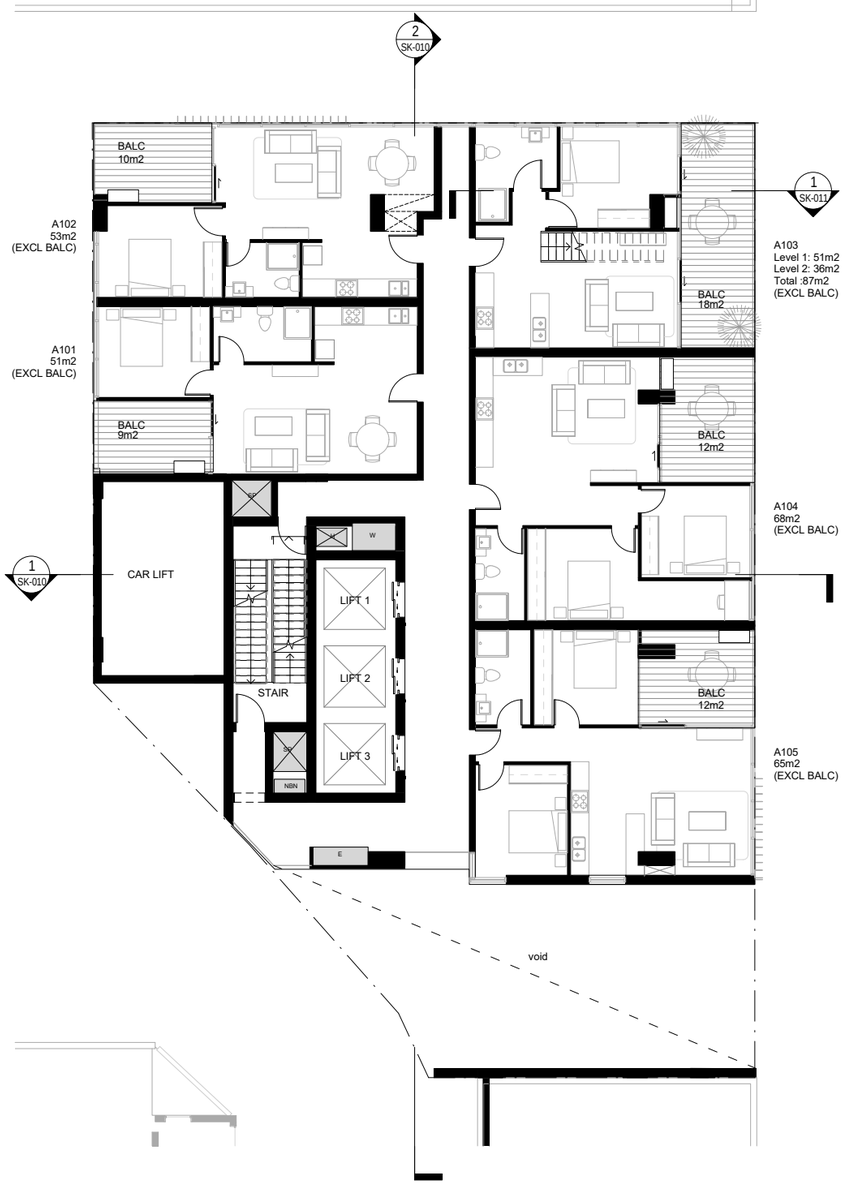
Title: Basement &
Ground Floor Plans

Scale @ A1: **1 : 100**
Revision:
Date:

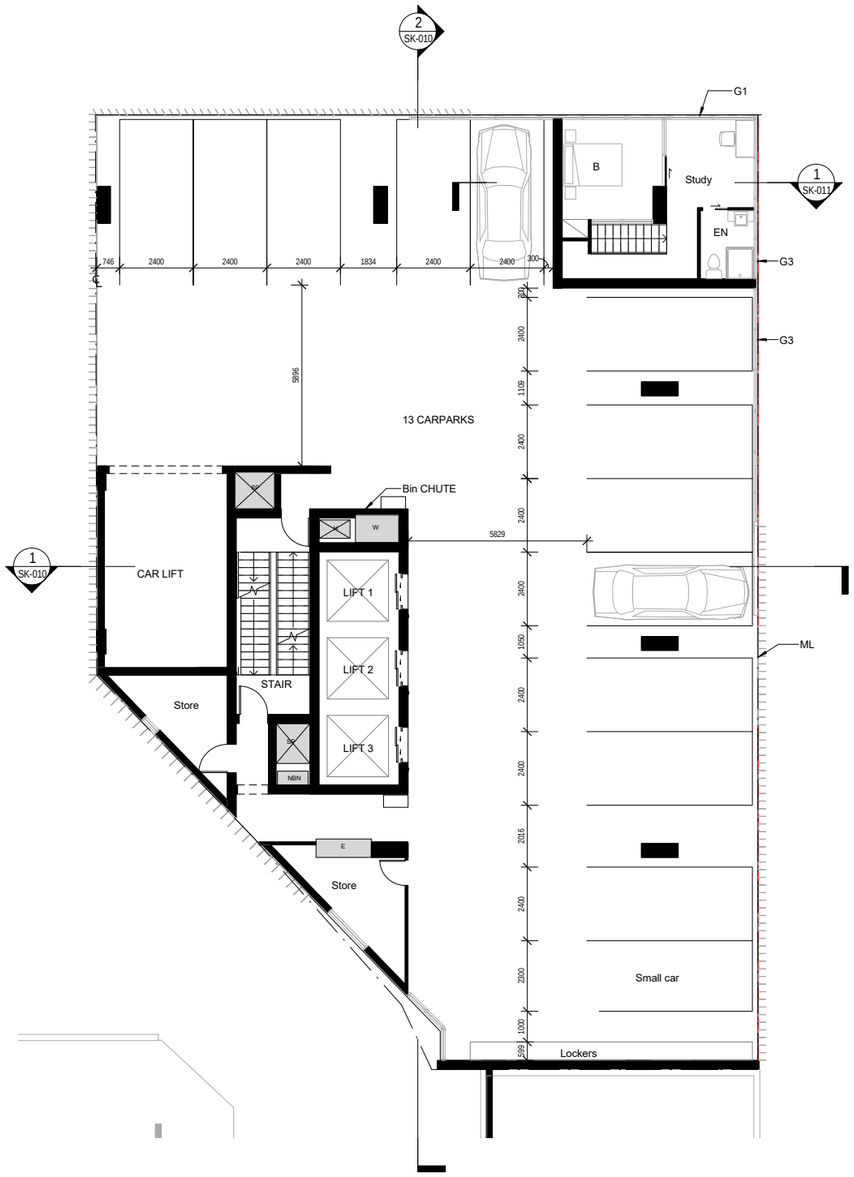
Project No: 01017

Drawing No: SK-003

Status: DA PLANNING



1 Level 1 Floor Plan
Scale 1 : 100



2 Level 2 Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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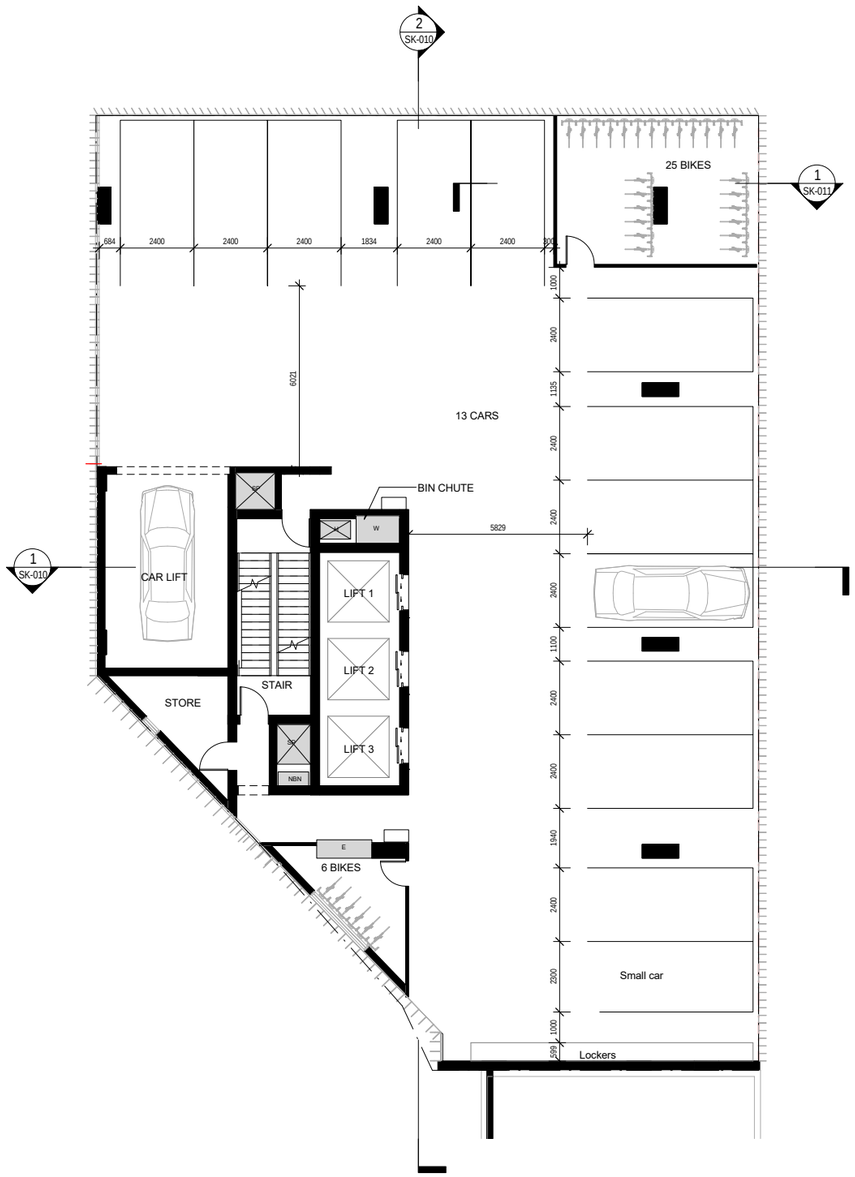
Project: Coglin Street
21 Coglin Street

Title: Level 1 & 2 Floor Plans

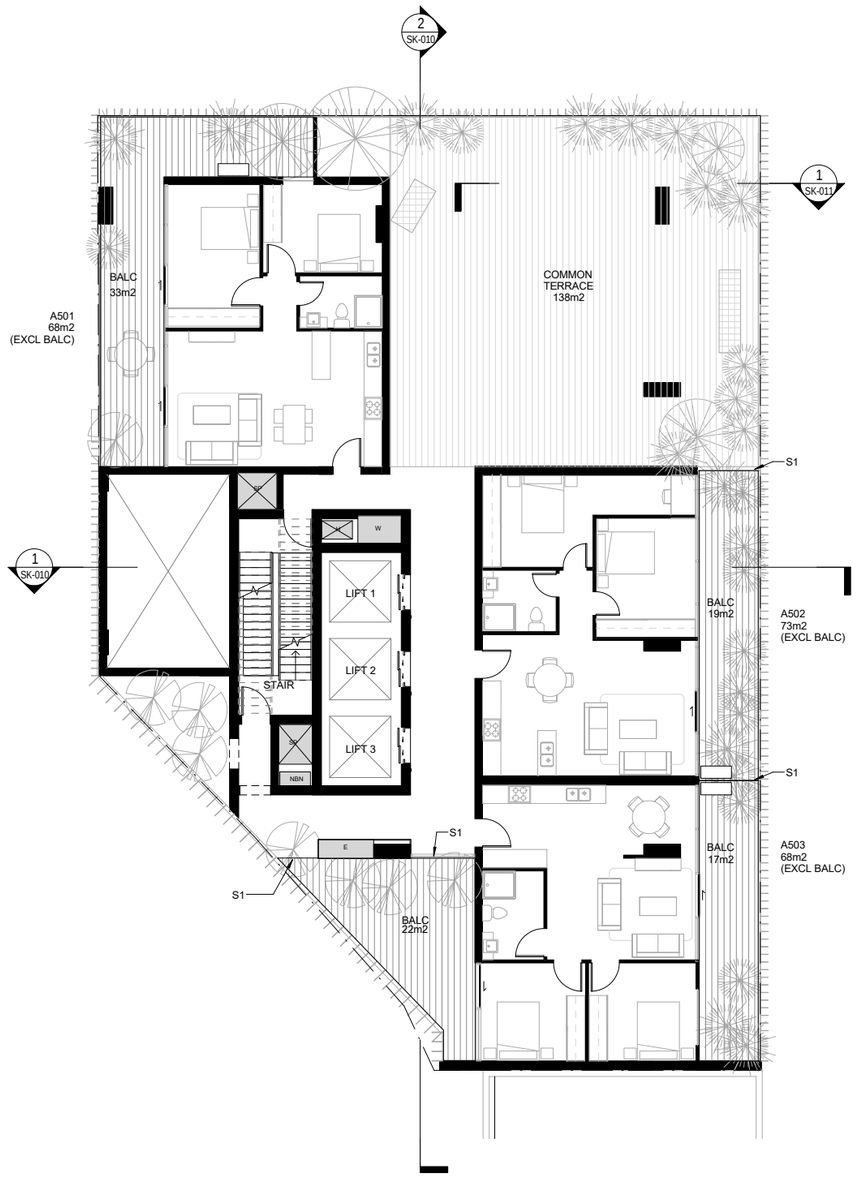
Scale @ A1: **1 : 100**
Revision:
Date:

Project No: 01017
Drawing No: SK-004
Status: DA PLANNING



1 Level 3-4 Floor Plans

Scale 1 : 100



2 Level 5 Floor Plan

Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

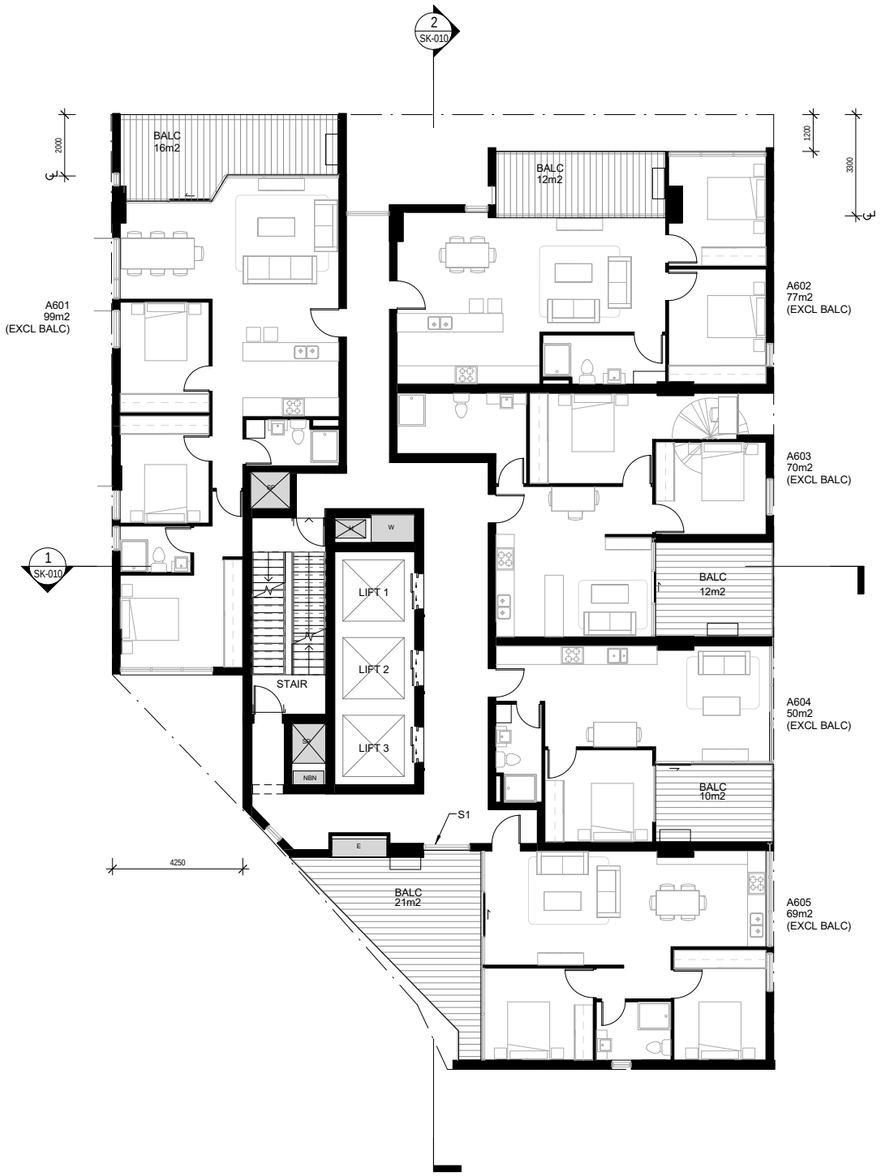
Title: Level 3, 4 & 5 Floor Plan

Scale @ A1: **1 : 100**
Revision:
Date:

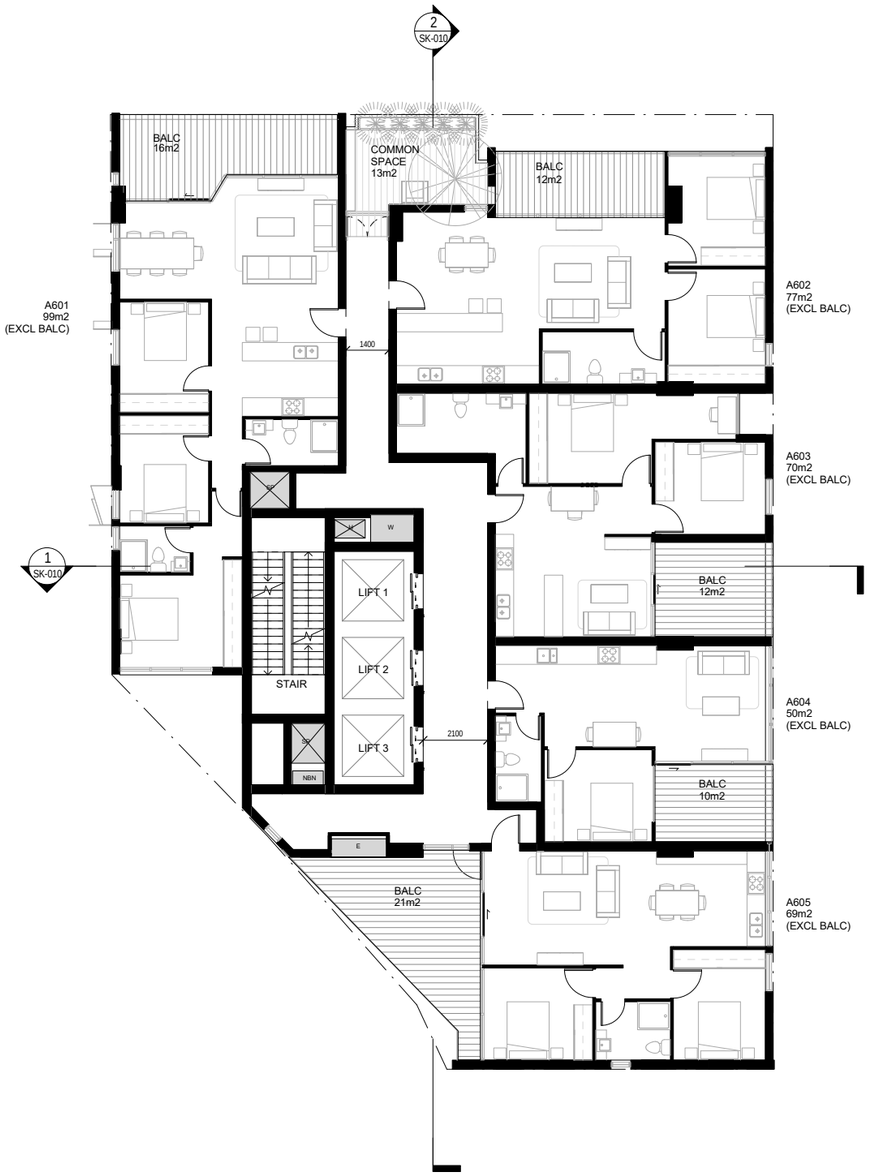
Project No: 01017

Drawing No: SK-005

Status: DA PLANNING



1 Level 6, 8-9, 11-12, 15-17 & 20-21 Floor Plan
Scale 1 : 100



2 Level 7, 10, 14 & 18 Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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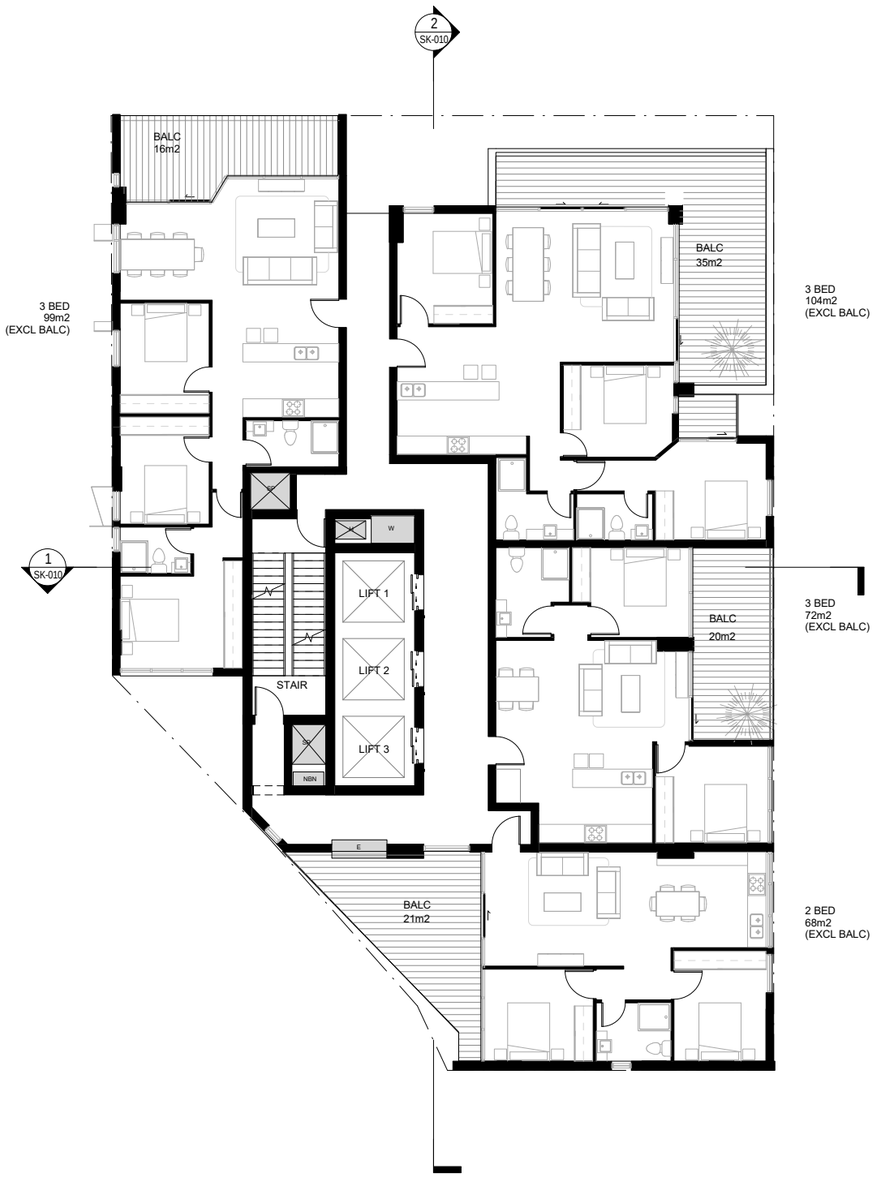
Project: Coglin Street
21 Coglin Street

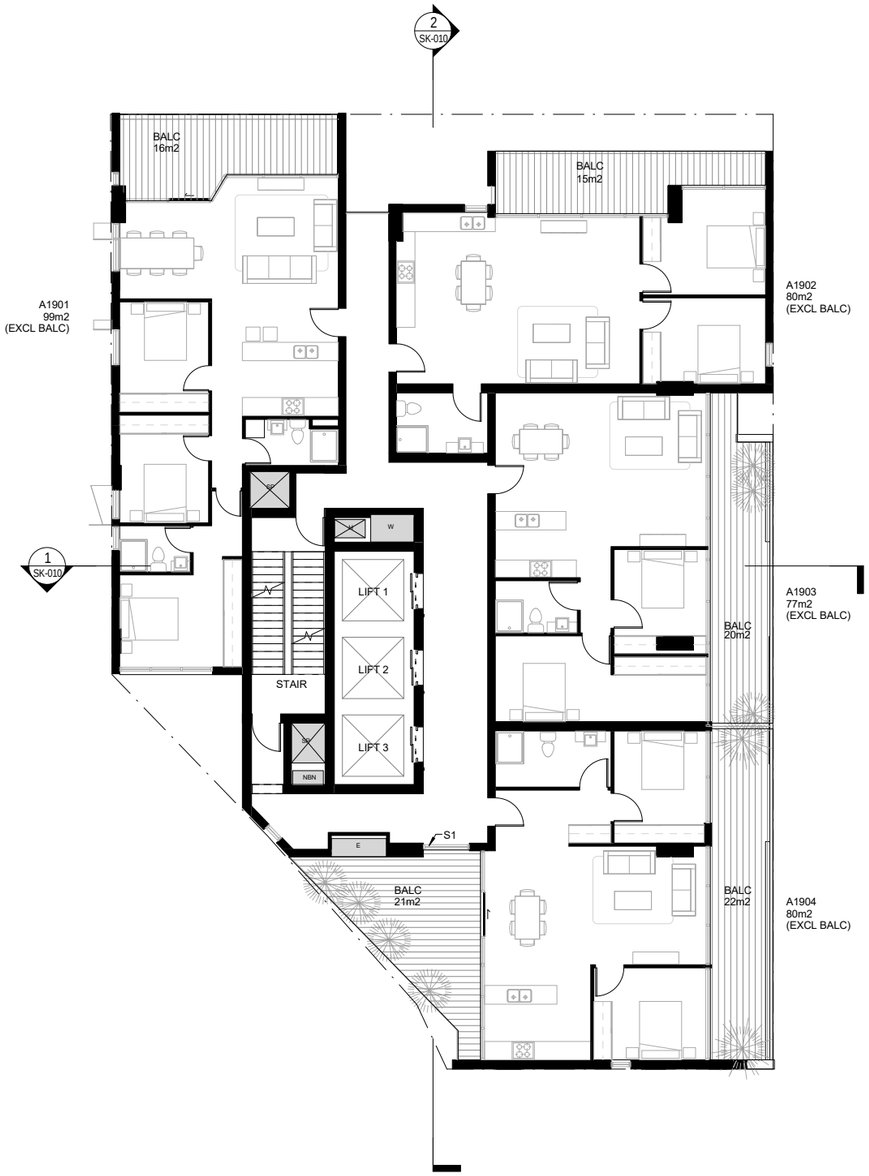
Title: Typical Apartment Plans

Scale @ A1: **1 : 100**
Revision:
Date:

Project No: 01017
Drawing No: SK-006
Status: DA PLANNING



1 Level 13 Floor Plan
Scale 1 : 100



2 Level 19 Floor Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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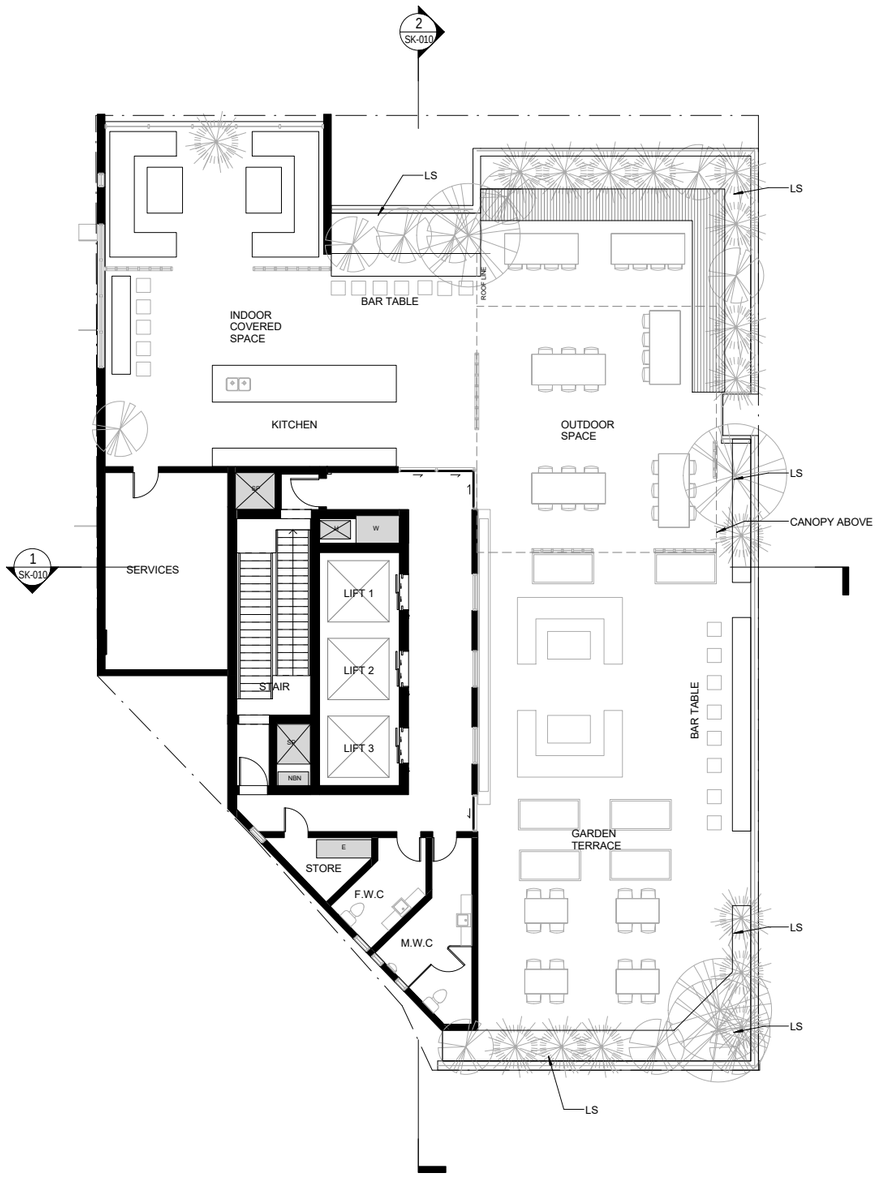
Project: Coglin Street
21 Coglin Street

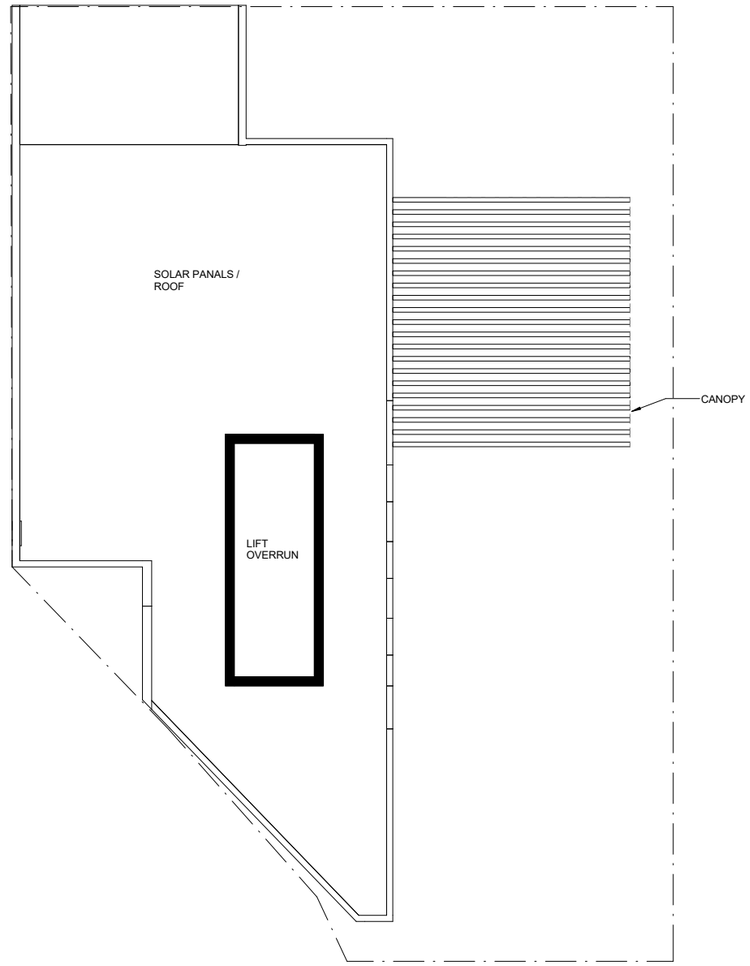
Title: Level 13 & 19 Floor Plans

Scale @ A1: **1 : 100**
Revision:
Date:

Project No: 01017
Drawing No: SK-007
Status: DA PLANNING



1 Roof Garden Plan
Scale 1 : 100



2 Roof Plan
Scale 1 : 100

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
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P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

Title: Roof Garden & Roof Plans

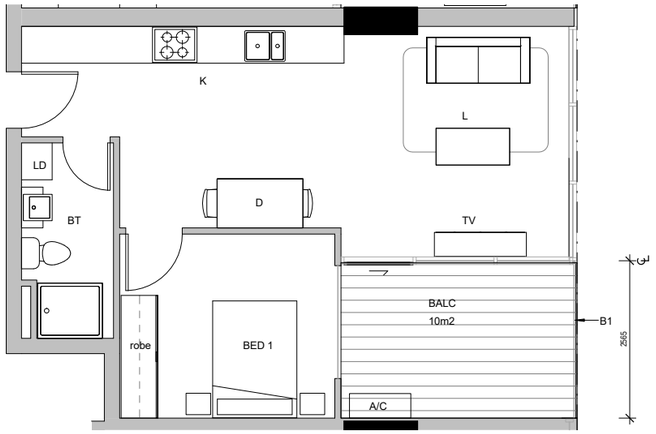
Scale @ A1: **1 : 100** Revision:

Date:

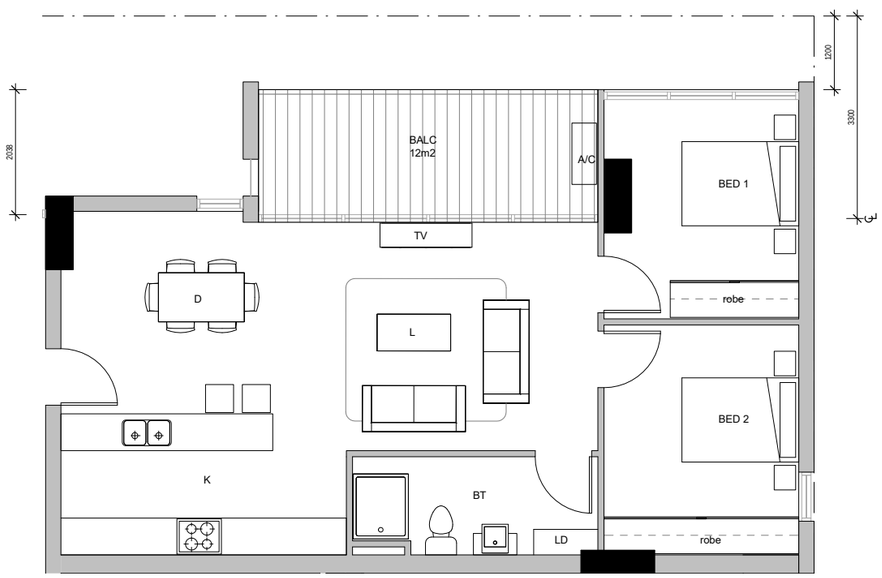
Project No: 01017

Drawing No: SK-008

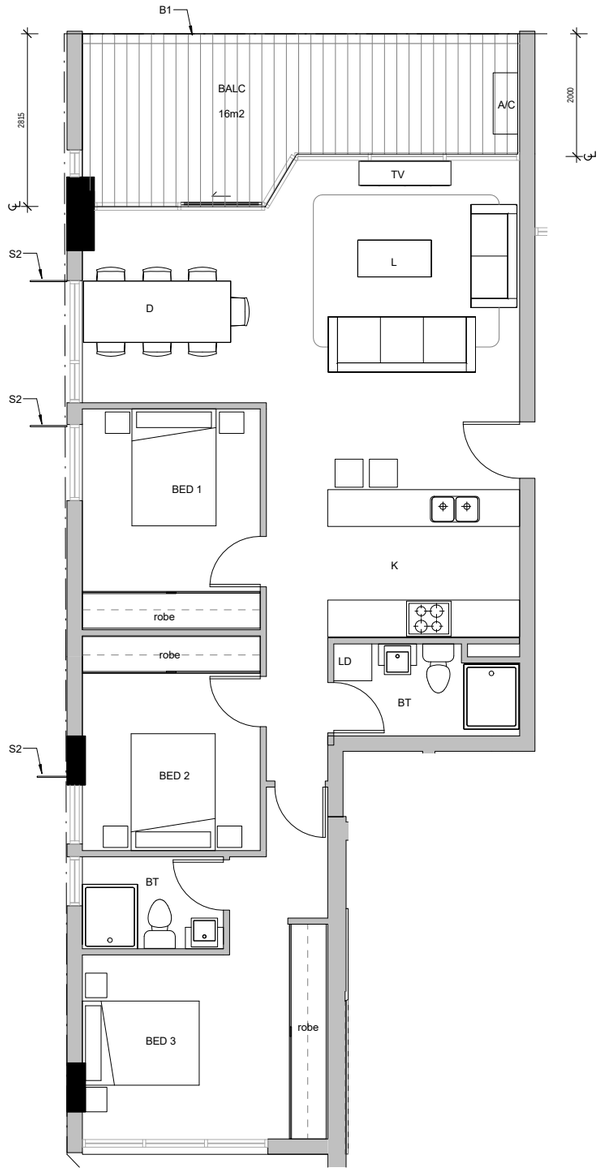
Status: DA PLANNING



3 Typical 1 Bedroom Apartment
Scale 1 : 50



2 Typical 2 Bedroom Apartment
Scale 1 : 50



1 Typical 3 Bedroom Apartment
Scale 1 : 50

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

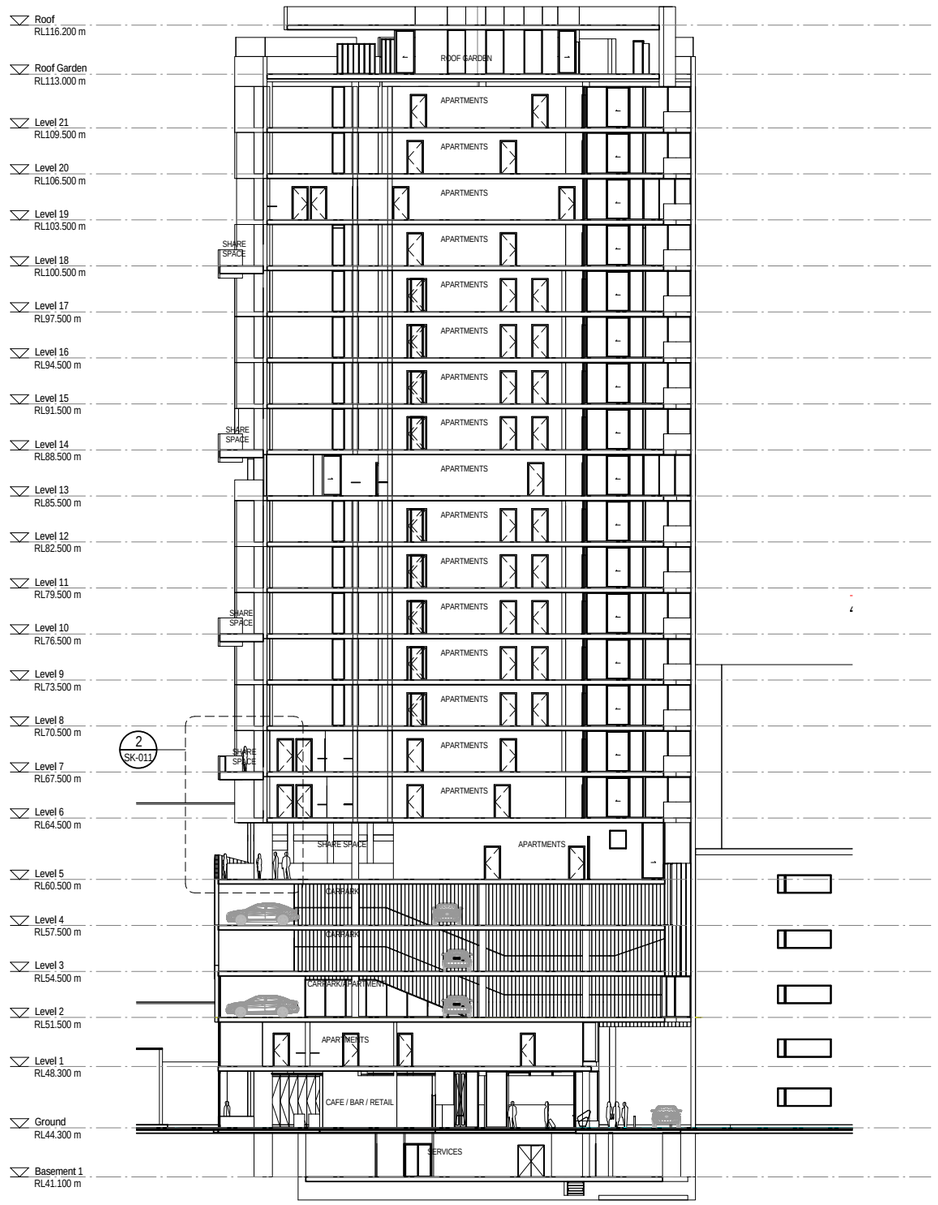
Title: Apartment Layout

Scale @ A1: **As indicated**
Revision:
Date:

Project No: 01017
Drawing No: SK-009
Status: DA PLANNING

1 E-W Section

Scale 1 : 200



2 N-S Section

Scale 1 : 200

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

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Project: Coglin Street
21 Coglin Street

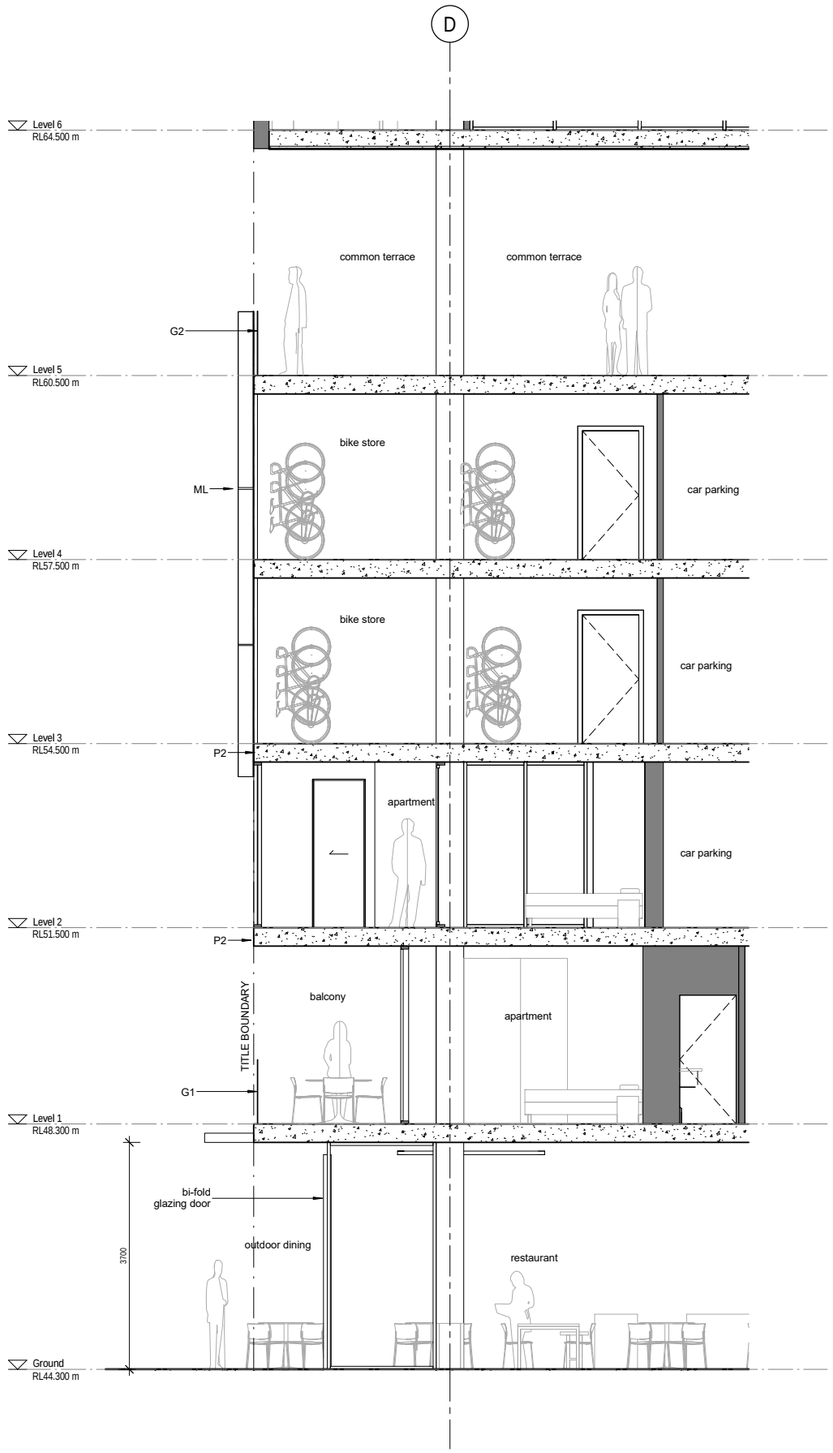
Title: Sections

Scale @ A1: **1 : 200**
Revision:
Date:

Project No: 01017

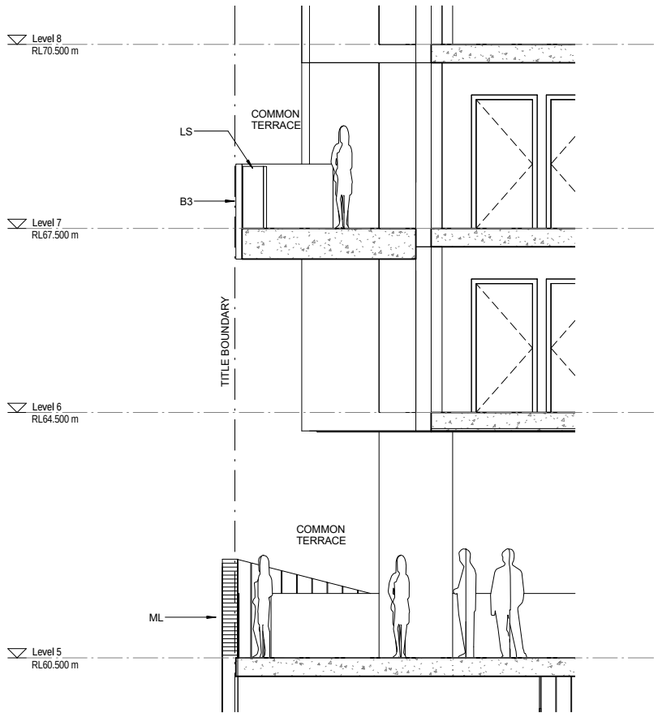
Drawing No: SK-010

Status: DA PLANNING



1 Section Detail - Eastern Facade

Scale 1 : 50



2 Section Detail - Common Space

Scale 1 : 50

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
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ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Project: Coglin Street
21 Coglin Street

Title: Section Details

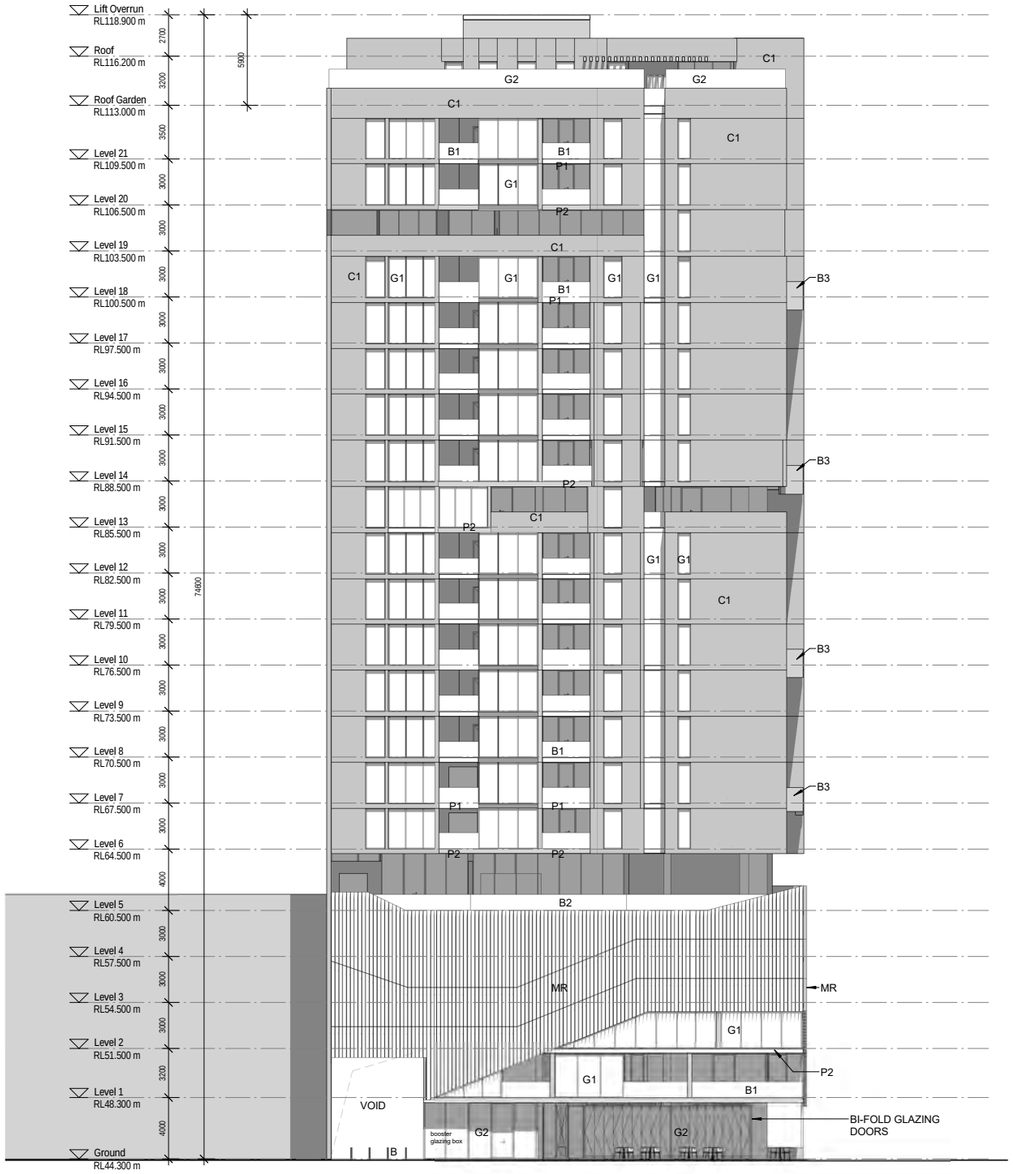
Scale @ A1: **As indicated** Revision:

Date:

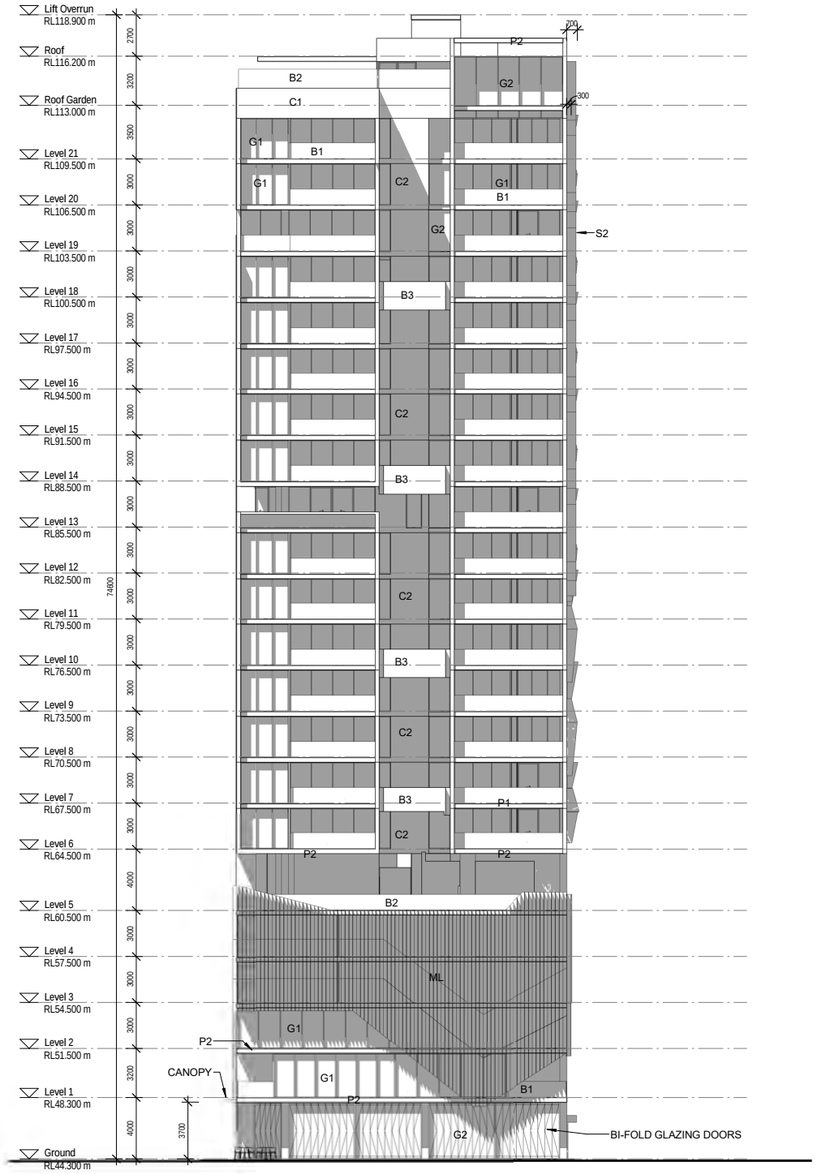
Project No: 01017

Drawing No: SK-011

Status: DA PLANNING



1 East
Scale 1 : 200



2 North
Scale 1 : 200

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensulte
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
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MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

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Adelaide 5000
PO Box 6401
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SA 5000

Tel 08 8406 4000
Fax 08 8406 4007
www.jpe.com.au
design@jpe.com.au

Project: Coglin Street
21 Coglin Street

Title: East & North External Elevations

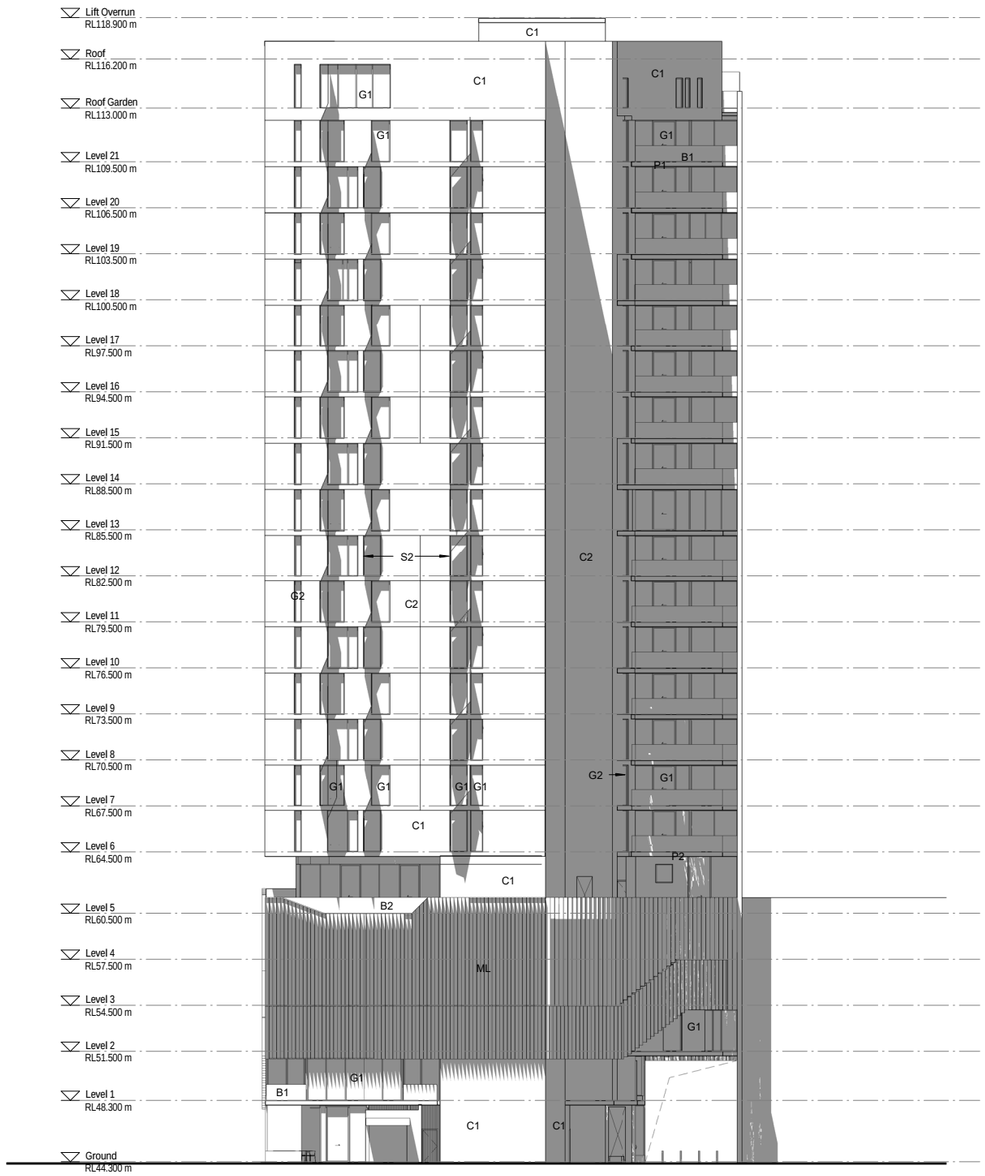
Scale @ A1: **As indicated** Revision:

Date:

Project No: 01017

Drawing No: SK-020

Status: DA PLANNING



1 West
Scale 1 : 200

2 South
Scale 1 : 200

Amendments:

Revision	Issue	Date
	DA Planning	09.02.2018

LEGEND

RL	Design Relative Level
FP	Existing Footpath
NP	New Footpath
LS	Landscaped Planter
BP	Bikes Parking
B	Bollard
K	Kitchen
L	Living
D	Dining
B	Bedroom
BALC	Balcony
BT	Bathroom
EN	Ensuite
LD	Laundry
A/C	Condenser unit

EXTERNAL FINISHES LEGEND

G1	Grey tint vision glass with themal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed bacony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished metal panel shading. Colour: to match C1

PAVING

PV1	External Paving. Colour: mid Grey
PV2	External paving. Colour: mid Grey

JPE Design Studio

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Project: Coglin Street
21 Coglin Street

Title: West & South Elevations

Scale @ A1: **As indicated** Revision:

Date:

Project No: 01017

Drawing No: SK-021

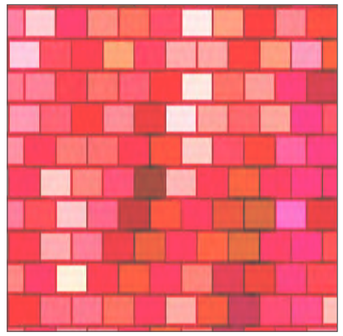
Status: DA PLANNING

5.0 Proposed External Materials

Proposed External Materials

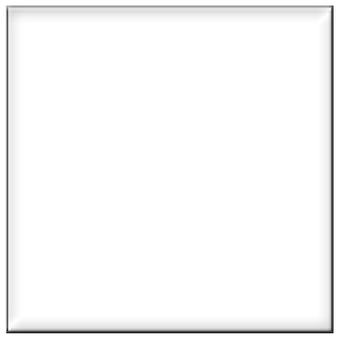
G1	Grey tint vision glass with thermal performance coating
G2	Clear vision glass with thermal performance coating
G3	Colour backed spandrel glass colour to match G1
B1	Glass balustrade with G1 glass and black powdercoated framing
B2	Glass balustrade with G2 glass
B3	Precast concrete balustrade. Colour: White
P1	Paint finished concrete slab edge. Colour: White
P2	Paint finished concrete slab edge. Colour to match C1
C1	Prefinished panel cladding with expressed joints. Colour: Natural Grey
C2	Prefinished glazed brick panel. Colour: to match ML / MR
ML	Powdercoat finished metal panel shading. Colour: Gradient color
MR	Powdercoat finished metal panel shading. Colour: Gradient color
S1	Fixed balcony screens with G3 finish and black powdercoated framing
S2	Powdercoat finished folded metal panel shading. Colour: to match C1
SF1	Prefinished aluminum soffit panel Colour: to match C2

C1

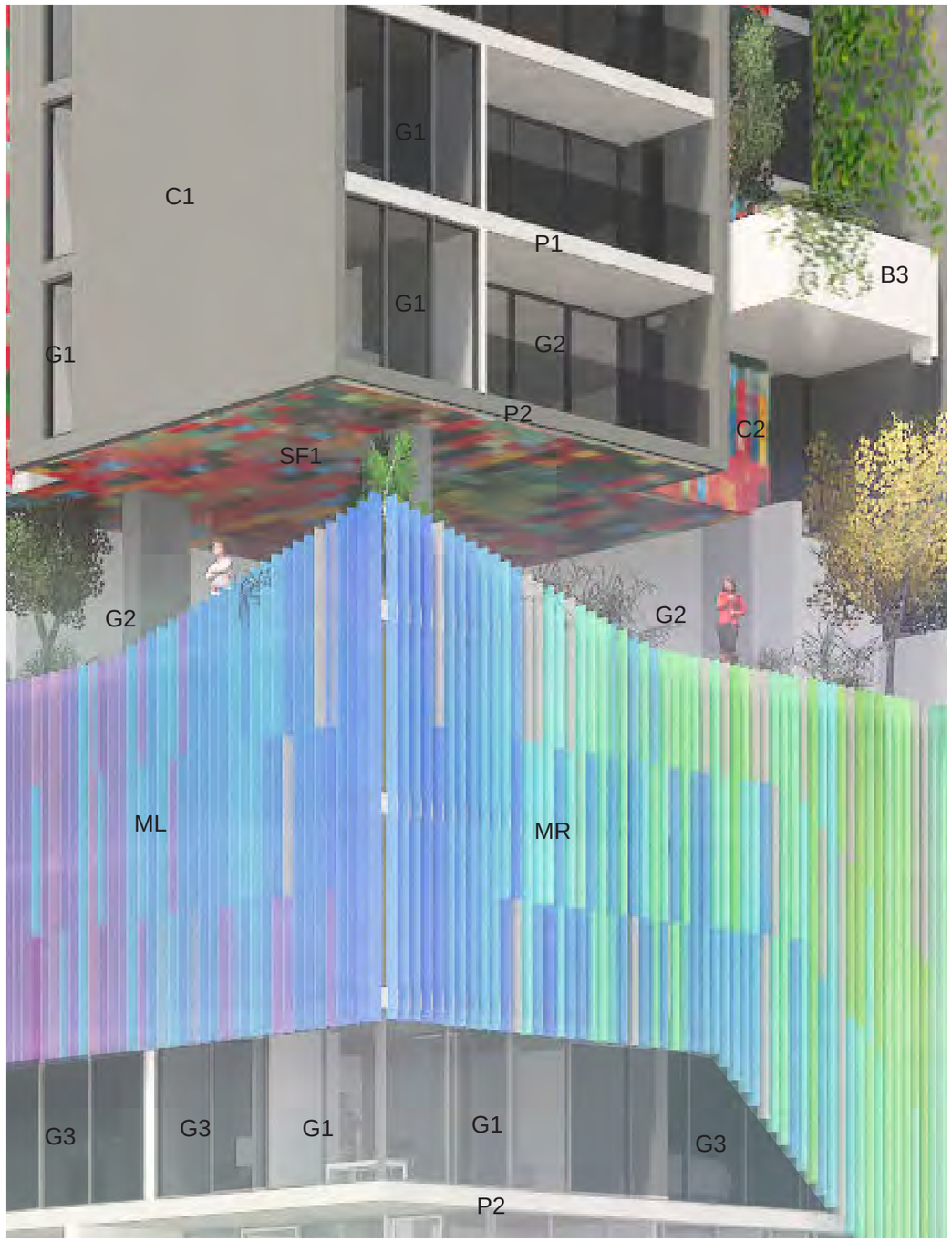


C2

G1



P1



6.0 Visualisations

Perspective 1

Perspective 2

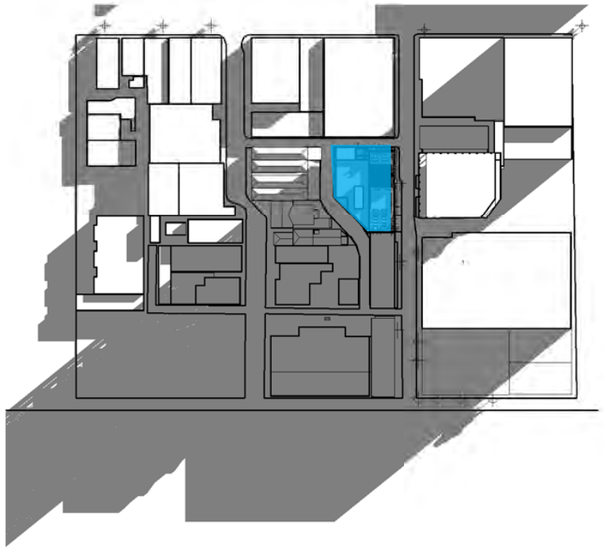
Perspective 3

Perspective 4

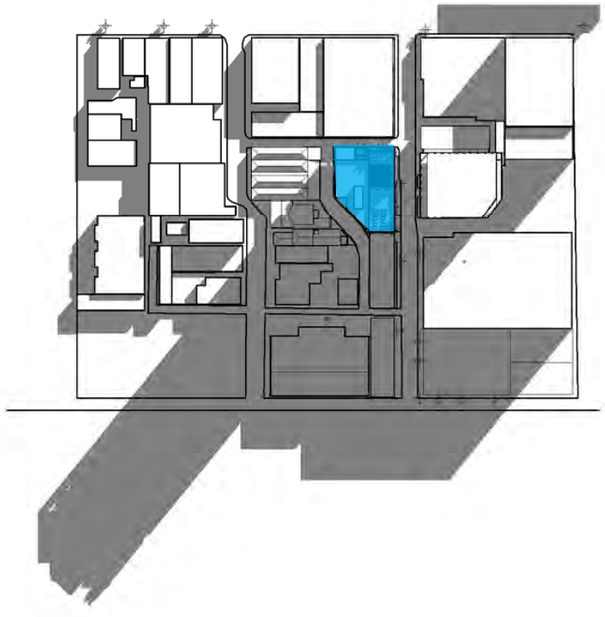
7.0 Shadow Diagrams

Winter Shadows Diagrams- 22 June

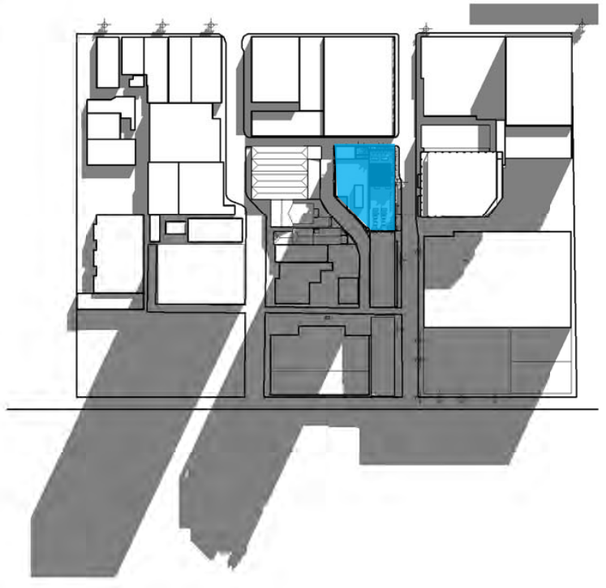
9am



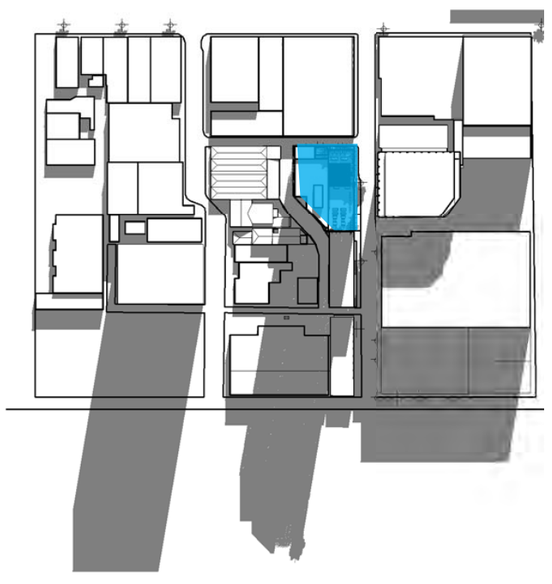
10am



11am



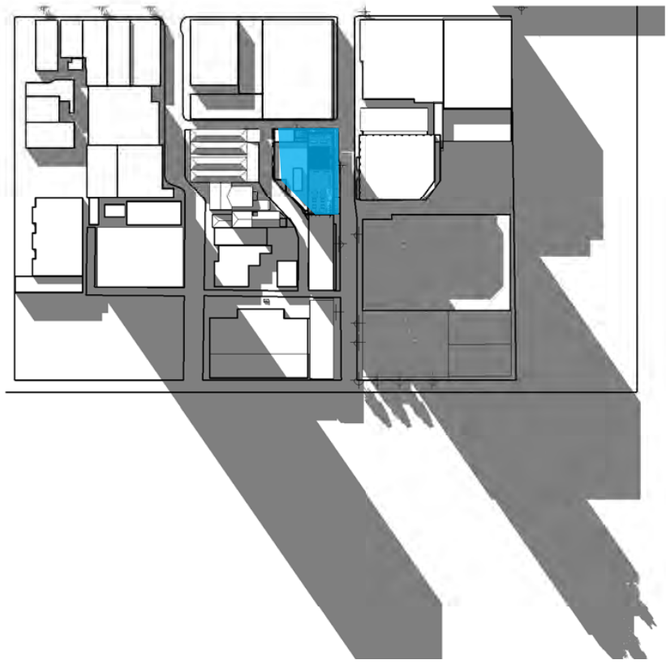
12am



13pm

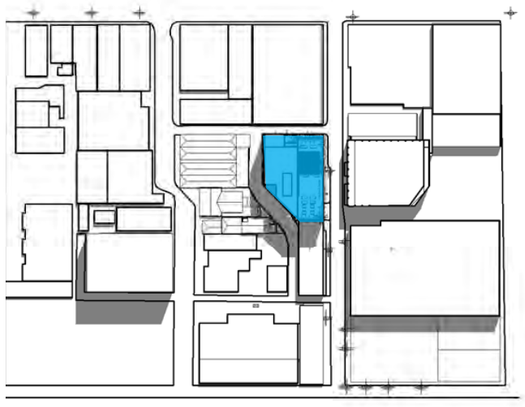
14pm

15pm



Summer Shadows Diagrams - 21 December

9am



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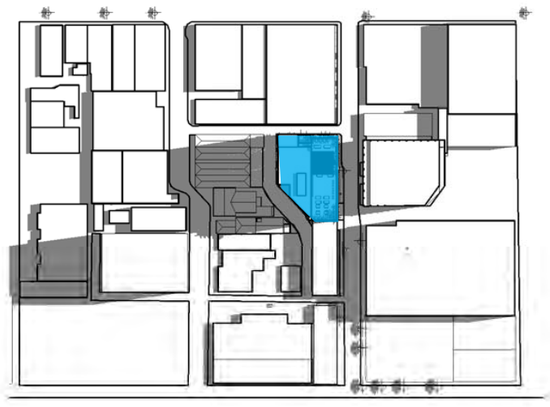
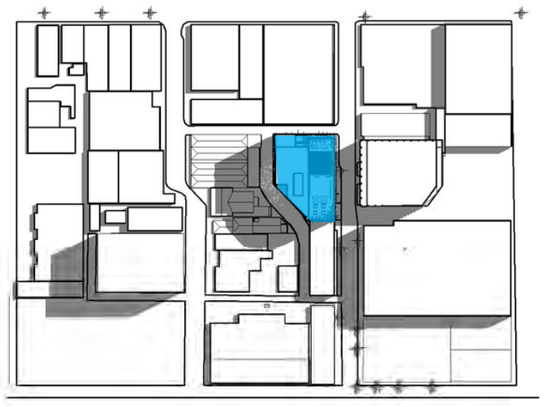


11am



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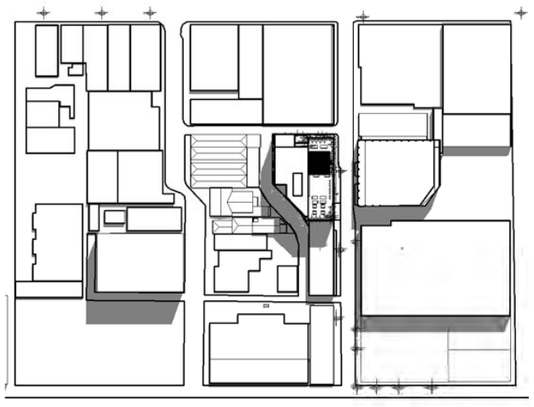
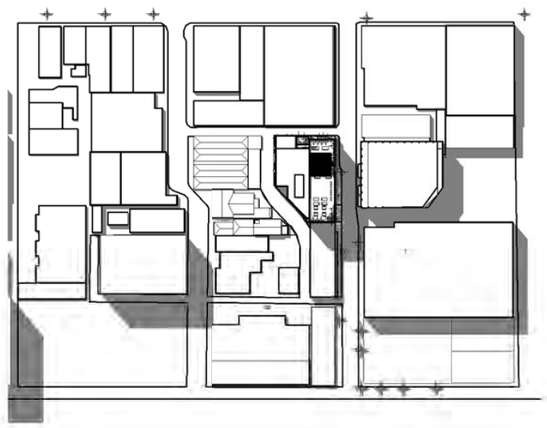


13pm



14pm

15pm

21 Coglin Street

Level	Residential Summary					
	Unit No.	Beds		Apartment Storage approx m3		
		no.	Levels	carpk	apt	total
Basement						24
Ground						
Level 1	A101	1		0.7	8	8.7
	A102	1		0.7	9	9.7
	A103	2		1.4	17	18.4
	A104	2		1.4	12.0	13.4
	A105	2		1.4	12.0	13.4
Level 2	Carparks			52.8		
Level 3 - 4	Carparks			33.6		
			2			67.2
Level 5	A501	2		1.4	12.0	13.4
	A502	2		1.4	12.0	13.4
	A503	2		1.4	10.8	12.2
Level 6 - 21	A601	3		2.1	16.8	18.9
	A602	2		1.4	14.4	15.8
	A603	2		1.4	11.5	12.9
	A604	1		0.7	7.7	8.4
	A605	2		1.4	10.8	12.2
			14		61.2	856.8
Level 13	A1301	3		2.1	16.8	18.9
	A1302	3		2.1	13.4	15.5
	A1303	2		1.4	10.8	12.2
	A1304	2		1.4	10.8	12.2
Level 19	A1901	3		2.1	16.8	18.9
	A1902	2		1.4	9.6	11.0
	A1903	2		1.4	9.6	11.0
	A1904	2		1.4	10.1	11.5

13 April 2018

Ben Scholes
Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Ben,

DEVELOPMENT NUMBER: **020/A022/18**
APPLICANT: **YHL Investments Pty Ltd C/- Future Urban Group**
NATURE OF DEVELOPMENT: **Twenty three (23) storey mixed use development with associated car parking**
SUBJECT LAND: **13-21 COGLIN ST, ADELAIDE, SOUTH AUSTRALIA, 5000**

The application has been assessed and at a height of RL 118.9m 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 23.9 metres.

If the development is approved by the Department of Infrastructure and Regional Development 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

Adelaide Airport Limited
1 James Schofield Drive
Adelaide Airport
South Australia 5950

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F +61 8 8308 9311
adelaideairport.com.au
ABN 78 075 176 653

Australian Government

Department of Infrastructure, Regional Development and Cities

File reference: F16/562-28

TO	CC	FROM
Milly Nott **Future Urban Group** milly@futureurbangroup.com For YHL Investments	Brett Eaton **Adelaide Airport Limited** beaton@aal.com.au **Civil Aviation Safety Authority** airspace.protection@casa.gov.au **Airservices Australia** airport.developments@airservicesaustralia.com ifp@airservicesaustralia.com **Adelaide City Council** City@Adelaidecitycouncil.com	Flysafe **Airspace Protection** flysafe@infrastructure.gov.au

DECISION UNDER THE AIRPORTS (PROTECTION OF AIRSPACE) REGULATIONS 1996

Proposed Activity:	Construction of a building
Location:	12-21 Coglin Street, Adelaide SA
AGM 66 Coordinates:	E 280468.00, N 6131807.10
Proponent:	YHL Investments c/o Future Urban Group

I refer to the application from YHL Investments c/o Future Urban Group (the Proponent), received by the Department of Infrastructure, Regional Development and Cities (the Department) on 17 May 2018 from Adelaide Airport Limited (AAL). This application sought approval under the Airports (Protection of Airspace) Regulations 1996 (the Regulations) for the intrusion of a building at 12-21 Coglin Street, Adelaide SA (the site) into airspace which, under the Regulations, is prescribed airspace for Adelaide Airport.

Under regulation 6(1), 'prescribed airspace' includes 'the airspace above any part of either an Obstacle Limitation Surface (OLS) or Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS) surface for the airport'.

The Conical Surface of the OLS above this site is at a height of 95.0 metres AHD and hence prescribed airspace above the site commences at 95.0 metres AHD. At a maximum height of 118.9 metres AHD, the building will penetrate the OLS by 23.9 metres.

Accordingly, the construction of the building constitutes a "controlled activity" under Section 182 of the *Airports Act 1996* (the Act). Section 183 of the Act specifies that controlled activities cannot be carried out without approval. Details of the penetration of prescribed airspace are provided in Table 1.

GPO Box 594 Canberra ACT 2601 Australia • Telephone: 02 6274 7111 • Facsimile: 02 6257 2505
Website: www.infrastructure.gov.au • ABN 86 267 354 017

Table 1: Height and location of the proposed activity that will intrude into prescribed airspace for Adelaide Airport.

Activity	AGM 66 Coordinates	Maximum height (AHD)	Penetration of prescribed airspace
Building	E 280480.80, N 6131795.20	118.9 metres	23.9 metres

Regulation 14 provides that a proposal to carry out a controlled activity must be approved unless carrying out the controlled activity would interfere with the safety, efficiency or regularity of existing or future air transport operations into or out of the airport concerned. Regulation 14(1)(b) provides that an approval may be granted subject to conditions.

Under the Regulations, the Secretary of the Department is empowered to make decisions in relation to the approval of controlled activities, and impose conditions on the approval. I am the Secretary's Delegate for the purposes of the Regulations.

Decision

In accordance with regulation 14, **I approve** the controlled activity for the intrusion of a building at 12-21 Coglin Street, Adelaide SA into prescribed airspace for Adelaide Airport to a **maximum height of 118.9 metres AHD**.

In making my decision, I have taken into consideration the opinions of the Proponent, the Civil Aviation Safety Authority, Airservices Australia's advice number YPAD-CA-004 and AAL.

In accordance with regulation 14(1)(b), I impose the following conditions on my approval:

1. The building **must not exceed** a maximum height of **118.9 metres AHD**, inclusive of all lift over-runs, vents, chimneys, aerials, antennas, lightning rods, any roof top garden plantings, exhaust flues etc.

2. The building **must be obstacle lit** by medium intensity steady red lighting during the hours of darkness at the highest point of the building. Obstacle lights are to be arranged to ensure the building can be observed in a 360 degree radius as per subsection 9.4.3 of the Manual of Standards Part 139 – Aerodromes (MOS). Characteristics for medium intensity lights are stated in subsection 9.4.7 of the MOS.

3. The Proponent **must ensure** obstacle lighting arrangements have a remote monitoring capability, in lieu of observation every 24 hours, to alert Adelaide Airport reporting staff of any outage. For detailed requirements for obstacle lighting monitoring within the OLS of an aerodrome, refer to subsection 9.4.10 of the MOS.

4. The Proponent **must advise** Airservices Australia at least three business days prior to the controlled activity commencing by emailing <*ifp@airservicesaustralia.com*> and quoting YPAD-CA-004.

5. Separate approval **must be sought** under the Regulations for any construction equipment (i.e. cranes) required to construct the building. Construction cranes may be required to operate at a height significantly higher than that of the proposed controlled activity and consequently, may not be approved under the Regulations. Therefore, it is advisable that approval to operate construction equipment (i.e. cranes) be obtained prior to any commitment to construct.

6. On completion of construction of the building, the Proponent **must provide** AAL with a written report from a certified surveyor on the finished height of the building.

Breaches of approval conditions are subject to significant penalties under Sections 185 and 187 of the Act.

Yours sincerely

Craig Downsborough
Director, Airspace Protection
Aviation and Airports Division

4 June 2018

RenewalSA
people partnerships progress

Urban Renewal Authority
trading as Renewal SA.
Level 9 (West) Riverside Centre
North Terrace, Adelaide SA 5000
GPO Box 698, Adelaide SA 5001
DX: 56502 ABN: 86 832 349 553

T 08 8207 1300
F 08 8207 1301
E renewalsa.info@sa.gov.au
W www.renewalsa.sa.gov.au

Ref: A1163869

Development Assessment Commission,
G.P.O. Box 1815,
ADELAIDE SA 5001

9/04/2018

Dear Assessing Officer

Agency: Renewal SA (Affordable Housing)

Application Number: 020/A022/18

Applicant: YHL Investments Pty Ltd c/- Future Urban Group

Proposed Development: 23 storey mixed use development with associated carpark

Subject Land: 13-21 COGLIN STREET ADELAIDE, SOUTH AUSTRALIA, 5000

Referral Comment:

1. The City of Adelaide Development Plan (Consolidated – 20 June 2017) identifies the location of the subject land as an area where affordable housing should be developed, being that it is situated within the Affordable Housing Designated Area (Overlay). Affordable housing is also supported in the general provisions of the Development Plan and more specifically within the Capital City Zone, envisaged land use.

2. Affordable Housing Overlay, Principle of Development Control 1 states –

“Development comprising 20 or more dwellings should include a minimum of 15 per cent affordable housing”.

In this instance, the development will result in more than twenty (20) new dwelling opportunities.

4. From the above-mentioned it is evident that affordable housing is a factor that should be addressed as part of this development application. The relevant authority is encouraged to request that the Applicant address affordable housing within their development application.

5. The Applicant has purported to include affordable housing within the development. This means that it can be assessed as one that does include it.

8. Under the Gazetted Criteria for Affordable Housing, a requirement of delivering affordable housing is a legally binding agreement, in this case, the Owner of the land or Developer (with the Owner's Consent) is required to enter into a Land Management Agreement, under Section 57 of the Development Act, for the purpose of delivering affordable housing outcomes.

9. The developer has advised that they intend to address affordable housing and sign the Land Management Agreement to commit to providing affordable housing' in due course'. However this has not yet occurred.

10. Until such time as a secure commitment to affordable housing through the execution of a Land Management Agreement is achieved, it should be noted that while the proponent purports to deliver affordable housing, this is not a secure commitment.

11. Assessment for inclusion of affordable housing can only be undertaken with a legally binding agreement in place.

12. Should the proponent wish to commit to providing affordable housing as a condition of their application, they should contact Jodi Davy or Jess Grima at Renewal SA (8207 0223) with view to enter into a Land Management Agreement.

Yours sincerely

Jodi Davy
Affordable Housing Planning Leader

Scholes, Benjamin (DPTI)

From: Davy, Jodi (Renewal SA)
Sent: Wednesday, 13 June 2018 9:44 AM
To: Scholes, Benjamin (DPTI)
Subject: RE: Coglin Street - DA 020/A022/18 (ID 2997)

Thanks Ben

The LMA has been signed by the proponent, and is currently being executed by our CE. It will be lodged with the LTO as soon as I have it back from the CE's office.

You can include it as being finalised.

Thanks,

Jodi Davy
Affordable Housing Planning Leader
Tel. 08 8207 0223

From: Scholes, Benjamin (DPTI)
Sent: Wednesday, 13 June 2018 9:25 AM
To: Davy, Jodi (Renewal SA)
Subject: Coglin Street - DA 020/A022/18 (ID 2997)

Hi Jodi,

The application above is scheduled to go before SCAP next Thursday – can you confirm whether the LMA referred to below has been finalised?

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
• **T** 8402 1861 (21861) • **E** benjamin.scholes@sa.gov.au
• Level 5, 50 Flinders Street Adelaide SA 5000 • GPO Box 1815 Adelaide SA • DX 171 • www.dpti.sa.gov.au
• View the SA Planning Portal • Subscribe to our Newsletters

collaboration . honesty . excellence . enjoyment . respect

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.

From: Milly Nott [mailto:milly@futureurbangroup.com]
Sent: Wednesday, 6 June 2018 5:55 PM
To: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Subject: FW: AH LMA

Hi Ben,

Just FYI - Please note the advice below from Jodi at Renewal.

Kindest Regards,

Milly Nott
Urban Planner

Level 1/89 King William Street
GPO Box 2403
Adelaide SA 5001
E: milly@futureurbangroup.com
PH: 08 8221 5511
M: 0450 965 858
W: www.futureurbangroup.com

From: Davy, Jodi (Renewal SA) <Jodi.Davy@sa.gov.au>
Sent: Wednesday, 6 June 2018 5:10 PM
To: Milly Nott <milly@futureurbangroup.com>
Subject: AH LMA

Hi Milly

Just letting you know that I received the newly signed LMA in the post today, and have put it up to the CE for execution.

Cheers,

Jodi Davy
Affordable Housing Planning Leader
Housing Strategy & Development
P: 08 8207 0223
F: 08 8207 1301
jodi.davy@sa.gov.au
www.renewalsa.sa.gov.au

RenewalSA
people partnerships progress

Government of South Australia

Urban Renewal Authority trading as Renewal SA.
Level 9 (West), Riverside Centre, North Terrace,
Adelaide, South Australia 5000
GPO Box 698, Adelaide 5001

OFFICE FOR
DESIGN +
ARCHITECTURE SA

File No:
2014/11234/01

19 April 2018

Ref No:
12577956

Mr Ben Scholes
Planning Officer
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

email: benjamin.scholes@sa.gov.au

For the attention of the State Commission Assessment Panel

21 Coglin Street, Adelaide

Further to the referral 020/A022/18 received 16 March 2018 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I would like to offer the following comments, informed by the Design Review process, for your consideration.

The proposal was presented to the Design Review panel two times, over which period the design response progressed considerably with regards to the architectural expression and the project's relationship with its context at the lower levels.

In principle I support a residential development on this site that positively contributes to the activation of this part of the city, and I also welcome the benefit the increased population could bring to the precinct. While I acknowledge and support a number of merits of the proposal, I do not support the height of the proposal due to the narrow streetscape condition.

The site is proximate the Central Market and legal precincts. It has a total area of approximately 595 square metres and is currently used as an at-grade car park. It is irregular in shape and bounded on three sides by single carriageway public roads all named Coglin Street. The site is located on the west side of Coglin Street (east), a one way street that connects Market Street to Gouger Street. Coglin Street (east) is characterised by a mixture of two to 13 storey buildings of varying character. To the north of the subject site across Coglin Street (north) is a two storey brick building, the rear presentation of the Star House restaurant that fronts Gouger Street. Adjoining the site to the south is a five storey rendered concrete building, the Australian Migrant Resource Centre (AMRC). Immediately opposite the site to the east is the Coglin Street campus for Eynesbury College. The Eynesbury College building height on the Coglin Street (east) boundary is approximately 43 metres tall.

To the north of the building is a two storey character terrace currently comprising office accommodation. To the south of the Eynesbury building is a multi-storey carpark. To the west of the subject site are six Local heritage listed single storey houses, with frontage to Market Street and rear lane pedestrian and vehicle access

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26-28 Leigh Street
Adelaide SA 5000

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DX 171

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E- odasa@sa.gov.au

File No:
2014/11234/01

Ref No:
12577956

from Coglin Street (west). The property at 24B Market Street, located west of the subject site, includes a three storey rear residential extension with balconies and pedestrian and vehicle access from Coglin Street (west).

The proposed building is a 23 level mixed use development with an above-ground height of 74.6 metres including lift overruns. The building is proposed as a transition element from the site's 43 metre maximum envisaged height limit area to the adjacent area where there is no height limit envisaged in the Development Plan. Any development above the maximum envisaged height is challenging in this particular location due to the narrow streetscape condition. I acknowledge the design team's ambition to fulfil the Development Plan's criteria required for over-height developments, amendments that remove balcony encroachments to the west facade, and the introduction of a setback to the ground floor plane to Coglin Street (east). In my opinion, should development on this site be proposed to significantly exceed the maximum building height of 43 metres as envisaged in the Development Plan, further modulation, sculptural massing and reduction of the bulk and mass of the proposal at the upper levels should be considered with the view to reduce the impact of the height and scale of the development, and increase amenity at streetscape level. I am also of the view that the proposal must offer the highest level of design quality and significant merit in terms of residential amenity, public realm contributions and environmentally sustainable initiatives to justify over height. I acknowledge the design team's assessment of five laneway conditions within the city as provided in the submitted documentation. However, in my opinion these examples are not comparable with the proposed development as all locations are within 'no prescribed height limit' areas in the Development Plan and all are non-residential uses, with the exclusion of Bank Street with a student housing development. However, I note Bank Street is four metres wider than Coglin Street (east) and has been upgraded as a shared use zone as a key element of the Market to Riverbank Link project.

I strongly support the design team's ambition to invigorate the laneways and provide visual and physical connections to Gouger Street and Market Street. The proposal contributes to the streetscape with the provision of a cafe, retail and residential lobby to Coglin Street (east and north) which are supported. I also support the provision of a vehicle and pedestrian through link at the south of the site that further activates the site, exploits the unique geometry the site offers, and has the potential to provide a connected and rich pedestrian experience of the streets and laneways. Additionally, I support the relocation of services including the transformer to a basement level. I encourage ongoing discussions with services consultants and authorities in the next phase of design development to ensure delivery of the public realm ambitions of the project. I also support the setback of the development at ground floor to Coglin Street (east) in response to the Eynesbury College building's open colonnade at ground and first floor levels with the intent to provide a visual and physical extension of the public realm.

The proposal includes apartments located at level one, below three levels of above ground car parking. While I remain concerned by the provision of car parking above ground, I support the provision of apartments on level one, including a two storey apartment on the north east corner, with the intent to provide a meaningful lower level interface with the public realm. However, I continue to encourage further exploration of opportunities to relocate the above ground car parking to basement levels to attenuate the impact of this use on the public realm.

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File No:
2014/11234/01

Ref No:
12577956

Above the base element, the development proposes a total of 86 apartments comprising a mix of one, two and three bedrooms. In general I support the proposed mix and layouts of the apartments that also prioritise the northern aspect for living spaces. The proposal includes fixed balcony screens to the south facing balconies. Confirmation of the proposed materiality and detailing of the balcony screens is requested to ensure adequate amenity for the occupants of the apartments with regards to acoustic and visual privacy.

Communal spaces with an area of 13 square metres are proposed at the north facade at levels seven, ten, 14 and 18 with the intent to provide an opportunity for interaction between residents, articulation of the facade and landscape open space. I support the design intent for these communal spaces, however I recommend further consideration of the size and dimensions of these spaces to ensure delivery of usable public open spaces as envisaged. An additional communal space is proposed at level five at the north east corner of the building which I support. As the design progresses, I encourage the design team to investigate options for how the space can accommodate different event overlays. A rooftop garden is proposed with covered open space, outdoor seating, moveable edible garden planter boxes and perimeter planter boxes to the north, east and south edges of the rooftop area which I support. I also support the active engagement of a landscape architect and recommend ongoing development of all communal spaces including soil depth requirements to ensure delivery of spaces that afford meaningful engagement with the residents and visitors and the project's landscape ambitions as intended.

The design intent is for a vertically proportioned orthogonal form articulated through an indentation and communal balconies to the north facade. Further articulation is provided by two horizontal shadow lines at levels five and 13. These horizontal shadow lines intend to reflect the height of the adjacent AMRC building and the Eynesbury College building opposite the site. The architectural expression intends to express the key visible soffit of the level five communal space and vertical elements at the north and east building recesses with multi-coloured panels and glazed brick panels. I support the design intent to utilise colour to connect the development contextually with the colour and vibrancy of the market precinct. In my view, the detailing of the C2 prefinished glazed brick panels and connection with SF1 prefinished aluminium soffit panels coloured to match C2 are critical to ensure an integrated material outcome and delivery of the design intent. The proposal includes paint finishes P1 and P2 to all concrete slab edges. I recommend further consideration of the proposal for paint finishes, to ensure longevity, durability and ease of maintenance. C1 prefinished panel cladding in 'natural grey colour' is proposed to the majority of the east, west and south elevations. The documentation indicates a material similar in appearance to natural concrete. Further information is requested to confirm the proposed C1 material to ensure delivery of the design intent. The northern communal balconies are proposed as B3 precast concrete balustrades with a white colour. Further information is requested to confirm the method of achieving the proposed colour and extension of the colour to the balcony soffits as indicated in the visualisations. I recommend use of materials with finishes and colours integral to the fabric rather than applied finishes, to consider longevity, durability and ease of maintenance. The above ground car parking is proposed to be screened by G3 grey colourbacked glass or vertical powdercoated aluminium fins coloured to reflect the market precinct. I support the design intent and recognise the potential for the design direction to deliver a high quality outcome. In my view, the detailing of the screen/fins and colourbacked

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OFFICE FOR DESIGN + ARCHITECTURE SA

File No:
2014/11234/01

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12577956

glass is critical to the success of the project and delivery of a dynamic and engaging development at street level that minimises visibility of the car parking through the facade.

The development intends to include Ecologically Sustainable Design (ESD) initiatives including rainwater collection and re-use, green walls, a rooftop garden, shading strategy for the west facade and solar panels to service the rooftop garden which I support.

To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider particular aspects of the project that require further consideration or which would benefit from protection as part of the planning permission, such as:

- Further consideration of the height of the building to reduce the visual and amenity impacts of the development on the pedestrian experience.
- Review of further opportunities to relocate the above ground car parking to basement levels to attenuate the impact of this use on the public realm.
- Confirmation of the proposed materiality and detailing of the south balcony screens to ensure adequate amenity for the occupants of the apartments with regards to acoustic and visual privacy.
- Review of the size and dimensions of the northern communal spaces at levels seven, ten, 14 and 18 to ensure delivery of usable public open spaces as envisaged.
- Review of the proposal for P1 and P2 paint finishes to ensure longevity, durability and ease of maintenance.
- Confirmation of C1 prefinished panel cladding to ensure delivery of the design intent.
- Confirmation of method for achieving the proposed colour for the B3 balcony balustrades colour and extension of the colour to the balcony soffits as indicated in the visualisations.
- Detailing of the C2 prefinished glazed brick panels and connection with SF1 prefinished aluminium soffit panels coloured to match C2 to ensure an integrated material outcome and delivery of the design intent.
- Detailing of the screen/fins to ensure delivery of a dynamic and engaging development at street level that minimises visibility of the car parking through the facade.
- A high quality of external materials supported by the provision of a materials samples board.

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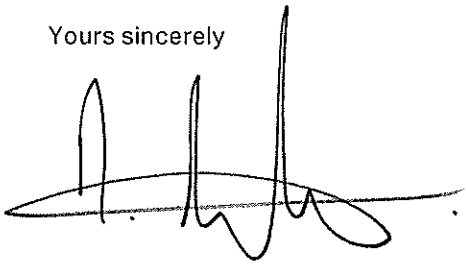
Yours sincerely



Nick Tridente
Associate Government Architect

Government of South Australia

CITY OF ADELAIDE

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ABN 20 903 762 572

Enquiries: Matthew Field 8203 7023
Reference: S10/11/2018

12 April 2018

State Commission Assessment Panel
GPO Box 1815
Adelaide SA 5001

Attention: State Commission Assessment Panel

Dear Sir/Madam

Application:	S10/11/2018
Applicant:	YHL INVESTMENT (AUST) P/L
Address:	13-21 Coglin Street, ADELAIDE SA 5000
Description:	Construction of a twenty three (23) storey mixed use development comprising one (1) basement level, ground level café/bar and retail tenancy, three (3) levels of car parking, eighteen (18) levels of apartments and a rooftop garden.

Council has the following comment(s) to make on the above application:

TECHNICAL COMMENTS

SURVEY / LAND TENURE

The proposed development is on land contained within Certificate of Title Volume 5502 Folio 472 (CT 5502/472).

CT 5502/472 is neither 'together with' or 'subject to' easements or Rights of Way.

The proposed development will encroach at various points onto the adjacent public roads.

ROADS / FOOTPATHS ENGINEERING

Any disused driveway inverts resulting from the development are to be reinstated to equivalent footpath levels to ACC standards and specifications.

Any damage caused to ACC's road, footpath and kerbing infrastructure during development will be the responsibility of the developer to rectify to a standard that equals or improves the pre-development condition.

Existing crossovers and new crossovers have been highlighted under this development. All new or alterations to existing crossovers

firstly require ACC approval outside of the DA process. These need to be to ACC standards and specifications via the City Works Guidelines.

Existing boundary (back of path) levels must not be modified. Finished floor levels should be based around retaining the existing back of path levels subject to the following:

- If the level difference between top of kerb and back of path is less than 50 mm
- If the existing cross fall(s) exceed 4% (1:25)

Footpath and road reinstatements associated with works will need to be match surrounding materials and pavement composition

Modifications to CoA footpath infrastructure has been proposed in this DA on Coglin Street and Coglin Lane (west of development). Prior to commencing works, CoA asset management and engineering approval will be required outside of the DA process to ensure it works meet cross fall, surface material and pavement standards.

Existing rollover kerb on Coglin Lane, west of the development, should be reinstated as kerb and water table to CoA standard and driveway crossover where required, due to the development changing the function and access requirements of the area.

TORRENS & STORM WATER

Stormwater runoff from the proposed apartment development must be retained within the property boundaries, collected and discharged to the Coglin Street (western property boundary) road reserve. Stormwater runoff should not be discharged to the sections of Coglin Street adjacent to the norther property boundary or eastern property boundary.

Levels of any proposed stormwater grated inlet pits or openings within the property boundary must be designed with an adequate freeboard to the 1% AEP flood level assumed to be top of kerb level adjacent to each stormwater discharge point to Coglin Street.

Councils stormwater management system in Coglin Street has been designed to manage flows generated from gravitational rainfall events only. Any proposed stormwater runoff flows generated by siphonic drainage systems must be reduced to equivalent gravitational flows before discharge to the Coglin Street road reserve.

Any collected seepage water from the proposed green wall, planter boxes or rooftop community garden must be either discharged to sewer or an irrigation recycled water reuse system. Collected seepage water should not be discharged to the building stormwater system.

Council supports the capture, storage and reuse of stormwater runoff for irrigation of landscaped elements and toilet flushing throughout the building.

LIGHTING / ELECTRICAL / CCTV

The proposed development works may impact on the public lighting within the proximity of the development site. On Coglin Street adjacent the development site there is a street lighting pole and associated electrical pit and u/g ducting.

If temporary hoarding or site works require modification of existing Council and/or SA Power Network's public lighting (including associated infrastructure such as cabling etc.) shall meet Councils' requirements. The works shall be carried out to meet Councils' requirements and all costs borne directly by the developer.

All modifications requiring temporary removal/relocation/provision of temporary lighting/reinstatement of existing Council and/or SA Power Network's public lighting (including associated infrastructure such as cabling etc.) shall meet Councils' requirements. The works shall be carried out to meet Councils' requirements and all costs borne directly by the developer.

All damage to CoA's infrastructure, including damage to public lighting and u/g ducting etc. caused by projects works or loading of site crane onto pathways will be repaired to meet Councils requirements and the cost of the developer.

If new canopies are to be constructed as part of these works, then lighting to meet CoA's under veranda requirements shall be installed.

Obtrusive Lighting – Lighting design and installation to be fully compliant with Australian Standard - AS 4282 – 1997 Control of the obtrusive effects of outdoor lighting. Sign off by consultant required to confirm compliance. In addition, provide relevant lighting calculation grid detailing property boundary lines for Councils review and records.

TRAFFIC / TRANSPORT

There are no traffic/transport related objections to this development, subject to the following matter/s being addressed:

Measures to address sight lines are included at the connection of the driveway to the rear laneway (including access to lift).

Provision of sight distance triangle defined in AS2890.1 for pedestrians along Coglin Street.

Applicant to remove any vehicle crossovers made redundant as a result of development and reinstate kerb and footpath.

	All line marking and signage to comply with AS2890.1 and AS1742
WASTE	The proposed development is supported from a waste management perspective.

PLANNING RELATED COMMENTS

Council Administration has not undertaken a thorough planning assessment of the proposal but makes the following comments in relation to the proposed development:

RESIDENTIAL AMENITY

Notwithstanding that a public road provides separation between the subject site and adjacent developments. The setbacks to windows/balconies from boundaries, particularly to the north, fails to provide an adequate setback (noting there is a 3-metre minimum prescribed within the Development Plan) to protect the amenity of the occupants if the adjoining sites are re-developed. This is an undesirable outcome given internal amenity for occupants will be seriously hindered in regards privacy, outlook and access to light in the event adjacent sites are developed.

ACTIVE STREET FRONTAGES

The extent of active frontage the development provides to both the northern and eastern frontages is commended. As stated above, the changes to the roadway require CoA asset management and engineering approval outside of the DA process. In the event that the footpath can be widened, the applicant is encouraged to revise the width of the canopy (in accordance with the Encroachment Policy requirements) to provide a greater level of pedestrian shelter and further ameliorate any wind impacts.

ENCROACHMENTS

The development incorporates the following encroachments:

- 800 mm wide canopy to Coglin Street (eastern) – 3700 mm clearance from footpath.
- Sun shading devices to levels 6 - 21 (western elevation) – min. 500 mm / max. 700 mm encroachment.
- Car park screening device to levels 1 - 5 (north, East and western elevations) - 200 mm encroachment / min. 6700 mm clearance to the roadway surface on the western alignment of Coglin Street.
- 600 mm wide canopy over 'GAS' cupboard at ground floor level on western elevation – 2300 mm clearance to roadway surface.

Based on the above, the proposed canopy and sun shading devices achieve the requirements of Councils Encroachment Policy. However, the car park screen to the northern elevation and hood

above the 'GAS' cupboard do not meet the criteria for 'minor' encroachments i.e. encroach more than 150 mm and therefore must achieve a min. 5000 mm clearance for encroachments above a roadway. Consequently, these encroachments must either be reduced to meet the requirements for 'minor encroachments' or removed entirely.

CONTEXT

While not a statutory document, the 'Our Market District' is a 10 year strategy developed by Council to grow and evolve the Market District. It would be beneficial if the proponent is aware of it and its aspirations and proposals for the area within which this proposal is occurring.

That being said, the principle of the site being developed for mixed use, bringing additional people living and working within the District is supported.

The 'Our Market District' aspires for the area south of Gouger to be a 'creative quarter' and to that end, whilst that might shape the proposal in particular ways, the incorporation of ground level tenancies, able to be used for various non-residential activities, would contribute to that outcome.

SUGGESTED CONDITIONS

1. The finished floor level of the ground floor level at the entry points to the development including the car park entry and exit points shall match the existing footpath unless otherwise agreed to by the Council in writing.

   Reason: The Corporation of the City of Adelaide WILL NOT adjust footpath levels to suit finished building levels. The existing footpath levels are to be retained and entrance levels of the development must meet the existing back of footpath.

2. Lighting shall be installed to the awning at street level on Coglin Street in accordance with Council's guideline entitled "Under Verandah/Awning Lighting Guidelines" at all times to the reasonable satisfaction of the Council and prior to the occupation or use of the Development. Such lighting shall be operational during the hours of darkness at all times to the reasonable satisfaction of Council.

   Reason: To ensure the development does not create public areas with insufficient lighting.

3. Lighting shall be provided to the vehicle and apartment entries on Coglin Street and shall be operational during the hours of darkness at all times to the reasonable satisfaction of Council.

   Reason: To ensure the development does not create areas with insufficient lighting.

4. Clear sight lines for users of the car park entry shall be provided to ensure pedestrian safety along the Coglin Street footpath and shall be provided at all times in accordance with in accordance with AS/NZS 2890.1:2004 Off-street Car Parking.

   Reason: To ensure that the Development meets the requirements of the relevant Australian Standards.

SUGGESTED ADVICES

1. Development Approval will not be granted until Building Rules Consent and an Encroachment Consent have been obtained. A separate application must be submitted for such consents. No building work or change of classification is permitted until the Development Approval has been obtained.
2. An Encroachment Permit will be separately issued for the proposed encroachment into the public realm when Development Approval is granted. In particular, your attention is drawn to the following:
   - An annual fee may be charged in line with the Encroachment Policy.
   - Permit renewals are issued on an annual basis for those encroachments that attract a fee.
   - Unauthorised encroachments will be required to be removed.
3. Any activity in the public realm, whether it be on the road or footpath, requires a City Works Permit. 48 hours' notice is required before commencement of any activity.

   The City Works Guidelines detailing the requirements for various activities, a complete list of fees and charges and an application form can all be found on Council's website at www.cityofadelaide.com.au

   When applying for a City Works Permit you will be required to supply the following information with the completed application form:

   A Traffic Management Plan (a map which details the location of the works, street, property line, hoarding/mesh, lighting, pedestrian signs, spotters, distances etc.);

   Description of equipment to be used;

   A copy of your Public Liability Insurance Certificate (minimum cover of $20 Million required);

   Copies of consultation with any affected stakeholders including businesses or residents.

   Please note: Upfront payment is required for all city works applications.

   Applications can be received by Council via the following:

   Email: cityworks@cityofadelaide.com.au

   Fax: 8203 7674

In Person: 25 Pirie Street, Adelaide

4. There is no objection to the proposed vehicle crossing place/alterations to the existing vehicle crossing place(s), however the work will be undertaken by Council and the cost of the work will be charged to the applicant. A separate application for the crossing place(s) is required and the applicant can obtain a form from Customer Service, 25 Pirie Street, Adelaide, or telephone 8203 7236. A quotation for the work will be provided by Council prior to the work being undertaken.
5. Section 779 of the Local Government Act provides that where damage to Council footpath / kerbing / road pavement / verge occurs as a result of the development, the owner / applicant shall be responsible for the cost of Council repairing the damage.

Yours faithfully

Rebecca Rutschack
MANAGER - PLANNING ASSESSMENT

Scholes, Benjamin (DPTI)

From: Matthew Field <M.Field@cityofadelaide.com.au>
Sent: Friday, 1 June 2018 12:37 PM
To: Scholes, Benjamin (DPTI)
Subject: RE: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben

Julie from our Traffic Team has reviewed the response and agrees that it would be unlikely that a tall vehicle would use the lane once the development is complete however there are no guarantees.

As the liability would rest with the owner there are no objections to the encroachment.

Kind regards

Matthew Field
B. Arch. St. · B. UrbRegPlan
Senior Planner - Development Assessment
Planning Assessment

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From: Scholes, Benjamin (DPTI) [mailto:Benjamin.Scholes@sa.gov.au]
Sent: Thursday, 31 May 2018 3:15 PM
To: Matthew Field <M.Field@cityofadelaide.com.au>
Subject: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

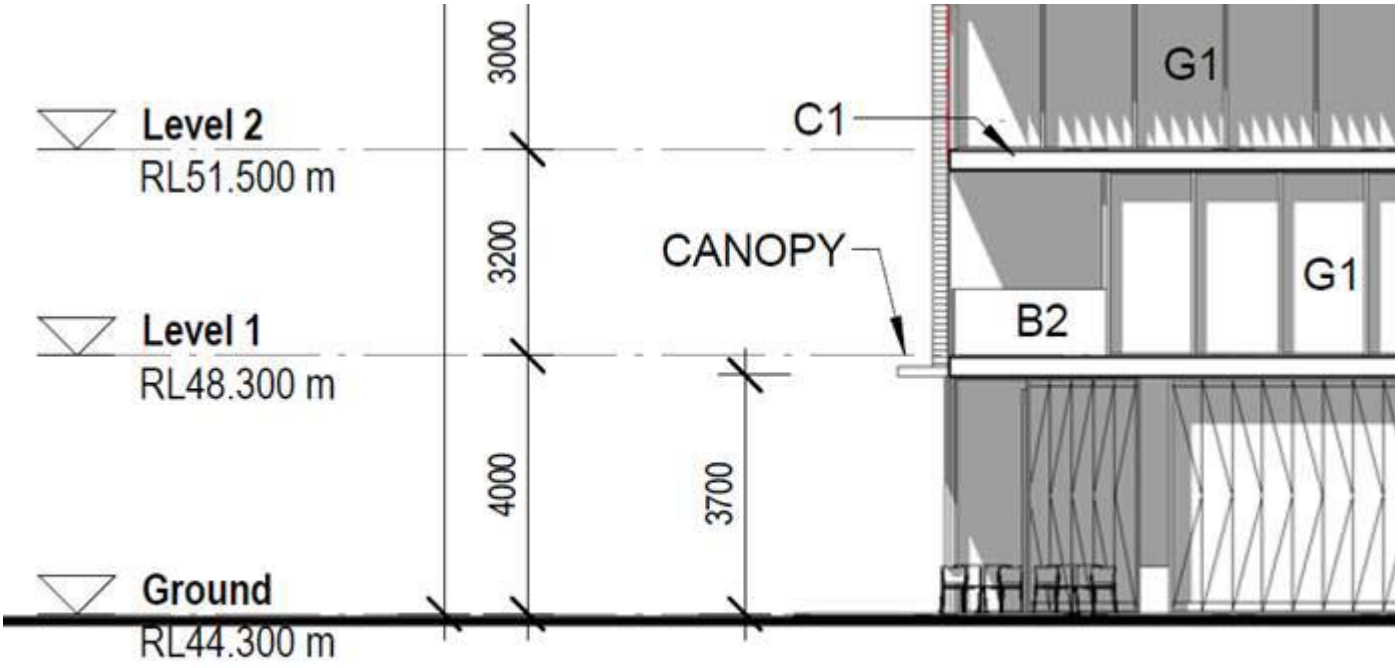
Hi Matthew,

The applicant for the Coglin Street proposal has offered responses to the matters raised by Council (and referral agencies). With respect to the issue of encroachments, the following comments have been provided:

> The proposal has been amended to remove the canopy over the gas cupboard.
>
> We clarify that the lowest point of the aluminium fins along the northern façade (over Coglin Street north) will be 3.7 metres above ground level. The fins will encroach only 243 millimetres over the roadway (where 150 millimetres is accepted as a minor encroachment).
>
> We have formed the opinion that the encroachment is acceptable in this circumstance as the narrowness of Coglin Street (east and north) will likely restrict access for the large vehicles that require the 5 metre clearance.

It should be noted an amended drawing set accompanying the response includes a building façade detail which indicates the dimension of the encroaching fin over the north elevation is **214mm** (not 243mm).

In any event, given the removal of the gas cabinet hood can you confirm the remaining encroachment of concern is limited to the portion of north elevation fins beneath the 5m clearance point highlighted below?



If so, I'm inclined to strongly encourage the applicant to amend this portion of the proposal.

Let me know if you need anything further, or if you'd like to discuss.

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
T 8402 1861 (21861) • **E** benjamin.scholes@sa.gov.au
• Level 5, 50 Flinders Street Adelaide SA 5000 • GPO Box 1815 Adelaide SA • DX 171 • www.dpti.sa.gov.au
• View the SA Planning Portal • Subscribe to our Newsletters

From: Milly Nott [mailto:milly@futureurbangroup.com]
Sent: Wednesday, 2 May 2018 10:26 AM
To: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Subject: RE: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben,

Thank you very much for sending these through.

We will prepare a response to the referrals accordingly.

Speak to you soon!

Kindest Regards,

Milly Nott
Urban Planner

Level 1/89 King William Street
GPO Box 2403
Adelaide SA 5001
E: milly@futureurbangroup.com
PH: 08 8221 5511
M: 0450 965 858
W: www.futureurbangroup.com

From: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Sent: Monday, 23 April 2018 3:22 PM
To: Milly Nott <milly@futureurbangroup.com>
Subject: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Good afternoon Milly,

A copy of the City of Adelaide's referral response for the Coglin Street application is attached for review.

I'd suggest the applicant carefully consider the section related to encroachments (pages 4-5).

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
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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.

From: Matthew Field [mailto:M.Field@cityofadelaide.com.au]
Sent: Monday, 23 April 2018 2:26 PM
To: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Cc: Miller, Brett (DPTI) <Brett.Miller@sa.gov.au>
Subject: RE: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben

Apologies, I sent through the wrong version, there was an error on page 6 which has was corrected in the attached version.

Kind regards

Matthew Field
B. Arch. St. · B. UrbRegPlan
Senior Planner - Development Assessment
Planning Assessment

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From: Matthew Field
Sent: Monday, 23 April 2018 2:16 PM
To: 'Scholes, Benjamin (DPTI)' <Benjamin.Scholes@sa.gov.au>
Cc: 'Miller, Brett (DPTI)' <Brett.Miller@sa.gov.au>
Subject: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben

Hope all is well with you.

Please find attached Councils comments in relation to the development at 13-21 Coglin Street.

Kind regards

Matthew Field
B. Arch. St. · B. UrbRegPlan
Senior Planner - Development Assessment
Planning Assessment

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E. m.field@cityofadelaide.com.au

From: Scholes, Benjamin (DPTI) [mailto:Benjamin.Scholes@sa.gov.au]
Sent: Friday, 16 March 2018 9:57 AM
To: Duty Planner <D.Planner@cityofadelaide.com.au>
Subject: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Good morning,

Application Number:	020/A022/18
Applicant:	YHL Investments Pty Ltd C/- Future Urban Group
Proposed Development:	Construction of a twenty three (23) Storey Mixed Use Development comprising one (1) basement level, ground level café/bar and retail tenancy, three (3) levels of car parking, eighteen (18) levels of apartments and a rooftop garden
Subject Land:	13-21 Coglin Street, Adelaide

This referral is allocated under the Development Act 1993 and Development Regulations 2008, requiring a Non-Mandatory (6 week) response.

Application details are accessible via the following dropbox folder link:

- https://www.dropbox.com/sh/iegb0tzrqgbidly/AABQwM1AQiOXgtXHWZwTpF2ea?dl=0

The State Commission Assessment Panel would appreciate a response by the due date of **Wednesday 2 May 2018**.

Should no report be received by that date it will be considered that the City of Adelaide has no objection to, or comment to make on the proposed development.

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
T 8402 1861 (21861) • **E** benjamin.scholes@sa.gov.au
• Level 5, 50 Flinders Street Adelaide SA 5000 • GPO Box 1815 Adelaide SA • DX 171 • www.dpti.sa.gov.au

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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.

30 May 2018

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ABN: 34 452 110 398

Mr Ben Scholes
Project Officer – Inner Metropolitan Development Assessment
Department of Planning, Transport and Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Ben,

RESPONSE TO REFERRALS FOR DA 020/A022/18 AT 21 COGLIN STREET, ADELAIDE.

We write to you on behalf of the applicant for the abovementioned development application in response to referral comments received from:

- Office for Design and Architecture (ODASA) dated 19 April 2018;
- Adelaide City Council dated 12 April 2018;
- Renewal SA dated 9 April 2018; and
- Adelaide Airport dated 13 April 2018.

We respond under the headings below.

ODASA

ODASA sought the review of the following elements of the proposal:

- height due to the "narrow street";
- exploration of basement car parking as opposed to above ground car parking;
- further detail in relation to the materiality of the screening to the south facing balconies;
- review of the size and dimensions of the north facing communal spaces;
- further investigation as to how the Level 5 communal space can accommodate different uses;
- confirmation that the colours of the glazed brick will be consistent and compatible with the prefinished aluminium soffit panel;
- removal of paint finishes where possible, i.e. changed the natural grey painted concrete to just a raw concrete finish;
- confirmation of how the prefinished white concrete is to be achieved;
- further detail in relation to the aluminium fins proposed to screen the carpark; and
- provision of a samples board.

In addition to the above, ODASA noted their support for the following aspects of the application:

- intention to invigorate the laneways surrounding the subject site;
- physical and visual connection to Gouger and Market Street;

- provision of a pedestrian link through the site;
- relocation of services to basement level;
- ground level setback from Coglin Street (east);
- the provision of apartments on Level 1;
- the mix of apartments and prioritisation of northern light;
- the design intent of the communal spaces;
- communal space provided at Level 5;
- inclusion and design of the rooftop garden; and
- the inclusion of Ecologically Sustainable Design initiatives.

We will address each of the issues raised by ODASA below.

HEIGHT

The Associate Government Architect has expressed his concerns in relation to the proposed building height and the potential impact the current design will have on the "narrow" streetscape. In his opinion, "*Any development above the maximum envisaged height is challenging in this particular location due to the narrow streetscape condition*".

We say that this comment may be contrary to the outcomes envisaged by the Development Plan in that:

- as previously submitted, the proposed development satisfies the criteria listed by Zone PDC 21 and, accordingly meets the "*maximum envisaged height*";
- the proposed height and absence of a podium is consistent with Zone's desired character which seeks "*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*";
- the Zone's desired character also seeks that minor streets and laneways will have a sense of enclosure with a welcoming and comfortable pedestrian environment, with a strong emphasis on ground level activation, all of which is expected to be achieved by the proposed development; and
- properties on the eastern side of Coglin Street are located within a "No Prescribed Height Limit" area, and therefore have the potential to be developed to a height equal to (or exceeding) that of the proposed building.

It is clear that the height proposed is contemplated on Coglin Street.

In order to address ODASA's concerns in relation to the visual impression of this height, JPE Design Studio have prepared perspective drawings to compare the different visual impacts between a 74.6 metre high building (as proposed) and a 43 metre high building. In our opinion, the drawings clearly demonstrate that there is very little difference in visual impact.

We also believe that it is important to note that in practical reality, pedestrians will rarely be looking directly at the upper levels of the building to appreciate or even notice the differing building heights.

The lower levels of the building (in particular, Ground Level and Level 1) will have the most meaningful impact on the streetscape. To this extent, ODASA have expressed that they support the applicant's intention to invigorate adjoining laneways, as well as the proposed pedestrian link, Level 1 apartments and Ground Level setback from Coglin Street. Further, Council have also commended the extent of active frontages to the development.

The intention behind including examples of the existing tall buildings in narrow streetscapes (in the lodgement package) was to show real examples of the streetscape environment in such spaces, irrespective of the zone or use of the land. As such, we disagree with the Associate Government Architect's statement that these examples are not comparable, as they clearly show the impacts of tall buildings in narrow streetscapes as intended.

It is clear from these examples that the proposed development will not have a negative impact on the streetscape of Coglin Street. Rather, the development is directly consistent with the desired character of the zone as the tall buildings in the narrow streetscape will create a "sense of enclosure" and an "intimate, welcoming and comfortable" pedestrian environment.

BASEMENT CAR PARKING

Further to their initial Traffic Impact Statement, Infraplan have provided an additional response to outline their findings in relation to the inclusion of basement car parking for the proposed development. This response is enclosed.

Infraplan outline that the required retaining wall thickness (of 500 millimetres) to support the basement carpark reduces the available floor area to such an extent that the car park would not comply with the relevant standards.

In light of this expert advice, basement car parking is not considered to be possible for the subject site.

USE OF COMMUNAL SPACES

The northern communal areas on Levels 7, 10, 14 and 18 are intended to be breakout areas for residents to enjoy quiet, individual activities and to accommodate a communal edible garden containing herbs, vegetables and fruit trees. JPE have determined that these areas are appropriately sized for this intended purpose.

The outdoor shared space at Level 5 will provide building occupants with an undercover area which is intended to be more intimate than the rooftop area. This area could potentially accommodate activities such as yoga/pilates, art displays, information sessions or small seminars.

With all communal areas, a degree of flexibility has been allowed to permit residents and/or building management to use these spaces in a variety of ways. Not all possible events can be hypothesized here, but rather will be considered for their level of appropriateness on a case by case basis by building management and/or the residents.

CONFIRMATION OF MATERIALS

In direct response to ODASA's queries, the following amendments have been made to the proposal:

- the material indicated as "SF1" (prefinished aluminium soffit panel) on the plans has been changed to "C2" (prefinished glazed brick panel) to ensure a continuous appearance;

- the material indicated as “C1” (prefinished panel cladding with expressed joints “natural grey”) has is now to be precast concrete panel Raw concrete in “acid wash”;
- the material indicated as “P2” (paint finished concrete slab edge) has been replaced with “C1” (precast concrete panel - raw concrete);
- the material indicated as “B3” (precast concrete balustrade in “white”); and
- the materiality of the screening to the south facing balconies has been updated to “S1” (fixed frosted laminated glass screen with black powder coated framing) from “B2” (glass balustrade with “G2” glass aka. Clear vision glass with thermal performance coating).

In accordance with ODASA’s request, JPE Design Studio have prepared an additional drawing detailing the proposed angling and connections of the aluminium fins.

The material indicated as “P1” (painted finish concrete slab edge “white”) will be of a high quality paint finish that is durable to minimise any maintenance. If maintenance should be required, these areas are readily accessible. For these reasons we consider the use of painted materials acceptable in this context.

The material samples board has been prepared and submitted to the Department and ODASA for review.

COUNCIL

The applicant has noted the matters raised in Adelaide City Council’s referral response and accept all conditions and advices listed. We respond further to matters raised under as follows.

NORTHERN SETBACK

Council notes that a 3 metre setback is envisaged by Medium and High Scale Residential/Serviced Apartment PDC 67, which states:

> *“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.”*

In our opinion, the 3.6 metre separation provided by Coglin Street (north) and the additional 1.2 metre setback to north eastern balconies, provides adequate separation from the neighbouring site to the north so as to allow reasonable amenity and privacy (in a city living context) for future occupants.

We consider it important to note that the site to the north could be developed with a nil setback and no habitable room windows, balconies, roof gardens, terraces or decks.

ENCROACHMENTS

The proposal has been amended to remove the canopy over the gas cupboard.

We clarify that the lowest point of the aluminium fins along the northern façade (over Coglin Street north) will be 3.7 metres above ground level. The fins will encroach only 243 millimetres over the roadway (where 150 millimetres is accepted as a minor encroachment).

We have formed the opinion that the encroachment is acceptable in this circumstance as the narrowness of Coglin Street (east and north) will likely restrict access for the large vehicles that require the 5 metre clearance.

ADELAIDE AIRPORT

Adelaide Airports noted in their referral comments that the proposed development will penetrate the Obstacle Limitation Surface (OLS) and as such, approval is currently being sought from the Department of Infrastructure and Regional Development.

Whilst this approval is still pending, Adelaide Airport Limited advised via email dated 17 May 2018 that:

- Adelaide Airport Limited will not object to this development as the application has surrounding buildings of similar heights;
- Airservices Australia advise that the development will not affect any approach or departure procedures at the Airport or impact navigation aids or communication facilities; and
- Civil Aviation Safety Authority also do not object to the development.

RENEWAL SA

The final version of the Land Management Agreement for affordable housing has been prepared and is in the process of being executed. A previous version of the LMA was signed last week, however due to an administrative error the documents had to be re-issued.

CONCLUSION

We believe that the amended proposal and discussion above adequately addresses the matters raised in the referral comments.

We have formed the opinion that the proposal warrants Development Plan Consent.

Should you have any further questions, do not hesitate to contact the undersigned on (08) 8221 5511 for further information.

Yours Sincerely

Milly Nott
Urban Planner

infraPlan
InfraPlan (Aust) Pty Ltd

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MELBOURNE
Ground Floor 9/11 Mount Street, Prahran VIC 3181
P: (03) 8080 9639 E: admin@infraplan.com.au

ABN: 2958280372

8 May 2018

Natasha Qiu
JPE Design Studio Pty Ltd
Level 4, 19 Gilles Street
Adelaide SA 5000

Dear Natasha,

RE: Underground parking, 21 Coglin Street

InfraPlan, it the role of Traffic Engineers, undertook the assessment of car parking provision, including site access, for the proposed development at 21 Coglin Street, Adelaide. The small site footprint and access restrictions from surrounding streets proved to be significant challenges for this project, with numerous iterations of the access and car park layout explored throughout the process. Ultimately an above ground solution was decided upon, utilising a single, drive-through car lift. This solution negated the need for ramps, maximising parking space per floor and reducing the number of parking levels. A study into the arrival and departure patterns and temporal distribution showed that a single lift would provide sufficient capacity for a development of this size.

As requested, we provide the following explanation of why underground parking was deemed to be unsuitable for this development.

Width of foundations reduces floor space

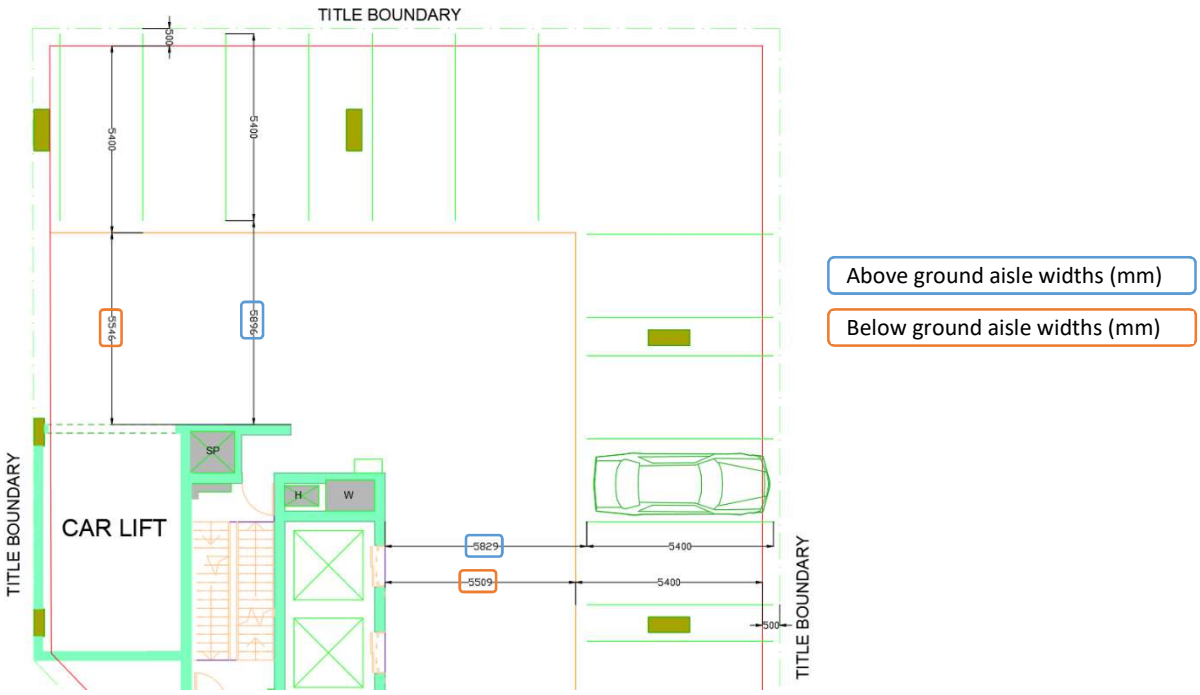

Figure 1 Existing parking floor layout in green and altered internal wall faces (red) and parking bay extents (orange) to accommodate minimum foundation requirements in underground parking levels.

The layout of the above ground parking levels maximises the capacity of the floor by carefully placing the car lift, fire stairs and lift core such that a single car bay and minimum aisle width fits within the floor space. Underground levels require provision of minimum width foundations of 500mm. The reduces floor space such that there is insufficient space to contain all these elements and a minimum aisle width.

Figure 1 shows the reduced floor extents in red (due to minimum foundation widths) and a 5.4m offset (in orange) representing the extent of minimum length parking bays. This leaves aisle widths of around 5.5m, less than the AS 2890.1 minimum requirement of 5.8m. The annotated diagram shows that in the existing, above-ground layout (in green), aisle widths of over 5.8m are provided.

Not shown on this graphic is that the Car Lift and thus the stairs and passenger lift core would need to be relocated to the east, further reducing the aisle width to around 5m. Angled parking is deemed unsuitable for this site as according to the Australian Standard (AS2890), aisles serving 30, 45 or 60-degree angled parking shall be one-way only. Site constraints make provision of one-way circulation aisles unfeasible.

Basement services
To maximise the permeability and activation of the ground floor, services are located in the basement level. For safety, functionality and efficiency reasons, many of these services cannot be placed below underground parking levels. The basement level also accommodates the lift overruns for the Car Lift and passenger lifts. Placing parking underground and below the services level would require additional excavation to house lift overruns and access.

Efficient use of vacant space
The designers have made good use of the vacant space at the north eastern corner of the three parking levels to provide residential space (accessed from the apartment below) on the level two and bicycle parking for residents on levels three and four. On below-ground levels, this space will be less convenient for storage and is disconnected from other land uses.

For the reasons stated above, the design team, with support from InfraPlan as Traffic Engineers, have determined that on-site parking in this development, on a small, constrained site, is best located in the three above-ground levels as shown. This conclusion follows numerous design iterations and studies of the site. The inclusion of apartments on level one (and part of level two) ensures street activation from Coglin Street, with no negative affects to street level activity caused by above-ground car parking.

Kind Regards,

James Edwards
B Engineering (Civil) & Environmental Management
Civil Engineer & Transport Analyst
e: james@infraplan.com.au

Scholes, Benjamin (DPTI)

From: Milly Nott <milly@futureurbangroup.com>
Sent: Friday, 1 June 2018 1:13 PM
To: Scholes, Benjamin (DPTI)
Subject: RE: Applicant Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben,

Thank you for that advice.

To respond to your queries:

- Apologies – north facing fins will encroach 214mm as indicated in the plans. That was my error.
- Design Review sets were included for background reference (as a part of the whole package), but are not directly relevant to the response to referrals.
- I will ask JPE to prepare this schedule of storage areas per apartment type and forward to you as soon as possible.

Let me know if there is anything else you need.

Kindest Regards,

Milly Nott
Urban Planner

Level 1/89 King William Street
GPO Box 2403
Adelaide SA 5001
E: milly@futureurbangroup.com
PH: 08 8221 5511
M: 0450 965 858
W: www.futureurbangroup.com

From: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Sent: Friday, 1 June 2018 1:05 PM
To: Milly Nott <milly@futureurbangroup.com>
Subject: Applicant Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Milly,

I've forwarded the applicant's comments regarding encroaching fins over the north elevation to City Council's Traffic Team, which agrees it would be unlikely that a tall vehicle would use Coglin Street north once the development is

complete, however there are no guarantees. As the liability would rest with the owner in any event there are no objections to the encroachment.

Can you also clarify / provide the following information:

- the north facing fins encroach 214mm as indicated on JPE's new sketch, not 243mm as referenced in your letter?
- what is the purpose of appending the drawing sets presented to Design Review panels during the pre-lodgement phase in the resubmitted plans?
- can a schedule of storage areas per apartment type (internal to dwellings and elsewhere) be provided to detail whether apartment storage provision is in accordance with Council Wide policy?

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
T 8402 1861 (21861) • **E** benjamin.scholes@sa.gov.au
• Level 5, 50 Flinders Street Adelaide SA 5000 • GPO Box 1815 Adelaide SA • DX 171 • www.dpti.sa.gov.au
• View the SA Planning Portal • Subscribe to our Newsletters

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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.

From: Milly Nott [mailto:milly@futureurbangroup.com]
Sent: Wednesday, 30 May 2018 4:06 PM
To: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Subject: RE: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben,

I hope that you have been keeping well.

Please find attached our response to referral comments, an additional response from Infraplan, and the updated Architectural package (including additional information requested) is linked below.

https://www.dropbox.com/s/77vof5552zpn0ut/180525%20-%20Coglin%20Street%20-%20Design%20Application_RevA%20.pdf?dl=0

Please feel free to give me a call if you have an queries and let me know if there is any further information you require (or if you have any issues with the DropBox link!).

Thank you very much Ben.

Kindest Regards,

Milly Nott
Urban Planner

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PH: 08 8221 5511
M: 0450 965 858
W: www.futureurbangroup.com

From: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Sent: Monday, 23 April 2018 3:22 PM
To: Milly Nott <milly@futureurbangroup.com>
Subject: Council Referral Response - 020/A022/18 - 13-21 Coglin Street Adelaide

Good afternoon Milly,

A copy of the City of Adelaide's referral response for the Coglin Street application is attached for review.

I'd suggest the applicant carefully consider the section related to encroachments (pages 4-5).

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
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From: Matthew Field [mailto:M.Field@cityofadelaide.com.au]
Sent: Monday, 23 April 2018 2:26 PM
To: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Cc: Miller, Brett (DPTI) <Brett.Miller@sa.gov.au>
Subject: RE: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben

Apologies, I sent through the wrong version, there was an error on page 6 which has was corrected in the attached version.

Kind regards

Matthew Field
B. Arch. St. · B. UrbRegPlan
Senior Planner - Development Assessment
Planning Assessment

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E. m.field@cityofadelaide.com.au

www.adelaidecitycouncil.com
www.cityofadelaide.com.au

From: Matthew Field
Sent: Monday, 23 April 2018 2:16 PM
To: 'Scholes, Benjamin (DPTI)' <Benjamin.Scholes@sa.gov.au>
Cc: 'Miller, Brett (DPTI)' <Brett.Miller@sa.gov.au>
Subject: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Hi Ben

Hope all is well with you.

Please find attached Councils comments in relation to the development at 13-21 Coglin Street.

Kind regards

Matthew Field
B. Arch. St. · B. UrbRegPlan

Senior Planner - Development Assessment
Planning Assessment

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E. m.field@cityofadelaide.com.au

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www.cityofadelaide.com.au

From: Scholes, Benjamin (DPTI) [mailto:Benjamin.Scholes@sa.gov.au]
Sent: Friday, 16 March 2018 9:57 AM
To: Duty Planner <D.Planner@cityofadelaide.com.au>
Subject: Council Referral - 020/A022/18 - 13-21 Coglin Street Adelaide

Good morning,

Application Number:	020/A022/18
Applicant:	YHL Investments Pty Ltd C/- Future Urban Group
Proposed Development:	Construction of a twenty three (23) Storey Mixed Use Development comprising one (1) basement level, ground level café/bar and retail tenancy, three (3) levels of car parking, eighteen (18) levels of apartments and a rooftop garden
Subject Land:	13-21 Coglin Street, Adelaide

This referral is allocated under the Development Act 1993 and Development Regulations 2008, requiring a Non-Mandatory (6 week) response.

Application details are accessible via the following dropbox folder link:

- https://www.dropbox.com/sh/iegb0tzrqgbidly/AABQwM1AQiOXgtXHWZwTpF2ea?dl=0

The State Commission Assessment Panel would appreciate a response by the due date of **Wednesday 2 May 2018**.

Should no report be received by that date it will be considered that the City of Adelaide has no objection to, or comment to make on the proposed development.

Kind Regards

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
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• Level 5, 50 Flinders Street Adelaide SA 5000 • GPO Box 1815 Adelaide SA • DX 171 • www.dpti.sa.gov.au

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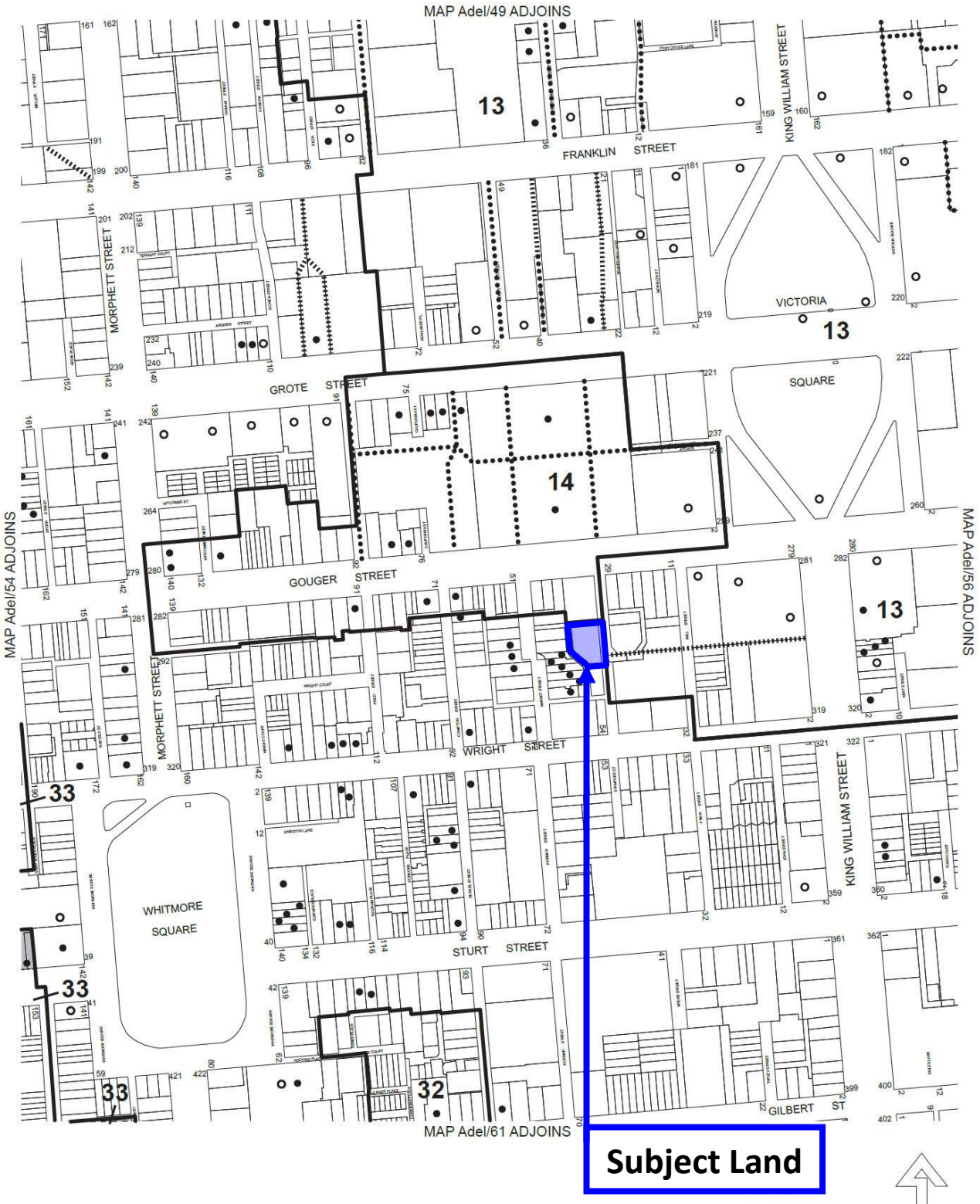
STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Agenda Item 2.2.1
21 June 2018



13 Central Business Policy Area
14 Main Street Policy Area
32 South Central Policy Area
33 South West Policy Area
State Heritage Place
Local Heritage Place
Policy Area Boundary
Maximum height of 2 storeys

Existing Pedestrian Link
Proposed Pedestrian Link

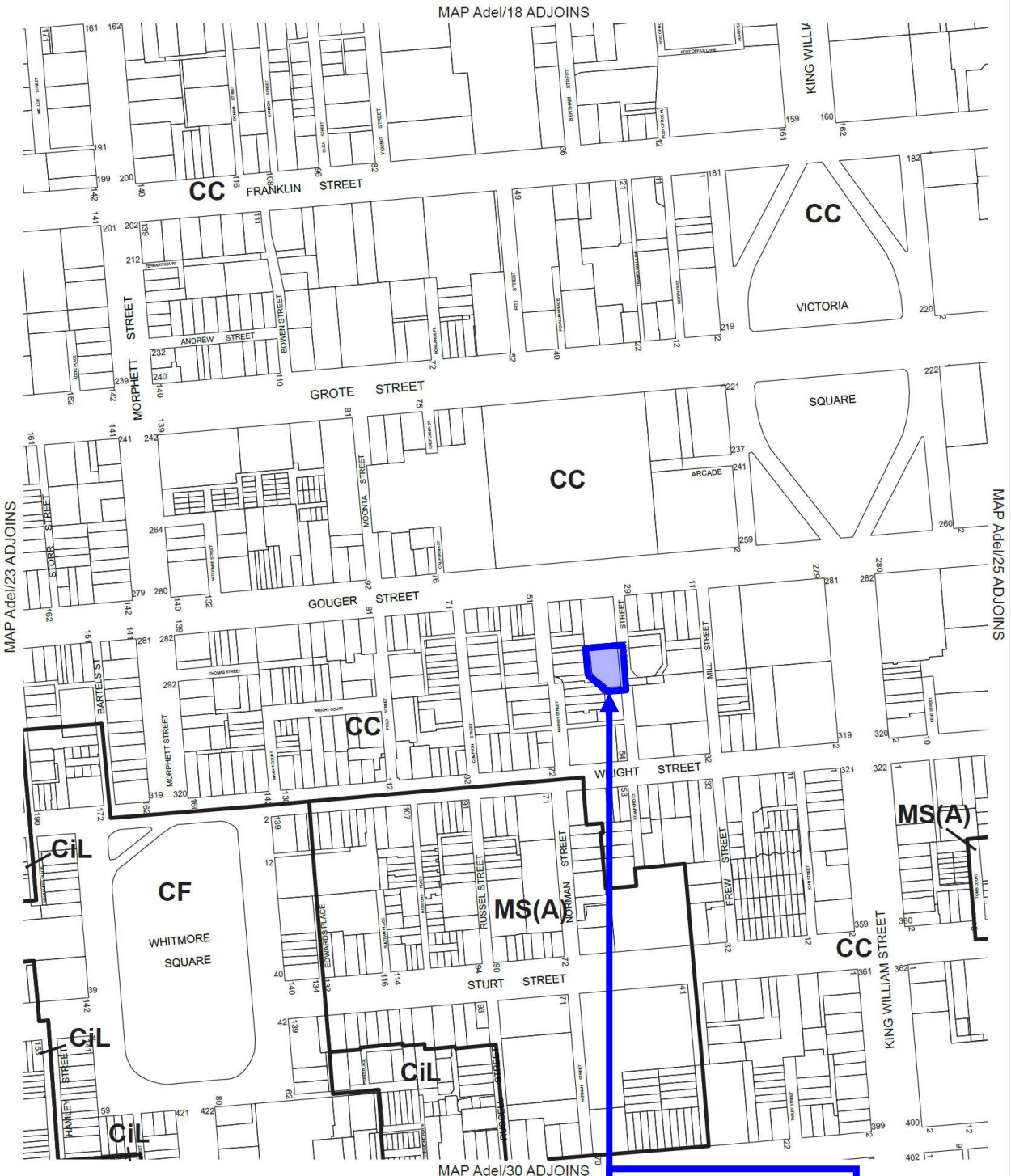
Scale 1:4150
0metres 100 200 300

ADELAIDE (CITY) POLICY AREAS MAP Adel/55

Consolidated - 20 June 2017

STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Agenda Item 2.2.1
21 June 2018



NOTE : For Policy Areas See MAP Adel/55

CC	Capital City Zone
CF	City Frame Zone
CiL	City Living Zone
MS(A)	Main Street (Adelaide) Zone

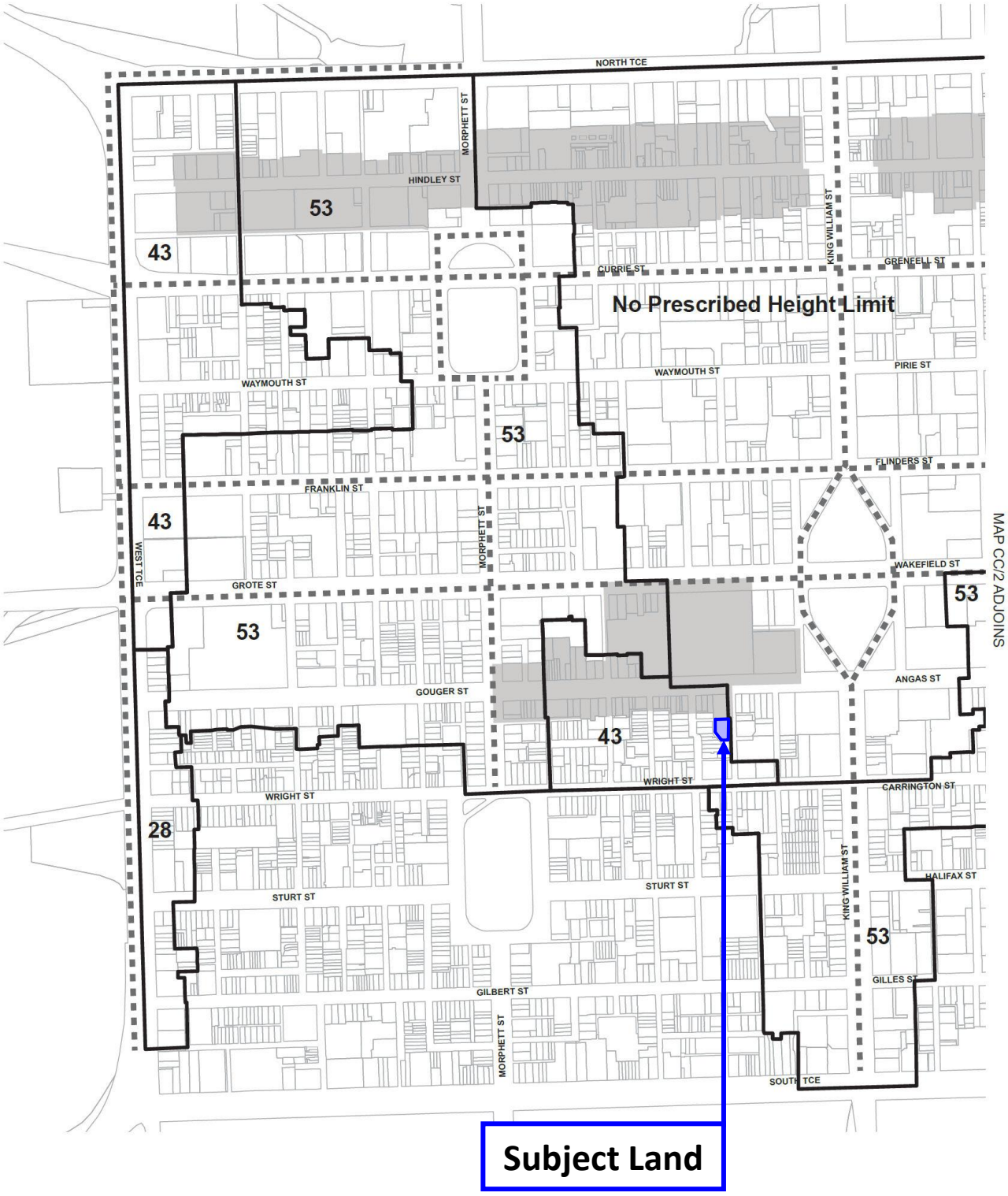
Zone Boundary
Development Plan Boundary

ADELAIDE (CITY) ZONES MAP Adel/24

Consolidated - 20 June 2017

STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Agenda Item 2.2.1
21 June 2018



1:8000
0 120 240 360 480 600 metres

Maximum Building Height (metres) within Capital City zoned land
Note: Airport Building Height Restrictions Apply. Refer Map Adel/1 (Overlay 5).

City Boulevards and Terraces

Policy Areas of a 'Main Street' type

ADELAIDE (CITY) BUILDING HEIGHTS Concept Plan Figure CC/1

Consolidated - 20 June 2017

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.

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;

(a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan Figures CC/1 and 2, and

(b) only if:

(i) at least two of the following features are provided:

(1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;

(2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;

(3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;

(4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on Map Adel/1 (Overlay 2A);

(5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;

(6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;

(7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;

(8) more than 15 per cent of dwellings as affordable housing.

(ii) plus all of the following sustainable design measures are provided:

(1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;

(2) a greenroof, or greenwalls / façades supported by services that ensure ongoing maintenance;

(3) innovative external shading devices on all of the western side of a street facing façade; and

(4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.

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

(a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations;

(b) the site is adjacent to the City Living Zone or the Adelaide Historic (Conservation) Zone and a lesser building height is required to manage the interface with low-rise residential development;

(c) the site is adjacent to a heritage place, or includes a heritage place;

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

Interface

23 Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity.

24 Development on all sites on the southern side of Gouger Street - Angas Street and adjacent to a northern boundary of the City Living Zone or the Adelaide Historic (Conservation) Zone should not exceed 22 metres in building height unless the Council Wide overshadowing Principles of Development Control are met.

25 Parts of a development that exceed the prescribed maximum building height shown on Concept Plan Figures CC/1 and 2 that are directly adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries should be designed to minimise visual impacts on sensitive uses in the adjoining zones and to maintain the established or desired future character of the area. This may be achieved through a number of techniques such as additional setback, avoiding tall sheer walls, centrally locating taller elements, providing variation of light and shadow through articulation to provide a sense of depth and create visual interest, and the like.

Movement

26 Pedestrian movement should be based on a network of pedestrian malls, arcades and lanes, linking the surrounding Zones and giving a variety of north-south and east-west links.

27 Development should provide pedestrian linkages for safe and convenient movement with arcades and lanes clearly designated and well-lit to encourage pedestrian access to public transport and areas of activity. Blank surfaces, shutters and solid infills lining such routes should be avoided.

28 Development should ensure existing through-site and on-street pedestrian links are maintained and new pedestrian links are developed in accordance with Map Adel/1 (Overlay 2A).

29 Car parking should be provided in accordance with Table Adel/7.

30 Multi-level car parks should locate vehicle access points away from the primary street frontage wherever possible and should not be located:

(a) within any of the following areas:

(i) the Core Pedestrian Area identified in Map Adel/1 (Overlays 2, 2A and 3)

(ii) on frontages to North Terrace, East Terrace, Rundle Street, Hindley Street, Currie Street, Waymouth Street (east of Light Square), Victoria Square or King William Street;

(b) where they conflict with existing or projected pedestrian movement and/or activity;

(c) where they would cause undue disruption to traffic flow; and

(d) where it involves creating new crossovers in North Terrace, Rundle Street, Hindley Street, Currie Street and Waymouth Street (east of Light Square), Grenfell Street and Pirie Street

(west of Pulteney Street), Victoria Square, Light Square, Hindmarsh Square, Gawler Place and King William Street or access across primary City access and secondary City access roads identified in Map Adel/1 (Overlay 1).

31 Multi-level, non-ancillary car parks are inappropriate within the Core Pedestrian Area as shown on Map Adel/1 (Overlays 2, 2A and 3).

32 Vehicle parking spaces and multi-level vehicle parking structures within buildings should:

(a) enhance active street frontages by providing land uses such as commercial, retail or other non-car park uses along ground floor street frontages;

(b) complement the surrounding built form in terms of height, massing and scale; and

(c) incorporate façade treatments along major street frontages that are sufficiently enclosed and detailed to complement neighbouring buildings consistent with the Desired Character of the locality.

Advertising

33 Other than signs along Hindley Street, advertisements should use simple graphics and be restrained in their size, design and colour.

34 In minor streets and laneways, a greater diversity of type, shape, numbers and design of advertisements are appropriate provided they are of a small-scale and located to present a consistent message band to pedestrians.

35 There should be an overall consistency achieved by advertisements along individual street frontages.

36 In Chesser Street, French Street and Coromandel Place advertisements should be small and preferably square and should not be located more than 3.7 metres above natural ground level or an abutting footpath or street. However, advertisements in these streets may be considered above 3.7 metres at locations near the intersections with major streets.

37 Advertisements on the Currie Street frontages between Topham Mall and Gilbert Place and its north-south prolongation should be of a size, shape and location complementary to the desired townscape character, with particular regard to the following:

(a) On the southern side of Currie Street, advertisements should be fixed with their underside at a common height, except where the architectural detailing of building façades precludes it. At this 'canopy' level advertisements should be of a uniform size and fixed without the support of guy wires. Where architectural detailing permits, advertisements may mark the major entrances to buildings along the southern side of Currie Street with vertical projecting advertisements 1.5 metres high by 1.2 metres wide at, or marginally above, the existing canopy level. Painted wall or window signs should be restrained.

(b) On the northern side of Currie Street, advertisements should be of a uniform fixing height and consistent dimensions to match those prevailing in the area.

PROCEDURAL MATTERS

Complying Development

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

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

(a) Other than in relation to a State heritage place, Local heritage place (City Significance), or Local heritage place, work undertaken within a building which does not involve a change of use or affect the external appearance of the building;

(b) Temporary depot for Council for a period of no more than 3 months where it can be demonstrated that appropriate provision has been made for:

(i) dust control;

(ii) screening, including landscaping;

(iii) containment of litter and water; and

(iv) securing of the site.

(c) Change in the use of land from a non-residential use to an office, shop or consulting room (excluding any retail showroom, adult entertainment premises, adult products and services premises or licensed premises).

Non-complying Development

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

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

Amusement machine centre

Advertisements involving any of the following:

(a) third party advertising except on Hindley Street, Rundle Mall or on allotments at the intersection of Rundle Street and Pulteney Street, or temporary advertisements on construction sites;

(b) advertisements located at roof level where the sky or another building forms the background when viewed from ground level;

(c) advertisements in the area bounded by West Terrace, Grote Street, Franklin Street and Gray Street;

(d) animation of advertisements along and adjacent to the North Terrace, King William Street and Victoria Square frontages.

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

Vehicle parking except:

(a) where it is ancillary to an approved or existing use;

(b) it is a multi-level car park located outside the Core Pedestrian Area as indicated on Map Adel/1 (Overlay 2, 2A and 3); or

(c) it is within an existing building located outside the Core Pedestrian Area as indicated on Map Adel/1 (Overlay 2, 2A and 3).

Public Notification

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

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

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

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

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

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

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

COUNCIL WIDE

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.

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

2 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.

3 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

4 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.

5 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.

53 All new medium to high scale residential or serviced apartment development should have direct ventilation and natural light.

6 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.

7 Light wells should not be used as the primary source of daylight for living rooms to ensure a sufficient level of outlook and daylight.

8 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.

9 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.

10 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

11 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.

12 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.

13 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.

14 Secondary balconies, including Juliet balconies or operable walls with balustrades should be considered, subject to overlooking and privacy, for additional amenity and choice.

15 For clothes drying, balconies off laundries or bathrooms and roof top areas should be screened from public view.

16 The incorporation of roof top gardens is encouraged providing it does not result in unreasonable overlooking or loss of privacy.

Visual Privacy

17 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.

18 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

19 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.

20 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

21 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.

Note: Dwelling/apartment "unit size" includes internal storage areas but does not include balconies or car parking as part of the calculation.

22 Internal structural columns should correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.

Adaptability

23 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.

Design Technique *(this is ONE WAY of meeting the above Principle)*

72.1 *Design solutions may include:*

(a) windows in all habitable rooms and to the maximum number of non-habitable rooms;

(b) adequate room sizes or open plan dwellings which provide a range of furniture layout options; and/or

(c) dual master bedrooms that can support two independent adults living together or a live/work situation.

Outlook

24 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.

25 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.

On-Site Parking and Fencing

OBJECTIVE

Objective 23: Safe and convenient on-site car parking for resident and visitor vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

26 To ensure an adequate provision of on-site parking, car parking should be provided for medium to high scale residential (other than student accommodation) or serviced apartment development in accordance with Table Adel/7.

27 Garages and parking structures associated with medium to high scale residential or serviced apartment development should be located so that they do not visually dominate the street frontage.

28 Car parking areas should be designed and located to:

(a) be close and convenient to dwellings/apartments;

(b) be lit at night;

(c) be well ventilated if enclosed;

(d) avoid headlight glare into windows; and

(e) clearly define visitor parking.

29 Where garages are located within a basement or undercroft:

(a) the width of access driveways should be kept to a minimum and should not detract from the streetscape;

(b) driveways should be designed to ensure safe and convenient access and egress;

(c) access should be restricted to one driveway or one point of access and egress;

(d) vehicles should be able to safely exit in a forward direction and should not compromise pedestrian safety or cause conflict with other vehicles; and

(e) the height of the car park ceiling should not exceed one metre above the finished ground floor level to ensure minimal impact on the streetscape.

30 Fencing and walls should:

(a) be articulated and detailed to provide visual interest;

(b) assist the development to address the street;

(c) assist in the provision of safety and surveillance;

(d) assist in highlighting entrances; and

(e) enable visibility of buildings from and to the street.

Storage Areas

31 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.

32 Medium to high scale residential (other than student accommodation) or serviced apartment development should provide adequate and accessible storage facilities for the occupants at the following minimum rates:

(a) studio: 6 cubic metres

(b) 1 bedroom dwelling/apartment: 8 cubic metres

(c) 2 bedroom dwelling/apartment: 10 cubic metres

(d) 3+ bedroom dwelling/apartment: 12 cubic metres

50 percent of the storage space should be provided within the dwelling/apartment with the remainder provided in the basement or other communal areas.

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

33 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.

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

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

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

(a) be transparent and illuminated to complement the appearance of the frontage;

(b) provide for window shopping; and

(c) allow for the spill of light from the shop front onto the street.

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

37 Public toilets should be designed and located to:

(a) promote the visibility of people entering and exiting the facility by avoiding recessed entrances and dense shrubbery which obstructs passive surveillance;

(b) limit opportunities for vandalism through the use of vandal proof lighting on the public toilet buildings and nearby;

(c) avoid features which facilitate loitering, such as seating or telephones immediately adjacent the structure; and

(d) maximise surveillance through location near public transport links, pedestrian and cyclist networks.

Operating Hours and Associated Activities of Licensed Premises

OBJECTIVE

Objective 25: Operating hours of licensed premises or licensed entertainment premises, together with associated activities of such premises, established and operated so as to reinforce the desired character of the locality and appropriate behavioural activities**.**

PRINCIPLES OF DEVELOPMENT CONTROL

38 Licensed premises and licensed entertainment premises or similar should:

(a) be located, designed and operated in order to reinforce the desired character of a locality, as expressed in the relevant Zone or Policy Area;

(b) be located, designed and operated so as to not negatively impact on peoples orderly use and enjoyment of a locality, such as through disorderly behavioural activities and/or disorderly behavioural movement to and from such land uses; and

(c) incorporate best practice measures to effectively manage the behaviour of users moving to and from such land uses.

39 Licensed premises and licensed entertainment premises or similar should operate with operating hours to reinforce the desired character of the locality.

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

40 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.

41 Development of licensed premises or licensed entertainment premises or similar in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone or the North Adelaide Historic (Conservation) Zone should include noise attenuation measures to achieve the following when assessed at the nearest existing or envisaged future noise sensitive development:

(a) the music noise ($L_{10,\ 15\ min}$) is:

(i) less than 8 dB above the level of background noise[2] ($L_{90,15\ min}$) in any octave band of the sound spectrum; and

(ii) less than 5 dB(A) above the level of background noise ($L_{A\ 90,15\ min}$) for the overall (sum of all octave bands) A-weighted level.

42 Development of licensed premises or licensed entertainment premises or similar in the Capital City, Main Street, Mixed Use and City Frame Zones should include noise attenuation measures to achieve the following when assessed at:

(a) the nearest existing noise sensitive location in or adjacent to that Zone:

(i) music noise ($L_{10,\ 15\ min}$) less than 8 dB above the level of background noise ($L_{90,15\ min}$) in any octave band of the sound spectrum; and

(ii) music noise ($L_{A10,\ 15\ min}$) 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; or

(b) the nearest envisaged future noise sensitive location in or adjacent to that Zone:

(i) music noise ($L_{10,\ 15\ min}$) less than 8dB above the level of background noise ($L_{90,15\ min}$) in any octave band of the sound spectrum and music noise ($L_{10,\ 15\ min}$) less than 5dB(A) above the level of background noise ($L_{A90,15\ min}$) for the overall (sum of all octave bands) A-weighted levels; or

(ii) music noise ($L_{10,\ 15\ min}$) less than 60dB(Lin) in any octave band of the sound spectrum and the overall ($L_{A10,15\ min}$) noise level is less than 55 dB(A).

43 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.

44 To ensure minimal disturbance to residents:

(a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:

(i) after 10.00pm; and

(ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.

(b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.

Noise Receivers

45 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.

46 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.

47 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.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

48 A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.

49 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.

50 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.

51 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

(a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;

(b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and

(c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Contaminated Sites

OBJECTIVE

Objective 29: A safe and healthy living and working environment**.**

PRINCIPLES OF DEVELOPMENT CONTROL

52 Where there is evidence of, or reasonable suspicion that land, buildings and/or water, including underground water, may have been contaminated, or there is evidence of past potentially contaminating activity/ies, development should only occur where it is demonstrated that the land, buildings and/or water can be made suitable for its intended use prior to commencement of that use.

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

53 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;

* Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

(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.

54 All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

55 Energy reductions should, where possible, be achieved by the following:

(a) appropriate orientation of the building by:

(i) maximising north/south facing facades;

(ii) designing and locating the building so the north facade receives good direct solar radiation;

(iii) minimising east/west facades to protect the building from summer sun and winter winds;

(iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or

(v) minimising the ratio of wall surface to floor area.

(b) window orientation and shading;

(c) adequate thermal mass including night time purging to cool thermal mass;

(d) appropriate insulation by:

(i) insulating windows, walls, floors and roofs; and

(ii) sealing of external openings to minimise infiltration.

(e) maximising natural ventilation including the provision of openable windows;

(f) appropriate selection of materials, colours and finishes; and

(g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

56 Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

57 Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.

58 New buildings should be readily adaptable to future alternative uses.

59 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.

Residential Development

60 New residential development and residential extensions should be designed to minimise energy consumption and limit greenhouse gas emissions.

61 Development is encouraged to avoid heat loss by incorporating treatments, such as double glazing of windows along the southern elevation, or by minimizing the extent of windows facing south.

Renewable Energy

OBJECTIVES

Objective 31: The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

Objective 32: Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

62 Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.

63 Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.

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

64 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.

65 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.

66 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.

67 Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

68 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.

69 Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.

70 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.

Infrastructure

OBJECTIVES

Objective 40: Minimisation of the visual impact of infrastructure facilities.

Objective 41: Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

71 Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.

72 Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.

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.

PRINCIPLES OF DEVELOPMENT CONTROL

General

73 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.

74 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.

75 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.

Built Form and Townscape

OBJECTIVES

Objective 46: Reinforcement of the city's grid pattern of streets through:

(a) high rise development framing city boulevards, the Squares and Park Lands

(b) vibrant main streets of a more intimate scale that help bring the city to life

(c) unique and interesting laneways that provide a sense of enclosure and intimacy.

Objective 47: Buildings should be designed to:

(a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;

(b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;

(c) contribute to pedestrian safety and comfort; and

(d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.

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

PRINCIPLES OF DEVELOPMENT CONTROL

76 Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

Height, Bulk and Scale

PRINCIPLES OF DEVELOPMENT CONTROL

77 Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:

(a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;

(b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;

(c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and

(d) the open landscape of the Park Lands Zone.

78 The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on Map Adel/1 (Overlay 1).

79 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.

80 Where possible, large sites should incorporate pedestrian links and combine them with publicly accessible open space.

81 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.

82 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

Composition and Proportion

83 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.

84 Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:

(a) frontages creating clearly defined edges;

(b) generating new compositions and points of interest;

(c) introducing elements for future neighbouring buildings; and

(d) emphasising the importance of the building according to the street hierarchy.

Articulation and Modelling

85 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.

86 Balconies should:

(a) respond to the street context and building orientation; and

(b) incorporate balustrade detailing to reflect the balcony type and location and the materials and detail of the building facade.

87 No part of any fully enclosed building should extend over property boundaries, including streets and public spaces, whether above a balcony at a lower level or not.

Materials, Colours and Finishes

88 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.

89 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

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

91 Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

Sky and Roof Lines

OBJECTIVE

Objective 49: Innovative and interesting skylines which contribute to the overall design and performance of the building.

PRINCIPLES OF DEVELOPMENT CONTROL

92 Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.

93 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.

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

94 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.

95 Retail frontages should be designed to provide interest to passing pedestrians at street level and relief to building mass.

96 Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

Outdoor Dining

OBJECTIVE

Objective 52: Development that contributes to the vibrancy, activity and desired character of a locality.

PRINCIPLES OF DEVELOPMENT CONTROL

97 Outdoor dining should:

(a) be located outside the associated premises;

(b) provide sufficient set-backs, such as from kerbs and property boundaries, and clearances, such as from buildings;

(c) be located in an area safe for patrons where the security of the building is not compromised;

(d) ensure the dining area is set back from the building line at street intersections;

(e) ensure unimpeded pedestrian flow through free and uninterrupted pedestrian paths; and

(f) ensure wheelchair access to pedestrian ramps is not compromised.

98 Structures should:

(a) be of high quality design and form an integral part of the streetscape;

(b) not restrict public access;

(c) not detract or restrict views of significant sightlines, buildings and landmarks;

99 Signage that identifies the business name or logo, or advertises goods sold on the premises is only appropriate on glass and canvas screens and umbrellas and should meet the following:

(a) signage and advertisements should be designed to improve and complement the amenity of the premises, be of an appropriate design and consistent with the desired character of the locality;

(b) advertisements on outdoor dining items such as umbrellas and canvas screens should not exceed a portion that covers 10 percent of the total available space on each outdoor dining item, up to half of which may be commercial advertisements in the form of product logos used or sold by the premises;

(c) advertisements should not be illuminated or animated; and

(d) third party advertising on outdoor dining items is inappropriate.

Landscaping

OBJECTIVE

Objective 55: Water conserving landscaping that enhances the local landscape character and creates a pleasant, safe and attractive living environment.

PRINCIPLES OF DEVELOPMENT CONTROL

100 Landscaping should:

(a) be selected and designed for water conservation;

(b) form an integral part of the design of development; and

(c) be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas and enhance the visual amenity of the area.

101 Landscaping should incorporate local indigenous species suited to the site and development, provided such landscaping is consistent with the desired character of the locality and any heritage place.

102 Landscaping should be provided to all areas of communal space, driveways and shared car parking areas.

103 Landscaping between the road and dwellings should be provided to screen and protect the dwellings from dust and visual impacts of the road.

Advertising

OBJECTIVE

Objective 56: Outdoor advertisements that are designed and located to:

(a) reinforce the desired character and amenity of the locality within which it is located and rectify existing unsatisfactory situations;

(b) be concise and efficient in communicating with the public, avoiding a proliferation of confusing and cluttered displays or a large number of advertisements; and

(c) not create a hazard.

PRINCIPLES OF DEVELOPMENT CONTROL

104 Advertisements should be designed to respect and enhance the desired character and amenity of the locality by the means listed below:

(a) the scale, type, design, location, materials, colour, style and illumination of any advertisements should be compatible with the design and character of the buildings and land to which it is related, and should be in accordance with provisions for the Zone and Policy Area in which it is situated and any relevant adjacent Zones or Policy Areas;

(b) advertisements should be integrated with the architectural form, style and colour of buildings and wherever possible, requirements for advertisements should be considered in the design of new buildings;

(c) advertisements should be artistically interesting in terms of graphics and construction with intricacy and individuality in design encouraged while maintaining consistency in design and style where co-ordinated advertisements are appropriate;

(d) structural supports should be concealed from public view or of minimal visual impact;

(e) advertisements on individual premises should be co-ordinated in terms of type and design and should be limited in number to minimize visual clutter;

(f) advertisements should be displayed on fascia signs or located below canopy level;

(g) advertisements on buildings or sites occupied by a number of tenants should be co-ordinated, complementary and the number kept to a minimum; and

(h) advertisements on or adjacent to a heritage place should be designed and located to respect the heritage value of the heritage place.

105 Product advertisements illustrating products sold on the premises in conjunction with the business name should not exceed 25 percent of the area of any advertisement.

106 Advertisements should not endanger public safety or detrimentally affect the amenity of adjacent premises by reason of their location, position, construction or design and should:

(a) not emit excessive glare or reflection from internal or external illumination;

(b) not obscure road users' and pedestrians' views of vehicles, pedestrians or potentially hazardous road features;

(c) not cause confusion with, or reduce the effectiveness of traffic control devices;

(d) have a clearance between the footpath and base or underside of projecting signage of at least 2.5 metres for permanent advertisements and 2.3 metres for temporary advertisements, and between the kerb face and outside edge of the sign of at least 600 millimetres; and

(e) permit safe and convenient pedestrian movement.

107 Temporary advertisement hoardings or shrouds required for the screening of construction sites or for creating visual interest should occur only where they are:

(a) of a high standard of design;

(b) displayed only during the period of construction;

(c) comprised of high quality opaque, solid and non-reflective material that is durable, low maintenance and appropriate to the City context;

(d) required to conceal wiring and conduits; and

(e) do not create undue risk to public or private safety.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

108 Development should provide safe, convenient and comfortable access and movement.

109 Vehicle access points along primary and secondary city access roads and local connector roads, as shown on Map Adel/1 (Overlay 1) should be restricted.

Pedestrian Access

OBJECTIVES

Objective 61: Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

Objective 62: Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities**.**

PRINCIPLES OF DEVELOPMENT CONTROL

110 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.

111 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.

112 Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within Map Adel/1 (Overlays 2, 2A and 3) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.

113 Corner buildings in the Central Business Policy Area of the Capital City Zone, buildings adjacent to street intersections and buildings along a high concentration public transport route or along public transport pedestrian routes identified within Map Adel/1 (Overlay 4) should provide weather protection for pedestrians in the form of verandahs, awnings or canopies. Where verandahs or awnings are provided which block street lighting, they should include additional lighting beneath the canopy.

114 Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.

115 Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.

116 Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

Objective 64: Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.

Objective 65: Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

117 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.

118 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.

119 Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

(a) located in a prominent place;

(b) located at ground floor level;

(c) located undercover;

(d) located where passive surveillance is possible, or covered by CCTV;

(e) well lit and well signed;

(f) close to well used entrances;

(g) accessible by cycling along a safe, well lit route;

(h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and

(i) in the case of a cage have an access key/pass common to the building access key/pass.

120 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

(a) directly associated with the main entrance;

(b) located at ground floor level;

(c) located undercover;

(d) well lit and well signed;

(e) located where passive surveillance is possible, or covered by CCTV; and

(f) accessible by cycling along a safe, well lit route.

121 Access to bicycle parking should be designed to:

(a) minimise conflict with motor vehicles and pedestrians;

(b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and

(c) ensure the route is unhindered by low roof heights.

Traffic and Vehicle Access

OBJECTIVES

Objective 68: Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).

Objective 69: An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.

Objective 70: Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

122 Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.

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

124 Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment**.**

125 Vehicular access to development located within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlay 2A) should be limited and designed to minimise interruption to street frontages.

126 Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.

Car Parking

OBJECTIVES

Objective 71: To meet community expectation for parking supply while supporting a shift toward active and sustainable transport modes.

Objective 72: An adequate supply of short-stay and long-stay parking to support desired growth in City activities without detrimental affect on traffic and pedestrian flows.

PRINCIPLES OF DEVELOPMENT CONTROL

127 Car parking areas should be located and designed to:

(a) ensure safe and convenient pedestrian movement and traffic circulation through and within the car parking area;

(b) include adequate provision for manoeuvring and individually accessible car standing areas;

(c) enable, where practical, vehicles to enter and leave the site in a forward direction;

(d) minimise interruption to the pattern of built form along street frontages;

(e) provide for access off minor streets and for the screening from public view of such car parking areas by buildings on the site wherever possible;

(f) minimise adverse impacts on adjoining residential properties in relation to noise and access and egress;

(g) minimise loss of existing on-street parking spaces arising through crossovers and access;

(h) incorporate secure bicycle parking spaces and facilitate convenient, safe and comfortable access to these spaces by cyclists; and

(i) provide landscaping, such as semi-mature trees, to shade parked vehicles and reduce the visual impact of the car parking area while maintaining direct sight lines and informal visual surveillance.

128 Off-street parking should:

(a) be controlled in accordance with the provisions for the relevant Policy Area;

(b) be located away from street frontages or designed as an integral part of buildings on the site. Provision of parking at basement level is encouraged; and

(c) not include separate garages or carports in front of buildings within front set-backs.

129 Off-street parking in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A) will only be appropriate where:

(a) parking is ancillary to another activity carried out on the land;

(b) it can be provided without loss of pedestrian amenity; and

(c) it is not separately created on a strata title or community title basis (unless in association with another title held on the site).

130 Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages in the Primary Pedestrian Area identified in Map Adel/1 (Overlays 2, 2A and 3). Multi-level car parks, short stay public use of ancillary car parking spaces or non-ancillary car parking use of an existing building may be appropriate where it:

(a) is located away from ground floor street frontages to major streets;

(b) ensures vehicle access is from the road with less pedestrian activity in instances where a site has access to more than one road frontage;

(c) has no more than one entry lane and one exit lane;

(d) has a controlled exit at the property boundary to stop vehicles before travelling across the footpath;

(e) has no more than one left in and one left out access point;

(f) avoids access points along high concentration public transport routes identified in Map Adel/1 (Overlay 4); and

(g) with respect to ancillary parking, is provided at basement level, or undercroft if located behind other uses which provide activity on the street frontage.

131 Multi-level car parks should be designed to:

(a) provide active street frontages and land uses such as commercial, retail or other non-car park uses, along ground floor street frontages to maintain pedestrian interest and activity at street level;

(b) be of a high quality design and complement the surrounding built form in terms of height, bulk and scale;

(c) provide surveillance, lighting and direct sightlines along clearly defined and direct walkways, through and within car parking areas and to lift and toilet areas;

(d) on a corner site with two major street frontages, be set back from the major street frontages, with commercial or other non-car park floor space in front of and screening the car parking building;

(e) on a site with only one major street frontage, include screening so that any car parking is not visible from the public realm either day or night, and detailed to complement neighbouring buildings in a manner consistent with desired character in the relevant Zone and Policy Area;

(f) incorporate treatments to manage the interface with adjacent housing, such as careful use of siting and use of materials and landscaping;

(g) not have vehicle access points across major walking routes identified in Map Adel/1 (Overlay 2); and

(h) provide safe and secure bicycle parking spaces in accordance with the requirements of Table Adel/6.

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

(a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;

(b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;

(c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

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

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

Objective 75: Development which reinforces clusters and nodes of activity and distinctive local character.

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

PRINCIPLES OF DEVELOPMENT CONTROL

132 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

(a) provide a range of shopping facilities in locations that are readily accessible;

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;

(d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and

(e) have minimal impact on the amenity of residential areas.