Mandala Property Group C/- PBA
Construction of an 18 storey building comprising tourist accommodation, hospitality facilities and associated landscaping
18 Bentham Street, Adelaide
DA 020/A033/18

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OVERVIEW

Application No	020/A033/18
Unique ID/KNET ID	2018/09339/01
Applicant	Mandala Property Group C/- PBA
Proposal	Construction of an 18 storey building comprising tourist accommodation, hospitality facilities and associated landscaping
Subject Land	18 Bentham Street, Adelaide
Zone/Policy Area	Capital City Zone, Central Business Policy Area
Relevant Authority	State Commission Assessment Panel
Lodgement Date	12 February 2018
Council	City of Adelaide
Development Plan	Adelaide (City) Development Plan [Consolidated insert date
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	State Heritage, ODASA, Adelaide Airport
Report Author	Karl Woehle
RECOMMENDATION	Planning Consent subject to a Reserved Matter and Planning Conditions

EXECUTIVE SUMMARY

The applicant seeks Development Plan Consent for the construction of an 18 storey building comprising tourist accommodation, hospitality facilities and associated landscaping in the Central Business Policy Area of the Capital City Zone at 18 Bentham Street, Adelaide

The proposed development is a merit kind of development that triggers statutory referrals to the Associate Government Architect (AGA), State Heritage Unit, Adelaide Airport and a non-mandatory referral to the City of Adelaide Council. The proposed land-use is considered acceptable and consistent with the land-uses envisaged in the Central Business Policy Area of the Capital City Zone.

The height and scale of the proposed development is considered acceptable and consistent with the planning policy provisions. The Associate Government Architect and State Heritage Unit do not object to the proposed height and scale. The design and appearance of the proposed development is considered appropriate and consistent with the desired character of the Policy Area, whilst appropriately responding to the Local and State Heritage Places within Bentham Street. The AGA in principle supports the design, architectural expression and materiality.

The State Heritage Unit do not object to the proposed development and generally concur with the Heritage Impact Statement, which notes the proposed development is considered acceptable and should not detrimentally impact the physical, context or material heritage values of the adjacent State Heritage Places. The State Heritage Unit noted that the proposed development would benefit from some further design development, however the suggested design development would be desirable rather than crucial to the streetscape relationship.

Council raised concern that the proposed small rigid waste vehicles are not feasible and the commercial waste collection industry does not have capability to support this development. The applicant's traffic consultant responded and confirmed that two major waste contractors Veolia and Cleanaway are able to service the proposed development and are expanding the Small Rigid Vehicles within their respective fleets.

The proposed balcony projects from level one over the footpath and encroaches onto Council land. The balcony should provide weather protection to pedestrians and entrance of the building and is consistent with PDC 10 Capital City Zone, which seeks development to contribute to the comfort of the public realm.

Council notes that the proposed canopy/balcony does not meet Council's Encroachment Policy. The deviation from the encroachment policy is such that, a decision cannot be made under delegation and a report will need to be tabled to Council. It is acknowledged that Council Administration is supportive of the encroachment. A Reserved Matter has been proposed to ensure that the encroachment is approved by Council prior to final issue of Development Approval.

The proposal generally achieves appropriate performance outcomes in respect to technical matters such as energy efficiency, wind analysis, crime prevention, stormwater and noise emission.

On balance, it is considered the proposal satisfies the intent of the Central Business Policy Area and other relevant development control policies. It is considered that the proposed development is not at significant variance with the 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. The purpose of the DPA was to introduce and reinforce design quality within the Capital City Zone which:

- Reinforce design quality for new development;
- Establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances;
- Increase greening policy provisions for over-height development and;
- Strengthen the Desired Character Statement along Rundle Street to recognise its important character.

1.2 Pre-Lodgement Process

The applicant engaged in the Pre-lodgement Service offered by the Department of Planning, Transport and Infrastructure which is provided for development involving building work exceeding 10 million dollars in value within the City of Adelaide.

The applicant engaged in one (1) Pre-lodgement Panel meeting and one (1) Design Review session. The proponent responded to some of the issues raised during the pre-lodgement panel meeting and design review panel session.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

Land Use Description	Multi-storey building comprising tourist accommodation and associated hospitality facilities
Building Height	60.02 metres (parapet) / 17 Storeys
Description of levels	Ground Floor – Lobby, reception, admin and managers office, building services, bicycle parks, coffee bar and back of house facilities Level 1 – Restaurant and associated facilities, water closet and back of house facilities Level 2 – Gym, staff room, building services, 3 motel suites and back of house facilities Level 3 - 17 – 183 Motel suites, each level contains 12 rooms, lift lobby and housekeeping facilities.
Motel Suite floor area (excluding balconies)	Motel suites range from 18 to 24 square metres of floor space. Internally each room has ability to contain a double bed, ensuite, television, desk, cupboard with hanging space and drawers.
Site Access	Service vehicle, pedestrian and bicycle access is from Bentham Street.
Car and Bicycle Parking	No car parks are proposed within this development. Staff and customer bicycle parks are located on the ground floor.
Encroachments	Extended canopy/balcony above main entrance to the building encroaches approximately 3m over the boundary.
Staging	No staging has been proposed.

3. SITE AND LOCALITY

3.1 Site Description

The development site comprises a single allotment located at 16-18 Bentham Street, Adelaide and is situated on the eastern side of Bentham Street. The development site is rectangular in shape and has an area of approximately 389 square metres. The development site has a primary street frontage of approximately 21 metres to Bentham Street and is currently being used as a private car park accessed from Bentham Street.

The development site has free and unrestricted access over the abutting laneway to the north. The laneway to the south of the development site forms part of The Advertiser complex that is predominately used for vehicle access to parking and service areas.

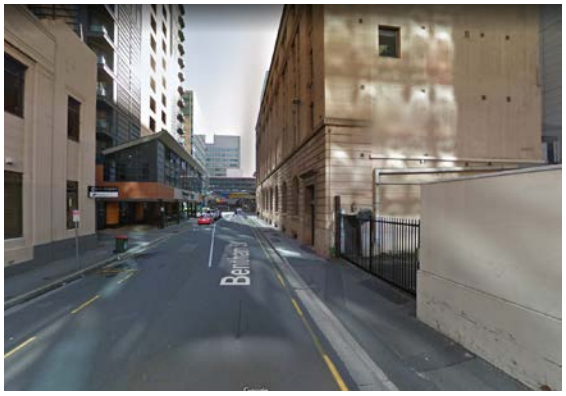
Figure 1 – Subject site, Bentham Street frontage

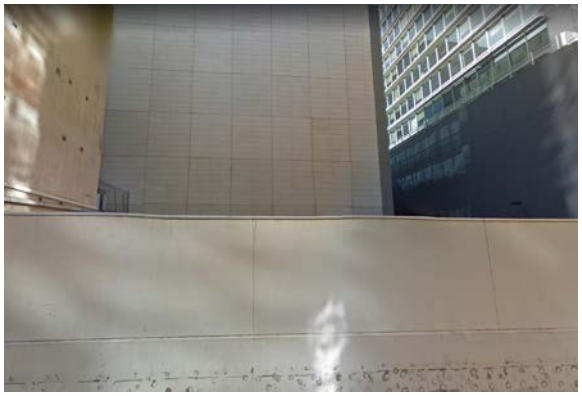
The site consist of one allotment, described as follows:

Lot No	Street	Suburb	Hundred	Title Reference
131	Bentham Street	Adelaide	Adelaide	5323/690

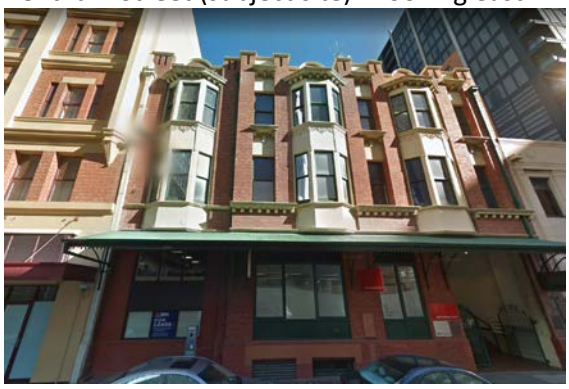
The figure below illustrates the subject land highlighted in green in the context of the immediate locality.

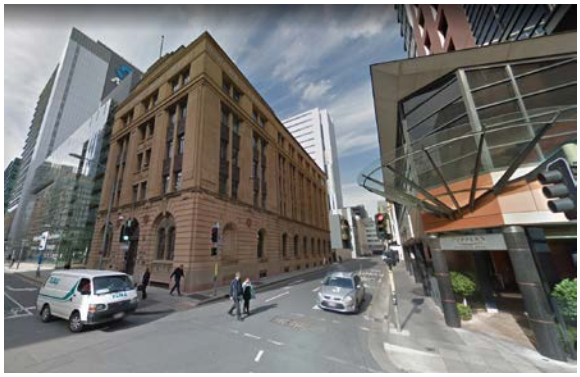
Figure 2 - Location Map

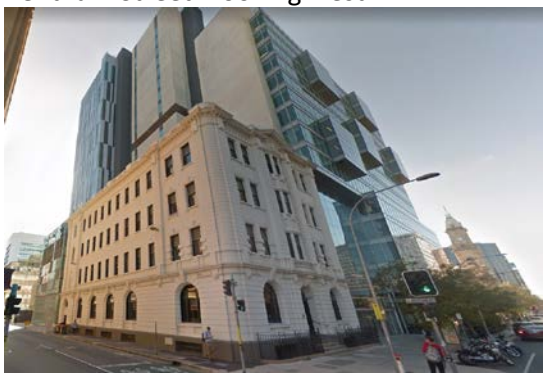

Bentham Street – looking north


Bentham Street (subject site) – looking east


Bentham Street – looking south


Bentham Street - looking west


Woodards House (State and Local Heritage) – Northern end of Bentham Street


Darling House (State Heritage) Southern end of Bentham Street


Neighbouring property – western side


Private Laneway – southern boundary subject site

Figure 3 Site Photographs

3.2 Locality

The immediate locality consists of a mixture of retail, commercial and office tenancies in a range of built forms from two to 20 storey buildings. It is acknowledged that the general built scale within Bentham Street is typically higher in scale.

Situated on the northern end of the subject site is Woodards House, a five storey State and Local Heritage Listed building. Directly opposite the subject site on the western side of Bentham Street is the Local Heritage Listed Co-op Insurance building and SA Farmers Co-op Merchandise Store. Extending further South on the corner of Franklin and Bentham Street is the, five storey former main SA Farmers Co-op building which is also identified as a Local Heritage Place. Darling House is located on the eastern corner of Bentham and Franklin and is a State Heritage Listed Place.

4. STATUTORY REFERRAL BODY COMMENTS

4.1 State Heritage Unit, DEWNR

The State Heritage Unit is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must have regard to this advice. The State Heritage Unit reviewed the Heritage Impact Assessment report that accompanied the proposed development and generally concurs with the findings and conclusions of the Heritage Impact Assessment.

The State Heritage Unit are of the opinion that the refinement of the design between the pre-lodgement process and the application as lodged has delivered some positive improvements to the design and detailing of the podium floors. There are various detailed aspects of the development which State Heritage believe would benefit from further design development, however it is considered that these are desirable rather than crucial to the streetscape relationship and have be included as an advisory note.

State Heritage provided two (2) conditions and three (3) advisory notes that were recommended to be attached to any planning consent. The State Heritage's statutory referral response is contained in the ATTACHMENTS and are further discussed in the Planning Assessment.

4.2 Associate Government Architect

The Associate Government Architect (AGA) is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must have regard to this advice. The AGA responded to the referral and expressed general support for the proposed development but suggested several elements of the proposed development that would benefit from protection as part of the planning consent. These elements are:

- Confirmation of the size of the gas meter enclosure.
- Confirmation of the class of precast concrete finishes with a view to achieving minimum Class 2.
- Holistic review of the window widths, with a view to achieving a consistent expression.
- Further consideration of the articulation of the east elevation precast façade.
- Provision of a detailed schedule of external materials supported by a materials samples board.

The applicant noted they will continue to work with APA Group to minimise the size of the gas meter enclosure which is currently 1800mm wide, 900mm deep and 1500mm high. It was confirmed that the precast panels are to consist of a colour,

texture and finish to a Class 2 finish and a materials sample board will be prepared for the State Commission Assessment Panel meeting.

A review of the window widths was undertaken as recommended and noted that due to the width of the corridor it cannot be widened due to the tight constraints of the floor plans. However, the three windows facing south (corridor, room 10 and 12) can be made all the same width, which was suggested to be dealt with by condition of approval.

The AGA's statutory referral response is contained in the ATTACHMENTS and are further discussed in the Planning Assessment.

4.3 Adelaide Airport

The Adelaide Airport is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must take direction from the advice. The application has been assessed at the height of RL 129.6m AHD. As a result the application will penetrate the Adelaide Airport Obstacle Limitation Surface (OLS) which is a protected airspace for aircraft operation. It is noted that the development will penetrate the OLS by approximately 6m.

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

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

The Adelaide Airport's statutory referral response is contained in the ATTACHMENTS and are discussed further in the Planning Assessment.

5. COUNCIL TECHNICAL ADVICE

5.1 City of Adelaide Council

Advice was sought from Council administration regarding technical matters. Council acknowledged that physical separation of the proposed building from the adjacent Local Heritage Places should not result in any significant physical impact upon their respective heritage value.

Council highlighted that the proposed waste services are not deliverable and the commercial waste collection industry does not have capability to support this development. As such Council do not support the proposed waste collection strategy. It was also noted that the limited size of loading dock and reliance on small rigid waste collection vehicles is not ideal and could result in on-street waste collection, if required small waste collection vehicles are not available.

Concern was raised that no demand analysis was provided in the traffic report and whether pick-up and drop off can be facilitated on street, given the size of the proposed development. Excessive demand for such provisions could result in vehicles stopping and blocking traffic.

Sufficient sight distances are not provided for vehicles exiting the loading area out to Bentham Street, measures to address the sight line defiance should be included.

It was highlighted that the proposed balcony, in its current form does not meet Council's Encroachment Policy. The deviation from the policy is such that, a decision cannot be made under delegation. Council noted that administration is supportive of the encroachment, subject to the underside of the canopy achieving a minimum

height of 5 metres above the roadway to ensure adequate clearance for emergency service vehicles.

The applicant responded by providing a demand analysis on the estimated pick-ups and drop-offs. Additional information from several waste companies was provided confirming the serviceability of the proposed waste management strategy. The underside height of the balcony was increased to 5 metres to ensure appropriate clearance for the emergency vehicles and acknowledged that the balcony will require approval from Council.

The City of Adelaide's referral response is contained in the ATTACHMENTS and are discussed further in the Planning Assessment.

6. PUBLIC NOTIFICATION

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

7. POLICY OVERVIEW

The subject site is located in the Central Business Policy Area of the Capital Zone as described within the Adelaide City Development Plan [Consolidated 20 June 2017]. Relevant planning policies are contained in ATTACHMENTS and summarised below.

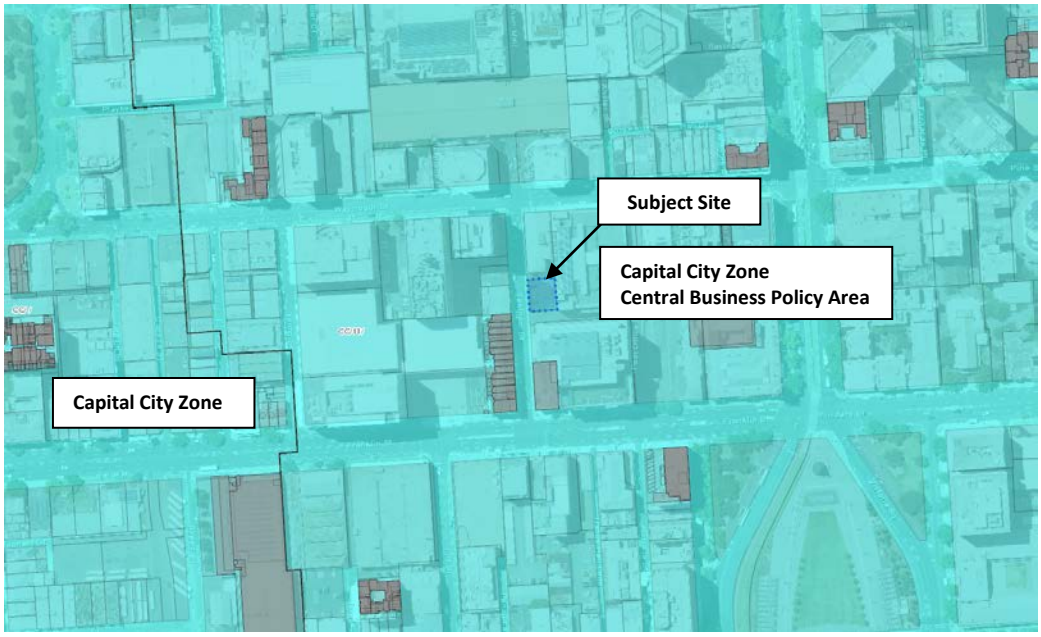


Figure 4 – Zoning Map

7.1 Policy Area

The Policy Area is highlighted in the Development Plan as the pre-eminent economic, governance and cultural hub for the State. Buildings within the Policy Area should exhibit innovative design approaches which produce stylish and evocative architecture. The Policy Area anticipates tall and imposing buildings that provide a hard edge to the street, which should be of the highest design quality.

7.2 Zone

The Zone encourages a diverse range of land uses with non-residential land uses at ground floor level to achieve greater activation of street frontages.

It is noted that there is no prescribed height limit for this particular part of the Capital City Zone. The Zoning seeks a high standard of architectural design and finish that is appropriate to the City's role and image as the capital of the State.

The Zone acknowledges contemporary juxtapositions will provided new settings for heritage places as well as responding to site context and broader streetscape whilst supporting optimal site development.

Bentham Street has been highlighted within the Zone as a minor street with high character as such new development will need to respond to the character elements and provide a comfortable pedestrian environment.

7.3 Council Wide

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

7.4 Overlays

7.4.1 Adelaide City Airport Building Heights

The proposed development exceeds the OLS Values set out in Airport Building Heights MAP/1 (Overlay5)

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan [Consolidated 20 June 2017], which are contained in ATTACHMENTS.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	Capital City Zone does not have prescribed maximum height for site	17 levels (60m parapet)	YES ☑ NO ☐ PARTIAL ☐	
Land Use	Zone and Policy area envisages short term tourist accommodation and café/restaurant	Tourist accommodation and café/restaurant	YES ☑ NO ☐ PARTIAL ☐	
Car Parking	No minimal parking requirements in Capital City	No car parking proposed	YES ☑ NO ☐ PARTIAL ☐	
Bicycle Parking	**Tourist accommodation** 1 per 20 employees 2 for first 40 rooms, plus 1 for every additional 40 rooms	7 secure bicycle spaces are provided	YES ☐ NO ☐ PARTIAL ☑	

	Café / Restaurant 1 per 20 employees 1 per 50 seats			
Front Setback	Zone seeks buildings built to the street frontage	Proposed development abuts the front boundary consistent with the established built form	YES ☑ NO ☐ PARTIAL ☐	
Rear Setback	Zone and policy area generally silent on rear setbacks		YES ☑ NO ☐ PARTIAL ☐	
Side Setback	Zone and policy area generally silent on side setbacks		YES ☑ NO ☐ PARTIAL ☐	
Private Open Space	Development Plan is silent on short term tourist accommodation provisions		YES ☐ NO ☐ PARTIAL ☐	Generally deemed appropriate for short term tourist accommodation

8.2 Land Use and Character

The proposal involves the development of tourist accommodation and associated facilities. The proposal is consistent with PDC 1 which seeks this form of land use within the Capital City Zone.

8.3 Building Height

The proposed development is approximately 60m in height to the top of the parapet. It is noted that the development site is not subject to a prescribed maximum building height, however relevant airport heights still apply to the development site.

Adelaide Airport have confirmed that the proposed development will penetrate the Adelaide Airport Obstacle Limitation Surface (OLS) airspace by approximately 6m. As such the application will require approval from the Department of Infrastructure and Regional Development.

The Associate Government Architect supports the proposed building height and is of the opinion that it should sit comfortably within the city context that includes taller developments. The proposed height of the development is considered appropriate and consistent with the development plan provisions.

8.4 Design and Appearance

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

The Zone identifies Bentham Street as an important minor street with important character elements that new developments should provide an appropriate design response.

The proposed development is an 18 storey building comprising of a materially expressed podium which wraps around the north and west façade. The podium presents a solid and void architectural expression that references the adjacent State and Local Heritage Places, which is acknowledged by AGA as a respectful gesture to the heritage context.

The ground floor includes an entrance lobby, reception area, and coffee bar with bi-fold windows to the street. The transformer and fire boosters are located along the Bentham Street frontage and are screened by glass double doors and glass enclosure. The loading dock and transformer are located on the northern end of the development and are screened from public view by vented roller shutters. The AGA generally advocates for the building services to be located on secondary frontage to ensure maximum public realm activation. This was investigated by the applicant, however due to technical regulation was not possible. On balance the AGA supports aspiration to integrate the transformer and fire booster into the design of the façade.

The proposed balcony projects from level one over the footpath and should provide weather protection to pedestrians and the entrance of the building. It was highlighted that the proposed balcony, in its current form does not meet Council's Encroachment Policy. The deviation from the encroachment policy is such that, a decision cannot be make under delegation and a report will need to be tabled to Council. Council noted that administration is supportive of the encroachment, subject to the underside of the canopy achieving a minimum height of 5 metres above the roadway to ensure adequate clearance for emergency service vehicles. The applicant has since amended the underside of the balcony reflect the required 5 metre clearance for emergency vehicles

The restaurant, balcony and associated facilities on level 1 should provide a level of activation and passive surveillance to Bentham Street, consistent with the Desired Character of the Capital City Zone.

The applicant highlighted the merit of the proposed canopy/balcony and the alignment with policies which seeks shelter to the public footpath, street activation and passive surveillance. The applicant requested that the issue be dealt with as a reserve matter to ensure transparency and openness in which SCAP can make a full and considered decision in respect to the proposed development. This has been reflected in the recommendation of this report.

Level 2 includes 3 motel suites, gym, staff rooms and back of house facilities. The AGA supports the configuration of level 2 which considers outlook and light access for both staff and guest spaces.

A chamfer at ground has been incorporated into the south western corner of the building and extends up to level 3, which presents an alternate architectural expression. The applicant noted that the design feature is to comply with the National Construction Code's Fire egress requirements, but also references the angle of the level 1 balcony.

Above the podium expression is the tower that incorporates a curtain glazed wall for part of the north and west façade. It is noted that approximately 50% of the glazing is to be colour back glass, with insulated wall directly behind the glazing to reduce the solar loads on the building. The AGA supports the vertical expression and built form articulation afforded by the windows and lightwell, however it was noted the window widths vary on the north and south elevations and it was recommended that a review of the window widths with a view to achieving a more consistent expression.

The applicant has since conducted a review of the window widths and noted the width of the corridor window on the south is narrower than the bedroom windows on the other

façades and cannot be widened due to the constraints of the floor plans. The applicant suggested that the three windows facing south (corridor, room 10 and 12) could be made all the same width, which could be dealt with by planning condition.

The south and part of the north façade feature Brightonlite precast concrete panelling with horizontal grooves which incorporated full height windows and a light well on the southern façade. The east elevation comprises solid precast façade panels with angled grooves. The AGA in generally supports the proposed tower element, however recommends additional articulation of the east façade and a minimum Class 2 precast concrete to achieve a high quality finish and colour control. The applicant has confirmed that the proposed Brightonlite precast concrete will be a Class 2 finish.

On balance the appearance and architectural expression is considered appropriate in the locality and is generally consistent with the policies in the Central Business Policy Area of the Capital City Zone. The AGA has expressed a level of support and is of the opinion that the proposed development appropriately responds to the immediate locality.

8.5 Heritage

The prevailing built form along the eastern end of Bentham Street is predominately built to the primary street frontage. Woodard House and Darling Building present a height datum of 5-6 storeys in height. The proposed development seeks to reference a similar front setback and podium height that is reflected within the adjacent heritage built forms within the streetscape.

Council are of the opinion that the separation from the Local Heritage Places should not result in a physical impact upon their respective heritage value.

The State Heritage Unit is generally comfortable with the proposed development and concurs with the provided Heritage Impact Statement. There is acknowledgement of the positive design improvements achieved through the pre-lodgement process particularly around the detailing of the podium floors, which in turn improved the building's visual relationship with the two State Heritage Places.

The State Heritage Unit noted that the proposed development would benefit from some further design development in the form of a podium cap at level 6, a transition from podium to full height masonry on the northern elevation and greater continuity and consistency in vertical lines of the masonry piers above and below the first floor. However, they are of the opinion that the suggested design development would be desirable rather than crucial to the streetscape relationship and as such supportive of the development in its current form.

The proposed development generally exhibits a built form that appropriately responds and complements the Local and State Heritage Places in Bentham Street, consistent with PDC 140 Council Wide policy and therefore is considered to meet the heritage requirements of the Development Plan.

8.6 Occupant amenity

The Capital City Zone is generally silent on policies relating to short-term tourist accommodation, as such Council Wide policies were used within this section. Levels three to 17 are dedicated to motel suites. The floor plate of the proposed development has been orientated to ensure the motel suites take advantage of the northern light, which seen as a positive design outcome and supported by the AGA. The proposed development includes one accessible motel suite per floor from levels 3 to 17, which is commendable.

The AGA supports the configuration of the rooms and access to natural light, however it is noted all windows above level two are fixed and the AGA urges further consideration be given to operable windows to facilitate access to fresh air.

Windows and a glass void on the south façade provides outlook and access to natural light for three motel suites and the corridor. The AGA has raised concerns on the size of void. It is acknowledged that the abutting site to the south is unlikely to be developed, however this is not guaranteed and any potential development on the southern boundary may detrimentally impact the amenity of the motel suites and corridor. Should this unlikely scenario occur, it is noted that the land-use is short-term in nature and whilst it would detrimentally impact the amenity of the motel suites, it is not considered fatal to the development. On balance the proposed development display appropriate levels of occupant amenity.

8.7 Traffic Impact, Access and Parking

The Capital City Zone does not prescribe a minimum parking requirement. The proposal does not include any provisions for onsite parking. There are several multi-level car parking buildings within the immediate vicinity that could be utilised by patrons of the motel.

The applicant engaged Cirqa traffic consultants to provide a traffic and parking report for the proposed development. The report highlighted that other than commercial vehicles accessing the loading bay, there will be no direct traffic movements associated with the proposed development via the site's crossover.

There would however be an increase in movements over the broader road network in the form of set-down/pickup movements on Bentham Street, guest and staff movement to/from various off street parking areas. An existing loading zone directly in front of the site will be utilised by the proposed development for guest drop off and pickups.

Council raised concern that no demand analysis was provided with the proposed development and the potential demand for pick-up and drop-off combined with lack of available parking spaces could result in vehicles stopping within the carriageway blocking traffic.

The traffic consultant provided additional information noting a previous demand analysis was carried out for the Mayfair Hotel, which is a simular sized development. The number of movements associated with the proposed 183 rooms were extrapolated, which would result in 11 set-down and 7 pick-up movements during the pm peak hour. The queuing analysis also suggest that 70% of the time, there would be no vehicles undertaking such movements at (or adjacent the site). The analysis suggest that the two parking spaces in front of the motel would be adequate to accommodate the pick-ups and drop offs, also acknowledged that in reality such movements will occur in other nearby locations.

Service vehicles will gain access to the proposed development from the existing right of way on Bentham Street via the electrically controlled swing gates. Small rigid commercial vehicles (SRVs) associated with deliveries and waste collection will be able to enter the site in a forward direction and manoeuvre within the loading bay to exit in a forward direction, consistent with PDC 242 Council Wide (Traffic and Vehicle Access).

Council raised concerns on the limited size of the loading dock and reliance on small waste collection vehicles. The traffic consultant highlighted that a number of major waste collection companies such as Veolia and Cleanaway utilise SRV within their fleets. Both Veolia and Cleanway have confirmed in writing that they will be able to service the site.

It was highlighted within the traffic report that pedestrian sight lines is not achieved at the access point, however this is the existing situation. The report noted there are opportunities for convex mirrors or audible/visual warning systems, it is suggested these provisions are dealt with via planning condition. It is also acknowledged that the traffic movements associated with the loading dock are likely to occur outside of pedestrian peak hours.

The resulting traffic as a result of the proposed development is considered relatively low and should have minimal impact on the existing conditions. The proposed development generally displays appropriate traffic considerations.

8.7.1 Bicycle Parking

Table Adel/6 anticipates a motel to include 1 bicycle park per 20 employees and 2 bicycle parks for first 40 rooms, plus 1 for every additional 40 rooms. In accordance with the Development Plan the proposal should provide approximately 5-6 bicycle parks for the visitors and 1-2 parks for the staff (depending on staff numbers).

The proposed development includes 6 secure bicycle parks at ground adjacent the luggage store which is accessed via the lobby and 1 bicycle park within the loading bay. Generally the proposed development provides appropriate bicycle facilities for guest and staff.

8.8 Environmental Factors

8.8.1 Crime Prevention

The Development Plan generally seeks development to integrate and attempt to facilitate natural passive surveillance, clear lines of sight and appropriate lighting within the design of the building to reduce potential crime.

The façade at ground fronting Bentham Street is predominately glazed ensuring there are views in and out of the development which provides opportunities for passive surveillance. It is also noted the proposed restaurant and balcony on level 1 provides activation and further extends views of the public realm. The proposed built form provides a clear line of sight along Bentham Street and down the adjoining private laneway to the south.

The proposed land-uses should create a complementary mix of activity that could extend the duration of the day and into the night. The complementary mix of activities should increase public realm activation along Bentham Street and the immediate locality.

The proposed development generally demonstrates appropriate Crime Prevention measures that are considered consistent with the Development Plan policies.

8.8.2 Noise Emissions

Council Wide PDC 93 (Noise Emissions) seeks mechanical or plant equipment to be designed, sited and screened to minimise noise impacts on adjacent premises and properties in accordance with the provisions set out within the Development Plan.

The plant rooms are located on level 2 and the roof. The level 2 plant room is located on the south east corner of the building away from Bentham Street and

separated from the three motel suites. The plant services on the roof are screened by the façade of the building.

The applicant engaged Bestec to provide an acoustics services and acoustic design report. The report provided preliminary acoustic design recommendations required to achieve the appropriate acoustic criteria. Preliminary building façade, glassing and roof construction options were suggested which should provide sufficient attention of noise intrusion. Generic recommendations were also provided for acoustic treatment of the mechanical services

Provided the proposed development adheres to the preliminary acoustic design recommendations contained within the acoustic report it can be assumed that the Development Plan policies are likely to be satisfied. To ensure this occurs a condition has been included in the recommendation of this report.

8.8.3 **Waste Management**

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

The proposed development includes a waste storage room large enough 3x1100L general waste bin (red), 1x660L general waste bin, 1x1100L recyclable materials bin, 1x1100L organic bin and 660L organic waste bin. The applicant noted that all waste streamed will be collected and transported down into the ground floor waste room by the motel cleaning staff. It is estimated that waste collection will occur every 3 days onsite within the loading bay and is limited to small rigid vehicles.

Council reviewed the plans and traffic consultancy report and are of the opinion that the proposed waste services are not deliverable. As previously discussed the traffic consultant provided written confirmation from Veolia and Cleanaway that they will be able to service the site.

On balance the proposed waste management strategy is acceptable and generally consistent with the Development Plan.

8.8.4 Energy Efficiency

The Council Wide Energy Efficiency policies and objects seeks developments to be compatible with long term sustainability of the environment and minimise consumption of non-renewal resources and utilities.

The applicant engaged Bestec to provide an Ecologically Sustainable Design Intent Report. The report highlights that the proposed building incorporates design initiatives to reduce energy usage through passive and active design.

The proposed development utilises energy efficient glazing and colour back glass within the facades, which should reduce air conditioning and heat loads on the building. High efficient LED light fittings have been proposed to be used throughout the building and the provision of localised lighting control in the form of task lights/lamps should encourage reduced usage. The buildings lighting control system will utilise motion detection and daylight controls within common areas, corridors and amenities.

Low VOC paint, sealants and finishes will be utilised within the proposed development. Water efficiency sanitary and tap ware fixtures will be utilised

throughout the development. The proposed development incorporates an energy efficient lift that utilises regenerative energy recover during braking which can be returned to the building's power grid.

The energy efficiency initiatives applied throughout the proposed development generally satisfies the various policies and design techniques under the Council Wide (Energy Efficiency) and are considered acceptable for the intended use.

8.8.5 Wind Analysis

The development plan provisions encourages developments over 21 metres in building height to be designed to reduce potential wind impacts on adjacent properties and the pedestrian environment. The policy provision in the Development Plan encourages the use of podiums, canopies and placement of building as design initiatives that could mitigate potential wind impacts.

The applicant engaged Windtech to provide a Pedestrian Wind Environment Statement. Windtech determined the low level conditions around the site benefits significantly from the surrounding buildings. The consultant noted that the proposed building design and landscape aids in creating a comfortable wind environment at ground. The inclusion of the proposed impermeable balustrade for the level 1 balcony also aids in mitigating wind conditions on the balcony.

The proposed development generally displays appropriate design considerations to mitigate wind impacts on adjacent properties and the pedestrian environment.

8.8.6 Stormwater

The subject site is currently impervious, which is covered by building structures and external asphalt car parking space. This space drains into the existing Council Stormwater system. It is acknowledged that the proposed development will cover the subject site in its entirety and should not result in an increased stormwater discharge.

The Services Design Report noted the stormwater downpipe shall extend from roof level to ground floor level for connection and discharge off site. Accordingly pollutant traps and flow management practises have been proposed within the ESD intent report. Council generally do not have any storm water related concerns.

The proposed development generally displays appropriate stormwater management considerations and should not result in increased stormwater discharge volumes.

8.8.7 Site Contamination

The applicant has not undertaken any preliminary site investigations, however given the previous and current uses, it is not considered that there are any notable risks of potential contaminates which may affect the proposal.

It is acknowledged that the site is to be covered by the proposed development and the land-use does not lend itself to long term accommodation and is unlikely to pose any significant problems or health risks to guests and employees.

8.9 Signage

The proposed development includes Travelodge signage above the main building entrance and on level 17 of the southern and northern façades. The proposed signage is considered to be of appropriate size, location and design such that it will not detract from the established streetscape, consistent with PDC 211 Council Wide (Advertising). No referral bodies raised concerns on the proposed signage strategy.

8.10 Interface

It is noted that the immediate locality generally does not contain sensitive/residential uses and the potential for direct overlooking to occur is likely to be low.

The provided shadow diagrams illustrate that due to the existing built form the impact of overshadowing is negligible and is unlikely to detrimentally impact the immediate locality.

9. CONCLUSION

The City of Adelaide Development Plan is generally silent on specific planning provisions pertaining to short term tourist accommodation. Given the use and nature of the proposed development Council Wide policy provisions were applied to the assessment of this application to assist in the assessment of this application.

The proposed development is considered acceptable in scale and height for the locality. The design and appearance of the proposed development generally responds to the State and Local Heritage Places within the immediate locality. State Heritage Unit and AGA generally do not object to the proposed development. The AGA in principle supports the scale, built form, architectural expression and materials.

The proposed waste management strategy is not supported by Council. It is acknowledged that the proposed Small Ridged Vehicle (SRV) used to service the development may not be considered the industry standard, however advice provided by the applicant ensures that private waste contractors do have the capacity and ability to collect waste from the proposed development and as such the development appears to be adequately serviced from a waste management perspective.

The encroachment over Bentham Street in the form of the proposed canopy/balcony does not meet Council's Encroachment Policy. As such approval from Council is required, it is noted that due to the deviation from policy is such that a decision on the encroachment cannot be made under delegation. A Reserved Matter has been placed on the balcony/canopy to ensure the intent of the proposed design is considered as part of the assessment. It is also acknowledged the canopy/balcony is supported by Council Administration and is generally consistent with the desire character of the Zone, which encourages weather protection and street activation.

When assessed against the relevant Development Plan policies the proposal generally satisfies the policy provision. The proposal is consistent with the desired character of the Central Business Policy Area and Capital City Zone. The proposal should not result in or cause unacceptable impacts on the adjacent State Heritage Places or locality. Accordingly, the proposal warrant Development Plan consent subject to conditions.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

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

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

3) RESOLVE to grant Development Plan Consent to the proposal by Mandala Property Group c/- PBA for DA 020/A033/18 at 18 Bentham Street, Adelaide subject to the following reserved matters and conditions of consent.

RESERVED MATTERS

1. Pursuant to Section 33(3) of the *Development Act 1993*, the following matters shall be reserved for further assessment, to the satisfaction of the State Commission Assessment Panel, prior to the granting of Development Approval:

   1.1 Resolution and approval of the proposed encroachment in the form of the canopy/balcony over Bentham Street is required from the City of Adelaide.

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/A033/18.

Plans by Prunzinski PACT architects

Drawing Title	Drawing No.	Revision	Date
Floor Plans	17028-01-04	01	16.03.2018
Floor Plans	17028-01-05	02	16.03.2018
Floor Plans	17028-01-06	02	16.03.2018
Elevations	17028-01-07	01	16.03.2018
Sections	17028-01-08	02	29.05.2018
Perspectives	17028-01-09	01	16.03.2018
Perspectives	17028-01-10	01	16.03.2018
Materials and Finishes	17028-01-11	01	16.03.2018
Signage	17028-01-13	01	16.03.2018
Encroachments and Gate details	17028-01-14	02	16.03.2018

2. A visual, audible alarm shall be installed in the loading dock to warn pedestrians of approaching traffic; and appropriate signage or safety devices shall be installed to alert motorists of the potential presence of pedestrians and cyclists when exiting the site, to the satisfaction of the SCAP.

3. All external lighting on the site shall be designed and constructed to conform to Australian Standard (AS 4282-1997).

4. Lighting under the balcony on Bentham Street shall be installed in accordance with Council's guideline entitled "Under Verandah/Awning Lighting Guidelines" at all times to the reasonable satisfaction of the SCAP and prior to the occupation or use of the Development. Such lighting shall be operational during the hours of darkness at all times.

5. 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.

6. The acoustic attenuation measures recommended in the Acoustic Design Report, dated 15 February 2018 by Bestec, shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the SCAP. Such acoustic measures shall be made operational prior to the occupation or use of the development.

7. Prior to Development Approval being granted there shall be a review to increase the width of the three south facing windows (corridor, room 10 and 12) on each level to achieve consistent expression to the reasonable satisfaction of the SCAP.

State Heritage Conditions

8. A dilapidation survey recording the condition of Woodards House shall be prepared by a suitably qualified structural engineer prior to the commencement of site works, to the satisfaction of the approving authority. As well as recording fabric in good condition, the survey shall also record the location, type and dimensional extent of any existing physical damage to the place that might be affected by the proposed excavation and construction works. The scope of the survey may be limited to that section of the historic building considered by the engineer to be potentially at risk.

9. During ground works, the short term vibration levels at the heritage-listed structure shall be monitored, and shall not exceed the velocity limits for structural vibration in buildings established for Group 3 structures in the German Standard DIN 4150 Part 3.

ADVISORY NOTES

a. This Development Plan Consent will expire after 12 months from the date of this Notification, unless final Development Approval from Council has been received within that period or this Consent has been extended by the State Commission Assessment Panel.

b. The applicant is also advised that any act or work authorised or required by this Notification must be substantially commenced within 1 year of the final Development Approval issued by Council and substantially completed within 3 years of the date of final Development Approval issued by Council, unless that Development Approval is extended by the Council.

c. The applicant 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).

d. Approval for the proposed building height and construction methodology is required by the Commonwealth Secretary for the Department of Transport and Regional Services in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996.

e. Any further proposed addition to the structure, including aerials, masts and vent/exhaust stacks, must be subject to a separate assessment by the Commonwealth Department of Infrastructure and Transport. Crane operations associated with construction shall be the subject of a separate application. Adelaide Airport Limited requires 48 days prior notice of any crane operations during the construction.

f. A Construction Environment Management Plan (CEMP) shall be prepared in collaboration with the City Adelaide and be implemented in accordance with current industry standards – including the Local Nuisance and Litter Control Act 2016, 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.

- The management plan should incorporate, without being limited to the following matters:
- timing, staging and methodology of the construction process and working hours;
- Traffic management strategies;
- control and management of construction noise, vibration, dust and mud;
- management of infrastructure services during construction and re-establishment of local amenity and landscaping;
- stormwater and groundwater management during construction;
- site security, fencing and safety and management of impacts on local amenity for residents, traffic and pedestrians;
- disposal of construction waste, any hazardous waste and refuse in an appropriate manner according to the nature of the waste;
- protection and cleaning of roads and pathways; and
- overall site clean-up

g. The level of any proposed grated pits or stormwater opening within the building must be designed with an adequate freeboard to the 1% AEP floor level in Bentham Street, adjacent to each property connection.

h. 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.

i. 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

j. 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.

k. 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.

l. 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.

m. 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.

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

State Heritage advisory notes

o. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department for Environment and Water, or an additional referral to the Minister for Environment and Water. Such changes would include for example

(a) an application to vary the planning consent, or

(b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.

p. 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.

q. Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works. For further information, contact the Department for Environment and Water.

r. 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.

s. The State Heritage Unit encourages the applicant to consider further design development of the western and norther façade in the interest of improving the visual relationships with nearby historic buildings. Any design development should focus on the following aspects:

- Greater continuity and consistency in the vertical lines of the masonry piers above and below the first floor balcony
- A podium cap at Level 6
- A transition from podium to full-height masonry on the northern elevation

Karl Woehle
Planning Officer
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

CONTENTS

18 BENTHAM STREET HOTEL

PACT

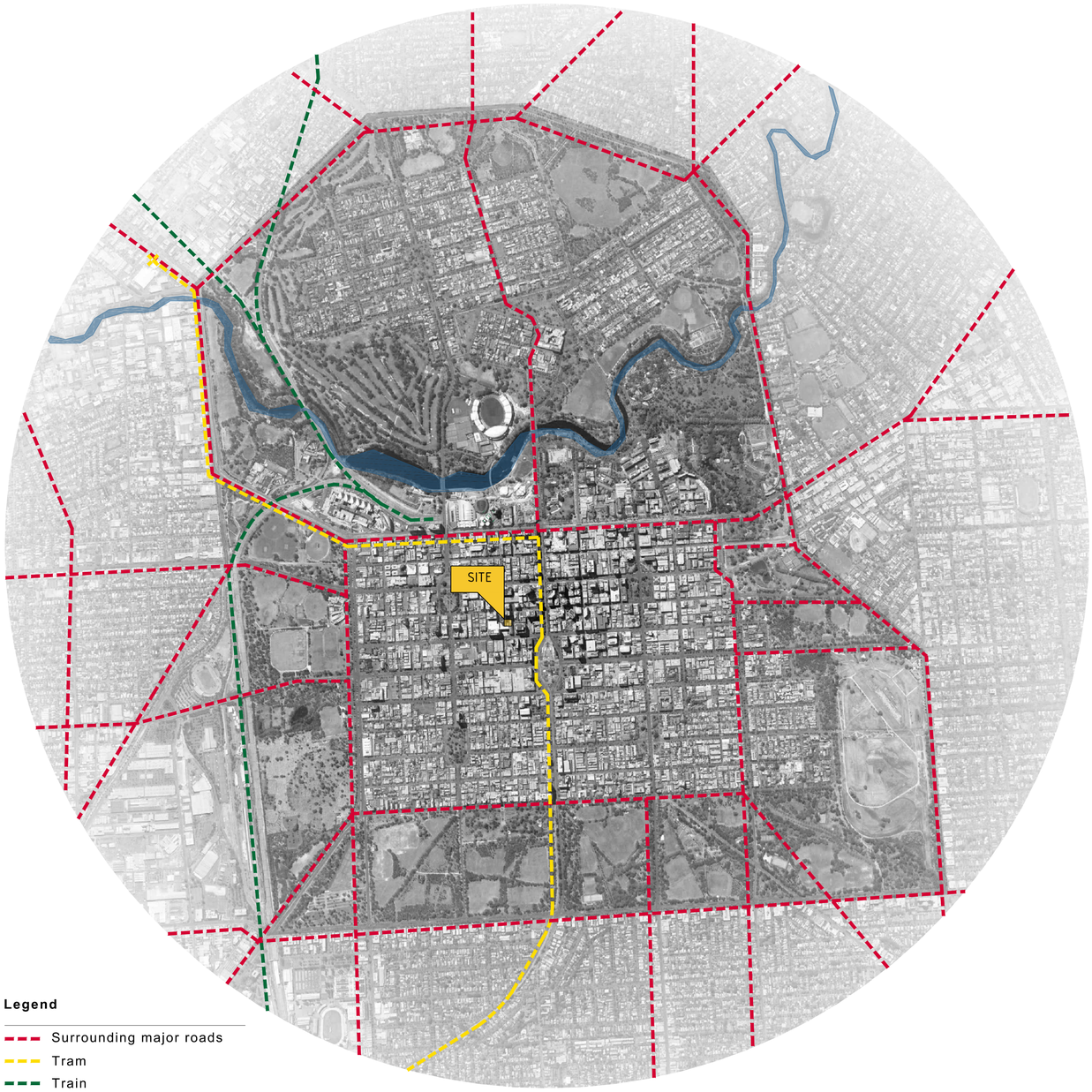
pruszinski PACT architects

The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-00 Issue: 01
Cover Page



PACT

pruszinski PACT architects

The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-01 Issue: 01
Location Plan

LOCALITY PLAN
Scale 1:500 @ A1
1:1000 @ A3

ADELAIDE (CITY)
ZONES
MAP Adel/24

Consolidated - 20 June 2017

ADELAIDE (CITY)
POLICY AREAS
MAP Adel/55

POLICY AREAS & ZONES
Scale NTS

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pruszinski PACT architects

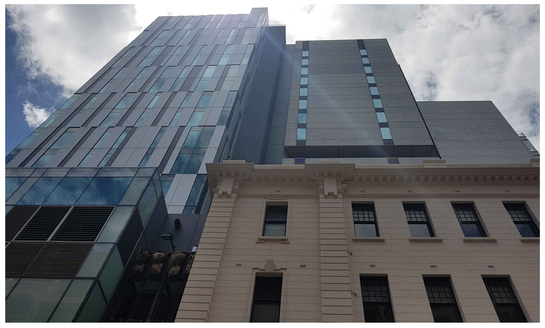
The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

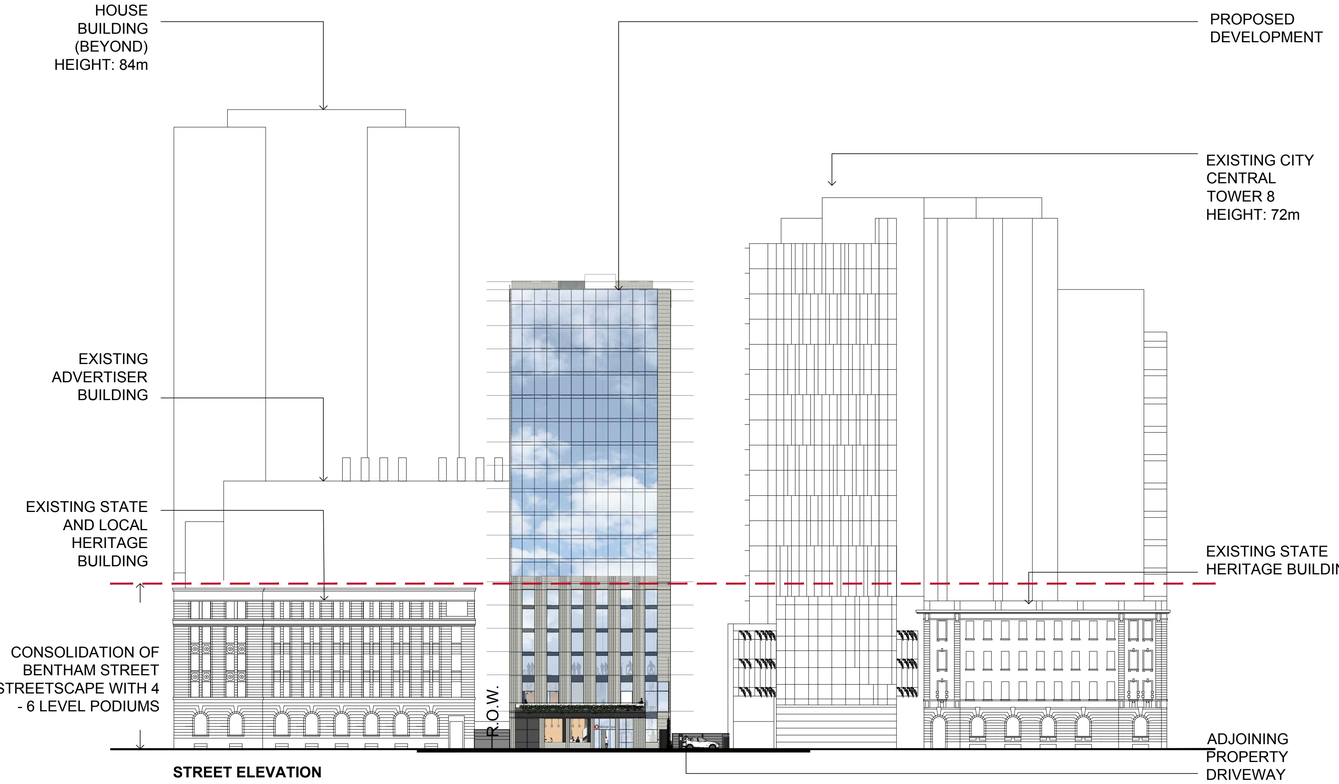
drawing
Date: 16.03.2018
Drawing #: 17028 - 01-02 Issue: 01
Site Plan

EXISTING CONTEXT AND CHARACTER: CITY BLOCK BOUNDED BY KING WILLIAM ST, FRANKLIN ST, BENTHAM ST AND WAYMOUTH ST CONTAINS SCATTERED HERITAGE BUILDINGS FLANKED BY CONTEMPORARY TOWERS.

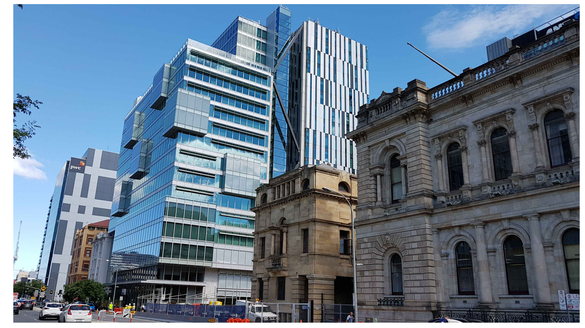


01 BENTHAM STREET LOOKING EAST

02 WAYMOUTH STREET LOOKING SOUTH

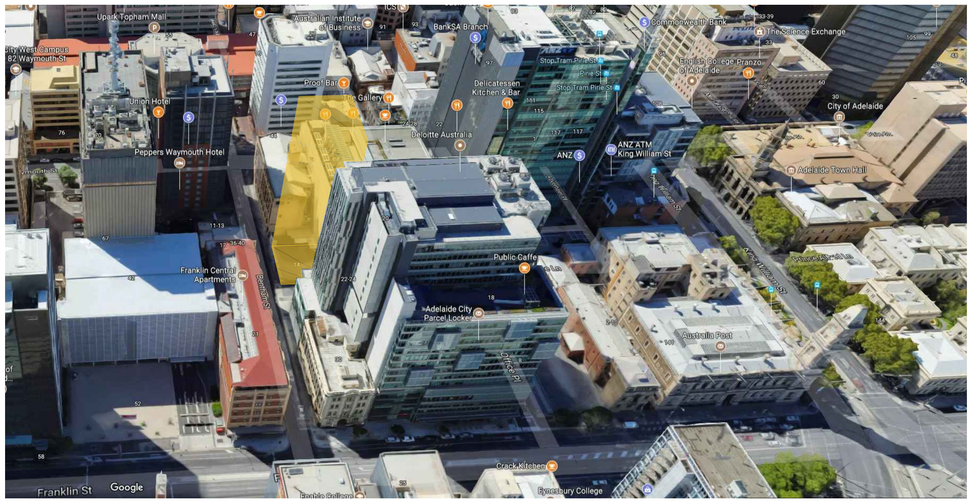


STREET ELEVATION
SCALE 1:400 @ A1
1:800 @ A3

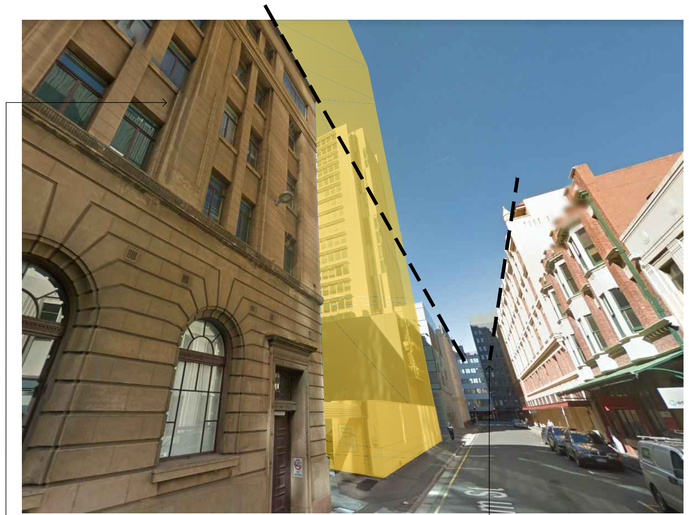


03 FRANKLIN STREET LOOKING WEST

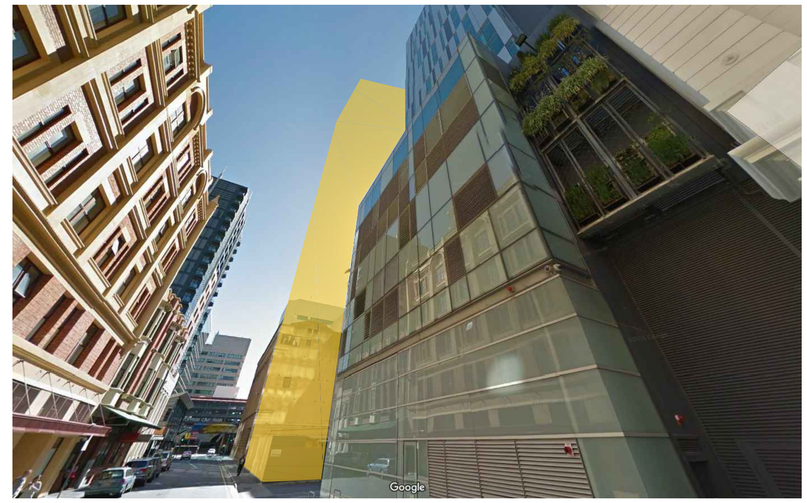
04 FRANKLIN STREET LOOKING NORTH



05 AERIAL VIEW LOOKING NORTH



06 BENTHAM STREET LOOKING SOUTH



07 BENTHAM STREET LOOKING NORTH

STRONG 5 LEVEL BUILT FORM ESTABLISHED DOWN BENTHAM STREET WITH HERITAGE BUILDINGS.

HERITAGE BUILDINGS HAVE HIGH SOLID TO VOID RATIO, STRONG VERTICAL COLUMNS WITH CONNECTING HORIZONTAL ELEMENTS

PACT

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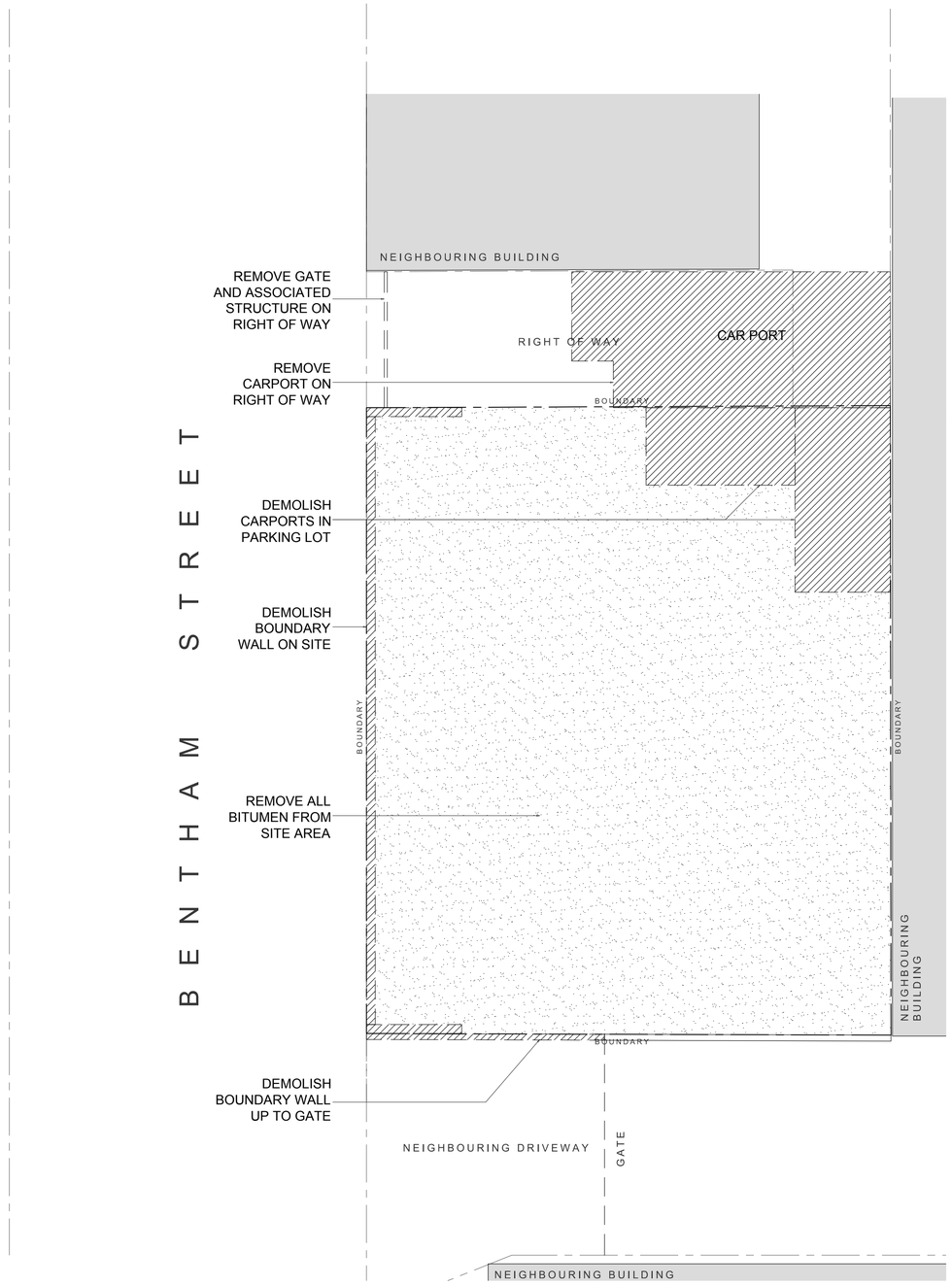
The Mandala PROPERTY GROUP

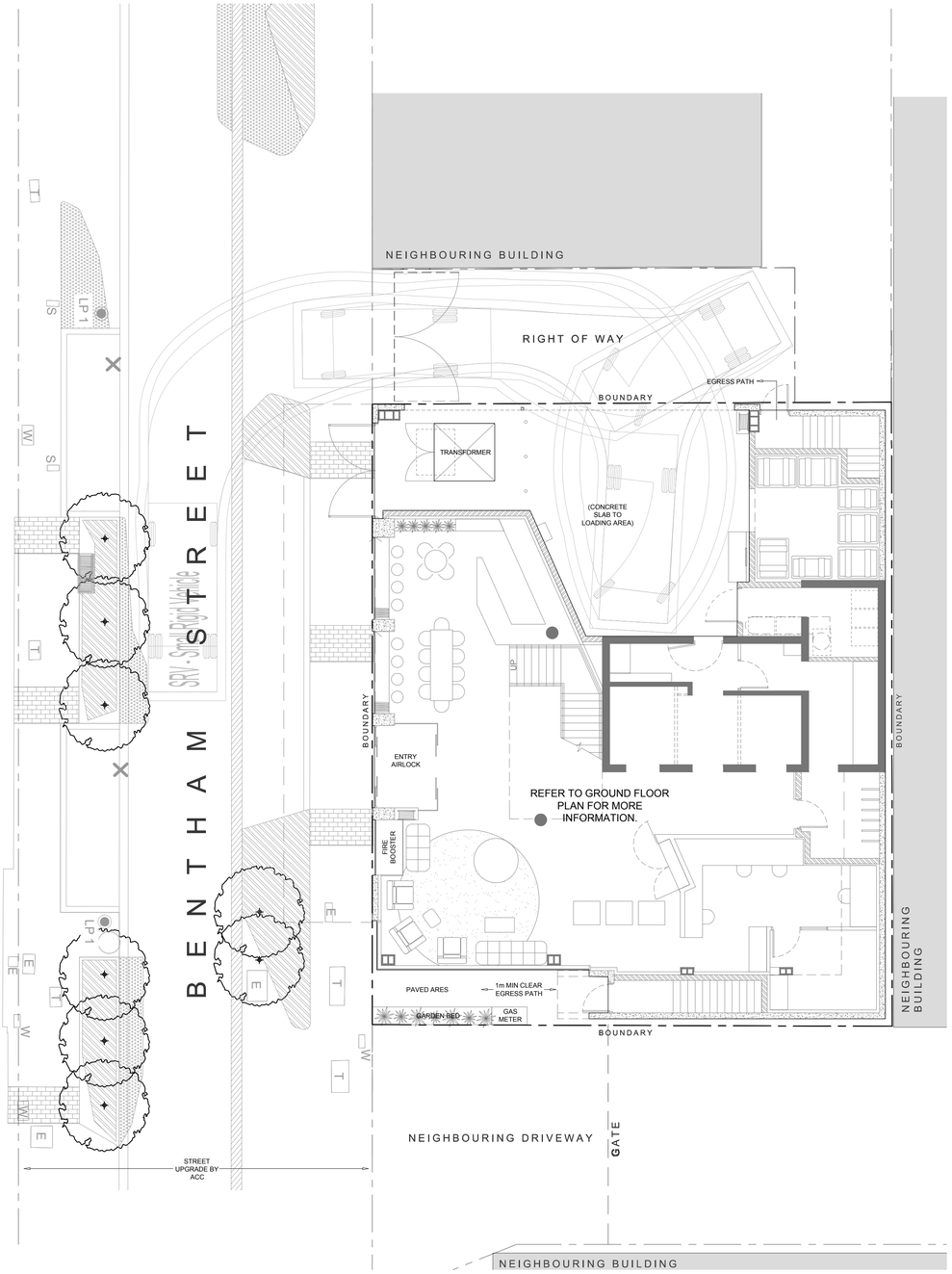
project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-03 Issue: 01
Streetscapes



DEMOLITION PLAN
Scale 1:100 @ A1
1:200 @ A3



SITE PLAN
Scale 1:100 @ A1
1:200 @ A3

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Adelaide

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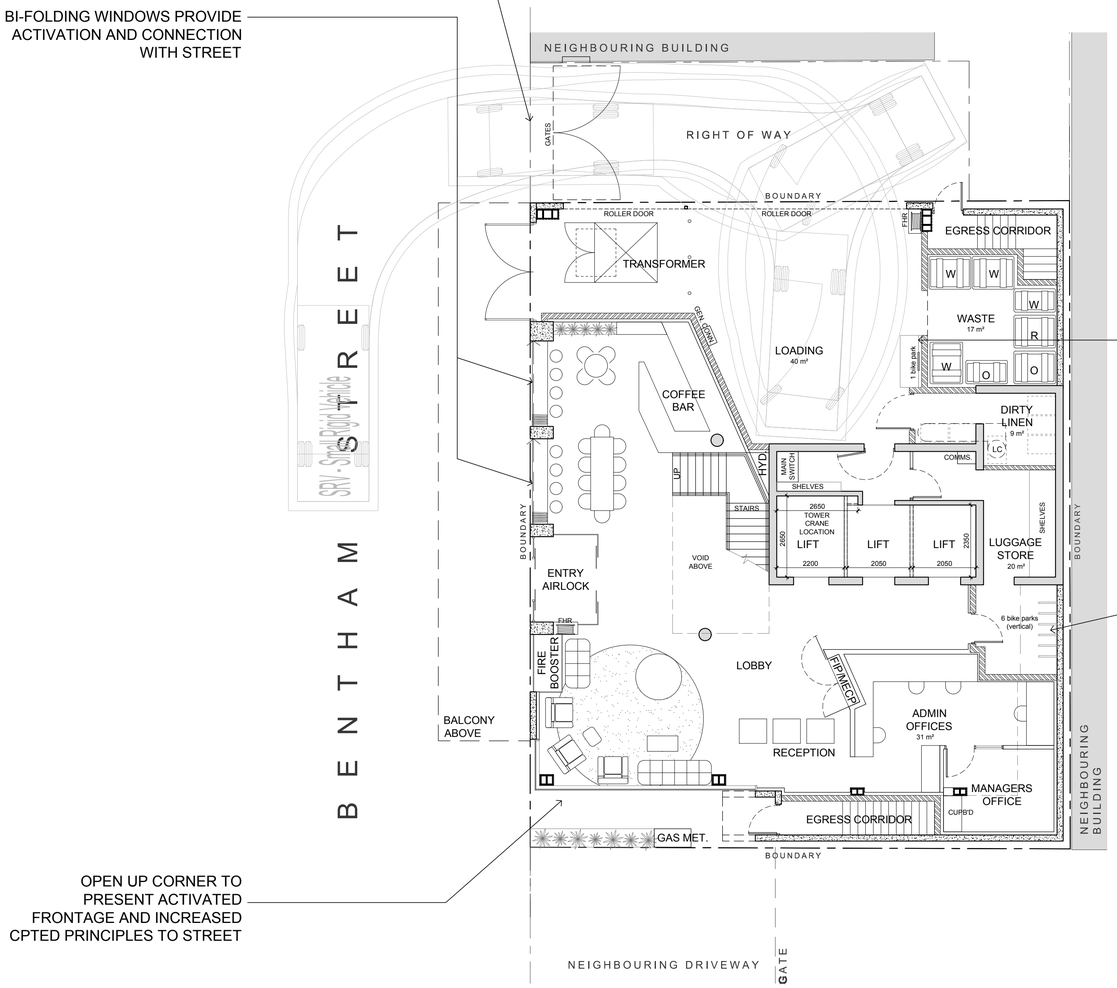
drawing
Date: 16.03.2018
Drawing #: 17028 - 01-04 Issue: 01
Floor Plans

ALL LOADING AND SERVICES ACCESSED BY NORTHERN RIGHT OF WAY.

BI-FOLDING WINDOWS PROVIDE ACTIVATION AND CONNECTION WITH STREET



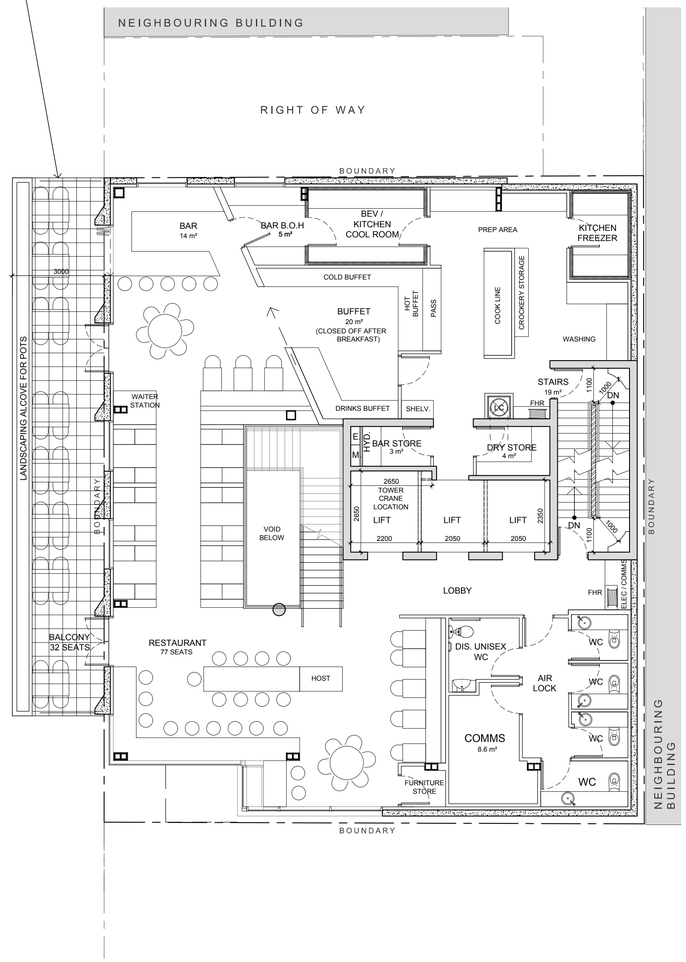
OPEN UP CORNER TO PRESENT ACTIVATED FRONTAGE AND INCREASED CPTED PRINCIPLES TO STREET

STAFF BIKE PARK, ACCESS THROUGH LOADING BAY

STAFF AND GUEST BIKE PARKING. STAFF ACCESS THROUGH LOADING BAY, VISITOR ACCESS THROUGH LOBBY

GROUND
Scale 1:100 @ A1
1:200 @ A3

BALCONY PROVIDES OUTDOOR DINING ACTIVATION TO THE STREET. IT ALSO PROVIDES WIND AND RAIN PROTECTION TO PEDESTRIANS AND ENTRY.



LEVEL 1
Scale 1:100 @ A1
1:200 @ A3

GENERAL SUMMARY
Levels: GROUND + 17
Hotel Rooms: 183
Site Area: 370m²
Gross Floor Area: 6578m²

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The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

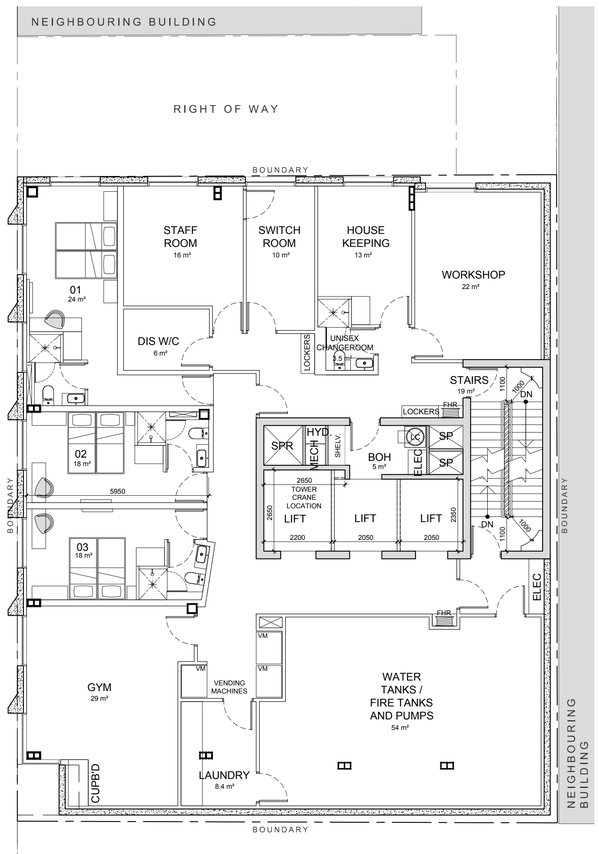
status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-05 Issue: 02
Floor Plans

LEVEL 03 - 06 HAVE VERTICAL PRECAST COLUMNS ON FACADE - REFER TO ELEVATIONS

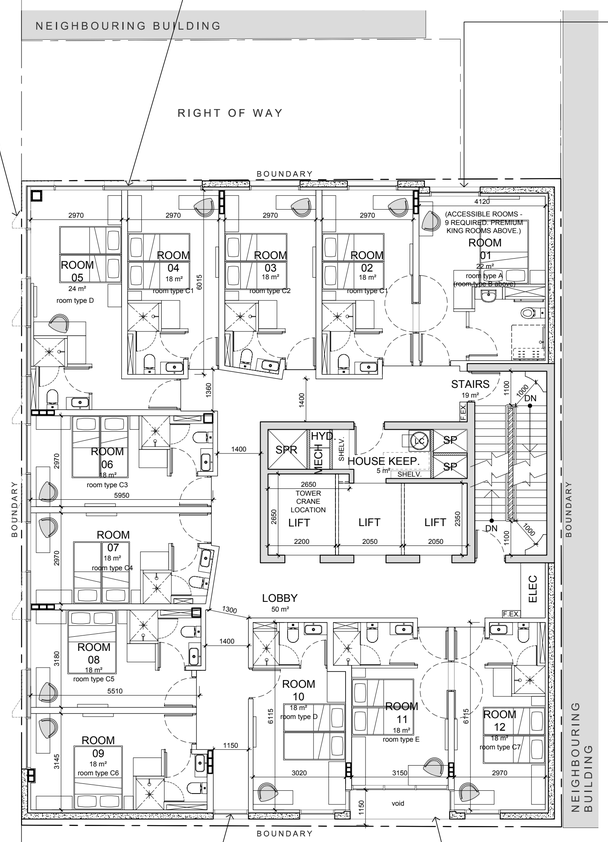
COLOURBACK GLASS WITH HIGH PERFORMANCE INSULATION TO APPROXIMATELY 50% OF NORTHERN AND WESTERN FACADES, TO MEET REQUIREMENTS OF PART J OF THE BUILDING CODE

ALL HOTEL ROOMS HAVE FIXED WINDOWS



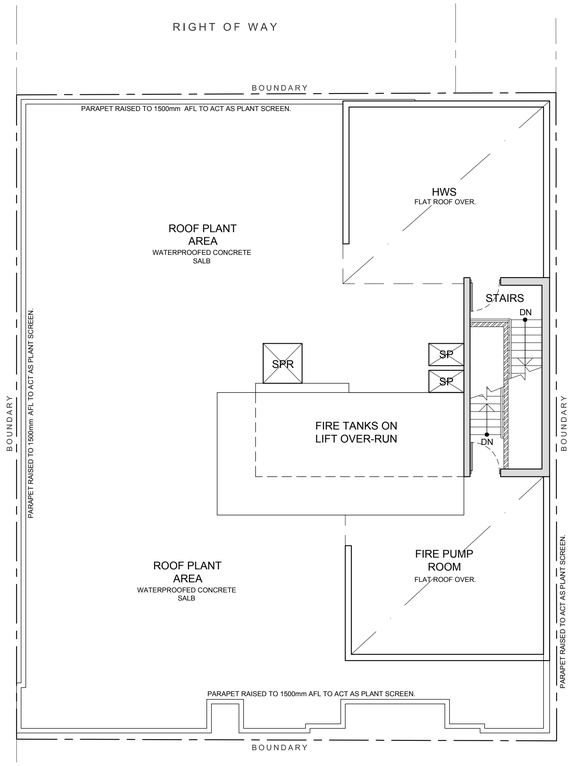
LEVEL 2
Scale 1:100 @ A1
1:200 @ A3

WINDOW TO PROVIDE NATURAL LIGHT AND VIEWS TO CORRIDORS



VOID TO ENSURE LIGHT TO ROOMS 10, 11 AND 12

LEVEL 3 to 17
Scale 1:100 @ A1
1:200 @ A3



ROOF
Scale 1:100 @ A1
1:200 @ A3

PACT

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The Mandala PROPERTY GROUP

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18 Bentham Street,
Adelaide

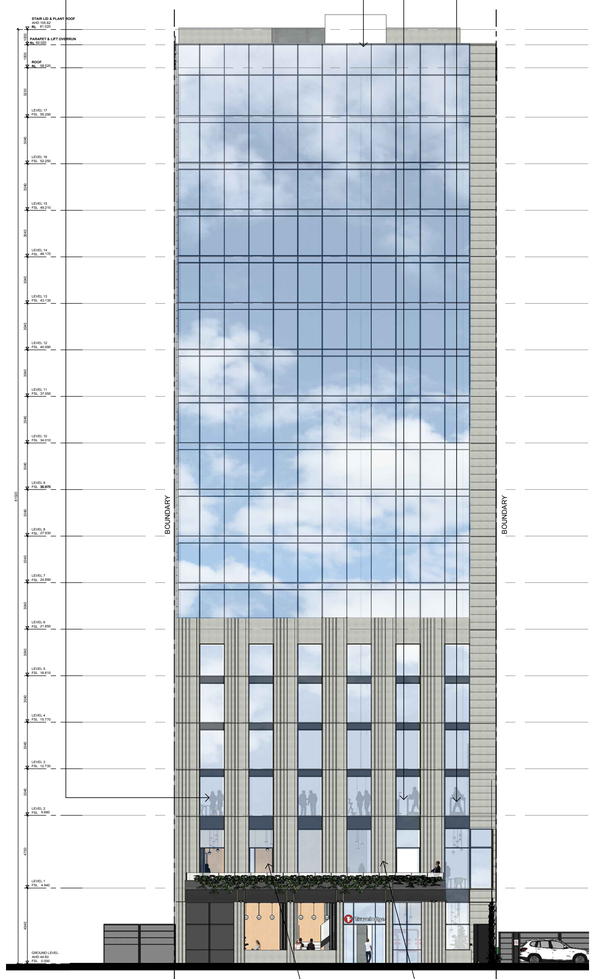
status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-06 Issue: 02
Floor Plans

OPERABLE WINDOWS TO GYM AND STAFF ROOM FOR NATURAL VENTILATION

ACTIVE AREAS OF LEVEL 02 POSITIONED ALONG BENTHAM STREET FACADE

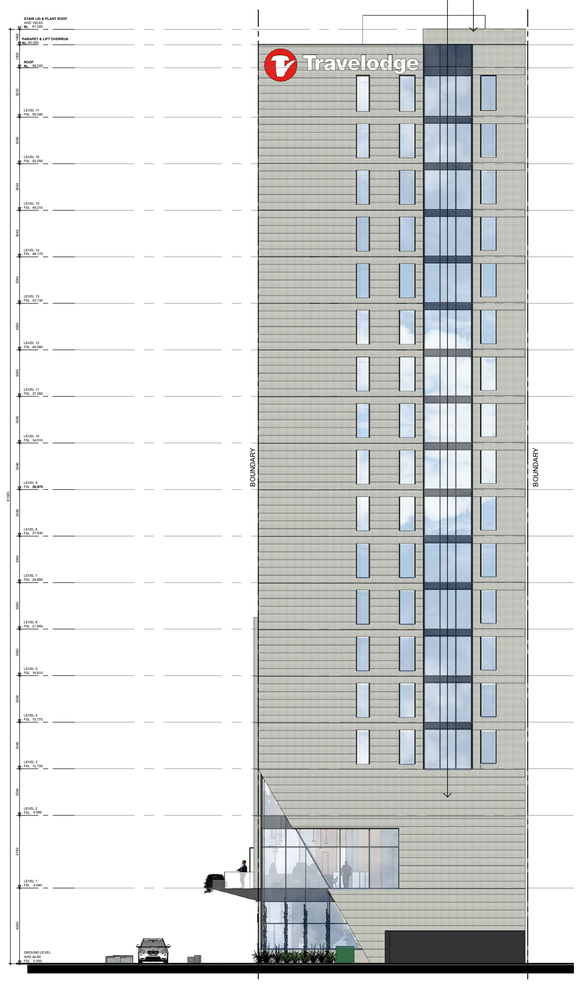
HEIGHT OF PARAPET RAISED TO ACT AS PLANT SCREEN



WEST ELEVATION
Scale 1:200 @ A1
1:400 @ A3

ROOFED PLANT AREA WITH FULL HEIGHT PERIMETER WALLS ON FACADE TO ACT AS SCREEN

PLANT ROOM SITUATED ON LEVEL 2, BEHIND SOLID ELEMENT OF SOUTHERN FACADE



SOUTH ELEVATION
Scale 1:200 @ A1
1:400 @ A3

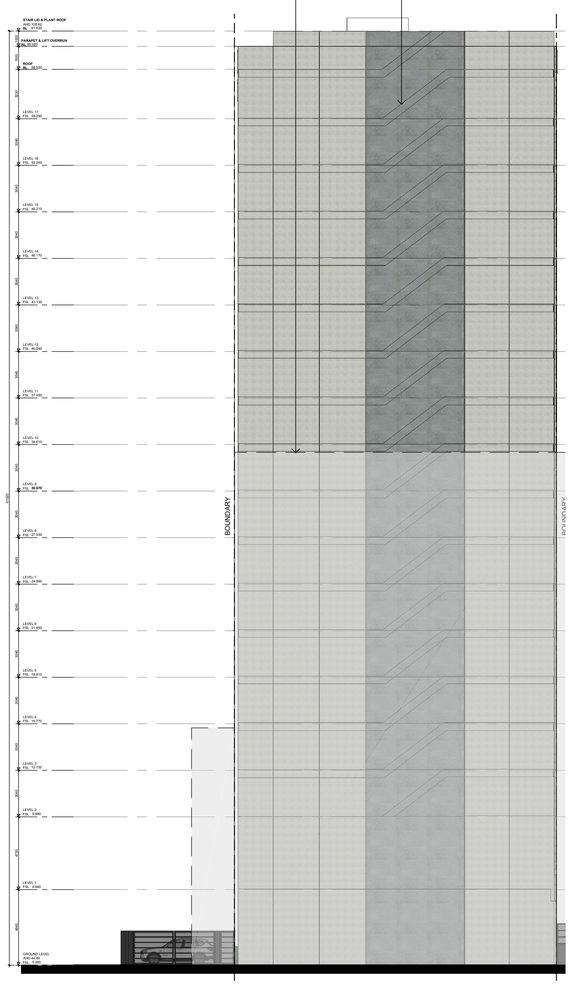
DETAILED BRIGHTONLITE PRECAST COLUMNS TO PODIUM FLOORS. FORM LINER REQUIRED FOR CASTNG

OPERABLE DOORS AND WINDOWS TO GROUND AND LEVEL 01

COLOURBACK GLASS WITH HIGH PERFORMANCE INSULATION TO APPROXIMATELY 50% OF NORTHERN AND WESTERN FACADES, TO MEET REQUIREMENTS OF PART J OF THE BUILDING CODE

EXISTING BUILDING HEIGHT ON ADJOINING PROPERTY

ANGLED GROOVES IN FACADE PANELS TO TIE IN WITH SOUTHERN CHAMFER AND EXPRESS THE FIRE STAIR USE BEHIND (CAST IN JUMPFORM)



EAST ELEVATION
Scale 1:200 @ A1
1:400 @ A3

ALL WINDOWS ABOVE LEVEL 2 ARE FIXED GLASS

NORTH ELEVATION
Scale 1:200 @ A1
1:400 @ A3

VENTILATED ROLLER SHUTTERS TO LOADING DOCK AND TRANSFORMER. POWDERCOAT FINISH. COLOUR: CHARCOAL.

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pruszinski PACT architects

The Mandala PROPERTY GROUP

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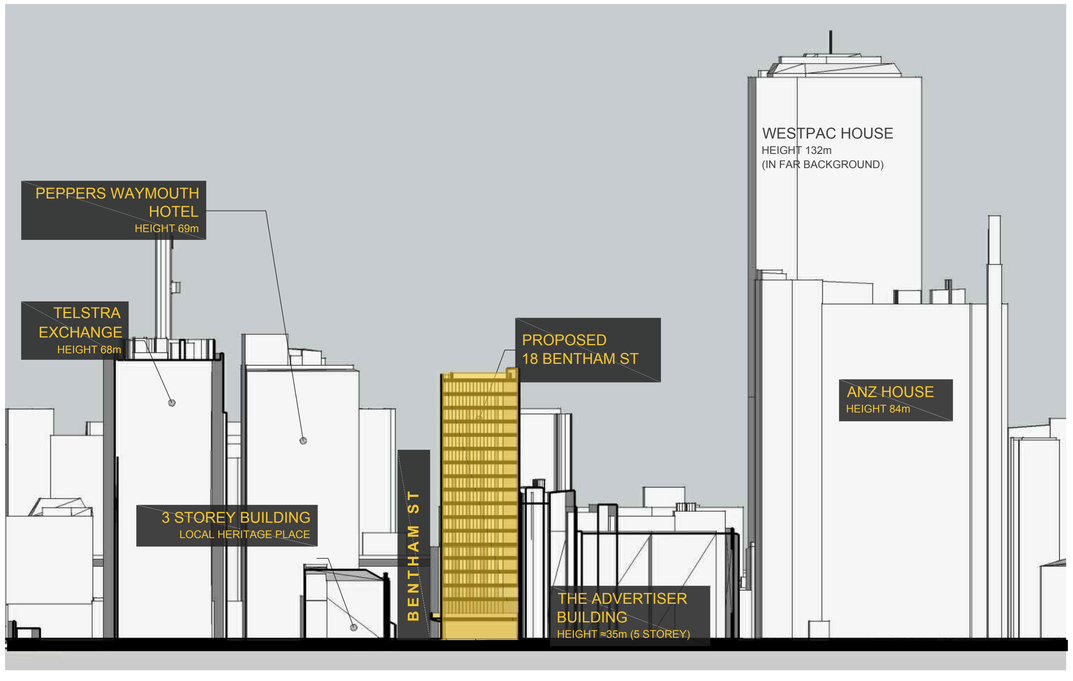
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

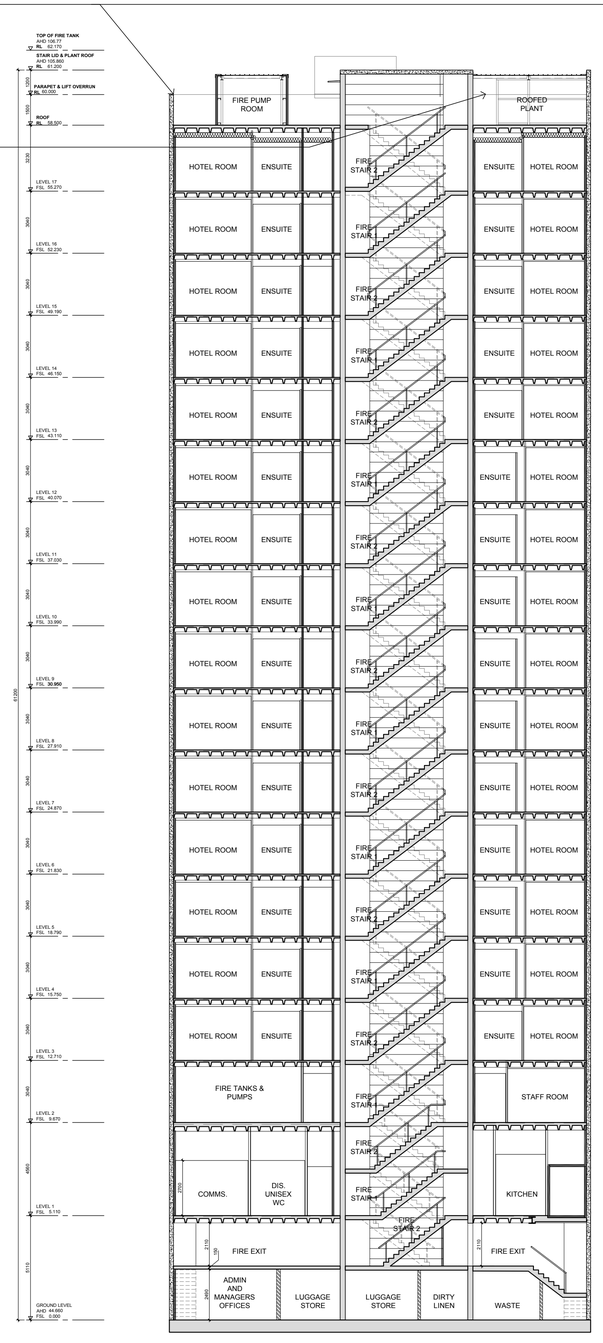
drawing
Date: 16.03.2018
Drawing #: 17028 - 01-07 Issue: 01
Elevations



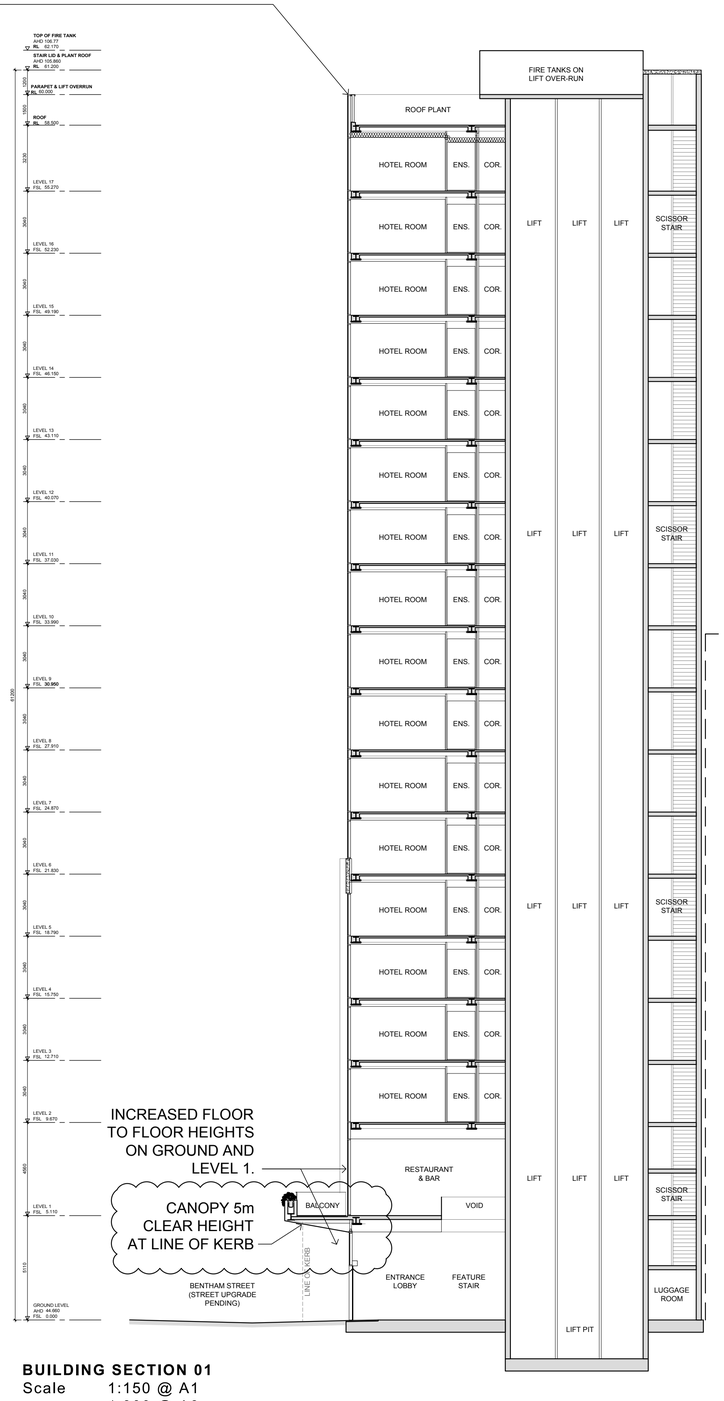
SITE SECTION
Scale: NTS

PARAPET WALL HEIGHT RAISED TO 1500mm TO ACT AS PLANT SCREEN

ROOFED PLANT AREA WITH FULL HEIGHT PERIMETER WALLS ON FACADE TO ACT AS SCREEN



BUILDING SECTION 02
Scale 1:150 @ A1
1:300 @ A3



BUILDING SECTION 01
Scale 1:150 @ A1
1:300 @ A3

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The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 29.05.2018
Drawing #: 17028 - 01-08 Issue: 02
Sections

CONSOLIDATION OF BENTHAM STREET STREETSCAPE WITH 6 LEVEL PODIUM

PODIUM DESIGNED TO REFERENCE ADJOINING HERITAGE WITH STRONG VERTICAL COLUMNS, CONNECTING HORIZONTAL ELEMENTS, TEXTURAL DETAILING, AND DEEP REVEALS

BENTHAM STREET PERSPECTIVE
(LOOKING NORTH)

BALCONY PROVIDES OUTDOOR DINING ACTIVATION TO THE STREET, AND WIND AND RAIN PROTECTION TO PEDESTRIANS AND ENTRY. THE WESTERN BALCONY UPSTAND HAS REDUCED IN HEIGHT TO LESSEN THE VISUAL IMPACT OF THE BALCONY WITHIN THE PODIUM. LANDSCAPING ADDED TO BUILDING, FOLLOWING DISCUSSIONS WITH ACC, TO INTEGRATE WITH THE PUBLIC REALM OBJECTIVES

OPEN UP CORNER TO PRESENT ACTIVATED FRONTAGE AND INCREASED CPTED PRINCIPLES TO STREET

GAS METER REDUCED IN SIZE AND RELOCATED FROM FACADE, AND POSITIONED IN A PERFORATED METAL BOX WITHIN LANDSCAPING ZONE TO OPTIMISE ACTIVATION

OPENINGS IN LOWER FLOORS ENCOURAGE INTERACTION WITH LANEWAY SETTING

COLOUR BACK GLASS SPANDREL PANELS USED TO CONNECT PODIUM FORM AND SOUTHERN WALL

HORIZONTAL ELEMENT THICKENED AND CONNECTED INTO SOUTHERN WALL TO STRENGTHEN PODIUM FORM

BENTHAM STREET PERSPECTIVE

BRIGHTONLITE PRECAST PLINTH INTRODUCED AND CONTINUED AROUND SOUTHERN FACADE TO STRENGTHEN PODIUM FORM, GROUND THE BUILDING, AND TO CONNECT INTO SOUTHERN WALL

FIRE BOOSTER REDUCED IN SIZE TO ALLOW FOR A STRONGER PODIUM FORM. GLASS ENCLOSURE TO FIRE BOOSTER TO PROVIDE VISUAL CONNECTION TO INTERIOR

GROUND FLOOR COLUMNS WIDENED TO SOLIDIFY PODIUM

PA
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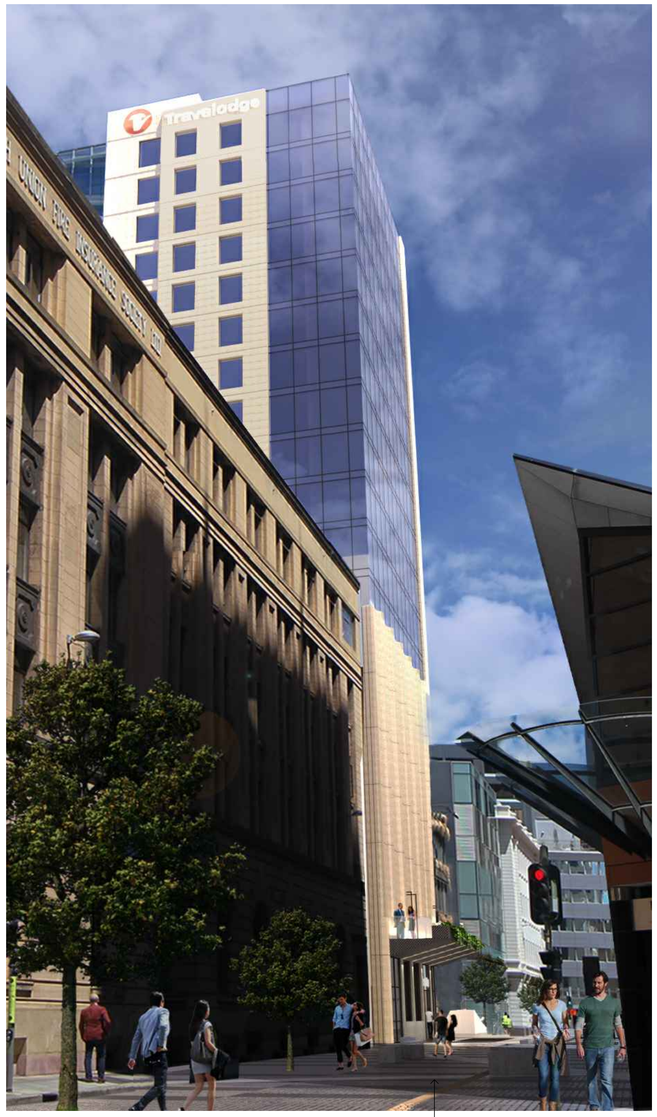
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-09 Issue: 01
Perspectives

BENTHAM STREET PERSPECTIVE

VENTILATED ROLLER SHUTTERS TO LOADING DOCK AND TRANSFORMER. POWDERCOAT FINISH. COLOUR: CHARCOAL.



BENTHAM STREET PERSPECTIVE
(LOOKING SOUTH)

COUNCIL'S PROPOSED UPGRADE TO BENTHAM STREET.

BENTHAM STREET PERSPECTIVE
(LOOKING NORTH)

SOLID PLINTH CREATED UP TO LEVEL 6 TO REFERENCE HEIGHT AND CHARACTER OF HERITAGE BUILDINGS IN BENTHAM STREET.

GLAZED GROUND FLOOR TO PROVIDE ACTIVATED STREET FRONTAGE AND STRENGTHENED CPTED PRINCIPLES.

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project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

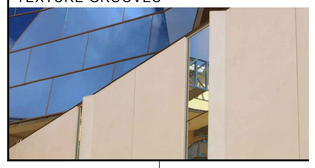
drawing
Date: 16.03.2018
Drawing #: 17028 - 01-10 Issue: 01
Perspectives

BRIGHTONLITE PRECAST CONCRETE PANELS

TEXTURED BRIGHTONLITE PRECAST TO SOLID SOUTHERN ELEMENT

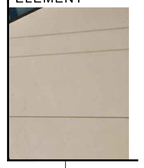
NEUTRAL GLASS TO NORTHERN AND WESTERN WINDOWS

BRIGHTONLITE PRECAST CONCRETE PANELS WITH ANGLED EDGES AND TEXTURE GROOVES



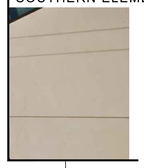
NEUTRAL GLASS TO PODIUM AND UPPER FLOORS

TEXTURED BRIGHTONLITE PRECAST TO SOLID SOUTHERN ELEMENT

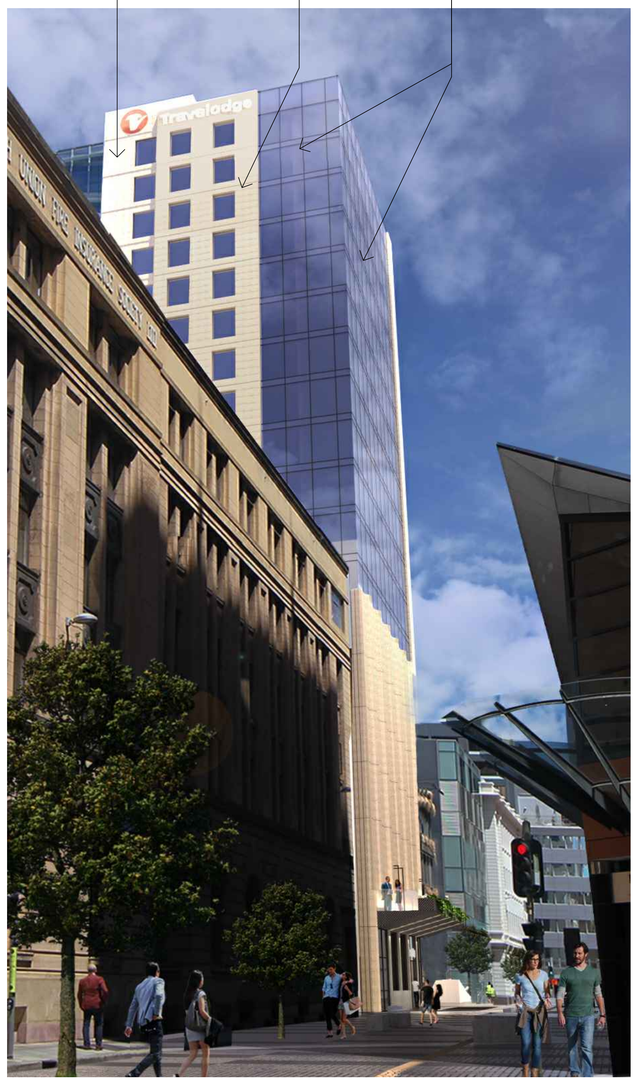


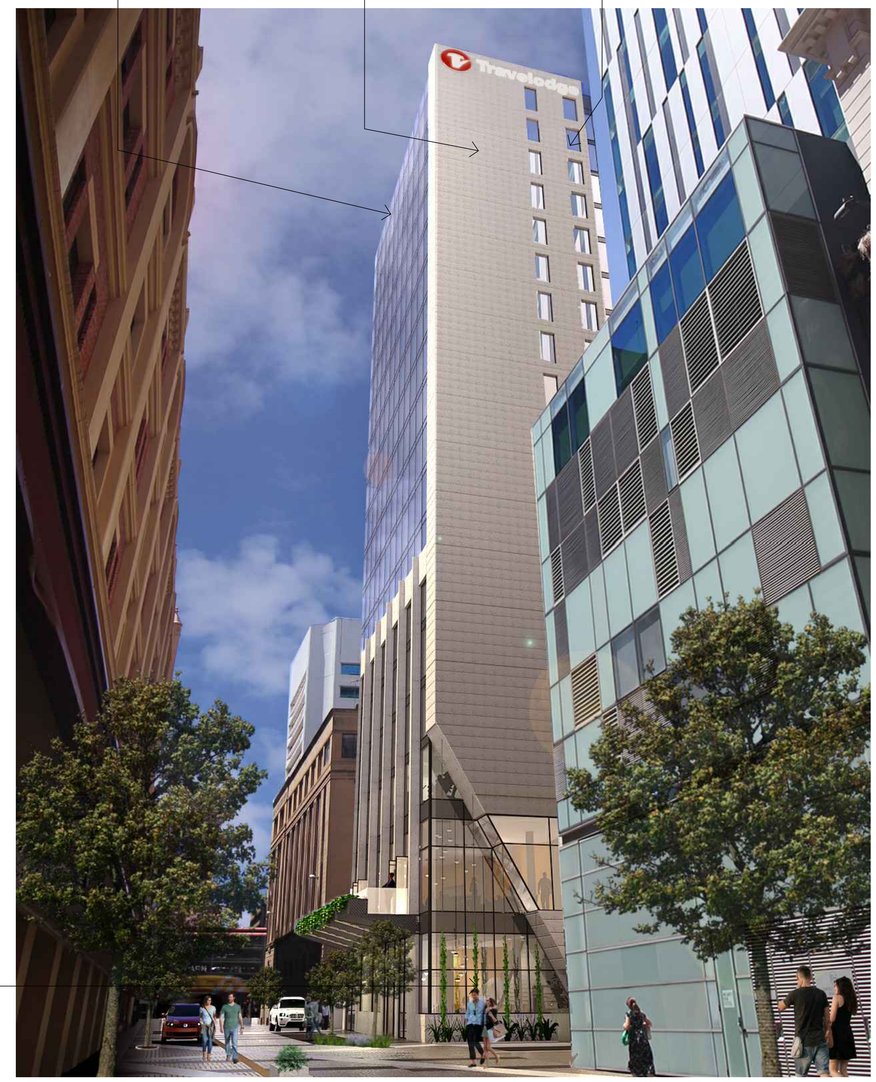
POWDERCOATED ALUMINIUM WINDOW FRAMES. COLOUR CHARCOAL.

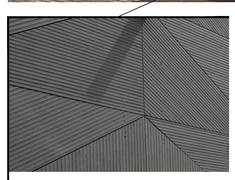
TEXTURED BRIGHTONLITE PRECAST TO SOLID SOUTHERN ELEMENT



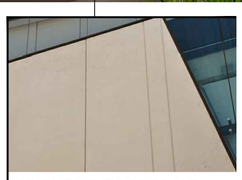
NEUTRAL GLASS TO SOUTHERN WINDOWS







EQUITONE LINES (OR EQUIVALENT) CLADDING WITH COLOUR MATCHED FIXINGS (THROUGH COLOURED, COMMERCIAL GRADE FIBRE CEMENT PRODUCT)



BRIGHTONLITE PRECAST CONCRETE PANELS

NEUTRAL GLASS TO GROUND FLOOR, AND SOUTH WESTERN WINDOWS

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The Mandala PROPERTY GROUP

project

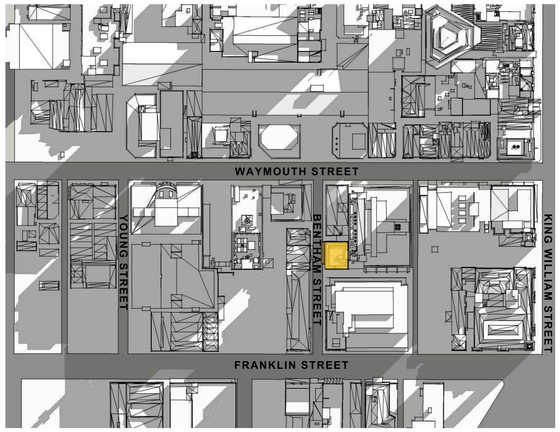
Bentham Street Hotel
18 Bentham Street,
Adelaide

status

For Planning

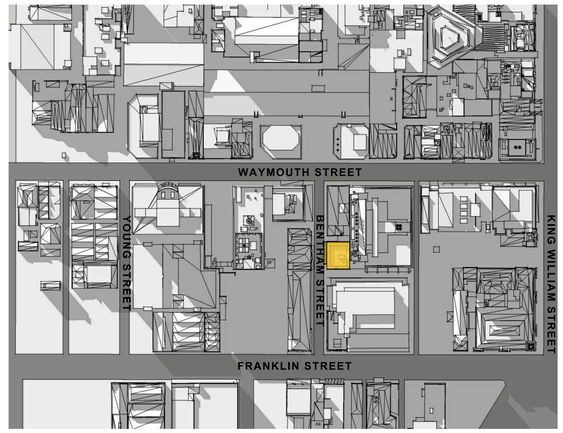
drawing

Date: 16.03.2018
Drawing #: 17028 - 01-11 Issue: 01
Materials and Finishes



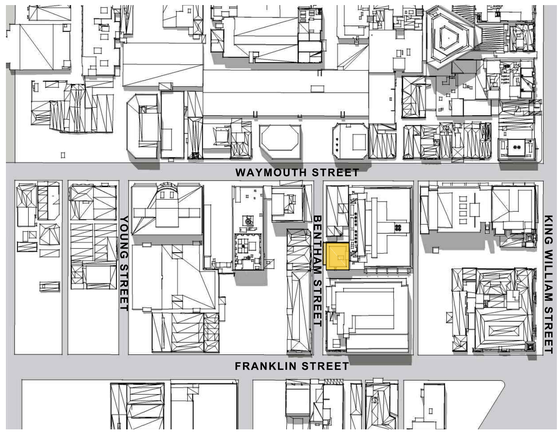
21 JUNE 9am

21 JUNE 12pm



21 JUNE 3pm

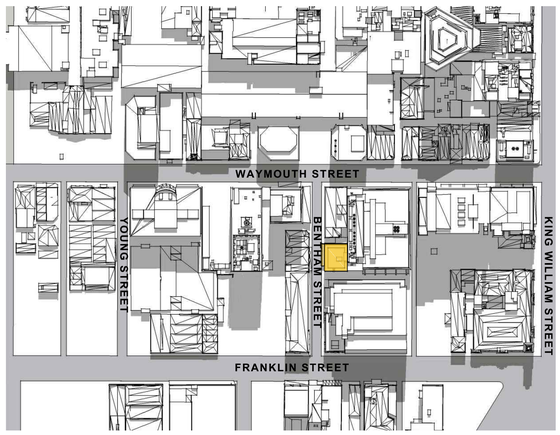
21 DEC 9am



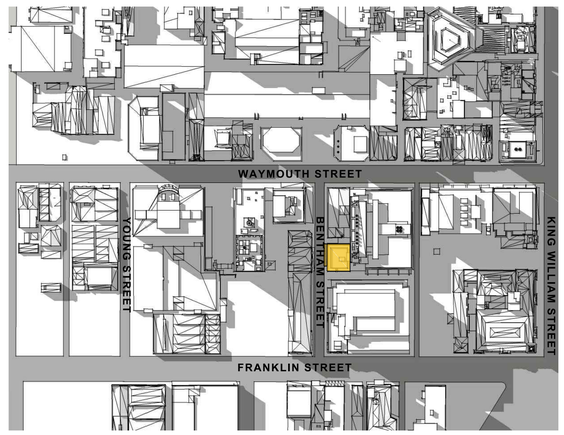
21 DEC 12pm

21 DEC 3pm

21 MARCH 9am



21 MARCH 12pm



21 MARCH 3pm

PACT

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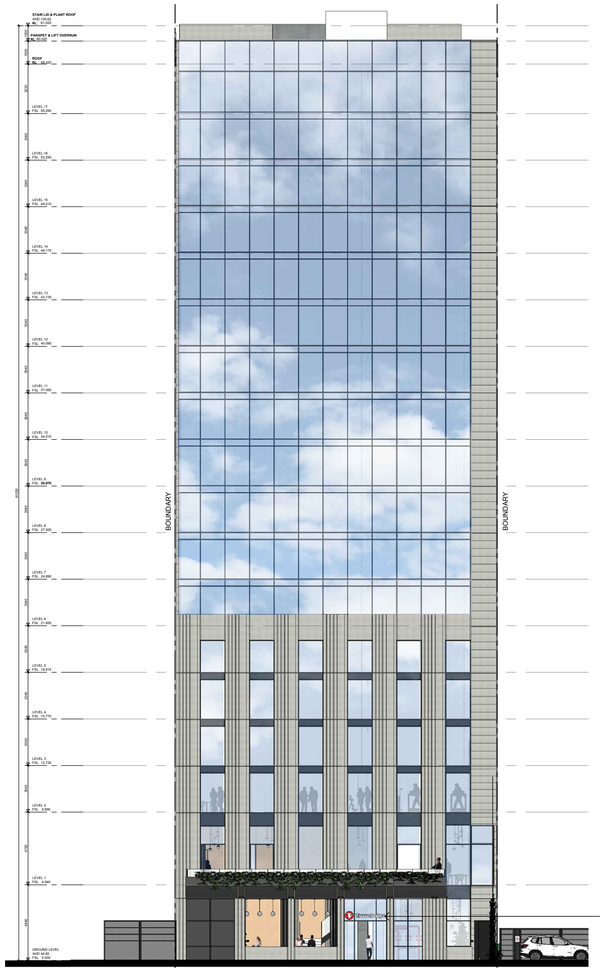
The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

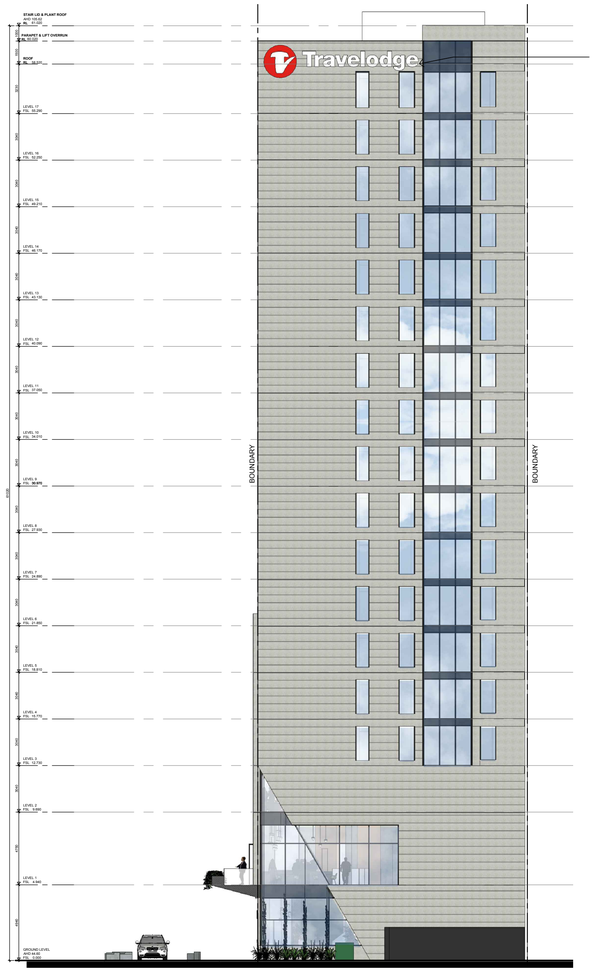
status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-12 Issue: 01
Sun Shading

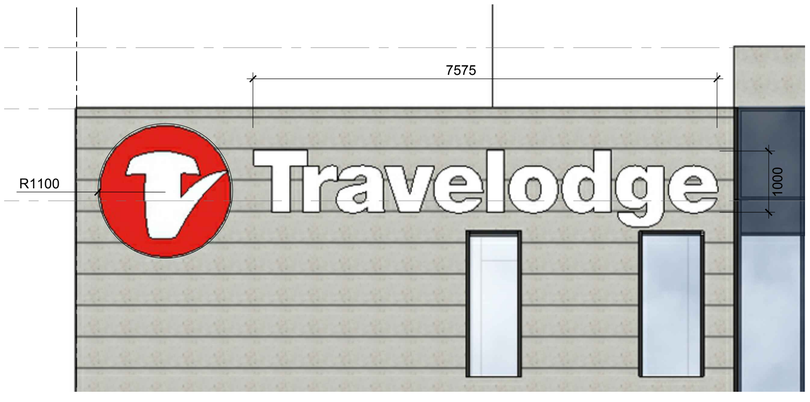


HOTEL SIGNAGE ON GROUND FLOOR ENTRANCE OF WESTERN FACADE

SIGNAGE - WEST ELEVATION
Scale 1:50 @ A1
1:100 @ A3

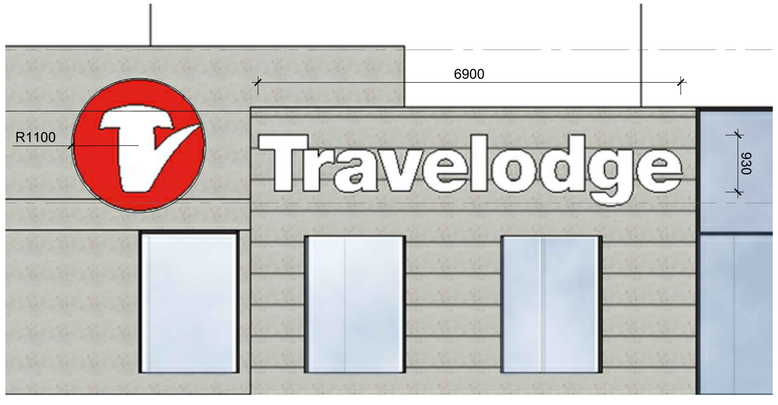


HOTEL SIGNAGE ON LEVEL 17 OF AND PARAPET OF SOUTHERN FACADE



SIGNAGE - SOUTH ELEVATION
Scale 1:50 @ A1
1:100 @ A3

HOTEL SIGNAGE ON PARAPET OF NORTHERN FACADE



SIGNAGE - NORTH ELEVATION
Scale 1:50 @ A1
1:100 @ A3

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project
Bentham Street Hotel
18 Bentham Street,
Adelaide

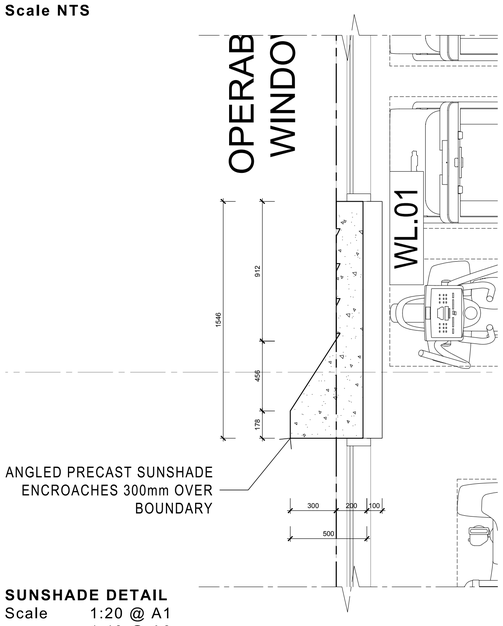
status
For Planning

drawing
Date: 16.03.2018
Drawing #: 17028 - 01-13 Issue: 01
Signage

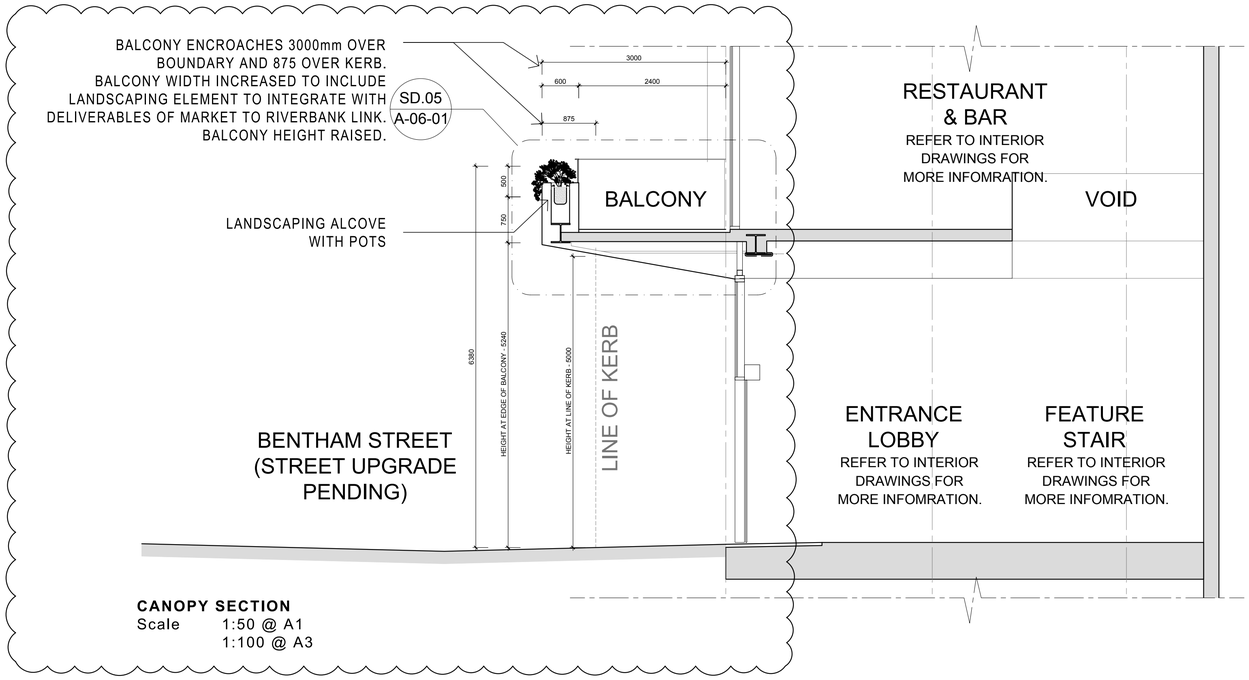
VENTILATED ROLLER SHUTTERS TO LOADING DOCK AND TRANSFORMER. POWDERCOAT FINISH. COLOUR: CHARCOAL.

PROPOSED GATE ON RIGHT OF WAY WITH PERFORATED METAL TO SCREEN SERVICE ENTRANCE BEHIND. POWDERCOAT FINISH. COLOUR:CHARCOAL. PERFORATIONS APPROX. 36% OPEN. HORIZONTAL MEMBERS OF THE GATE ALIGN WITH HORIZONTAL ELEMENTS OF ADJACENT HERITAGE BUILDING. STEEL RHS (ON FLAT) FRAME. POWDERCOAT FINISH. COLOUR: CHARCOAL.

GATE ON RIGHT OF WAY
Scale NTS



SUNSHADE DETAIL
Scale 1:20 @ A1
1:40 @ A3



CANOPY SECTION
Scale 1:50 @ A1
1:100 @ A3

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The Mandala PROPERTY GROUP

project
Bentham Street Hotel
18 Bentham Street,
Adelaide

status
For Planning

drawing
Date: 15.06.2018
Drawing #: 17028 - 01-14 Issue: 02
Encroachments and Gate Detail

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

Scale 1:4150

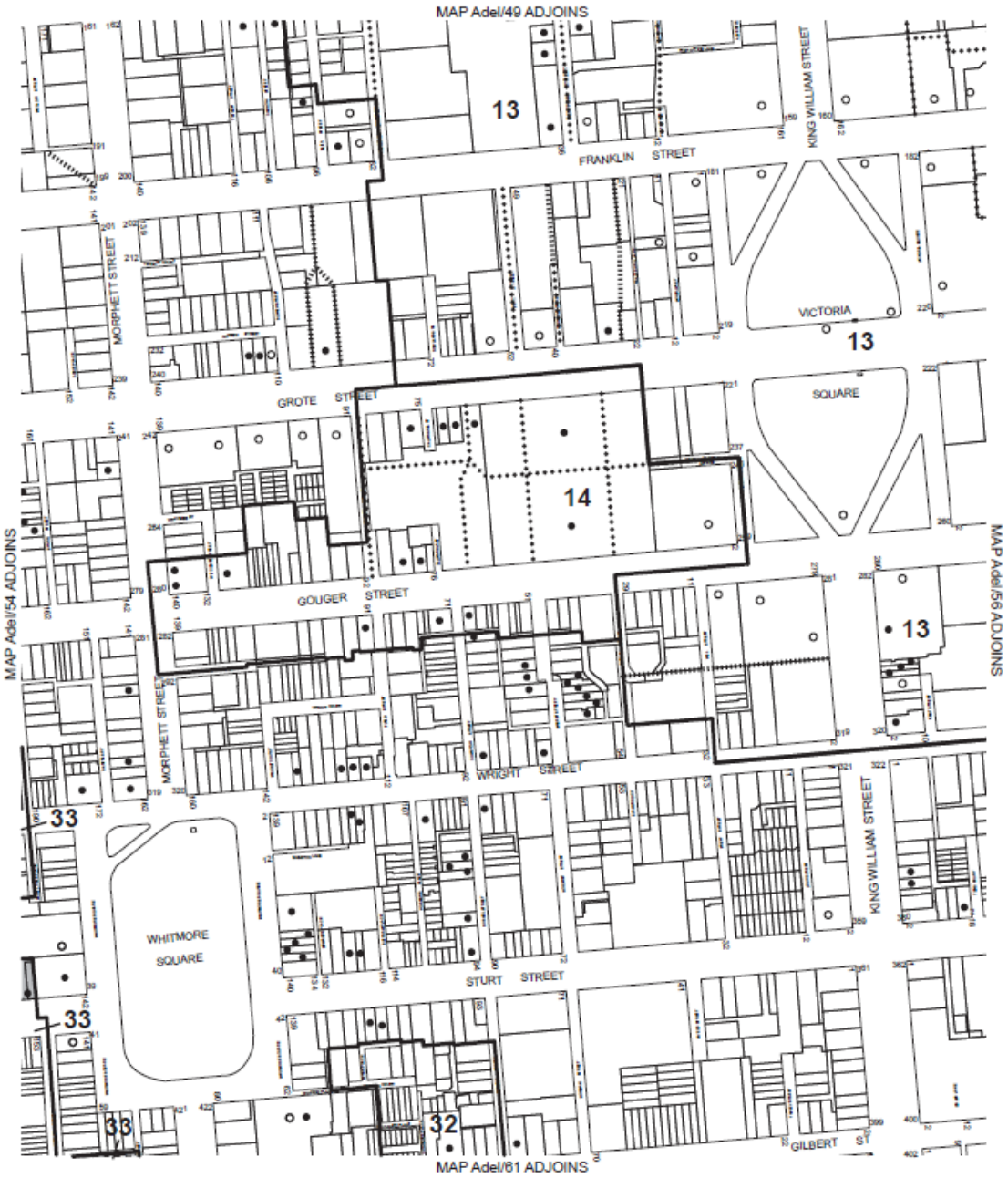
0metres 100 200 300

Zone Boundary

Development Plan Boundary

ADELAIDE (CITY)
ZONES
MAP Adel/24

Consolidated - 7 June 2018



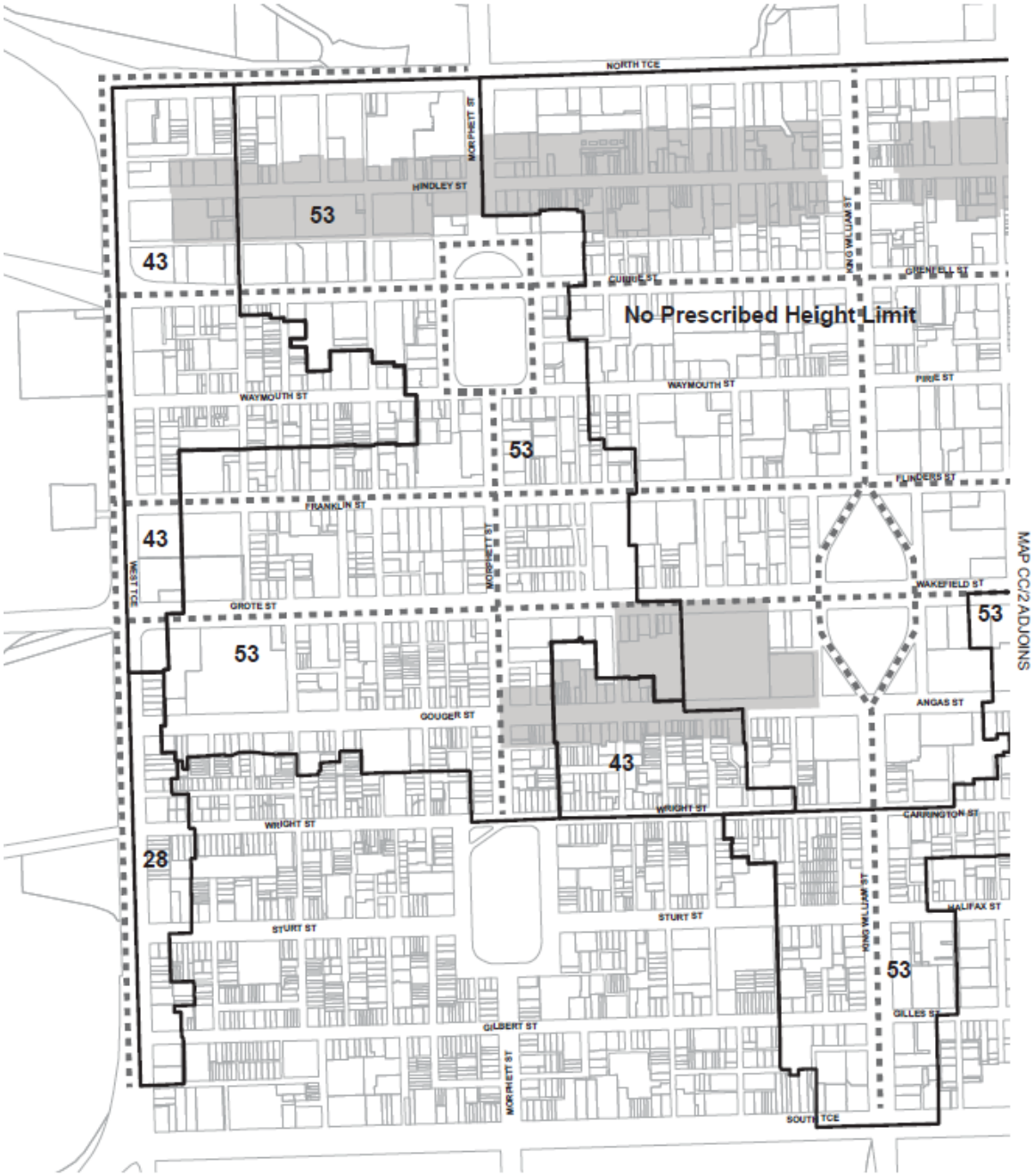
13 Central Business Policy Area
14 Main Street Policy Area
32 South Central Policy Area
33 South West Policy Area
○ State Heritage Place
● Local Heritage Place
Policy Area Boundary
Maximum height of 2 storeys

Existing Pedestrian Link
Proposed Pedestrian Link

Scale 1:4150
0metres 100 200 300

ADELAIDE (CITY) POLICY AREAS MAP Adel/55

Consolidated - 7 June 2018



1:8000

N

0 120 240 360 480 600 metres

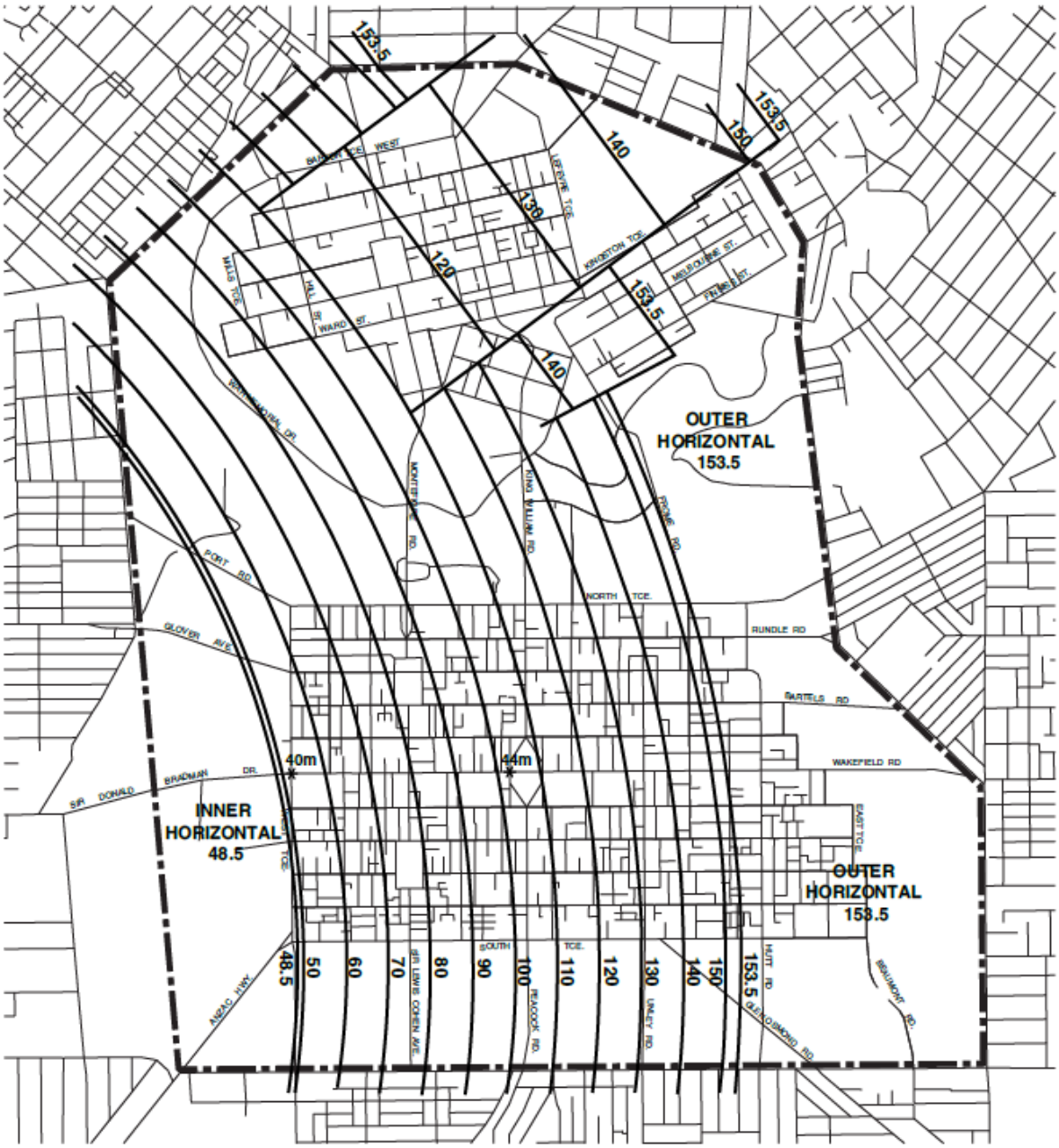
Maximum Building Height (metres) within Capital City zoned land
Note: Airport Building Height Restrictions Apply. Refer Map Adel/1 (Overlay 5).

City Boulevards and Terraces

Policy Areas of a 'Main Street' type

ADELAIDE (CITY) BUILDING HEIGHTS Concept Plan Figure CC/1

Consolidated - 7 June 2018



Referral to the Department of Transport and Regional Services through Adelaide Airport Limited is required where a development would exceed the Obstacle Limitation Surface (OLS) contours on this map.

100 OLS Values in Australian Height Datum (AHD)

OLS Contour Boundary

✱ 40m Indicative ground level in AHD. Note: Ground level varies throughout the Council area and accurate ground level in AHD would need to be confirmed

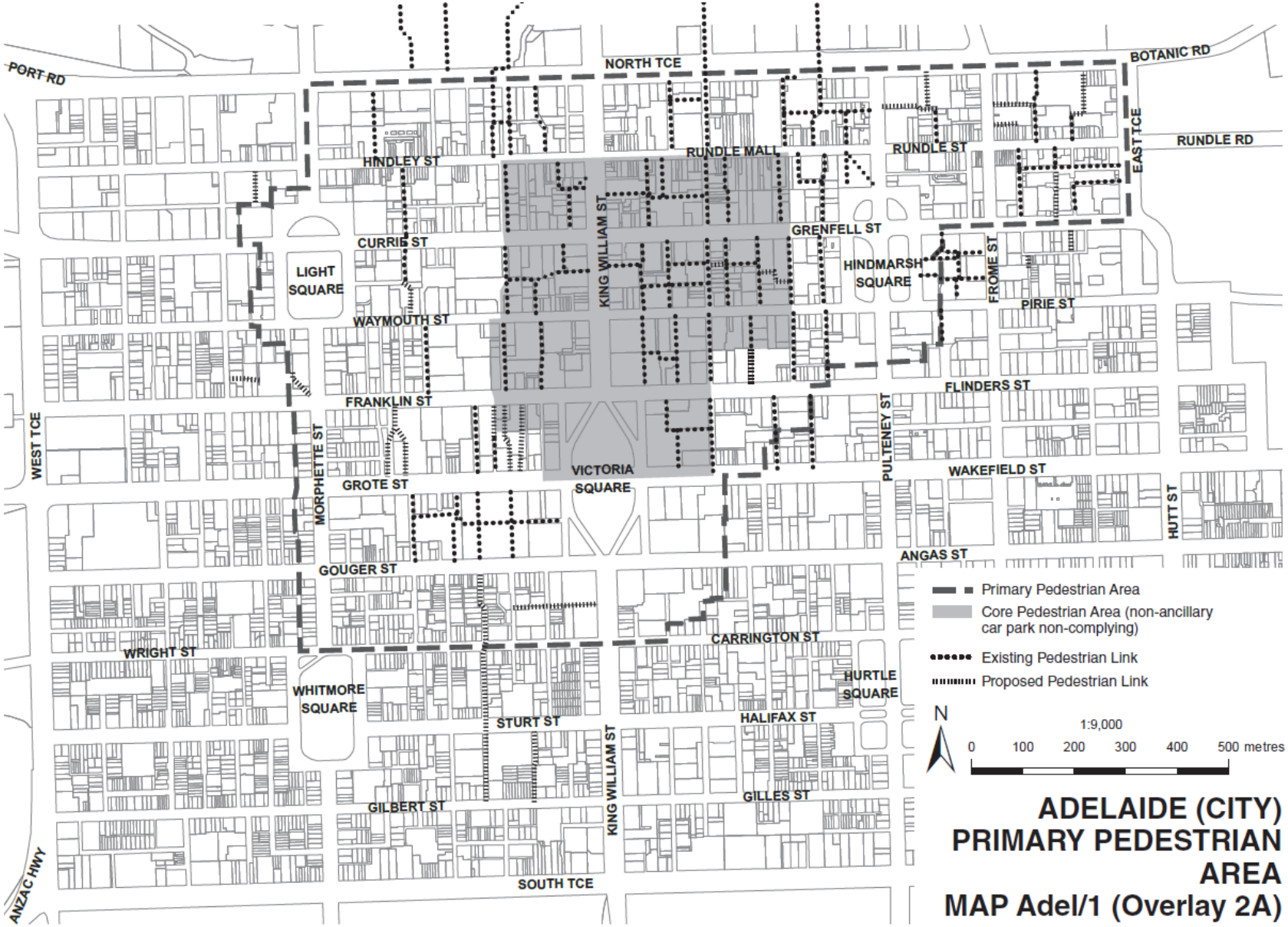
Development Plan Boundary

Note: Approval is required under the Commonwealth Airports Act 1996 for structures and the like that penetrate prescribed air space (as defined in the Airports Act 1996)

Scale 1:26,000

0metres 500 1000

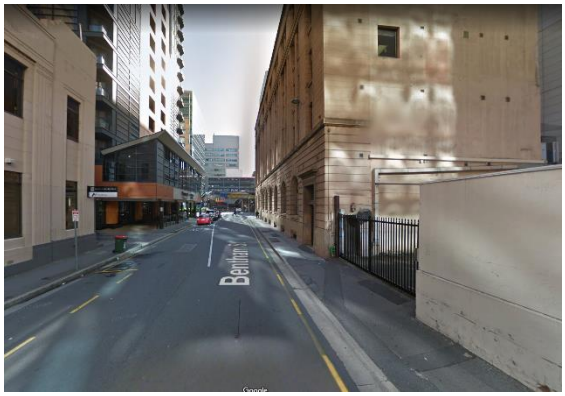
ADELAIDE (CITY) AIRPORT BUILDING HEIGHTS MAP Adel/1 (Overlay 5)



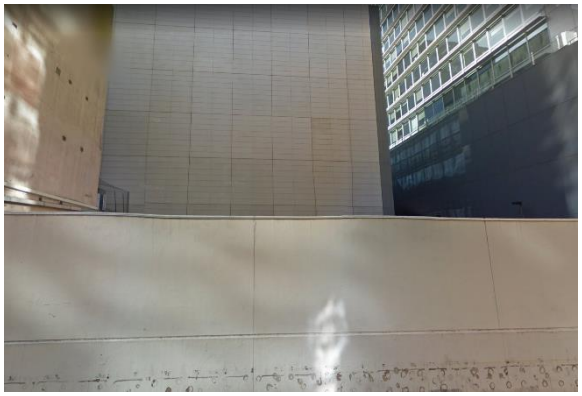
ADELAIDE (CITY) PRIMARY PEDESTRIAN AREA MAP Adel/1 (Overlay 2A)

Consolidated - 20 June 2017

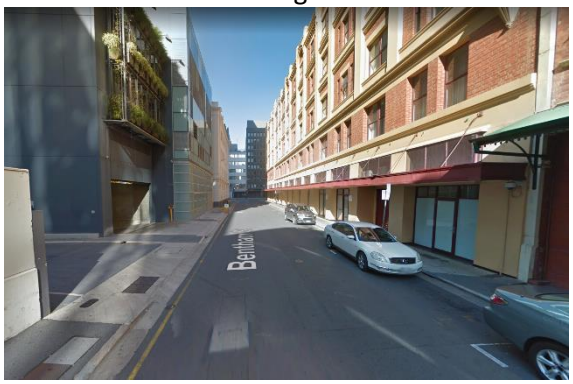
Site Photographs



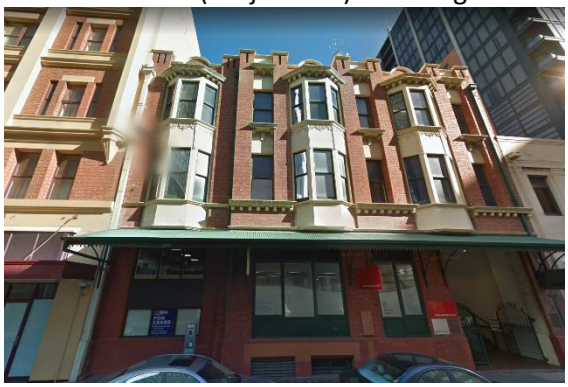
Bentham Street – looking north



Bentham Street (subject site) – looking east

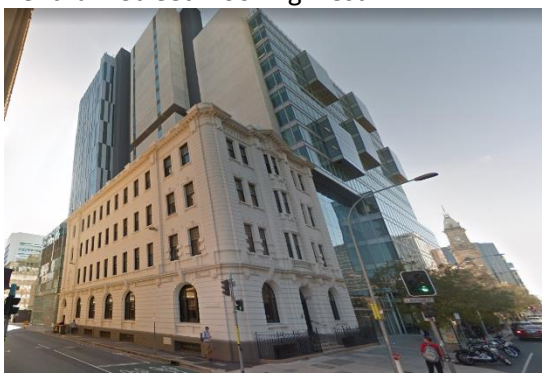


Bentham Street – looking south



Bentham Street - looking west

Woodards House (State and Local Heritage)– northern side



Darling House (State Heritage) Southern side

Neighbouring property – western side

Private Laneway – southern boundary subject site

Product	Register Search (CT 5323/690)
Date/Time	20/02/2018 01:14PM
Customer Reference	
Order ID	20180220007206
Cost	$28.25

REAL PROPERTY ACT, 1886
South Australia

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

Certificate of Title - Volume 5323 Folio 690

Parent Title(s) CT 4305/59

Creating Dealing(s) CONVERTED TITLE

Title Issued 12/02/1996 **Edition** 19 **Edition Issued** 27/05/2011

Estate Type

FEE SIMPLE

Registered Proprietor

DQL HOLDINGS PTY. LTD. (ACN: 145 249 510)
OF 6 WHEAL GAWLER STREET GLEN OSMOND SA 5064

Description of Land

ALLOTMENT 131 FILED PLAN 170676
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED A

Schedule of Dealings

Dealing Number	Description
11218776	CAVEAT BY ANGUS RIMMER TUCK AND HELEN BEATRICE COX
12646731	MORTGAGE TO WESTPAC BANKING CORPORATION (ACN: 007 457 141)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G528/1980

Administrative Interests NIL

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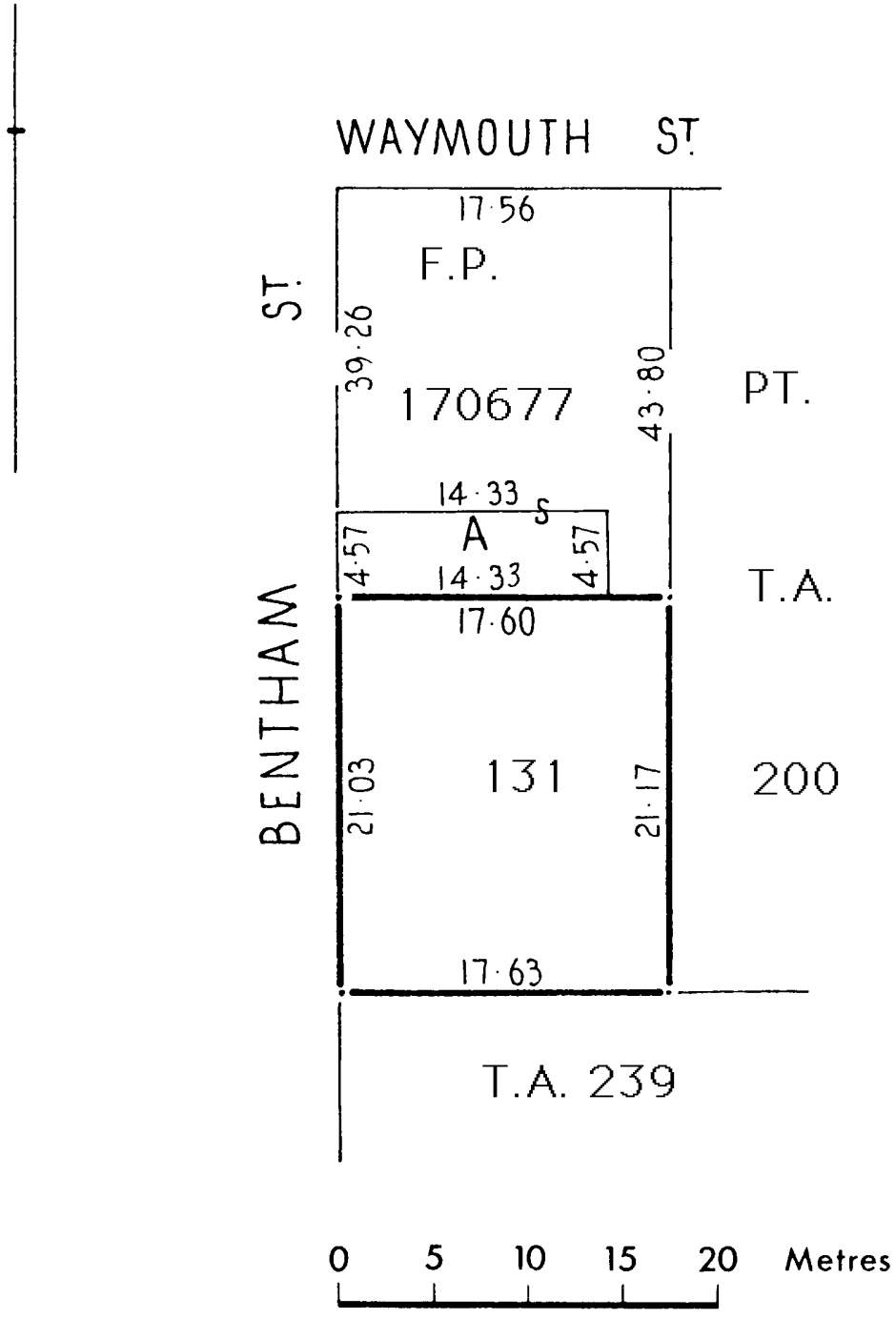
This plan is scanned for Certificate of Title 4305/59
See title text for easement details.



Note : Subject to all lawfully existing plans of division

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Government of South Australia

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

To:

From: Aaron Grieger
Associate Director
BESTEC - 144 Gawler Place, Adelaide

Date of Application: 20 / 02 / 2018

Location of Proposed Development: 18 Bentham Street

House No: 18 Lot No: 131 Street: Bentham Street

Town/Suburb: Adelaide

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

Volume: 5323 Folio: 690

Nature of Proposed Development:

Hotel Building

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

Signed: _____ **Date:** 20 / 02 / 2018

Government of South Australia

Note 1

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

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

Note 2

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

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

Note 3

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

Note 4

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

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

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

Note 5

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

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

Note 6

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

DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

COUNCIL: ADELAIDE CITY COUNCIL

APPLICANT: MANDALA PROPERTY GROUP

Postal Address: C/- PBA, 26 WAKEHAM STREET

ADELAIDE SA 5000

Owner: DQL HOLDINGS PTY LTD

Postal Address: 6 WHEAL GAWLER STREET

GLEN OSMOND SA 5064

BUILDER: TO BE ADVISED

Postal Address: _____

_____ Licence No: _____

CONTACT PERSON FOR FURTHER INFORMATION

Name: PHILLIP BRUNNING

Telephone: 82325686 [work] 0407 019 748 [Ah]

Fax: _____ [work] _____ [Ah]

EXISTING USE: VACANT LAND

FOR OFFICE USE

Development No: _____

Previous Development No: _____

Assessment No: _____

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

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

DESCRIPTION OF PROPOSED DEVELOPMENT: HOTEL

LOCATION OF PROPOSED DEVELOPMENT: _____

House No: 18 Lot No: 131 Street: BENTHAM STREET Town/Suburb: ADELAIDE

Section No [full/part] _____ Hundred: ADELAIDE Volume: 5323 Folio: 690

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

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** ☐

BUILDING RULES CLASSIFICATION SOUGHT: _____ Present classification: _____

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

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

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

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

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

DEVELOPMENT COST [do not include any fit-out costs]: $ 25 000 000.00

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

SIGNATURE: _____ Dated: 21 / 03 / 18

PHILLIP BRUNNING ON BEHALF OF MANDALA PROPERTY GROUP

pba

Town Planning
Development Advice
Strategic Management

PROPOSED HOTEL DEVELOPMENT

18 BENTHAM STREET, ADELAIDE

DEVELOPMENT REPORT

PREPARED FOR THE
MANDALA PROPERTY GROUP

Phillip Brunning
& Associates

26 Wakeham Street
Adelaide SA 5000
Telephone 08 8232 5686
Mobile 0407 019 748
phil@phillipbrunning.com

21 MARCH 2018

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1. INTRODUCTION

This report has been prepared as an assessment of the proposed hotel development having regard to the existing condition of the land, its relationship to adjoining and nearby buildings, and the relevant provisions of the Adelaide (City) Development Plan.

For the reasons that I shall outline within this report, I am of the opinion that the proposal is an appropriate built form response to its context, would respond to an identified demand for hotel accommodation within the City and would support the Market to Riverbank initiative of Council and Renewal SA.

The Mandala Property Group seek to commence this development without delay so as to take advantage of the small window of opportunity that exits to have construction commence prior to streetscape improvement works being rolled out along Bentham Street as part of this broader initiative.

The proposal is in general conformity with the relevant provisions of the Development Plan in respect to land use, function and management, built form and townscape considerations, heritage adjacency, ground level activation and vibrancy. The extent to which it may depart, no serious impacts are anticipated.

Can I respectfully submit that due to the alignment of the proposal with the Development Plan, consent should be granted. The proposal does seek any significant dispensation or departure from relevant provisions of the Development Plan such that may justify it being declined.

While the proposal may not fully satisfy the design aspirations of the Government Architect, the architectural approach taken is nonetheless valid and acceptable in its context. The proposal has nonetheless benefited from the pre-lodgment review process with many of the recommendations made acted on.

The proposal represents a significant capital investment in the City, on a site which has languished for many years as an open lot car park. The provision of an additional 183 hotel rooms together with associated hospitality offerings will generate on going employment in this important service sector.

2. BACKGROUND

As indicated above, the Applicant participated in a pre-lodgement assessment process facilitated by the Department of Planning, Transport & Infrastructure (DPTI). While a Section 37AA agreement was not reached with the Government Architect, it was nonetheless a useful process.

The first part of this process involved a technical working session with officers from the DPTI and the Adelaide City Council (Council), together with representatives from Heritage South Australia and the Office for Design and Architecture South Australia (ODASA).

This first session was very useful in terms of identifying key Development Plan considerations, together with the manner in which the proposal will interface with Council assets and services including considerations in respect to encroachments over public land, access and traffic, waste management and the like.

The second session was in the form of a Design Review Panel moderated by the Associated Government Architect. While support was forthcoming in respect to the aspirations of this project, the advice provided subsequently stopped short of endorsing the design response.

The recommendations provided were considered and responded to by Pruszinski Architects, with certain amendments and modifications made to the scheme. In this respect the process 'added value' to the project, particularly in respect to street level activation, facade composition and relationship to heritage buildings.

Due to project programme considerations, a decision was taken to formally lodge a Development Application and continue this involvement with the Government Architect, Heritage South Australia and the Council via the formal referral processes set out in Schedule 8 of the Development Regulations.

3. PROPOSAL

The proposal is for an 18 level, 61 metre high, 183 room hotel building with associated facilities including hospitality offerings at ground and first floor. This hotel will be oriented to the premium economy segment of the market, providing affordable accommodation in a high quality building in a desirable location.

The Mandala Property Group previously delivered The Rowlands, the UDIA ward winning, $70 M, 93 apartment development over 15 levels incorporating on site gym, sky terrace, concierge service. This building was constructed by Brookfield Multiplex and achieved 8.1 star energy rating (NatHERS).

The proposed hotel on Bentham Street reflects the ongoing commitment that the Mandala Property Group has to development and investment in South Australia. As this project has a development cost of $25 M, the State Commission Assessment Panel (SCAP) as the relevant planning authority.

The design for the proposed hotel development has been undertaken by Pruszinski PACT Architects, an architectural firm with a strong pedigree for the design and delivery of numerous multiple level buildings within the City. The proposal plans comprise 14 sheets and are dated 7 February 2018, i.e.:

01 – Location Plan
02 – Site Plan
03 – Street Elevations & Context
04 – Concept Sketches
05 – Demolition & Site Plan
06 – Plans – Ground & Level 1
07 – Plans – Level 2 to Roof
08 – Elevations
09 – Sections
10 – Perspectives
11 – Perspectives
12 – Materials & Finishes
13 – Sunshading
14 – Signage
15 – Canopy & Gate Details

The proposal plans and this report has been informed by and should be read in conjunction with the reports provided from the following technical experts:

- Heritage - Mr Bruce Harry
- Energy Efficiency - Bestec
- Waste Management - Pruszinski PACT Architects
- Traffic - CRIQA

The architectural form of the proposed building is characterised by active uses at ground and first level with a strong balcony element that also affords weather protection to pedestrians, with the Benthan Street facade configured in a manner that presents a podium at an alignment comparable to nearby heritage buildings.

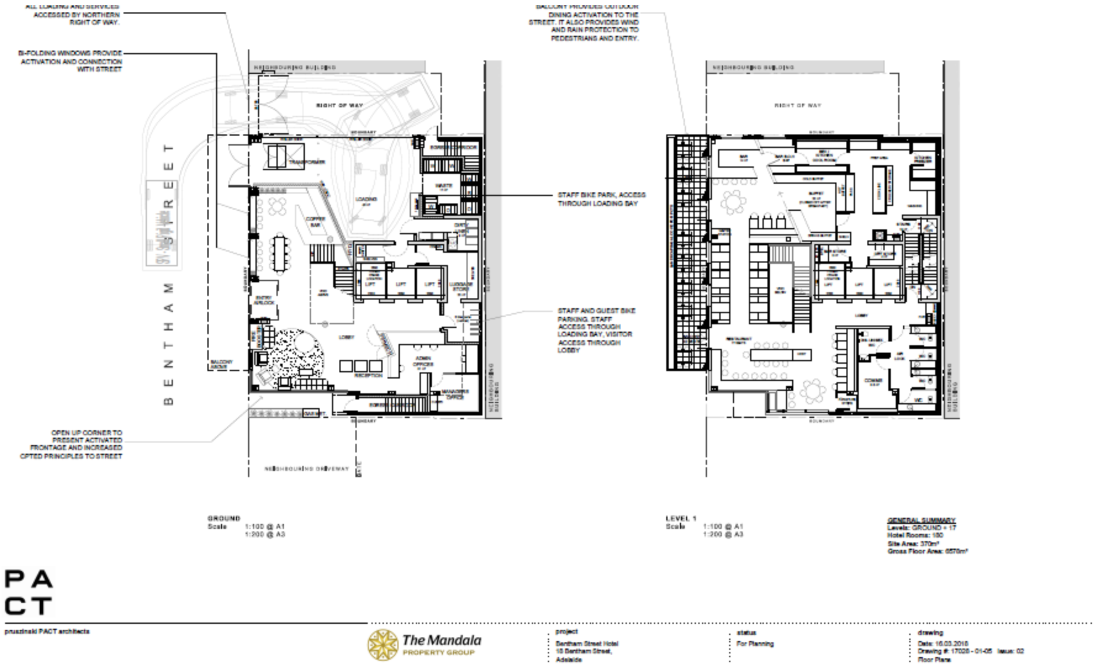
This podium is achieved via the use of Brightonlite precast concrete panels that are detailed in manner to achieve a well modeled and balance composition to Bentham Street, both vertically and horizontally. The extent of this treatment to level 6 pays respect to the strong streetscape presence of the adjacent heritage buildings.

Ground level uses will include entry reception and concierge, offices and luggage storage, coffee bar and lounge areas, lift lobby (3 lifts proposed) together with back of house uses including linen store, waste management, loading and unloading. Provision is made the obligatory electrical transformer, fire boosters and the like.

Provision is made for a 6.5 metre small rigid vehicle, associated with the delivery of supplies and or dispatch of waste to enter and leave the site in a forward direction. An appropriately detailed pair of electrically controlled swing gates will be installed at the entrance of the right of way driveway to Bentham Street.

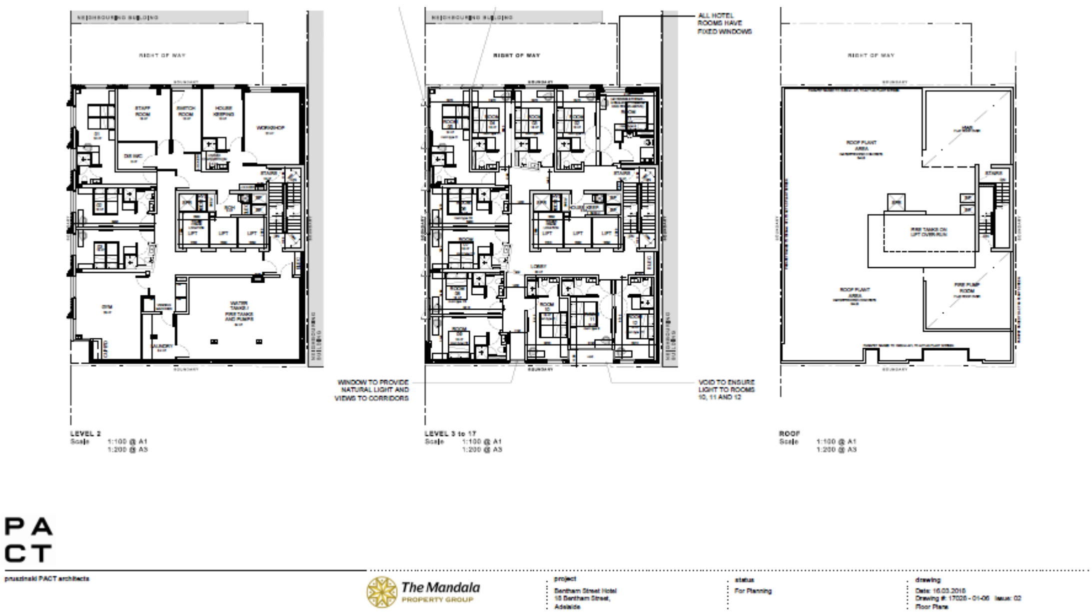
Given the modest size of this site, it has been necessary to effectively construct over its entirety with appropriate concessions to provide for vehicle access and fire stair egress. Vehicle access is to be provided via the right of way to the north of the site, with fire stair egress to Bentham Street provided at two points.

The fire egress from the southern side of the building to Bentham Street provide both a challenge and an opportunity in design terms given that the land immediately to the south is held as a private driveway over which no rights are afforded. The resultant design solution balances function and architectural presentation.



At Level 1 of the proposed building it is proposed to provide a 100 seat licensed restaurant with a flexible layout to allow for buffet dining and breakfast service. This restraint space leads out on to a balcony terrace with a landscaping zone but open ended sides to balance privacy and surveillance over the street below.

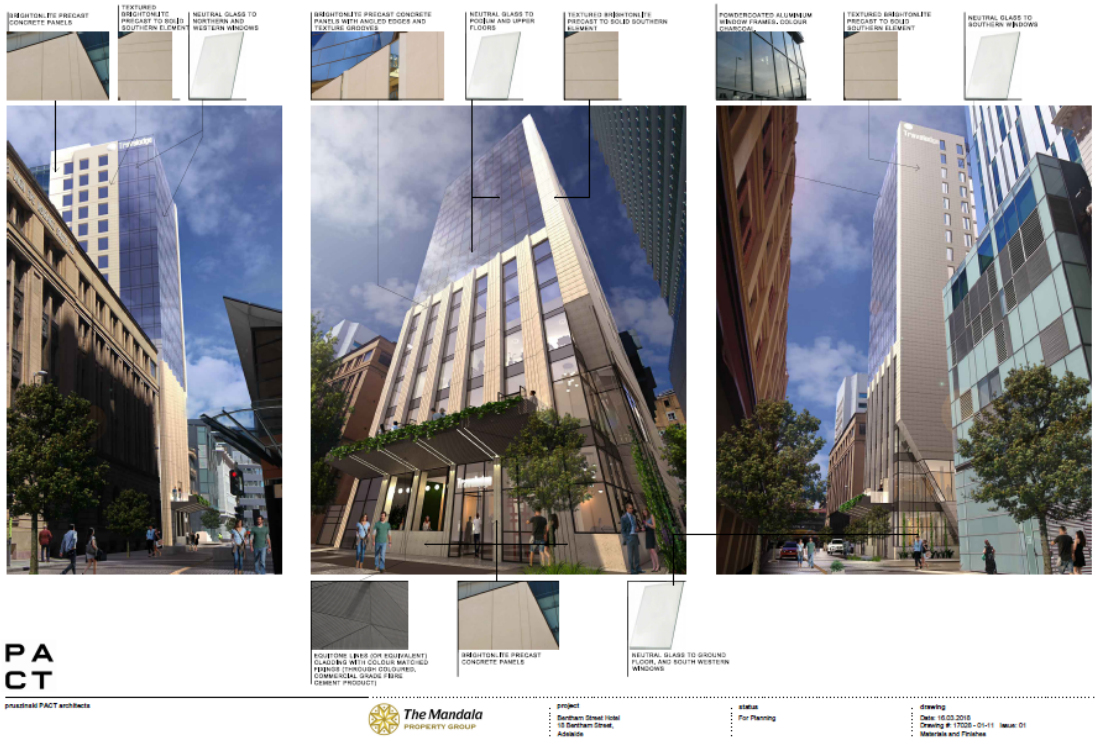
Level 2 will accommodate building services such as fire water storage tanks, communications, workshop, laundry, staff room, house keeping, electrical switching room together with a gym for use by hotel guests. The gym, house keeping room and staff room will enjoy an aspect to Bentham Street.



Levels 3 to 17 are to accommodate hotel rooms, typically 12 per floor, each with its own ensuite bathroom facilities. Three lifts will service these levels. Each hotel room is provided with a window, with the eastern elevation being a solid wall on the property boundary. A small light court is provided to rooms on the southern side of the building.

The roof level will be substantively screened by a raised parapet, with the lift overrun positioned in such a manner that would not be visually prominent when viewed from ground level. As necessary, roof plant and equipment will be screened and accommodated within subtle structures that blend wit the form of the building.

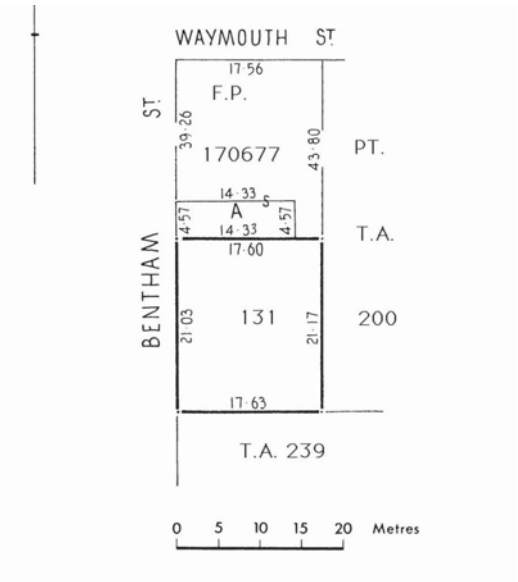
The north and west facing elevations of the tower portion of the proposed building (above level 6) will be glazed using tinted glass, with neutral glass to windows at lower levels. The balance of the structure at these upper levels will be precast concrete with an oxide finish and colour matched commercial cladding.



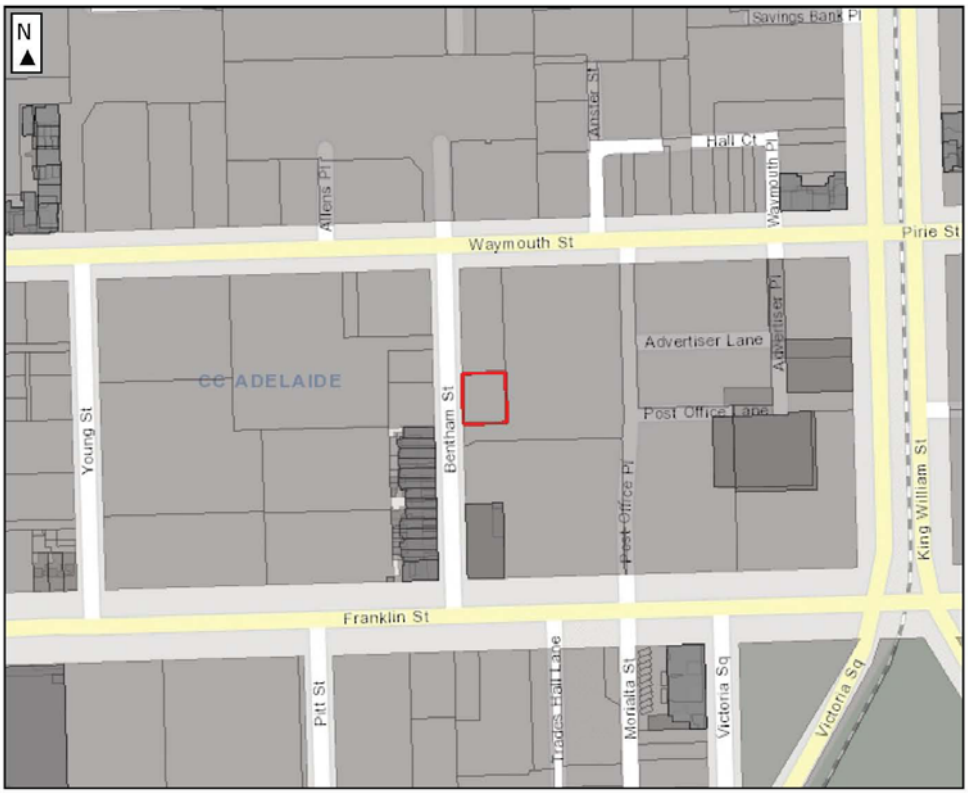
Provision is made for building signage at the upper and ground floor entry level.

4. LAND & LOCALITY

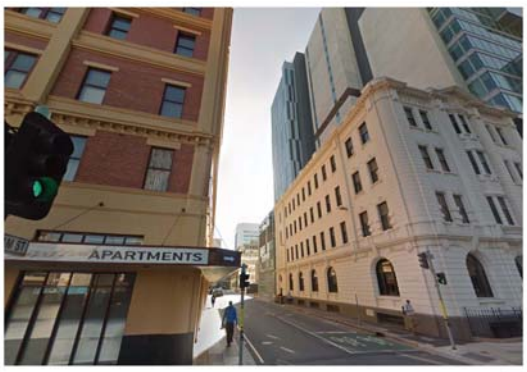
The land is more particularly described as Allotment 131 in Filed Plan 170676 within the Hundred of Adelaide as recorded in Certificate of Title Volume 5323 Folio 690. The land has a frontage of 21.03 metres to Bentham Street and an area of 373 square metres.

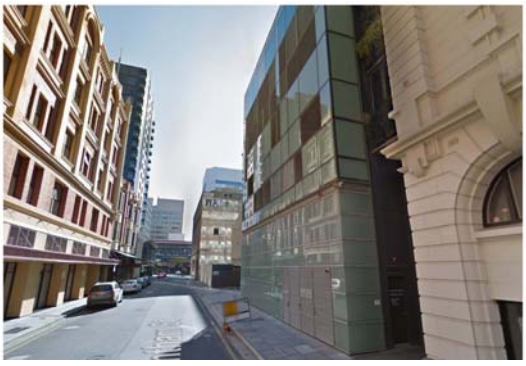


The land enjoys free and unrestricted rights of way over the area marked 'A'.



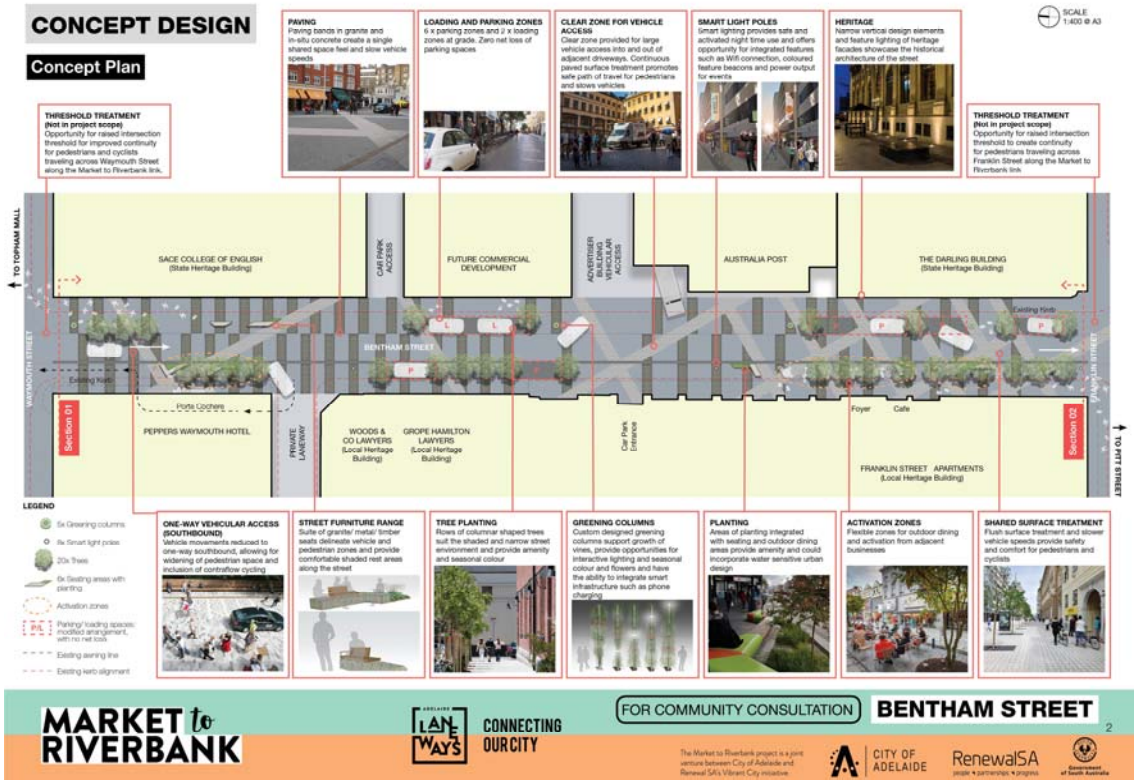
The land to the south forms part of The Advertiser complex and is used for vehicle access to parking and service areas. Given the function that this land performs, it is highly unlikely that it would be developed to any meaningful extent. That said, the proposal is not reliant on this land for light access to rooms on the eastern side.





The locality is characterised by a range of building forms and scales, including taller development to the east. Bentham Street likewise has a varied character which is established by the contributions that several heritage buildings make together with more recent development associated The Advertiser and the Peppers Waymouth Hotel.

As mentioned above, Council and the State Government are in the process of rolling our certain streetscape improvements to Bentham Street as part of the Market to Riverbank project which as the title suggests seek to enhance the function and amenity of the pedestrian path between the Central Market and the River Torrens.



5. DEVELOPMENT PLAN

The land is located within the Capital City Zone and more particularly the Central Business Policy Area of the Adelaide (City) Development Plan. The Relevant version of the Development Plan for the assessment of this application is that consolidated on 20 June 2017.

I note that two Section 39(2)(b)(ii) amendments have been made to the Development Plan (4 July 2017 and 19 December 2017) that have yet to be consolidated within the current document. Neither of these amendments has any relevant to the assessment of this proposal.

The following provisions of the Development Plan are relevant in the assessment of this proposal, acknowledging that these policies are expressed in an advisory, rather than mandatory sense. They are nonetheless the basis upon which a decision is to be made in respect to this application.

COUNCIL WIDE

Living Culture

Objectives: 1, 2, 3
Principles of Development Control: 1,

Environmental

Crime Prevention Through Urban Design

Objectives: 24
Principles of Development Control: 82

Operating Hours and Associated Activities of Licensed Premises

Objectives: 25
Principles of Development Control: 87, 88

Waste Management

Objectives: 28
Principles of Development Control: 101, 102, 103, 104,

Energy Efficiency

Objectives: 30

Principles of Development Control: 106, 107, 108, 109, 111, 112,

Micro-climate and Sunlight

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Principles of Development Control: 119, 120, 122, 123, 124, 125

Stormwater Management

Objectives: 35
Principles of Development Control: 128

Heritage and Conservation

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Principles of Development Control: 140,

Built Form and Townscape

Objectives: 46, 47, 48
Principles of Development Control: 167

Height Bulk and Scale

Principles of Development Control: 168, 169, 170, 172

Composition and Proportion

Principles of Development Control: 180

Articulation and Modeling

Principles of Development Control: 182, 183, 184, 186

Materials, Colours and Finishes

Principles of Development Control: 187, 188, 189, 190

Sky and Roof Lines

Objectives: 49
Principles of Development Control: 193, 194, 195

Active Street Frontage

Objectives: 50, 51
Principles of Development Control: 196, 198

Transport and Access

Objectives: 60
Principles of Development Control: 224

Pedestrian Access

Objectives: 61, 62, 63
Principles of Development Control: 226, 227, 228, 230, 232

Bicycle Access

Objectives: 64, 65
Principles of Development Control: 233, 234, 235, 236, 237, 238

Traffic and Vehicle Access

Objectives: 68, 70
Principles of Development Control: 241, 242, 243, 244, 245, 248, 249

Economic Growth and Land Use

Objectives: 73, 74, 76
Principles of Development Control: 266, 268, 269, 271

CAPITAL CITY ZONE

Objectives: 1, 2, 3, 4, 5, 6, 8
Principles of Development Control: 1, 5, 6, 7, 8, 9, 11, 12, 14, 15, 26, 27, 28, 33, 34,

Central Business Policy Area 13

Objectives: 1, 2, 3
Principles of Development Control: 1, 2, 3

Relevant extracts from the Development Plan are provided at Appendix 1.

6. ASSESSMENT

6.1 Economic

6.1.1 Investment

Objective 74 of the Development Plan seeks *a business environment which encourages investment from domestic and foreign sources, business development and employment.*

The proposal represents as significant capital that will give rise to positive economic impacts both initially as a result of construction activity but also in terms of employment and the construction of services.

6.1.2 Tourist Accommodation

Objectives 73 (c) more particularly seeks *the role of the city enhances as the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation*.

This emphasis on the provision of tourist activities is reinforced by Principle of Development Control

268 Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.

This proposal seeks to respond to an identified demand for additional premium economy accommodation within the City. This location will afford guests with a high level of amenity and function in terms of access to City attractions.

6.1.3 Employment

Over and above initially construction employment, it is anticipated that there will be up to 30 persons employed in the administration, servicing and hospitality uses associated with this hotel

6.2 Land Use

6.2.1 Nature of Development

The proposed development in my opinion is for a *hotel*.

A *hotel* is defined by the Development Regulations, 2008 as:

hotel means premises licensed, or proposed to be licensed, as a hotel under the *Liquor Licensing Act 1985*, but does not include a motel;

Reference is made to the Liquor Licensing Act 1985 which has now been repealed and replaced by the Liquor Licensing Act 1997. Interestingly, a hotel is not defined more specifically in either piece of legislation.

The Macquarie Dictionary provides the following meaning for *hotel*:

'a building in which accommodation and food, and sometimes other facilities, are available'

I do however note the definition for motel provided within the Regulations:

motel means a building or group of buildings providing temporary accommodation for more than 5 travellers, and includes an associated restaurant facility, but does not include a hotel or residential flat building;

The Macquarie Dictionary provides the following meaning for *motel*:

'a roadside hotel which provides accommodation for travelers in self contained, serviced units, with parking for their vehicle'

This meaning differentiates between a motel and a hotel on the basis of the self contained nature of the accommodation and the ability for a guest to park a vehicle on site. These is no parking provided by this development

This differentiation between the two is explained by the origins of the term *motel* which is an abbreviated version of 'motor hotel' used to describe a mode of accommodation which originated in the United States of America in the 1920s.

6.2.3 Envisaged Development

Regardless of whether the planning authority considers the proposal to be a *hotel* or a *motel*, both land uses are clearly identified as an '*envisaged'* form of development by Principle of Development Control 1 for the Capital City Zone.

Zone Principle of development Control 40 identifies that the proposal is to be assigned Category 1, i.e. no public notification. The site of the development is not adjacent to land in the City Living or Adelaide Historic (Conservation) Zone

The Development Plan clearly provides for this form of development.

6.3 Built Form & Townscape

6.3.1 *Height & Set Back*

Concept Plan Figure CC/1 Adelaide (City) Building Heights identifies that there is no prescribe height limit in Central Business Policy Area, save for considerations in respect to Airport Building Height Restrictions.

Map Adel/1 (Overlay 5) Adelaide (City) Airport Building Heights identifies a Obstacle Limitation Surface between 100 and 110 metres AHD. The height of the proposed building at 61 metres would not penetrate this surface.

The proposal therefore need not be referred to the Adelaide Airports Limited.

The Desired Character statement for the Capital City Zone includes the following passage which speaks to high scale development, with high street walls that frame streets.

That said, there is an emphasis on achieving interesting pedestrian environment at street levels of a human scale to be achieved through the use of building articulation, fenestration, verandahs, balconies and /or awnings.

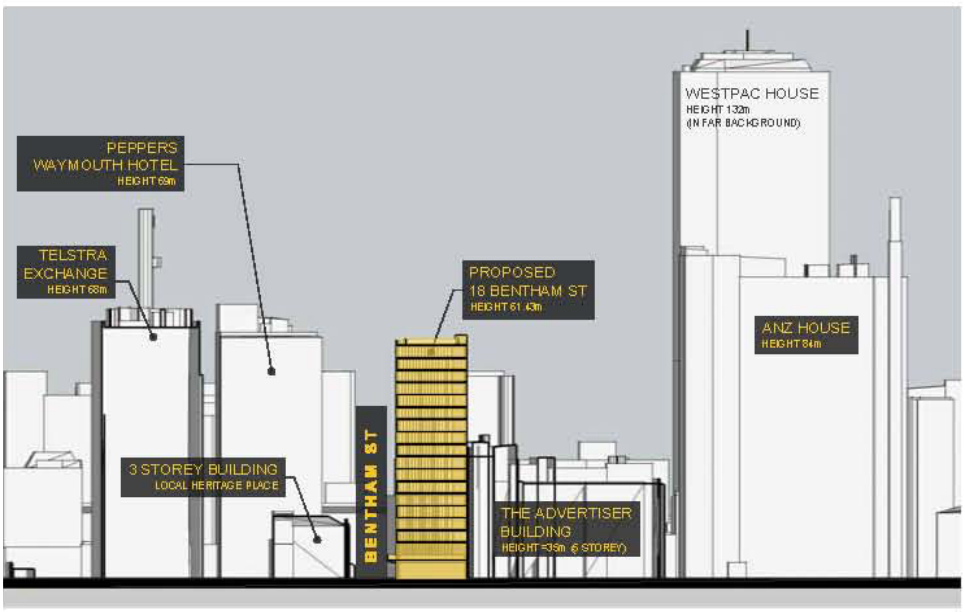
High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building façades, verandahs,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

While there is some discussion as to the set back of buildings at higher levels to achieve views to sky, this may be relatively shallow or non-existent in minor streets and not at all within the Central Business Policy Area.

Whereas Principle 12 for the Capital City Zone seeks a podium/street wall height and upper level set back in the order of 3 to 6 metres part (h) makes it very clear that this does not apply in the Central Business Policy Area.

In response to Council wide policies set out under the heading Height, Bulk and Scale, the proposed design is an appropriate response to the intense urban setting and built form context of the Capital City Zone.



More particularly in respect to Principle 170, I note that the proposal:

- reinforces the desired character and built form sought in this locality being tall and imposing buildings that provide a hard edge to the street;
- displays a façade treatment at the lower levels which is compatible with the parapet lines and mass of existing buildings along Bentham Street;
- avoids massive unbroken facades that are be visible from the public realm;
- achieves a comfortable human scale at street levels including the provision of a verandah balcony element that affords pedestrian shelter.

This approach responds to that sought more particularly for Bentham Street, i.e.

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.

It is clear that the Development Plan provides for an intensive form of development at a scale commensurate with the role and function of this location as the economic and cultural focus of the State.

The design response in this instance is considered entirely appropriate in terms of its scale and form, utilising this relative small site in an efficient and effective manner that provides for the required level of accommodation.

6.3.2 *Design Quality*

The Development Plan deals with the concept of design quality in a number of locations including within the desired character statements for the Capital City Zone and the Central Business Policy Area, i.e.

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.

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

This approach is reinforced by Capital City Zone Objective 5 and Principles of Development Control 6 and 7 in addition to that expressed more generally within the Council wide Section of the Development Plan.

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

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.

Acknowledging that judgments in respect to design quality are invariably subjective, I am of the view that the proposal displays a high standard of design, in respect to its composition and proportions, articulation and modeling.

The proposal is a considered response to its site and context amongst other buildings of greater scale, pays appropriate respect to nearby heritage buildings and would make a positive contribution to the streetscape of Bentham Street.

An appropriate palette of materials and finishes have been selected that would achieve the required building performance in terms of energy efficiency and complement that typically evident within the locality.

In this regard the proposal may reasonably be described as contextual, durable, inclusive, sustainable and amenable within the meaning of the desired character statement provided above.

6.3.3 *Activation & Vibrancy*

As articulated within the Vision for the City provided as a preface to the Development Plan and expressed below within the desired character for the Capital City activation at street level and vibrancy is sought.

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.

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.

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.

As can be seen from the image above, the ground and first levels of the proposed building will engage positively with the street providing activation and vibrancy via the hotel reception, coffee bar, restaurant and associated balcony.

The proposed building provides for a human or pedestrian scale at ground level with the balcony above providing a degree of whether protection acknowledging the need to achieve suitable underside clearance.

The facade at street level has been composed to provide for ease of pedestrian movement in and out of the building while providing suitable amenity and function for the spaces within.

At levels 2 to 5 the arrangement of windows provides for passive or causal surveillances over the street below. I note that at Level 2 plant rooms and the like have been repositioned to the rear of the building

The Applicant looks forward to working further with Council and Renewal SA in respect to integrating and coordinating their project into the streetscape improvement works to be undertaken in Bentham Street.

6.4 Heritage Adjacency

6.4.1 *Heritage Context*

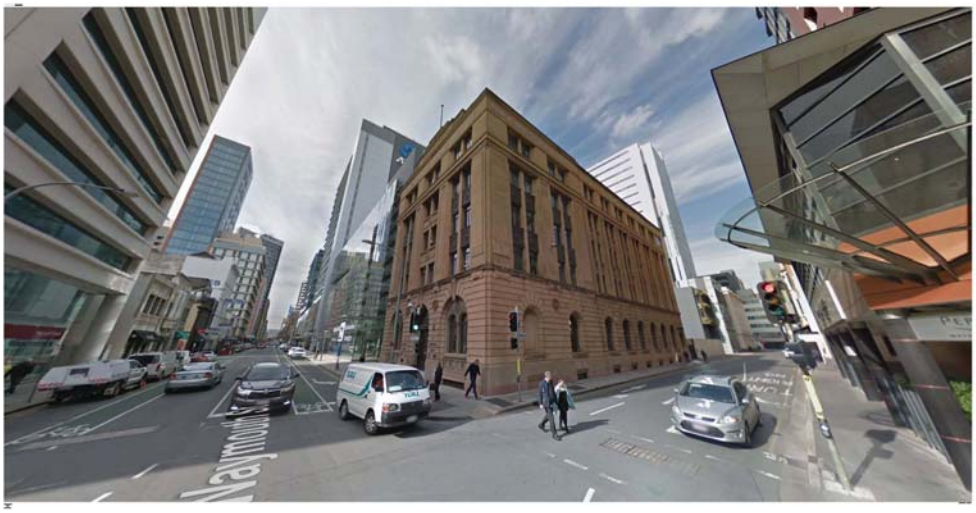
An important consideration in the assessment of new development within the City is the manner in which such relates to heritage places. In this regard, I note the following heritage places in particular.

TABLE Adel/1

State Heritage Places

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Sec	Plan No.	Certificate of Title	Section 16 Criteria	SA Heritage Register ID
28 Franklin Street ADELAIDE	Darling Building	A802 A801	D86151 D86151	CT 6084/523 CT 6091/763		13099

47-49 Waymouth Street ADELAIDE	Woodards House	A132	F170677	CT 5323/691	e	13106



6.4.2 Adjacency & *Compatibility*

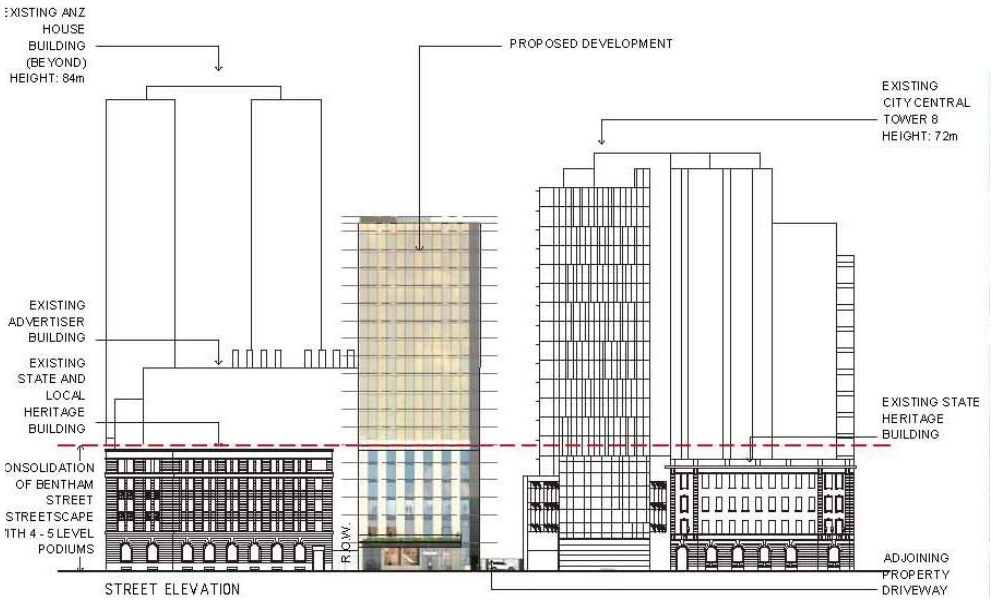
The Development Plan identifies the following policies that speak to the manner in which new development out to respond where adjacent to heritage places in terms of retains their historic value and setting

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

140 Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:
- (a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and
- (b) is located no closer to the primary street frontage than the adjacent heritage place.

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

While I defer to the expert advice provided by Mr Bruce Harry, Architect, I acknowledge and commend the composition and alignment of the front facade with these two heritage buildings, as depicted below.



I note that Mr Harry concludes that the proposal will have no meaningful impact on the heritage value of these buildings and their site contexts, or on the ongoing contribution that these buildings will make to the locality.

6.5 Environmental

6.5.1 *Micro-climate*

In respect to glare arising from building materials, in particular glazing the Development expresses the following.

122 Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.
Design Techniques (these are ONE WAY of meeting the above Principle)
122.1 Design solutions may include:
(a) reducing the quantity of glass used by having a higher proportion of masonry or other non-reflective materials in the building exterior;
(b) recessing glass into the building;
(c) shading or angling the glass;
(d) selecting glass that has a low level of reflection; and/or
(e) avoiding the use of large expanses of highly reflective materials.

Notwithstanding that at the upper levels of the proposed building on the western and northern facades tinted glazing is proposed, I am assured by the Architect that the performance of this glass will not result in unacceptable glare.

To the extent necessary, a condition of approval may be used to require further details in respect to this glazing material in respect to its technical performance and reflectivity.

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 proposal is unlikely to contribute to a wind tunnel effect at street level in this location given the inclusion of the balcony element which will assist in dispersing and moderating the negative effects of down drafts.

Specific analysis in this regard has been undertaken by Windtech.

6.5.2 *Energy Efficiency*

As an objective the Development Plan seeks the following in respect to energy efficiency, acknowledging that the performance of the building in this regard will be assessed more specifically at the Building Rules Consent stage

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.

The Applicant has commissioned Bestec to advise in respect to Ecologically Sustainable Design , with their report addressing building management, indoor environment quality, energy, water, emissions and building services.

6.5.3 *Waste Management*

The Development Plan seeks the following in respect to waste management.

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

To the extent not apparent on the plans, the Architect provides a preliminary waste management plan that assesses the nature and volume arising from the proposed development and an appropriate management strategy

6.5.4 *Licensed Premises*

The Development Plan seeks the following in respect to licensed premises.

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.

While matters pertaining to liquor licensing will be dealt with by a separate authority, the nature of the licensed premises proposed, i.e. a bar and restaurant associated with a hotel are considered entirely appropriate in this location.

6.6 Access & Movement

6.6.1 *Car Parking*

On site car parking is not sought by the Development Plan for this location within the Capital City Zone and the Core Pedestrian Area, nor is it provided by the proposed development.

6.6.2 *Bike Parking*

The Development Plan makes a strong policy expression in favour of the use of bicycles and that appropriate facilities should be provided within new development to encourage such

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.

234 An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in Table Adel/6.

While specific rate is not identified for hotel, I do note that for motel a rate of 1 space ought to be provided per 20 employees and that 2 spaces should be provided for the first 40 guest rooms plus 1 for every additional 40 rooms

The proposal provides for 7 secure spaces in this regard

6.6.3 *Vehicle Access*

Understandably, the Development Plan seeks safe and convenient access.

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.

224 Development should provide safe, convenient and comfortable access and movement.

As discussed above, the proposal will utilise right of way over the land immediately to he north of the site in order to provide for service and delivery vehicles, including for waste management.

Provision is made for the largest size vehicle anticipated to be used in conjunction with this development, to be able to manoeuvre in a manner that would enable entry and exit from the site in a forward direction.

Given the low frequency of traffic movements through this driveway and that it is not serving on site car parking for guests and staff, I suggest that the potential for conflict with pedestrians to be minimal.

This potential may be further reduced with appropriate traffic management measures such as the use of mirrors and possibly audible alarms or similar to alert passing pedestrians of the impending use of the driveway.

The performance of this lading dock and driveway is addressed more particularly by CIRQA in their report which confirms that the proposed arrangement is in conformity with the relevant Australian Standard.

6.6.4 Pedestrian Movement

Subject to the matters discussed above being satisfactorily addressed, which I have every confidence of being able to do so, the proposal is considered to achieve the following objectives in respect to pedestrian movement.

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.

In particular the active frontage to this building and the manner in which it will relate and function to Bentham Street, including the provision of the balcony/verandah over head is entirely consistent with that envisaged.

7. CONCLUSION

For the reasons that I have discussed above, I am of the view that the proposal is an acceptable form of development that generally accords with relevant Development Plan policies such that warrants consent.

To the extent that the proposal may depart from certain provisions of the Development Plan, no serious impacts are anticipated and certainly not to an extent that would render this proposal as being unacceptable.

The use of the proposed building as hotel is entirely appropriate in this location.

The height, form and arrangement of the proposed building sits within the parameters set out in the Development Plan and would further the desired objectives in terms of investment, activation, vibrancy and employment.

Can I respectfully suggest that the application of aspirational policies in respect to design quality ought not be applied in a punitive or restrictive manner, acknowledging the economic context in which development must occur.

Ultimately, the planning test for consent is whether the proposal is acceptable.

PHILLIP BRUNNING & ASSOCIATES PTY LTD

PHILLIP BRUNNING RPIA
Registered Planner

APPENDIX 1

COUNCIL WIDE

Living Culture

OBJECTIVES

Objective 1: The City of Adelaide as the prime meeting place and cultural focus for the people of metropolitan Adelaide and the State.

Objective 2: The City of Adelaide as a major focus for tourism, conventions, leisure, entertainment, sport and recreation, education, cultural development and the arts.

Objective 3: Development that enhances the public environment and provides interest at street level.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should, where appropriate, integrate public art into the design of new or refurbished building sites in a manner which is integrated with and commensurate in scale with, the new or refurbished buildings. For the purpose of enhancing the public environment, public art should:

(a) demonstrate artistic excellence and innovation in design;

(b) be made of high quality materials;

(c) enhance the setting of new development;

(d) be integrated into the design of the building and the surrounding environment;

(e) consider any existing public art works; and

(f) not hinder sight lines or create entrapment spots.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

1.1 *Design solutions may include:*

(a) treating the building as a piece of art in itself;

(b) locating art in publicly accessible locations such as near main entrances, lobbies and street frontages;

(c) using water as a landscaping element including animating spaces with fountains, pools and waterfalls, for which the re-use of stormwater is encouraged;

(d) designing paving so it becomes a piece of art in itself;

(e) using lighting to enhance the architectural characteristics of a building; or

(f) providing spaces within the development for accommodating temporary or outdoor gallery opportunities.

Environmental

Crime Prevention Through Urban Design

OBJECTIVES

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

(a) ensures that land uses are integrated and designed to facilitate natural surveillance;

(b) promotes building and site security; and

(c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

PRINCIPLES OF DEVELOPMENT CONTROL

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

(a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:

(i) orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;

(ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;

(iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;

(iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;

(v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;

(vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;

(vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and

(viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.

(b) provide access control by facilitating communication, escape and path finding within development through legible design by:

(i) incorporating clear directional devices;

(ii) avoiding opportunities for concealment near well travelled routes;

(iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;

(iv) use of devices such as stainless steel mirrors where a passage has a bend;

(v) locating main entrances and exits at the front of a site and in view of a street;

(vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and

(vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.

(c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:

(i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;

(ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and

(iii) locating main entrances and exits at the front of a site and in view of a street.

(d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:

(i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;

(ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;

(iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;

(iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;

(v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and

(vi) use of robust and durable design features to discourage vandalism.

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

87 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.

88 Licensed premises and licensed entertainment premises or similar should operate with operating hours to reinforce the desired character of the locality.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

101 A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.

102 A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.

103 Development greater than 2 000 square metres of total floor area should manage waste by:

(a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;

(b) on-site storage and management of waste;

(c) disposal of non-recyclable waste; and

(d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

104 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

(a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;

(b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and

(c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Design Technique *(this is ONE WAY of meeting the above Principle)*

104.1 *Ventilation equipment built in accordance with Australian Standard 1668.2-2002: 'The Use of Ventilation and Airconditioning in Buildings - Ventilation Design for Indoor Air Contaminant Control'.*

Energy Efficiency

OBJECTIVE

Objective 30: Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

PRINCIPLES OF DEVELOPMENT CONTROL

All Development

106 Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:

(a) providing an internal day living area with a north-facing window, other than for minor additions*, by:

(i) arranging and concentrating main activity areas of a building to the north for solar penetration; and

(ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.

(b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;

(c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;

(d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;

(e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;

(f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;

(g) providing an external clothes line for residential development; and

(h) use of landscaping.

107 All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

108 Energy reductions should, where possible, be achieved by the following:

(a) appropriate orientation of the building by:

(i) maximising north/south facing facades;

(ii) designing and locating the building so the north facade receives good direct solar radiation;

(iii) minimising east/west facades to protect the building from summer sun and winter winds;

(iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or

(v) minimising the ratio of wall surface to floor area.

(b) window orientation and shading;

(c) adequate thermal mass including night time purging to cool thermal mass;

(d) appropriate insulation by:

(i) insulating windows, walls, floors and roofs; and

(ii) sealing of external openings to minimise infiltration.

(e) maximising natural ventilation including the provision of openable windows;

(f) appropriate selection of materials, colours and finishes; and

(g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

Design Techniques *(these are ONE WAY of meeting part of the above Principle)*

108.1 *In relation to Principle 108(b) (refer Figure 108.1):*

(a) shading for all windows except for south facing elevation against summer sun penetration, by means such as vegetation, external louvres, external blinds, structural overhangs, low emittance glazing, spectrally-selective glazing and/or window films;

(b) maximising natural daylight while limiting glare through the incorporation of narrow floor plates, light shelves, shaded skylights, light shafts and/or atriums with daylight sensing control of electric lighting;

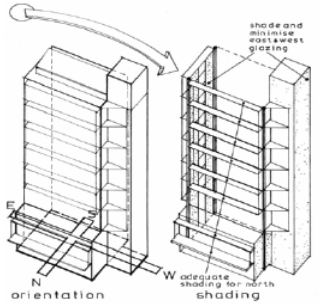


Figure 108.1 - appropriate orientation and shading for commercial buildings.

(c) integration of solar shading with solar energy collection technology such as solar heat pumps and photovoltaic cells; and/or

(d) use of high performance glazing.

108.2 *In relation to Principle 108(c):*

(a) night purging and fan assisted thermal chimneys to remove heat stored in the building during the day and the recirculation of warm air during winter; and

(b) adjustable air flow rates for high, but variable, occupancy rates (ie office and conference areas).

108.3 *In relation to Principle 108(f):*

(a) use of materials and light colours that reflect rather than absorb solar radiation, whilst ensuring reflective material avoids transferring heat and glare to adjoining properties and/or the pedestrian environment;

(b) use of well insulated materials; and

(c) light coloured internal walls and ceilings to assist with effective distribution of daylight.

108.4 *In relation to Principle 108(g), geoxchange heating and cooling systems including closed loop and open loop systems.*

109 Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

109.1 *A roof incorporating an area of at least 10 square metres which:*

(a) faces between 30° east and 20° west of north respectively; and

(b) has a pitch of greater than 18°.

111 New buildings should be readily adaptable to future alternative uses.

Design Techniques *(these are ONE WAY of meeting part of the above Principle)*

111.1 *Design solutions may include:*

(a) a structural grid which accommodates car parking dimensions, retail, commercial and residential uses vertically throughout the building;

(b) the alignment of structural walls, columns and service cores between floor levels;

(c) minimisation of internal structural walls;

(d) higher floor to floor dimensions on the ground and first floor;

(e) knock-out panels between dwellings to allow two adjacent dwellings to be amalgamated;

(f) design for disassembly by selecting systems/materials that can be deconstructed at the end of the projects useful life; and/or

(g) the use of products with high post-consumer recyclable content.

112 Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

Design Techniques *(these are ONE WAY of meeting part of the above Principle)*

112.1 *The use of:*

(a) oil based floor sealers; and/or

(b) natural materials for floor linings such as plywood flooring, linoleum and wool carpet.

Micro-climate and Sunlight

OBJECTIVES

Objective 33: Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.

Objective 34: Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

PRINCIPLES OF DEVELOPMENT CONTROL

119 Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.

120 Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.

122 Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

122.1 *Design solutions may include:*

(a) reducing the quantity of glass used by having a higher proportion of masonry or other non-reflective materials in the building exterior;

(b) recessing glass into the building;

(c) shading or angling the glass;

(d) selecting glass that has a low level of reflection; and/or

(e) avoiding the use of large expanses of highly reflective materials.

123 Buildings within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlays 2, 2A and 3), unless specified otherwise within the relevant Zone or Policy Area, should be designed to provide weather protection for pedestrians against rain, wind and sun. The design of canopies, verandahs and awnings should be compatible with the style and character of the building and adjoining buildings, as well as the desired character, both in scale and detail.

124 Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.

125 Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

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.

Stormwater Management

OBJECTIVES

Objective 35: Development which maximises the use of stormwater.

PRINCIPLES OF DEVELOPMENT CONTROL

128 Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

128.1 *For residential and non-residential development, rainfall run-off should be retained and used as much as possible through the application of an appropriate range of the following techniques:*

(a) collection and use of roof run-off in rain saver gutters and rainwater tanks for irrigation (a 500 litre rainwater tank to irrigate 25 square metres of garden), and internal purposes (drinking when considered safe to do so, flushing toilets, washing, and bathing);

(b) use of on-site detention tank/s with an appropriately sized orifice;

(c) directing rainfall run-off onto landscaped areas;

(d) installing appropriate soakage devices (soakage trenches or wells) having regard to the availability of unbuilt upon or unsealed areas, the ability of soils to absorb and drain water, the potential impact on building foundations and footings on or adjacent to the site, and the ability to safely direct surplus flows to a public street without causing nuisance to adjoining properties; and

(e) use of permeable forms of paving for public and private parking areas, open storage, display, work areas, driveways, vehicle and pedestrian carriageways.

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

140 Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

(a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and

(b) is located no closer to the primary street frontage than the adjacent heritage place.

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.

(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

167 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

168 Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:

(a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;

(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.

169 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).

170 The height, scale and massing of buildings should reinforce:

(a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:

(i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;

(ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and

(iii) avoiding massive unbroken facades.

(b) a comfortable proportion of human scale at street level by:

(i) building ground level to the street frontage where zero set-backs prevail;

(ii) breaking up the building facade into distinct elements;

(iii) incorporating art work and wall and window detailing; and

(iv) including attractive planting, seating and pedestrian shelter.

172 Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in Map Adel/1 (Overlay 5) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.

Composition and Proportion

180 Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:

(a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and

(b) clearly defining ground, middle and roof top levels.

181 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

182 Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

182.1 *Design solutions may include:*

(a) defining a base, middle and top related to the overall proportion of the building;

(b) expressing key horizontal lines within the townscape by using cornices, a change in materials or building setback;

(c) expressing the internal layout of the building by using for example, vertical bays or its structure, such as party wall divisions;

(d) expressing the variation in floor to floor height, particularly at the lower levels;

(e) articulating building entries with awnings, porticos, recesses, blade walls and projecting bays;

(f) using a variety of window types to create a rhythm or express the use of the building;

(g) incorporating architectural features which give human scale to the design of the building at street level such as entrance porches, awnings and colonnades;

(h) designing facades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls;

(i) expressing important corners by giving visual prominence to parts of the facade, for example, a change of building articulation, material or colour, roof expression or increased height;

(j) using a variation of contrasting surface finishes, textures, colours or patterns; or

(k) avoiding unbroken building elevations of more than 15 metres on a vertical plan;

(l) using recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the facade;

183 Balconies should be designed to give shelter to the street or public space at first floor levels.

184 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.

186 Building services such as drainage pipes together with security grills/screens, ventilation louvres and car park entry doors, should be coordinated and integrated with the overall facade design.

Materials, Colours and Finishes

187 The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.

188 Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape

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

190 Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

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

193 Buildings should be designed to incorporate well designed roof tops that:

(a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;

(b) enhance the skyline and local views;

(c) contribute to the architectural quality of the building;

(d) provide a compositional relationship between the upper-most levels and the lower portions of the building;

(e) provide an expression of identity;

(f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;

(g) respond to the orientation of the site; and

(h) create minimal glare.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

193.1 *Design solutions may include:*

(a) articulating form and surface by large, simple features that can be recognised from a distant view point;

(b) tapering towers by stepping back floor plates;

(c) integrating plant and fixtures within the roof top design; and/or

(d) incorporating an architectural roof feature within the design of the building by:

(i) creating a feature that forms part of its overall architectural form and composition;

(ii) ensuring visual compatibility with nearby towers and other structures whilst maintaining architectural distinction;

(iii) providing sky line features capable of being viewed over great distances;

(iv) including modelled parapets;

(v) ensuring compatibility of podia height at street alignment; and/or

(vi) incorporating roof top gardens and terraces.

194 Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:

(a) be designed to minimise the visual impact; and

(b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.

195 Roof design should facilitate future use for sustainable functions such as:

(a) rainwater tanks for water conservation;

(b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or

(c) "green" roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

Active Street Frontages

OBJECTIVES

Objective 50: Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality's desired character.

Objective 51: Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:

(a) enlivening building edges;

(b) creating welcoming, safe and vibrant spaces;

(c) improving perceptions of public safety through passive surveillance; and

(d) creating interesting and lively pedestrian environments.

PRINCIPLES OF DEVELOPMENT CONTROL

196 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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

196.1 *Design solutions may include:*

(a) Well designed and legible entrances, lobbies and commercial uses at ground level.

(b) Window displays of merchandise or open shopfronts, well lit panel displays, corporate identity and/or artworks.

(c) Avoiding vast expanses of blank walls presenting flat surfaces without detailing, openings or activity.

(d) Orientating active parts of a building to the street frontage.

(e) Incorporating uses such as retailing, food and drink outlets, counter services and cafés/restaurants particularly with outdoor seating areas.

198 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.

Design Techniques *(these are ONE WAY of meeting the above Principle)*

198.1 *Design solutions may include:*

(a) Providing well designed legible entrances and lobbies that address the street.

(b) Creating richness and detail at street level through methods such as artwork (including animating spaces with water), use of high quality materials and variation in materials, wall and window detailing and decoration.

(c) Locating lively interior activities along street frontages so they are visible from outside e.g. employee canteens or reception areas oriented towards the street;

(d) Cafés and restaurants utilising footpath space; and/or

(e) Providing designs which incorporate places for people to sit and watch.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

224 Development should provide safe, convenient and comfortable access and movement.

Pedestrian Access

OBJECTIVES

Objective 61: Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

Objective 62: Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities.

PRINCIPLES OF DEVELOPMENT CONTROL

226 Development should reflect the significance of the paths and increase the permeability of the pedestrian network identified within Map Adel/1 (Overlay 2) by ensuring:

(a) pedestrians are not disrupted or inconvenienced by badly designed or located vehicle access ramps in footpaths or streets; and

(b) vehicle and service entry points are kept to a minimum to avoid adverse impact on pedestrian amenity.

227 Within the Core, Primary and Secondary Pedestrian Areas identified within Map Adel/1 (Overlays 2, 2A and 3), development should be designed to support the establishment and maintenance of continuous footpaths so that pedestrian flow is free and uninterrupted. Pedestrian access should be provided at ground level mid-block between all streets.

228 Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within Map Adel/1 (Overlays 2, 2A and 3) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.

230 Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.

232 Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

Objective 64: Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.

Objective 65: Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

233 Development should have regard to the bicycle routes identified within Map Adel/1 (Overlay 3) by:

(a) limiting vehicular access points; and

(b) ensuring that vehicles can enter and leave the site in a forward direction, thereby avoiding reverse manoeuvres.

234 An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in Table Adel/6.

235 Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

(a) located in a prominent place;

(b) located at ground floor level;

(c) located undercover;

(d) located where passive surveillance is possible, or covered by CCTV;

(e) well lit and well signed;

(f) close to well used entrances;

(g) accessible by cycling along a safe, well lit route;

(h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and

(i) in the case of a cage have an access key/pass common to the building access key/pass.

236 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

(a) directly associated with the main entrance;

(b) located at ground floor level;

(c) located undercover;

(d) well lit and well signed;

(e) located where passive surveillance is possible, or covered by CCTV; and

(f) accessible by cycling along a safe, well lit route.

237 Access to bicycle parking should be designed to:

(a) minimise conflict with motor vehicles and pedestrians;

(b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and

(c) ensure the route is unhindered by low roof heights.

Design Technique *(this is ONE WAY of meeting the above Principle)*

237.1 *In relation to Principle 237(a):*

(a) avoid unnecessary vehicular crossing points, particularly with potential reversing movements from motor vehicles; and

(b) utilise the shortest, most direct route for cycles to reach the destination bicycle parking

237.2 *In relation to Principle 237(c), a minimum clearance of 2 metres for new, permanent structures.*

238 To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

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 70: Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

241 Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.

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

Design Technique *(this is ONE WAY of meeting the above Principle)*

242.1 *Commercial vehicle facilities in compliance with the requirements recommended in Australian Standard AS 2890.2: Off-Street Parking - Part 2: Commercial Vehicle Facilities.*

243 Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment.

244 Vehicular access to development located within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlay 2A) should be limited and designed to minimise interruption to street frontages.

245 Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.

248 Buildings located along primary and secondary access roads should be sited to avoid the need for vehicles to reverse on to the road (unless the dimensions of the site make this impractical).

249 Access roads within residential development should:

(a) provide convenient access for emergency vehicles, visitors and residents;

(b) enable vehicles to enter and leave a site in a forward direction;

(c) provide a comfortable and safe pedestrian environment; and

(d) be well lit.

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

(a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;

(b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;

(c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;

(d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;

(e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

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

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

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

PRINCIPLES OF DEVELOPMENT CONTROL

266 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

(a) provide a range of shopping facilities in locations that are readily accessible;

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;

(c) maximise opportunities for co-location, multiple use and sharing of facilities;

(d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and

(e) have minimal impact on the amenity of residential areas.

268 Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.

269 Tourist facilities should be compatible with the prevailing character of the area, within close proximity to public transport facilities and well designed and sited.

271 Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.

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.

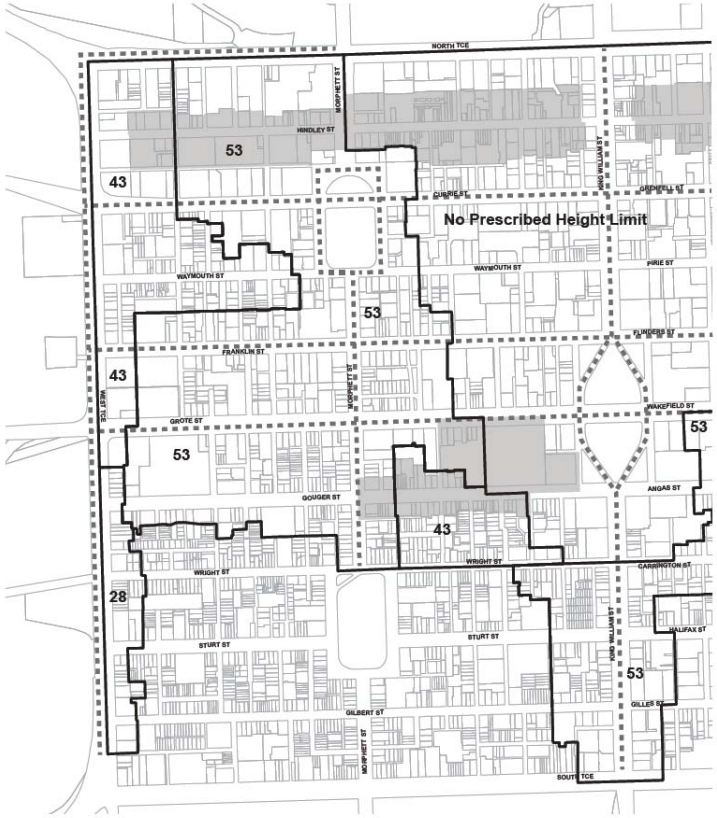
(g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas 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.



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

N

1:8000

0 120 240 360 480 600 metres

ADELAIDE (CITY)
BUILDING HEIGHTS
Concept Plan Figure CC/1

Consolidated - 20 June 2017

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 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

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.

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.

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.

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).

Central Business Policy Area 13

Introduction

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

DESIRED CHARACTER

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

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

OBJECTIVES

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

Objective 2: Development of a high standard of design and external appearance that integrates with the public realm.

Objective 3: Development that contributes to the Desired Character of the Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 Development should contribute to the area's role and function as the State's premier business district, having the highest concentration of office, retail, mixed business, cultural, public administration, hospitality, educational and tourist activities.

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

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

PA
CT

pruszinski PACT architects

ARCHITECT'S STATEMENT

BENTHAM STREET HOTEL
18 Bentham Street Adelaide
Version –Lodgement 19th March 2018

The Bentham Street hotel is the latest project being developed by The Mandala Group. The site is located on the Eastern side of Bentham Street, in the centre of Adelaide. The site is currently used as a ground floor car park which is fenced and provides no activation to Bentham Street. The proposal is for an 18 level hotel with 183 guest rooms plus ancillary guest and service areas. This project will provide a significant injection of life, activation and surveillance to Bentham Street to compliment the proposed council upgrade works.

Design Team
The following consultants have been engaged to form part of the design team:

Architecture and Interior Design –	pruszinski PACT architects
Structural and civil Engineers –	Enstruct
Services Engineers –	Bestec
ESD –	Bestec
Acoustics –	Bestec
Planning consultant –	PBA Phil Brunning and Associates
Heritage –	Bruce Harry & Associates
Traffic –	CIRQA
Wind –	Windtech
Builder –	Synergy Construct
Certifier –	Katnich Dodd

Process
Following on from our internal design process, we engaged with DPTI's pre-lodgement service. Valuable feedback was received from the PLP session which led us to improve the design in regards to street activation and interaction, detailing of the podium form and relocation of building services on the façade. The project then proceeded with a Design Review session and this also led to many improvements in the design such as grounding and strengthening the podium form, lightening the balcony form, increased activation to the street, improved roof screening of plant and equipment and increased detailing to the eastern façade.
In addition, we have consulted with City of Adelaide to co-ordinate works with the proposed Market to Riverbank link works.

Context and Heritage

The proposed building sits within the larger city block bounded by King William Street, Waymouth Street, Bentham Street and Franklin Street. This zone is characterised by scattered heritage buildings flanked with tall contemporary towers, containing a large amount of glass.

The heritage buildings on Bentham Street all have a similar height of approximately five levels and have a high solid to void ratio. In consultation with the Heritage Architect, Bruce Harry, this five level mass has been identified as the primary quality to reference in our proposed design. Accordingly, we have assigned levels 1 to 5 to have a high solid to void ratio and predominantly vertical forms with a high level of detail. A strong horizontal element at the top of level 5 provides continuity to the street and creates a cap to the podium element. Ground floor has a larger proportion of glass to provide activation to the street and also strengthen CPTED principals however following comments from the Design Review, a 1000mm high plinth has been added to help ground the podium form and tie the building elements together.

Design and Built Form

The building design consists of a strong building shell which wraps around the Southern and Eastern facades and appears as an edge on the Western and Northern facades. Inside this strong shell, a more delicate façade of tinted glass wraps around the remaining sides to connect the building together. Below this, the complimentary colour of the brightonlite precast fins connects with the adjoining heritage building.

A bold chamfer has been removed from the lower floors on the southern façade. This gesture is the result of complying with the National Construction Code's fire egress requirements while trying to activate the south west corner of the site at ground level. The angled chamfer detail has also been referenced in the underside of the balcony and the detailing of the podium fins.

A balcony on level 1 provides wind and rain protection to the building entry and pedestrians while also adding to activation and surveillance in the street.

Landscaping elements have been added to the level 1 balcony and the ground floor following consultation with the City of Adelaide to help strengthen the landscaping deliverables of the Market to Riverbank project.

Traffic

There are no car parks proposed for the project. A loading bay has been included on the north side of the building and is accessed via the Right of Way on the adjacent property. This loading bay will have a clear height of 4000mm. CIRQA have assessed the turning circles and provided advice in their report attached.

ESD and Building Services

The extent of North and West facing glass was reviewed following comments from the PLP and Design Review sessions and has been reduced on the northern side. Although the building presents a significant amount of glass façade to these two sides, 50% of the glass is colourback glass with an insulated wall directly behind to reduce the solar load into the building. The extent of insulated wall panels was increased following advice from Bestec.

Plant and equipment is spread throughout the building but focused in the level 2 plant rooms and the roof. The level 2 plant rooms are discretely located away from Bentham Street. The roof plant is screened by the façade which extends up by 1500mm beyond the roof level to screen plant and equipment.

Hotel Operator
The hotel operator has been involved with the design and have provided considerable input into the layout and functionality of the hotel.

We believe this hotel has carefully and considerately balanced the various needs of the key stakeholders. Input received from Office for Design + Architecture SA's Pre-lodgement Panel and Design Review meetings as well as City of Adelaide's meetings have greatly improved the proposed build form and its intentions to become an integrated and activated development in Bentham Street.

PA
CT

pruszinski PACT architects

HERITAGE IMPACTS ASSESSMENT

Proposed Hotel Development
18 Bentham Street , Adelaide

March 2018

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Heritage Impacts Assessment

Proposed Hotel Development
18 Bentham Street , Adelaide

Prepared by
Bruce Harry FRAIA
Heritage Consultant

I have reviewed the concept drawings for the proposed development prepared by Pruszinski PACT Architects , reviewed the Adelaide (City) Development Plan provisions relating to the State and Local Heritage Places in the vicinity of the site , considered the historical development and character of the locality within which the proposed development is situated, and provide the following comments regarding the likely impacts of the proposed development on those heritage places and their locality .

Historical Overview of the Site and Locality

The early development of Adelaide was concentrated in the north-west corner of the city , adjacent North and West Terrace , and along Hindley Street , where many shops , manufacturing retailers , hotels and their supporting services established the initial business centre . Early worker housing was built nearby and to the south-west . During the 1840s, the nascent city expanded eastward along North Terrace and into Rundle and Grenfell Streets and southward into Currie , Waymouth and Franklin Streets , and beyond.

In the 1850s , many more commercial , hotel , civic and religious buildings were erected across the spreading city , with King William Street and the wider boulevards becoming the preferred locations for the most successful business enterprises . A substantial new GPO was built in 1851 at the corner of King William and Franklin Streets , and a new Metropolitan Police Station and Local Courts complex , and an increase in commercial development followed in the streets west of King William Street .

Nearby Bentham Street was not part of Colonel Light's original grid plan for the City of Adelaide , created in the late 1840s , when Town Acres 200 and 239 were subdivided . The first building erected in Bentham Street was the "Christian" Church (in 1848) , which would remain the only building in the street for many decades to come . Crowders Aerated Water factory was established nearby in Franklin Street in 1853 and a few other one and two storey commercial premises were built in Franklin and Waymouth Streets at the time , but many open allotments remained , used mostly for keeping horses and as open builders yards .

The photographer Townsend Duryea captured the extent of city development in the locality in a panorama of photographs taken from the top of the nearly completed Town Hall tower in 1865 .

Photograph 1 : Adjoining Townsend Duryea panorama of Franklin Street (at left) and Waymouth Street (at right) looking west from the Town Hall tower in 1865.The church with steeple in Franklin Street is the newly completed Methodist New Connexion Church at the corner of Pitt Street .Bentham Street , in the foreground ,remains largely undeveloped .

Between 1870 and the mid-1880s , the growth of the City was dramatic and the physical character of Adelaide changed noticeably as a large number of the early buildings were replaced with more substantial premises , the first three - four storey buildings began to appear , and supporting infrastructure such as reticulated water and gas lighting and horse trams and tracks were introduced . Commercial and Civic development predominated in North Terrace , King William Street , Currie and Grenfell Streets , retail development was concentrated in Rundle and Hindley Streets , and the many colonial businesses connected with horse transportation such as the saddlers , blacksmiths , wheelwrights and coach builders , congregated in Waymouth and Franklin Streets , and the nearby streets south-west of Victoria Square .

During the 1870s , a new and larger GPO and tower replaced the smaller GPO building , the Oddfellows built a large Hall between the GPO and Bentham Street , a new two storey frontage was added to the adjacent Crowders factory , and a two storey office building (Fraser Chambers) was erected on the Bentham Street corner . Carriage builders Duncan and Fraser also erected substantial new factory premises in Franklin Street , just west of Bentham Street . In Bentham Street , a two storey frontage was added to the Christian Church , and at the Waymouth Street end , the two storey Thistle Hotel was erected on the north-west corner and a two storey retail premises was erected on the adjacent north-east corner .

In preparation for the laying of deep drainage , the 1878 city survey undertaken by City Engineer C.W. Smith confirms the limited extent of building development in Bentham Street at the time , with most of the development of the period having occurred in

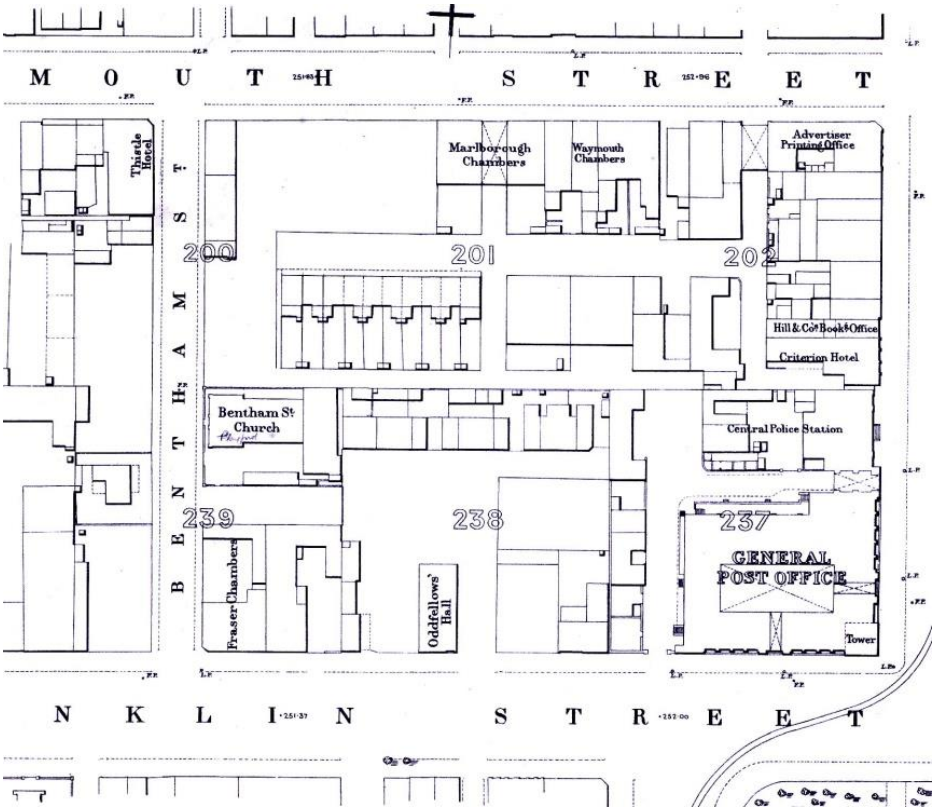

Figure 1 : Extract from Smith Survey of 1878 showing extent of building development in Bentham Street and the surrounding locality at that time .

Waymouth Street , which by then was approaching a fully developed streetscape , albeit with several large open allotments remaining on the south side of the street towards King William Street , and to a lesser extent in Franklin Street which was dominated by the large Methodist New Connexion Church at the Pitt Street corner , but where many more large , open allotments still remained , including at the south-west corner of Bentham Street .

The rapid pace of city development continued into the 1880s, until a long period of economic depression was brought on by drought and bank failures from 1886 , and further development activity abruptly declined .

During the long downturn that followed , the Darling Company , a large and successful flour and grain exporting business , purchased the Fraser Chambers building at the Bentham Street corner and moved to the site in 1888 . During the 1890s , the Boys Brigade also built a two storey Hall in Bentham Street opposite the Christian Church . But there was little further development in the locality, or the City more widely , until the turn of the Century brought . the next period of major City development .

Photograph 2 : Ernest Gall view looking west from the GPO Tower circa 1900
(SLSA PRG 631/2/140)

In 1900 , the S.A. Farmers Co-operative Union Ltd (which had been established in 1895 to give the State's farmers greater control over agricultural products pricing) erected new premises on the vacant south-west corner of Franklin/Bentham Streets , adjacent the Duncan and Fraser coachbuilding premises . The rapidly expanding Co-op would become the principal agent of development in Bentham Street for the next 50 years .

Another catalyst for city development during the early part of the 20th Century was the increasing adoption of the motor car by the Adelaide community . By 1910 some 1350 registered motor cars were mingling with the trams , horses and buggies in Adelaide's streets and many of the coach builders that had established in the area between Waymouth and Gouger Streets would become involved in the early motor industry, building car bodies for imported chassis . As the construction of new showrooms and redevelopment of existing buildings for associated motor vehicle activities accelerated , Waymouth Street in particular became a focus for businesses importing British and American cars .

By the onset of World War 1 in 1914, Duncan and Fraser had built a larger two storey building on its Franklin Street site adjacent the S.A Farmers Co-operative Union , which had itself built a large iron clad grain store in Bentham Street behind the corner office building , taken over the former Boys Brigade building alongside the grain store , and constructed a two storey retail Merchandise Store beyond . During the war years , the Co-op would add a third floor to its corner office building , construct another three storey building beyond the Merchandise Store, and another iron clad shed beyond that , to largely complete the western streetscape to the rear of the Thistle Hotel at the Waymouth Street corner . Within a few years thereafter , the Co-Op had demolished the Grain Store and former Boys Institute buildings and replaced them with a new five storey building fronting Bentham Street .

By contrast , the eastern side of Bentham Street remained largely unchanged up to the end of WW 1 , with the 1870s retail building at the north-east corner of Waymouth Street now occupied by Coachbuilders , the Christian Church building de-sanctified and adapted to a fibrous plaster works , with a large iron clad shed at its southern side . The major change to the townscape of the locality during the period occurred in 1916 when the Darling Company replaced its two storey stone building at the Franklin Street corner with a new four storey building in reinforced concrete , one of the first in Adelaide to be constructed using the new technology.

Photographs 3 & 4 : S.A Farmers Co-op buildings along western side of Bentham Street c1917 (SLSA B 68752) and the newly completed Darling Building c 1916 (SLSA B 71604)

A post-war revival of building activity followed , ushering in a decade long economic boom during the 1920s . This was the “skyscraper” era when the shift to much taller buildings in the City accelerated and many more older buildings were replaced in the new architectural style(s) .

In 1923 a major fire in the Duncan and Fraser factory spread to the S.A. Farmers Co-op buildings in Bentham Street , causing significant damage . Following the fire , the Duncan & Fraser factory in Franklin Street was replaced by a four storey building in the Stripped Classical Style , and the Co-op demolished and rebuilt much of its Bentham Street frontage to five storeys , in the Federation Free Style .

In Waymouth Street , additional floors were added to the nearby S.A. Gas Company building taking it to 7 storeys , and in 1928-29 , the Coachbuilding premises at the Bentham Street corner were replaced by the four storey Norwich Union building in the Commercial Palazzo Style .

The building boom of the 1920s ended abruptly with the onset of the Great Depression in 1929.

Photograph 5 :The same view as in photo 1 after the fire of 1923 and rebuilding (SLSA SRG 804/2/10)

Photo graph 6 :: The new Norwich Union building as completed in 1929 SLSA B 5477)

A brief period of renewed development occurred in the locality in the mid-late 1930s, catalysed by a burst of automotive related building in Waymouth Street , with several new Dealer showrooms and other sales and servicing outlets , mostly in the streamlined Art Deco Style . In Bentham Street in 1934 , the Co-op Insurance also erected an office building in the Art Deco Style , on the site of its former iron clad shed adjacent the Thistle Hotel . And in 1937 the formerly Italianate styled hotel was itself remodelled in the Art Deco style . Further activity was halted by the onset of WW 2 , and it would not be until the lifting of wartime rationing in the early 1950s that economic growth and development recommenced .

Photograph 7 : East side of Bentham Street c 1923 (SLSA B 10464)

Photograph 8: West side c1955 after remodelling of the hotel (SLSA 13218)

During the 1950s , trams were removed from City streets and replaced by buses , largely to deal with the rapidly increasing number of cars entering the City . And a renewed surge in the construction of skyscrapers commenced with the erection of the MLC Insurance building at the corner of Victoria Square . In 1954 , an additional floor was added to the Norwich Union building at the Waymouth/Bentham Street corner , and its façade ornamentation was stripped back to give it a more modern appearance . Another floor was also added to the Duncan Building in Franklin Street . Several one and two storey retail buildings were erected in Franklin Street east of the Darling Building , and opposite , in the contemporary styles of the period .

Perhaps the most dramatic changes to the streetscapes in the locality came with the next building boom of the 1970s/80s, when more historic buildings were demolished to make way for contemporary skyscrapers . In the early 1970s, the Thistle Hotel on the Bentham Street corner was demolished and replaced by an 18 storey office tower . A similar height Telephone Exchange building was erected nearby in Waymouth Street . During the 1980s, a 14 storey office tower was erected on the corner opposite the Norwich Union building , other 12 and 14 storey office towers were built further west along Waymouth Street , and another of 11 storeys on the southern side of Waymouth Street near the Telephone Exchange tower . Two other office buildings of 10-12 storeys were also erected during the period on the southern side of Franklin Street , opposite the junction with Bentham Street . The former Christian Church building in Bentham Street was demolished around this time .

The share market and property crashes of 1987-90 brought this intensive period of building activity to a standstill until the first decade of the 21st Century when another round of multi-storey development commenced .

Photograph 9: East side of Bentham street in 2018

Photograph 10 : West side of Bentham Street in 2018

During the first decade of the new century, the former S.A. Farmers Co-op buildings were adapted to an apartments complex , and for office use , the multi-storey office building on the former Thistle Hotel site was extensively remodelled as a hotel . In the block bounded by Waymouth , Bentham , Franklin and King William Streets the SAGASCO and Advertiser Newspaper buildings were demolished and several substantial new office towers were erected. Such as the 20 storey ANZ office tower and the 19 storey Tower 8 . Other buildings in the precinct have been adapted to new , often different uses . The recent development cycle continues , with more multi-storey office towers under construction and planned in the block such as the 14 and 20 storey towers adjacent the GPO/Telegraph Exchange buildings , and the proposed hotel development that is the subject of this report .

This historical cycle of rapid development in brief periods of economic boom, interspersed by long periods of economic recession , has contributed to the progressively changing nature of the townscape of the locality , particularly in the early decades of the 20th Century , and more so during the later , intensive period of high scale development that has occurred between the 1970s and the present day . As a consequence , Bentham Street today is characterised by the diversity of built form and styles of its mix of historic and modern buildings , and the absence of a visually contiguous streetscape.

Photo 11: Bentham Street looking north from Franklin Street with former S.A. Farmers Co-op building on left

Photo 12 : Darling Building with Tower 8 beyond

Photo 13 : West side of Bentham Street directly Opposite the proposed development

Photo 14 : The subject site with Woodards House at left ,Tower 8 , and Darling Building in distance

Adjacent Heritage Places

The site of the proposed development is 18 Bentham Street (part of Town Acre 200), a vacant allotment . The site is bordered on the northern side by the five storey Woodards House (the former Norwich Union building) across a Right of Way . Woodards House is a State Heritage Place (ID 13106) and is also identified as a Local Heritage place in the Adelaide City Development Plan(ID 25313) .

The site is bordered on the southern side by a Private Road and the recently erected office building known as Tower 8 . Beyond , at the corner of Franklin Street is the four storey Darling Building, another State Heritage Place (ID 13099).

Directly opposite the site on the western side of the street is the two storey former Co-op Insurance building at 11-13 and three storey former S.A. Farmers Co-op Merchandise Store at 15-19 Bentham Street , both now adapted to commercial office uses. They are identified as Local Heritage Townscape places in the Adelaide (City) Development Plan . Extending south of these to the Franklin Street corner is the large , five storey formerly the main S.A. Farmers Co-op building (now consolidated as the Franklin Central Apartments) , also identified as a Local Heritage Place Townscape in the Development Plan.

These are the only heritage listed places in the locality of the subject site.

Figure 2 : extract from Adelaide City Development Plan showing State and Local Heritage places in the vicinity with the subject site highlighted

Woodards House and the Darling Building have been State Heritage listed for similar heritage values ie., their importance as early 20th Century examples of the Commercial Palazzo style of architecture applied to multi-storey buildings , and the work of their different but equally notable S.A. Architects . They have a similar scale and built form appearance , incorporating rusticated ground floor bases , vertically fenestrated , simplified renaissance facades , and an emphasised classical cornice with parapets . Their frontages and more detailed facades are to Waymouth and Franklin Streets .

The former S.A. Farmers Co-op buildings have a more diverse scale and built form appearance. As Local Heritage Townscape places , they have not been listed for their individual or collective heritage values as defined by the Local Heritage criteria in Section 23(4) of the Development Act , and are more akin to that class of places referred to as Contributory Places , normally located within Historic (Conservation) Zones . They are not situated within the Adelaide Historic (Conservation) Zone .

Dating from the first three decades of the 20th Century , all of the historic buildings have masonry facades , rhythmically fenestrated with small windows , vertically aligned , and their contribution to the character of the locality is derived mostly from their traditional architectural appearance .

The Proposed Development

The proposed development is an 18 storey hotel building with foyer/reception areas at ground floor level , a restaurant/breakfast area at first floor level , house operations and support services at second floor level , and fifteen floors of hotel room accommodation above . There is to be no basement .

The building design incorporates podium like detailing on the north and west facades of similar scale to Woodards House , the nearest of the three largest historic buildings in Bentham Street , to reflect the greater solidity and depth of its traditional masonry construction. The front (west) facade above the podium feature and north façade return ,will be glazed with a sleek curtain wall appearance . An awning in the form of a balcony has been incorporated at First Floor level above the Bentham Street footpath .

The remainder of the north façade , and the building's south façade will have a more solid appearance with a higher ratio of solid wall cladding to glazing , while the eastern side of the proposed building adjoining the Advertiser building , will have a windowless façade , with articulation lines to add visual interest .

The proposed development is described more fully in Pruszinski PACT Architects drawings 17028/01 – 14, dated 16 March 2018 .

Statutory Provisions relating to Heritage Places

18 Bentham Street is in the Capital City Zone of the Adelaide (City) Development Plan, a zone in which high-scale development is envisaged , and in which new development "*…recognises and carefully considers the adjacent built form , and positively contributes to the character of the immediate area…."* and where "*….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….."*. The subject site is also within Central Business Policy Area 13 of the Capital City Zone , where "*…tall and imposing buildings that provide a hard edge to the street…."* are anticipated "…..and where *"….complementary and harmonious buildings in individual streets will create localised character and legible differences between streets…*" .

The Zone and Policy Area provisions contain little in the way of specific heritage policies .

The Council Wide policies relating to development of , or affecting individual State and Local Heritage places across the City seek their conservation , and redevelopment that will retain their heritage values , settings , and "*built form contribution to their locality"* . However , while there are numerous policies relating to individually listed heritage places , only City Wide Principle of Development Control 140 addresses development on land adjacent to a heritage

place , encouraging the use of design elements, materials and finishes , and built form qualities that will complement an adjacent heritage place . In the context of PDC 140, adjacent means adjoining sites , and does not generally encompass sites separated by other buildings , roads or open spaces as is the case with the subject site . And complement is generally taken to mean go well with eg., as a bottle of wine complements a meal . It is not generally interpreted as requiring the replication of a place's heritage features .

Overall, the statutory provisions relating to heritage places express an intent to preserve their heritage values and settings , and their built form contributions to their locality , and to encourage adjacent new development that in its built form appearance will be able to co-exist in harmony with those heritage places .

As Bentham Street is outside the Adelaide Historic (Conservation) Zone , the area of the City wherein its streets are deemed to have a relatively consistent historic character , the statutory provisions relating to the H(C)Z do not apply .

Impacts of the Proposed Development on the Heritage Places and the Locality

Bentham Street was , for much of the 19th Century , an undeveloped access way between Waymouth and Franklin Streets with too few buildings to define a comprehensible streetscape . None of the few 19th Century buildings in the street have survived . It was not until the turn of the 20th Century that rapid development by the S.A. Farmers Union Co-Operative finally gave a built form to the western streetscape .

All of the buildings present in Bentham Street today date from the first thirty-five years of the 20th Century , or more recently , and have a diversity of architectural styles and scales , giving the street a mixed townscape character . Several have been redeveloped , with extra floors added and facades remodelled . To the extent they have any built form consistency it is perhaps in the similar scale of the three largest historic buildings eg., the Darling Building , Franklin Central Apartments , and Woodards House .

The State Heritage listed Woodards House has its primary frontage to Waymouth Street and turns its back on the subject site . It will remain physically and visually separated from the proposed hotel development by an existing Right of Way with no direct impacts impact upon its historic fabric or setting .

The Darling Building , the other State Heritage place at the Franklin Street corner , has its primary frontage to Franklin Street and is further removed physically and visually from the proposed development , by both the 4-5 storey Plant Room annex of the adjacent multi-storey office Tower 8 and Private Road beyond , and consequently will also not be directly impacted by the proposed development .

The former S.A. Farmers Union Co-Op buildings on the western side of Bentham Street are also physically and visually separated from the proposed development by the width of the street , as is the typical situation of many other heritage places in City streets . They will not be directly impacted by the proposed development and their historic relationship and local streetscape settings will not alter .

While recognised in the Development Plan as an important pedestrian link in the City area , Bentham Street is not identified as having an important streetscape . Indeed the townscape between Waymouth and Franklin Streets is today comprised of a diverse mix of both contemporary and modified historic buildings of differing scales , styles and appearance which do not establish a consistent built form character . Nevertheless, in response to the Desired Character statements for the Zone and Policy Area, the architects have sought to include design references to the largest of the heritage places in the street by incorporating more solid , low level podium and awning features in their concept for the proposed hotel development . This has been an urban design response rather than a need arising from the heritage values or settings of the individual heritage places in the street, and is in my view an appropriate complementary artifice .

Conclusions

Having considered the proposed development in the context of the nearby heritage places and their surrounding townscape , I consider that the physical and visual separation of the proposed hotel development from all of the heritage listed places in the locality , means it will have no meaningful impact upon their individual heritage values , site contexts, or ongoing built form contributions to the locality . Further I am of the opinion that the large scale , mixed , built form of the townscape in the locality can readily accommodate the proposed development , and that it will be able to co-exist in harmony with both the nearby heritage places and the mixed , substantially contemporary character of the locality within which they survive .

Bruce Harry FRAIA
Heritage Consultant

19 March 2018

Principal Sources

State Heritage Database
City of Adelaide Heritage Study 1981-86 , Adelaide City Council
"History of the City of Adelaide" 1990 , eds Marsden , Stark & Sumerling
"*The City of Adelaide , A Thematic History"* 2006 , McDougall & Vines
City of Adelaide Heritage Survey 2008-09 , Donovan & Associates et al
SLSA Historic photographs collection
SAILIS Historic Titles accession
Smith Survey Plans 1878-80

PROPOSED HOTEL
18 BENTHAM STREET, ADELAIDE

TRAFFIC AND PARKING REPORT

CIRQA™

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DOCUMENT CONTROL

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1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for a proposed hotel development at 18 Bentham Street, Adelaide. Specifically, CIRQA has provided advice in respect to traffic and design aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by Pruszinski Architects (drawing no. 17028-01-11 to 01-14, dated 16 March 2018).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the eastern side of Bentham Street, approximately midblock between Waymouth Street and Franklin Street. The site is bounded by an office building to the north, 'The Advertiser' to the east, a private roadway to the south (forming part of 'The Advertiser' site) and Bentham Street to the west. The City of Adelaide's Development Plan identifies that the site is located within a Capital City Zone (Policy Area 14 – Central Business).

The site is currently used as an open-air (uncovered) car park, comprising approximately 16 parking spaces. Access to the site is provided via a 'right-of-way' (over the adjacent property immediately to the north) with direct access to/from Bentham Street.

Figure 1 illustrates the location of the subject site and associated access.

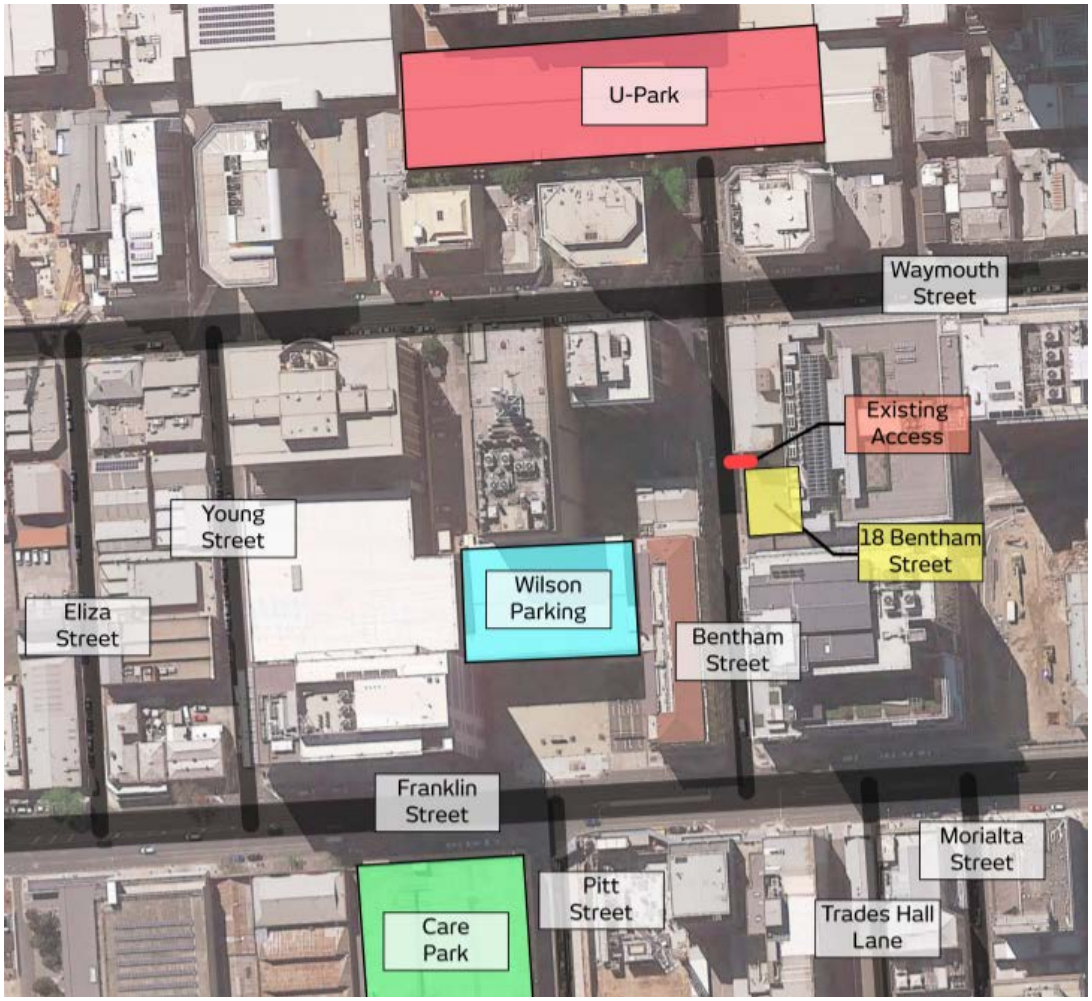

Figure 1 – Location of the subject site and existing access point

2.2 ADJACENT ROAD NETWORK

Bentham Street is a local street under the care and control of the Adelaide City Council. Adjacent the site, Bentham Street comprises a single southbound traffic lane, with various on-street parking spaces located on both sides. Sealed footpaths are provided on both sides of Bentham Street, accommodating both pedestrian and cyclist movements. Bicycles are also accommodated on-street under a standard shared arrangement. The default urban speed limit of 50 km/h applies on Bentham Street.

2.3 ACTIVE TRANSPORT

The subject site is well serviced by active transport modes (walking and cycling). Specifically, Bentham Street forms part of the City of Adelaide's 'Market to Riverbank' project (a project aiming to improve levels of service and amenity for pedestrian movements along a north-south corridor between the Adelaide Central Market and Riverbank precinct).

Furthermore, Waymouth Street and Franklin Street are identified as cycling links within the BikeDirect network. Dedicated bicycle lanes are located on both Waymouth Street and Franklin Street, providing further connectivity to the broader cycling network.

2.4 PUBLIC TRANSPORT

Frequent public transport services operate within close vicinity to the subject site. Specifically, numerous bus services operate along King William Street, Grote Street and Currie Street (all within a 300 m walking distance), providing frequent ('Go Zone') services to areas within the CBD and broader metropolitan Adelaide.

In addition, tram services operate regularly along King William Street, offering free travel within the Adelaide CBD and connectivity to key tourist destinations such as Glenelg, Adelaide Oval and the Adelaide Entertainment Centre.

3. PROPOSED DEVELOPMENT

The proposal comprises the demolition of the existing sealed car park and the construction of 183-room multi-storey hotel. The hotel will comprise ancillary areas for guests including a restaurant, gym and lobby area as well as back-of-house areas associated with the hotel's operation.

Pedestrian access to the site will be provided via the site's frontage to Bentham Street. A loading zone will be provided directly in front of the hotel (constructed as part of the City of Adelaide's 'Market to Riverbank' project) and will be able to be used for the set-down/pick-up of hotel guests.

Vehicle access to the site will be maintained via the site's 'right-of-way' over the adjacent site. However, this access will only be used by small rigid commercial vehicles (SRVs) associated with deliveries/loading and refuse collection. No vehicle parking will be provided on-site. Figure 2 illustrates the turn path of an SRV entering, manoeuvring within and exiting the subject site.

It is acknowledged that full provision of pedestrian sight lines is not achieved at the access point. Such a situation essentially retains the existing situation and constrained by the neighbouring existing building and dimensions of the right-of-way. Nevertheless, the access will be 4.5 m which is greater than the minimum width required by the relevant Standard. This will allow provision of clearances from the vehicle path and some sight distance provisions either side of an exiting vehicle. Consideration could be given to measures such as the installation of convex mirrors either side of the access (within the site) and/or audible and visiual warning systems during detailed design. Furthermore, as noted above, the sight distance provisions will retain the existing arrangement however there will be reduced number of movements through the access point. Movements associated

with refuse collection/loading would also typically be undertaken outside of peak pedestrian movements. It is also noted that movements will be able to be undertaken in a forward-in/forward-out arrangement.

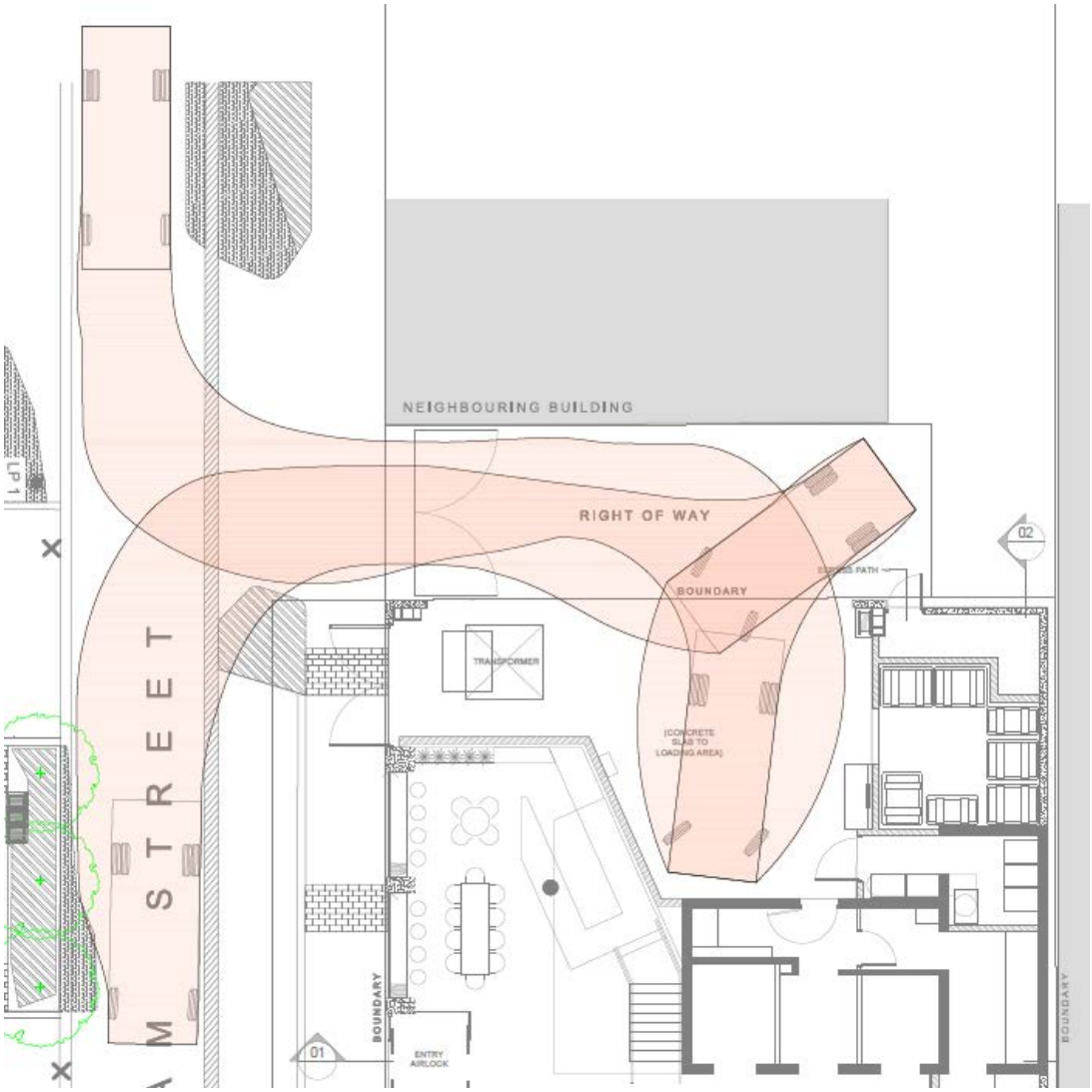

Figure 2 – An SRV accessing (left-in/left-out) and manoeuvring within the subject site

4. PARKING ASSESSMENT

4.1 VEHICLE PARKING

The City of Adelaide's Development Plan does not identify a parking requirement for land uses classified as 'hotel' or 'tourist accommodation' within the 'Capital City Zone'. As such, the provision of no parking spaces on the subject site is line with the principles of the Development Plan. It should be noted that it is not uncommon for no on-site parking to be provided for 'hotel' developments in city locations.

With regard to the subject proposal, ample parking opportunities are available within the vicinity of the subject site including Adelaide City Council's 'U-Park on Topham' (approximately 120 m walk from the subject site), Wilson Parking's 'Park on Franklin' (approximately 150 m walking distance) and Care Park's 'Pitt Street Car Park' (approximately a 200 m walk). As such, it is considered that adequate parking is available within close proximity to the subject site.

4.2 BICYCLE PARKING

Council's Development Plan does not identify a bicycle parking requirement relevant to the proposed land use or site zone. However, seven bicycle parking spaces will be provided within the subject site for use by staff. Such a provision is considered to be adequate in order to accommodate the anticipated peak bicycle parking demand.

5. TRAFFIC ASSESSMENT

Given that no parking will be provided on-site, there will be no direct traffic generation (other than commercial vehicle movements associated with the site's loading area) associated with the proposed development (via the site's crossover on Bentham Street). However, there will be movements distributed to the broader road network as a result of the proposal. This will include movements such as set-down/pick-up movements on Bentham Street (i.e. taxis, Ubers etc.) and guest and staff movement to/from various off-street parking areas.

In addition, the site is relatively well serviced by active transport modes and public transport services, thereby reducing reliance on private vehicle trips.

As such, the number of additional vehicle movements on the adjacent road network would be relatively low and would be easily accommodated with minimal impact on existing conditions.

6. SUMMARY

The proposal comprises the construction of a 183-room hotel at 18 Bentham Street, Adelaide. The hotel will be complimented by areas ancillary to its operation including a restaurant, bar, gym and back-of-house areas.

Pedestrian access to the site will be provided via the site's frontage to Bentham Street. A loading zone directly in front of the site will be utilised by the hotel for guest set-down/pick-up.

Vehicle access to the site will be provided via an adjacent right-of-way, with a crossover directly onto Bentham Street. No vehicle parking will be provided on the subject site (as is common with similar hotel developments within the

Adelaide CBD). Ample off-street vehicle parking opportunities are available within close proximity (200 m walking distance) to the subject site.

Other than commercial vehicle movements, there will be no direct traffic movements associated with the proposed development via the site's crossover. However, the site will distribute traffic movements to the broader road network (associated with guest set-down/pick-up and parking in off-site parking areas). Such movements would be minimal and would be adequately accommodated on the adjacent road network.

Ref: 17222|BNW

7 June 2018

Mr Phillip Brunning
Phillip Brunning & Associates
26 Wakeham Street
ADELAIDE SA 5000

Dear Phillip,

PROPOSED HOTEL (TRAVELODGE ADELAIDE)
18 BENTHAM STREET, ADELAIDE

I refer to the proposed hotel development (Travelodge Adelaide) for 18 Bentham Street, Adelaide (DA 020/A033/18). Specifically, this letter provides further information in relation to traffic queries raised by the City of Adelaide.

The primary comments provided by the City of Adelaide relating to traffic are provided below in italics, followed by my response.

> *"... how and whether pick-up and drop-off can be facilitated on-street. No demand analysis is currently provided within the traffic report...."*

CIRQA has previously undertaken a survey of set-down and pick-up movements at the Mayfair Hotel (45 King William Street, Adelaide) in 2016. The Mayfair Hotel has 170 guest rooms and is therefore a comparable size to that proposed. The Mayfair survey identified 10 set-down movements and 6 pick-up movements associated with the hotel during the pm peak hour. This equated to one set-down movement every 6 minutes and one pick-up movement every 10 minutes. Dwell times associated with these vehicles varied depending on whether the passenger(s) had luggage or not, however movements were typically completed in approximately 40 seconds or less.

In order to assess the potential set-down/pick-up requirements associated with the proposal, the number of movements has been extrapolated to be based on 183 rooms (11 set-down and 7 pick-up movements rounded up). Even assuming a more conservative average dwell time of 1 minute, single server queuing theory suggests a 98th percentile queue of 2 vehicles (with 1 vehicle equating to the 90th percentile). Of note, the queuing

analysis also suggests that 70% of the time, there would be no vehicles undertaking such movements at (or adjacent the site).

The analysis suggests that the two parking spaces in front of the hotel would be adequate to accommodate demands likely during the pm peak hour. It is acknowledged that the spaces may be utilised by other vehicles (as they cannot be solely restricted to the hotel). However, overlap in demands could be minimised with appropriate parking restrictions during the peak periods. Furthermore, the above assessment assumes all set-down/pick-up movements will occur in the two spaces adjacent the site. In reality, such movements will also be likely to occur in other nearby locations (for instance, the nearby taxi zone in Waymouth Street – approximately 60 m from the site).

Similar conditions would be anticipated during the am peak hour, albeit there would be higher number of pick-up movements and a lower number of set-down movements. This may increase the potential dwell times (pick-up movements generally had longer dwell times than set-down at the Mayfair Hotel). However, guests will be able to be directed the nearby taxi zone in Waymouth Street for pick-up movements (particularly if there is high demand for the spaces in front of the site). In addition, the hotel's concierge and reception staff will be able to manage set-down/pick-up movements to minimise traffic impacts on Bentham Street.

> *"Concern is raised on the limited size of loading dock and reliance on very small waste collection vehicles."*

The loading dock is proposed to be serviced by vehicles equivalent to a Small Rigid Vehicles as identified in the relevant Australian Standard (they are not '*very small*' as suggested by the City of Adelaide). I am aware that such vehicles are included within the fleets of a number of major waste collection companies within Adelaide including Veolia and Cleanaway. Additionally, I also understand that both companies are in the process of increasing the number of small refuse collection vehicles within their fleets. In order to confirm serviceability of the site, CIRQA has liaised with representatives of both Veolia and Cleanaway in relation to the servicing of the loading area. On the basis of the site plans and associated truck turn path, both Veolia and Cleanaway have confirmed in writing that they will be able to service the site (confirmation emails are attached).

> *"The traffic report notes that sufficient sight distance is not provided for vehicles exiting the loading area out to Bentham Street. This creates a safety hazard for pedestrians… Measures to address the sight line deficiency should be included."*

As noted in the original traffic report, the proposal retains the existing sight distance restrictions at the access point (i.e. does not worsen them) and will also result in a reduced number of movements undertaken via the right-of-way. Nevertheless, the traffic report also noted that convex mirrors and/or audible and visual warnings be identified as part of detailed design (such provisions could be conditioned).

"Concern is raised in relation to the proposed encroachment over the Bentham Street carriageway, and what would be the parking/loading space. Emergency services generally require 5 metres of clear overhead space and the clearance below is only 4.72 metres."

I understand that proposal has been amended to achieve a headheight clearance of 5 metres as requested by City of Adelaide.

Please feel free to contact me on 0412 835 711 should you require any further information.

Yours sincerely,

BEN WILSON
Director, CIRQA Pty Ltd

Encs. - Email from Mr John Townsend, Cleanaway
- Email from Mr David Vellacot, Veolia

Ben Wilson (CIRQA)

Subject: FW: Small refuse vehicle - 18 Bentham Street, Adelaide
Attachments: C17222_02-SH02.pdf; Cleanaway - Wheelie Bins Flier.pdf

From: John Townsend <John.Townsend@cleanaway.com.au>
Sent: Wednesday, 6 June 2018 8:35 AM
To: Ben Wilson (CIRQA) <ben@cirqa.com.au>
Cc: Stacey Mullen <Stacey.Mullen@cleanaway.com.au>
Subject: Small refuse vehicle - 18 Bentham Street, Adelaide

Hello Ben,

Further to our discussion yesterday. I have investigated proposed site access per site drawing supplied, with our Operations team.

Our rear lift vehicles will gain access to proposed waste area with no issues. This also takes into account the head height at the loading dock being maximum 4.3 m.

I have attached our rear lift service, wheelie bin brochure for your information.

Would you be able to advise estimated completion date of the site, and who the owner of the Hotel site is? I would like to follow up with site owner when site is near completion with view to assist with waste management and recycling services.

Kind Regards,

John Townsend
Key Account Manager

35 Francis Street, PORT ADELAIDE SA 5015 Australia | PO Box 381 Port Adelaide SA 5015
Tel: +61 8 8444 1777 Mob: +61 417 812 714
E: john.townsend@cleanaway.com.au | www.cleanaway.com.au

Please consider the environment before printing this email.

From: Ben Wilson (CIRQA) [mailto:ben@cirqa.com.au]
Sent: Thursday, 31 May 2018 11:07 AM
To: John Townsend <John.Townsend@cleanaway.com.au>
Subject: Small refuse vehicle - 18 Bentham Street, Adelaide

Hi John,

Chris Colby has given me your details. I'm providing traffic engineering advice for a hotel site in the CBD (18 Bentham Street).

We have provided swept paths for a small rigid vehicle to demonstrate access to/from the site's loading dock (accessed via right of way). Council wants some further information by way of a supporting letter from a waste contractor noting that they would be able to service the site.

I've attached a plan showing the loading area and associated turn path (and the turning circle dimensions for the standard truck used in the turn path software). Not shown on the plan, but the headheight is in excess of 4.5 m.

Are you able to let me know if Cleanaway would be able to service the site for refuse collection and/or if you need any further information (if needed, we can test specific vehicle turns if you are able to provide dimensions and turning circle info). Ideally, we like a letter confirming Cleanaway would be able to service it.

Feel free to call me on 0412 835 711 if you would like to discuss.

Cheers,

Ben Wilson
Director, CIRQA Pty Ltd

Mobile: 0412 835 711
Email: ben@cirqa.com.au
Web: cirqa.com.au
Postal: PO BOX 144, Glenside SA 5065
Office: 39 Carrington Street, Adelaide SA 5000
ABN: 12 681 029 983

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This email is confidential. If you have received it in error please delete all copies and notify the sender.

Ben Wilson (CIRQA)

Subject: FW: Bentham Street Hotel - Waste Management

From: Vellacott, David <david.vellacott@veolia.com>
Sent: Thursday, 7 June 2018 12:56 PM
To: Ben Wilson (CIRQA) <ben@cirqa.com.au>
Subject: Re: Bentham Street Hotel - Waste Management

Hi Ben,

Sorry for the delay, I had been waiting on some details for a new vehicle that we will be purchasing later in the year. Yes looking at the second set of diagrams you sent through I don't see any issues with servicing this site.

Kind Regards

David

--

David Vellacott | **Operations Manager - Commercial Services** | **Veolia Australia and New Zealand**
P: (08) 8343 9601 | M: 0402 050 238 | E: David.Vellacott@veolia.com.au
W: www.veolia.com.au

On 7 June 2018 at 11:39, Ben Wilson (CIRQA) <ben@cirqa.com.au> wrote:

> Hi David,
>
> The planning consultant wants to submit their bundle of info back to Council today to meet some deadlines. Is there any chance you can advise if Veolia considers the loading bay accessible? Even just an email back confirming as such would be fine.
>
> Thank you,
>
> **Ben Wilson**
> **Director, CIRQA Pty Ltd**
>
> **Mobile:** 0412 835 711
> **Email:** ben@cirqa.com.au
> **Web:** cirqa.com.au
> **Postal:** PO BOX 144, Glenside SA 5065
> **Office:** 39 Carrington Street, Adelaide SA 5000
> **ABN:** 12 681 029 983
>
> CIRQA
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From: Ben Wilson (CIRQA)
Sent: Tuesday, 5 June 2018 1:35 PM
To: 'David Vellacott' <david.vellacott@veolia.com>
Subject: Bentham Street Hotel - Waste Management

Hi David,

Just following up on the hotel project in Bentham Street. Are you able to advise if Veolia are able to provide a supporting letter in relation to servicing the site?

Please feel free to call me on 0412 835 711 if you need to discuss.

Thank you,

Ben Wilson
Director, CIRQA Pty Ltd

Mobile: 0412 835 711
Email: ben@cirqa.com.au
Web: cirqa.com.au
Postal: PO BOX 144, Glenside SA 5065
Office: 39 Carrington Street, Adelaide SA 5000
ABN: 12 681 029 983

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From: Ben Wilson (CIRQA)
Sent: Thursday, 31 May 2018 11:12 AM
To: David Vellacott <david.vellacott@veolia.com>
Subject: RE: Waste Management: 122-136 North East Rd

David – quick correction – I've just been advised that the headheight at the loading dock is 4.3 m.

Ben Wilson
Director, CIRQA Pty Ltd

Mobile: 0412 835 711
Email: ben@cirqa.com.au
Web: cirqa.com.au
Postal: PO BOX 144, Glenside SA 5065
Office: 39 Carrington Street, Adelaide SA 5000
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From: Ben Wilson (CIRQA)
Sent: Thursday, 31 May 2018 10:45 AM
To: 'David Vellacott' <david.vellacott@veolia.com>
Subject: RE: Waste Management: 122-136 North East Rd

Hi David,

Thanks again for getting back to me on this. Attached is the plan showing additional dimensions and I've also shown the turning circle diameters (inside and outside) of the vehicle used in our turn path software. Vertical clearance will be over 4.5 m.

Let me know if you need any further information.

Thanks again,

Ben Wilson
Director, CIRQA Pty Ltd

Mobile: 0412 835 711
Email: ben@cirqa.com.au
Web: cirqa.com.au
Postal: PO BOX 144, Glenside SA 5065
Office: 39 Carrington Street, Adelaide SA 5000
ABN: 12 681 029 983

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pruszinski PACT architects

WASTE MANAGEMENT STATEMENT

BENTHAM STREET HOTEL
18 Bentham Street, Adelaide

Version – LODGEMENT – 19th March 2018

The proposed development on 18 Bentham Street, Adelaide is an 18 level hotel situated on the Eastern side of Bentham Street. The development includes 183 hotel rooms plus ancillary hotel spaces. The building includes a loading dock which is accessed via a right of way on the Northern side of the property.

Using the Design Guide for Residential Recycling appendix 2: Waste Resource Generation Rates produced by the Adelaide City Council, the following waste management solutions are provided.

Table 1: Calculations of average waste generation for 18 Bentham Street

Land Use	WASTE (excluding food)	CO-MINGLED RECYCLING	GREEN ORGANICS (including food)
Hotel (183 hotel guest rooms) **Total Day:**	5 litres / bedroom / day **915 litres / day**	1 litre / bedroom / day **183 litres / day**	1 litre / bedroom / day **183 litres / day**
Hotel (Bar Areas of 60m²) **Total Day:**	5 litres / 10m² bar area / day **30 litres / day**	5 litres / 10m² bar area / day **30 litres / day**	0.25 litres / 10m² bar area / day **2 litres / day**
Hotel (Dining Areas of 100m²) **Total Day:**	25 litres / 10m² dining area / day **250 litres / day**	5 litres / 10m² dining area / day **50 litres / day**	40 litres /10m² dining area / day **400 litres / day**
Total Day:	**1195 litres / day**	**263 litres / day**	**585 litres / day**

All waste streams are collected and transported down into the ground floor waste room by the hotel cleaning staff. The ground floor storage rooms have adequate capacity for the buildings load requirements.

The information gathered from table 1 indicates the need for the following requirements for waste bins in the building, based on waste being collected every 3 days:

1100L	General Waste Bin (red):	3 Bins
660L	General Waste Bin (red):	1 Bin
1100L	Recyclable Materials (yellow):	1 Bin
1100L	Organic Waste (green):	1 Bin
660L	Organic Waste (green):	1 Bin

A waste removal company will be contracted by the hotel operator to manage waste and empty bins from the ground floor loading areas, in accordance with the frequency outlined in this report.

The traffic engineer has noted that waste removal will be limited to small rigid vehicles. We note that the following companies have a suitable vehicle:

- Veolia
- Cleanaway

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18 BENTHAM STREET HOTEL

SERVICES DESIGN REPORT

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

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
01	12.12.17	Draft Issue
02	15.02.18	For Approval

CONTENTS

Introduction

The following report outlines the proposed infrastructure and plant arrangement for the Mechanical, Electrical, Vertical Transportation, Hydraulic and Fire Protections Services for the above development.

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

- Air conditioning incorporating air cooled, reverse cycle, variable refrigerant volume (VRV) type air conditioning systems to serve ground floor and level 1. Indoor air conditioning units to be split ducted type located within the ceiling, while the outdoor condensing units will be located on the roof.

- Air conditioning incorporating air cooled, reverse cycle, variable refrigerant volume (VRV) type air conditioning systems to serve each hotel room level. Indoor air conditioning units to be off concealed bulkhead type, while the outdoor condensing units will be located on the roof.

- Toilet exhaust system serving each hotel room via common toilet exhaust risers located in the hydraulic riser for each room.

- Kitchen exhaust system comprising a stainless-steel kitchen exhaust hood incorporating Ultra Violet filtration. Kitchen exhaust discharge to be through a horizontal louvre located in the northern façade.

- General exhaust system serving ground level waste room and linen chute.

- Stair pressurisation and relief systems incorporating roof mounted fans and associated air distribution.

- Ventilation system serving the fire pump room comprising exhaust fan and natural ventilation make-up air, associated air distribution ductwork, grilles and external louvres.

- Building Management System (BMS) to monitor and control the above Mechanical Services Systems.

Electrical Services

- The new building will include a new high voltage supply from the SA Power Networks which includes an on-site pad mounted transformer. The SA Power Networks pad mounted transformer will be located within a dedicated transformer enclosure located on ground floor.

- A site main switchboard will be located within a dedicated main switch room. The site main switchboard will incorporate fire and life safety services, retailer meter, supplies to local electrical distribution boards and Mechanical, Vertical Transportation and Fire Protection Services Switchboards.

- Local electrical distribution boards will be provided to serve power and lighting throughout.

- A dedicated communications room will be located on Level 2. This room will incorporate termination of telecommunications lead-in services, building main communications, MATV and security head end equipment.

- Communications/Security/MATV Riser Cupboards are located on each floor of the building to house communications terminations, security control equipment, MATV distribution equipment and rising cabling services.

Vertical Transportation Services

- Two gearless machine-room-less traction passenger lifts will be provided serving ground floor and levels 1 to 17 with entrance on single side only at all levels.
- One gearless machine-room-less traction passenger lifts will be provided serving ground floor and levels 1 to 17 with double sided entrance at all levels.
- Lift cars are sized to meet minimum disability access requirements, stretcher facilities and to accommodate furniture removals.

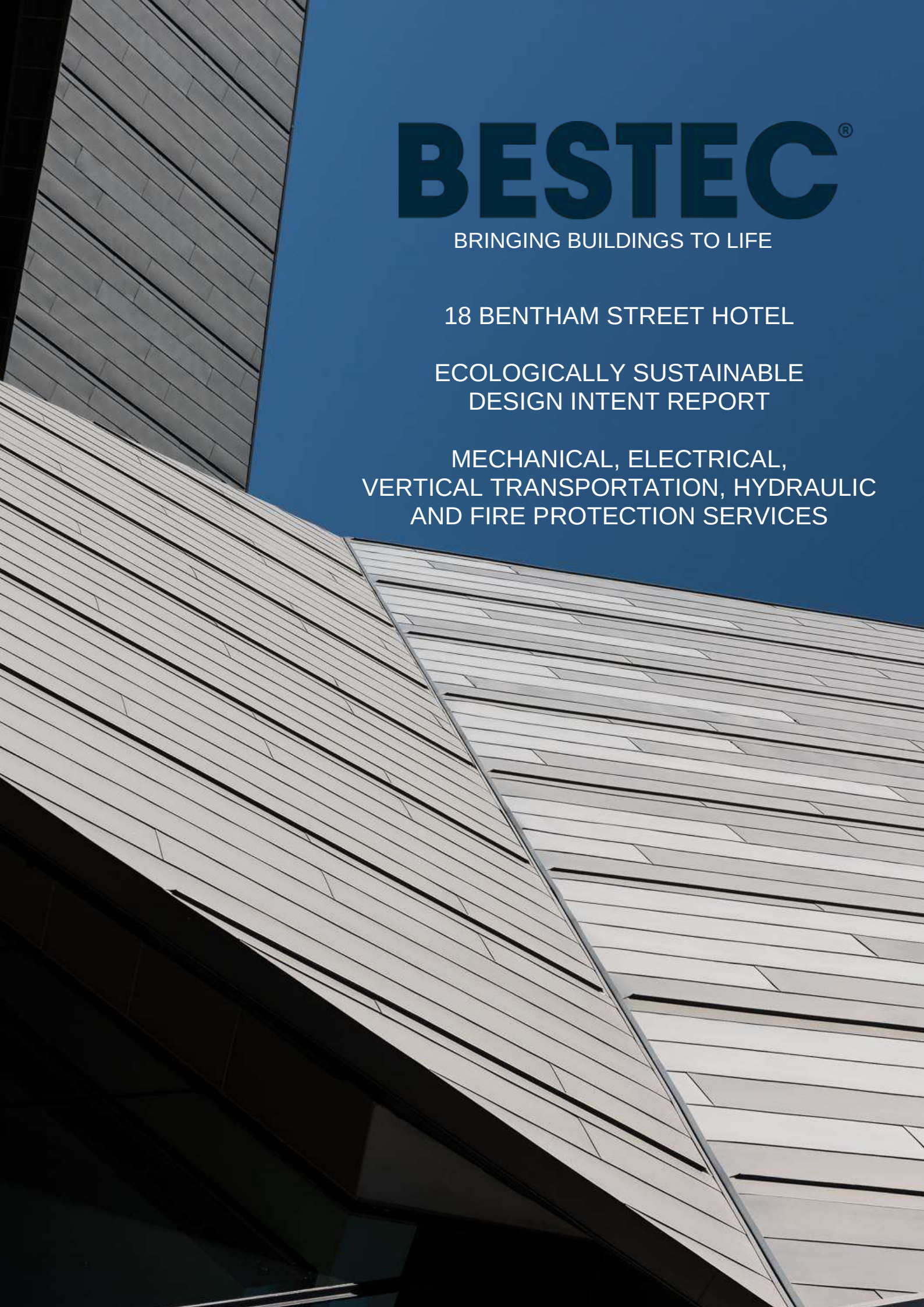
Hydraulic Services

- Sewer drainage from the building will be provided via a 150mm diameter connection to the South Australian Water Corporation owned sewer main in Bentham Street.
- Domestic cold water will be delivered to the building via connection of 2 off 50mm diameter South Australian Water Corporation water meters to the authority owned water main in Bentham Street.
- Natural gas will be delivered to the building via an Australian Pipeline Authority (APA) Group owned gas meter connected to the authority owned high pressure main in Bentham Street.
- Sewer drainage from the building will be via the fully vented modified system of plumbing drainage and shall be unplasticised polyvinyl chloride (uPVC) in material.
- Domestic cold water will reticulate under mains pressure to a 15,000 litre storage tank and pressure pump set located in a dedicated tank and pump room at second level. From this tank and pump set water will be pressurised throughout the building serving each room.
- A natural gas fired instantaneous type domestic hot water plant will be located in a dedicated hot water service room at roof level. The hot water plant will be modular in design such that burners can be removed and replaced without affecting the entire system.
- 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.
- Rooms shall be fitted with high quality commercial grade sanitaryware and tapware in accordance with Water Efficiency Labelling Scheme (WELS) guidelines.
- Stormwater downpipe shall extend from roof level to ground floor level for connection and discharge off site as part of Civil Engineering works.

Fire Protection Services

- A 150mm diameter fire service connection to the 200mm diameter South Australian Water Corporation town main (upgraded from 150mm diameter) in Bentham Street will supply make-up water to the Fire Protection Services water storage tanks.
- 2 off 40,000 litres effective capacity water storage tanks (80,000 litres total capacity) and 2 off diesel driven fire pumps serving the combined fire sprinkler and fire hydrant system.
- A South Australian Metropolitan Fire Service (SAMFS) suction and booster assembly will be located on the Bentham Street frontage. The equipment will be contained in a separate enclosure, directly accessible from Bentham Street.
- A Fire Indicator Panel and Master Evacuation Control Panel (MECP) will be located within the ground floor entrance lobby.

- Combined fire sprinkler and fire hydrant system riser infrastructure will comprise riser mains in each fire stair. The risers will be interconnected at upper and lower levels to create a ring main.
- Fire hydrants will be provided at each level within each fire egress stair.
- Fire sprinkler system control valves will be located at each level, within the fire egress stairs.



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18 BENTHAM STREET HOTEL

ECOLOGICALLY SUSTAINABLE DESIGN INTENT REPORT

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

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
01	12.12.17	Draft Issue
02	15.02.18	For Approval

CONTENTS

Introduction

The following report outlines the proposed Ecologically Sustainable Design (ESD) design initiatives for consideration 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 incorporate 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 for the development.

Management

Commissioning and tuning

Initiatives include:-

- Review of the building systems for commissionability, controllability, maintainability, operability and safety during design and prior to construction.
- Implementation of a building commissioning plan to ensure compliance with the design specification and “fit for purpose” operation.

Building Information

Initiatives include:-

- Provision of comprehensive electronic Operations and Maintenance manuals and a Building Log Book to ensure all relevant information is available to the facilities management team post-construction.
- Provision of Building User Information guides for each of the major building systems, with access via a web portal for end users.

Commitment to Performance

Initiatives include:-

- Commitment to End of Life waste performance, including extending the life of the finishes to all common areas to at least 10 years (barring minor wear and tear).

Metering and Monitoring

Initiatives include:-

- Metering of major energy usages (electricity and natural gas) within the building.
- Metering of major water usages within the building.

Construction Environmental Management

Initiatives include:-

- Provision of site specific operational waste management systems, including separation of waste streams, a dedicated waste storage area, and access to the waste storage area.

Indoor Environment Quality

Indoor Air Quality

Initiatives include:-

- Provision of ventilation systems that minimise ingress of outdoor air pollutants into the building, are easy and safe to maintain and clean, and clean prior to occupation of the building.
- Provision of mechanical ventilation to common area air conditioning systems at a rate 50% greater than the minimum standard to the ground floor only.
- Provision of exhaust systems to exhaust pollutants directly to the outside and minimise contaminants to building occupants and users.

Acoustic Comfort

Initiatives include:-

- Acoustic assessment of the building to ensure maintenance of indoor noise levels that are no more than 5dB(A) above “satisfactory” levels in AS/NZS 2107:2000.
- Acoustic assessment of the building to ensure maintenance of reverberation times that do not exceed the maximum levels in AS/NZS 2107:2000.
- Acoustic assessment of the building to ensure partitions between independent living units, common areas, lobbies and the like achieve a weighted sound reduction index of at least 45.

Lighting Comfort

Initiatives include:-

- Provision of high efficiency LED fittings to ensure minimum lighting comfort.
- Provision of general fixed lighting throughout that provide good maintained illuminance values for each room and glare reduction in accordance with Australian Standard 1680.1:2006.
- Provision of lighting design to improve uniformity of lighting for visual interest within each hotel suite, including at least one wall-washing or wall-mounted light fitting.
- Provision of localised lighting control via local light switches and power outlets for task lights/lamps.
- Provision of a high level of day light penetration into front of house area spaces throughout to improve the well-being of the occupants.

Visual Comfort

Initiatives include:-

- Provision of facade design that encourages high levels of day light penetration and views to outside while mitigating solar heat gain and glare in summer through the use of external shading.

Energy

BCA Section J Compliance

Initiatives include:-

- Compliance with the Building Code of Australian Section J building fabric and building services requirements.
- Provision of energy efficient glazing.

Water

Potable Water

Initiatives include:-

- Provision of water efficient sanitary and tap ware fixtures and fittings in accordance with Water Efficiency Labelling Scheme (WELS).
- Recycling of fire protection services pumps flow test water back into the fire water storage tanks to minimise water wastage.

Materials

Responsible Building Materials

Initiatives include:-

- Provision of dedicated recycling waste storage area for the segregation of waste products to maximise recycling opportunities and minimise waste sent to landfill.
- Selection of timber materials sourced from certified environmentally responsible managed forests.
- 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.

Emissions

Stormwater

Initiatives include:-

- Reducing peak stormwater flows and contamination of the waterways through the introduction of pollutant traps and flow management practices.

Light Pollution

Initiatives include:-

- Reducing light pollution by limiting the use of light sources which are directed towards the sky and spill into adjacent areas surrounding the site.

Refrigerant Impacts

Initiatives include:-

- The use of refrigerants with zero ODP to minimise impact on the ozone layer through accidental leakage

Building Services

The following Mechanical, Electrical, Vertical Transportation, Hydraulic and Fire Protection Services initiatives are proposed for incorporation into the building design for the development.

Mechanical Services

Initiatives include:-

- High efficiency Variable Refrigerant Volume (VRV) air conditioning systems.

Electrical Services

Initiatives include:-

- Provision of a high efficiency LED lighting throughout all areas targeting 5W/m² in open plan and common areas.
- Provision of lighting control switches to enable isolation of lights and air conditioning upon departure from hotel suites.
- Building lighting control system to provide motion detection and daylighting controls to luminaires within common areas, corridors and amenities. Lighting circuits to be zoned to suit functional spaces and incorporate time scheduling.
- External lighting systems controlled by time clock and photocell and incorporating high efficiency luminaires (>65 lumens/watt).
- Provision of sub metering to common areas and substantive base building loads for energy management and control.

Vertical Transportation Services

Initiatives include:-

- 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

Initiatives include:-

- Provision of 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 to serve hotel suites and common areas.
- 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.

- Water sub-metering to all units and to base building plant and equipment for water and energy consumption management and control.

Fire Protection Services

Initiatives include:-

- Recycling of fire protection services fire pumps flow test water back into the fire water storage tanks to minimise water wastage. This will equal to a portable water saving of approximately 5000 litres every 3 years.

BESTEC®

BRINGING BUILDINGS TO LIFE

18 BENTHAM STREET HOTEL

ACOUSTIC SERVICES
ACOUSTIC DESIGN REPORT

BESTEC

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SGA:HAC
55786/6/1
15 February 2018

Synergy Construct
Level 5 121 King William Street
ADELAIDE SA 5000

Attention: Mr. M Gramazio

Dear Sir,

18 BENTHAM STREET HOTEL
ACOUSTIC SERVICES
PRELIMINARY ACOUSTIC REPORT

As requested, we enclose a copy of our report detailing our assessment of the acoustic conditions 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
01	12.12.17	Draft Issue
02	15.02.18	For Approval

CONTENTS

Introduction

BESTEC Pty Ltd was engaged to provide acoustic advice for a new Hotel development at 18 Bentham Street, Adelaide 5000. This document presents our nominated acoustic criteria for each space and preliminary acoustic design recommendations to achieve the stipulated criteria. We note that the preliminary recommendations of this report are based on the concept floor plans provided by Pruszinski Architects and a detailed assessment will be performed once plans are sufficiently developed.

Executive Summary

In summary:

- The concept floor plans were reviewed,
- Appropriate acoustic design criteria were nominated for each space,
- Preliminary acoustic design recommendations to achieve the selected acoustic criteria were provided, including:
  - Preliminary building façade, glazing and roof construction options were provided in order to provide sufficient attenuation for noise intrusion, due to traffic and music noise.
  - Preliminary recommendations for the acoustic separation of each space
  - Generic recommendations for acoustic treatment of mechanical services.

References

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

[1] AS/NZS 2107:2016 “Acoustics – Recommended design sound levels and reverberation times for building interiors”.

[2] ISO 16283.1–2014 “Acoustics – Field measurement of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation".

[3] Architectural drawings provided by Pruszinski Architects, in their correspondence of 07 February 2018.

[4] Adelaide (City) Development Plan, consolidated 20 June 2017.

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

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

[7] World Health Organisation (1999) “Guidelines for Community Noise”.

[8] Minister’s Specification SA 78B, February 2013, “Construction requirements for the control of external sound”.

[9] EPA SA Noise Guideline: Music noise from indoor venues and the South Australian Planning System, updated July 2015.

[10] Australian Standard AS1055-1997 “Acoustics- Description and measurement of environmental noise”.

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

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

Existing Development

The proposed development is located at 18 Bentham Street, Adelaide with the following boundaries:

- Northern Boundary: Adjacent 5-storey commercial development (Woodards House).
- Western Boundary: Bentham Street separating the proposed site from 16-storey residential development (Waymouth Hotel).
- Southern Boundary: Unnamed lane separating the development site from 14-storey commercial development.
- Eastern Boundary: Adjacent 10-storey commercial development.

Proposed Development

We understand the scope of this project is to build a new 18-storey Hotel with the following spaces:

- Ground Level - Waste area, coffee shop, hotel lobby/reception, administration offices, luggage and linen stores and delivery/loading area.
- Level 1 – Restaurant and bar area with commercial kitchen
- Level 2 – Manager’s office, gymnasium, staff amenities, housekeeping offices, Comms room, workshop, laundry and plant room.
- Level 3-17 – 12-off hotel rooms on each level

For an explanation of acoustic terms within this document, please refer to the glossary of acoustic terminology attached to this document (Appendix D).

Unattended Continuous Noise Survey

We note that the proposed development site is in close proximity to the development site on 9 Pitt Street, on which BESTEC is engaged as acoustic consultant. Therefore, we consider the unattended continuous noise survey results obtained 9 Pitt Street can be used as indicative noise levels for the preliminary assessment of the proposed development.

The noise logger was installed at 9 Pitt Street (at the northern boundary overlooking Franklin St) to continuously record the noise levels over a 24-hour period, between 21st and 27th January 2016. With the logger installed to the roof level, noise levels were captured at approximately 7 – 8 m above ground. The logger installed on site was a RION N-21, Serial No 521660, last calibrated on the 7th September 2014, due for calibration on the 07th September 2016.

The noise logger was programmed to automatically measure noise levels continuously and to average them over successive 15-minute sample periods, measuring the A-weighted average (L_{Aeq}), maximum (L_{Amax}) and statistical noise levels (L_{A10} and L_{A90} The monitoring was conducted at the location highlighted in Figure 1 below (indicated as location U1), with average daily results of the logging summarised in Table 1, in accordance with AS1055 and with an approved windshield fitted at all times. Please refer to Appendix C for detailed survey results.

Day	Average Day-time (7:00 to 22:00)				Average Night-time (22:00 to 7:00)			
	L_{Aeq}, dB(A)	L_{Amax}, dB(A)	L_{A10}, dB(A)	L_{A90}, dB(A)	L_{Aeq}, dB(A)	L_{Amax}, dB(A)	L_{A10}, dB(A)	L_{A90}, dB(A)
22/01/2016	61	92	64	55	57	86	59	50
23/01/2016	59	93	62	51	53	81	56	47
24/01/2016	57	99	59	50	52	81	55	46
25/01/2016	61	86	63	54	53	86	55	46
26/01/2016	59	97	62	52	51	84	53	45
27/01/2016	61	89	64	55	52	79	55	46
28/01/2016	62	90	65	56	52	76	54	46

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

Attended Noise Survey

Similar to unattended noise survey, the attended noise survey results from our previous projects (9 Pitt Street and 141 King William Street) were used for the purpose of our assessment.

Attended measurements were undertaken using a Brüel and Kjær Hand-held Analyser Type 2270 Sound Level Meter (Serial Number: 3003020, due for calibration 27 November 2018), 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.

Please refer to Table 2 below for the attended noise survey measurements and Figure 1 for the corresponding measurement locations.

Location	Time	L_{Aeq}, dB(A)	L_{Amax}, dB(A)	L_{A10}, dB(A)	L_{A90}, dB(A)	Notes
L1	5 February 2017, 06:15 PM	62	75	67	55	Traffic noise from Franklin Street
L1	5 February 2017, 11:25 PM	56	74	59	48	Traffic noise from Franklin Street
L2	15 July 2017, 10:30 PM	70	85	72	66	Music and patron noise from Electra House
L3	15 May 2017, 10:00 AM	72	82	76	64	Adelaide clock tower noise (GPO building)

Table 2: Summary of measured noise levels during the attended noise survey

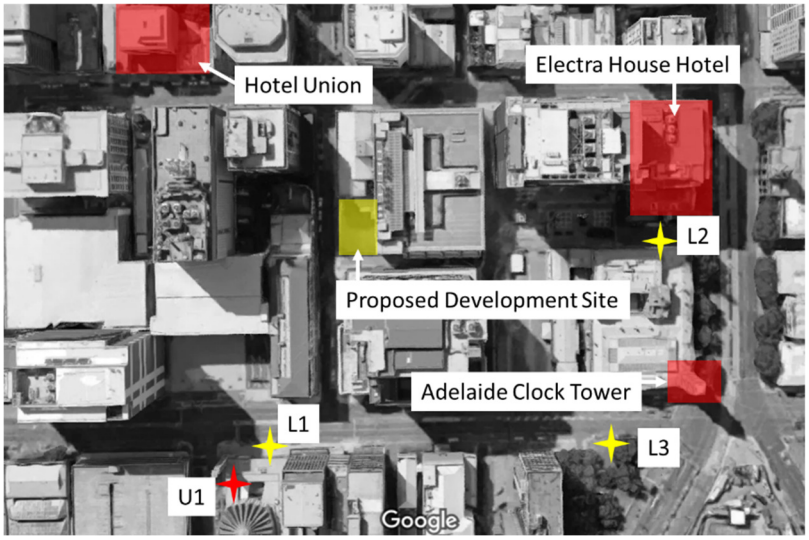


Figure 1: Location of attended noise measurements (L1, L2 & L3), unattended continuous noise survey (U1) and nearest noise sources with respect to the proposed development site

Please note that an additional attended noise survey will be conducted at a later stage to measure the music noise impact from the Hotel Union at the proposed development site.

Assessment 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 EPA Environment Protection (Noise) Policy 2007 [5] and the principles of development control in the Adelaide City Council Development Plan [4] references.

The Adelaide City Council principle of development control 93 [4] 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 (EPP 2007) [5] sets out the maximum allowable noise levels in terms of A-weighted Equivalent Continuous Noise Levels over 15-minute intervals ($L_{Aeq,15min}$) based on the time of day and land use, applicable at the most noise sensitive premises. Based on the site location and the land zoning stipulated in the Adelaide (City) Development Plan [4], the development site is located within the Capital City "CC" with the immediate surrounding developments located within the same zone. The Capital City Zone is an essentially Mixed-Use zone comprising a mixture of Commercial and Residential uses.

The indicative noise factors based on time of day for the Residential and Commercial land zoning as stipulated in Table 2 of the EPP 2007 [5] are as follows:

- Residential zone:
  - 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)
- Commercial zone:
  - Day-time (7:00 a.m. to 10:00 p.m.): 62 dB(A)
  - Night-time (10:00 p.m. to 7:00 a.m.): 55 dB(A)

Since the Mixed-Use zone is intended for commercial and residential purposes, the Environment Protection (Noise) Policy 2007 [5] 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. Therefore, 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.): 52dBA
- Night-time (10:00 p.m. to 7:00 a.m.): 45dBA

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

- Noise containing 1 characteristic – 5dB(A) penalty added to source continuous noise level;
- Noise containing 2 characteristics – 8dB(A) penalty added to source continuous noise level;
- Noise containing 3 or 4 characteristics – 10dB(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 [7], 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.

It should be noted that the Adelaide City Council principle of development control 94 [4] regulates the intermittent emissions from a proposed development and makes a reference to the WHO Guidelines as follows:

"94 To ensure minimal disturbance to residents:

(a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:

(i) after 10.00pm; and

(ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.

(b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organization."

In addition, the EPP 2007 provides assessment criterion of L_{Amax} of 60dBA for night-time for the proposed development (for application for development authorisation) [5], which agrees with the criterion stipulated by the WHO [7].

Building Acoustics

The level of background and transient/intermittent noise, the speech privacy rating and the intelligibility of speech define the quality of the acoustic environment within a building. We note that the detailed floor plans for the Bentham Street development are not available at this stage. However, based on the concept drawings provided by Pruszinski Architects [3] and our previous experience in similar projects, we recommend the following criteria for spaces within a typical hotel, as presented within Table 3 below.

Please note that the criteria will be modified/updated when the detailed floor plans are advised.

Type of occupancy/activity	Background Noise L_{Aeq}, dBA	Reverberation Time, sec	Speech Privacy, D_W	Weighted Sound Reduction Index with Spectrum Adaptation Term, R_W+C_{tr}
Guestrooms	30 - 40			50[1]
Lobby Lounge/ Reception	40 - 45	0.6 - 0.8	N/A	
Café	45 - 50	< 1.0	N/A	
Restaurant/Bar	< 50	0.6 - 1.0	N/A	
Admin Office	40 - 45	0.4 - 0.6	35 - 40	
Managers Office	35 - 40	0.4 - 0.6	40 - 45	
Gymnasium	< 50	< 1.0	40 - 45	
Loading Area	< 65	N/A	N/A	
Kitchen & Laundry	< 55	N/A	N/A	
Amenities	45 - 55	N/A	40 - 45	
Plant Room	N/A	N/A	45 - 50	

Table 3: Recommended Building Acoustics Design Criteria

Background Noise

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

AS 2107-2016 [1] 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.

In addition, the Minister's Specification SA 78B [8] stipulated 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 4: Minister's Specification SA 78B criteria for noise intrusion (Table 2 of Specification SA 78B reproduced)

[1] Between Hotel rooms

The Minister's Specification SA 78B [8], stipulated that for traffic noise, the source level for an acoustic assessment is determined from Table 3 (Road Sound Source Levels) of the Specification. This requires that the road source be a Type A, B or R road, as indicated by the council development plan applicable to the development site. However, the Adelaide (City) Development Plan [4] does not provide any classification for Bentham, Franklin or Waymouth Street.

The Technical Information Sheet regarding noise and air emissions [11] 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.

Vehicle movement data for Franklin and Waymouth Streets (traffic estimated Bentham Street not available) is posted to be approximately 8,000 - 20,000 vehicles per day, as per The City of Adelaide's Transport and Movement Strategy 2012 (Link and Place Approach Data) [12], therefore we consider that there is limited applicability of the Minister's Spec 78B [8] and consider in-situ noise measurements in conjunction with AS2107-2016 [1] 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 entertainment venues, incident on the development, will be from the Electra House Hotel and Hotel Union. EPA provides guidelines for assessment of music emissions from entertainment venues [9], 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 [1] 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**	**1k**	**2k**	**4k**	**8k**	
Background noise level $L_{90, 15min}$ (AS/NZS 2107-2016)	70	52	42	34	28	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	36	33	30	28	26	35

Table 5: Typical background noise level $L_{90,15min}$ in apartment with the air-conditioning on (AS/NZS 2107-2016) and the relevant music noise criteria

In addition, Adelaide (City) Council development control 97(c) states

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

(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 ($L_{90,15min}$) in any octave band of the sound spectrum; and

(ii) 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"

If live or pre-recorded music is played at the proposed bar/restaurant within the new Hotel, then the Adelaide City Council Development Control 91 [4] (as given below) will be applicable.

"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

- Commercial Component

  There is no Australian or International Standard for sound insulation between rooms in commercial spaces. 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 3 are presented in terms of D_W rating (Weighted Sound Level Difference as defined by AS ISO 140.4-2006 [2]), 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 6 below, 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 6: Subjective perceptions for various privacy ratings

- 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 [6] 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 ($L_{n,w}$) 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."

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.
- Boral Fyreflex.
- Dow-Corning 790 Silicone.
- Dow-Corning 795 Silicone.
- Sika Sikaflex-11 FC.
- Fosroc Flamex 3.

Cavity Infill

Where a cavity infill is recommended, equivalent alternatives are:

- 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.

Where higher durability and/or water resistance is required, 6mm compressed fibre cement sheeting could be used in lieu of the 13mm fire-rated plasterboard and 9mm compressed fibre cement in-lieu of 16mm fire-rated plasterboard.

Noise Intrusion

Please note that the glazing recommendations consider noise emissions from the following noise sources:

- Traffic Noise
- Adelaide Clock Tower
- Music Noise (Electra House Hotel)

In order to meet the tight time frame, the music noise Hotel Union was not considered at this stage. However, we note that a supplementary noise survey will be conducted at a later stage to determine the incident music noise levels at the proposed development site and consequently the glazing recommendations will be reviewed based on the measured noise levels.

Based on our preliminary assessment, we make the following preliminary recommendations for construction of the building envelope[2]:

- Solid façade – The following constructions 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.

The architectural drawings do not indicate the extent of glazing, therefore, the glazing recommendations given below will be reassessed once the architectural design has progressed.

- Glazing[3]
  - Hotel Lobby/Reception and Café (Ground Level) – 6.38mm laminated glass
  - Restaurant/Bar (Level 1) – 6.38mm laminated glass
  - Gymnasium and Manager's Office (Level 2) – 6.38mm laminated glass
  - Guestrooms – Minimum 10.38mm laminated glass

  We consider the above preliminary glazing recommendations will meet the acoustic requirements, however, the glazing may be subject to change to satisfy thermal or structural requirements. Please note that where glazing is operable such as for the entry doors or windows, we recommend compressible acoustic seals (Raven or Schlegel ranges) be used.

Sound Insulation

To achieve the stipulated criterion (refer Table 3) and the BCA 2016 requirements, we recommend the following minimum construction. Please refer to Appendix A for partition mark-ups.

- Walls
  - *Walls requiring discontinuous construction (indicated in Red)* – 2 layers of 13mm fire-rated plasterboards to each side of double row of 64mm steel studs, offset from each other by 20mm air space and cavity infill of 50mm, 12kg/m^3 glasswool.
  - *Walls separating guestrooms from lobbies/corridors and Level 1 flexible space from other spaces (indicated in Yellow)* – 2 layers of 13mm fire-rated plasterboards to one side and 1 layer of 13mm fire-rated plasterboard to the other side of staggered studs in 92mm track with cavity infill of 50mm, 12kg/m^3 glasswool.
  - *Walls separating fire services plant room from other spaces (indicated in Pink)* – 2 layers of 13mm fire-rated plasterboards to each side of 92mm studs with cavity infill of 50mm, 12kg/m^3 glasswool, however, we note that the construction for this wall will be reviewed once the fire services plant details are available.
  - *Walls separating gymnasium and amenities on Level 1 and Level 2 from other spaces (indicated in Green)* – 2 layers of 13mm plasterboards to one side of 92mm steel studs and 1 layer of 13mm plasterboard to the other side, with minimum 1 layer of 13mm plasterboard extending to the structure above and cavity infill of 50mm, 12kg/m^3 glasswool.

[2] The recommendations are based on traffic noise only and will be revised once the details about the engineering services plant are available.
[3] The glazing recommendations will be reassessed once the detailed architectural drawings and elevations are available.

- Floors
  - *Floors between guestrooms* - minimum 150mm concrete with ceiling of 1 layer of 13mm. Where a hard floor finish is used in a room above habitable spaces (guestrooms), for NCC compliance they must be installed on resilient underlay (e.g. Construction Chemicals Acoustifloor, Thermotec Impact Foam, Regupol, Damtec). The resilient underlay is not required where bathrooms are stacked (located above/below each other).
  - *Floor between Level 2 shared spaces and Level 1 Bar/Restaurant* – Minimum 150mm concrete would suffice considering that the Level 1 spaces would include either ceiling tiles or 13mm thick flush plasterboard ceiling. Please note that appropriate floor structure to the gymnasium will be recommended during the detailed design.
  - *Floor between Level 3 guestrooms and Level 2 spaces* – We note that 200mm thick in-situ concrete will provide sufficient transmission loss between the Level 2 spaces (including plant room) and Level 3 guestrooms.
  - *Floor between Level 1 and Ground Level spaces* – We note that 200mm thick in-situ concrete will provide sufficient sound transmission loss between the ground level spaces (including loading area) and the spaces on Level 1.
- Doors
  - *Doors to guestrooms* – Minimum 45mm thick solid core doors with compressible seals (e.g. Raven or Schlegel ranges).
  - *Stairwell doors* - we recommend the stairwell doors to be 55mm 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.
  - *Doors to Gymnasium and Manager's office* – Minimum 45mm solid core doors or hinged aluminium framed doors with 10.38mm laminated glass. We recommend medium duty acoustic seals be installed (Raven RP8 and RP10).
  - *Doors to Administration office and workshop* - 40 mm thick solid core doors or hinged aluminium framed glass doors with 10.38mm laminated glass
  - *Staff amenities* – 40mm solid core doors would be acceptable.
  - *Plant room* – 55mm solid core doors with heavy duty acoustic perimeter seals (e.g. Raven RP47Si, RP70 and RP16Si).
- Internal Glazing:
  - *Internal glazing to Gymnasium and Manager's office, D_W 40-45* – We recommend a single glass pane minimum 10.38mm laminated glass be used between rooms with good speech privacy and adjacent areas. An acoustic baffle consisting of either one layer of 13mm 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 16 kg/m^3, should extend 300mm each side of the partition and must be minimum 30% compressed between the ceiling and the structure above.
  - *Internal glazing to administration office and workshop, D_W 35-40* – 6.38mm laminated glass or as required structurally. We recommend ceiling overlay, as specified above, be installed, extending 1200 mm each side of the partition.

Please note that once detailed floor plans are available, the constructions of the building envelope elements as well as the internal partition constructions proposed above will be reviewed.

Hydraulics

Residential Component

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 attached).
- 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, 32 kg/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 attached).

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 attached):
  - 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.

Room Acoustics

Detailed recommendations to control reverberation and achieve the selected room acoustics criteria in the Hotel Lobby/Reception and other critical spaces will be provided once floor plans have sufficiently developed.

Environmental Noise

Continuous Noise

- Noise Associated with Mechanical Plant/ Fire Pump

Details of the engineering plant that will be serving the development are not available at this stage; however, we note that the airborne noise associated with engineering services will be controlled by design of appropriate attenuators, duct lagging and acoustic enclosures. This will include noise intrusion from the Mechanical services plant, as well as environmental noise to the surrounding noise sensitive receivers.

Where required, the vibration and structure borne noise will be controlled by design of appropriate vibration isolators (double deflection mounts, spring isolators etc.).

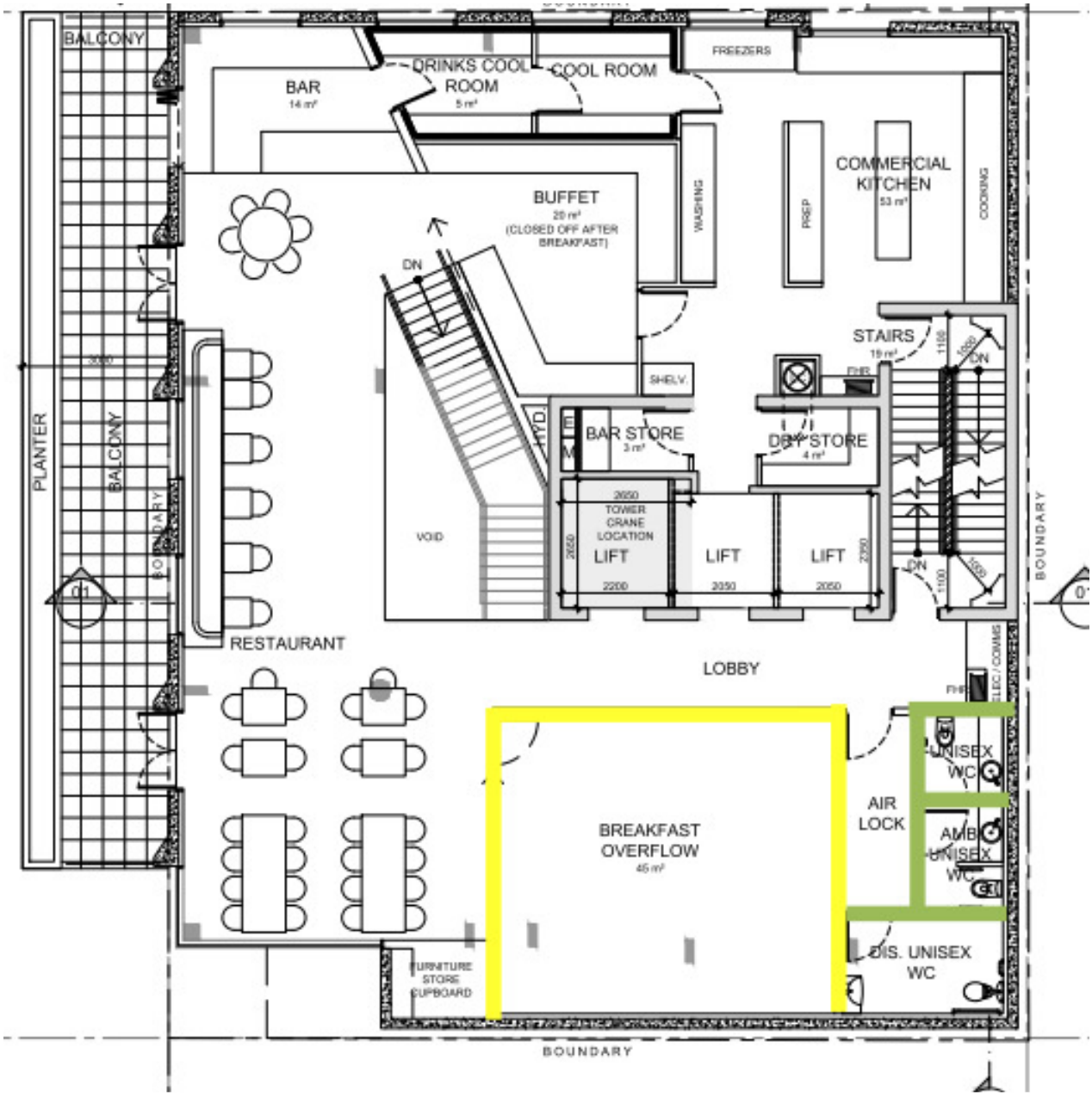
Intermittent Noise

- Noise Associated with rubbish collection

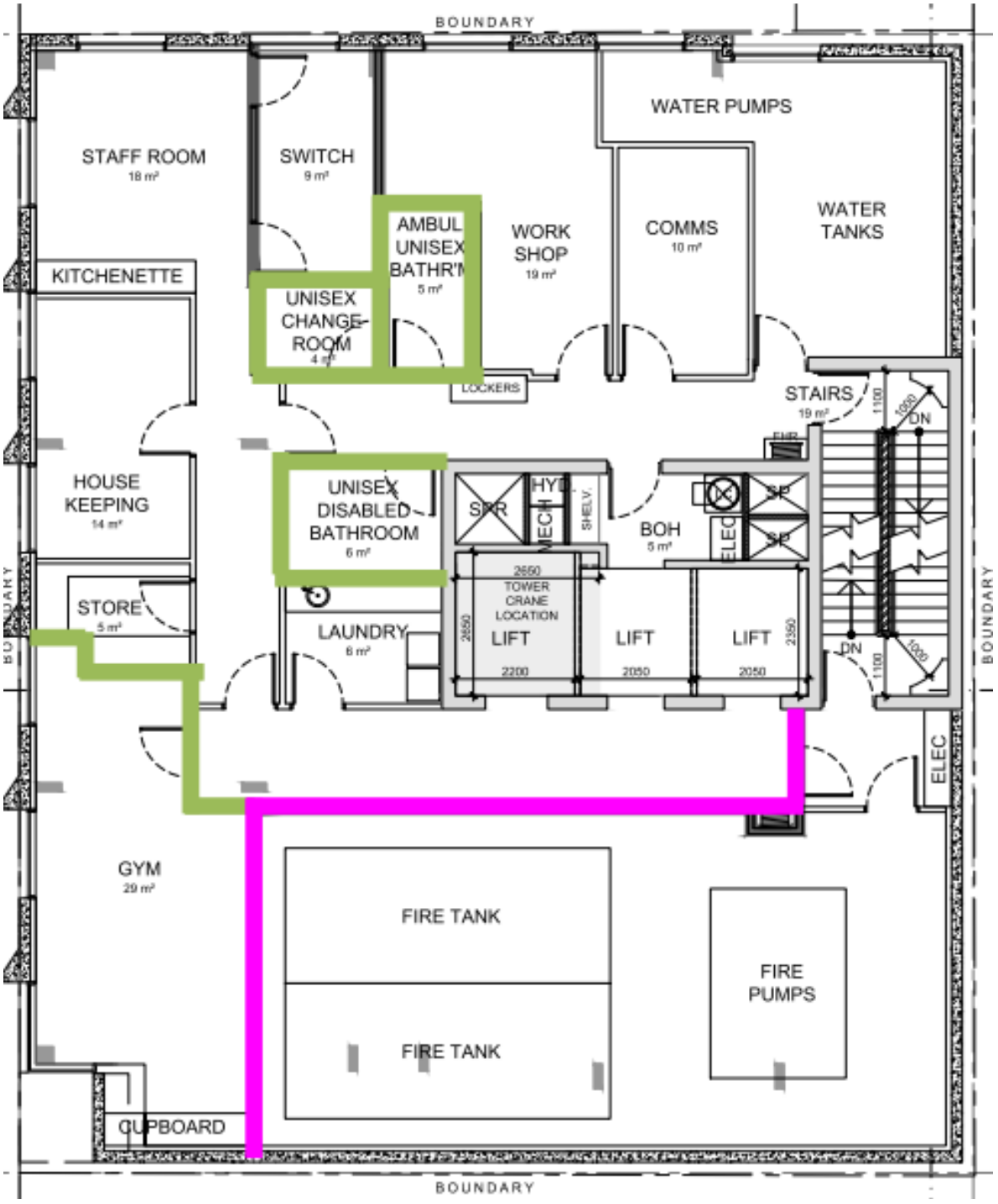
Noise associated with rubbish collection will be assessed once the rubbish collection zone and the access to it is advised.

Appendix A – Partition Mark-ups

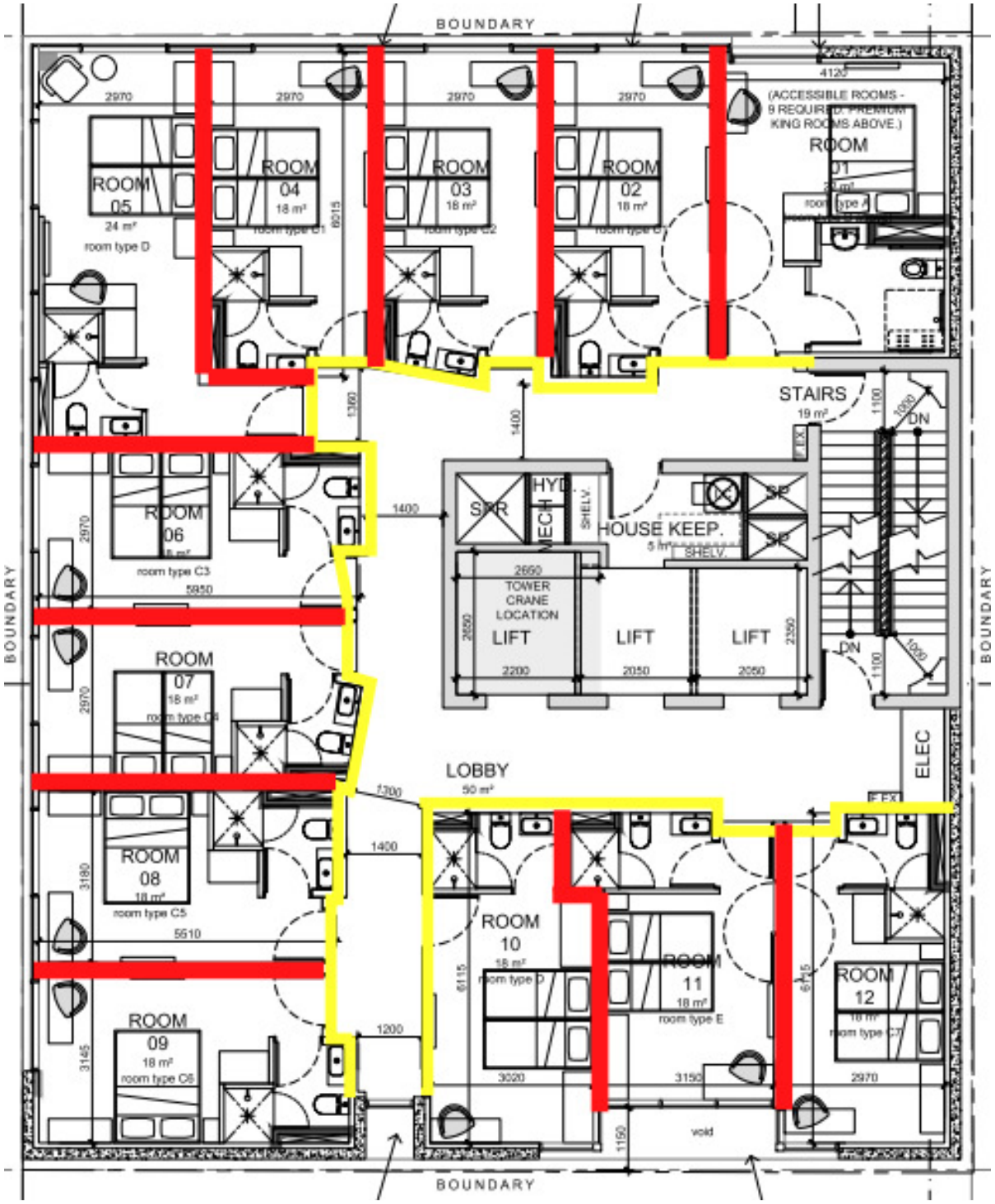
Level -1



Level 2


BOUNDARY
STAFF ROOM
18 m²
SWITCH
9 m²
AMBUL
UNISEX
BATHR'M
5 m²
WORK
SHOP
19 m²
WATER PUMPS
COMMS
10 m²
WATER
TANKS
KITCHENETTE
UNISEX
CHANGE
ROOM
4 m²
LOCKERS
STAIRS
19 m²
1100
1000
DN
HOUSE
KEEPING
14 m²
UNISEX
DISABLED
BATHROOM
6 m²
SPR
HYD.
MECH.
SHELV.
BOH
5 m²
ELEC.
SP
SP
2550
TOWER
CRANE
LOCATION
LIFT
LIFT
LIFT
2650
2350
2200
2050
2050
DN
1100
1000
STORE
5 m²
LAUNDRY
6 m²
BOUNDARY
BOUNDARY
ELEC
GYM
29 m²
FIRE TANK
FIRE TANK
FIRE
PUMPS
CUPBOARD
BOUNDARY

Levels 3-17


BOUNDARY
ROOM 05
24 m²
room type D
ROOM 04
18 m²
ROOM 03
18 m²
ROOM 02
18 m²
(ACCESSIBLE ROOMS - 9 REQUIRED, PREMIUM KING ROOMS ABOVE.)
ROOM 01
STAIRS
19 m²
DN
ROOM 06
room type C3
HYD.
MECH
SHELV.
SPR
HOUSE KEEP.
5 m²
SHELV.
SD
TOWER CRANE LOCATION
LIFT
LIFT
LIFT
ROOM 07
18 m²
LOBBY
50 m²
ELEC
ROOM 08
18 m²
room type C5
ROOM 10
18 m²
room type D
ROOM 11
18 m²
room type E
ROOM 12
ROOM 09
18 m²
room type C6
void
BOUNDARY
BOUNDARY
BOUNDARY

Appendix B – Pipework work details to achieved NCC compliance

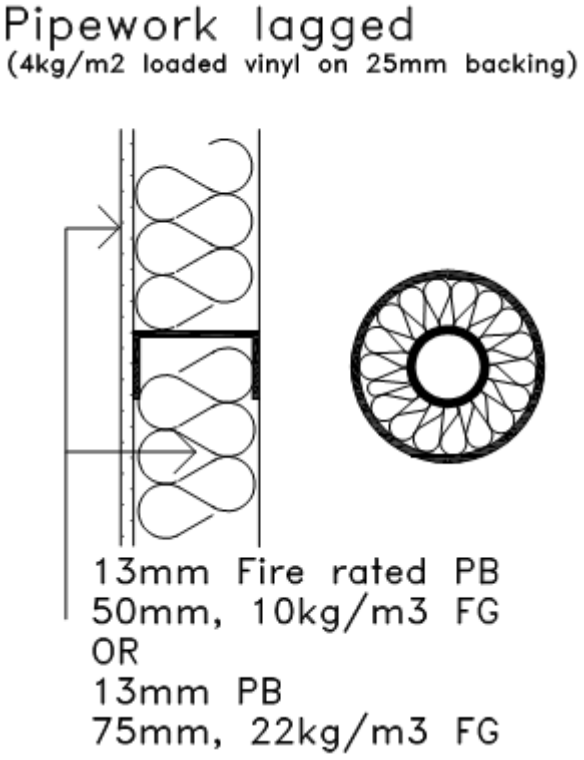


Figure B- 1: Construction to achieve R_w+C_{tr} 40, for pipes running adjoining habitable spaces (Bedroom, Living)

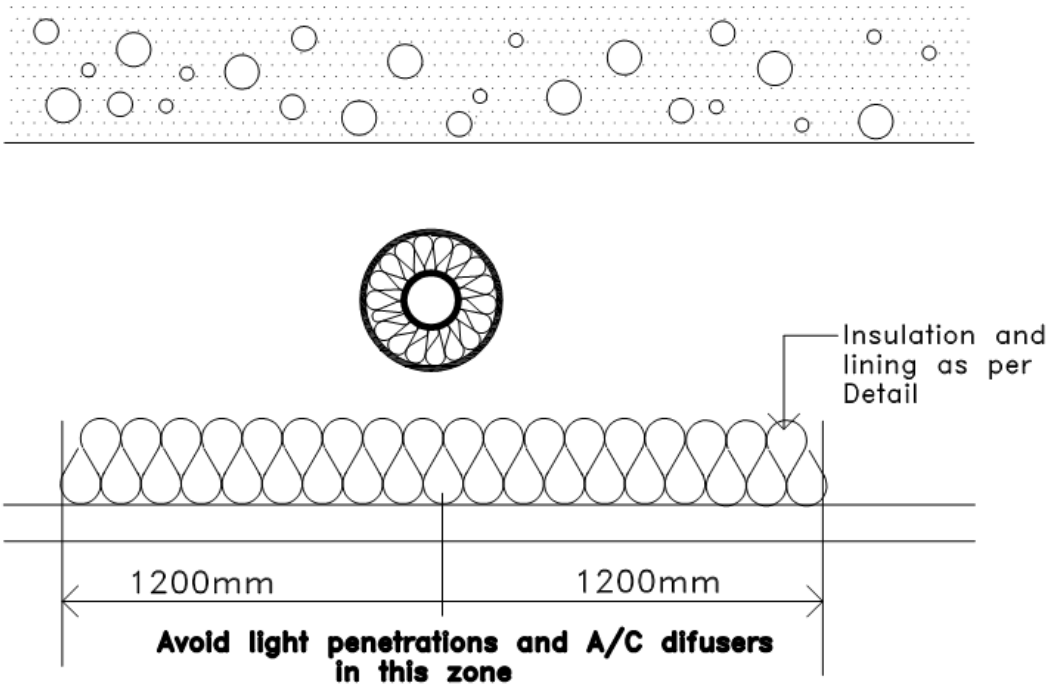


Figure B- 2: Construction for pipes running through ceiling of habitable spaces

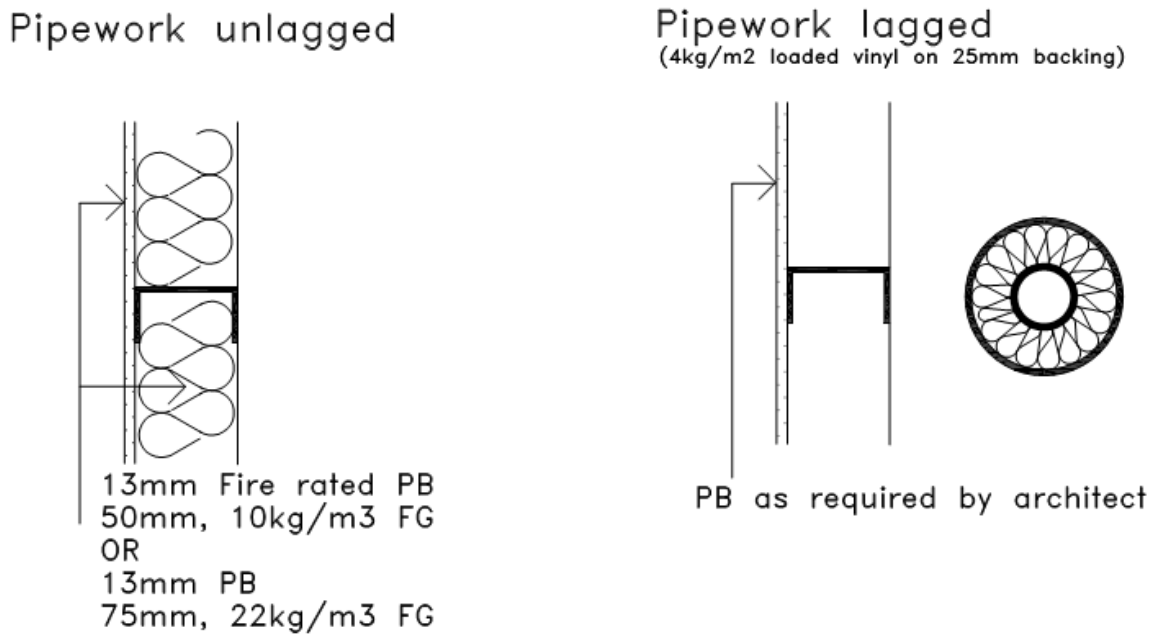
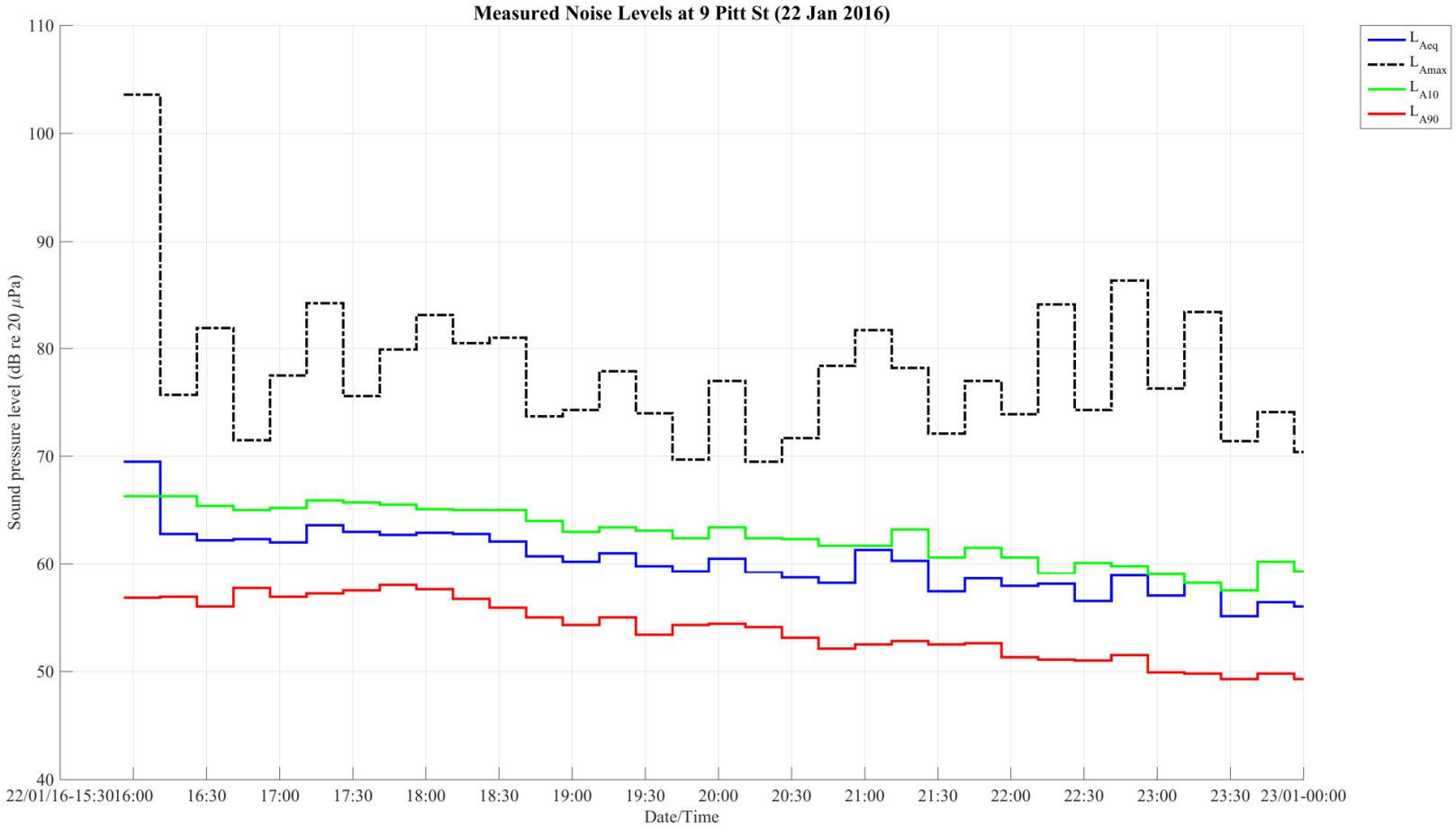
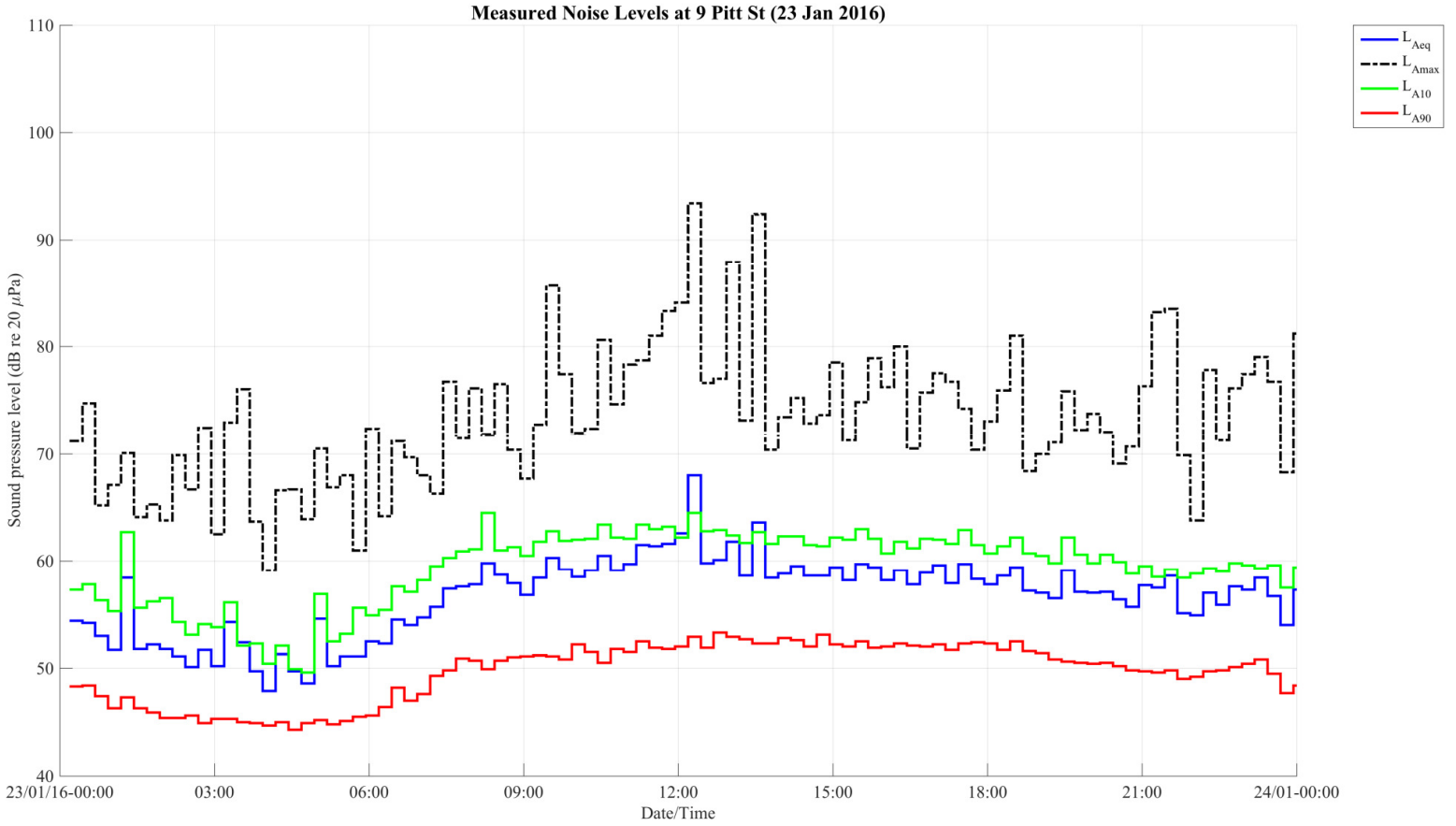
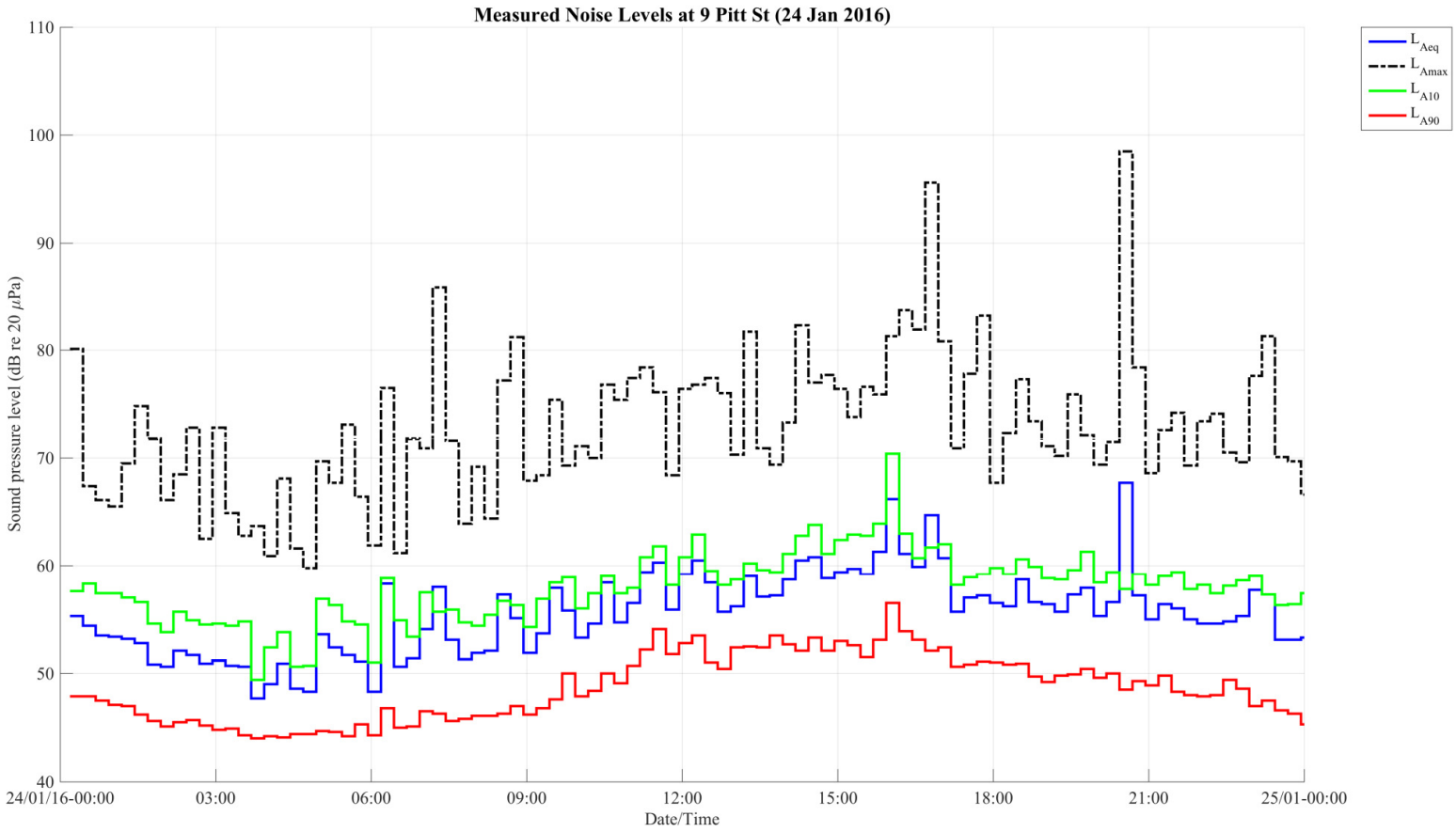


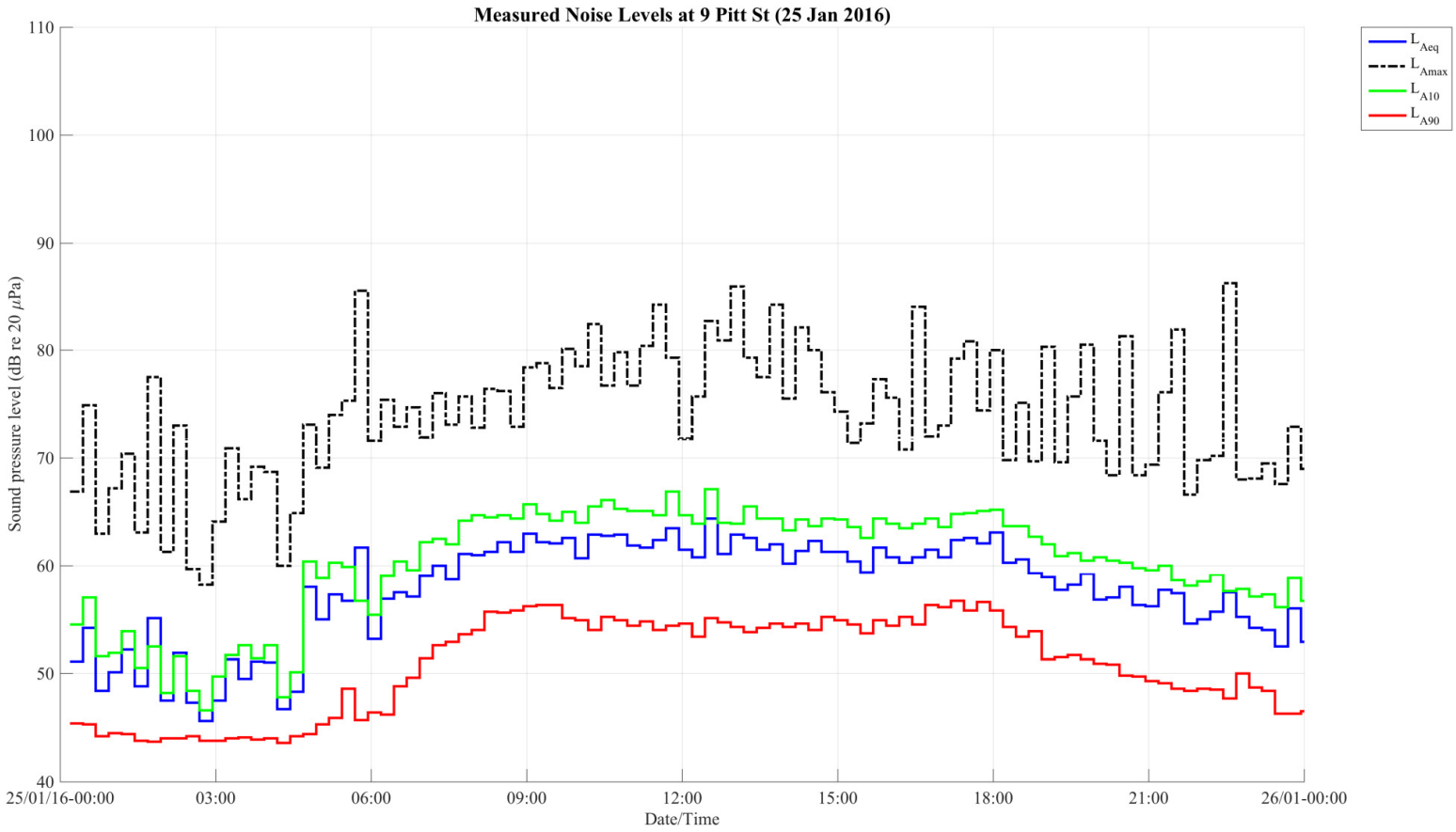
Figure B- 3: Construction to achieve R_w+C_{tr} for pipes adjoining non-habitable spaces (e.g. Bathroom, Laundry)

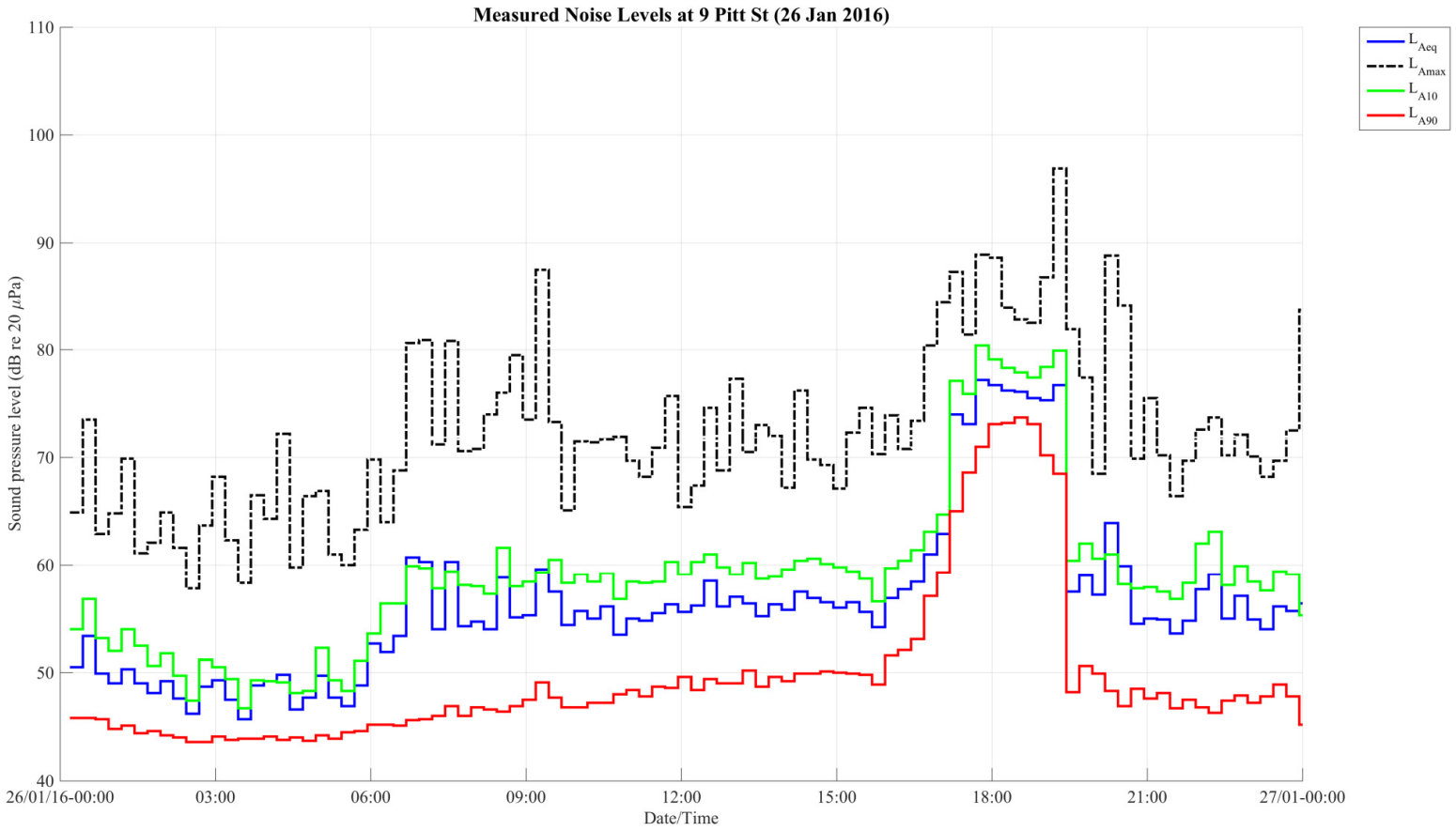
Appendix C – Plot Summary of Unattended Continuous Noise Survey

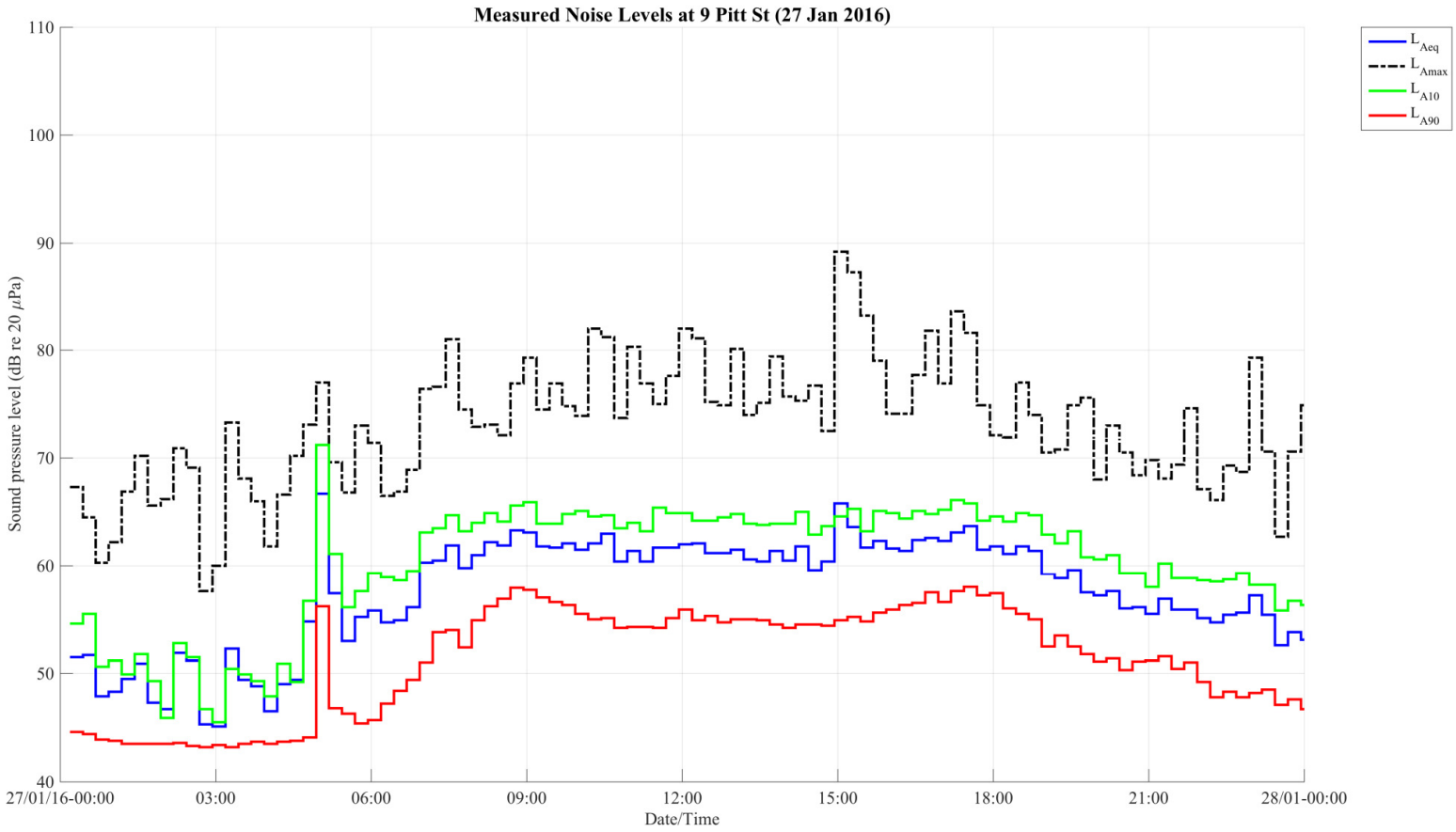


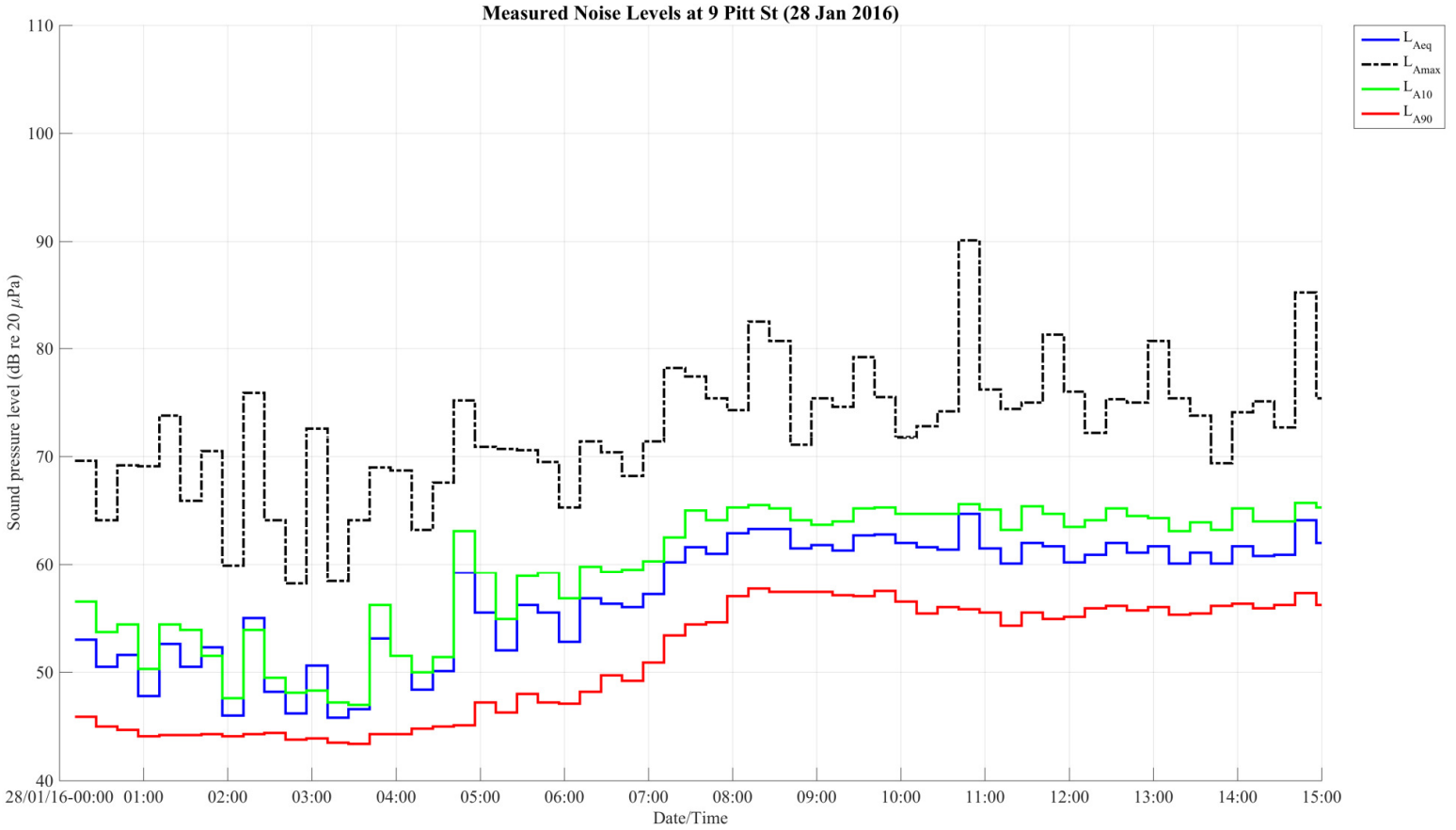

Measured Noise Levels at 9 Pitt St (23 Jan 2016)
Sound pressure level (dB re 20 μPa)
110
100
90
80
70
60
50
40
23/01/16-00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24/01-00:00
Date/Time
L Aeq
L Amax
L A10
L A90


Measured Noise Levels at 9 Pitt St (24 Jan 2016)
Sound pressure level (dB re 20 μPa)
110
100
90
80
70
60
50
40
24/01/16-00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
25/01-00:00
Date/Time
L Aeq
L Amax
L A10
L A90


Measured Noise Levels at 9 Pitt St (25 Jan 2016)
Sound pressure level (dB re 20 μPa)
110
100
90
80
70
60
50
40
25/01/16-00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
26/01-00:00
Date/Time
L Aeq
L Amax
L A10
L A90


Measured Noise Levels at 9 Pitt St (26 Jan 2016)
Sound pressure level (dB re 20 μPa)
110
100
90
80
70
60
50
40
26/01/16-00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
27/01-00:00
Date/Time
L Aeq
L Amax
L A10
L A90


Measured Noise Levels at 9 Pitt St (27 Jan 2016)
Sound pressure level (dB re 20 μPa)
110
100
90
80
70
60
50
40
27/01/16-00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
28/01-00:00
Date/Time
L Aeq
L Amax
L A10
L A90


Measured Noise Levels at 9 Pitt St (28 Jan 2016)
Sound pressure level (dB re 20 μPa)
Date/Time
28/01/16-00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
110
100
90
80
70
60
50
40
L Aeq
L Amax
L A10
L A90

Appendix D – 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.

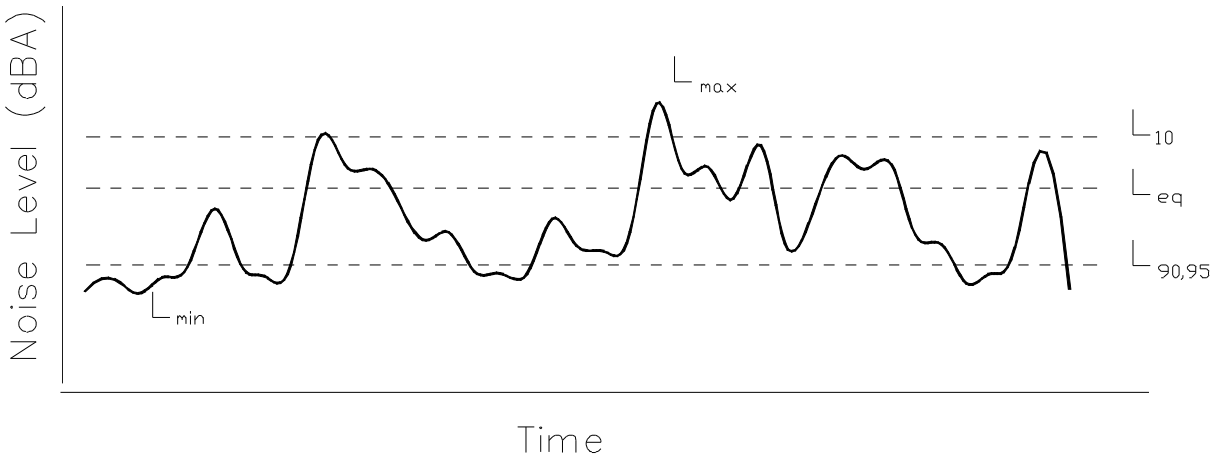
L_1 The noise level which is equaled or exceeded for 1% of the measurement period. L_1 is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L_{10} The noise level which is equaled 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 equaled 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.

PEDESTRIAN WIND ENVIRONMENT STATEMENT

18 BENTHAM STREET, ADELAIDE

WA393-05F02(REV1)- WS REPORT

FEBRUARY 9, 2018

Prepared for:

Bentham Street Property Trust

C/- Pruszinski Architects
172 Pulteney Street
Adelaide, SA 5000

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DOCUMENT CONTROL

Date	Revision History	Issued Revision	Prepared By (initials)	Instructed By (initials)	Reviewed & Authorised by (initials)
January 23, 2018	Initial	0	EV	KP	HK
February 9, 2018	Cover photo + corrections	1	EV	KP	HK

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EXECUTIVE SUMMARY

This report is in relation to the proposed development located at 18 Bentham Street, Adelaide, and presents an opinion on the likely impact of the proposed design on the local wind environment to the critical outdoor areas within and around the subject development. The effect of wind activity is examined for the four predominant wind directions for the Adelaide region; namely the south-westerly, westerly, north-westerly and north-easterly winds. The analysis of the wind effects relating to the proposed development was carried out in the context of the local wind climate, building morphology and land topography.

The conclusions of this report are drawn from our extensive experience in this field and are based on an examination of the architectural drawings which have been prepared by project architects Pruszinski Architects, received January 2017. No wind tunnel testing has been undertaken for the subject development, and hence 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 on our extensive experience in the study of wind environment effects.

The results of this assessment indicate that the low level conditions around the site benefit significantly from the surrounding buildings. The proposed building design aspects such as building shape and shrub placement aid in creating a comfortable wind environment. The bulk of adverse wind effects are caused by funnelling and downwash effects. These are expected to cause adverse wind conditions throughout some trafficable areas within and around the site. The retention of the proposed impermeable balustrade for the perimeter of the Level 1 balcony area is expected to mitigate adverse wind conditions in this area.

1 DESCRIPTION OF THE DEVELOPMENT AND SURROUNDINGS

The development site is located on Bentham Street and is currently an empty lot. The proposed subject development is 18 stories in height and will primarily be residential, with commercial tenancies on the lower floors. The site is bound by Bentham Street directly to the west and a privately owned road to the south. To the north is a four story heritage house and to the east a 5 story advertising building.

The development site is situated in a predominantly mid-rise to high-rise urban block. The outer region of the site is a mixed low to mid-rise with the occasional open lot / park. Additional developments are expected to be constructed within this precinct in the future. The closest of these commercial buildings under construction is the 20-story GPO building at 2-10 Franklin Street, approximately 90 metres to the south-east of the site.

A survey of the local land topography around the site indicates that the terrain immediately surrounding the development site is relatively flat and gradually descends towards Karrawirra Parri. An aerial image of the site and the local surroundings is shown in Figure 1.

The critical trafficable areas associated with the proposed development, which are the focus of this assessment with regards to wind effects, are detailed as follows:

- The Ground Level pedestrian footpaths along Bentham Street,
- Right of way and private road passages to the north and south of the site respectively,
- Level 1 balcony.

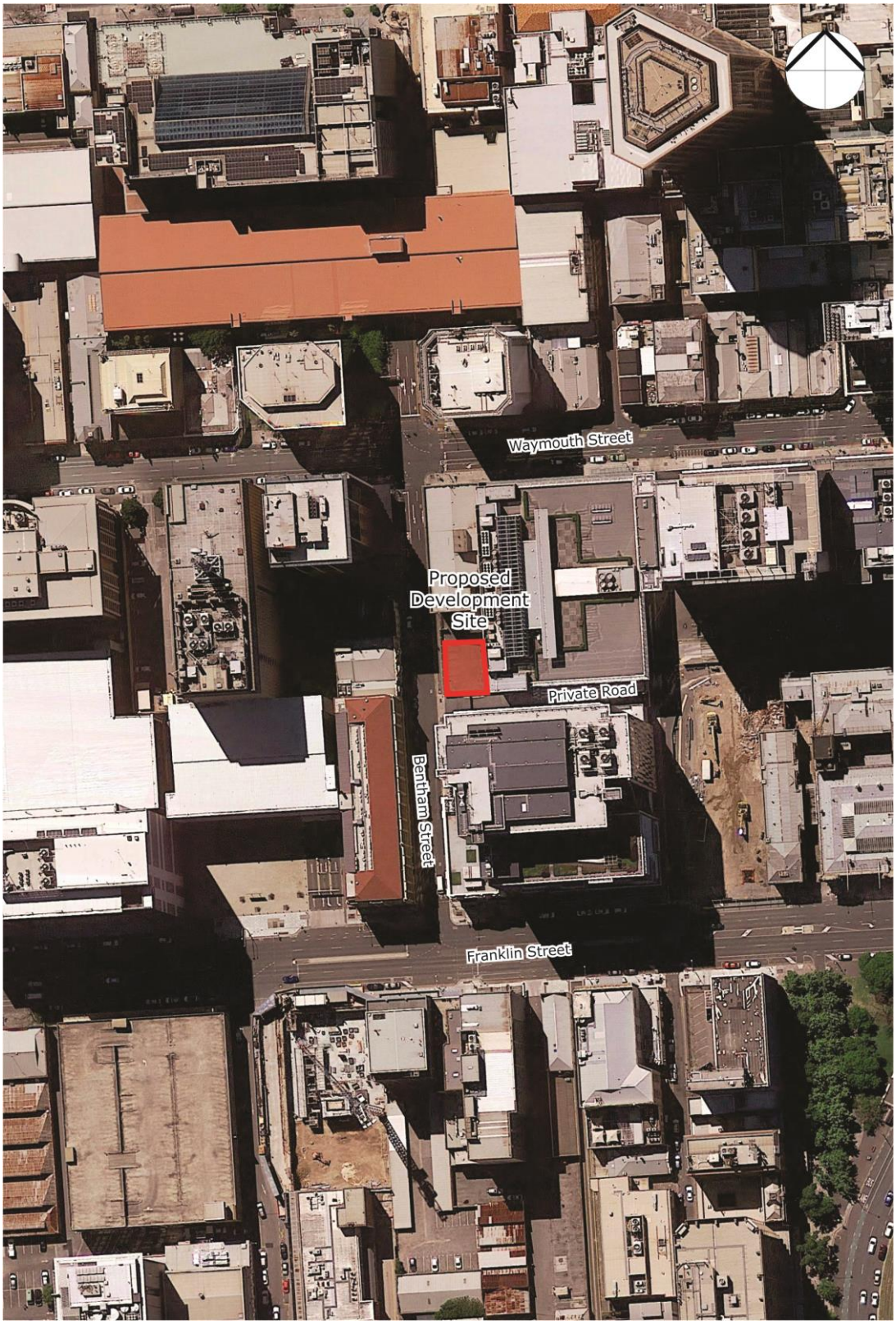

Figure 1: Aerial Image of the Site Location

2 WIND CLIMATE OF THE ADELAIDE REGION

The Adelaide region is governed by four principal wind directions, and these can potentially affect the subject development. These winds prevail from the north-east, north-west, west and south-west. A summary of the principal time of occurrence of these winds throughout the year is presented in Table 1. This summary is based on an analysis of data recorded from 1955 to 2016 obtained by the Bureau of Meteorology from the meteorological observation station located at Adelaide Airport.

Table 1: Principal Time of Occurrence of Winds for the Adelaide Region

Month	Wind Direction			
	South-Westerly	Westerly	North-Westerly	North-Easterly
Summer	X			
Autumn	X	X		X
Winter	X	X	X	X
Spring	X	X		X

A directional plot of the annual and weekly recurrence winds for the Adelaide region is shown in Figure 2. The frequency of occurrence of these winds is also shown in Figure 2. This plot has been produced based on an analysis of 48 years of recorded directional mean wind speed data (from 1955 to 2016) obtained from the meteorological observation station located at Adelaide Airport.

The strongest winds in Adelaide tend to occur during the spring season and are predominantly from the south-westerly through to the westerly and the north-easterly directions. Westerly through to north-westerly winds do not occur frequently, however when they do occur they tend to be fairly strong, which is usually during the afternoons of the winter months. Winds from the south-west are by far the most frequent and occur throughout the entire year. While wind speeds in the south-east direction occur moderately frequently, the overall magnitude is relatively low compared to the other four directions mentioned.

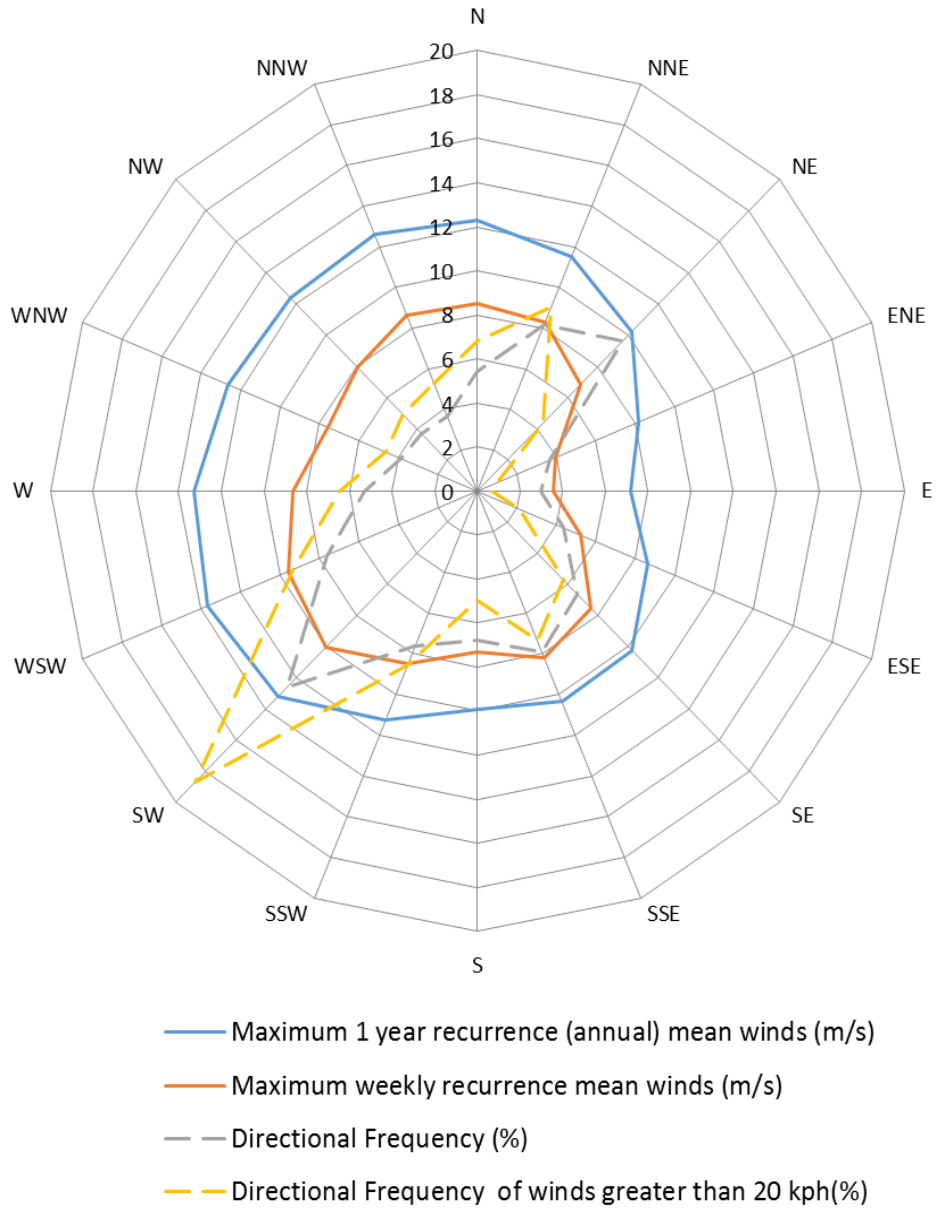

Figure 2: Annual and Weekly Recurrence Mean Wind Speeds, and Frequencies of Occurrence, for the Adelaide Region (based on 10-minute mean observations from Adelaide Airport from 1955 to 2016, corrected to open terrain at 10m)

3 WIND EFFECTS ON PEOPLE

The acceptability of wind in any area is dependent upon its use. For example, people walking or window-shopping will tolerate higher wind speeds than those seated at an outdoor restaurant. Various other researchers, such as Davenport, Lawson, Melbourne, Penwarden, etc., have published criteria for pedestrian comfort for pedestrians in outdoor spaces for various types of activities. Some Councils and Local Government Authorities have adopted elements of some of these into their planning control requirements in Australia.

The following table is an example, which was developed by Penwarden in 1975, and describes the effects of various wind intensities on people. Note that the applicability column relates to the indicated wind conditions occurring frequently (exceeded approximately once per week on average). Higher ranges of wind speeds can be tolerated for rarer events.

Table 2: Summary of Wind Effects on People (Penwarden, 1975)

Type of Winds	Mean Wind Speed (m/s)	Effects	Applicability
Calm, light air	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	1.6 - 3.3	Wind felt on face.	
Gentle breeze	3.4 - 5.4	Hair is disturbed, Clothing flaps.	
Moderate breeze	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	8.0 - 10.7	Force of wind felt on body.	Acceptable as a main pedestrian thoroughfare
Strong breeze	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	13.9 - 17.1	Inconvenience felt when walking.	
Gale	17.2 -20.7	Generally impedes progress, Great difficulty with balance.	Unacceptable as a public accessway.
Strong gale	20.8 - 24.4	People blown over by gusts.	Completely unacceptable.

It should be noted that wind speeds can only be accurately quantified with a wind tunnel study. This assessment addresses only the general wind effects and any localised effects that are identifiable by visual inspection and the acceptability of the conditions for outdoor areas are determined based on their intended use (rather than referencing specific wind speeds). Any recommendations in this report are made only in-principle and are based on our extensive experience in the study of wind environment effects.

4 RESULTS AND DISCUSSION

The expected wind conditions are discussed in the following sub-sections of this report for the various outdoor areas within and around the subject development for each of the four predominant wind directions for the Adelaide region. The interaction between the wind and the building morphology in the area is considered and important features taken into account including the distances between the surrounding buildings and the proposed building form, their overall heights and bulk, as well as the surrounding landform. Note that only the potentially critical wind effects are discussed in this report.

4.1 Right of Way Passage

The right of way passage directly north of the building boundary is relatively well protected from the prevailing winds. The Telstra Exchange building and hotel directly north-west of the site provide complete shielding from winds within this direction. Buildings occupying the north to north-east sector are half the height of the proposed site which is enough to mitigate north-easterly wind effects of downwash over a mid-rise building.

In addition, the narrow aspects of the tower face the north and south direction which further minimise the downwash aspects of the tower to the right of way passage region. Hence, suitable conditions are expected to be maintained for pedestrians along the right of way passage with the construction of the proposed development.

4.2 Level 1 Balcony

The Level 1 balcony, located on the western side of the tower, is likely to be exposed to south-westerly winds and some accelerated north-westerly winds. While buildings in these two wind directions may provide shielding, funnelling effects produced from the south exit of Bentham Street and then again at the Waymouth / Bentham Street intersection will most likely cause some adverse wind flow down the street and over the Level 1 balcony. Retention of proposed impermeable balustrades around the full perimeter of this area is likely required to mitigate the side-streamed winds.

This terrace may also be exposed to downwashed westerly winds from the tower, however, these are expected to be minimal due to shielding provided by buildings to the west of the site. Further improvement of balcony conditions could also be achieved through an impermeable awning or canopy above, as it would help in the reduction of any downwash effects.

4.3 Ground Level Pedestrian Footpaths along Bentham Street

Currently, the pedestrian footpath directly outside the site is expected to experience minor funnelling effects as mentioned in Section 4.2. With the erection of the proposed building, it is expected that no significant changes in the wind environment will occur. As it stands, these wind effects are most likely to be acceptable for its intended use.

4.4 South-Side Private Road

The private road located south of the proposed development is well protected from prevailing winds. The city tower building south of the site provides adequate shielding against south-westerly wind downwash effects. The GPO site development is expected to reduce funnelling effects from north-easterly winds. Retention of tree planting along the southern edge of the site is expected to help in the reduction of any funnelling effects originating from the westerly entrance of the private road. Thus, suitable wind conditions are expected to be maintained for pedestrians along this private road passageway.

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DESIGN +
ARCHITECTURE SA

Confidential

File No:
2014/11234/01

Ref No:
12668664

10 May 2018

Karl Woehle
Planning Officer
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

Karl.Woehle@sa.gov.au

For the attention of the State Commission Assessment Panel (SCAP)

18 Bentham Street, Adelaide

Further to the referral 020/A033/18 received 12 April 2018 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel (SCAP), I am pleased to provide the following comments informed by the Design Review process for your consideration.

The proposal was presented to the Design Review panel on one occasion.

I support the project team's aspiration to deliver a contemporary, premium economy hotel with ancillary guest and services spaces in this part of the city. The ambition for street level activation and intent to engage with Council's Market to Riverbank Bentham Street upgrade is also positive. This project presents a significant opportunity to consolidate the Bentham Street streetscape.

The 370 square metre site sits within a larger city block bound by King William Street, Waymouth Street, Bentham Street and Franklin Street. A Right of Way adjoins the site's northern boundary, and a private road accessing The Advertiser site adjoins the southern boundary. Bentham Street includes a number of heritage buildings including the State and Local heritage listed Woodard House directly north of the site, the State heritage listed Darling Building on the Franklin Street intersection to the south, and Local heritage places opposite the site. I understand Bentham Street did not form part of Colonel Light's plan, and has developed periodically since its creation in the 1840s when two town acres were subdivided.

I support the proposed 61 metre building height, which I consider to sit comfortably within the city context that includes taller developments.

The ground floor is configured to include an entrance lobby, reception area, coffee bar with bifold windows to the street, administration offices and lift core. Loading, Back of House and waste are located off the northern boundary, accessed from the Right of Way. Building services are located along the Bentham Street frontage, including a transformer screened by colourback glass double doors and fire booster within a glass enclosure. I typically advocate locating building services on secondary frontages to maximise activation along a site's primary frontage. However, on balance I support this approach given the efforts to integrate the transformer screening into the design of the facade, and transparent treatment of the fire booster to provide visual connection to

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2014/11234/01

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12668664

the interior. The gas meter is located in a standalone perforated metal box enclosure within the landscape zone on the southern boundary. In principle, I support this approach, however I recommend the final size of the enclosure be confirmed to ensure its visual impact is minimised.

Level one is configured to include a restaurant with ancillary uses, which I support. I also support the inclusion of a balcony with a landscaped edge that affords activation and passive surveillance, while also contributing to the pedestrian experience along the Market to Riverbank Link. Level two includes three hotel rooms and a gym overlooking Bentham Street, staff rooms and Back of House along the northern frontage, and building services (water/fire tanks and pumps) in the south east corner. I support the proposed configuration that considers outlook and light access for both staff and guest spaces. Levels three to 17 are dedicated to hotel accommodation, which I anticipate is configured to meet the hotel's operational requirements. I support the configuration that prioritises north facing rooms and provision of light access to rooms generally. I note all windows above level two are fixed, and I urge consideration be given to operable windows to facilitate fresh air access.

Woodard House and the Darling Building present a height datum of five levels, with a high proportion of solid to void. The proposed design seeks to reference this massing through a solid base expression with vertical glazed elements. The Bentham Street frontage includes tapered projections that extend beyond the glazing line with vertical grooves that intend to reference the historic detailing. The vertical elements reduce in width below the balcony line, and a one metre tall plinth grounds the podium form. The southern facade presents an alternate expression, distinguished by the chamfer that opens up the south west corner. I acknowledge the intent for the expression of the base of the building as a respectful gesture to the heritage context.

Above the building base, the west facade and part of the north facade feature curtain wall 'neutral' coloured glazing. I understand that 50% of this glazing is to be colourback glass, with insulated walling directly behind to reduce the solar loads on the building. In principle, I support the treatment of the glazing on the basis that the envisaged uniform expression is achieved as indicated in the visualisations. The south facade and part of the north facade feature Brightonlite precast concrete paneling with horizontal grooves, punctuated by full height windows and the southern lightwell. I support the consideration given to the contextual qualities of the precast, and the integral finish. However, given the extent of the precast, I recommend clarification be sought regarding the class of the concrete. I typically recommend minimum Class 2 to achieve a high quality finish and colour control. I support the vertical expression and built form articulation afforded by the windows and lightwell, however the window widths vary on the north and south elevations. I recommend holistic review of the window widths, with a view to achieving a more consistent expression. The east elevation comprises solid precast facade panels with angled grooves that express the fire stair use behind. I recommend additional articulation be provided to this extensive blank wall. The facade is proposed to extend 1.5 metres beyond the roof level to screen the plant, which I support.

A glazed void on the south facade provides light access to three hotel rooms. I strongly support the provision of natural light and outlook to the corridor and hotel rooms generally, however I am concerned by the size of the void. While I acknowledge the current site conditions indicate the land adjoining the southern boundary is unlikely to be developed, this is not guaranteed and any future development is at the discretion of the owners of this site. The amenity of the hotel rooms and corridor would be significantly compromised should development occur on the adjoining boundary. As

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such, I recommend review of the size of the void to ensure user amenity is protected in both the current and potential future context.

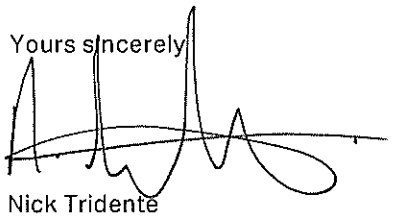
No car parking is proposed for the development, which I support. I also support the inclusion of bicycle parking, which is located off the hotel lobby (staff and guest use) and in the loading bay (staff use).

I commend the consideration given to the anticipated upgrades to Bentham Street as part of the Market to Riverbank Link, and I recommend ongoing collaboration with Council to achieve an integrated outcome that maximises the public realm benefits afforded by both of these projects.

To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider particular aspects of the project, which would benefit from protection as part of the planning permission:

- Confirmation of the size of the gas meter enclosure.
- Confirmation of the class of precast concrete finishes, with a view to achieving minimum Class 2.
- Holistic review of the windows widths, with a view to achieving a consistent expression.
- Further consideration of the articulation of the east elevation precast facade.
- Provision of a detailed schedule of external materials supported by a materials samples board.

Yours sincerely



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Government of South Australia

Government of South Australia
Department for Environment and Water

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Ref: SH/13106D
Date: 5 June 2018

Secretary - Ms Alison Gill
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Attention: Karl Woehle

Dear Mr Woehle

DESCRIPTION: DEMOLITION OF EXISTING STRUCTURES, CONSTRUCTION OF AN 18 LEVEL MIXED USE BUILDING COMPRISING TOURIST ACCOMMODATION, HOSPITALITY FACILITIES AND ASSOCIATED LANDSCAPING AT 16-20 BENTHAM STREET, ADELAIDE

Application number:	020/A033/18
Referral received:	12/04/2018
State heritage place:	SH/13106—Woodards House, 47-49 Waymouth Street ADELAIDE
	SH/13099—Darling Building, 28 Franklin Street, ADELAIDE

The above application has been referred to the Minister for Environment and Water in accordance with Section 37 of the *Development Act 1993* as development that directly affects a State heritage place or, in the opinion of the relevant authority, materially affects the context within which a State heritage place is situated.

The application is accompanied by a *Heritage Impacts Assessment* (Bruce Harry and Associates, March 2018) analysing how the proposed development affects the heritage values and historic context of the above State heritage places on the eastern side of Bentham Street and three local heritage places on the western side.

I concur generally with the findings and conclusion of the HIA, and consider that the proposed development constitutes an acceptable design response to the nearby State heritage places.

The refinement of the design between the pre-lodgement process and the application as lodged has delivered some positive improvements to the design and detailing of the podium floors in particular, with welcome and beneficial improvement to the building's visual relationship with the two State heritage places.

There are various detailed aspects of the design that I consider would benefit from further design development, but I consider these to be desirable rather than crucial to the streetscape relationship of the new building with the secondary Bentham street facades of Woodards House and the Darling Building. I have therefore included my advice on this aspect as an advisory note below, not as a matter necessarily recommended to be conditioned or reserved.

Recommendation

A. The following condition/s should be incorporated into any consent or approval.

Condition 1: A dilapidation survey recording the condition of Woodards House shall be prepared by a suitably qualified structural engineer prior to the commencement of site works, to the satisfaction of the approving authority. As well as recording fabric in good condition, the survey shall also record the location, type and dimensional extent of any existing physical damage to the place that might be affected by the proposed

excavation and construction works. The scope of the survey may be limited to that section of the historic building considered by the engineer to be potentially at risk.

Reason for condition: To provide a record prior to the commencement of the proposed works, as a reference for the assessment of any subsequent damage.

Condition 2: During ground works, the short term vibration levels at the heritage-listed structure shall be monitored, and shall not exceed the velocity limits for structural vibration in buildings established for Group 3 structures in the German Standard DIN 4150 Part 3.

Reason for condition: To protect the heritage-listed structure from structural movement due to the proximity of new construction.

B. The following advice is provided for the attention of the State Commission Assessment Panel.

Advisory note 1: There are various aspects of the new building's visual relationship with the nearby historic buildings that it is considered could potentially benefit from further design development of the western and northern facades, at the Panel's discretion.

a) Greater continuity and consistency in the vertical lines of the masonry piers above and below the first floor balcony

Reason for advice: With reference to the western elevation on drawing 07, the profile of the piers with their projecting angled fins is consistent for Levels 1 to 5, but is lost at ground floor level.

The southern pier is carried down full-width (minus the projection). At the northern end, the ground floor column appears to align with the non-projecting half of the profile above. For the intermediate piers, there is no apparent direct relationship between upper and lower.

It is considered that a more consistent treatment would benefit the visual grounding and vertical continuity of the western elevation, as part of its design response to the State heritage places.

b) The podium cap at Level 6

Reason for advice: The pre-cast spandrel panels at level 6 serve to visually terminate the podium element, but the projecting fins have the appearance of being somewhat unresolved in their termination.

It is considered that a more definitive capping of the podium element could strengthen the role of the fins as part of the vertical composition, and provide a stronger sense of articulation to differentiate the fenestration of Levels 1 to 5 and the sheer glazed curtain wall above.

There is also the opportunity here to achieve a more purposeful and considered interface with the slab-like eelement of the cutaway southern façade and return, with its different surface treatment.

c) The transition from podium to full-height masonry on the northern elevation

Reason for advice: The comments above under a) and b) can also be applied to the northern elevation, where there is a similar interface between podium element, podium cap and full-height masonry of differing surface treatment.

On this elevation, the interface treatment might also take into account how to better resolve the differing fenestration alignments between the podium element and the full-height element.

General notes

1. Should Council not adopt the above recommendation in full, it will be necessary to obtain the concurrence of the State Commission Assessment Panel before a decision is conveyed to the applicant.

2. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department for Environment and Water, or an additional referral to the Minister for Environment and Water. Such changes would include for example (a) an application to vary the planning consent, or (b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.
3. To ensure a satisfactory heritage outcome, Council is requested to consult the Department for Environment and Water in finalising any conditions or reserved matters above.
4. In accordance with Regulation 43 of the *Development Regulations 2008*, please send the Department for Environment and Water a copy of the Decision Notification.
5. Council is requested to inform the applicant of the following requirements of the *Heritage Places Act 1993.*
   (a) If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified.
   (b) Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

   For further information, contact the Department for Environment and Water.
6. Council is requested to inform the applicant of the following requirements of the *Aboriginal Heritage Act 1988.*
   (a) If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the *Aboriginal Heritage Act 1988*.

For any enquiries in relation to this application, I can be contacted on telephone 8124 4935 or e-mail peter.wells@sa.gov.au.

Yours sincerely

Peter Wells
Principal Conservation Architect
DEPARTMENT FOR ENVIRONMENT AND WATER
as delegate of the
MINISTER FOR ENVIRONMENT AND WATER

14 June 2018

Karl Woehle
Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Karl,

DEVELOPMENT NUMBER: 020/A033/18
APPLICANT: Mandala Property Group
NATURE OF DEVELOPMENT: Hotel Development
SUBJECT LAND: 18 Bentham Street ADELAIDE, South Australia, 5000

The application has been assessed and at a height of RL 106.770m 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 6 metres.

Any further proposed addition to the structure, including aerials and masts must be subject to a separate assessment.

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 will be assessed as part of this application.

Should you require any additional information or wish to discuss this matter further please contact the undersigned on 8308 9245.

Yours sincerely,

Brett Eaton
Airside Operations Manager

Adelaide Airport

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Woehle, Karl (DPTI)

From: Helen Dand <H.Dand@cityofadelaide.com.au>
Sent: Monday, 14 May 2018 5:11 PM
To: Phillip Brunning; Woehle, Karl (DPTI)
Cc: 'David Girolamo'; 'David Lee'
Subject: RE: 18 Bentham Street, Adelaide - Hotel Development - 020/A033/18

Hi Phil and Karl

I have heard back from most parts of Council I referred to but have yet to get comments from our Assets team. I have followed up with them to get a response. Here are the comments received to date:

Heritage

I have considered the proposed development including the supporting Heritage Impact Statement prepared by Bruce Harry & Associates.
In short, I concur with the heritage assessment. The physical separation of the proposed building from the adjacent Heritage Places will result in no significant physical impact upon their respective heritage value. In addition the use of a podium design which incorporates vertical articulation and the selection of compatible materials will assist with reinforcing the existing townscape character of Bentham Street.

Cleansing

From reviewing the plans and traffic consultancy report the proposed waste services are not deliverable. The commercial waste collection industry does not have capability to support this development. SRV waste vehicles are not economically viable. Industry standards for all streams of waste use MRV's or larger. I do not support the proposed.

Traffic

There are no traffic/transport related objections to this development, subject to the following matter/s being addressed:

- *Concern is raised in relation to how and whether pick-up and drop-off can be facilitated on-street. No demand analysis is currently provided within the traffic report, and it is envisaged that such an activity would be significant given the size of the proposed hotel. Excessive demand for pick-up and drop-off combined with lack of available parking spaces to do such movements is likely to result in vehicles stopping within the carriageway and blocking through moving traffic.*
- *Concern is raised on the limited size of loading dock and reliance on very small waste collection vehicles. Should these vehicles, which are not prevalently used, not be available, then larger vehicles would be required to undertake all waste collection servicing on-street, which is significant for a development of this size and nature.*
- *The traffic report notes that sufficient sight distance is not provided for vehicles exiting the loading area out to Bentham Street. This creates a safety hazard for pedestrians, which is particularly concerning given the efforts being made to improve pedestrian provision and encourage walking along this street. Measures to address the sight line deficiency should be included.*
- *Concern is raised in relation to the proposed encroachment over the Bentham Street carriageway, and what would be the parking/loading space. Emergency services generally require 5 metres of clear overhead space and the clearance below is only 4.72 metres. Additionally, some care would be required around the type of large waste vehicle when they are required, as the balcony at this height is at risk of being struck by a lifted bin.*

When I have received comments from our Assets team I'll send them through. Please let me know if you have queries or wish to discuss.

Kind Regards

Helen Dand
Principal Planner - Development Assessment
Planning Assessment
4th Floor 25 Pirie Street
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From: Phillip Brunning [mailto:phil@phillipbrunning.com]
Sent: Monday, 14 May 2018 3:21 PM
To: Helen Dand <H.Dand@cityofadelaide.com.au>
Cc: 'Woehle, Karl (DPTI)' <Karl.Woehle@sa.gov.au>; 'David Girolamo' <DGirolamo@prusarch.com.au>; 'David Lee' <david@themandala.com.au>
Subject: 18 Bentham Street, Adelaide - Hotel Development - 020/A033/18

Hi Helen,

Further to my telephone message, might you advise on the status of Council's response regarding this application?

Regards from

Phillip Brunning
Director

pba

Phillip Brunning & Associates
26 Wakeham Street
ADELAIDE SA 5000

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Enquiries: Helen Dand 8203 7380
Reference: S10/21/2018 (SCAP ref. 020/A033/18)

25 May 2018

045

State Commission Assessment Panel
GPO Box 1815
Adelaide SA 5001

Attention: State Commission Assessment Panel

Dear Sir/Madam

Application: S10/21/2018 (SCAP ref. 020/A033/18)
Applicant: THE MANDALA GROUP
Address: 16-20 Bentham Street, ADELAIDE SA 5000
Description: Demolish existing structures and construct an 18-level hotel building (183 rooms in total) with associated facilities including coffee bar at ground level and restaurant at first floor level

Council has the following comment(s) to make on the above application:

TECHNICAL COMMENTS

ROADS / FOOTPATHS ENGINEERING

There are no traffic/transport related objections to this development, subject to the following matter/s being addressed:

- Any disused driveway inverts resulting from the development are to be reinstated to equivalent footpath levels to Council standards and specifications.
- Existing crossovers and new crossovers have been highlighted under this development. All new crossovers or alterations to existing crossovers require Council approval outside of the development application process. They need to be installed to Council's 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.
- Footpath reinstatements associated with works will need to match surrounding materials and pavement composition.

- Any damage caused to Council'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.
- Consideration of the adjacent Bentham Street project and liaison with the Council project manager will be required.

TORRENS & STORM WATER

There are no storm water related objections to this development, subject to the following matter/s being addressed:

- Stormwater runoff from the proposed hotel development must be maintained within the property boundaries, collected and discharged to the Bentham Street Road Reserve. Stormwater runoff should not be discharged to the adjacent property driveway south of the proposed hotel development or the adjacent right of way north of the proposed hotel development.
- The level of any proposed grated pits or stormwater openings within the building must be designed with an adequate freeboard to the 1% AEP flood level in Bentham Street. This is assumed to be top of kerb level in Bentham Street, adjacent to each property connection.
- Council's stormwater management system has been designed for service levels to manage stormwater runoff flows from gravitational rainfall events only. Any proposed roof siphonic drainage systems must only discharge equivalent gravitational flows to the Bentham Street road reserve.
- Collected seepage water from proposed landscaped areas, planter boxes and vertical gardens should be either discharged to sewer or an irrigation water reuse system. Collected seepage water should not be discharged to the building stormwater system.
- Council encourages the collection, storage and reuse of building stormwater runoff for irrigation and toilet flushing purposes, particularly given the potential for high rates of recycled water use in a Hotel Development.

LIGHTING / ELECTRICAL / CCTV

There are no lighting related objections to this development, subject to the following matter/s being addressed:

- The proposed development works may impact on the public lighting within the proximity of the development site. The existing public lighting installed along Bentham Street is owned and maintained by City of Adelaide and consists of wall mounted lighting connected to underground cabling and pits

located within the street. There is a pit and underground cabling installed in the front of this project that may require protection during the project works.

- All works undertaken shall be fit for purpose in the public realm.
- 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 Council's requirements. The works shall be carried out to meet Council's requirements and all costs borne directly by the developer.
- 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 Council's requirements. The works shall be carried out to meet Council's requirements and all costs borne directly by the developer.
- 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 a consultant is required to confirm compliance. In addition, relevant lighting calculation grid detailing property boundary lines should be provided for Council's review and records.
- If new canopies are to be constructed as part of these works, then lighting to meet Council's under verandah requirements shall be installed.
- Existing underground services shall be identified and marked in the locality prior to undertaking any excavation works.
- All damage to Council's infrastructure, including damage to public lighting and underground ducting etc. caused by projects works or loading of site crane onto pathways, will be repaired to meet Council's requirements and shall be at the cost of the developer.
- If building mounted lit signage is to be installed onto the building, further review and approvals will be required by City of Adelaide.
- For any modifications to CCTV camera owned and maintained by City of Adelaide, contact City of Adelaide for further advice on the process. SAPOL monitor these cameras and will also be required to be consulted for their approval.

- All assets to be handed over to Council to own and maintain shall be constructed to Council's requirements and applicable legislative standards and requirements. All equipment gifted shall be Council's standards and applicable requirements.

TRAFFIC / TRANSPORT

There are no traffic/transport related objections to this development, subject to the following matter/s being addressed:

- Concern is raised as to how (and whether) pick-up and drop-off can be facilitated on-street. No demand analysis has been provided in the traffic report, and it is envisaged that such an activity would be significant given the size of the proposed hotel. Excessive demand for pick-up and drop-off combined with lack of available parking spaces for such movements is likely to result in vehicles stopping within the carriageway and blocking through moving traffic.
- Concern is raised on the limited size of loading dock and reliance on very small waste collection vehicles. Should these vehicles, which are not prevalently used, not be available, then larger vehicles would be required to undertake all waste collection servicing on-street, which is significant for a development of this size and nature.
- The traffic report notes that sufficient sight distance is not provided for vehicles exiting the loading area out to Bentham Street. This creates a safety hazard for pedestrians, which is particularly concerning given the efforts being made to improve pedestrian provision and encourage walking along this street. Measures to address the sight line deficiency should be included.
- Concern is raised in relation to the proposed encroachment over the Bentham Street carriageway, and what would be the parking/loading space. Emergency services generally require 5 metres of clear overhead space and the clearance below is only 4.72 metres. Additionally, some care would be required around the type of large waste vehicle when they are required, as the balcony at this height is at risk of being struck by a lifted bin.

WASTE

- Having reviewed the plans and traffic consultancy report, the proposed waste services are not deliverable. The commercial waste collection industry does not have capability to support this development. SRV waste vehicles are not economically viable. Industry standards for all streams of waste use MRV's or larger. The development, as proposed, is not supported.

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:

ENCROACHMENTS

The applicant should be made aware that, in its current form, the canopy/balcony does not meet Council's Encroachment Policy.

The deviation from the policy is such that, a decision cannot be made under delegation.

To gain consent for the encroachment, a report will need to be tabled to Council.

The Administration is supportive of the encroachment, subject to the underside of the canopy achieving a minimum height of 5 metres above the roadway, however ultimately it will be the decision of Council.

Council encourages the greening of the balcony as previously noted to the applicant by the Market to Riverbank team.

Yours faithfully

Rebecca Rutschack
MANAGER - PLANNING ASSESSMENT

Adelaide 1686 006A

8 June 2918

Town Planning
Development Advice
Strategic Management

Mr Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
GPO Box 1815
Adelaide SA 5001

DEVELOPMENT APPLICATION NO. 020/A033/18 - HOTEL DEVELOPMENT – 18 BENTHAM STREET, ADELAIDE – RESPONSE TO REFERRALS

Further to our recent discussions, I take this opportunity on behalf of the Applicant to respond to matters arising from the statutory referral process conducted in respect to this Development Application for a hotel at 18 Bentham Street, Adelaide.

Government Architect

In general terms, support is provided for the proposed development as presented, which reflects and responds to the various matters raised during Design Review and the Pre-Lodgement process notwithstanding its truncated length.

Without wishing to unnecessarily rehash the specific commentary provided, I note that support is provided in respect to use, building height, form and arrangement, including that at ground level which will assist in further activating Bentham Street.

In respect to the void on the eastern side of the building adjacent the driveway to the Advertiser building, I reaffirm that sufficient space is provided for access to light for these rooms even in the highly unlikely event that this area is developed.

The vast majority of rooms within this hotel will enjoy unencumbered access to light and aspect (to the north and west) with those oriented to the east not significantly disadvantaged by a potential building adjacent.

In respect to the gas meter and its enclosure, the Applicant will continue to work with APA Group to minimise its size which at this stage is to have a maximum dimension of 1800 mm wide, 900 mm deep and 1500 mm high.

I also confirm that the precast panels are to be specified as ‘brightonlite’ finish of consistent colour, texture and finish to a Class 2 finish. A materials sample board will be prepared for the State Commission Assessment Panel meeting.

Phillip Brunning & Associates

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A review of widow widths has been undertaken as recommended.

The width of the corridor window on the south is narrower than the bedroom windows on the other facades. This is limited by the width of the corridor and cannot be widened due to the tight constraints of the floor plans.

However, the three windows facing south (corridor, room 10 and room 12) can be made all the same width. This will provide a more consistent expression. Can I please ask that this matter be dealt with by condition of approval.

City of Adelaide

The Applicant notes and accepts the recommended conditions and notes in respect to works affecting public roads and related Council assets. This level of detail is typically attended to as part of detailed design, which is well underway.

So too in respect to stormwater management and quality, we ask that these requirements be expressed as conditions of approval or notes. The Applicant shall continue to liaise with Council's technical people in this regard.

Likewise in respect to lighting, electrical and CCTV installation, the Applicant shall continue to liaise with Council and provide the necessary technical detail in order to meet their requirements.

I note that Council has no traffic or transport objections to the proposed development subject to the specified matters being addressed. Once again the Applicant will work through this detail with Council officers in order to achieve an appropriate outcome.

In respect to set down/pick up provision, the Applicant will seek some accommodation of this function adjacent to the kerb on this eastern side of Bentham Street. The Applicant acknowledges that this may not be for exclusive use.

The Applicant confirms through its technical expert, CIRQA that the provision made for loading and unloading is sufficient for the size vehicle that would be required to service this facility including for waste management.

CIRQA in their more recent advice of 7 June 2018 addresses the sight distance issue for vehicles exiting the loading area and driveway to Bentham Street so as to ensure pedestrian safety. I note the use of convex mirrors and/or audible and visual warnings.

More specifically in relation to waste management, I draw your attention to the response provided by CIRQA which includes confirmation from a private waste management contractor that the proposed facility can be serviced within a SRV.

In respect to the issue of encroachment, please find enclosed amended plans which provide for the required 5 metre underside clearance to the proposed verandah/balcony arrangement over Bentham Street.

Acknowledging that it is at Council's discretion to accept this encroachment, can I respectfully suggest that we may have every confidence of being successful and that it would not be in the public interest to deny the proposed arrangement.

I note support from Council officers for the proposed arrangement (as amended).

To the extent that this element has not been formalised with the Council, can I please ask that it be dealt with by condition or if necessary reserved matter for attention prior to full Development Approval being issued.

In many respects this approach is not dissimilar to a Section 221 Application under the Local Government Act for alteration of a public road necessary in order to implement an approved development under the Development Act.

We confirm that Council's request to 'green' this balcony will be considered as part of detailed design. The Applicant will continue to collaborate with the Market to Riverbank team in this regard.

Heritage South Australia

The Delegate for the Minister for Environment & Water generally concurs with the finding and conclusions of the Heritage Impact Statement and considers that the proposal constitutes an acceptable design response to nearby State Heritage Places.

To the extent that the Delegate makes observations and recommendations in respect to the design of the proposed building, can I respectfully suggest that such are possibly beyond the ambit of advice regarding heritage adjacency.

It has been pointed out that the Western columns on the ground floor are not consistent with the upper floors. The column changes on Ground floor are the result of much consideration and discussion.

The final outcome is a result of prioritising the activation of the ground floor realm and its connection with Bentham Street over and above a formal, consistent design response within the facade as a whole.

As required, Mr David Girolamo, Architect may speak further to these design observations and recommendations when this proposal is presented to the State Commission Assessment Panel for determination.

I confirm that the Applicant has no objection to the recommended conditions in respect to the provision of a dilapidation survey of Woodards House and that appropriate steps be taken to minimise short term vibration levels during construction.

The only other suggestion that I make in this regard is that when composing the required conditions and notes for the decision notification form, that care be taken to ensure correct reference is made to Council and/or the State Commission Assessment Panel.

Adelaide Airports Limited

One final matter that I take this opportunity to confirm is that the Applicant has no objection to you advising Adelaide Airports Limited that the assessment under the Airports (Protection of Airspace) Regulations 1996 may be commenced.

I understand that this assessment process may be conducted following a decision in respect to this development application under the Development Act, 1993 and is essentially a formality given that the building will not penetrate PANS-OPS.

I note the presence of far taller buildings in the immediate locality.

On the basis of the above, I ask that you finalise your assessment of this proposal and present to the next available meting of the State Commission Assessment Panel which I understand is scheduled for Thursday 28 June 2018.

As indicated above, it is the intention of the project team to attend this meeting in order to respond to any questions that the Panel may have. Can you please confirm the date and time of this meeting and our ability to attend?

Yours faithfully

PHILLIP BRUNNING & ASSOCIATES PTY LTD

PHILLIP BRUNNING RPIA
Registered Planner

Central Business Policy Area 13

Introduction

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

DESIRED CHARACTER

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

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

OBJECTIVES

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

Objective 2: Development of a high standard of design and external appearance that integrates with the public realm.

Objective 3: Development that contributes to the Desired Character of the Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 Development should contribute to the area's role and function as the State's premier business district, having the highest concentration of office, retail, mixed business, cultural, public administration, hospitality, educational and tourist activities.

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

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

CAPITAL CITY ZONE

Introduction

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

DESIRED CHARACTER

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

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

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

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

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

New development will achieve high design quality by being:

(a) **Contextual** – so that it responds to its surroundings, recognises and carefully considers the adjacent built form, and positively contributes to the character of the immediate area.

(b) **Durable** – by being fit for purpose, adaptable and long lasting, and carefully considers the existing development around it.

(c) **Inclusive** – by integrating landscape design to optimize pedestrian and cyclist usability, privacy, and equitable access, and also promote the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimize security and safety both internally and into the public realm, for occupants and visitors alike.

(d) **Sustainable** – by integrating sustainable systems into new buildings and the surrounding landscape design to improve environmental performance and minimise energy consumption.

(e) **Amenable** – by providing natural light and ventilation to habitable spaces.

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

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

Adelaide's pattern of streets and squares

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

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

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

(a) North Terrace will be reinforced as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile.

(b) King William Street will be enhanced as the City's principal north-south boulevard and will be reinforced as the City's commercial spine.

(c) Grote Street-Wakefield Street will be enhanced as the City's principal east-west boulevard and will be developed to provide a strong frame that presents a sense of enclosure to the street.

(d) East Terrace will be characterised by buildings that maximise views through to the Park Lands and provide a distinct City edge.

(e) West Terrace will be reinforced as the western 'gateway' to the City centre and will form an imposing frontage to the western City edge. Buildings will be constructed to the front and side boundaries, and designed to maximise views through to the Park Lands. Corner sites at the junctions of West Terrace and the major east-west streets will be developed as strongly defined visual gateways to the City. This will provide an imposing frontage to the western edge of the City, which comprises a mixture of commercial, showroom and residential development.

(f) Pulteney and Morphett streets are key north-south boulevards. A sense of activation and enclosure of these streets will be enhanced through mixed use development with a strong built form edge. Pulteney Street will include residential, office and institutional uses, and retail activities. These boulevards will become important tree-lined commercial corridors.

(g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas and these view corridors should remain uncluttered.

(h) Victoria, Hindmarsh and Light Squares will have a continuous edge of medium to high-scale development that frames the Squares and increases ground level activity.

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

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

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

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

Environmental

Crime Prevention Through Urban Design

OBJECTIVES

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

(a) ensures that land uses are integrated and designed to facilitate natural surveillance;

(b) promotes building and site security; and

(c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

PRINCIPLES OF DEVELOPMENT CONTROL

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

(a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:

(i) orientating windows, doors and building entrances towards the street**,** open spaces, car parks, pedestrian routes and public transport stops;

(ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;

(iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;

(iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;

(v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;

(vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;

(vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and

(viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.

(b) provide access control by facilitating communication, escape and path finding within development through legible design by:

(i) incorporating clear directional devices;

(ii) avoiding opportunities for concealment near well travelled routes;

(iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;

(iv) use of devices such as stainless steel mirrors where a passage has a bend;

(v) locating main entrances and exits at the front of a site and in view of a street;

(vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and

(vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.

(c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:

(i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;

(ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and

(iii) locating main entrances and exits at the front of a site and in view of a street.

(d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:

(i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;

(ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;

(iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;

(iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;

(v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and

(vi) use of robust and durable design features to discourage vandalism.

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

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

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

(a) be transparent and illuminated to complement the appearance of the frontage;

(b) provide for window shopping; and

(c) allow for the spill of light from the shop front onto the street.

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

86 Public toilets should be designed and located to:

(a) promote the visibility of people entering and exiting the facility by avoiding recessed entrances and dense shrubbery which obstructs passive surveillance;

(b) limit opportunities for vandalism through the use of vandal proof lighting on the public toilet buildings and nearby;

(c) avoid features which facilitate loitering, such as seating or telephones immediately adjacent the structure; and

(d) maximise surveillance through location near public transport links, pedestrian and cyclist networks.

Noise Emissions

OBJECTIVES

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

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

PRINCIPLES OF DEVELOPMENT CONTROL

Noise Sources

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

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

(a) 55 dB(A) during daytime (7.00am to 10.00pm) and 45 dB(A) during night time (10.00pm to 7.00am) when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.

(b) 50 dB(A) during daytime (7.00am to 10.00pm) and 40 dB(A) during night time (10.00pm to 7.00am) in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone, the North Adelaide Historic (Conservation) Zone or the Park Lands Zone when measured and

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

94 To ensure minimal disturbance to residents:

(a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:

(i) after 10.00pm; and

(ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.

(b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.

Noise Receivers

95 Noise sensitive development should incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity when exposed to noise sources such as major transport corridors (road, rail, tram and aircraft), commercial centres, entertainment premises and the like, and from activities and land uses contemplated in the relevant Zone and Policy Area provisions.

96 Noise sensitive development in mixed use areas should not unreasonably interfere with the operation of surrounding non-residential uses that generate noise levels that are commensurate with the envisaged amenity of the locality.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

101 A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.

102 A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.

103 Development greater than 2 000 square metres of total floor area should manage waste by:

(a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;

(b) on-site storage and management of waste;

(c) disposal of non-recyclable waste; and

(d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

104 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

(a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;

(b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and

(c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Energy Efficiency

OBJECTIVE

Objective 30: Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

PRINCIPLES OF DEVELOPMENT CONTROL

All Development

106 Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:

(a) providing an internal day living area with a north-facing window, other than for minor additions*, by:

(i) arranging and concentrating main activity areas of a building to the north for solar penetration; and

(ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.

(b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;

(c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;

(d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;

(e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;

(f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;

(g) providing an external clothes line for residential development; and

* Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

(h) use of landscaping.

107 All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

108 Energy reductions should, where possible, be achieved by the following:

(a) appropriate orientation of the building by:

(i) maximising north/south facing facades;

(ii) designing and locating the building so the north facade receives good direct solar radiation;

(iii) minimising east/west facades to protect the building from summer sun and winter winds;

(iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or

(v) minimising the ratio of wall surface to floor area.

(b) window orientation and shading;

(c) adequate thermal mass including night time purging to cool thermal mass;

(d) appropriate insulation by:

(i) insulating windows, walls, floors and roofs; and

(ii) sealing of external openings to minimise infiltration.

(e) maximising natural ventilation including the provision of openable windows;

(f) appropriate selection of materials, colours and finishes; and

(g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

109 Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

110 Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.

111 New buildings should be readily adaptable to future alternative uses.

112 Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

Renewable Energy

OBJECTIVES

Objective 31: The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

Objective 32: Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

116 Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.

117 Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.

118 Renewable energy facilities, including wind farms, and ancillary development such as substations, maintenance sheds, access roads and connecting power-lines (including to the National Electricity Grid) should be located, sited, designed and operated in a manner which:

(a) avoids or minimises detracting from the character, landscape quality, visual significance or amenity of the area;

(b) utilises elements of the landscape, materials and finishes to minimise visual impact;

(c) avoids or minimises adverse impact on areas of native vegetation, conservation, environmental, geological, tourism or built or natural heritage value;

(d) does not impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips;

(e) avoids or minimises nuisance or hazard to nearby property owners/occupiers, road users and wildlife by way of:

(i) shadowing, flickering, reflection and blade glint impacts;

(ii) noise;

(iii) interference to television and radio signals;

(iv) modification to vegetation, soils and habitats; and

(v) bird and bat strike.

Micro-climate and Sunlight

OBJECTIVES

Objective 33: Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.

Objective 34: Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

PRINCIPLES OF DEVELOPMENT CONTROL

119 Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.

120 Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.

121 Development should not significantly reduce daylight to private open space, communal open space, where such communal open space provides the primary private open space, and habitable rooms in adjacent City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone.

122 Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

123 Buildings within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlays 2, 2A and 3), unless specified otherwise within the relevant Zone or Policy Area, should be designed to provide weather protection for pedestrians against rain, wind and sun. The design of canopies, verandahs and awnings should be compatible with the style and character of the building and adjoining buildings, as well as the desired character, both in scale and detail.

124 Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.

125 Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

Stormwater Management

OBJECTIVES

Objective 35: Development which maximises the use of stormwater.

Objective 36: Development designed and located to protect stormwater from pollution sources.

Surface water (inland, marine, estuarine) and ground water has the potential to be detrimentally affected by water run-off from development containing solid and liquid wastes. Minimising and possibly eliminating sources of pollution will reduce the potential for degrading water quality and enable increased use of stormwater for a range of applications with environmental, economic and social benefits.

Objective 37: Development designed and located to protect or enhance the environmental values of receiving waters.

Objective 38: Development designed and located to prevent erosion.

Development involving soil disturbance may result in erosion and subsequently sedimentation and pollutants entering receiving waters. Design techniques should be incorporated during both the construction and operation phases of development to minimise the transportation of sediment and pollutants off-site.

Objective 39: Development designed and located to prevent or minimise the risk of downstream flooding.

PRINCIPLES OF DEVELOPMENT CONTROL

126 Development of stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.

127 Development affecting existing stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.

128 Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.

129 Development should incorporate appropriate measures to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria and litter and other contaminants to the stormwater system and may incorporate systems for treatment or use on site.

130 Development should not cause deleterious affect on the quality or hydrology of groundwater.

131 Development should manage stormwater to ensure that the design capacity of existing or planned downstream systems are not exceeded, and other property or environments are not adversely affected as a result of any concentrated stormwater discharge from the site.

Infrastructure

OBJECTIVES

Objective 40: Minimisation of the visual impact of infrastructure facilities.

Objective 41: Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

132 Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.

133 Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.

134 Infrastructure and utility services, including provision for the supply of water, gas and electricity should be put in common trenches or conduits.

135 Development should only occur where it has access to adequate utilities and services, including:

(a) electricity supply;

(b) water supply;

(c) drainage and stormwater systems;

(d) effluent disposal systems;

(e) formed all-weather public roads;

(f) telecommunications services; and

(g) gas services.

Heritage and Conservation

OBJECTIVES

Objective 42: Acknowledge the diversity of Adelaide's cultural heritage from pre-European occupation to current time through the conservation of heritage places and retention of their heritage value.

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

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

Objective 45: Recognition of Aboriginal sites, items and areas which are of social, archaeological, cultural, mythological or anthropological significance.

PRINCIPLES OF DEVELOPMENT CONTROL

General

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

137 Development affecting a State heritage place (Table Adel/1), Local heritage place (Table Adel/2), Local heritage place (Townscape) (Table Adel/3) or Local heritage place (City Significance) (Table Adel/4), including:

(a) adaptation to a new use;

(b) additional construction;

(c) part demolition;

(d) alterations; or

(e) conservation works;

should facilitate its continued or adaptive use, and utilise materials, finishes, setbacks, scale and other built form qualities that are complementary to the heritage place.

138 A local heritage place (as identified in Tables Adel/2, 3 or 4) or the Elements of Heritage Value (as identified in Table Adel/2) should not be demolished unless it can be demonstrated that the place, or those Elements of Heritage Value that are proposed to be demolished, have become so distressed in condition or diminished in integrity that the remaining fabric is no longer capable of adequately representing its heritage value as a local heritage place.

140 Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

(a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and

(b) is located no closer to the primary street frontage than the adjacent heritage place.

142 Development that abuts the built form/fabric of a heritage place should be carefully integrated, generally being located behind or at the side of the heritage place and without necessarily replicating historic detailing, so as to retain the heritage value of the heritage place.

Advertising

144 Advertisements or signs on the site of a heritage place should be located to complement, rather than dominate or conceal, the appearance and detailing of the heritage place by being:

(a) integrated with architectural elements of the heritage place, including within parapets or wall panels, and at canopy level or within fascias, end panels or windows; and

(b) below the silhouette of the heritage place.

Built Form and Townscape

OBJECTIVES

Objective 46: Reinforcement of the city's grid pattern of streets through:

(a) high rise development framing city boulevards, the Squares and Park Lands

(b) vibrant main streets of a more intimate scale that help bring the city to life

(c) unique and interesting laneways that provide a sense of enclosure and intimacy.

Objective 47: Buildings should be designed to:

(a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;

(b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;

(c) contribute to pedestrian safety and comfort; and

(d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.

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

PRINCIPLES OF DEVELOPMENT CONTROL

1 Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

Height, Bulk and Scale

PRINCIPLES OF DEVELOPMENT CONTROL

2 Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:

(a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;

(b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;

(c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and

(d) the open landscape of the Park Lands Zone.

3 The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on Map Adel/1 (Overlay 1).

4 The height, scale and massing of buildings should reinforce:

(a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:

(i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;

(ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and

(iii) avoiding massive unbroken facades.

(b) a comfortable proportion of human scale at street level by:

(i) building ground level to the street frontage where zero set-backs prevail;

(ii) breaking up the building facade into distinct elements;

(iii) incorporating art work and wall and window detailing; and

(iv) including attractive planting, seating and pedestrian shelter.

5 Where possible, large sites should incorporate pedestrian links and combine them with publicly accessible open space.

6 Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in Map Adel/1 (Overlay 5) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.

7 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

Composition and Proportion

8 Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:

(a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and

(b) clearly defining ground, middle and roof top levels.

9 Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:

(a) frontages creating clearly defined edges;

(b) generating new compositions and points of interest;

(c) introducing elements for future neighbouring buildings; and

(d) emphasising the importance of the building according to the street hierarchy.

Articulation and Modelling

10 Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.

11 Building services such as drainage pipes together with security grills/screens, ventilation louvres and car park entry doors, should be coordinated and integrated with the overall facade design.

Materials, Colours and Finishes

12 The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.

13 Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape

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

15 Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

Sky and Roof Lines

OBJECTIVE

Objective 49: Innovative and interesting skylines which contribute to the overall design and performance of the building.

PRINCIPLES OF DEVELOPMENT CONTROL

16 Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.

17 Buildings should be designed to incorporate well designed roof tops that:

(a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;

(b) enhance the skyline and local views;

(c) contribute to the architectural quality of the building;

(d) provide a compositional relationship between the upper-most levels and the lower portions of the building;

(e) provide an expression of identity;

(f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;

(g) respond to the orientation of the site; and

(h) create minimal glare.

18 Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:

(a) be designed to minimise the visual impact; and

(b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.

19 Roof design should facilitate future use for sustainable functions such as:

(a) rainwater tanks for water conservation;

(b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or

(c) "green" roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

Active Street Frontages

OBJECTIVES

Objective 50: Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality's desired character.

Objective 51: Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:

(a) enlivening building edges;

(b) creating welcoming, safe and vibrant spaces;

(c) improving perceptions of public safety through passive surveillance; and

(d) creating interesting and lively pedestrian environments.

PRINCIPLES OF DEVELOPMENT CONTROL

20 Development should be designed to create active street frontages that provide activity and interest to passing pedestrians and contribute to the liveliness, vitality and security of the public realm.

21 Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

Landscaping

OBJECTIVE

Objective 55: Water conserving landscaping that enhances the local landscape character and creates a pleasant, safe and attractive living environment.

PRINCIPLES OF DEVELOPMENT CONTROL

22 Landscaping should:

(a) be selected and designed for water conservation;

(b) form an integral part of the design of development; and

(c) be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas and enhance the visual amenity of the area.

23 Landscaping should incorporate local indigenous species suited to the site and development, provided such landscaping is consistent with the desired character of the locality and any heritage place.

24 Landscaping should be provided to all areas of communal space, driveways and shared car parking areas.

25 Landscaping between the road and dwellings should be provided to screen and protect the dwellings from dust and visual impacts of the road.

Advertising

OBJECTIVE

Objective 56: Outdoor advertisements that are designed and located to:

(a) reinforce the desired character and amenity of the locality within which it is located and rectify existing unsatisfactory situations;

(b) be concise and efficient in communicating with the public, avoiding a proliferation of confusing and cluttered displays or a large number of advertisements; and

(c) not create a hazard.

PRINCIPLES OF DEVELOPMENT CONTROL

26 Advertisements should be designed to respect and enhance the desired character and amenity of the locality by the means listed below:

(a) the scale, type, design, location, materials, colour, style and illumination of any advertisements should be compatible with the design and character of the buildings and land to which it is related, and should be in accordance with provisions for the Zone and Policy Area in which it is situated and any relevant adjacent Zones or Policy Areas;

(b) advertisements should be integrated with the architectural form, style and colour of buildings and wherever possible, requirements for advertisements should be considered in the design of new buildings;

(c) advertisements should be artistically interesting in terms of graphics and construction with intricacy and individuality in design encouraged while maintaining consistency in design and style where co-ordinated advertisements are appropriate;

(d) structural supports should be concealed from public view or of minimal visual impact;

(e) advertisements on individual premises should be co-ordinated in terms of type and design and should be limited in number to minimize visual clutter;

(f) advertisements should be displayed on fascia signs or located below canopy level;

(g) advertisements on buildings or sites occupied by a number of tenants should be co-ordinated, complementary and the number kept to a minimum; and

(h) advertisements on or adjacent to a heritage place should be designed and located to respect the heritage value of the heritage place.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

224 Development should provide safe, convenient and comfortable access and movement.

225 Vehicle access points along primary and secondary city access roads and local connector roads, as shown on Map Adel/1 (Overlay 1) should be restricted.

Pedestrian Access

OBJECTIVES

Objective 61: Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

Objective 62: Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities**.**

PRINCIPLES OF DEVELOPMENT CONTROL

226 Development should reflect the significance of the paths and increase the permeability of the pedestrian network identified within Map Adel/1 (Overlay 2) by ensuring:

(a) pedestrians are not disrupted or inconvenienced by badly designed or located vehicle access ramps in footpaths or streets; and

(b) vehicle and service entry points are kept to a minimum to avoid adverse impact on pedestrian amenity.

224 Within the Core, Primary and Secondary Pedestrian Areas identified within Map Adel/1 (Overlays 2, 2A and 3), development should be designed to support the establishment and maintenance of continuous footpaths so that pedestrian flow is free and uninterrupted. Pedestrian access should be provided at ground level mid-block between all streets.

228 Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within Map Adel/1 (Overlays 2, 2A and 3) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.

229 Corner buildings in the Central Business Policy Area of the Capital City Zone, buildings adjacent to street intersections and buildings along a high concentration public transport route or along public transport pedestrian routes identified within Map Adel/1 (Overlay 4) should provide weather protection for pedestrians in the form of verandahs, awnings or canopies. Where verandahs or awnings are provided which block street lighting, they should include additional lighting beneath the canopy.

230 Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of

2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.

231 Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.

232 Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

Objective 64: Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.

Objective 65: Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

233 Development should have regard to the bicycle routes identified within Map Adel/1 (Overlay 3) by:

(a) limiting vehicular access points; and

(b) ensuring that vehicles can enter and leave the site in a forward direction, thereby avoiding reverse manoeuvres.

234 An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in Table Adel/6.

235 Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

(a) located in a prominent place;

(b) located at ground floor level;

(c) located undercover;

(d) located where passive surveillance is possible, or covered by CCTV;

(e) well lit and well signed;

(f) close to well used entrances;

(g) accessible by cycling along a safe, well lit route;

(h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and

(i) in the case of a cage have an access key/pass common to the building access key/pass.

236 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

(a) directly associated with the main entrance;

(b) located at ground floor level;

(c) located undercover;

(d) well lit and well signed;

(e) located where passive surveillance is possible, or covered by CCTV; and

(f) accessible by cycling along a safe, well lit route.

237 Access to bicycle parking should be designed to:

(a) minimise conflict with motor vehicles and pedestrians;

(b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and

(c) ensure the route is unhindered by low roof heights.

238 To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

Public Transport

OBJECTIVES

Objective 66: Development that promotes the use of sustainable transport consistent with State Government objectives and initiatives.

Objective 67: Accessible public transport for all metropolitan residents and visitors and safe and attractive facilities for public transport users.

PRINCIPLES OF DEVELOPMENT CONTROL

239 Development along a high concentration public transport route should be designed to ensure that activity and interest for public transport passengers is maximised through the incorporation of active street frontages.

234 Development along high concentration public transport routes identified in Map Adel/1 (Overlay 4) should:

(a) ensure there are pedestrian links through the site if needed to provide access to public transport;

(b) provide shelter (e.g. verandahs) for pedestrians against wind, sun and rain;

(c) provide interest and activity at street level; and

(d) where possible, avoid vehicle access across high concentration public transport routes identified in Map Adel/1 (Overlay 4). Where unavoidable, vehicle access should be integrated into the design of the development whilst retaining active street frontages.

Traffic and Vehicle Access

OBJECTIVES

Objective 68: Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).

Objective 69: An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.

Objective 70: Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

241 Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.

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

243 Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment**.**

244 Vehicular access to development located within the Core and Primary Pedestrian Areas identified in Map Adel/1 (Overlay 2A) should be limited and designed to minimise interruption to street frontages.

245 Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in Map Adel/1 (Overlay 2A), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.

246 There is no minimum setback required from a rear access way where the access way is wider than 6.5 metres. Where the access way is less than 6**.**5 metres in width, a setback distance equal to the additional width required to make the access way 6**.**5 metres or more, is required to provide adequate manoeuvrability for vehicles.

247 The number of access points on primary city access roads identified in Map Adel/1 (Overlay 1) should be limited to minimise traffic and pedestrian inconvenience, interference with public transport facilities and adverse effects on the environment.

248 Buildings located along primary and secondary access roads should be sited to avoid the need for vehicles to reverse on to the road (unless the dimensions of the site make this impractical).

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

(a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;

(b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;

(c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;

(d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;

(e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

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

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

Objective 75: Development which reinforces clusters and nodes of activity and distinctive local character.

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

PRINCIPLES OF DEVELOPMENT CONTROL

266 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

(a) provide a range of shopping facilities in locations that are readily accessible;

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;

(c) maximise opportunities for co-location, multiple use and sharing of facilities;

(d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and

(e) have minimal impact on the amenity of residential areas.

268 Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.

269 Tourist facilities should be compatible with the prevailing character of the area, within close proximity to public transport facilities and well designed and sited.

270 Development located either abutting, straddling or within 20 metres of a Zone or Policy Area boundary should provide for a transition and reasonable gradation from the character desired from one to the other.

271 Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.