

Delta Projects C/ Future Urban

Construction of a five story residential flat building comprising ground level retail tenancies with residential apartments above and basement and ground level car parking accessed from Pulsford Road

69-73 Prospect Road, Prospect

050/M006/19

TABLE OF CONTENTS

	PAGE NO
AGENDA REPORT	2-25
ATTACHMENTS	
1: PLANS	26-46
2: APPLICATION DOCUMENTS	
a. Planning Report	47 – 83
b. Acoustic Report	84 – 102
c. Wind Report	103 – 117
d. Waste Management Statement	118 – 119
e. Traffic Report	120 – 144
f. Sustainability Statement	145 – 161
g. Stormwater Plan and Report	162 – 169
3: Government Architect Pre-Lodgement Agreement	170 – 176
4: COUNCIL COMMENTS	177 – 184
5: ADDITIONAL INFORMATION	185 – 188
6: DEVELOPMENT PLAN PROVISIONS	189 - 209



OVERVIEW

Application No	050/M006/19
Unique ID/KNET ID	2019/14849/01
Applicant	Dellta Projects C/ Future Urban
Proposal	Construction of a five storey residential flat building comprising ground level retail tenancies with residential apartments above and basement and ground level car parking accessed from Pulsford Road
Subject Land	69-73 Prospect Road, Prospect
Zone/Policy Area	Urban Corridor Zone / High Street Policy Area
Relevant Authority	State Commission Assessment Panel (SCAP)
Lodgement Date	31 October 2019
Council	City of Prospect
Development Plan	13 February 2018
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	City of Prospect
Report Author	Janaki Benson, Senior Planner
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The subject site is located on the south-east side of the intersection of Prospect and Pulsford Roads in Prospect. The applicant seeks the construction of a 5-storey mixed use building with basement level car parking.

The proposal is a Category 1 form of development that triggers a referral to the City of Prospect Council. A Pre-Lodgement Agreement (PLA) has been reached with the Government Architect (GA).

The development is located within the Urban Corridor Zone and High Street Policy Area which supports medium to high density residential development in conjunction with small scale mixed use activities.

The key planning issues to be addressed relate to height, along with the absence of deep soil landscaping.

Overall, the proposal is considered to be a high quality offering and one that is consistent with the relevant provisions of the City of Prospect Development Plan, and it is recommended for Development Plan Consent subject to a number of conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

In 2013 the Ministerial Inner Metropolitan Growth (Stage 1) Development Plan Amendment was gazetted. This introduced the Urban Corridor Zone to the Prospect (City) Development Plan. The *Urban Corridor Zone and Interface Areas Policy Area Review DPA* was also gazetted in the City of Prospect's Development Plan February 2018. This second DPA seeks to assist in the delivery of better design outcomes within this transforming growth area by strengthening design related policy.

The Urban Corridor Zone was introduced to encourage and enable a new form of urban living that provides increased opportunity for people to enjoy the benefits of an inner city lifestyle. Policies within the zone encourage mixed-use forms of development complemented by well-designed and contemporary housing close to public transport, jobs and vibrant places.

1.2 Pre-Lodgement Process

The applicant participated in the Pre-Lodgement Process including three PLP meetings and three Design Reviews, which has resulted in the proponent reaching a Pre-Lodgement Agreement with the Government Architect.

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

The proposal involves the construction of a 5-level (with basement) mixed use building accommodating 55 residential apartments with retail uses at ground (the applicant has indicated that demolition of the existing structures on the land is not proposed as part of this application).

At ground, 2 retail/cafe tenancies and residential entry foyer are proposed to Prospect Road, with vehicle access proposed from Pulsford Road. Car parking for 110 vehicles is to be located at basement level and at grade, sleeved behind the retail tenancies.

A summary of the proposal is as follows:

Land Use Description	Retail and residential
Building Height	5-levels/18.9m
Description of levels	Ground – retail and car parking Level 1-4 – residential apartments
Site Access	Pulsford Road
Car and Bicycle Parking	Cars – 110 spaces Bikes – 24 dedicated spaces
Encroachments	Pedestrian canopy over Prospect and Pulsford Road footpaths, along with proposed public realm works (not forming part of this DA)

3. SITE AND LOCALITY

3.1 Site Description

The site consists of 3 allotments, described as follows:

Lot No	Street	Suburb	Hundred	Title
99	71-73 Prospect Road	Prospect	YATALA	5464/62
100	71-73 Prospect Road	Prospect	YATALA	5463/649
5	69 Prospect Road	Prospect	YATALA	5857/890

The subject site is located on the corner of Prospect and Pulsford Roads. The subject land comprises a portion of each of the allotments identified in the above table.

The development site has a total site area of 2758m², with a 53 metre frontage to Prospect Road and extends 48 metres along Pulsford Road.

The site currently contains buildings and ancillary structures associated with a funeral home with car parking and church, used currently as artist studio. The land is relatively flat and does not contain significant vegetation.

3.2 Locality

Commercial and retail land uses exist along the Prospect Road frontage in this locality, with a variety of building styles, setbacks and heights. Fine grained, single-storey shopfronts with verandas over the footpath however does contribute to the existing 'high-street' character within this area.

Pulsford Road contains commercial land uses in this immediate locality but is residential in nature as you head east, and contains predominately single-storey detached dwellings with established street trees.

Prospect Road is recognised as a *Primary Arterial Road*, providing north-south access to the CBD.

Figure 1 – Subject Site



4. COUNCIL COMMENTS or TECHNICAL ADVICE

4.1 City of Prospect

The City of Prospect have indicated that '*...Council is supportive of the quality of the building's design and materiality, though it is concerned that the building departs from the maximum building height applicable to this area and that insufficient information is provided with respect to visual privacy treatments; with both of these matters having been identified by the Prospect community as being of paramount importance*'.

The SCAP should give particular regard to the following matters:

- *The Council Assessment Panel recognises that significant work has been undertaken in relation to the design in order to achieve a pre-lodgement*

agreement with the Government Architect, which is to be commended. Council however, considers that a number of matters warrant further consideration by SCAP as follows.

- o The proposed building would depart from the maximum height intended for this policy area of Prospect Road. Without having undertaken a full assessment, it is not possible to indicate support for an evident departure from the relevant policy provision.*
- o The vertical and horizontal massing of the proposed buildings would be more acceptable with the use of different materials, finishes and design treatments to reduce the overall bulk and scale of the buildings.*
- o The vertical split between the buildings, as well as the buildings mass when viewed to the east (as demonstrated within images on Drawings No P-12 ('Current Street Building Mass' image - Pulsford Road) and P-15 ('View from Milner Street' image - Milner Street), should be further treated so as to successfully break down the bulk and scale of these elements.*
- o Notwithstanding the above, Council staff acknowledge the Government Architect's assessment of the success of the design at mitigating potential issues associated with the additional storey proposed.*
- o Consistency with the Desired Character Statement, particularly with respect to an intimate scale being achieved within the pedestrian realm, would be improved through a reduced canopy height adjacent Prospect Road. Further, the entry sequence should be treated with additional canopy coverage, so as to improve the occupant and public realm amenity associated with the proposal;*
- o The use of high quality, masonry materials and their treatment in a manner that is respectful of existing historic built fabric within the Village Heart is supported;*
- o While the proposed visual privacy treatments are supported in concept, additional detailed information is required in order to complete a full assessment of these treatments and their success (or otherwise) at preventing overlooking to Residential Zone properties within 45 metres of the subject site (consistent with PDC 8 of the UC Zone);*
- o Support of the inclusion of landscaping within balconies and common areas, however exploration of increased deep soil areas across the site should be undertaken to address this shortfall;*
- o The approach and number of car and bicycle parking spaces associated with the development is supported;*
- o A concurrent assessment under Section 221 of the Local Government Act 1999 is being undertaken with respect to public realm works demonstrated within the proposal plans. Council staff will liaise further with SCAP staff regarding the progress and outcome of this assessment;*
- o The volume of waste storage, and method of waste collection, proposed are supported;*
- o While the conceptual approach to stormwater management is broadly supported, further detailed design of the stormwater management plan and incorporation of water sensitive urban design techniques should occur and be assessed by the SCAP (and/or in collaboration with Council staff);*
- o Council encourages SCAP to impose conditions which ensure that the design quality of the proposal is delivered.*

5. STATUTORY REFERRAL BODY COMMENTS

Referral responses are contained in the ATTACHMENTS.

5.1 Government Architect

A Pre-Lodgement Agreement (PLA) has been reached with the Government Architect (GA). Hence, a Schedule 8 referral was not required – see PLA advice in the attachments.

6. PUBLIC NOTIFICATION

The application is a Category 1 development pursuant to Zone PDC 25. No public notification was required.

7. POLICY OVERVIEW

The subject site is within the Urban Corridor Zone and the High Street Policy Area as described within the City of Prospect Development Plan Consolidated 13 February 2018. Relevant planning policies are contained in Appendix One and summarised below.

7.1 Policy Area

The Desired Character for the High Street Policy Area seeks a variety of land uses to create a destination that attracts people for a variety of reasons. Uses that generate a high frequency of pedestrian activity and activate the street such as shops and restaurants will be located at ground with apartment-style residential development located on upper floors that allow overlooking of the street.

The mix of uses is anticipated to extend activities beyond normal working hours to enhance the area's vibrancy. Active street frontages will be promoted through the frequency of different tenancies, a high proportion of windows with no external shutters and numerous pedestrian entrances.

Development on Prospect Road will be large in scale and height whilst incorporating the dominant street podium building form of one or two storeys that abuts the footpath and continues the established width, rhythm and pattern of facades that contributes to the high street character. The ground floor of buildings may be set back in part to allow for space for outdoor dining and to emphasise the building entrance. Verandahs will be provided to create a comfortable and intimate place for pedestrians whilst providing a visual link of nearby traditional canopies via size, alignment and height.

7.2 Zone

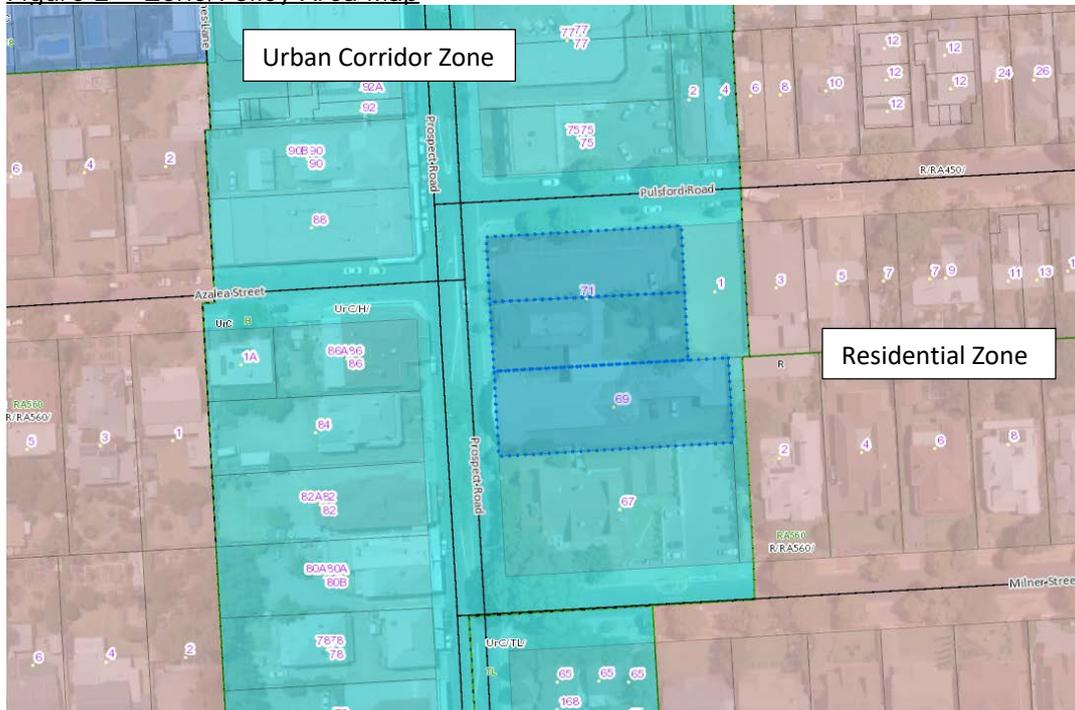
The Desired Character of the Urban Corridor Zone is an economic and residential growth area, where an increase in the both the density and diversity of housing and business is sought. Given the zone's proximity to the City and availability of transport modes, a diversity of housing is desired.

As one of the key Zones in the Council area where transformation in built form and land use is to occur, responsive and contextual development that displays excellence in urban design principles is sought. To accommodate the significant urban growth along Churchill Road, the following key elements of development should comprise:

- 2-4 storey buildings that create a linear corridor that frames main roads;
- The establishment of greatest height, mass and intensity of development at the main road frontages, reducing down in scale to transition down to low rise residential in adjacent zones;
- The use of active frontages at ground level;
- Consideration of the local topography – such as raised ground floor levels on the east side of roads;
- The use of durable materials and finishes;
- Contemporary buildings and expressions;

- Building articulation and fenestration to all visible sides of buildings, supported by landscaping;
- Appropriate building separation, orientation and to minimise overlooking, overshadowing and noise impacts; and
- Consolidated parking areas, screened and located away from public spaces or underneath buildings. The number of crossovers should also be minimised to retain public realm benefits.

Figure 2 – Zone/Policy Area Map



7.3 Council Wide

The Council-Wide section of the Development Plan provides guidance in relation to the following relevant topics:

- Landscaping
- Stormwater Management
- Medium and High Rise development (3 or more Storeys)
- Design and Appearance
- Street Interface
- Building Separation and Outlook
- Dwelling Configuration
- Adaptability
- Environmental /Overshadowing
- Site Contamination
- Site Facilities and Storage
- Crime Prevention

7.4 Overlays

7.4.1 Affordable Housing

The proposal is subject to the affordable housing overlay.

7.4.2 Noise and Air Emissions

This site is located within the designated area for the Noise and Air Emissions Overlay, and as such requires assessment against *Minister's Specification SA 78B for Construction Requirements for the Control of External Sound*.

8. PLANNING ASSESSMENT

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

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	4 storeys or up to 15 metres	5 storeys and 18.9 metres	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> PARTIAL <input type="checkbox"/>	See discussion in body of report.
Land Use	Office, shops, non-residential land uses	Retail and residential	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Car Parking	99 spaces (70 resident + visitor) and 29 for retail uses)	110 spaces	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Bicycle Parking	24 minimum	24 dedicated spaces at ground plus 63 storage cages in basement capable of providing bike storage	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Front Setback	No minimum	0m-900mm	YES <input type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Secondary Setback	No minimum	0m-2m	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Rear Setback	3 metres	9.5m at closest	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a
Side Setback	Irrespective of height, no minimum on boundary, within 18 metres from the front property boundary. No minimum for remaining length for the ground level only. More than 18 metres from the front property boundary, 1st level and above (i.e. above ground level) should be setback 2 metres)	Single storey portion of building on boundary for 24 metres. Upper levels setback 3 metres.	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	n/a

Deep Soil Landscaping	7% of site area (193m ²) with a minimum dimension of 6m x 6m containing 1 large or medium tree per 60m ² of deep soil	1%/32m ²	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> PARTIAL <input type="checkbox"/>	See discussion in body of report.
------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------	---------------------	------------------------------------------------------------------------------------------------------------	-----------------------------------

8.2 Land Use

Mixed use, medium to high rise buildings with ground floor uses that provide active and visually appealing streetscapes are sought by the Objectives of the Zone. With the increase in density anticipated, a mix of land uses that enable people to work, shop and access services close to home is also important.

The High Street Policy Area expressly envisages buildings that are mixed use. In a mixed use building, non-residential development should be located on the ground floor and lower levels and residential development should be located at upper levels.

With the construction of 2 commercial tenancies at ground along the Prospect and Pulsford Road frontages and residential apartments above (including 14 of the one bedroom apartments/27% of the total dwellings offered being priced to meet the affordable housing criteria), the proposal meets the land use mix desired within buildings in the Urban Corridor Zone and High Street Policy Area.

8.3 Medium and High Rise (3 or more Storeys)

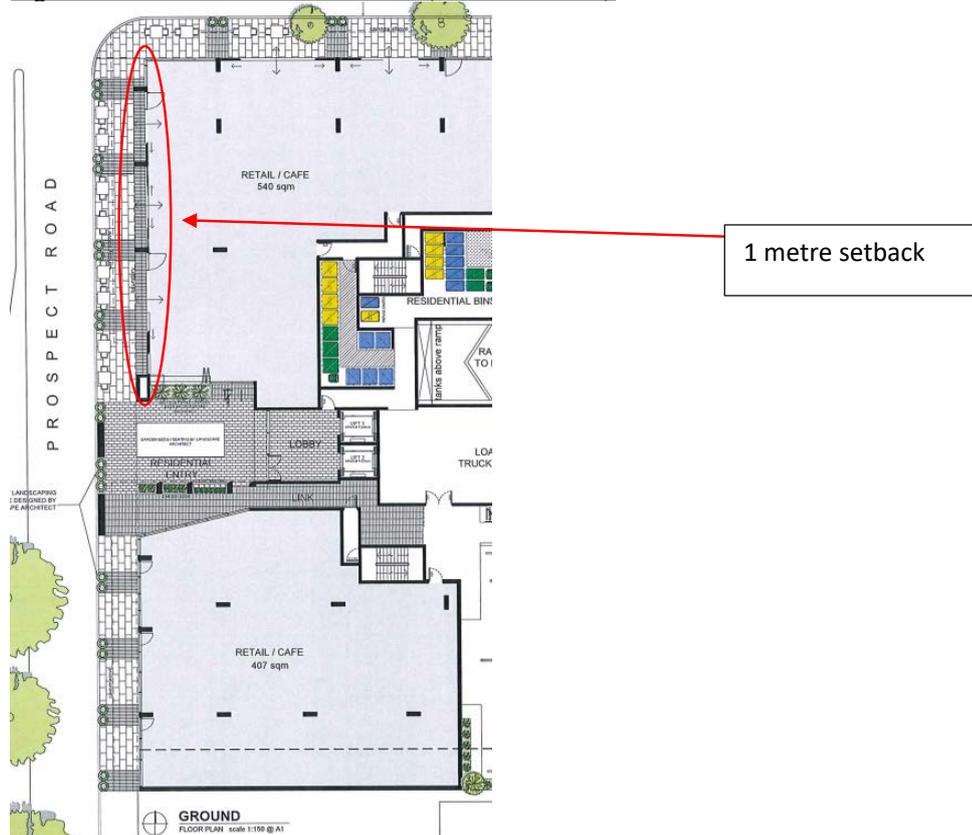
8.3.1 Design, Appearance and Street Interface

Policies of the Urban Corridor Zone seek visually interesting buildings to the street that integrate the public and private realms through street activation. As one of the key Zones in the City where there will be transformation in built form, new buildings will be recognised for their design excellence by demonstrating good design principles, including a contextual response. Of paramount importance to the Prospect community is design and appearance, material quality and durability (along with bulk, height and scale, overlooking and preservation of privacy and landscaping – these matters discuss further below).

In the High Street Policy Area, large scale buildings with a street podium of one to two storeys (up to 8 metres) that abuts the footpath is anticipated. Upper levels should also be offset and setback 2 metres behind the street podium with variation in façade treatments, materials and colours as well as the use of modulated roof forms. Portion of the ground floor will be setback in some locations to emphasise the building entrance or to create space for outdoor dining. New development should provide a visual link to the existing fine-grained pattern, width and rhythm of facades and canopy heights of heritage buildings.

In this case, the development is considered to contribute to the retail function anticipated with two large tenancies at ground that sleeves car parking and exceeds the 60% minimum sought for the street frontages, as desired by PA PDC 5. While narrow-frontage tenancies are not proposed at ground, the development is consider to respect the continuous built form edge to the street and provides a consistent footpath edge envisaged for Prospect Road. The GA has indicated strong support for the widening of the footpath that provides a generous and usable public plaza and increase in activation by setting back the northern half of the ground floor façade along Prospect Road (Figure 3 below).

Figure – 3 Ground level setback (northern side)



While the 4 storey street wall height exceeds that desired (2 storeys/up to 8 metres), the GA is of the view that the street wall proposed reinforces the high street character of Prospect Road. The four storey masonry wall includes a built form break at the centre of the Prospect Road frontage through the provision of a recessed residential entry. The composition of the fifth level, setback above the 4 storey street wall (3.5 metres), is also supported by the GA. The fifth level is considered restrained in its expression and is considered different from the four storey built form below, reducing its visual impact.

Council have outlined that in their opinion the vertical and horizontal massing of the proposed building would be more acceptable with the use of different materials, finishes and design treatments to reduce the overall bulk and scale. Council have also outlined that the vertical split between the building, as well as the buildings mass when viewed to the east should be further treated so as to successfully break down the bulk and scale of these elements. The GA however is of the opinion that the built form composition, including the provision of a built form break that extends to the top floor along Prospect Road, successfully manages the visual impact of the scale and bulk of the development. To the eastern elevation, the apartment levels are configured in a 'C' shape with the intent to optimise apartment amenity through maximising access to quality natural light and ventilation to habitable rooms, which is also supported by the GA. On levels one and two, the floor plates extend eastward at the southeast corner, creating a protruding built form element, notwithstanding this element, the building does not encroach into the 45 degree building envelope prescribed by the Zone.

In regards to materials, the GA supports the simplicity of the limited material palette which includes masonry, rendered/off form details, charcoal/black steel and glazing. A residential architectural expression is sought with the use of stack

bond brick slips to the four storey built form, with rendered deep reveals and chamfered masonry corners informed by the existing historic built fabric in the area. The masonry corner detailing and the use of materials with a tactile quality that respond to the existing fine grained character of the area is strongly supported by the GA, noting the joint and fenestration detailing will be important in ensuring the envisaged level of depths and articulation is realised.

The materiality and provision of a pedestrian canopy over the footpath is supported along both street frontages, however, the GA has recommended a reduction in both canopy thickness and height (with Council concurring with this concern). The GA and Council are yet to be convinced that the canopy height will provide effective weather protection and reference the prevailing datum height of canopies along this part of Prospect Road. In response to this, the applicant has outlined that a formal application to the City of Prospect under Section 221 of the *Local Government Act* for the canopy encroachment is currently being assessed by Council and one which may affect the solar and wind control strategy along Prospect Road, along with its final design. Subsequently, the applicant has requested that the canopy matter be dealt with during design development and be included as reserved matter for consideration when the Council decision has been made.

Overall, the development is considered to be a high quality offering that demonstrates good design principles via materiality and durability, architectural expression and composition, its fine-grained contextual response and integration with the public/private realms through street activation and landscaping.

8.3.2 Height, Interface with Residential and Setbacks

PDC 14 of the Zone prescribes a maximum building height of 4 storeys or 15 metres in the High Street Policy Area. A building height of 18.9 metres/5 storeys above ground is proposed and therefore the building exceeds the maximum requirement by 1 storey/3.9 metres.

While Council has noted the proposal's departure in maximum height by 1 storey, Council staff have acknowledged '*...the Government Architect's assessment of the success of the design at mitigating potential issues associated with the additional storey proposed*'. The Government Architect supports the proposed height and built form composition, with the fifth storey's setbacks and 'restrained' upper expression considered to reduce its visual impact. The proposed built form composition, including the provision of a built form break that extends to the top floor, successfully manages the visual impact of the scale and bulk of the development in the opinion of the GA. The GA has also acknowledged the opportunity for a minor departure beyond the envisaged maximum height due to the size of the amalgamated allotment and setback from the eastern boundary (adjacent Residential Zone), given the building sits outside the 45 degree building envelope prescribed by PDC 15 with a view to mitigating interface issues.

Figure 4 – Development in relation to 45 degree building envelope



In regards to other setbacks sought by Zone PDC 18 & 19, the development complies with the minimums prescribed for the High Street Policy Area and are detailed under 8.1 of this report.

It is considered that the quality of the proposal's design, setbacks, built form composition and materiality, along with its contribution to the Desired Character sought in the High Street Policy Area via a mixed use building with active uses at ground, along with proposed public realm works/landscaping gives rise to support in this case for the departure in height (by 1 storey/3.9 metres).

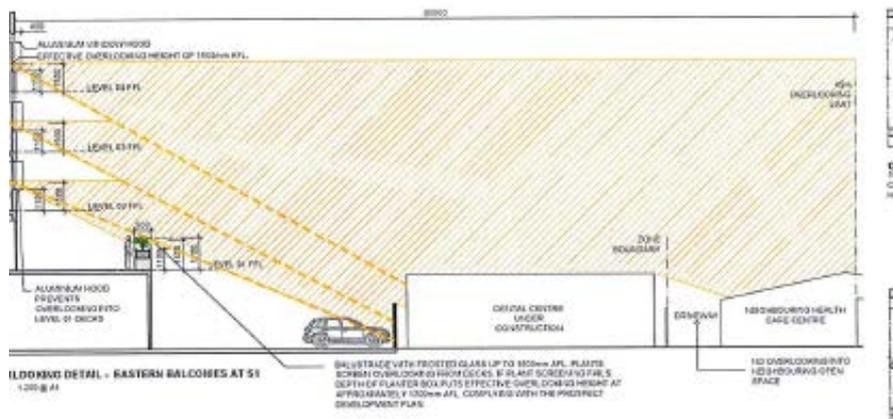
8.3.3 Building Separation and Overlooking

The Desired Character of the Urban Corridor Zone states that overlooking and preservation of adjacent privacy/amenity is an issue of paramount importance to the Prospect community. Zone PDC 8 is prescriptive and seeks '*...overlooking be prevented within an area of 45 metres and minimised beyond 45 metres, as measured from the site property boundary*'. Zone PDC 9 anticipates that overlooking be 'prevented' and achieved by the inclusion of 1.7 metre high screening devices above floor level (AFL) that are integrated into the building design that have minimal negative effect on both resident's and neighbour's amenity.

In this case, the applicant has provided drawings that show how overlooking into adjacent sites (within 45 metres from the source of overlooking rather than the site boundary) will be minimised with:

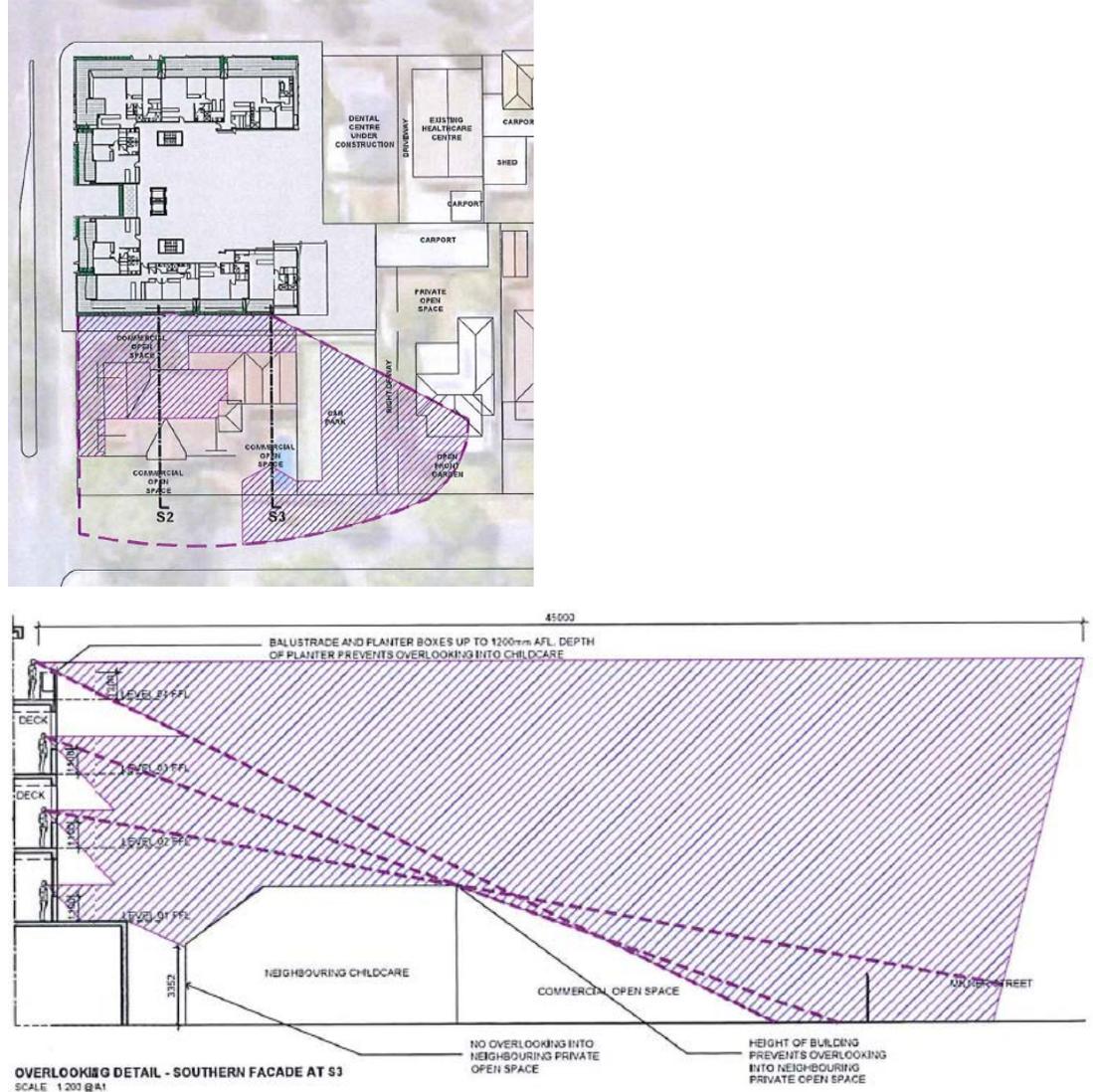
- High level windows or frosting to the lower portion of glass for those windows that face east;
- Window hoods, planter boxes or fixed blades to eastern balconies that restrict views from a height of 1.5 metres AFL;

Figure 5 – Overlooking detail, eastern facade



- 1.2m AFL balustrades and 1m depth of planter boxes preventing direct views to the south and south-east from the upper level balcony (sections 2 & 3)

Figure 6 – Overlooking detail, southern facade



Council has indicated that while the proposed visual privacy treatments are supported in concept, additional detailed information was required in order to complete a full assessment of these treatments and their success (or otherwise) at preventing overlooking to Residential Zone properties within 45 metres of the subject site (consistent with PDC 8 of the UC Zone). The applicant's planning consultant has reviewed the Council concern and has outlined in regards to overlooking that:

- *There is only one dwelling within 45 metres that has potential to be overlooked. The dwellings to the northern end of the site are separated by a commercial use, namely a dental surgery that prevents overlooking. With respect to the dwelling at the south eastern corner of the site it should be noted that:*
 - *The Government Architect's expressed 'the material; presented includes a thorough analysis of the proposal's impact upon the adjoining properties, particularly overlooking. I strongly support the interested and innovative measures for controlling*

overlooking, such as the use of deep window hoods, vertical blades and planter boxes. In my opinion, the proposed methods sufficiently mitigate detrimental interface impacts while maintaining amenity for the apartment residents'.

It is clear from the Overlooking Section on Drawing P-15 that neither the habitable room windows nor the private open space of any dwelling within 45 metres of the building will be visible from any of the apartments at the south-eastern end of the proposed building courtesy of the screening measures which have been adopted.

While it is acknowledged the design of screening does not 'prevent' overlooking within 45 metres from the site boundary as desired by Zone PDC 9, it is considered that the screening measures will ensure an appropriate level of privacy (from the source of overlooking) for the one dwelling located within the 45 metre range of the site. The screening devices proposed will prevent direct views in the Private Open Space (POS) of this adjacent property in Milner Street as shown in Figure 6 above. As outlined above and in the PLA advice, the GA supports the proposed methods of screening that is considered to mitigate detrimental interface impacts while maintaining amenity for the apartment residents.

8.3.4 Dwelling Configuration & Adaptability

It is desired that multi-storey buildings include a variety of internal designs that will facilitate adaptive reuse.

It is considered that the development has been designed having regard to Council Wide PDC 176, being a mixed use development of private apartments with retail tenancies at ground level. The GA has outlined support for the variety of accommodation types being offered and the general design approach to the apartment planning. All apartments are generous and size and range from 60-73m² for 1 bedroom apartments, 83-108m² for the 2 bedroom apartments and 147m² for the 3 bedroom apartments.

The ground to floor retail tenancies also have floor to ceiling heights of 4 metres, consistent with their intended use for commercial purposes.

8.3.5 Environmental /Overshadowing

Overshadowing diagrams showing the extent of overshadowing to result from the development between 9am-3pm at the height of winter have been undertaken by PACT Architects.

Zone PDC 16 seeks to minimise overshadowing of sensitive uses 'outside' of the zone, acknowledging greater impacts via shadowing are to result from the intensity of development sought within this zone. Given the north-south orientation of the subject site, the shadow diagrams show all existing dwellings adjacent the subject site to the east, outside the zone (within the Residential Zone), are afforded access to direct light to POS or a habitable room window (at least 2 hours or more between 9am-3pm on 21 June).

CW PDC 139 & 177 seeks that the design of multi-storey buildings however 'minimise' micro-climatic and solar access impacts on adjacent land or buildings (within the Urban Corridor Zone), including effects of daylight and shadow and enable direct winter sunlight into adjacent dwellings POS. In this case, the abutting site/nursery school to the south (located within the Urban Corridor

Zone) will experience a reasonable level of overshadowing (at the height of winter) being located on the southern side. Notwithstanding this, the shadow diagrams show that the outdoor areas associated with this centre to the south will receive direct access to light from 12pm onwards.

Given the above, it is considered that the development will not result in unreasonable amenity impacts via overshadowing and allow for direct access to winter sunlight to adjacent sites as desired.

8.3.6 Site Facilities and Storage

Council Wide PDC 182 under Site Facilities and Storage seeks a covered storage area of not less than 8 cubic metres in the dwelling (but not including a habitable room) or a garage/on-site communal facility and be conveniently located and screened from view from streets and neighbouring properties.

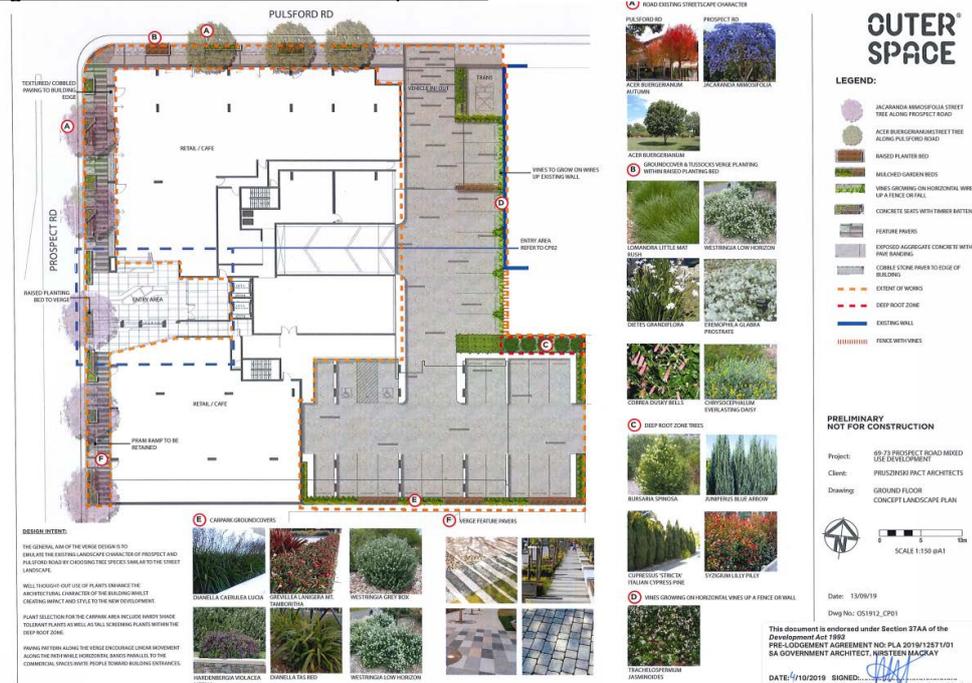
In this case, the development provides storage lockers in the car parking areas at basement level. Each apartment is provided with a locker that has a size of 8 cubic metres and will not be readily visible from the public realm being located at basement level.

8.3.7 Landscaping

The Zone and High Street Policy Area anticipates that development incorporate landscaping that enhances the built form, contributes to a pleasant pedestrian environment and provide an attractive transition between the public and private realms.

To achieve this, Council Wide PDC 180 & 181 seek deep soil zones that can accommodate deep root vegetation with access to natural light (to assist with maintaining vegetation health), including tall trees with large canopies. Having said this, the Desired Character of the High Street Policy Area also recognises that landscaping and other green infrastructure will be primarily confined to areas within the public realm and in accordance with the Prospect Road Master Plan, on buildings (rooftop, walls and verandahs), within rear yards, on zone boundaries.

Figure 7 - Ground Floor Landscape Plan



For sites such as this that exceed 1500m², a minimum of 7% deep soil area should be provided with a minimum dimension of 6m x 6m. One (1) large or medium tree per 60m² of deep soil should also be provided that has a height of 6-12+ metres. In this case, the development dedicates approximately 1%/33m² of the site in area 'C' for deep soil landscaped areas, which is shown in the plan provided by Outer Space above. The deep soil areas provided for this development includes a 33m² (2.2m x 15m area) within the rear car park, with landscaping also provided around the side and rear perimeter of this car parking area. It is also proposed that common areas and private balconies will be landscaped as shown below in Figures 8 & 9.

Council has sought the exploration of increased deep soil areas across the site to address this shortfall. The applicant is currently negotiating the provision of landscaping in the public realm via eight (8) mature street trees along the street frontages given the provision for car parking in the basement has proven difficult to accommodate deep soil areas.

The option to engage with Council via a *Section 221* agreement with Council under the *Local Government Act 1999* for public realm works to provide high quality public realm areas has been outlined by the applicant to be in direct response to meeting the shortfall in the provision of deep soil areas on-site. The GA has indicated strong support for the public realm works in the PLA, given the limited opportunity to provide deep soil areas on the subject site. The GA however sought clarity from the applicant regarding the provision for established trees within the deep soil area proposed, with the applicant clarifying *'The applicant is committed to the provision of a series of tall trees in the deep root zone as itemised in the landscaping plan accompany the application and listed as 'C' – Deep Root Zone Trees'*.

While public realm landscaping does not form part of the development consent (in the event of SCAP support) as it is located on Council land outside the subject site, the formal Section 221 agreement with Council provides a commitment to the public realm works proposed (noting this agreement with Council had not yet been formalised at the time of writing this report).

Figure 8 - Entry Landscaping Plan



Figure 9 - 1st Floor Landscape Plan



While the proposal has a significant shortfall in deep root areas (6%/165m² shortfall), it is considered that the overall development will provide a good level of amenity for the occupants via private and public landscaping that will also contribute to the Prospect and Pulsford Road public environment.

8.3.8 Private Open Space

Council Wide PDC 153 & 154 prescribes private open space (POS) located above ground level should have:

- a minimum dimension of 2 metres;
- be directly accessible from a habitable room; and
- meet the following requirements:
 - 8m² for a 1 bedroom dwelling;
 - 11m² for a 2 bedroom dwelling; and
 - 15m² for a dwelling with 3 or more bedrooms.

All apartments, excluding 3 (apartments 214, 313 & 410) of the 36, 2-bedroom apartments, meet the above requirements and will therefore provide adequate POS for residents. The 2m² short fall in POS for 3 of the 36, 2-bedroom apartments is considered negligible given the dimension, outlook and orientation of these 9m² balconies are expected to provide sufficient amenity for the anticipated occupants.

Given the above, the development is considered to provide sufficient POS via the provision of balconies.

8.4 Traffic Impact, Access and Parking

A traffic report undertaken by CIRQA has been provided by the applicant that assesses waste truck movement, car and bike parking requirements sought by the Development Plan and the impact of vehicle movement on the surrounding road network.

Prospect Road in an arterial road under the care and control of DPTI. The Secondary Street – Pulsford Road – is a local street, managed by Council.

8.4.1 Car and Bicycle Parking

The City of Prospect's Development Plan identifies the following vehicle parking requirements:

- **Non-residential development** – 3 (minimum) to 5 (maximum) spaces per 100m² of gross leasable floor area; and
- **Residential development** – 1 space per studio, 1 or 2 bedroom dwelling and 1.25 spaces per 3 or more bedroom dwelling plus 0.25 visitor spaces per dwelling.

Based upon the above rates, a theoretical parking requirement for 70 parking spaces (resident and visitor) is required for the residential component. The retail/café component would require 29 (minimum) to 48 (maximum) parking spaces.

In this case, the development satisfies the Development Plan requirements with a total of 120 spaces dedicated in the following way:

- 70 of the 80 parking spaces within the basement area allocated to resident and visitor parking; and
- 40 spaces (10 at basement and 30 spaces at ground level) dedicated to the retail uses.

In regards to bike parking, the Development Plan identifies the following bicycle parking requirements:

- **Residential component of a multi-storey building** – 1 resident space for every 4 dwellings plus 1 visitor space for every 10 dwellings; and

- **Shop** – 1 employee space for every 300 square metres of gross leasable floor area plus 1 visitor space per 600 square metres of gross leasable floor area.

Based upon the above rates, there is a theoretical requirement for 24 bicycle spaces for residents, staff (of both commercial tenancies), residential visitors and shoppers. In this case, 24 bicycle parks are provided at ground with each residential storage compartment being able to also accommodate a space for a bike. Given this, adequate bicycle parking is considered provided for the development.

8.4.2 Traffic Impact

CIRQA have outlined that the traffic generated by the proposal will easily be accommodated on the surrounding road network. Specifically, the proposed development is anticipated to generate in the order of 77 am and 84 additional peak hour trips. The modelling undertaken by the applicant's traffic engineer indicates that such volumes would be readily accommodated at the Prospect and Pulsford Road intersection without causing excessive additional queues and delays.

Direct vehicle access is proposed of the secondary street/Pulsford Road, with existing access points off Prospect closed, as desired by Zone PDC 12.

8.5 Environmental Factors

8.5.1 Crime Prevention

Council Wide policies regarding crime prevention seek design measures such as sightlines, opportunities for passive surveillance, mix of complementary land use activities, prevention of concealment areas and clear legible building entries be incorporated into building design.

In this case, the development proposes:

- No fencing proposed to the primary and secondary streets;
- A mix of residential and commercial land uses proposed;
- The building entrance orientated to a public area/the Prospect Road frontage;
- Balconies and windows that overlook both public streets and portion of the at grade car parking; and
- The lighting of common foyer areas and the car parks.

Generally, the building has been design to include crime prevention measures as outline above.

8.5.2 Noise Emissions

The site is located in a 'Designated Area' and Prospect Road is a '*Designated Road: Type B road*' in the *Noise and Air Emissions Overlay* in the Development Plan.

An acoustic report, undertaken by Resonate acoustic engineers, has been commissioned by the applicant. The assessment has taken into account the relevant noise intrusion requirements of the Prospect Council Development Plan and the Minister's Specification SA 78B.

Façade noise mitigation testaments have been recommended by Resonate to ensure the amenity of residents is protected from the external noise sources.

In the event of SCAP support, a condition of approval will require the recommendations in the Resonate report (A190442RP1Rev A) are undertaken to ensure that all apartments in the development are designed in accordance with the maximum performance requirements of the *Minister's Specifications SA 788* and Council Wide PDC 111.

8.5.3 Waste Management

In regards to waste, dedicated areas for the collection of waste is proposed for each land use at ground level. The residential apartments will have its own secure 55m² waste area and the retail tenancies will share a waste storage area room of 38m².

General waste and co-mingled recycling will be transported to the ground floor waste room of each building via separate bin chutes from the residential floors. Green organics waste reception will be available on each floor and transported by the facility manager to bins on the ground floor. The path of travel for waste disposal for the retail tenancies is acceptable and will allow for direct access to the waste room from back of house areas.

On-site waste collection will occur with the number of collection vehicle movements estimated at 3 times per week (1 residential collection and 2 pick-ups for the retail tenancies), based on the estimated waste and recycling volumes to be generated.

PACT Architects have provided a *Waste Management Statement* for the development which supports the waste storage areas proposed. Council has also reviewed the volume of waste storage anticipated and method of waste collection proposed and has indicated support.

Given the above, the development achieves Council Wide PDC 183 and 184 in regards to waste management storage and collection.

8.5.4 Energy Efficiency

While the GA has outlined support for the active shopfront tenancies at ground, the challenges of solar load management on the western façade has been acknowledged. The GA has recommended exploration of effective solar control strategies with the view to retaining clear glazing and maximalising the visual connection between the active use spaces and the public realm.

SUHO consultants have been engaged by the applicant to undertake an ESD Statement to support the proposed development. One of the key sustainability design strategies considered by SUHO in the development include high performance building fabric and appropriately selected glazing. Other design measures include:

- *Abundant access to natural daylight and ventilation;*
- *Large balconies to improve resident amenity and connection to the outdoors;*
- *Energy efficient building services, including lighting and appropriate control devices;*
- *Water efficient fixtures and fittings;*
- *Preference for drought tolerant and/or native vegetation with efficient irrigation;*
- *Bicycle parking to encourage active modes of transport; and*
- *Provision for future Solar PVs for onsite energy generation.*

Given the above, overall, the development is considered to meet the relevant Council Wide PDCs and Objs in relation to energy efficiency.

8.5.5 Wind Analysis

As the building exceeds 5 storeys in building height (at 6 storeys), an assessment of wind tunnelling effects on adjacent streets was required by CW PDC 179.

A wind report by Windtech Consultants Pty Ltd has been provided that demonstrates that wind speeds, as a result of a development, do not adversely impact pedestrian comfort.

The report concludes that the development is relatively exposed to the three prevailing wind directions, affecting the site. As a result, there is a possible impact on the wind comfort within the surrounding the trafficable/occupant areas. Windtech outline that the wind effects identified in the report can be ameliorated with the consideration of the following treatment strategies into the design of the development:

- Ground Level Areas:
 - Retention of the proposed impermeable awning above the Prospect and Pulsford frontages;
 - Retention of the existing site trees;
 - Inclusion of an impermeable awning above the western lobby entrance;
 - Inclusion of additional densely foliating planter boxes along the corner Prospect/Pulsford Road frontage with particular regards to the café/seating area; OR
 - Inclusion of mobile screening to be implemented by the café owner/s.
- Elevated Balcony Areas:
 - Retention of the mixed impermeable and porous (50% porosity) balustrades;
 - Retention of the full height privacy screens between balconies;
 - Recommended retention of densely, foliating evergreen planting above 1.1m high planter boxes, strategically located along balcony perimeters;
 - Recommended retention of full height end screens positioned along the shorter aspects of the corner balconies. The screens can be impermeable or louvered. If the screens are to be louvered in design then their orientations should be such that they do not align with the prevailing winds.

Given the above advice, unduly adverse wind tunnel effects are not anticipated to result as a consequence of the proposed building's design and therefore Council Wide PDC 179 is considered achieved.

8.5.6 Site Contamination

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

A Site History report has not been provided at this stage by the applicant to demonstrate the site is suitable for its intended use or if further testing and remediation will be required. A condition is proposed to be assigned to the consent however, in the event of SCAP support, a statement be provided that

demonstrates suitability of the site for its intended use (and no further testing/phase 2 required) be provided prior to the commencement of construction.

8.6 Stormwater

A Stormwater Management Report by PT Design has been provided that calculates how the development has been designed to meet the Council's requirements for stormwater to be detained so that flows from a 1:100 storm event do not exceed pre-development flows. Detention will be provided at basement level and discharged to the street. Car park surface water will also be collected via a FleXstorm Pure Inlet Filter (or equivalent) to remove suspended solids and hydrocarbons from the surface water – improving the quality of water of stormwater discharge and minimising pollutant transfer to receiving waters.

Council has reviewed the proposed stormwater management and has outlined broad support for the approach, however, it is considered by Council that further detailed design for stormwater management and the incorporation of water sensitive urban design techniques should be demonstrated by the applicant (in collaboration with Council staff).

The applicant's planning consultant has confirmed that the final detailed stormwater design and an investigation into the inclusion of further water sensitive urban design features will occur in collaboration with Council in the event of SCAP support (and conditioned accordingly to ensure this detail is provided prior to Development Approval being issued).

9. CONCLUSION

The proposal will enable a high-quality, medium density mixed-use development as desired within the Urban Corridor Zone and High Street Policy Area. The proposal will assist with increasing both resident population, the diversity of housing and City vibrancy.

The apartments have been designed to provide good amenity for the occupants via apartment size, provision of private open space, outlook and access to light and ventilation.

Traffic impact on the surrounding road network has been demonstrated to have adequate capacity to accommodate the development and not impact upon movement along Prospect Road. Sufficient car and bike parking in line with the Development Plan requirements is also provided.

While the proposal has a shortfall in deep soil landscaped areas, it is considered that the overall development will provide a good level of amenity for the occupants via landscaping that will contribute to the public realm environment to both street frontages.

While the development exceeds the maximum height prescribed for this Policy Area by 1 storey, its interface will result in an acceptable outcome to both to Prospect Road and the adjacent Residential Zone to the east and will positively contribute to the public realm. Amenity impacts via overshadowing, overlooking, height and visual bulk on adjacent properties are considered appropriately mitigated via setbacks, architectural expression and composition, use of materials and screening measures.

In terms of design, the applicant has obtained a PLA with the GA, resulting from genuine engagement by the proponent as part of the Pre-lodgement Service. A high quality design that responds successfully through its form and materiality to the

desired future character of the High Street Policy Area subsequently results. The development is considered to be consistent with the Development Plan and on balance support is recommended.

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 Prospect (City) Development Plan.
- 3) RESOLVE to grant Development Plan Consent to the proposal by Dellta Projects C/ Future Urban for construction of a five story residential flat building comprising ground level retail tenancies with residential apartments above and basement and ground level car parking accessed from Pulsford Road at 69-73 Prospect Road, Prospect 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 in consultation with the Government Architect (where relevant), prior to the granting of Development Approval:
 - 1.1 A final detailed canopy design;
 - 1.2 A final detailed schedule of external materials and finishes via a physical samples board; and
 - 1.3 A site history report, demonstrating the site is suitable for its intended use (and no further testing/phase 2 required).

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 050/M006/19.

Reason for condition: to ensure the development is constructed in accordance with endorsed plans and application details.

2. A final detailed Stormwater Management Plan shall be submitted showing the incorporation of water sensitive urban design techniques, in consultation with Prospect (City) Council to the satisfaction of the State Commission Assessment Panel. The details of the plan shall be submitted prior to Development Approval, and be implemented prior to occupation or use of the development.

Reason for condition: to ensure the development incorporates water sensitive urban design measures.

3. The acoustic attenuation measures recommended in the Resonate report (A190442RP1 Rev A), shall be fully incorporated into the building rules documentation to the reasonable satisfaction of the SCAP. Such acoustic measures shall be made operational prior to the occupation or use of the development.

Reason for condition: to ensure appropriate noise attenuation measures are in place.

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

Reason for condition: to ensure appropriate landscaping is provided for the subject land.

5. A watering system shall be installed at the time landscaping is established and operated so that all plants receive sufficient water to ensure their survival and growth.

Reason for condition: to ensure landscaping growth and maintenance.

6. All stormwater design and construction shall be in accordance with Australian Standard AS/NZS 3500.3:2015 (Part 3) to ensure that stormwater does not adversely affect any adjoining property or public road.

Reason for condition: to ensure stormwater infrastructure is designed and constructed to minimise potential for flood risk to adjoining property or public roads associated with stormwater runoff in accordance with the necessary standard.

7. All vehicle car parks, driveways and vehicle entry and manoeuvring areas shall be designed and constructed in accordance with Australian Standards (AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009) and be constructed, drained and paved with bitumen, concrete or paving bricks in accordance with sound engineering practice and appropriately line marked to the reasonable satisfaction of the SCAP prior to the occupation or use of the development.

Reason for condition: to ensure relevant Australian standards are met.

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

Reason for condition: to ensure relevant Australian standards are met.

9. All car parking areas, driveways and vehicle manoeuvring areas shall be maintained at all times to the reasonable satisfaction of the SCAP.

Reason: to ensure vehicle manoeuvring areas shall be maintained at all times.

10. Privacy treatments to the windows/balconies shall be installed prior to the operation of the development and maintained at all times to the reasonable satisfaction of the SCAP.

Reason: to ensure the privacy of adjacent properties is maintained at all times.

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

Reason for condition: to ensure relevant Australian standards are met.

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. National Broadband Network (NBN): The National Broadband Network is being rolled out across the City of Prospect. It is recommended that you consider your future connection to the optical fibre network prior to commencing works. Please visit www.nbnco.com.au for further details on how to get connected.
- e. Further application pursuant to the Local Government Act shall be made to the Infrastructure Assets and Environment Department for the proposed crossover prior to construction activities occurring.
- f. Road/Kerbing/Footpath Works will need to be inspected by an Assets and Infrastructure Officer to determine they have met all relevant requirements. All work including line marking will be the responsibility of the applicant as will the reinstatement of any damaged Infrastructure / Services related to these works. All works will be carried out at the cost to the applicant.
- g. A Construction Environment Management Plan (CEMP) shall be prepared in collaboration with the Prospect (City) Council and implemented throughout construction 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.
- h. The applicant, or any person with the benefit of this consent, must ensure that any consent from other authorities or third parties that may be required to undertake the development, have been granted by that authority prior to the commencement of the development.



Janaki Benson
Senior Planner

DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

6 9 - 7 3

P R O S P E C T R O A D .

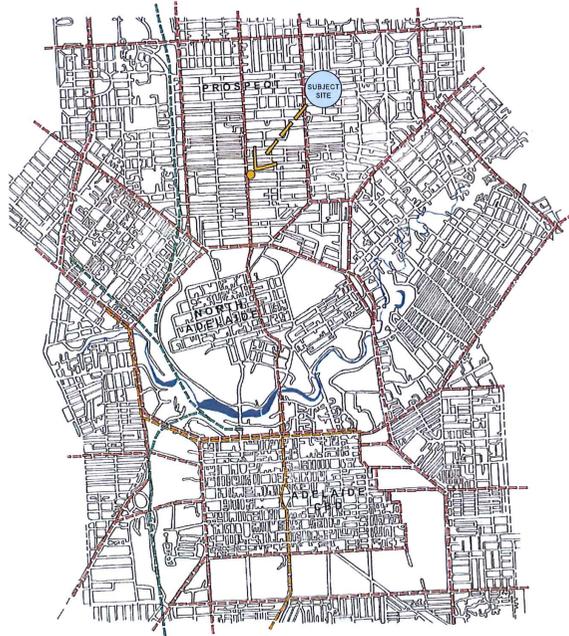
DRAWING LIST

- 01 - LOCALITY
- 02 - SITE CONCEPT AND PARTI STRATEGY
- 03 - BASEMENT PLAN
- 04 - GROUND PLAN
- 05 - LEVEL 1 PLAN
- 06 - LEVEL 2 PLAN
- 07 - LEVEL 3 PLAN
- 08 - LEVEL 4 PLAN
- 09 - STREETSCAPES
- 10 - DESIGN EVOLUTION & MATERIALITY
- 11 - RENDERS
- 12 - STREET VIEWS
- 13 - ELEVATIONS & SHADOW DIAGRAMS
- 14 - SECTIONS
- 15 - OVERLOOKING

This document is endorsed under Section 37AA of the
Development Act 1993
PRE-LODGE MENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

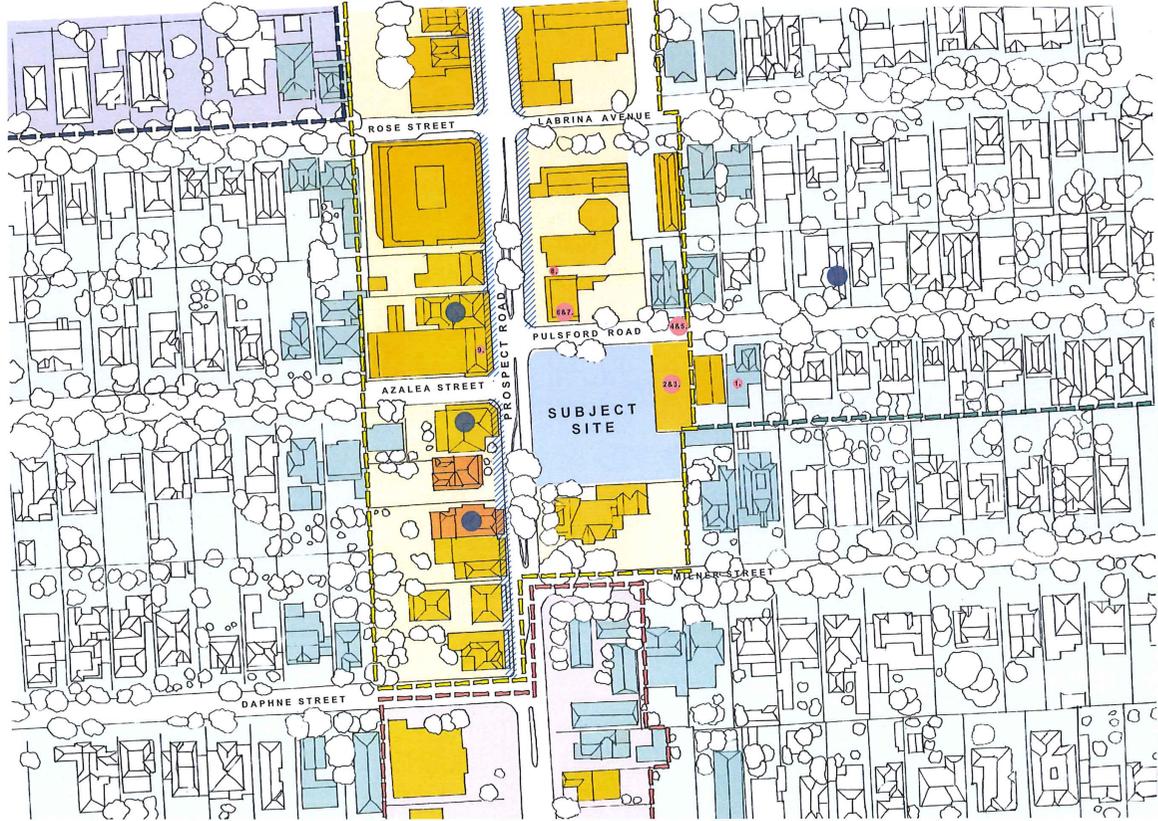
DATE: 4/10/2019 SIGNED: 
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: 





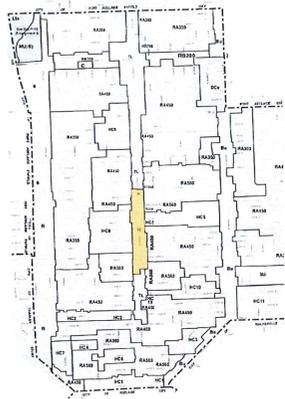
LOCALITY PLAN ADELAIDE CBD
PROXIMITY OF SITE TO ADELAIDE CBD
Scale NTS

- TRAM LINE
- MAJOR ARTERIAL ROAD
- TRAIN LINE
- RIVER TORRENS

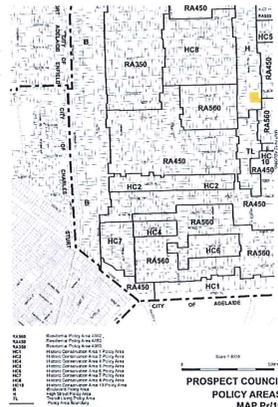


LOCALITY PLAN
HIGHLIGHTING PRIMARY USAGE EXISTING IN POLICY AREA
Scale NTS

- COMMERCIAL & RETAIL
- OFFICE
- RESIDENTIAL
- RETAIL PROMENADE
- LOCAL HERITAGE
- H URBAN CORRIDOR ZONE HIGH STREET POLICY AREA
- HCB HISTORIC CONSERVATION ZONE
- TL TRANSIT LIVING POLICY AREA
- RA RA450 & RA560 RESIDENTIAL POLICY AREA



POLICY AREA ZONE H
URBAN CORRIDOR ZONE HIGH STREET POLICY AREA
Scale NTS



POLICY AREA ZONE H
URBAN CORRIDOR ZONE HIGH STREET POLICY AREA
Scale NTS



- 1 FIRST RESIDENCE IN PROXIMITY TO SITE ALONG PULSFORD ROAD
- 2 EAST BOUNDARY SITE
- 3 EAST BOUNDARY SITE EDGE CONDITION
- 4 PULSFORD ROAD CURRENT STREET CONDITION
- 5 VIEW OF CINEMA COMPLEX FROM PULSFORD ROAD
- 6 VIEW OF SHOPS ADJACENT FROM SITE ALONG PULSFORD ROAD
- 7 COLONNADE STRUCTURE ALONG PULSFORD ROAD
- 8 RETAIL & COMMERCIAL TENANCIES ALONG PROSPECT ROAD
- 9 ADJACENT SHOP FRONT TO SITE ALONG PROSPECT ROAD

CONTEXT CONDITION
CONTEXT CONDITION IN PROXIMITY TO SITE

This document is endorsed under Section 37AA of the Development Act 1993
PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED:
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED:

MAXIMISE GROUND FLOOR FRONTAGE

- SINGLE VEHICLE ACCESS POINT
- INSET RESIDENTIAL ENTRY TO EXTEND FACADE INWARDS
- SET BACK FACADE TO INCREASE FOOTPATH AMENITY

ACTIVATED GROUND FLOOR FRONTAGE

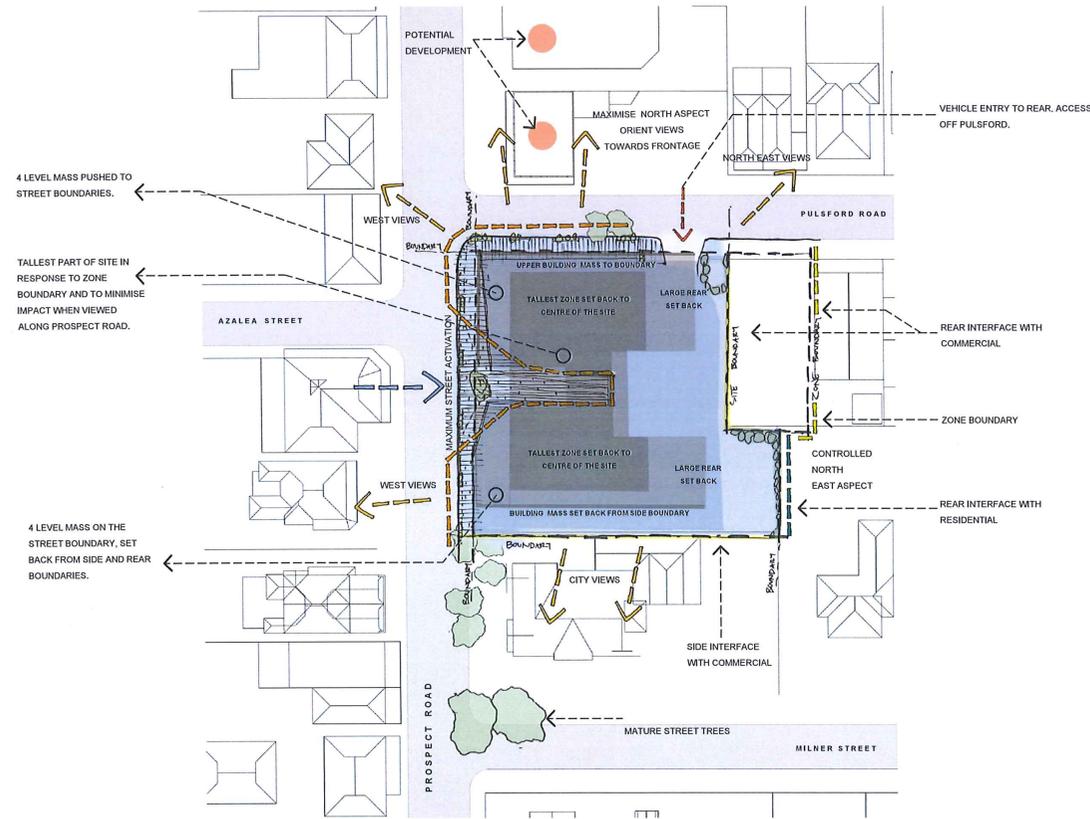
- GROUND FACADE SET BACK
- RETAIL / CAFE ALONG PULSFORD ROAD
- RESIDENTIAL, CAFE & RETAIL COMBINED ON PROSPECT ROAD

TALLEST ZONE RESPONSE TO CONTEXT

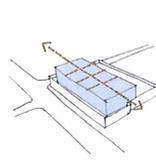
- REAR INTERFACE WITH COMMERCIAL USE
- STEPPED SET BACKS TO RESIDENTIAL INTERFACE & NEIGHBOURING CHILD CARE.

NORTHERN ASPECT EXTENDED

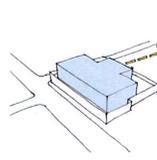
- INCREASE FACADE TO THE NORTH
- DRIVEWAY UNDER APARTMENTS ABOVE
- ALLOW SOUTHERN SIDE A NORTHERN ASPECT ALSO



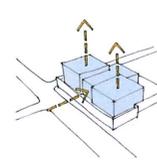
SITE PLAN STRATEGY
SITE PLAN & DESIGN STRATEGY (CONCEPT PLAN 05)
Scale: NTS



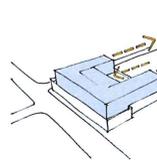
SUPERSEDED OPTION 1



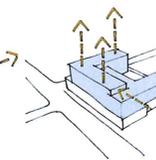
SUPERSEDED OPTION 2



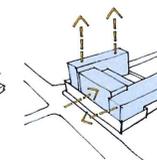
SUPERSEDED OPTION 3



SUPERSEDED OPTION 4

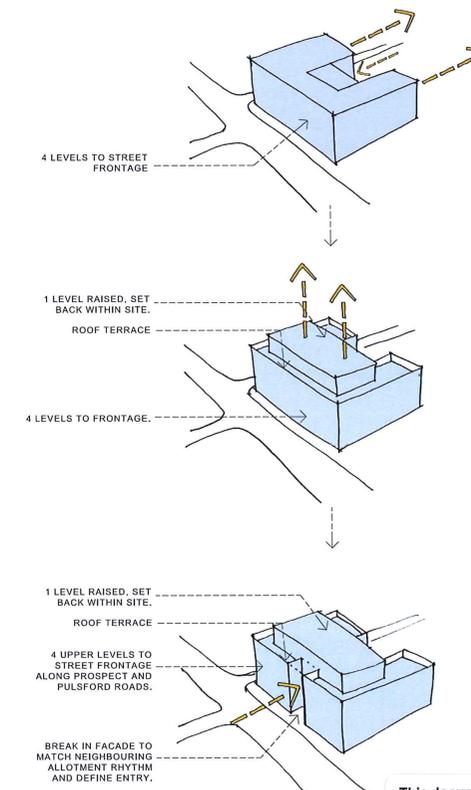


SUPERSEDED OPTION 5



SUPERSEDED OPTION 6

PARTI
4 - 5 LEVELS

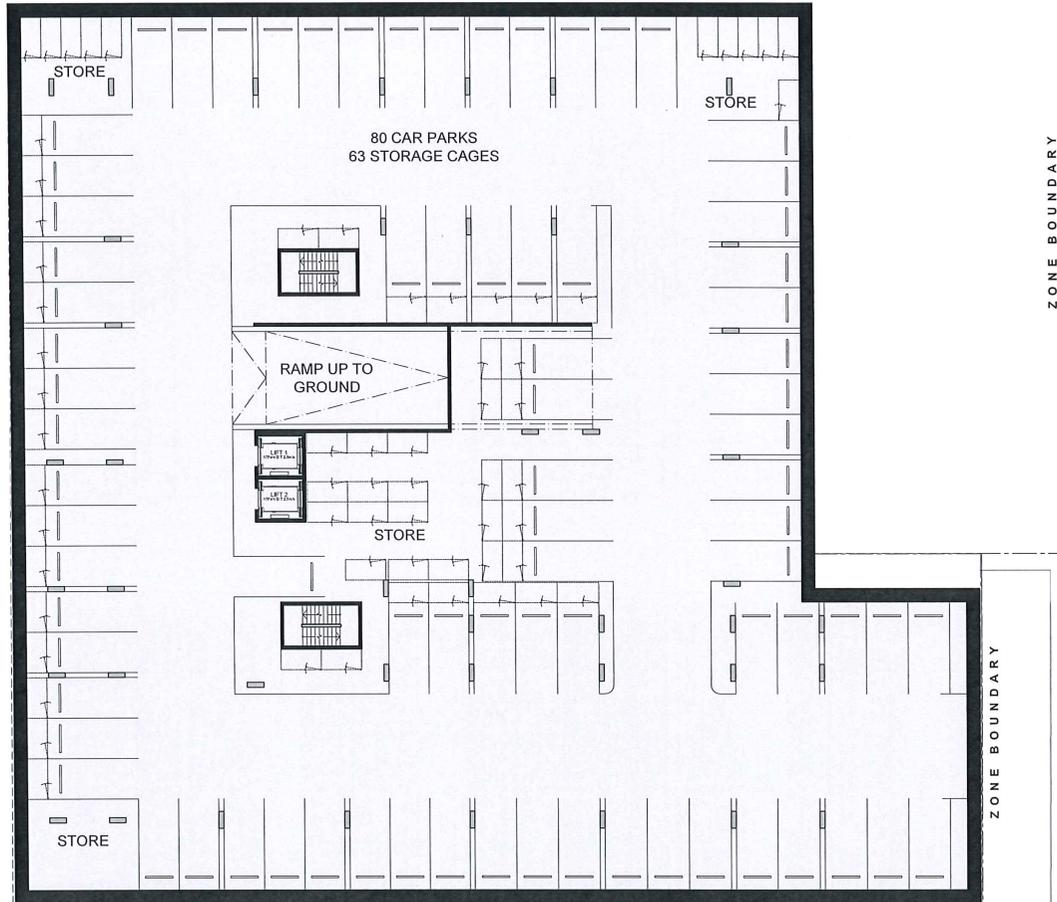


This document is endorsed under Section 37AA of the Development Act 1993
PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: [Signature]

PULSFORD ROAD

PROSPECT ROAD



- VEHICLE ACCESS TO REAR OF SITE.
- BASEMENT RAMP WITHIN SITE TO REDUCE CROSSOVERS.
- PARKING FOR COMMERCIAL AT GROUND LEVEL.
- PARKING FOR RESIDENTIAL IN BASEMENT.
- DEEP PLANTING ZONE INCLUDED FOR PORTION OF REAR BOUNDARY.

PROJECT SUMMARY

GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
APARTMENTS		
1 BED		14
2 BED		36
3 BED		05
TOTAL		55
CAR PARKING		
GROUND		30
BASEMENT		80
TOTAL		110
STORAGE CAGES		
BASEMENT		63
TOTAL		63

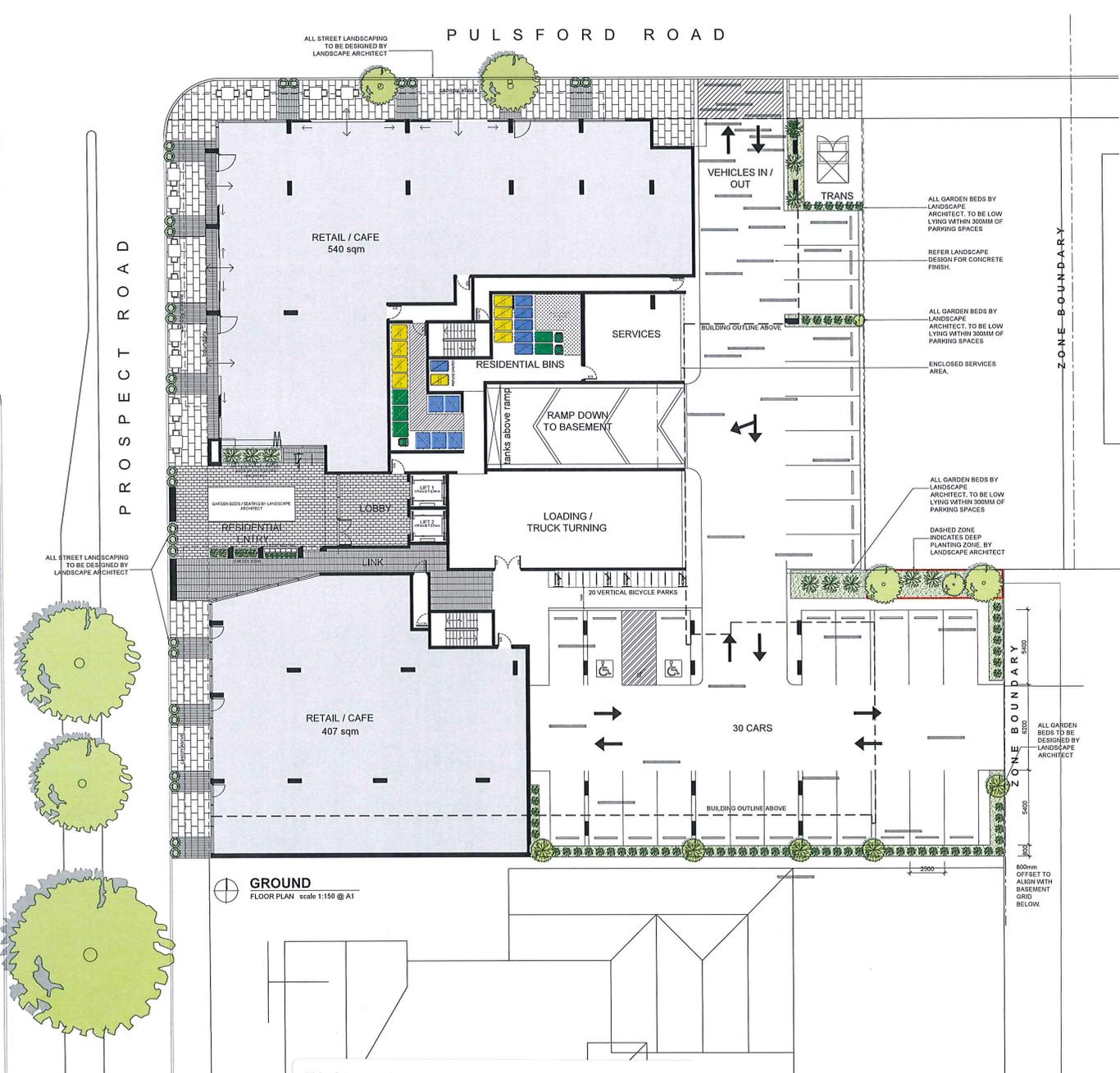
This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED:
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED:

BASEMENT
 FLOOR PLAN scale 1:150 @ A1

PULSFORD ROAD

PROSPECT ROAD



GROUND FLOOR PLAN scale 1:150 @ A1

- VEHICLE ACCESS TO REAR OF SITE.
- BASEMENT RAMP WITHIN SITE TO REDUCE CROSSOVERS.
- PARKING FOR COMMERCIAL AT GROUND LEVEL.
- PARKING FOR RESIDENTIAL IN BASEMENT.
- CONTROLLED LINK TO PROSPECT FROM PARKING.
- MAXIMISE FRONTAGE & ACTIVATE THE STREET.
- DEEP PLANTING ZONE TO REAR OF SITE AT RESIDENTIAL BOUNDARY.
- DETAILED STREET INTEGRATION OF TENANCIES AND PUBLIC REALM.
- RESIDENTIAL ENTRY INCLUDES LANDSCAPING AND SEATING TO INTEGRATE WITH STREETScape . ALSO INCLUDES WEATHER PROTECTION FOR RESIDENTS.

PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265 sqm

CONCEPT EVOLUTION



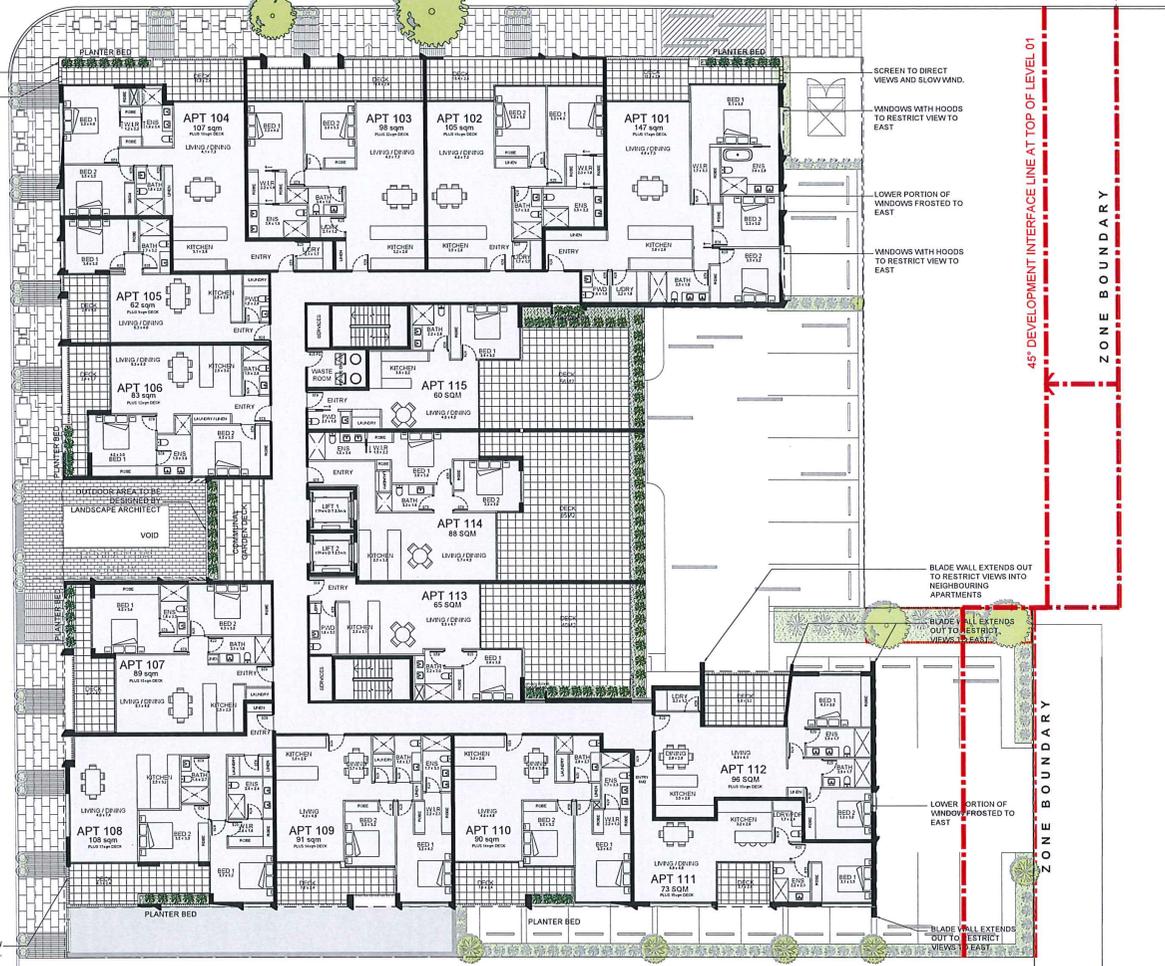
This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: [Signature]

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



Level 1
FLOOR PLAN scale 1:150 @ A1

- MAXIMISING FRONTAGE
- LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
- INCREASE CORNER APARTMENTS
- FRONTAGE TO ALL BEDROOMS
- CROSS VENTILATION TO CORNERS
- INCREASED DENSITY
- LARGE SETBACKS TO REAR ZONE BOUNDARIES
- DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
- LARGE USEABLE OUTDOOR SPACES
- STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP
- OUTLOOK OF EASTERN APARTMENTS IMPROVED THROUGH PLANTED SCREENS AND LARGE LEVEL 1 DECKS. REFER LANDSCAPE ARCHITECT DESIGN.

This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: [Signature]

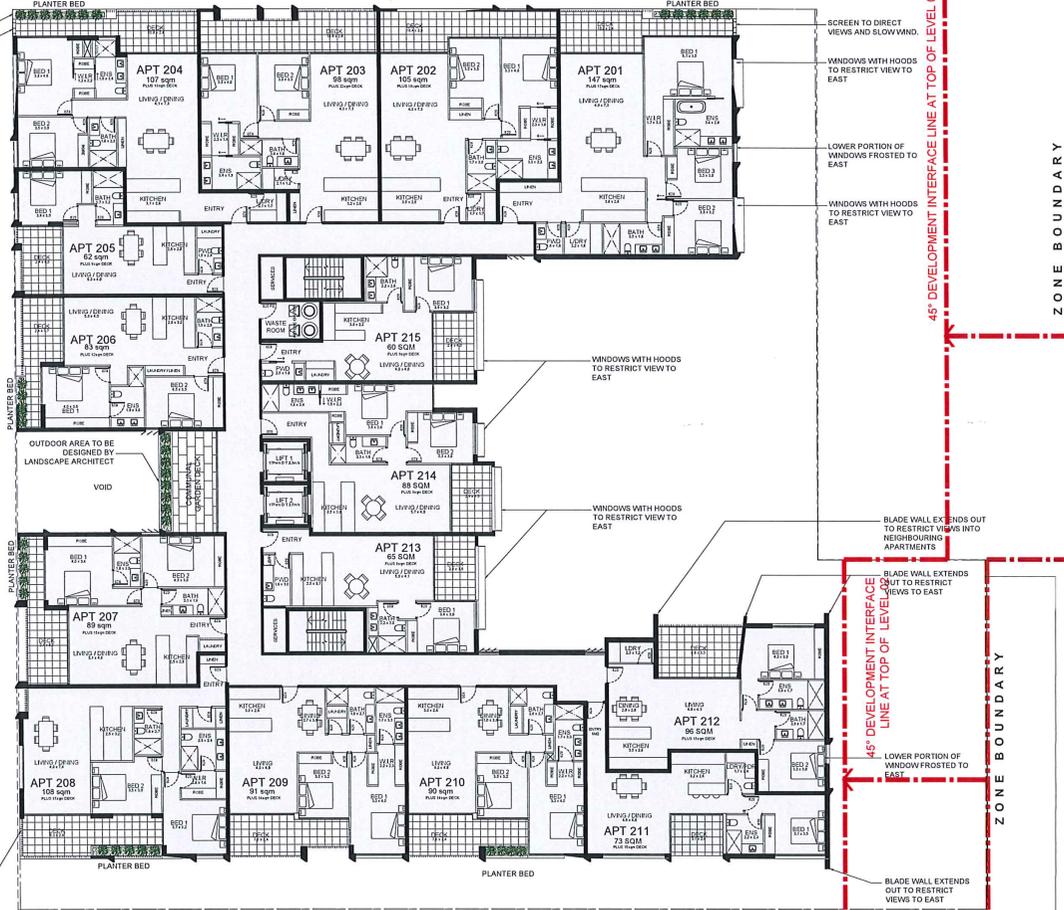
PROJECT SUMMARY

GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
APARTMENTS		
1 BED	14	
2 BED	36	
3 BED	05	
TOTAL	55	
CAR PARKING		
GROUND	30	
BASEMENT	80	
TOTAL	110	
STORAGE CAGES		
BASEMENT	63	
TOTAL	63	
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)		
GROUND	106	
L1	43	
L2	24	
L3	24	
L4	68	
TOTAL	265sqm	

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



Level 2 FLOOR PLAN scale 1:150 @ A1

- MAXIMISING FRONTAGE
- LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
- INCREASE CORNER APARTMENTS
- FRONTAGE TO ALL BEDROOMS
- CROSS VENTILATION TO CORNERS
- INCREASED DENSITY
- LARGE SETBACKS TO REAR ZONE BOUNDARIES
- DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
- LARGE USEABLE OUTDOOR SPACES
- STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP
- OUTLOOK OF EASTERN APARTMENTS IMPROVED THROUGH PLANT SCREENS AND LARGE LEVEL 1 DECKS.

This document is endorsed under Section 37AA of the *Development Act 1993* PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: [Signature]

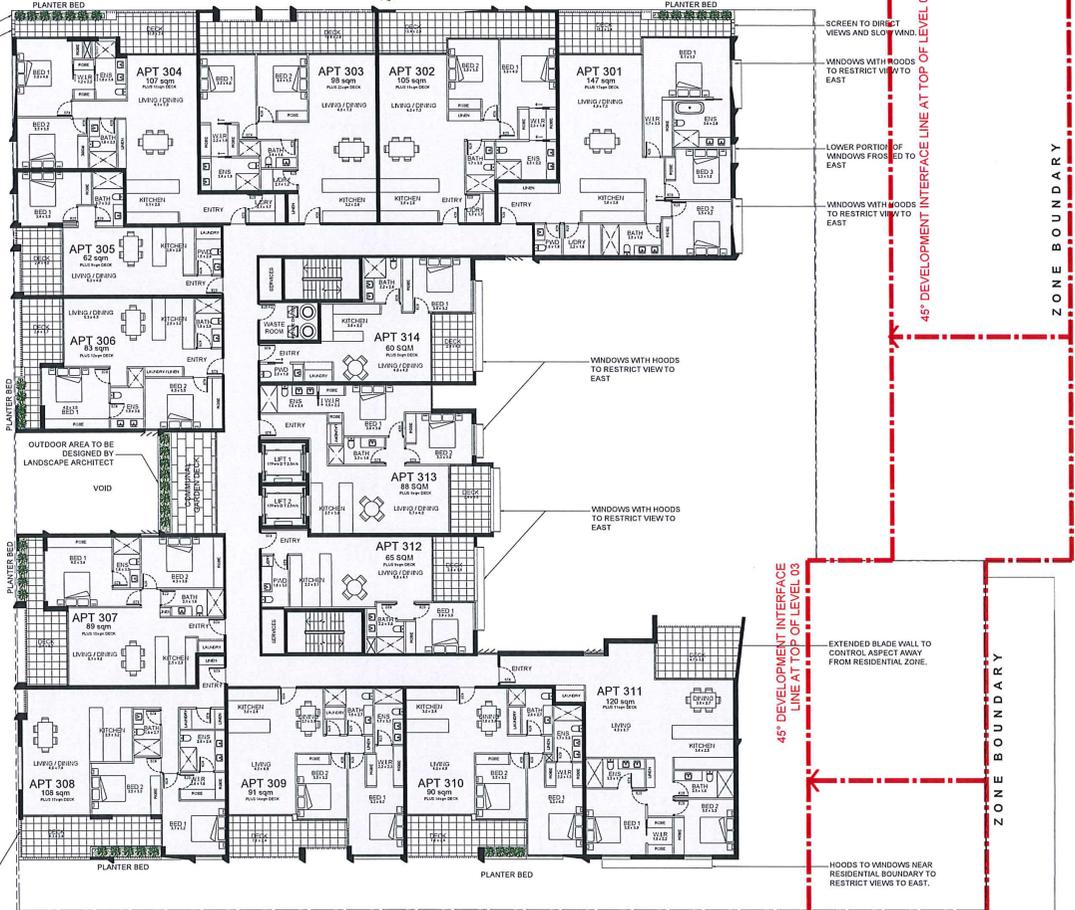
PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265 sqm

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT
SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



Level 3
FLOOR PLAN scale 1:150 @ A1

- MAXIMISING FRONTAGE
- LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
- INCREASE CORNER APARTMENTS
- FRONTAGE TO ALL BEDROOMS
- CROSS VENTILATION TO CORNERS
- INCREASED DENSITY
- LARGE SETBACKS TO REAR ZONE BOUNDARIES
- DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
- LARGE USEABLE OUTDOOR SPACES
- STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP
- EAST BOUNDARY SETBACK INCREASED IN ACCORDANCE WITH 45 DEGREE LINE. APARTMENTS ON LEVELS 01 & 02 AMALGAMATED INTO SINGLE APARTMENT ON THIS LEVEL.

This document is endorsed under Section 37AA of the *Development Act 1993*
PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

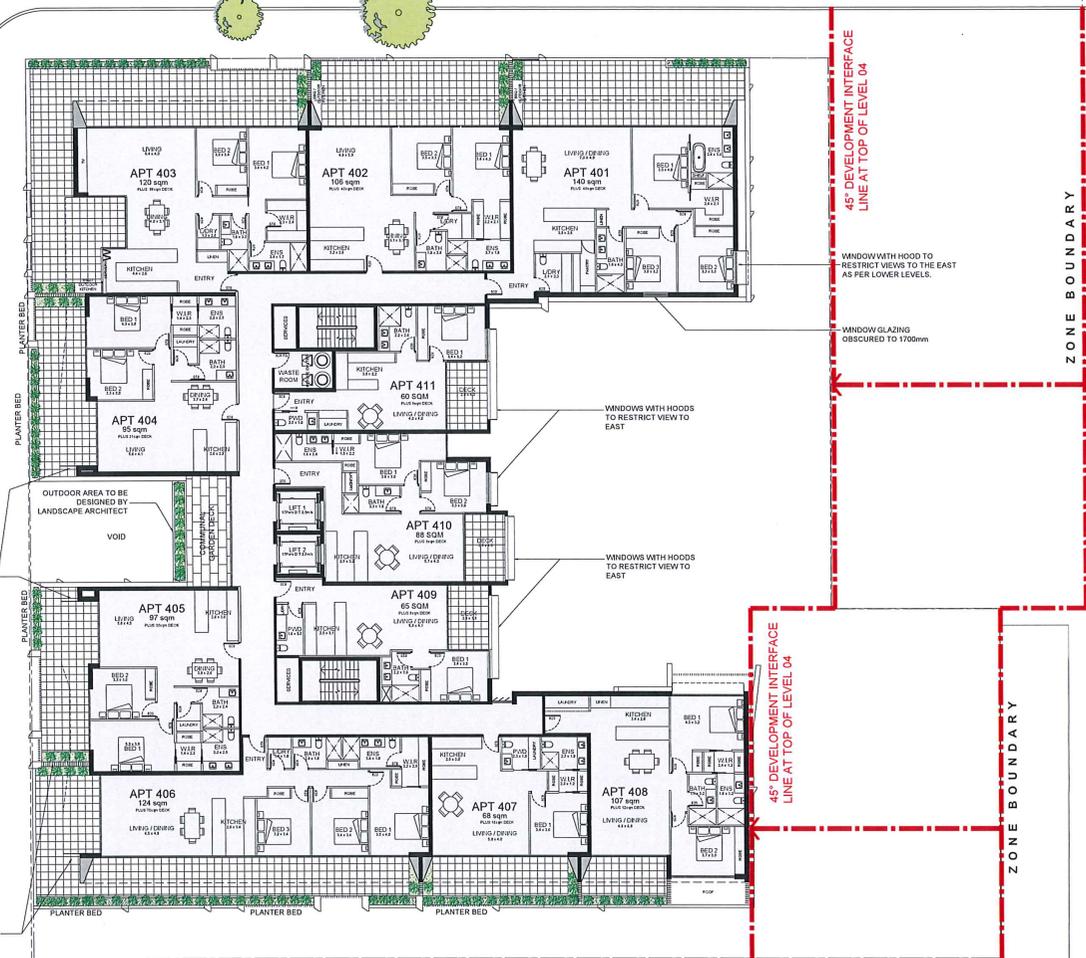
DATE: 4/10/2019 SIGNED: [Signature]
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: [Signature]

PROJECT SUMMARY

GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
APARTMENTS		
1 BED	14	
2 BED	36	
3 BED	05	
TOTAL	55	
CAR PARKING		
GROUND	30	
BASEMENT	80	
TOTAL	110	
STORAGE CAGES		
BASEMENT	63	
TOTAL	63	
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)		
GROUND	106	
L1	43	
L2	24	
L3	24	
L4	68	
TOTAL	265sqm	

PULSFORD ROAD

PROSPECT ROAD



Level 4
FLOOR PLAN scale 1:150 @ A1

- MAXIMISING NORTH FRONTAGE
- LARGE SET BACKS TO NORTH, WEST AND SOUTH ELEVATIONS IN RESPONSE TO BUILDING MASS.
- DECKS TO REINFORCE BUILDINGS MASS ALONG PARAPET.
- INCREASED SIZE FOR KEY APARTMENTS.

This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 1/10/2019 SIGNED: [Signature]
 This Agreement remains valid for three months from this date
 DATE: 1/10/2019 SIGNED: [Signature]

PROJECT SUMMARY

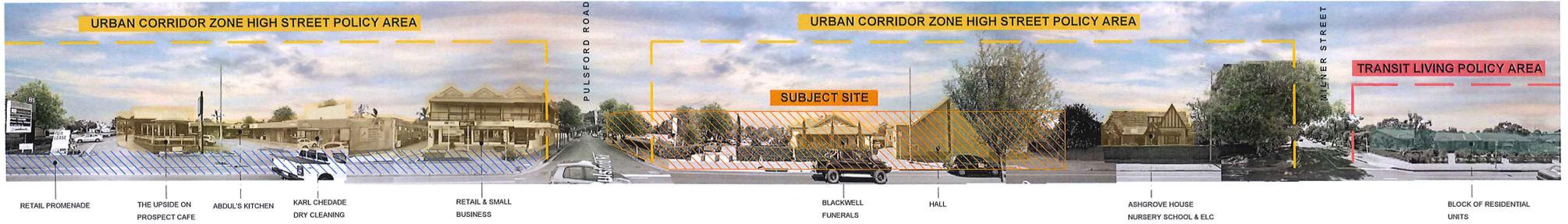
GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
<hr/>		
APARTMENTS		
1 BED		14
2 BED		36
3 BED		05
TOTAL		55
<hr/>		
CAR PARKING		
GROUND		30
BASEMENT		80
TOTAL		110
<hr/>		
STORAGE CAGES		
BASEMENT		63
TOTAL		63
<hr/>		
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)		
GROUND		106
L1		43
L2		24
L3		24
L4		68
TOTAL		265sqm

- BULK AND SCALE BROUGHT TO STREET BOUNDARY TO DEFINE CORNER AND REINFORCE BOUNDARY
- EXISTING SITE BOUNDARY RHYTHM CONTINUED THROUGH PROPOSED MASS
- CANOPY DESIGNED TO RESPOND TO EXISTING STREETScape FEATURES

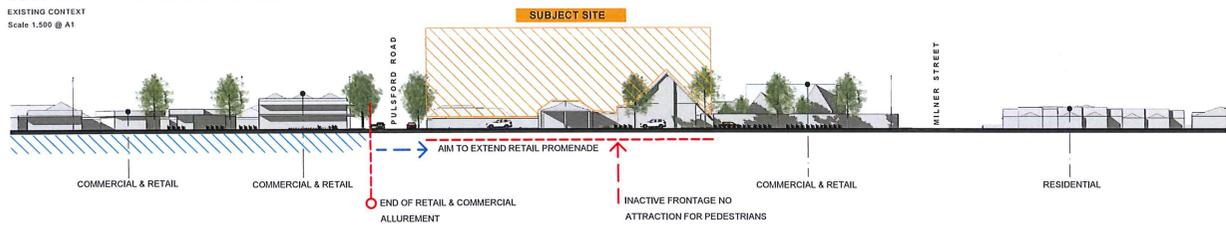
This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEment AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 7/10/2019 SIGNED:
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED:

STREETSCAPE EAST SIDE OF PROSPECT ROAD
 USE & POLICY AREAS DEFINED
 Scale NTS



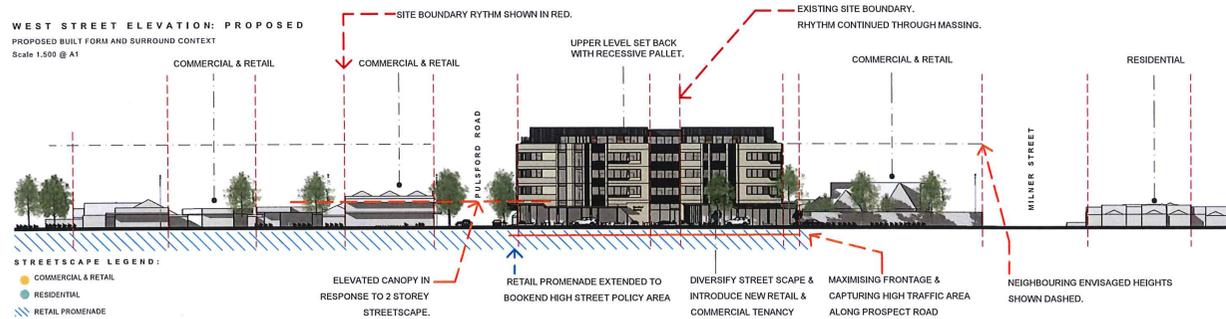
WEST STREET ELEVATION: EXISTING
 EXISTING CONTEXT
 Scale 1:500 @ A1



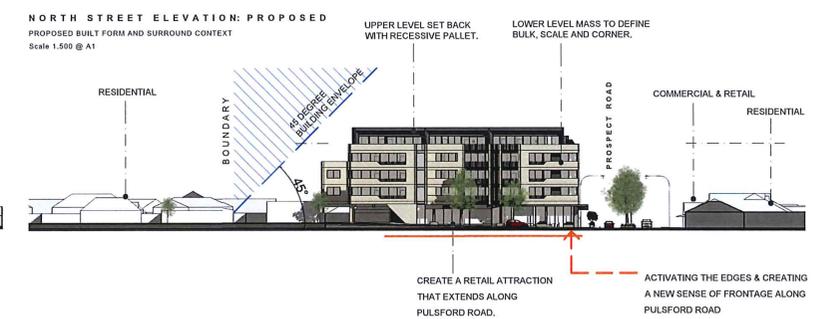
NORTH STREET ELEVATION: EXISTING
 EXISTING CONTEXT
 Scale 1:500 @ A1



WEST STREET ELEVATION: PROPOSED
 PROPOSED BUILT FORM AND SURROUND CONTEXT
 Scale 1:500 @ A1



NORTH STREET ELEVATION: PROPOSED
 PROPOSED BUILT FORM AND SURROUND CONTEXT
 Scale 1:500 @ A1



- STREETSCAPE LEGEND:
- COMMERCIAL & RETAIL
 - RESIDENTIAL
 - ▬ RETAIL PROMENADE
 - ▬ HIGH STREET POLICY AREA
 - ▬ TRANSIT LIVING POLICY AREA
 - ▬ INACTIVE FRONTAGE
 - ▬ ACTIVATED FRONTAGE
 - ▬ SITE BOUNDARY

- DESIGN NOTES:
- MASS TO REINFORCE ENVISAGED BUILT ENVIRONMENT
 - BREAK IN WEST FACADE IN RESPONSE TO EXISTING SITE RYTHM
 - UPPER LEVELS SET BACK WITHIN SITE

- DESIGN NOTES CONTINUED:
- TALL ELEMENTS SHIELDED IN KEY VIEWS
 - CONFIDENT PRESENTATION TO THE CORNER
 - GROUND FLOOR RECESSED

- DESIGN NOTES CONTINUED:
- MAIN MATERIAL TEXTURED MASONRY
 - RENDERED / OFF FORM DETAILS
 - CHARCOAL / BLACK STEELWORK DETAILS
 - INTEGRATED PLANTED AREAS

PRECEDENCE IMAGES

ASHLAR / SURREY HILLS, SYDNEY / SJR ARCHITECTS.



LOWER MASS REINFORCED BY MATERIAL SELECTION TO PARAPET. UPPER LEVELS RECESSED WITH VARYING MATERIALS.

SHORT LANE / SURREY HILLS, SYDNEY / WOODS BAGOT.



FRONT EDGE OF DECKS TO REINFORCE MASS.

RESIDENTIAL HOUSING AND GYMNASIUM BUILDING / PARIS / OYAPPOCK ARCHITECTS.



TRANSPARENT GLASS TO GROUND FLOOR RETAIL. ENTRANCE INTO BUILDING THROUGH CENTRE OF SITE. UPPER LEVELS SET BACK.

CORDOBA REURBANO HOUSING BUILDING / MEXICO CITY / CADAVAL & SOLA-MORALES.



BRICK TEXTURE MIXED WITH RENDERED / OFF FORM IN SIMILAR COLOUR. BLACK STEEL DETAILS.

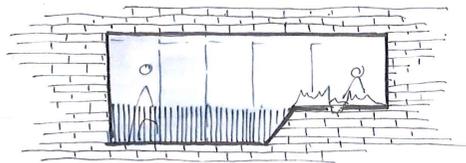
THE RATHBONE / SURREY HILLS, SYDNEY / SCOTT CARVER.



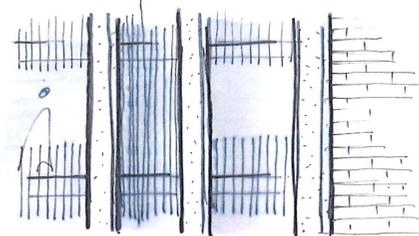
CONTRAST IN MATERIALITY BETWEEN LOWER ELEMENTS AND UPPER SET BACK ELEMENTS.



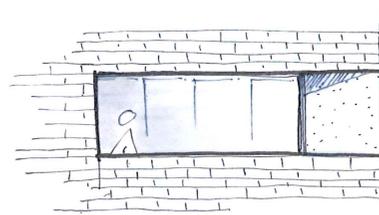
STREET CONTEXT IMAGES
IMAGES OF INTEREST IN CONTEXT TO THE SITE



TEXTURED MASONRY WITH FINE STEEL HUMAN SCALE DETAIL. ANGLED RISE IN OPENING.



DEEP REVEALS WITH RENDERED / OFF FORM FINISH. CHAMFERS / SPLAY TO EDGES. FINE STEEL DETAILS.



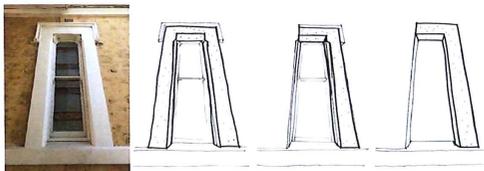
TEXTURED MASONRY (BRICK) WITH CHAMFERED OFF FORM DETAIL TO EDGE OF OPENING.



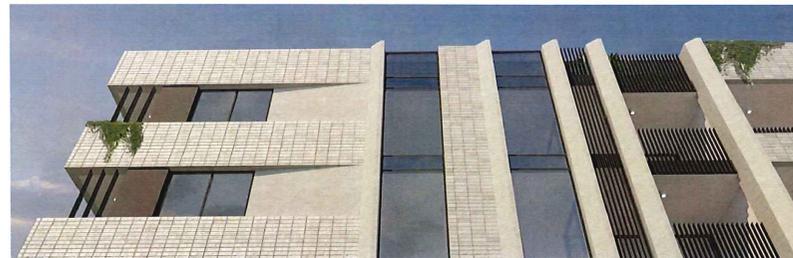
TEXTURED MASONRY (BRICK) WITH CHAMFERED OFF FORM DETAIL TO EDGE OF OPENING.

This document is endorsed under Section 37AA of the Development Act 1993
PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: [Signature]



EXISTING CONDITION STUDY
DEEP REVEALS WITH RENDERED FINISH. CHAMFERS TO EDGES.



DEEP REVEALS WITH RENDERED / OFF FORM FINISH. CHAMFERS TO EDGES. HUMAN SCALE STEEL DETAILS. INTEGRATED PLANTING.



DEEP REVEALS WITH RENDERED / OFF FORM FINISH. CHAMFERS TO EDGES. HUMAN SCALE STEEL DETAILS. INTEGRATED PLANTING.



STREET PERSPECTIVE
CORNER OF PULSFORD AND PROSPECT RD

- CHARCOAL METAL CLADDING TO UPPER RECESSED LEVEL.
- BRICK SLIPS ON PRECAST CONCRETE. COLOUR: OFF WHITE.
- BLACK / CHARCOAL FLAT BAR BALUSTRADE.
- BLACK ALUMINIUM WINDOW FRAMES.
- INTEGRATED PLANTER BEDS.
- CHARCOAL METAL CLADDING TO CANOPY.
- RAW CONCRETE COLUMNS BETWEEN OPERABLE GLASS.
- CLEAR GLASS IN BLACK ALUMINIUM FRAMING TO GROUND. OPERABLE PORTIONS TO PROMOTE STREET INTEGRATION.

- TEXTURE CONTRAST BETWEEN BRICK AND CONCRETE FINISH.
- TIMBER CANOPY TO RESIDENTIAL ENTRY.
- CHAMFERED BRICK ENTRY STATEMENT.
- INTEGRATED LANDSCAPING BY LANDSCAPE ARCHITECT.

STREET PERSPECTIVE
PROSPECT RD - ENTRANCE



- FINS ACT AS A WIND BREAK IN RESPONSE TO WIND REPORT.

- CLEAR GLASS IN BLACK ALUMINIUM FRAMING TO GROUND. OPERABLE PORTIONS TO PROMOTE STREET INTEGRATION.

STREET PERSPECTIVE
CORNER OF PULSFORD AND PROSPECT RD



STREET PERSPECTIVE
PROSPECT RD LOOKING NORTH EAST

- ROOF LINE BROKEN DOWN.
- CHARCOAL METAL CLADDING TO UPPER RECESSED LEVEL.
- BRICK SLIPS ON PRECAST CONCRETE. COLOUR: OFF WHITE.
- IMPERVIOUS BLADES/ WALLS TO CONTROL GOOD PROJECTS TO INCREASE PRIVACY AND WIND, DIVIDING SCREENS CONCEALED BY PARAPET.
- BLACK / CHARCOAL FLAT BAR SCREEN.
- BLACK ALUMINIUM WINDOW FRAMES.
- INTEGRATED PLANTER BEDS.
- CHARCOAL METAL CLADDING TO CANOPY.
- RAW CONCRETE COLUMNS BETWEEN OPERABLE GLASS.
- CLEAR GLASS IN BLACK ALUMINIUM FRAMING TO GROUND.

- IMPERVIOUS BLADES/ WALLS TO CONTROL PRIVACY AND WIND.
- TEXTURE DETAILS IN CONCRETE.

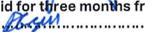
AERIAL PERSPECTIVE
PROSPECT RD LOOKING NORTH



AERIAL PERSPECTIVE
PULSFORD RD FACADE



This document is endorsed under Section 37AA of the *Development Act 1993*
PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

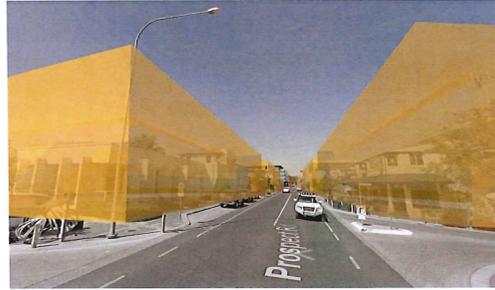
DATE: 4/10/2019 SIGNED: 
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: 

PROPOSED MASSING

NORTHERN STREET VIEW (PROSPECT ROAD)



CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS



CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS

PROPOSED MASSING

SOUTHERN STREET VIEW (PROSPECT ROAD)



CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS



CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS

PROPOSED MASSING

NORTHERN STREET VIEW (PROSPECT ROAD)



CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS

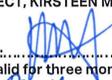


CURRENT STREET BUILDING MASS



POTENTIAL STREET BUILDING MASS

This document is endorsed under Section 37AA of the
 Development Act 1993
 PRE-LODGE MENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: 
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: 



NORTH ELEVATION
SCALE 1:200 @ A1



EAST ELEVATION
SCALE 1:200 @ A1



SOUTH ELEVATION
SCALE 1:200 @ A1



WEST ELEVATION
SCALE 1:200 @ A1

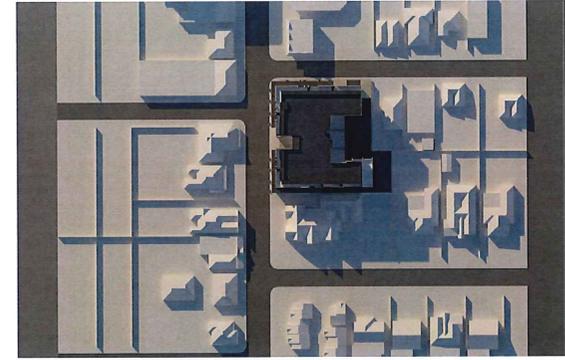
SUN SHADOW DIAGRAMS



21st JUNE 9am



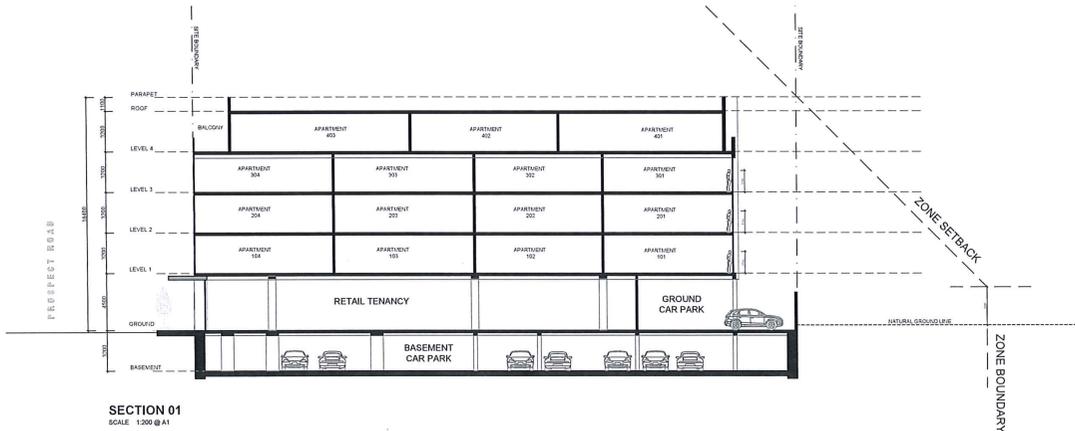
21st JUNE 12pm



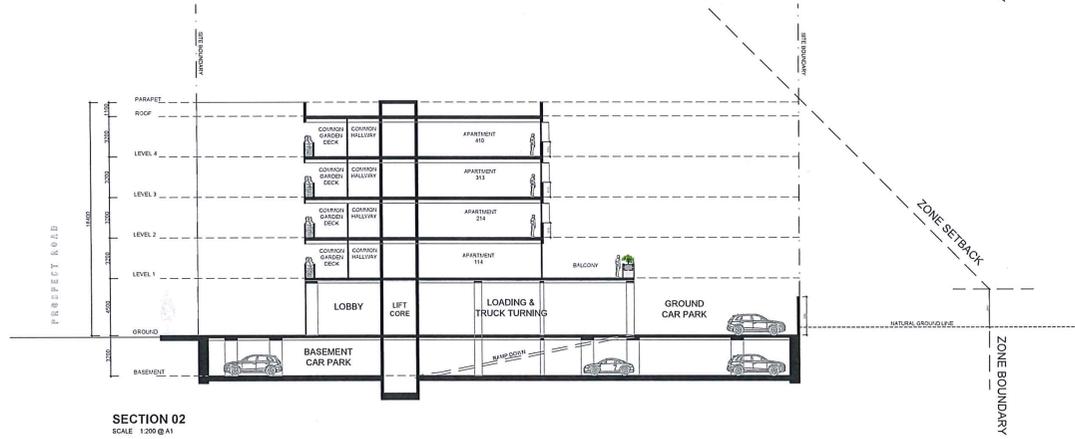
21st JUNE 3pm

This document is endorsed under Section 37AA of the *Development Act 1993*
PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

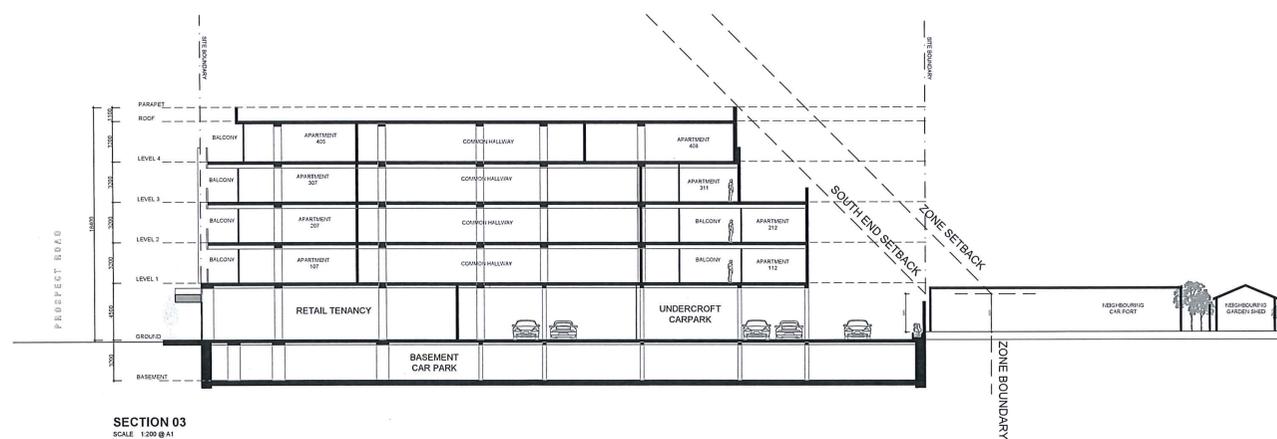
DATE: 4/10/2019 SIGNED: *[Signature]*
This Agreement remains valid for three months from this date
DATE: 4/10/2019 SIGNED: *[Signature]*



SECTION 01
SCALE: 1:200 @ A1



SECTION 02
SCALE: 1:200 @ A1



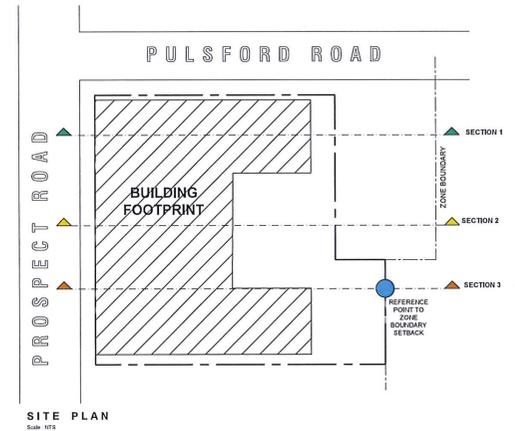
SECTION 03
SCALE: 1:200 @ A1

- LEVELS 1-4 TO HAVE HIGH LEVEL WINDOWS OR FROSTING TO LOWER PORTION OF GLASS

This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: [Signature]

- SIGNIFICANT SET BACK FROM REAR BOUNDARY
- HOODS BELOW OPENINGS AN OPTION TO RESTRICT OVERLOOKING FURTHER
- LEVEL 01 BALCONY TO HAVE PLANTER TO CONTROL OVERLOOKING TO EAST



A TREE SPECIES SIMILAR TO PROSPECT & PULSFORD ROAD EXISTING STREETSCAPE CHARACTER



PULSFORD RD PROSPECT RD
ACER BUERGERIANUM AUTUMN JACARANDA MIMOSIFOLIA



ACER BUERGERIANUM

B GROUNDCOVER & TUSSOCKS VERGE PLANTING WITHIN RAISED PLANTING BED



LOMANDRA LITTLE MAT RUSH WESTRINGIA LOW HORIZON



DIETES GRANDIFLORA EREMOPHILA GLABRA PROSTRATE



CORREA DUSKY BELLS CHRYSOCEPHALUM EVERLASTING DAISY

C DEEP ROOT ZONE TREES



BURSARIA SPINOSA JUNIPERUS BLUE ARROW



CUPRESSUS 'STRICTA' ITALIAN CYPRESS PINE SYZGIUM LILLY PILLY

D VINES GROWING ON HORIZONTAL VINES UP A FENCE OR WALL



TRACHELOSPERMUM JASMINOIDES

OUTER SPACE[®]

LEGEND:

- JACARANDA MIMOSIFOLIA STREET TREE ALONG PROSPECT ROAD
- ACER BUERGERIANUM STREET TREE ALONG PULSFORD ROAD
- RAISED PLANTER BED
- MULCHED GARDEN BEDS
- VINES GROWING ON HORIZONTAL WIRES UP A FENCE OR WALL
- CONCRETE SEATS WITH TIMBER BATTENS
- FEATURE PAVERS
- EXPOSED AGGREGATE CONCRETE WITH PAVE BANDING
- COBBLE STONE PAVEMENT TO EDGE OF BUILDING
- EXTENT OF WORKS
- DEEP ROOT ZONE
- EXISTING WALL
- FENCE WITH VINES

PRELIMINARY NOT FOR CONSTRUCTION

Project: 69-73 PROSPECT ROAD MIXED USE DEVELOPMENT
 Client: PRUSZINSKI PACT ARCHITECTS
 Drawing: GROUND FLOOR CONCEPT LANDSCAPE PLAN



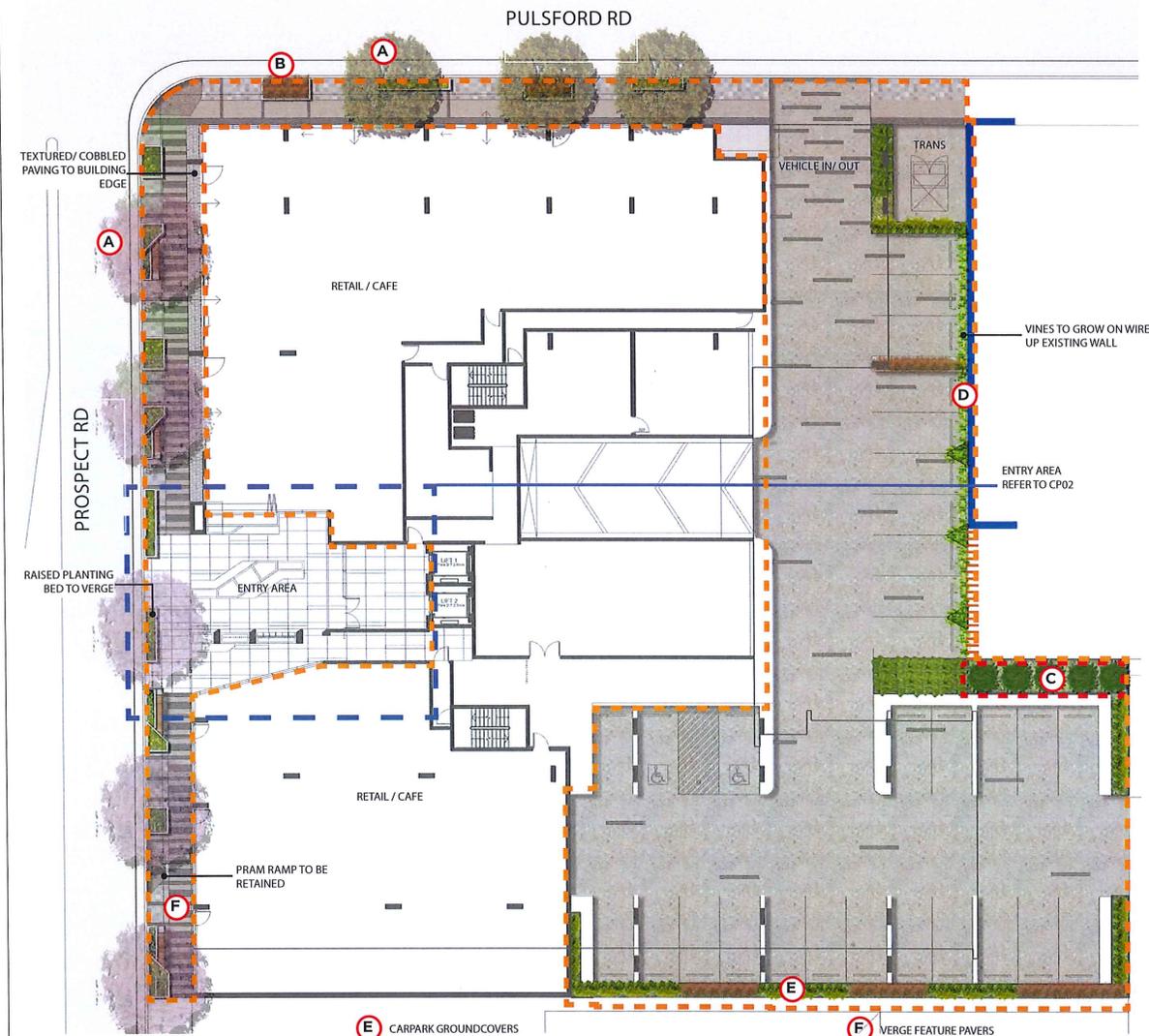
0 5 10m
 SCALE 1:150 @A1

Date: 13/09/19

Dwg No.: OS1912_CP01

This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGE AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED:
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED:



DESIGN INTENT:

THE GENERAL AIM OF THE VERGE DESIGN IS TO EMULATE THE EXISTING LANDSCAPE CHARACTER OF PROSPECT AND PULSFORD ROAD BY CHOOSING TREE SPECIES SIMILAR TO THE STREET LANDSCAPE.

WELL THOUGHT-OUT USE OF PLANTS ENHANCE THE ARCHITECTURAL CHARACTER OF THE BUILDING WHILST CREATING IMPACT AND STYLE TO THE NEW DEVELOPMENT.

PLANT SELECTION FOR THE CARPARK AREA INCLUDE HARDY SHADE TOLERANT PLANTS AS WELL AS TALL SCREENING PLANTS WITHIN THE DEEP ROOT ZONE.

PAVING PATTERN ALONG THE VERGE ENCOURAGE LINEAR MOVEMENT ALONG THE PATH WHILE HORIZONTAL BANDS PARALLEL TO THE COMMERCIAL SPACES INVITE PEOPLE TOWARD BUILDING ENTRANCES.

E CARPARK GROUNDCOVERS



DIANELLA CAERULEA LUCIA GREVILLEA LANIGERA MT. TAMBORITHA WESTRINGIA GREY BOX



HARDENBERGIA VIOLACEA MEEMA DIANELLA TAS RED WESTRINGIA LOW HORIZON

F VERGE FEATURE PAVERS



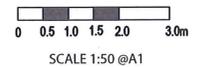
CUTER SPACE[®]

LEGEND:

-  RAISED PLANTER BED
-  FEATURE PAVERS
-  CONCRETE SEATS WITH TIMBER BATTENS
-  POTTED PLANTS
-  EXTENT OF WORKS

PRELIMINARY NOT FOR CONSTRUCTION

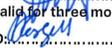
Project: 69-73 PROSPECT ROAD MIXED USE DEVELOPMENT
 Client: PRUSZINSKI PACT ARCHITECTS
 Drawing: ENTRY CONCEPT LANDSCAPE PLAN

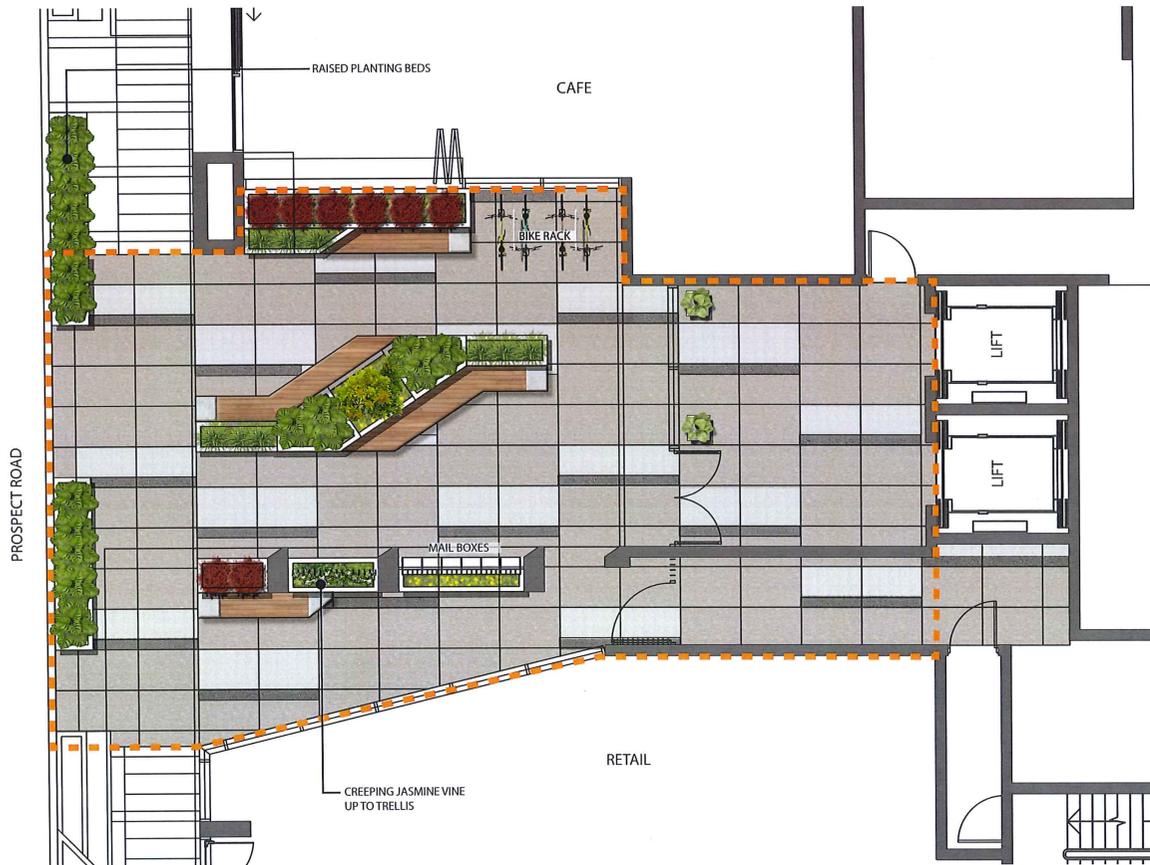


Date: 13/09/19

Dwg No.: OS1912_CP02

This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: 
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: 



DESIGN INTENT:

ANGLED SEATING LAYOUT IMITATE THE NATURE OF THE ARCHITECTURAL COLUMNS WHILE DIRECT ACCESS FLOW TOWARD THE BUILDING AND ADDS AN INVITING FEEL.

A GARDEN FEATURE AT THE CENTER OF THE SEATING NODE ADDS INTEREST IN THE AREA WHILE PAVING PATTERN HIGHLIGHTS THE LINEAR DIRECTION TOWARD THE ENTRY ZONE.

A SHADE TOLERANT ENTRY PLANTING WITHIN RAISED GARDEN BED



B ENTRY CEILING AND SEAT LIGHTING



C CONCRETE SEAT WITH TIMBER BATTENS



D RAISED PLANTER BEDS



E ENTRY FEATURE PAVER





DESIGN INTENT:

PLANT SELECTION CRITERIA FOR THE BALCONY INCLUDE LOW MAINTENANCE PLANTS THAT PROVIDE AESTHETIC FEATURE FOR THE BUILDING.

AESTHETIC OUTCOMES PROVIDE INTEREST THROUGH VARIETY IN COLOUR, TEXTURE, SHAPE, ETC;

SEAT AND PLANTBOX DESIGN EMULATE THE BUILDINGS ARCHITECTURAL CHARACTER WHILE CREATE AN INVITING SPACE FOR LOUNGING AND RELAXATION.

A CONCRETE SEAT WITH TIMBER BATTENS



B SCREEN PLANTING



SYZYGIUM AUSTRALE 'BLAZE' CALLISTEMON 'ANZAC'

C BALCONY PLANTS



CASUARINA GLAUCA PROSTRATE



CHRYSOCEPHALUM EVERLASTING DAISY



MYOPORUM CREEPING BOOBIALLA



NEPETA X FAASSENII CATNIP

AGAPANTHUS SNOWBALL

WESTRINGIA LOW HORIZON

D SQUARE AND TROUGH PLANTERS



500M SQUARE POT

2000M TALL TROUGH

1500M TALL TROUGH

OUTER SPACE®

LEGEND:

-  RAISED BALCONY PLANTER BED
-  CONCRETE SEAT WITH TIMBER BATTENS
-  EXTENT OF WORKS

E BALCONY RAISED PLANTERS



PRELIMINARY NOT FOR CONSTRUCTION

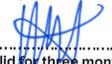
Project: 69-73 PROSPECT ROAD MIXED USE DEVELOPMENT
 Client: PRUSZINSKI PACT ARCHITECTS
 Drawing: TYPICAL 1ST-2ND FLOOR CONCEPT LANDSCAPE PLAN



Date: 13/09/19

Dwg No.: OS1912_CP03

This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: 
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: 



A CONCRETE SEAT WITH TIMBER BATTENS



B BALCONY RAISED PLANTERS



C BALCONY PLANTS



D SQUARE AND TROUGH PLANTERS



OUTER SPACE[®]

LEGEND:

-  RAISED BALCONY PLANTER BED
-  CONCRETE SEAT WITH TIMBER BATTENS
-  EXTENT OF WORKS

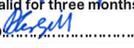
**PRELIMINARY
NOT FOR CONSTRUCTION**

Project: 69-73 PROSPECT ROAD MIXED USE DEVELOPMENT
 Client: PRUSZINSKI PACT ARCHITECTS
 Drawing: 3RD FLOOR CONCEPT LANDSCAPE PLAN



Date: 13/09/19
 Dwg No.: OS1912_CP04

This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: 
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: 

CUTER SPACE®

LEGEND:

-  RAISED BALCONY PLANTER BED
-  CONCRETE SEAT WITH TIMBER BATTENS
-  BARBEQUE
-  EXTENT OF WORKS

E BALCONY RAISED PLANTERS



A CONCRETE SEAT WITH TIMBER BATTENS



C BALCONY PLANTS



CASUARINA GLAUCA PROSTRATE

NEPETA X FAASSENII CATNIP



CHRYSOCEPHALUM EVERLASTING DAISY

AGAPANTHUS SNOWBALL



MYOPORUM CREEPING BOOBIALLA

WESTRINGIA LOW HORIZON

D SQUARE AND TROUGH PLANTERS



500M SQUARE POT



2000M TALL TROUGH



1500M TALL TROUGH

PRELIMINARY NOT FOR CONSTRUCTION

Project: 69-73 PROSPECT ROAD MIXED USE DEVELOPMENT
 Client: PRUSZINSKI PACT ARCHITECTS
 Drawing: 4TH FLOOR CONCEPT LANDSCAPE PLAN

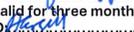


0 1 2 3 4 5m
 SCALE 1:100 @A1

Date: 13/09/19

Dwg No.: OS1912_CP05

This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: 
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: 





PLANNING STATEMENT FIVE STOREY, MIXED USE BUILDING

69-73 Prospect Road, Prospect

Prepared for: **Delta Projects**

Date: 9 October 2019



© Future Urban Pty Ltd, 2019

Proprietary Information Statement

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

All rights reserved. No section or element of this document may be removed from this document, reproduced, electronically stored or transmitted in any form without the written permission of Future Urban Pty Ltd.

Document Control

Revision	Description	Author	Date
V1	Planning Statement	MD	14/08/19
V2	Planning Statement	MD	30/08/19
V3	Planning Statement	MJE	27/09/19



CONTENTS

1:	EXECUTIVE SUMMARY	1
2:	INTRODUCTION	2
3:	SUBJECT LAND AND LOCALITY	3
3.1	Subject Land	3
3.2	Locality	4
4:	THE PROPOSED DEVELOPMENT	5
4.1	Demolition	5
4.2	Relevant Authority	5
4.3	Zoning	6
4.4	Assessment pathway	6
4.5	Public notification	6
5:	PLANNING ASSESSMENT	7
5.1	Land Use	7
5.1.1	Land Use Mix - Shops	7
5.1.2	Land Use Mix – Dwellings	7
5.2	Dwelling Composition	8
5.2.1	First Floor Level	8
5.2.2	Second Floor Level	9
5.2.3	Third Floor Level	10
5.2.4	Fourth Floor Level	11
5.3	Design and Appearance	12
5.4	Private Open Space	13
5.5	Domestic Storage	14
5.6	Floor to Ceiling Heights	14
5.7	Building Height	15
5.8	Interface and Setbacks	16
5.9	Overshadowing	18
5.10	Access, Car Parking and Traffic	18
5.10.1	Carpark Supply and Layout	19
5.10.2	Traffic Generation	19
5.10.3	Access	19
5.10.4	Bicycle Parking	20
5.11	Affordable Housing	20
5.12	Waste	20
5.13	ESD Principles	21
5.14	Stormwater	22
5.15	Noise	22
5.16	Overlooking	23
5.17	Wind Impacts	23
5.18	Public Realm	23
5.19	Landscaping	24
6:	CONCLUSION	25

APPENDICES

APPENDIX 1. Plans, Elevations, Sections, Diagrams and Landscaping Plans.....	26
APPENDIX 2. Traffic and Parking Report	27
APPENDIX 3. Waste Management Statement.....	28
APPENDIX 4. Sustainability Statement.....	29
APPENDIX 5. Storm Water Management Report	30
APPENDIX 6. Acoustic Advice	31
APPENDIX 7. Pedestrian Wind Environment Statement.....	32
APPENDIX 8. Pre-lodgement Agreement South Australian Government Architect	33

FIGURES

Figure 5.1 – Dwelling Composition on the First Floor Level.....	8
Figure 5.2 – Dwelling Composition on the Second Floor Level	9
Figure 5.3 – Dwelling Composition on the Third Floor Level.....	10
Figure 5.4 – Dwelling Composition on the Fourth Floor Level	11

1. EXECUTIVE SUMMARY

Applicant	Delta Projects
Property Location	69-73 Prospect Road, Prospect
Ownership	69-73 Prospect Road Pty Ltd ACN 629 889 354
Site Area	2758 square metres
Council	City of Prospect
Development Plan	Prospect (City) (consolidated 13 February 2018)
Zone	Urban Corridor
Policy Area	High Street
Current Land Use	Funeral parlour/Church – Community Building
Description of Development	<ul style="list-style-type: none"> • Demolition of existing buildings (current uses comprise funeral home and church) • Construction of a five-storey mixed use building comprising two ground floor retail tenancies (combines area of 947 square metres) and 55 (14 x 1 bed, 36 x 2 bed and 5 x 3 bed) residential apartments; • Basement and at ground level car park (110 x parking spaces) and storage areas; • 20 x vertical bicycle parks • Public realm improvements to Prospect Road including landscaping and verge feature pavers; • Communal gardens and seating area; and • Waste enclosure.
Assessment Pathway	Merit
Public Notification	Category 1
Relevant Authority	State Commission Assessment Panel
Referrals	Government Architect

2. INTRODUCTION

Future Urban Group has been engaged on behalf of the applicant, Delta Projects, to provide planning advice in relation to the proposed development at 69-73 Prospect Road, Prospect.

In preparing this planning statement, the following documents and matters have been reviewed:

- Certificates of Title;
- Site and locality;
- Relevant provisions of the Prospect (City) Development Plan (consolidated 13 February 2018);
- *Development Act 1993* and *Development Regulations 2008*;
- Plans prepared by pruszinski PACT architects;
- Stormwater management report prepared by PT Design;
- Acoustic advice prepared by Resonate;
- Traffic and parking report prepared by CIRQA;
- Pedestrian wind report prepared by Windtech;
- Sustainability Statement prepared by SUHO;
- Concept landscape plan prepared by Outer Space; and
- Waste management statement prepared by pruszinski PACT architects.

3. SUBJECT LAND AND LOCALITY

3.1 Subject Land

The Subject Land is currently comprised in three certificates of title:

- 5857/890;
- 5463/649; and
- 5464/62.

As envisaged by the Objective 5 of the Urban Corridor Zone, the Subject Land is a product of the amalgamation of sites to provide better design outcomes accommodate envisaged development, design flexibility, diverse building types, landscaping private open space and dwelling sizes.

The Subject Land is presently disposed as a funeral home and associated carpark on 71-73 Prospect Road and an artist studio in a former church on 69 Prospect Road. Neither building is a contributory item nor a local or State heritage place

The Subject Land is situated on the south-eastern corner of the intersection of Prospect and Pulsford Roads, Prospect with primary frontage to Prospect Road. Prospect Road is an arterial road which falls under the care and control of the Department of Planning, Transport and Infrastructure, and carries around 18,200 vehicles per day. A right-turn lane from Prospect Road into Pulsford Street is provided immediately adjacent the Subject Land providing sheltered right-turn storage lane.

Approximately 180 metres north of the Subject Land is a pedestrian actuated pedestrian crossing permitting controlled pedestrian movement across Prospect Road.

Left-in/left-out access is provided via three crossovers on Prospect Road and all movement access is provided via a fourth crossover on Pulsford Road. If the proposed development is approved, all existing crossovers to Prospect Road will be closed, and the affected portion of the adjacent footpath, verge and kerb will be reinstated in accordance with the Council's technical requirements.

The land falls gently from the east to the west (0.8 metres) naturally draining to Prospect Road. and is presently anchored by a funeral parlour and a church.

There are no easements or encumbrances which have the ability to impede or avert the proposal altogether, and there are no regulated or significant trees for the proponents to contend with.

The combined frontage of the Subject Land to Prospect Road is approximately 55 metres and 49 metres to Pulsford Road and site area of approximately 2758 square metres.

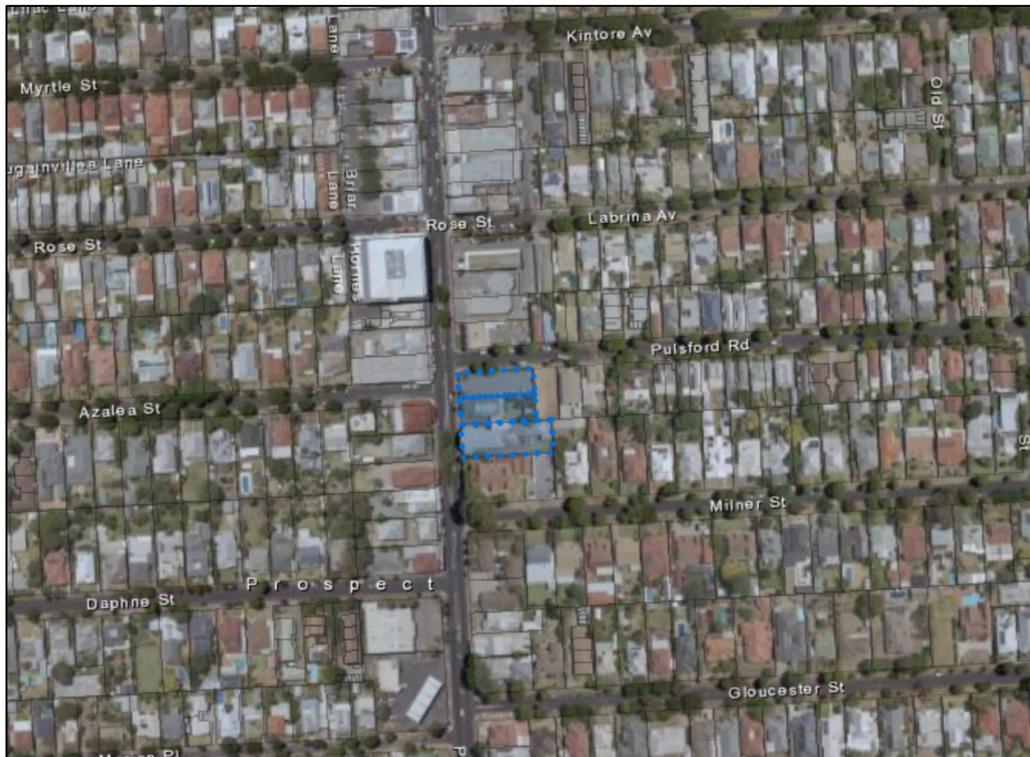
3.2 Locality

The locality comprises a mix of land uses and zoning. Immediately to the east of the Subject Land, is the zone boundary separating the Urban Corridor Zone with the Residential Zone on that part of the land presently comprising 69 Prospect Road. To the north, on the land presently comprising 71-73 Prospect Road, the Subject Land is separated from the Residential Zone by a single allotment that is within the Urban Corridor Zone.

To the west, north and south, the zoning is Urban Corridor.

Land uses within the locality include:

- Shops / restaurants;
- Offices;
- Consulting Rooms;
- Child Care Centre;
- Residential; and
- Cinema.



4. THE PROPOSED DEVELOPMENT

The proposed development comprises:

- Construction of a five-storey mixed use building comprising two ground floor retail tenancies (947 square metres) and 55 (14 x 1 bed, 36 x 2 bed and 5 x 3 bed) residential apartments;
- Basement and at ground level car park (110 x parking spaces) and storage areas;
- 20 x vertical bicycle parks;
- Public realm improvements to Prospect Road including landscaping and verge feature pavers;
- Communal gardens and seating area; and
- Waste enclosure.

4.1 Demolition

The existing buildings on the Subject Land will require demolition.

The demolition of these structures does not form part of this development application, as it is a form of 'development' which does not require development plan consent.

Procedural Matters

4.2 Relevant Authority

Pursuant to Schedule 10, Part 4C, Clause (1)(a)(iii) of the *Development Regulations* 2008, the State Commission Assessment Panel ('the Panel') is designated as the relevant authority for the proposed development as the Subject Land is within an Urban Corridor Zone the City of Prospect and the proposed building exceeds four-storeys in height.

4.3 Zoning



4.4 Assessment pathway

According to the 'Procedural Matters' Section of the Zone, the uses within the proposed building are neither complying nor non-complying.

The proposal must, therefore, be assessed and subsequently determined on its merits by the Panel in its capacity as the relevant authority.

4.5 Public notification

According to the 'Procedural Matters' Section of the Zone, the following forms of development, or any combination thereof, falls within the ambit of Category 1 development:

- Residential Flat Building; and
- Shop or group of shops with a gross leasable area of 2000 square metres or less located in the High Street, Policy Areas.

Further, whilst the proposed development is located on land adjacent a residential zone, it does not trigger the Category 2 public notification requirements as it does not exceed the 'Building Envelope – Interface Height Provisions'.

The proposal is, therefore, exempt from any form of public notification.

5. PLANNING ASSESSMENT

The following section provides an assessment of the proposal against the key relevant Development Plan Objectives ('OBJ') and Council Wide ('CW') and Zone Principles of Development Control ('PDC'). This assessment is grouped under headings addressing specific aspects of the proposed development.

5.1 Land Use

The proposed development involves the construction of a mixed-use building comprising shop/retail use on the ground floor and residential on the four, upper floors. The proposal plans, elevations, section and diagrams are attached at Appendix 1 and is summarised below.

5.1.1 Land Use Mix - Shops

The shops will:

- have a gross leasable floor area of 947 square metres (retail/café northern end 540 square metres, retail/café southern end 407 square metres);
- be located on the ground floor level;
- both shops will have orientation to, and visible from, Prospect Road while the northern shop will also activate the Pulsford Street corner frontage; and
- be accessible from Prospect Road, Pulsford Road and the lobby on the ground floor level.

5.1.2 Land Use Mix – Dwellings

The proposed building will accommodate 55 dwellings (equivalent to 199 dwellings per hectare) complying with Zone PDC 5 prescribing a minimum of 60 dwellings per hectare net.

There will be fifteen dwellings on Level 1, fifteen dwellings on Level 2, fourteen dwellings on Level 3 and eleven dwellings on Level 4.

Importantly, the building contains a variety of dwelling sizes and range of in the number of bedrooms per dwelling as envisaged by the Development Plan. A mix of dwelling sizes helps support a vibrant community, producing a more diverse range of residents and this increased population, density and vibrancy tends to mean a broader range of services can be supported within walking or cycling distance. Housing diversity also supports older residents by providing suitable and affordable housing options as they age – all within walking distance of destinations they are already familiar with.

The proposed development has a particular focus on quality of design and the quality of outcomes for the residents who will reside within it, as well as the community more generally who will view it from further afar.

5.2 Dwelling Composition

5.2.1 First Floor Level

The first-floor level will accommodate fifteen dwellings. The composition of these dwellings is set out in Figure 5.1 below.

Figure 5.1 – *Dwelling Composition on the First Floor Level*

Apartment No.	Floor Area (square metres)	Bedrooms	Private Open Space (square metres)	Car Parks
101	147	3	17	2
102	105	2	19	2
103	98	2	22	2
104	107	2	16	2
105	62	1	9	1
106	83	2	12	1
107	89	2	15	1
108	108	2	17	2
109	91	2	14	1
110	90	2	14	1
111	73	1	15	1
112	96	2	15	2
113	65	1	40	1
114	88	2	65	1
115	60	1	56	1

5.2.2 Second Floor Level

The second-floor level will accommodate fifteen dwellings. The composition of these dwellings is set out in Figure 5.2 below.

Figure 5.2 – *Dwelling Composition on the Second Floor Level*

Apartment No.	Floor Area (square metres)	Bedrooms	Private Open Space (square metres)	Car Parks
201	147	3	17	2
202	105	2	19	2
203	98	2	22	2
204	107	2	16	2
205	62	1	9	1
206	83	2	12	1
207	89	2	15	1
208	108	2	17	2
209	91	2	14	1
210	90	2	14	1
211	73	1	15	1
212	96	2	15	2
213	65	1	9	1
214	88	2	9	1
215	60	1	9	1

5.2.3 Third Floor Level

The third-floor level will accommodate fourteen dwellings. The composition of these dwellings is set out in Figure 5.3 below.

Figure 5.3 – *Dwelling Composition on the Third Floor Level*

Apartment No.	Floor Area (square metres)	Bedrooms	Private Open Space (square metres)	Car Parks
301	147	3	17	2
302	105	2	19	2
303	98	2	22	2
304	107	2	16	2
305	62	1	9	1
306	83	2	12	1
307	89	2	15	1
308	108	2	17	2
309	91	2	14	1
310	90	2	14	1
311	120	1	11	2
312	65	1	9	1
313	88	2	9	1
314	60	1	9	1

5.2.4 Fourth Floor Level

The fourth-floor level will accommodate eleven dwellings. The composition of these dwellings is set out in Figure 5.4 below.

Figure 5.4 – Dwelling Composition on the Fourth Floor Level

Apartment No.	Floor Area (square metres)	Bedrooms	Private Open Space (square metres)	Car Parks
401	140	3	48	2
402	106	2	40	2
403	124	2	88	2
404	95	2	31	2
405	97	2	30	2
406	124	3	77	2
407	68	1	21	1
408	107	2	33	2
409	65	1	9	1
410	88	2	9	1
411	60	1	9	1

5.3 Design and Appearance

The Desired Character Statement for the Zone and Policy Area provides guidance with respect to the external appearance of the proposed building.

It advises, in part, that “contemporary buildings and expressions are envisaged that complement the solid and lasting styles of the traditional built form of the area”.

It then goes on to call for “the use and combination of natural and durable materials and finishes (self-finished or pre-finished) that respond to the predominant attributes of the area, such as brick, stone and rendered finishes and architectural elements addressing entrances, windows and eaves”.

The proposed building will possess unified and carefully crafted façades which are visually interesting but not overpowering.

The lighter coloured masonry will give the proposed building a strong, natural and durable presence with contrasting elements on the upper-most storey, which when additionally being set back further than the lower four storeys, will visibly recess this element of the proposed building.

The strategic use and placement of vertical, horizontal and diagonal components including recessing the main entrance area to create the appearance of separate buildings, replicates the neighbouring allotment rhythm, breaks up the mass of the building to create visual interest and clearly defines the entry to the building.

The relatively high solid to void ratio on the upper levels pays homage to, without resorting to mimicry, of historical building styles whilst the ground level, with high ceiling to floor glass is unashamedly modern but will also add to the activation of Prospect Road and Pulsford Roads, and allow for passive surveillance to occur as envisaged by the desired character statement.

Verandas are provided to Prospect and Pulsford Roads providing a comfortable and intimate place for pedestrians. The proposal includes public realm works in the nature of landscaping and feature paving in the road reserve to provide a more pleasant street frontage for occupiers of the building and the public more generally through a beautified streetscape.

The focus of the proposed development has been on design quality not just for those who will gaze upon it from afar, but for those that will occupy it as their home or as a place to recreate in one of the retail / shop uses. A collaborative design review process has been undertaken in consultation with the Government Architect, the Design Review Panel, members from the Department of Planning, Transport and Infrastructure and the City of Prospect.

The Design Review process, through its focus on the qualitative aspects of the design and its interaction with the Development Plan have provided an outstanding outcome rather than a “planning by numbers” approach with a fixation on slavish adherence to quantitative provisions of the Development Plan. The process, in this particular development, has much to speak in its favour.

Particular care has been given to the treatment of the eastern façade of the building due to the interface with the more sensitive residential zone. Attention is drawn to the difference of the northern and southern ends of that façade, where the northern end is more visually permeable as the Subject land adjoins Urban Corridor Zone to the rear. The southern end of this elevation however is more discreet, more solid and casts its eye away from the residential area to the south east corner of the site.

Throughout the development of the concept for the proposed building, the applicant has consulted with the Office for Design and Architecture (ODASA), and ultimately has received the endorsement of the South Australian Government Architect which is attached as Appendix 8.

5.4 Private Open Space

CW PDC 153 provides guidance with respect to the private open spaces associated with the dwellings on Levels 1, 2, 3, and 4.

They advise that:

***PDC 153** Except where varied by zone and/or policy area provisions, dwellings located above ground level should provide private open space in accordance with the following table:*

Dwelling type	Minimum area of private open space
Studio (where there is no separate bedroom)	No minimum requirement
One bedroom dwelling	8 square metres
Two bedroom dwelling	11 square metres
Three + bedroom dwelling	15 square metres

In accordance with CW PDC 153:

- the one-bedroom dwellings will come equipped with more than 8.0 square metres of private open space;
- the majority of two-bedroom dwellings will come equipped with more than 11.0 square metres of private open space (noting that apartments 214, 313 and 410 are provided with 9.0 square metres); and
- the three-bedroom dwellings will come equipped with more than 15.0 square metres of private open space.

The minor departure from the quantitative requirement for private open space for three dwellings (out of 55) is not considered fatal to the application as the proposed building contains significant diversity of dwelling layout and forms giving potential occupants a choice of various layouts. There are also a large proportion of dwellings that significantly exceed the prescribed minimum private open space

5.5 Domestic Storage

Council Wide Principle 182 provides guidance with respect to domestic storage.

It advises that:

PDC 182 *Dwellings should provide a covered storage area of not less than 8 cubic metres in one or more of the following areas:*

- a) *In the dwelling (but not including a habitable room)*
- b) *In a garage, carport, outbuilding or an on-site communal facility and be conveniently located and screened from view from streets and neighbouring properties.*

All dwellings will be provided with a minimum of 8.0 cubic metres of storage through a combination of internal storage within each dwelling and the additional area provided in the storage cages within the basement. The storage cages measure 1.2 x 2.4 x 2.8m which all exceed the minimum required storage area of 8.0 cubic metres alone without factoring in internal storage in cabinetry within the apartments.

5.6 Floor to Ceiling Heights

The proposed floor to ceiling heights are set out in Table 5.1 below.

Table 5.1 *Floor to Ceiling Heights*

Building Level	Finished Floor Level	Floor to Ceiling Height
Basement	39.39 FSL	3.2 metres
Ground Floor	43.49 FSL	4.1 metres
First Floor	47.59 FSL	3.2 metres
Second Floor	50.79 FSL	3.2 metres
Third Floor	53.99 FSL	3.2 metres
Fourth Floor	60.39 FSL	3.2 metres

5.7 Building Height

Zone PDC 14 provides guidance with respect to the height of the proposed building.

It advises that:

PDC 14 *Except where airport building height restrictions prevail, the interface height provisions require a lesser height, or an alternative maximum building height is shown on Concept Plan (Figures Urc/1 to 6), building heights (excluding any rooftop mechanical plant, equipment or roof top garden) should be consistent with the following parameters:*

The proposed building exceeds the minimum building height prescribed for this part of the Zone (two storeys) by three storeys. It also exceeds the maximum building height prescribed for this part of the Zone (four storeys and up to 15.0 metres) by one storey and up to, but not exceeding, 3.4 metres.

We do not consider the additional height to be an issue for several reasons.

Policy Area	Minimum Building Height	Maximum Building Height
Boulevard	2 storeys	4 storeys and up to 15 metres
High Street	2 storeys	4 storeys and up to 15 metres
Transit Living	1 storey	3 storeys and up to 11.5 metres
Business	2 storeys	4 storeys and up to 15 metres, except on allotments fronting Highbury Street where a 2 storey maximum applies

First, the proposed building complies with the ‘Building Envelope – Interface Height Provisions’. This, in our opinion, is the key test, as this Envelope seeks to control the mass of development at the interface between the Urban Corridor Zone to the west and the Residential Zone to the east.

Second, the closest portion of Level 4 to the dwelling on the adjoining allotment to the east is approximately 23.0 metres away. It should be further noted that that the majority of the building is adjacent an allotment that is within the Urban Corridor.

Third, the external walls of Level 4 will be clad with dark, matt-finished materials and set back 2.8 metres at the closest point (average setback 3.5 metres) from the primary boundary, 4.0 metres from the secondary boundary (façade set back 6.0 metres), 6.0 metres from the southern (side) boundary and between 15.0 - 23.0 metres from the eastern (rear) boundary to ensure that it remains inconspicuous from all angles.

Fourth, Level 4 is recessed and partially obscured by the presence of a balcony element as it presents to both Prospect and Pulsford Roads.

Fifth, the proposed building will not cast a single shadow over the north facing habitable room windows or the private open space associated with the dwelling on the adjoining allotment to the east between 9:00 am and 12:00 pm on the winter solstice.

Sixth, the Desired Character Statement for the Policy Area advises, in part, that “*development on Prospect Road will be large in scale and height*”.

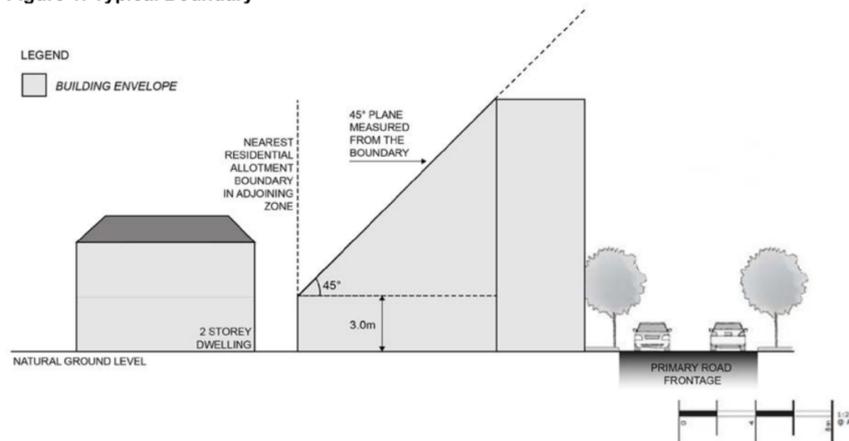
5.8 Interface and Setbacks

Zone PDC 15 provides guidance with respect to the distance between the proposed building and the eastern (rear) boundary of the land.

It advises that:

PDC 15 *To minimise building massing at the interface with residential development outside of the zone, buildings should be constructed within the following building envelopes provided by a 45 degree plane, measured from a height of 3 metres above natural ground level at the zone boundary (except where this boundary is a primary road frontage) as illustrated in Figure 1:*

Figure 1: Typical Boundary



It is also clear from the northern street elevation at Appendix 1 that:

- the eastern side of Levels 1 and 2 will be set back further than 3.0 metres from the eastern (rear) boundary of the land; and
- the eastern side of Levels 3, 4 and 5 will be set back further than 6.0 metres from the eastern (rear) boundary of the land.

Zone PDC 19 provides guidance with respect to the distance between the proposed building and the southern (side) boundary of the land.

It advises that:

PDC 19 *Buildings (excluding verandas, porticos, balconies and the like) should be set back in accordance with the following parameters:*

Designated Policy Area	Minimum setback from rear allotment boundary where not on a zone boundary	Minimum setback from allotment boundary where on a zone boundary	Minimum setback from side boundary where not on a street or zone boundary)*
Boulevard, High Street, Transit Living, and Business	3 metres	3 metres if the closest portion of building when viewed from the boundary is distinctly 2 storeys or less. 6 metres in all other cases	Irrespective of height, no minimum on boundary, within 18 metres from the front property boundary. No minimum for remaining length for the ground level only. More than 18 metres from the front property boundary, 1st level and above (ie above ground level) should be setback 2 metres).

* Assumes the building fronting the boundary has no window/s or balcony/s.

The proposed building complies with the above requirement.

With respect to the street frontage setbacks, primary and secondary, the proposed development complies with Zone PDC 17 and 18.

5.9 Overshadowing

Zone PDC 16 provides that new developments should minimise overshadowing of “sensitive” uses outside of the zone. To satisfy this requirement, the Development Plan provides the following guideline to assist proponents with compliance of this requirement:

PDC 16 *To minimise overshadowing of sensitive uses outside the zone, buildings should ensure that:*

- a) *North-facing windows to habitable rooms of existing dwellings in adjacent zones receive at least 3 hours of direct sunlight over a portion of their surface between 9:00am and 3:00pm on 21 June;*
- b) *Ground level open space of existing residential buildings in adjacent zones receive direct sunlight for a minimum of 2 hours between 9:00am and 3:00pm on June 21 to at least the smaller of the following:*
 - i. *Half of the existing ground level open space; or*
 - ii. *35 square metres of the existing ground level open space (with at least one of the area’s dimensions measuring 2.5 metres).*

The proposal meets these guidelines as shown at Appendix 1 (Drawing Number P-13), more particularly there will be no impact in terms of overshadowing between 9:00am and 12:00pm during the winter solstice.

5.10 Access, Car Parking and Traffic

The proposed development has been assessed by Cirqa Consulting engineers who have prepared a Traffic Impact Assessment attached as Appendix 2.

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

- Existing traffic and parking conditions surrounding the site;
- Parking demand likely to be generated by the proposed development;
- Suitability of the proposed parking in terms of supply (quantity) and layout;
- Bicycle parking demand;
- Proposed access and egress arrangements for the site; and
- Post-development transport impact of the development proposal on the surrounding road network.

5.10.1 Carpark Supply and Layout

Cirqa note that the parking layout has been generally designed in accordance with Australian Standard/New Zealand Standard for Off Street Car parking (AS/NZS2890.1:2004) and the Australian Standards for Off-Street Commercial Vehicle Facilities (AS/NZS2890.6:2009). There will be two parking spaces reserved exclusively for use by people with disabilities provided within the at-grade parking area.

The Development Plan prescribes the following vehicle parking requirements:

- Non-residential development – 3-5 spaces per 100 square metres of gross leasable floor area; and
- Residential development in the form of multi-storey buildings – 1 space per studio, 1 or 2 bedrooms dwelling and 1.25 spaces per 3 or more-bedroom dwellings plus 0.25 visitor spaces per dwelling.

Based on the Development Plan requirements, the proposal will generate a theoretical demand of 70 car parking spaces for the residential component and 29 (minimum) and 48 (maximum) parking spaces for the non-residential component.

The provision of 110 car parks easily satisfies the quantitative requirement for a minimum of 99 parking spaces as envisaged by the Development Plan.

The dwellings will have designated parking spaces within the basement parking area while the commercial tenancies at ground level will have parking available at grade (30 spaces).

5.10.2 Traffic Generation

Traffic movements generated by the development, which are estimated to be in the order of 77 trips in the AM peak hour and 84 trips in the PM peak period. The SIDRA modelling undertaken by Cirqa indicates the intersection of Prospect and Pulsford Roads will readily accommodate the increased traffic generation.

5.10.3 Access

With respect to access arrangements, the Development Plan provides:

PCD 12 *Development should minimise the number of access points onto an arterial road, by providing vehicle access:*

- a) From side streets or rear access ways;*
- b) Via co-ordinated through-property access rights of way or common rear vehicle parking areas.*

As encouraged by Zone PDC 12, the proposed development minimises the number of access points onto an arterial road by providing vehicle access from Pulsford Road and removing the existing direct vehicle access to/from Prospect Road. This is considered an optimal outcome.

5.10.4 Bicycle Parking

The Off-street Bicycle Parking for the Urban Corridor Zones Table Pr/6 in the Development Plan identifies the following bicycle parking requirements as they relate to the proposed development:

- Residential component of a multi-storey building – 1 resident space for every 4 dwellings plus 1 visitor space for every 10 dwellings; and
- Shop – 1 employee space for every 300 square metres of gross leasable floor area.

Based on the above rates, there is a theoretical demand for 24 bicycle spaces for residents, staff, residential visitors and shoppers. The provision of 24 publicly accessible bicycle parking spaces meets the minimum requirement of the Development Plan, but additionally, the provision of secure basement storage areas will allow further usage of bicycles for both residents and the occupiers of the commercial component of the proposed development.

5.11 Affordable Housing

Principle 1 of the 'Affordable Housing' Overlay provides guidance with respect to the number of dwellings within the proposed building which should be set aside as 'affordable housing'.

It advises that:

- 1 *Development comprising 20 or more dwellings should include a minimum of 15 percent affordable housing.*

The fourteen (14) one bedroom dwellings (but still with one car park) have been designed and priced to meet the 'affordable housing' criteria. The one bedroom dwellings represent 27% of the total dwellings within the building.

5.12 Waste

The Waste Management Statement is attached as Appendix 3 providing calculated demand for waste disposal based upon the Better Practice Guide – Waste Management for Residential and Mixed Use Development Table C2: Waste Resource Generation Rates, produced by Zero Waste SA.

General waste and co-mingled recycling will be transported to the ground floor waste room of each building via separate bin chutes from the residential floors, thereby avoiding the need for occupants to transport waste in lifts. Green organics waste reception will be available on each floor and transported by the facility manager to bins on the ground floor.

All waste will be temporarily stored within the confines of the 'waste room' on the ground floor level. The 'waste room' has been designed to accommodate:

- two chutes for putrescibles and recyclables;
- six (6), 660 litre bins and five (5), 1100 litre bins for putrescibles;
- five (5), 660 litre bins and four (4), 1100 litre bins for recyclables;
- one (1), 240 litre bin and five (5) 660 litre bins for green waste; and
- eWaste storage room comprised 42.35m³ collected once a year.
- an area to rinse the bins and to temporarily store hard waste.

In accordance with CW PDC 184 as there will be more than 10 bins to be collected kerbside any one-time provision on-site provision of waste disposal is proposed. This will be managed by the tenancy community corporation and will occur once a week during the day at a similar time to Council pick-up.

The retail and café uses on the ground floor have direct access to a separate refuse area. All waste types will be removed twice a week. Waste will be collected during the day at a similar time to the Council collection in the area.

The bins will be collected, emptied and returned via the proposed on-site loading bay located in the heart of the proposed building. Vehicle turn paths show all refuse vehicle movements can be made in a forward direction as per Figure 3 of the Cirqa report attached as Appendix 2.

5.13 ESD Principles

The proposed development has been assessed by SUHO against the environmental considerations and principles of development control contained in the Development Plan and is attached as Appendix 4.

Council Wide Principles 34 and 36 provide guidance with respect to the energy efficiency of the proposed building.

They advise that:

PDC 34 *Development should provide for efficient solar access to buildings and open space all year around.*

PDC 36 *Development should facilitate the efficient use of photovoltaic cells and solar hot water systems by:*

- a) *taking into account overshadowing from neighbouring buildings;*
- b) *designing roof orientation and pitches to maximise exposure to direct sunlight.*

Because of the “U” shape of the proposed building, direct sunlight can penetrate the heart of the building allowing all apartments will receive direct sunlight at various points of a day.

The dwellings, balconies and terraces on the northern side of the proposed building will receive direct access to sunlight all year around.

The dwellings, balconies and terraces on the eastern and western sides of the proposed building will receive direct access to sunlight during the morning and afternoon respectively.

The dwellings, balconies and terraces on the southern side of the proposed building, due to their layout will also receive direct access to sunlight early in the morning and late in the afternoon depending on whether the dwelling is on the western or eastern corner of the building.

The building has been designed to allow for high levels of natural ventilation with all bedrooms and living spaces containing openable windows. Common areas such as lifts and corridors will be naturally ventilated via accessible balconies.

The roof will be designed to structurally withstand the installation of large solar panel array in the future, noting that there is no building to the north due to the juxtaposition of Pulsford Road on that side of the building ensuring that none of the existing buildings within the vicinity of the Subject Land are close or tall enough to pose a problem as far as overshadowing is concerned.

The proposed development complies with the ESD principles as envisaged by the Development Plan.

5.14 Stormwater

CW PDC 264-267 provides guidance with respect to the management of stormwater.

It advises that:

***PDC 264** Development should include stormwater management systems to protect it from damage during a minimum of a 1-in-100-year average return interval flood.*

***PDC 264** Development should have adequate provision to control any stormwater over-flow runoff from the site and should be sited and designed to improve the quality of stormwater and minimise pollutant transfer to receiving waters.*

***PDC 266** Development should include stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure the carrying capacities of downstream systems are not overloaded.*

***PDC 267** Development should include stormwater management systems to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system.*

The preliminary stormwater assessment at Appendix 5 confirms that this development can and will be designed to ensure that the post-development discharge flows can be accommodated to ensure downstream systems are not overloaded.

All roof and balcony catchment areas will be directed to stormwater detention tanks. All surface water will bypass detention and be discharged to the street.

Further, carpark drainage surface water will be collected via a FleXstorm Pure Inlet Filter (or equivalent) to remove suspended solids and hydrocarbons from the surface water collected, thereby improving the quality of stormwater and minimising pollutant transfer to receiving waters.

Accordingly, the carrying capacity of the existing stormwater drainage network will not be burdened by the proposed development.

5.15 Noise

Resonate Consultants ('Resonate') were commissioned by the proponents to assess and comment on the acoustic performance of the proposed building.

Resonate's assessment and subsequent recommendations can be found at Appendix 6 and, if followed, will ensure that the proposed building complies with the relevant assessment criteria.

5.16 Overlooking

The desired character statement for the Zone nominates “overlooking and preservation of adjacent privacy / amenity” as issues of paramount importance to the community of the City of Prospect. Further, Zone PDC 8 provides that “Overlooking should be prevented within an area of 45 metres and minimised beyond 45 metres, as measured from the site property boundary.”

It is clear from Drawing P-15 at Appendix 1 that:

- Section 1 shows levels 1-4 have high level windows or frosting to lower portion of glass; and
- Section 2 shows that the building has significant setbacks from rear zone boundary (in excess of 35.0 metres) through this part of the building, hoods below openings will restrict overlooking even further and Level 1 balcony will have a planter box to control overlooking to the east;
- Section 3 shows the presence of a blade wall will restrict overlooking to the east and focus views to the north. Although the window frame at the eastern end of each corridor will be fitted with clear glass, we do not consider this be an issue for three reasons.

The design response to overlooking has been carefully considered, in particular:

- Lines of sight will be severely restricted by the balconies and terraces on the eastern side of the proposed building, and by the provision of planter boxes to the Level 1 balconies;
- Mature trees in the deep root landscape zone and further landscaping along the boundary fence between the Subject Land and the residential property to the south-east are proposed;
- A balance has been struck between the prevention of overlooking and unreasonably compromising the amenity enjoyed by occupants of the proposed building where their outlook would be removed and their access to natural light would be diminished.

5.17 Wind Impacts

Windtech Consultants were commissioned by the proponents to consider and report on the wind-related impacts of this development.

Whilst Windtech’s findings can be found at Appendix 7 it is most important for the Panel to note that wind-related impacts can all be managed within acceptable tolerances.

5.18 Public Realm

At the time of the preparation of this planning statement, the applicant had commenced negotiations with the city of Prospect to undertake public realm works including the provision of feature paving and planter box landscaping on the footpath area. The applicant proposes to enter into an agreement with the City of Prospect under Section 221 of the Local Government Act to undertake works on Council land to facilitate this outcome.

5.19 Landscaping

The curtilage of the proposed building will be neatly landscaped. So too for that matter will the balconies and terraces on all sides of the proposed building.

Whilst the type and extent of landscaping proposed is shown on the detailed landscaping plans at Appendix 1, it is worth noting that a handful of plants have been chosen based on their:

- ability to tie in with the public realm;
- suitability to local conditions;
- aesthetic qualities;
- low maintenance; and
- propensity to drop leaves.

The proposal includes a deep root zone to accommodate the planting of trees that will grow to a larger size upon maturity to the rear of the building providing screening for potential overlooking and a physical barrier to the allotments to the rear.

A garden feature in the lobby area is proposed, together with communal seating adding visual interest to the entrance together with communal seating spaces and landscaping at the entry/exit area of the lifts on each of the floors within the building.

6. CONCLUSION

We have concluded from our detailed and balanced assessment of the proposal that it is worthy of development plan consent. In support of our conclusion, we wish to highlight that:

- the proposal will, as sought by the Desired Character Statement for the Zone, “contribute to the economic and community vitality of the City by increasing the density and diversity of housing, businesses and other services offered to residents and the wider community”;
- all uses are envisaged, and their spatial arrangement within the proposed building is consistent with the Desired Character Statement for the Policy Area;
- the mix of uses will combine “to create a destination that attracts people for a variety of reasons”;
- the net density of this development comfortably exceeds the relevant minimum quantitative guideline;
- the proposed building, unlike many others along Prospect Road, will contain a variety of dwellings;
- the siting and vertical profile of the proposed building is acceptable;
- the external appearance of the proposed building will be striking yet unified;
- neither the habitable room windows nor the private open space associated with the dwelling on the adjoining allotment to the east will be overlooked;
- the north facing windows and private open space associated with the dwelling on the adjoining allotment to the east will continue to receive direct access to sunlight for three consecutive hours between 9:00 am and 12:00 pm on the winter solstice;
- the prospective residents will not be subjected to an unreasonable amount of noise;
- no new crossovers are proposed or required along Prospect Road;
- more than the minimum amount of parking for motor vehicles will be provided within the confines of the land;
- more than the recommended amount of parking for bicycles will be provided within the confines of the land;
- neither the volume nor the type of traffic that is expected to be generated by this development will have an adverse effect on the surrounding road network;
- the proposed building will not create, or be exposed to, unacceptable wind conditions;
- stormwater and waste will be dealt with in an environmentally sound manner;
- the curtilage of the building, and all of the balconies and terraces will be neatly landscaped;
- substantial investment in the public realm through landscaping and feature paving will be provided to the Council on Prospect and Pulsford Roads;
- provision of more than the minimum number of dwellings under the ‘affordable housing’ threshold;
- the proposed building will be energy efficient for years to come; and
- the balconies and terraces on the northern, southern and western sides of the proposed building will allow for passive surveillance to occur.



APPENDIX 1. PLANS, ELEVATIONS, SECTIONS, DIAGRAMS AND LANDSCAPING PLANS



APPENDIX 2. TRAFFIC AND PARKING REPORT



APPENDIX 3. WASTE MANAGEMENT STATEMENT



APPENDIX 4. SUSTAINABILITY STATEMENT



APPENDIX 5. STORM WATER MANAGEMENT REPORT



APPENDIX 6. ACOUSTIC ADVICE



APPENDIX 7. PEDESTRIAN WIND ENVIRONMENT STATEMENT



APPENDIX 8. PRE-LODGEMENT AGREEMENT
SOUTH AUSTRALIAN GOVERNMENT ARCHITECT

Resonate |

69-73 Prospect Road, Prospect - Mixed Use Development

Minister's Specification SA 78 Acoustic Advice

A190442RP1 Revision A

Friday, 27 September 2019



Document Information

Project	69-73 Prospect Road, Prospect - Mixed Use Development
Client	Dellta Projects
Report title	Minister's Specification SA 78 Acoustic Advice
Project Number	A190442

Revision Table

Report revision	Date	Description	Author	Reviewer
0	23 July 2019	First Issue	Deb James	Darren Jurevicius
A	27 September 2019	Updated issue	Deb James	Darren Jurevicius

Glossary

'A' Weighted	A spectrum adaption that is applied to measured noise levels to represent human hearing. A-weighted levels are used as human hearing does not respond equally at all frequencies.
Building envelope	means those parts of a building's fabric that separate an internal <i>habitable room</i> from the exterior of the building. Reference to <i>building envelope</i> includes parts of a <i>building envelope</i> —From SA 78B.
dB	Decibel—a unit of measurement used to express sound level. It is based on a logarithmic scale which means a sound that is 3 dB higher has twice as much energy. We typically perceived a 10 dB increase in sound as a doubling of that sound level.
dB(A)	'A' Weighted sound level in dB.
Designated sound source	means a sound source identified in a council Development Plan—From SA 78B.
Designated sound source level	means a prescribed sound level for a transport corridor to be used in proposing an <i>Alternative Solution</i> —From SA 78B.
Designated sound source spectral adjustment levels	means a prescribed sound level adjustment to be made to the <i>designated sound source level</i> for the purpose of calculating the <i>facade noise reduction</i> across the <i>building envelope</i> —From SA 78B.
External glass door	Means an external door with greater than 40% of the door area being glass—From SA 78B.
Facade sound reduction	means the reduction in external to internal sound level provided by the <i>building envelope</i> —From SA 78B.
Floor area	means, in relation to a room, the area of the room measured within the finished surfaces of the walls, and includes the area occupied by any cupboard or other built-in furniture, fixture or fitting—From SA 78B.
$L_{eq,1hr}$	Means the energy averaged equivalent sound level, averaged over a one hour time period—From SA 78B.
R_w	Weighted Sound Reduction Index—means a measure of the sound attenuation performance of a building element, measured in controlled conditions in a laboratory—From SA 78B.
R_w+C_{tr}	means a weighted sound reduction index with spectrum adaptation placing greater emphasis on low frequency performance—From SA 78B.
Separation distance	means the shortest distance (to the nearest metre), from an existing or future <i>designated sound source</i> to the nearest exposed point of the <i>building envelope</i> bounding a <i>habitable room</i> —From SA 78B.
Sound Exposure Category (SEC)	means the degree to which a <i>habitable room</i> within a building is likely to be affected by external sound received by the <i>building envelope</i> —From SA 78B.

Table of Contents

1	Introduction.....	1
2	Proposed development.....	2
3	Development Plan	3
4	Noise intrusion assessment.....	4
4.1	Sound exposure category.....	4
4.2	Sound insulation ratings	5
4.3	Construction requirements	6
4.3.1	External walls.....	6
4.3.2	Windows & external glass doors.....	6
4.3.3	Level 4 roof and ceiling.....	8
4.3.4	SEC 4—Ventilation.....	8
4.4	General construction requirements—All SECs.....	9
4.4.1	Non-habitable rooms adjoining habitable rooms	9
4.4.2	Penetrations.....	9
4.4.3	Sheeting materials	9
5	Conclusion.....	10



1 Introduction

This report outlines a Minister's Specification SA 78B acoustic assessment for the proposed development at 69 – 73 Prospect Road, Prospect. It details the acoustic criteria and recommended external construction requirements for this proposed development.

The acoustic requirements are based on:

- Prospect Council Development Plan (consolidated 13 February 2018)
- Minister's Specification SA 78B *Construction Requirements for the Control of External Sound*.

2 Proposed development

The proposed development is located at 69 – 73 Prospect Road, Prospect. The location of the site with respect to existing buildings and roads is shown in Figure 1.



Figure 1 Proposed site location with respect to existing buildings and roads

The proposed development is mixed use, with commercial uses on the ground floor and residences on the first to fourth floors.

3 Development Plan

The proposed development is located within the Prospect Council Area and the development should have regard to the Development Plan.

The site is located in a 'Designated Area' and Prospect Road is a 'Designated Road: Type B road' in the Noise and Air Emissions overlay in the Development Plan. Relevant Objectives and Principles of Development Control for sites affected by the overlay are:

OBJECTIVES

Objective 1: Protect community health and amenity from adverse impacts of noise and air emissions.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Noise and air quality sensitive development located adjacent to high noise and/or air pollution

sources should:

- (a) shield sensitive uses and areas through one or more of the following measures:
 - (i) placing buildings containing less sensitive uses between the emission source and sensitive land uses and areas
 - (ii) within individual buildings, place rooms more sensitive to air quality and noise impacts (e.g. bedrooms) further away from the emission source
 - (iii) erecting noise attenuation barriers provided the requirements for safety, urban design and access can be met
- (b) use building design elements such as varying building heights, widths, articulation, setbacks and shapes to increase wind turbulence and the dispersion of air pollutants provided wind impacts on pedestrian amenity are acceptable
- (c) locate ground level private open space, communal open space and outdoor play areas within educational establishments (including childcare centres) away from the emission source.

Application of Minister's Specification SA 78B *Construction Requirements for the Control of External Sound* will demonstrate compliance with the PDCs relating to the Noise and Air Emissions overlay.

4 Noise intrusion assessment

4.1 Sound exposure category

SA 78B specifies minimum construction requirements for building facades based on a 'sound exposure category' (SEC), which is determined based on the site's location in a 'designated area' and the separation distance to a 'designated road'.

The subject site is located within a 'designated area' and is located along Prospect Road, being a Type B road.

The minimum SEC for the development is SEC 1 as it is in a 'designated area'.

For Prospect Road, the relevant SEC for different separation distances to the road are shown in Table 1. Note that these requirements may be considered as the worst case scenario as:

- facades that are not directly exposed to the road will have less onerous requirements than those facing the road (the specified SEC assumes that the facades are directly facing the road)
- shielding provided by other buildings in the area will reduce the noise impact from Prospect Road.

Table 1 Relevant sound exposure categories based on separation distances for Type B Roads (50 – 60 km/hr)

Sound exposure category	Separation distance from road (m) ⁽¹⁾
No treatment required	> 60 m
1	35 < 60 m
2	20 < 35 m
3	10 < 20 m
4	< 10 m
5	N/A

(1) Distance from 3 m within the transport corridor boundary.

The applicable SEC are indicated on the floor plan markup attached in Appendix A—Floor plan markups.

4.2 Sound insulation ratings

The appropriate sound insulation ratings for the different relevant SECs are outlined in Table 2.

Table 2 Minimum acoustic requirements for habitable rooms

SEC	Building element	Location	Acoustic rating
1	External walls	All habitable rooms	$R_w + C_{tr} \geq 45$
	Windows & external glass doors	Refer to Table 3	
2	Ground floor	All habitable rooms	$R_w + C_{tr} \geq 50$
	External walls	All habitable rooms	$R_w + C_{tr} \geq 50$
	Windows & external glass doors	Refer to Table 3	
	External doors other than glass doors	All habitable rooms	$R_w \geq 27$
	Roof and ceiling	Bedrooms	$R_w + C_{tr} \geq 35$
3	Ground floor	All habitable rooms	$R_w + C_{tr} \geq 50$
	External walls	All habitable rooms	$R_w + C_{tr} \geq 50$
	Windows & external glass doors	Refer to Table 3	
	External doors other than glass doors	All habitable rooms	$R_w \geq 30$
	Roof and ceiling	Bedrooms	$R_w + C_{tr} \geq 40$
All other habitable rooms		$R_w + C_{tr} \geq 35$	
4	Ground floor	All habitable rooms	$R_w + C_{tr} \geq 50$
	External walls	All habitable rooms	$R_w + C_{tr} \geq 50$
	Windows & external glass doors	Refer to Table 3	
	External doors other than glass doors	All habitable rooms	$R_w \geq 30$
	Roof and ceiling	Bedrooms	$R_w + C_{tr} \geq 45$
All other habitable rooms		$R_w + C_{tr} \geq 40$	
5	Outside the scope of the Deemed-to-Satisfy Provisions. Buildings are required to be assessed against the Performance Requirements in B3 in accordance with B5 of SA 78B.		

The sound insulation ratings for windows and external glass doors are outlined in Table 3 based on the area of the window/glass door based on floor area.

Table 3 Minimum acoustic requirements for windows and external glass doors

Room	Area of window and external glass doors as a percentage of the floor area of the room	Designated sound exposure category				
		1	2	3	4	5
Bedroom and attached non-habitable rooms	Not more than 20%	25	28	31	34	37 ₍₁₎
	More than 20% but not more than 40%	28	31	34	37 ₍₁₎	*
	More than 40% but not more than 60%	31	34	37 ₍₁₎	*	*

Room	Area of window and external glass doors as a percentage of the floor area of the room	Designated sound exposure category				
		1	2	3	4	5
	More than 60% but not more than 80%	34	37 ⁽¹⁾	*	*	*
	More than 80%	37	*	*	*	*
Habitable rooms (other than bedrooms and enclosed kitchens) and attached non-habitable rooms	Not more than 20%	22	25	28	31	34
	More than 20% but not more than 40%	25	28	31	34	37 ⁽¹⁾
	More than 40% but not more than 60%	28	31	34	37 ⁽¹⁾	*
	More than 60% but not more than 80%	31	34	37 ⁽¹⁾	*	*
	More than 80%	34	37 ⁽¹⁾	*	*	*

Notes: (1) An $R_w + C_{tr}$ 37 rating is not specified in SA 78B; however, it is appropriate considering the incremental increase in ratings and SEC levels and the $R_w + C_{tr}$ 37 rating specified for SEC 1 bedrooms with a window area of more than 80% of the floor area.

* Windows and external glass doors are outside the scope of the Deemed-to-Satisfy provisions.

4.3 Construction requirements

4.3.1 External walls

The proposed external wall construction is:

- 150 mm concrete
- air gap
- R2.0 insulation
- 1 x 13 mm plasterboard internal lining.

This above construction will achieve the $R_w + C_{tr}$ 50 requirement for all SECs.

4.3.2 Windows & external glass doors

The window and external glass door constructions should be as detailed in Table 4 and Table 5 respectively or acoustically equivalent, referencing the minimum acoustic ratings as outlined in Table 3. The required ratings are as shown in Appendix A—Floor plan markups. All windows and doors are to be in an aluminium or timber frame, employing fixed or operable sash.

Table 4 Acceptable forms of window construction

$R_w + C_{tr}$ rating	Window construction
22	3 mm thick monolithic or laminated glass with sliding or double hung type opening
25	3 mm thick monolithic or laminated glass with awning type opening
28	6 mm thick monolithic or laminated glass with sliding or double hung type opening
31	6 mm thick monolithic or laminated glass with awning type opening
34	10 mm thick monolithic or laminated glass with awning type opening
37	12.5 mm VLam Hush (or acoustically equivalent acoustic glass with R_w 40 rating) with awning type opening

R _w + C _{tr} rating	Window construction
40	12.5 mm VLam Hush (or acoustically equivalent acoustic glass with R _w 40 rating) fixed
43	Double glazing 12.5 mm VLam Hush / 16 mm cavity / 8.5 mm VLam Hush fixed

Table 5 Acceptable forms of external glass door construction

R _w + C _{tr} rating	External glass door construction
28	5 mm or 6 mm thick monolithic or laminated glass sliding door
31	5 mm or 6 mm thick monolithic or laminated glass side-hung door
31	10 mm thick monolithic or laminated glass sliding door
34	10 mm thick monolithic or laminated glass side-hung door
37	12.5 mm VLam Hush (or acoustically equivalent acoustic glass with R _w 40 rating) sliding door
40	12.5 mm VLam Hush (or acoustically equivalent acoustic glass with R _w 40 rating) hinged door
43	Double glazing 12.5 mm VLam Hush / 16 mm cavity / 8.5 mm VLam Hush hinged door

Glass in external doors must be set and sealed in an airtight non-hardening sealant or a soft elastomer gasket or glazing tape.

All openable windows and doors are to have the following or acoustically equivalent seals:

- windows awning style with rubber compression seals around the perimeter such as Schlegel Q-Lon T-Slot seals, or sliding with seals as indicated for the sliding doors
- sliding doors are to have:
 - Schlegel Q-Lon T-Slot seals on the lock and mullion
 - Schlegel Fin-Seal on the rails
- hinged doors are to have:
 - high quality rubber contact seals for the head and the jambs acoustically equivalent to Kilargo IS1212/1515 or Raven RP120/150
 - dropdown seal at the bottom acoustically equivalent to Kilgaro IS8090si or Raven RP38.

Alternatively, the window and/or door manufacturer can verify that the door will achieve the required R_w + C_{tr} rating.

There will be additional non-glazed elements between the windows onto decks, and these elements are proposed to have the following lightweight construction:

- Metal cladding
- Air gap
- R2.5 insulation
- 1 x 13 mm plasterboard.

This lightweight element should have (as a minimum) the same acoustic rating as the glass as noted above and in Appendix A—Floor plan markups. Based on the proposed construction, the lightweight element construction should be as detailed in Table 6.

Table 6 Acceptable forms of lightweight solid element construction

R _w + C _{tr} rating	Lightweight solid element
25	<ul style="list-style-type: none"> • Metal cladding • Air gap
28	<ul style="list-style-type: none"> • R2.5 insulation • 1 x 13 mm plasterboard
31	As above using 1 x 13 mm fire rated plasterboard (in lieu of 1 x 13 mm standard plasterboard)
34	As above using 2 x 13 mm fire rated plasterboard (in lieu of 1 x 13 mm standard plasterboard)

4.3.3 Level 4 roof and ceiling

The recommended constructions for Level 4 roof and ceiling are outlined in Table 7. Note that acoustically equivalent constructions can be adopted; however, the constructions are provided as a guide as to the types of constructions required.

Table 7 Example roof and ceiling constructions for Level 4

Location	Example roof and ceiling constructions	Acoustic criteria
Sound Exposure Category 3		
Living and dining	<ul style="list-style-type: none"> • Metal deck roof • Building blanket • Ceiling cavity of approximately 800 mm • 1x10 mm plasterboard suspended ceiling 	R _w + C _{tr} ≥ 35
Bedrooms	<ul style="list-style-type: none"> • Metal deck roof • Building blanket • Ceiling cavity of approximately 800 mm • 1x13 mm sound rated plasterboard suspended ceiling 	R _w + C _{tr} ≥ 40
Sound Exposure Category 2		
Bedrooms	<ul style="list-style-type: none"> • Metal deck roof • Building blanket • Ceiling cavity of approximately 800 mm • 1x10 mm plasterboard suspended ceiling 	R _w + C _{tr} ≥ 35

4.3.4 SEC 4—Ventilation

A mechanical ventilation system must be installed for SEC 4 as follows:

- A ventilation system installed to serve all *habitable rooms*, in accordance with the NCC and complying with AS 1668.2 - *The use of mechanical ventilation and air-conditioning in buildings*; and
- Relief air paths (or evaporative air conditioning) must be fully ducted to allow operation of the system with windows and external doors closed; and
- The fresh air (or make up air) inlets and exhaust air outlets shall be at a point on the building furthest from the designated sound source where practicable.

4.4 General construction requirements—All SECs

These general requirements apply for all SECs and should be read in conjunction with the relevant construction requirements outlined above.

4.4.1 Non-habitable rooms adjoining habitable rooms

Non-habitable rooms that adjoin a habitable room, and are bounded by a part of the building facade that is exposed to a designated sound source, must either be:

- completely separated from the habitable room with walls and doors having an R_w of at least 45, or
- must be treated as a habitable room.

Non-habitable rooms include walk-in wardrobes, ensuites and enclosed kitchens. Where these spaces are part of an open plan arrangement with adjoining habitable rooms, such as a bedrooms or living/dining areas they need to be treated as a habitable room.

4.4.2 Penetrations

Where any services, such as air conditioning units, ventilation device or ductwork, pass through a building element with an acoustic rating, the penetration must not diminish the acoustic rating of the wall.

Where pipes, ducts, or conduits or the like, pass through a building element with an acoustic rating, the penetration must be caulked or filled with mortar.

4.4.3 Sheeting materials

Sheeting materials, such as plasterboard and the like, must:

- be installed so that if two layers are required, the second layer must be fastened over the first layer so that the joints do not coincide with those of the first layer, and
- have all joints between sheets or between sheets and any adjoining construction, taped and filled solid.

5 Conclusion

An external noise intrusion assessment has been undertaken for the proposed mixed used development at 69 – 73 Prospect Road, Prospect. The assessment has taken into account the relevant noise intrusion requirements of the Prospect Council Development Plan and Minister's Specification SA 78B.

This assessment has demonstrated the following:

- The site is located in a 'Designated Area' and Prospect Road is a 'Designated Road: Type B road' in the Noise and Air Emissions overlay in the Prospect Council Development Plan
- Compliance with the Minister's Specification SA 78B *Construction Requirements for the Control of External Sound* will demonstrate compliance with the PDCs relating to the Noise and Air Emissions overlay.
- Facade noise mitigation treatments detailed in this report are suitable to attenuate noise intrusion from traffic on Prospect Road and general noise in the area in accordance with Minister's Specification SA 78B *Construction Requirements for the Control of External Sound*.

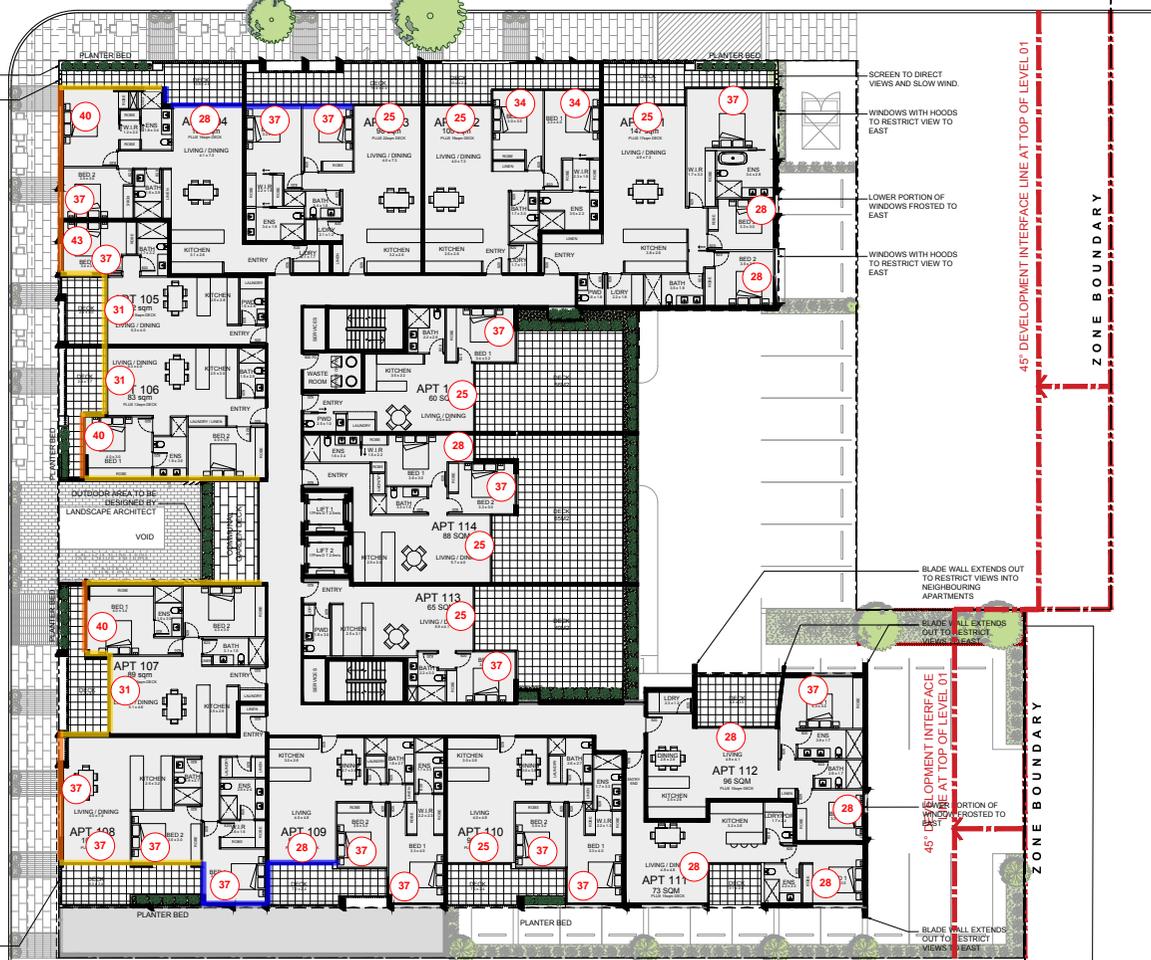


Appendix A—Floor plan markups

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT
SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



- MAXIMISING FRONTAGE
- LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
- INCREASE CORNER APARTMENTS
- FRONTAGE TO ALL BEDROOMS
- CROSS VENTILATION TO CORNERS
- INCREASED DENSITY
- LARGE SETBACKS TO REAR ZONE BOUNDARIES
- DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
- LARGE USEABLE OUTDOOR SPACES
- STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP

NEW ITEMS

- OUTLOOK OF EASTERN APARTMENTS IMPROVED THROUGH PLANTED SCREENS AND LARGE LEVEL 1 DECKS. REFER LANDSCAPE ARCHITECT DESIGN.
- 2 ADDITIONAL APARTMENTS THROUGH PLANNING EFFICIENCIES AND EXTENSION OF SOUTH EASTERN CORNER.

PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265sqm

Level 1
FLOOR PLAN scale 1:150 @ A1

Legend

SEC 2 —

SEC 3 —

SEC 4 —

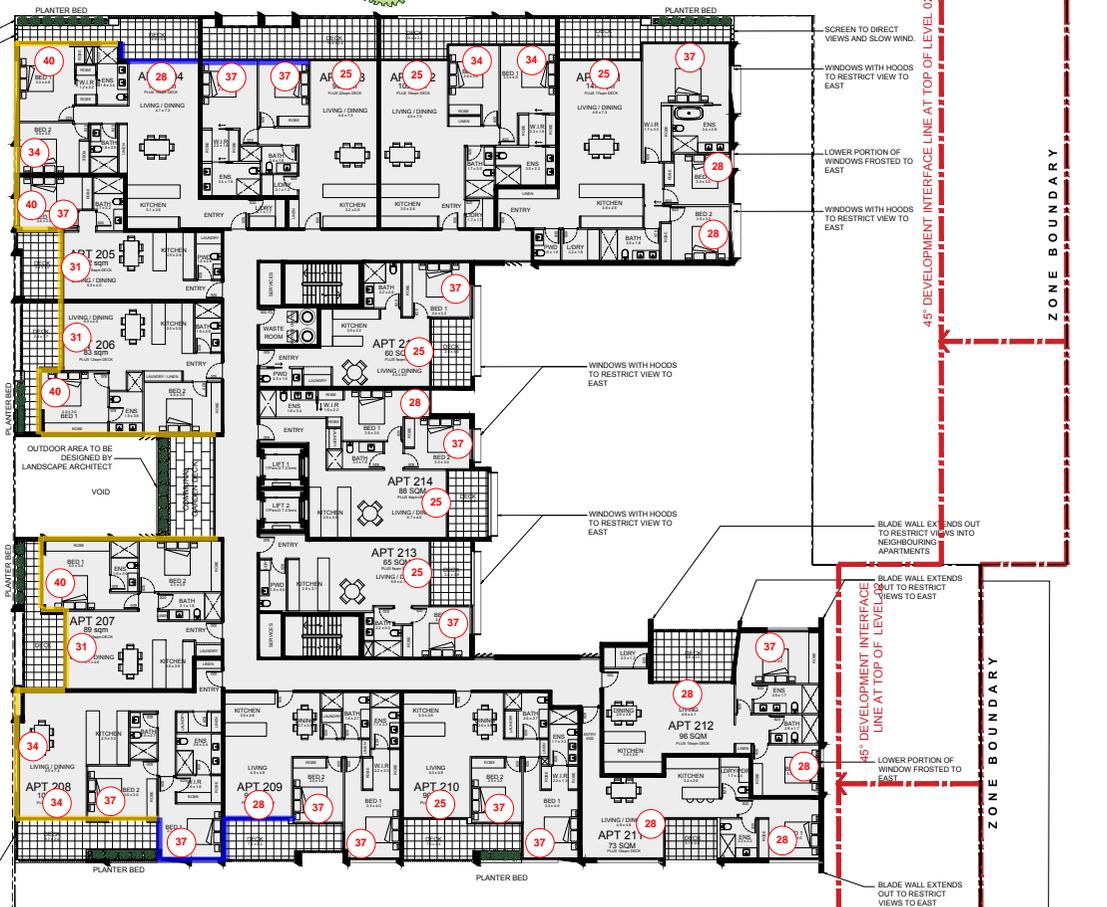
Glazing Rw+Ctr 25

Where the facade is not marked up a minimum SEC 1 applies

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT
SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



Level 2
FLOOR PLAN scale 1:150 @ A1

Legend

SEC 2 —

SEC 3 —

SEC 4 —

Glazing Rw+Ctr 25

Where the facade is not marked up a minimum SEC 1 applies

- MAXIMISING FRONTAGE
 - LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
 - INCREASE CORNER APARTMENTS
 - FRONTAGE TO ALL BEDROOMS
 - CROSS VENTILATION TO CORNERS
 - INCREASED DENSITY
 - LARGE SETBACKS TO REAR ZONE BOUNDARIES
 - DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
 - LARGE USEABLE OUTDOOR SPACES
 - STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP
- NEW ITEMS
- OUTLOOK OF EASTERN APARTMENTS IMPROVED THROUGH PLANT SCREENS AND LARGE LEVEL 1 DECKS.
 - 2 ADDITIONAL APARTMENTS THROUGH PLANNING EFFICIENCIES AND EXTENSION OF SOUTH EASTERN CORNER.

PROJECT SUMMARY

GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
APARTMENTS		
1 BED		14
2 BED		36
3 BED		05
TOTAL		55
CAR PARKING		
GROUND		30
BASEMENT		80
TOTAL		110
STORAGE CAGES		
BASEMENT		63
TOTAL		63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)		
GROUND		106
L1		43
L2		24
L3		24
L4		68
TOTAL		265 sqm

PACT

pruszinski PACT architects
172 Pulverney Street, Adelaide SA 5000 +61 (8) 8233 3133

RESONATE REVIEW
Date: 27.09.2019
Revision: 2
Project: 69 - 73 Prospect Road
Project Number: A190442

Resonate

Project
69-73 Prospect Road

Drawing
Level 2

Drawing Number
P - 06

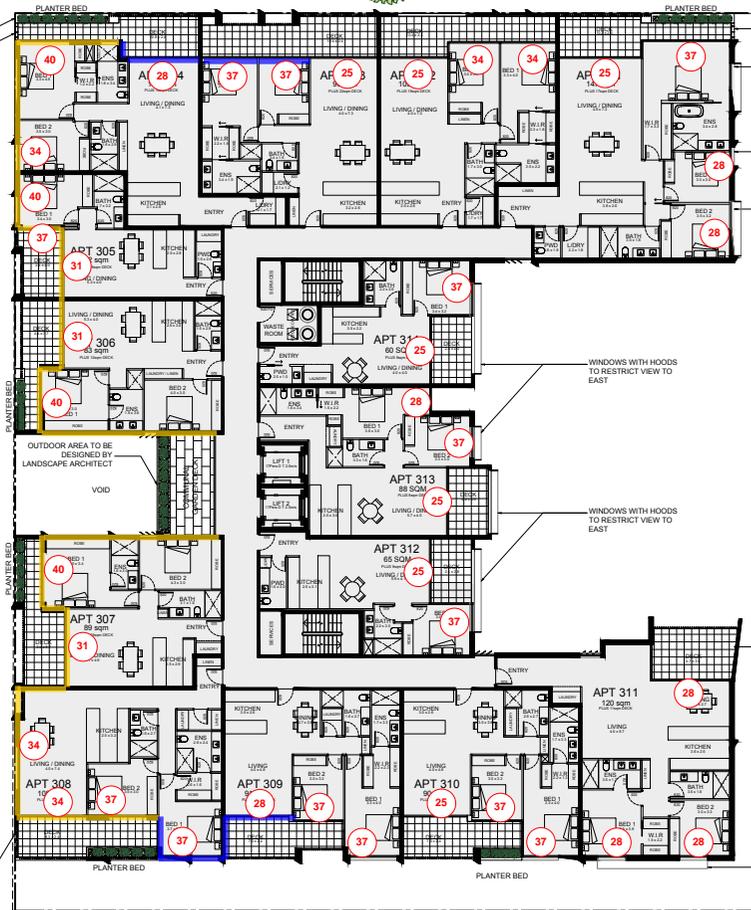
Date
13.09.2019

Issue
FOR APPROVAL

PULSFORD ROAD

ALL PLANTER BEDS TO BE DESIGNED BY LANDSCAPE ARCHITECT
SCREEN TO SLOW PREVAILING WINDS.

PROSPECT ROAD



Level 3
FLOOR PLAN scale 1:150 @ A1

Legend
 SEC 2 —
 SEC 3 —
 SEC 4 —
 Glazing Rw+Ctr 25
 Where the facade is not marked up a minimum SEC 1 applies

- MAXIMISING FRONTAGE
- LEVELS 1 - 3 BUILDING MASS PUSHED TO STREET BOUNDARIES
- INCREASE CORNER APARTMENTS
- FRONTAGE TO ALL BEDROOMS
- CROSS VENTILATION TO CORNERS
- INCREASED DENSITY
- LARGE SETBACKS TO REAR ZONE BOUNDARIES
- DECKS BEHIND FACADE TO REINFORCE BUILDINGS MASS
- LARGE USEABLE OUTDOOR SPACES
- STRATA CONTROLLED LANDSCAPING TO ENSURE UPKEEP

NEW ITEMS

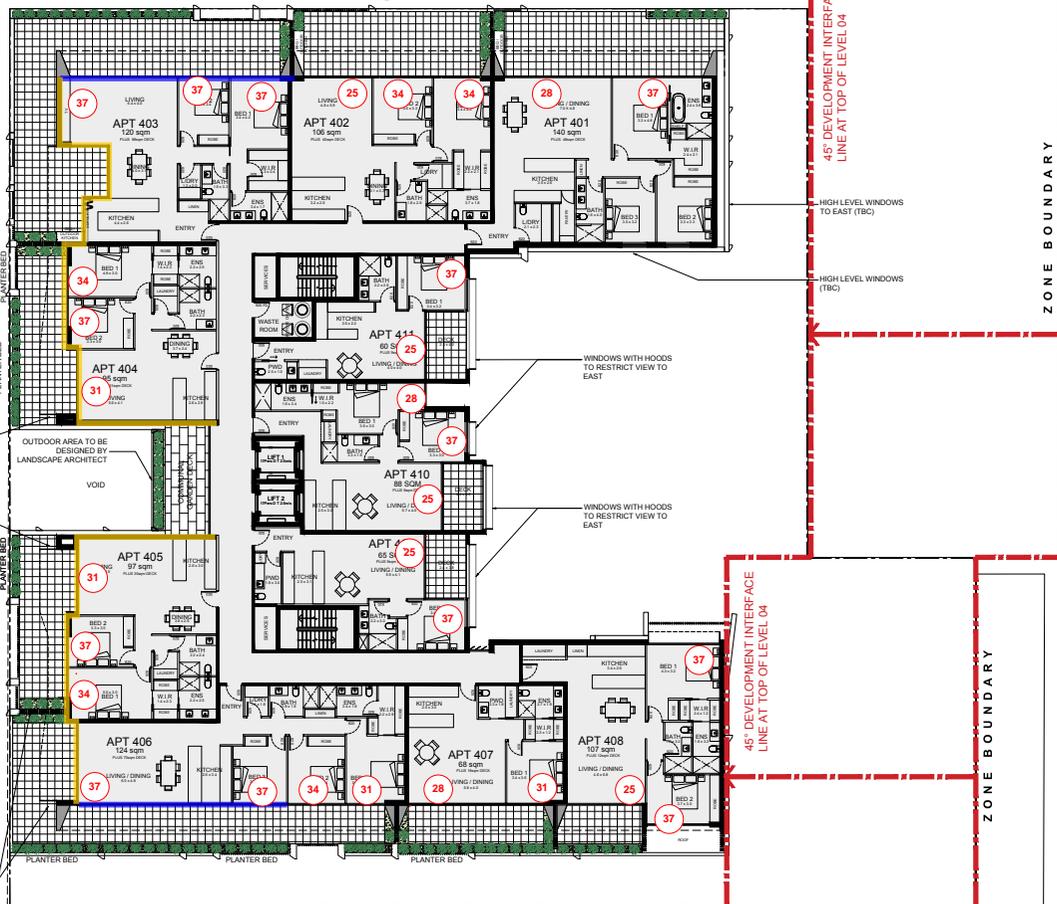
- EAST BOUNDARY SETBACK INCREASED IN ACCORDANCE WITH 45 DEGREE LINE.
- 14 APARTMENTS.

PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265sqm

PULSFORD ROAD

PROSPECT ROAD



IMPERVIOUS GLAZES/WALLS TO CONTROL PRIVACY AND WIND.

IMPERVIOUS GLAZES/WALLS TO CONTROL PRIVACY AND WIND.

Level 4
FLOOR PLAN scale 1:150 @ A1

Legend

SEC 2 —

SEC 3 —

SEC 4 —

Glazing RweCtr 25

Where the facade is not marked up a minimum SEC 1 applies

- MAXIMISING NORTH FRONTAGE
- LARGE SET BACKS TO NORTH, WEST AND SOUTH ELEVATIONS IN RESPONSE TO BUILDING MASS.
- DECKS TO REINFORCE BUILDINGS MASS ALONG PARAPET.

NEW ITEMS

- FLOOR PLAN RE-VISITED WITH CONSIDERATION AS THE TOP LEVEL.
- SHARED SPACE REMOVED.
- KEY APARTMENTS INCREASED IN SIZE.

PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265sqm



PEDESTRIAN WIND ENVIRONMENT STATEMENT
69-73 PROSPECT ROAD, PROSPECT

WE887-01F02(REV0)- WS REPORT

SEPTEMBER 23, 2019

Prepared for:

Delta Projects

Level 5, 100 Pirie Street,
Adelaide, SA 5000

WINDTECH Consultants Pty Ltd

Head Office: 607 Forest Road, Bexley, NSW 2207, Australia

P +61 2 9503 0300 **E** reception@windtechglobal.com **W** www.windtechconsult.com

Sydney | Dubai | London | Melbourne | Mumbai | New York | Hong Kong | Singapore



DOCUMENT CONTROL

Date	Revision History	Issued Revision	Prepared By (initials)	Instructed By (initials)	Reviewed & Authorised by (initials)
July 19, 2019	Initial.	0	NR	AB	JG
September 23, 2019	Updated Recommendations	1	NR	AB	JG

The work presented in this document was carried out in accordance with the Windtech Consultants Quality Assurance System, which is based on International Standard ISO 9001.

This document is issued subject to review and authorisation by the Team Leader noted by the initials printed in the last column above. If no initials appear, this document shall be considered as preliminary or draft only and no reliance shall be placed upon it other than for information to be verified later.

This document is prepared for our Client's particular requirements which are based on a specific brief with limitations as agreed to with the Client. It is not intended for and should not be relied upon by a third party and no responsibility is undertaken to any third party without prior consent provided by Windtech Consultants. The information herein should not be reproduced, presented or reviewed except in full. Prior to passing on to a third party, the Client is to fully inform the third party of the specific brief and limitations associated with the commission.

EXECUTIVE SUMMARY

This report is in relation to the proposed development located at 69-73 Prospect Road, Prospect, Adelaide, and presents an opinion on the likely impact of the proposed design on the local wind environment on the critical outdoor areas within and around the subject development. The effect of wind activity is examined for the three predominant wind directions for the Adelaide region; namely the north-easterly, south-westerly, westerly, and north-westerly 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 latest architectural drawings. 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 subject development is relatively exposed to the three prevailing wind directions, affecting the site. As a result, there is a possible impact on the wind comfort within and surrounding several of the trafficable/occupant areas. It is expected that the wind effects identified in the report can be ameliorated with the consideration of the following treatment strategies into the design of the development:

Ground Level Areas

- Retention of the proposed impermeable awning above the Prospect and Pulsford Road frontages.
- Retention of the existing site trees.
- Inclusion of an impermeable awning above the western lobby entrance.
- Inclusion of additional densely foliating planter boxes along the corner Prospect/Pulsford Road frontage with particular regards to the café/seating area,
OR
- Inclusion of mobile screening to be implemented by the café owner(s).

Elevated Balcony Areas

- Retention of the mixed impermeable and porous (50% porosity) balustrades.
- Retention of the full height privacy screens between balconies.
- Recommended retention of densely, foliating evergreen planting above 1.1m high planter boxes, strategically located along balcony perimeters.

- Recommended retention of full height end screens positioned along the shorter aspects of the corner balconies. The screens can be impermeable or louvered. If the screens are to be louvered in design then their orientations should be such that they do not align with the prevailing winds.

Note that the inclusion of additional landscaping or planting within and around the building is expected to be effective in improving local wind conditions. All landscaping or planting provided for wind mitigation purposes should be of a densely foliating and evergreen variety to ensure year-round wind mitigation performance.

CONTENTS

1	Introduction	1
2	Description of the Development and Surroundings	2
3	Regional Wind	5
4	Wind Effects on People	7
5	Results and Discussion	8
	5.1 Ground Level Areas	8
	5.2 Private Balconies	Error! Bookmark not defined.
6	References	10

1 INTRODUCTION

An opinion on the likely impact of the proposed design on the local wind environment affecting pedestrians within the critical outdoor areas within and around the subject development is presented in this report. The analysis of wind effects relating to the proposed development has been carried out in the context of the predominant wind directions for the region, building morphology of the development and nearby buildings, and local land topography. The conclusions of this report are drawn from our extensive experience in the field of wind engineering and studies of wind environment effects.

No wind tunnel testing has been undertaken for this assessment. Hence this report addresses only the general wind effects and any localised effects that are identifiable by visual inspection, and any recommendations in this report are made only in-principle.

2 DESCRIPTION OF THE DEVELOPMENT AND SURROUNDINGS

The development site is located at the corner of Prospect and Pulsford Roads and is included within the City of Prospect Local Government Area (LGA). The proposed residential development has a main road frontage along Prospect Road with vehicle access from Pulsford Road leading into the carpark.

Surrounding the site are predominantly low rise retail/residential buildings with the taller of the developments concentrated along Prospect Road. Further away from the site there are many low-rise residential buildings with retail developments intermittently present throughout.

A survey of the land topography indicates a general rise to the north east, however overall there are no major elevation changes in the region surrounding the site. An aerial image of the subject site and the local surroundings is shown in Figure 1.

The proposed development includes a retail component at the ground level, with residential apartments above. The overall height of the development is five storeys above ground. The critical trafficable outdoor areas associated with the proposed development, which are the focus for pedestrian wind effects in this assessment, are detailed as follows:

- Pedestrian footpaths, seating areas and other trafficable areas at Ground Level
- Private balcony areas throughout the development from Levels 1 to 4.

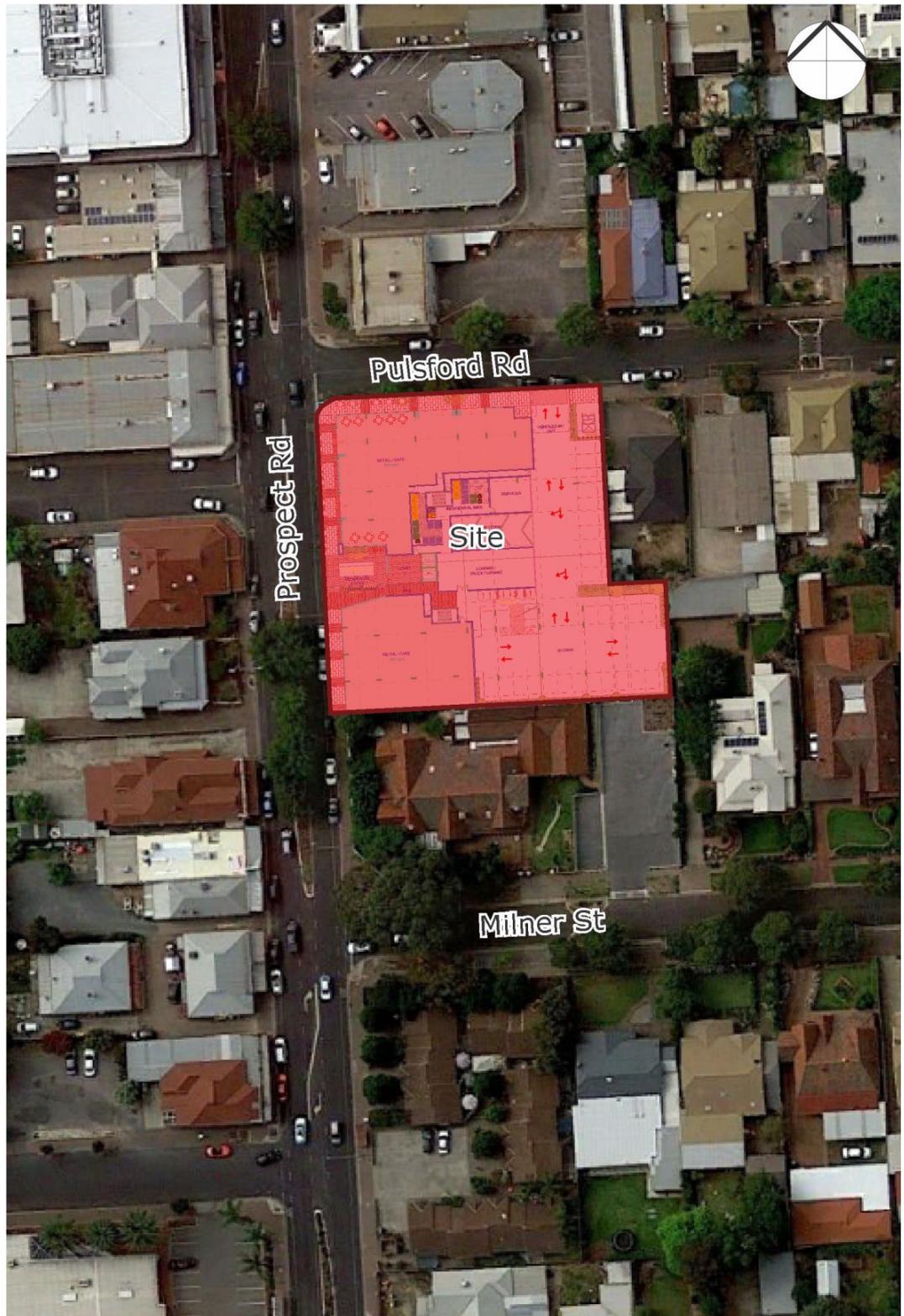


Figure 1a: Aerial Image of the Site Location

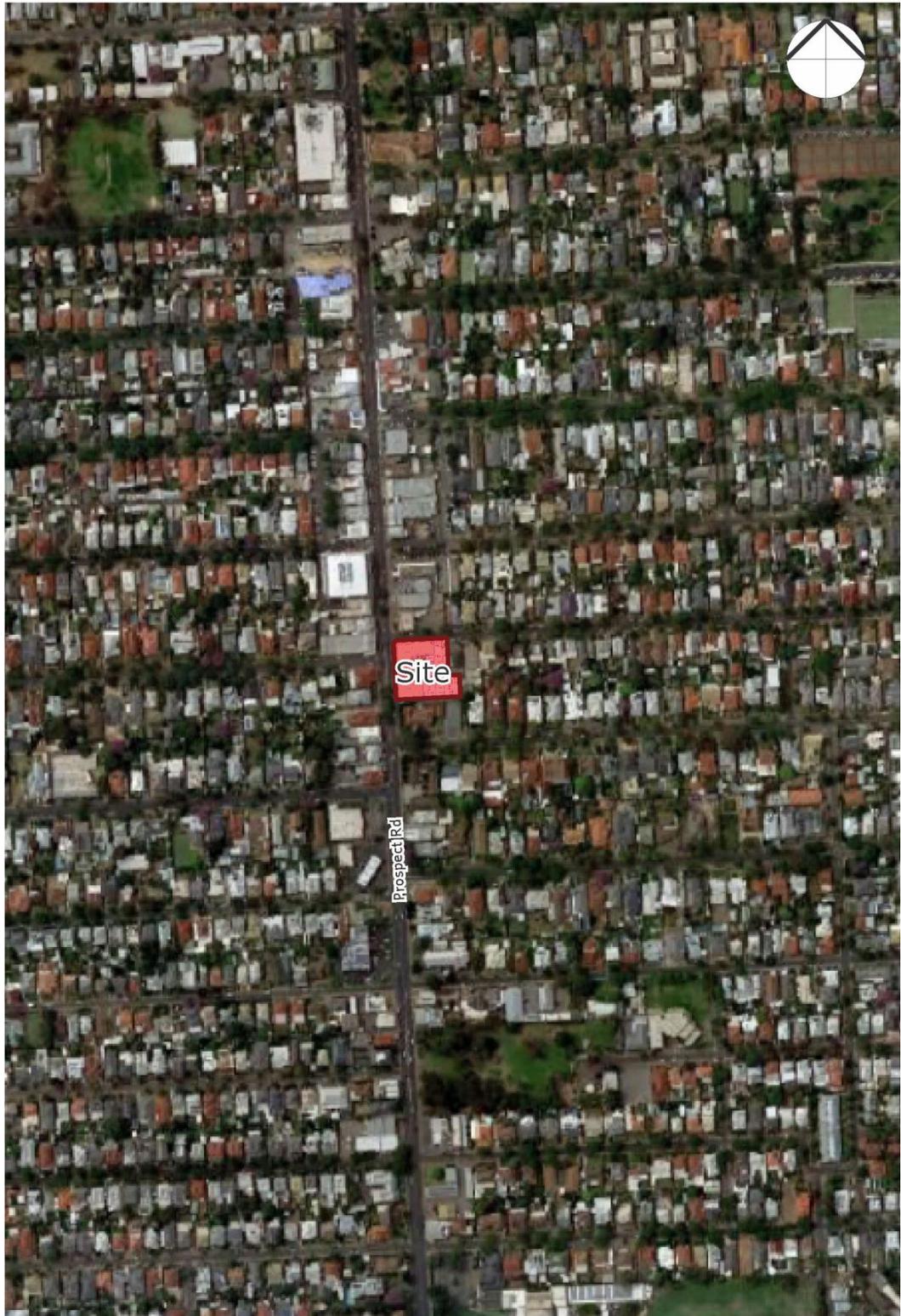


Figure 1b: Wider Aerial Image of the Site Location

3 REGIONAL WIND

The Adelaide region is governed by four principle wind directions, and these can potentially affect the subject development. These winds prevail from the north-east, south-west, west and north-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.

A directional plot of the annual and weekly recurrence winds as well as the frequency of occurrence of these winds for the Adelaide region is 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.

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

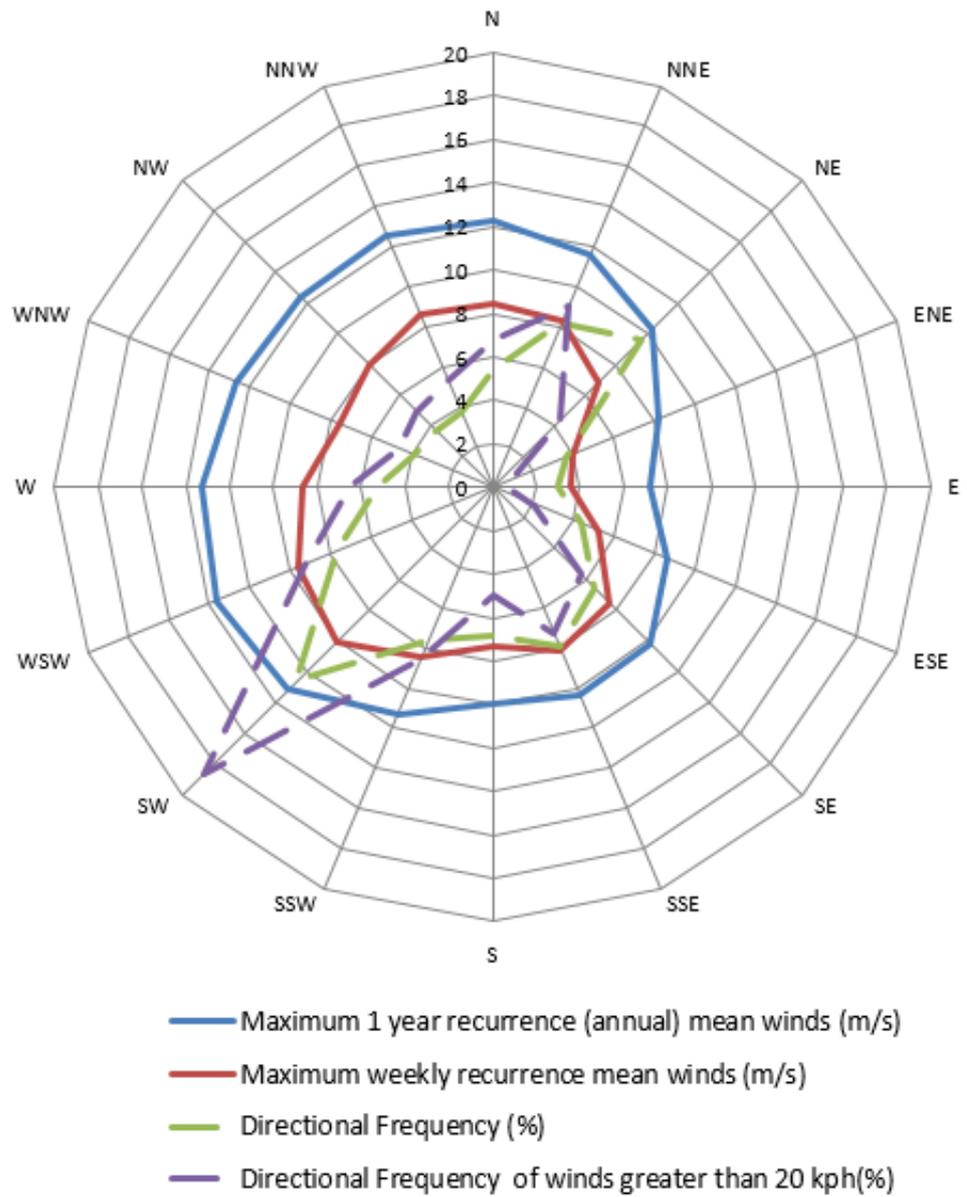


Figure 2: Annual and Weekly Recurrence Mean Wind Speeds, and Frequencies of Occurrence, for the Adelaide Region

4 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 A.G. Davenport, T.V. Lawson, W.H. Melbourne, and A.D. Penwarden, 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.

For example, A.D. Penwarden (1973) developed a modified version of the Beaufort scale which describes the effects of various wind intensities on people. Table 2 presents the modified Beaufort scale. Note that the effects listed in this table refers to wind conditions occurring frequently over the averaging time (a probability of occurrence exceeding 5%). Higher ranges of wind speeds can be tolerated for rarer events.

Table 2: Summary of Wind Effects on People (A.D. Penwarden, 1973)

Type of Winds	Beaufort Number	Mean Wind Speed (m/s)	Effects
Calm	0	Less than 0.3	Negligible.
Calm, light air	1	0.3 – 1.6	No noticeable wind.
Light breeze	2	1.6 – 3.4	Wind felt on face.
Gentle breeze	3	3.4 – 5.5	Hair is disturbed, clothing flaps, newspapers difficult to read.
Moderate breeze	4	5.5 – 8.0	Raises dust, dry soil and loose paper, hair disarranged.
Fresh breeze	5	8.0 – 10.8	Force of wind felt on body, danger of stumbling
Strong breeze	6	10.8 – 13.9	Umbrellas used with difficulty, hair blown straight, difficult to walk steadily, wind noise on ears unpleasant.
Near gale	7	13.9 – 17.2	Inconvenience felt when walking.
Gale	8	17.2 – 20.8	Generally impedes progress, difficulty balancing in gusts.
Strong gale	9	Greater than 20.8	People blown over.

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.

5 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. 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, as well as the surrounding landform. Note that only the potentially critical wind effects are discussed in this report.

The ground plane will be used primarily for circulation. However, there are potential seating areas such as in the area adjacent to the planned retail section on the corner of Prospect road and Pulsford Road. The recommended criterion for wind conditions for the circulation area is 7.5m/s with a 5% probability of exceedance, whereas the proposed seating areas will need to satisfy a more stringent comfort criterion of 5.5m/s with a 5% probability of exceedance. Although this assessment is of a qualitative nature, the abovementioned criteria are considered when assessing the wind environment impacts.

5.1 Ground Level Areas

Due to the positioning of the development at the corner of two main roads, there is limited shielding from nearby buildings from the south-westerly and north-easterly prevailing winds. The footpath along Prospect road is exposed to the direct impact and side-streaming effects of the prevailing winds from the south-west as flow travels along the western aspect of the building accelerating as it reaches the north-western corner. From the north-east, winds are also expected to generate similar wind effects along the Pulsford Road footpath. This may create unsuitable wind conditions for patrons, especially at the café seating area at the building corner given its intended use.

Given the exposure of the seating areas, it is recommended that further allocation be made for additional vegetation in the form of densely foliating evergreen planters along the footpath, particularly near the corner. Alternatively, localised mobile screening could be implemented by the café owner(s) to assist with mitigating the winds.

The potential for strong downwash effects along the western and northern aspects of the development are expected to be mitigated by the proposed awnings. In addition, the retention of the existing trees along the centre of Prospect Road will stagnate direct flow as well as mitigate downwash effects.

It should be noted however, that the recessed channel on the western facade will capture the south-westerly winds which may result in downwash flow towards the residential entry corridor. It is recommended that an awning be introduced above the lobby entrance to prevent adverse wind conditions.

5.2 Elevated Areas

Generally, the upper levels of the development receive less shielding and are relatively exposed to prevailing winds from the north-east, south-east and south-west.

The majority of the private balconies on Levels 1-3 are only exposed to winds on a single aspect and hence are expected to be suitable for their intended use. These balconies will also benefit from the setback design within the planform. Overall, a majority of the balconies are expected to be suitable for their intended use due to the inclusion of various wind mitigation elements such as privacy screens and dense shrub planting, which will aid in ameliorating adverse wind conditions.

All balconies of the proposed development incorporate a combined impermeable and permeable balustrade with planter boxes. The planters are recommended to be capable of growing to a height of at least 0.5m above the 1.1m high planter box. The permeable balustrades should aim to achieve a porosity of 50%.

The corner balconies throughout the development have the potential to be exposed to the prevailing winds accelerating around the corners of the building's form. It is recommended to retain the full height blade-walls and the full height end screens which may be impermeable or louvered in nature. If the screens are to be louvered in design then their orientations should be such that they do not align with the prevailing north-east, south-west, west and north-west wind directions. The screens should be positioned along the shorter aspect of the corner balconies in order to shield occupants from corner accelerated wind flows.

The Level 4 balconies consist of a larger floorplan and do not receive the same benefits as the balconies below as they are not setback within the planform. The Level 4 balconies are expected to be exposed to both direct and side-streaming wind effects of the predominant wind direction. It is recommended to retain the full height privacy screens between balconies. It is recommended to include dense evergreen shrubs capable of growing to a height of at least 0.5m above the 1.1m high planter box, located strategically around the corner balcony perimeters.

6 REFERENCES

Davenport, A.G., 1972, "An approach to human comfort criteria for environmental conditions". Colloquium on Building Climatology, Stockholm.

Lawson, T.V., 1973, "The wind environment of buildings: a logical approach to the establishment of criteria". Bristol University, Department of Aeronautical Engineering.

Lawson, T.V., 1975, "The determination of the wind environment of a building complex before construction". Bristol University, Department of Aeronautical Engineering.

Lawson, T.V., 1980, "Wind Effects on Buildings - Volume 1, Design Applications". Applied Science Publishers Ltd, Ripple Road, Barking, Essex, England.

Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions". *Journal of Wind Engineering and Industrial Aerodynamics*, vol. 3, pp241-249.

Penwarden, A.D. (1973). "Acceptable Wind Speeds in Towns", *Building Science*, vol. 8: pp259-267.

Penwarden, A.D., Wise A.F.E., 1975, "Wind Environment Around Buildings". Building Research Establishment Report, London.

Project

69-73 Prospect Road

Project No.

18052

Document No.

WMS 002

Date

16/10/2019

Waste Management Statement

The proposed development at 69-73 Prospect Road, Prospect is a mixed-use residential development situated on the southern east corner of Prospect Road and Pulsford Road. The use mix consists of a multi storey residential building with 55 Apartments above Retail and café/restaurants on ground floor. Using the Better Practice Guide – Waste Management for Residential and Mixed Use Developments Table C.2: Waste Resource Generation Rates, produced by Zero Waste SA, the following waste management solutions are provided.

Table 1: Calculations of average waste generation is based on the following information:

55 Apartments/Households (14x 1 Bed Apts, 36x 2 Bed Apts, 5x 3 Bed Apts = 55 Apartments with 101 Beds total) – Type C – Medium/High Density

Retail on Ground Floor (947m²)

Land Use	WASTE (excluding food)	CO-MINGLED RECYCLING	GREEN ORGANICS (including food)	eWaste
Apartments (medium density dwellings)	35 litres / bed / week Blue Bin	30 litres / bed / week Yellow Bin	10 litres / bed / week Green Bin	0.77m ³ / household / year
55 Apts. 101 Beds	505 litres / day 3535 litres / week	432.85 litres / day 3030 litres / week	144.28 litres / day 1010 litres / week	42.35m³ / year
Retail 747sqm	6 litres / 10m ² / day	6 litres / 10m ² / day	0.3 litres / 10m ² / day	
	448.2 litres / day 3137.4 litres / week	448.2 litres / day 3137.4 litres / week	14.22 litres / day 99.54 litres / week	
Café / Restaurant 200sqm	30 litres / 10m ² / day	20 litres / 10m ² / day	40 litres / 10m ² / day	
	600 litres / day 4200 litres / week	400 litres / day 2800 litres / week	800 litres / day 5600 litres / week	

General Waste and Co-Mingled Recycling are transported down onto the ground floor waste room of each building via separate bin chutes from the residential floors. Waste chutes reduce the requirement to take waste into the passenger lifts. Green organics are moved manually into their respective floor storage areas by users at which point Facilities Maintenance will move bins to ground floor storage that are collected weekly by a private contractor.

The information gathered from table 1 indicates the need for the following requirements for waste bins in the complex. 660L and 1100L MGB's are used for collection for their capacity, ease of manoeuvrability, speed of pick-up and minimal size of waste truck required.

Residential

660L General Waste Bin (blue):	6 Bins provide > 7 days of service
660L Recyclable Materials (yellow):	5 Bins provide > 7 days of service
660L Organic Waste (green):	2 Bins provide > 7 days of service
eWaste Storage Room	42.35m ³ Collected once a year

Retail

1100L General Waste Bin (blue):	2 Bins provide > 4 days of service
1100L Recyclable Materials (yellow):	2 Bins provide > 4 days of service
240L Organic Waste (green):	1 Bin provides > 4 days of service

Café / Restaurant

1100L General Waste Bin (blue):	3 Bins provide > 4 days of service
1100L Recyclable Materials (yellow):	2 Bins provide > 4 days of service
660L Organic Waste (green):	3 Bin provides > 4 days of service

An additional allowance has been made for green waste associated with maintenance of the ground floor garden beds and communal outdoor areas on each floor. This allowance is provided with additional 240L MGB's for ease of manual handling around the gardens and communal space.

240L MGB Organic Waste (green):	1-2 Bins (2 bins allowed for in plan)
---------------------------------	---------------------------------------

A waste removal company will be contracted by the Tenancy Strata Corporation to manage waste and empty bins from the ground floor, in accordance with the frequency outlined in this report.

We expect the tenancy strata to remove all waste types from the building once a week as required and swap full bins for empty bins under each chute as required. Waste is expected to be collected during the day at a similar time to local council collection in the area.

The retail and café will have direct access to a separate refuse area. All waste types will be removed twice a week (max. 4 days between collections). Waste is expected to be collected during the day at a similar time to local council collection in the area.



**MIXED-USE DEVELOPMENT
69-73 PROSPECT ROAD, PROSPECT**
TRAFFIC AND PARKING REPORT



DISCLAIMER

The information and data contained within this document are the property of CIRQA Pty Ltd and copyright. This document and the information contained therein is for the use of the authorised Client noted below. The document may not be used, copied, reproduced or modified in whole or in part for any purpose other than for which it was supplied by CIRQA Pty Ltd. CIRQA Pty Ltd accepts no responsibility or liability to any other party who may use or rely upon this document or the information contained therein.

DOCUMENT CONTROL

Report title: Mixed-Use Development, 69-73 Prospect Road, Prospect
Traffic and Parking report

Project number: 18321

Client: 67-73 Prospect Road Pty Ltd

Client contact: Kevin Chapley

Version	Date	Details/status	Prepared by	Approved by
Draft	19 Jul 19	For review	JJB	BNW
V1	21 Oct 19	For submission	JJB	BNW

CIRQA Pty Ltd

ABN 12 681 029 983

PO Box 144, Glenside SA 5065

150 Halifax Street, Adelaide SA 5000

(08) 7078 1801

www.cirqa.com.au

1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice for a mixed-use development at 69-73 Prospect Road, Prospect. Specifically, CIRQA has been engaged to provide advice in respect to traffic and parking aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and the associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by Pruszinski PACT Architects (refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the south-eastern corner of the intersection of Prospect Road and Pulsford Road, Prospect. The site is bound by Pulsford Road to the north, an early learning centre to the south and a residential dwelling to the east. The City of Prospect's Development Plan identifies that the site is located within an Urban Corridor Zone (Policy H).

The subject site currently comprises a funeral home, its associated car park and an artist studio in a former church with informal rear parking. Left-in/left-out access is provided via three crossovers on Prospect Road and all movement access is provided via a fourth crossover on Pulsford Road. Pedestrian access is provided via the site's frontages to Prospect Road and Pulsford Road.

Figure 1 illustrates the location of the subject site with regard to the adjacent road network.

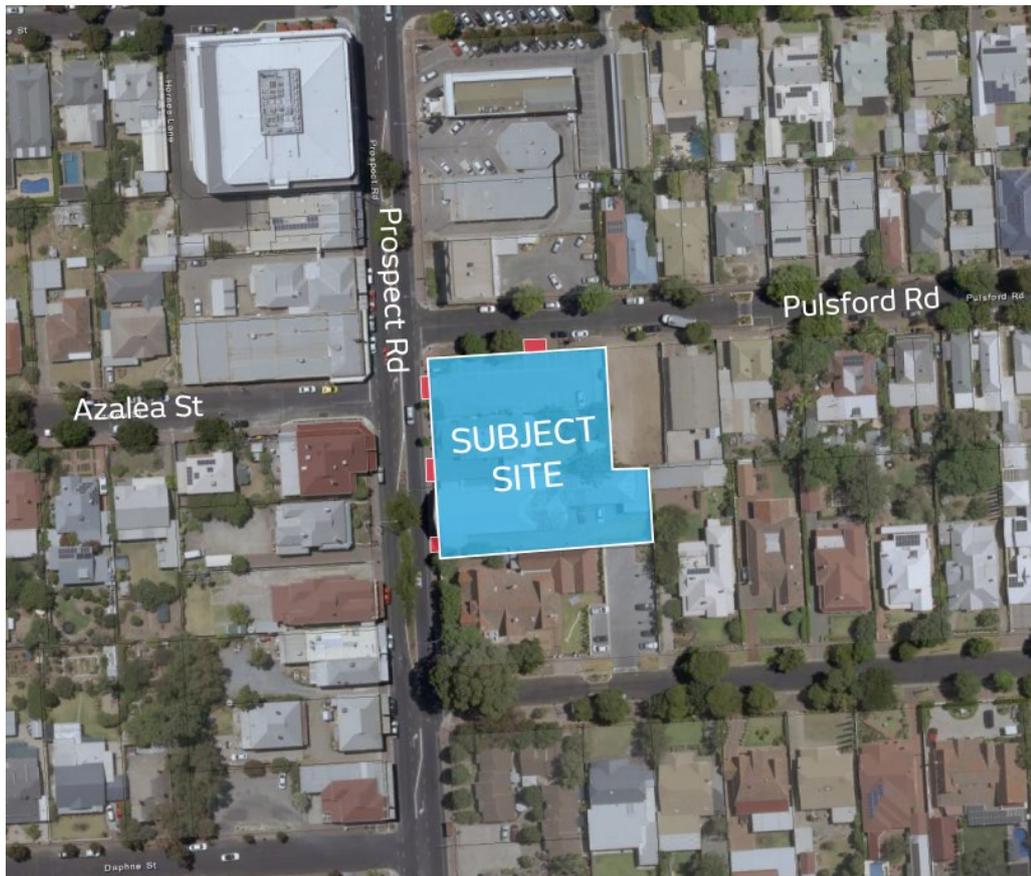


Figure 1 – Location of the subject site and adjacent road network

2.2 ADJACENT ROAD NETWORK

Prospect Road is an arterial road under the care and control of the Department of Planning, Transport and Infrastructure (DPTI). Adjacent the site, Prospect Road contains a single traffic lane in each direction, separated by a raised concrete median (approximately 3.2 m wide). A right-turn lane into Pulsford Street is provided adjacent the subject site on Prospect Road. Part-time bicycle lanes are provided on both sides of Prospect Road which apply during peak traffic flow periods (namely southbound movements from 7:30 am to 9:00 am, Monday to Friday and northbound movements from 4:30 pm to 6:00 pm, Monday to Friday). Outside of the aforementioned time periods, parking is permitted on Prospect Road. Sealed footpaths are provided on both sides of Prospect Road, accommodating both pedestrian and cyclist movements. Traffic data obtained from DPTI indicates that Prospect Road has an Annual Average Daily Traffic (AADT) volume in the order of 17,800 vehicles per day (vpd), of which 4.2% are commercial vehicles. Adjacent the site, a 50 km/h speed limit applies on Prospect Road.

Pulsford Road is a local road under the care and control of the City of Prospect. Adjacent the site, Pulsford Road contains a 9.2 m wide carriageway

(approximate), accommodating two-way traffic movements. Paved footpaths are provided on both sides of Pulsford Road, accommodating both pedestrian and cyclist movements. Bicycle movements are also accommodated on-street under a standard shared arrangement. Pulsford Road is subject to a default urban speed limit of 50 km/h.

The intersection of Prospect Road and Pulsford Road forms a priority (Stop) controlled T-intersection (Prospect Road forms the priority approaches). All turning movements are permitted at the intersection. Right-turn movements from Prospect Road (southern approach) are facilitated via a sheltered right-turn storage lane. Pedestrian crossing movements are formally facilitated across Pulsford Road (the eastern approach) via pedestrian ramps. A pedestrian refuge is located approximately 30m north of the intersection. Further to the north, a pedestrian actuated crossing Pedestrian Actuated Crossing is located approximately 130m from the intersection, permitting controlled pedestrian movements across Prospect Road.

A survey of the Prospect Road/Pulsford Road intersection was undertaken by Austraffic on Thursday the 16th of May 2019. Existing movements during the am and pm peak hours are illustrated in Figure 2 below.

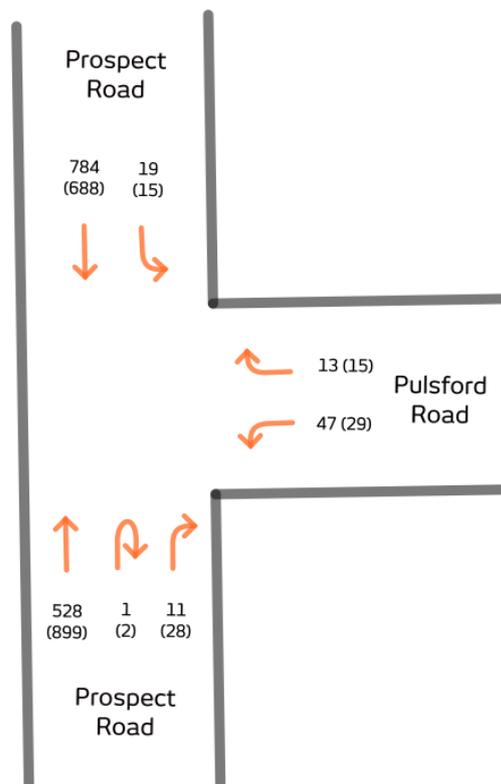


Figure 2 – Existing am and (pm) peak hour movements at the intersection of Prospect Road and Pulsford Road, Prospect

The subject site is well serviced by public transport, with frequent bus services operating along Prospect Road. Specifically, a 'Go Zone' bus stop (servicing southbound movements) is located approximately 80 m south of the site, whilst northbound movements are serviced via a 'Go Zone' bus stop approximately 110 m south of the site). Bus services operating along Prospect Road include the G10 service from Marion Centre Interchange to Blair Athol (and its G10A, G10B and G10C variants) as well as school and Adelaide Oval event services.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposal comprises the demolition of the existing buildings and the construction of a multi-storey mixed-use building. Specifically, the building will contain the following key floor areas:

- 947 m² of retail/café floor area;
- fourteen (14x) one-bedroom dwellings;
- thirty-six (36x) two-bedroom dwellings; and
- five (5x) three-bedroom dwellings.

3.2 ACCESS AND PARKING DESIGN

The proposed development will be serviced by two parking areas. A 30-space at-grade parking area is proposed adjacent the eastern boundary of the subject site, to service the commercial tenancies (staff and customer parking). The dwellings will be serviced via an 80-space basement parking area. It should be noted that 10 spaces will be provided within the basement car park for additional commercial tenancy parking.

The various parking areas will generally comply with the requirements of the "Australian/New Zealand Standard for Parking Facilities – Part 1: Off-street car parking" (AS/NZS 2890.1:2004) in that:

- residential parking spaces will be 2.4 m wide and 5.4 m long, with an adjacent aisle width of at least 5.8 m;
- commercial parking spaces will generally be 2.5 m wide and 5.4 m long, with an adjacent aisle width of at least 5.8 m;
- 0.3 m clearance will be provided to solid objects greater than 0.15 m in height;
- columns and walls will be located outside of the car clearance envelope; and
- a minimum head-height of at least 2.2 m will generally be provided throughout the parking areas.

Two parking spaces exclusively for use by people with disabilities will be provided within the at-grade parking area. This space (and the adjacent shared area) will comply with the requirements of the *"Australian/New Zealand Standard for Parking Facilities - Part 6: Off-street parking for people with disabilities"* (AS/NZS 2890.6:2009).

Ramps will be provided for vehicle access to the basement and ground level parking areas. The ramps will comply with the requirements of AS/NZS 2890.1:2004 in that:

- transitions sections of 1:10 grade will be provided for at least 2.0 m (where required); and
- a maximum gradient of 1:5 will be provided.

The site will also be serviced by a 20-space bicycle store, accessed directly from the ground-level parking area. Residents will also be allocated secure storage areas in the basement. This will allow residents to securely store their property, including bicycles. An additional two bicycle rails (capable of accommodating four bicycles) will be provide adjacent the site's lobby (ground floor) for use by visitors.

Vehicle access to the site is proposed via two all-movement crossovers directly to/from Pulsford Road. Pedestrian and bicycle access will be provided via the site's frontages to both Prospect Road and Pulsford Road. Existing (redundant) crossovers on Prospect Road will be closed.

Refuse collection is proposed to be undertaken within the on-site loading bay. A private contractor will manoeuvre into the ground level loading bay as shown in Figure 3. All movements will be able to be undertaken in forward-in/forward-out directions.

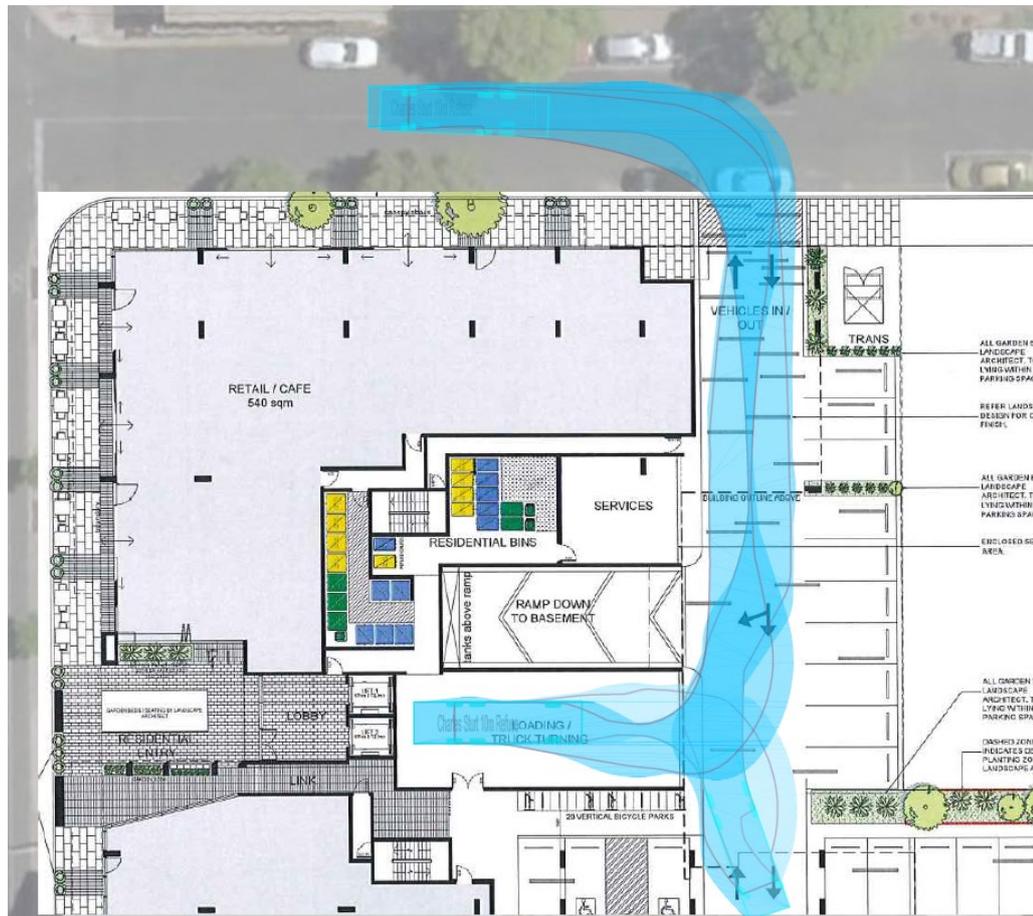


Figure 3 - Refuse collection vehicle turn path for movements into and out of the site

4. PARKING ASSESSMENT

4.1 CAR PARKING

The Prospect (City) Development Plan identifies the following vehicle parking requirements relevant to the subject proposal:

- **Non-residential development** – 3 (minimum) to 5 (maximum) spaces per 100 square metres of gross leasable floor area; and
- **Residential development in the form of multi-storey buildings** – 1 space per studio, 1 or 2 bedroom dwelling and 1.25 spaces per 3 or more bedroom dwelling plus 0.25 visitor spaces per dwelling.

The dwellings will have designated parking spaces within the basement parking area. Based upon the rates identified in the Development Plan, the dwellings will have a theoretical parking requirement for 70 parking spaces (resident and visitor). Given that it is proposed to designate 70 of the 80 parking spaces within

the basement parking area, the resident and visitor parking requirements are considered to be satisfied. The remaining 40 parking (10 basement and 30 at ground level) spaces will satisfy the retail/café component of the development. Based upon the City of Prospect's Development Plan, the retail/café component would require 29 (minimum) to 48 (maximum) parking spaces. The proposal would therefore satisfy the Development Plan requirements.

4.2 BICYCLE PARKING

In regard to bicycle parking, the Development Plan identifies the following bicycle parking requirements relevant to the subject proposal:

- **Residential component of a multi-storey building** – 1 resident space for every 4 dwellings plus 1 visitor space for every 10 dwellings; and
- **Shop** – 1 employee space for every 300 square metres of gross leasable floor area plus 1 visitor space per 600 square metres of gross leasable floor area.

Based upon the above rates, there would be a theoretical requirement for 24 bicycle spaces for residents, staff (of both commercial tenancies), residential visitors and shoppers. Given that it is proposed to provide 24 bicycle parking spaces within the site and the residential dwellings are each provided with secure basement storing areas, the bicycle parking requirements of the residential and commercial components are considered to be satisfied (and exceeded).

5. TRAFFIC ASSESSMENT

5.1 TRAFFIC GENERATION AND DISTRIBUTION

The NSW Roads and Maritime Services' *"Guide to Traffic Generating Developments"* (the RMS Guide), and its subsequent updates, is a document commonly used by traffic engineers in order to determine the forecast traffic generation of a variety of land uses. Specific to the proposed development, the RMS Guide identifies the following rates:

- **High-density residential flat dwellings** – 0.53 am and 0.32 pm peak hour trips per dwelling; and
- **Restaurants** – 5 peak hour trips per 100 square metres of floor area.

The Guide also identifies a peak hour (Thursday) traffic generation of 12.3 peak hour trips per 100 m² of gross leasable floor area for shopping centres with a total floor area between 0 and 10,000 m². However, such a rate is not considered to be appropriate for application to the subject proposal's commercial component. This is due to the large-scale nature and variety of offerings of a shopping centre compared to that of the proposal. In reality, smaller scale retail businesses would

be expected to generate in the order of 7.0 to 9.0 peak hour trips per 100 m² of floor area. Such rates have recently been adopted (and accepted) for small retail shops throughout metropolitan Adelaide. It is intended that the commercial tenancies will be occupied by either retail or cafés. Based on the proposed commercial tenancy sizes, it is considered that a traffic generation rate of 7.0 trips per 100 m² would be appropriate for the site (taking into account the potential uses of these tenancies).

It should also be noted that the am peak hour generation of 'shops' is typically 50% of that associated with the pm peak hour. As such, rates of 3.5 am and 7.0 pm trips per 100 m² would be appropriate assessment a retail assessment. However, as the commercial space may be occupied by cafes, an am traffic generation rate of 5 trips per 100m² has been adopted, providing a conservative am peak hour assessment if the commercial space were to be occupied by retail.

Based upon the above rates, the proposed development would have a forecast traffic generation in the order of 77 am and 84 pm peak hour trips. Taking into consideration ingress and egress distributions associated with the site's various land uses, it is forecast that in the order of 30 ingress and 47 egress trips would occur during the am peak hour, and 46 ingress and 38 egress trips would occur during the pm peak hour. This distribution is based on 20% ingress/ 80% egress movements for the residential development and 50% ingress/ 50% egress movements for the commercial development during the am peak hour and vice versa for the pm. It has been assumed that 35% of movements will be to/from the north, 20% to/from the east and 45% to/from the south.

A forecast distribution of movements (based on the above comments) is illustrated in Figure 4 below.

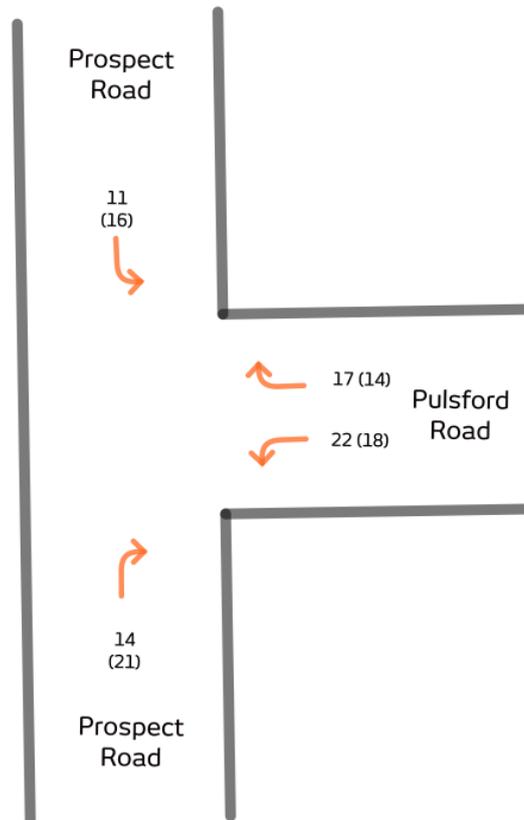


Figure 4 - Forecast distribution of additional movements generated by the proposal

SIDRA intersection analysis software has been utilised to assess the impact of the development on the adjacent road network (results are provided in Appendix B). It should be noted that the modelling of the existing conditions at the Prospect Road/Pulsford Road intersection does not take into current movements generated by the subject site. In reality, additional movements generated by the proposal would be less than suggested above, hence the assessment is conservative.

The SIDRA modelling indicates that the intersection of Prospect Road and Pulsford Road currently operates within capacity and will continue to do so following completion of the proposed development. All movements in the am and pm peak hours operated with a Degree of Saturation of less than 0.6. The approach movements on Pulsford Road had a future 95th percentile queue distance of 17 metres and a delay increase of 22 seconds. Based on the results of the SIDRA modelling, the proposal will be readily accommodated by the adjacent intersection without causing excessive additional queues and delays.

It is noted that the intersection was modelled as single movement for vehicles turning right out of Pulsford Road, providing a conservative assessment. In reality,

some vehicles may store in the median on Prospect Road, turning right in a two-stage movement. This would improve the performance of the Pulsford Road arm and the intersection as a whole when compared to the theoretical analysis.

On the basis of the analysis undertaken, it is considered that the additional movements generated by the proposal will be easily accommodated at the adjacent intersection. There will be minimal impact on the surrounding road network as a result of the proposal.

6. SUMMARY

The proposal comprises the construction of a multi-storey mixed-use building at 69-73 Prospect Road, Prospect. The development will contain 55 dwellings (in a combination of one, two, three and four-bedroom apartments), and 947 m² of retail/café floor area.

The site will be serviced by a total of 110 parking spaces and 24 bicycle parking spaces. Vehicle parking spaces will be provided in two parking areas (an at-grade and a basement parking area). Parking spaces and aisles will generally conform to the requirements of the relevant standard (AS/NZS 2890.1:2004).

Based upon the Development Plan, the proposal would generate a theoretical parking requirement for a minimum of 99 car parking spaces. Given that it is proposed to provide 110 car parking spaces, the parking requirements are satisfied. In addition, the bicycle parking requirements of the Development Plan are also met.

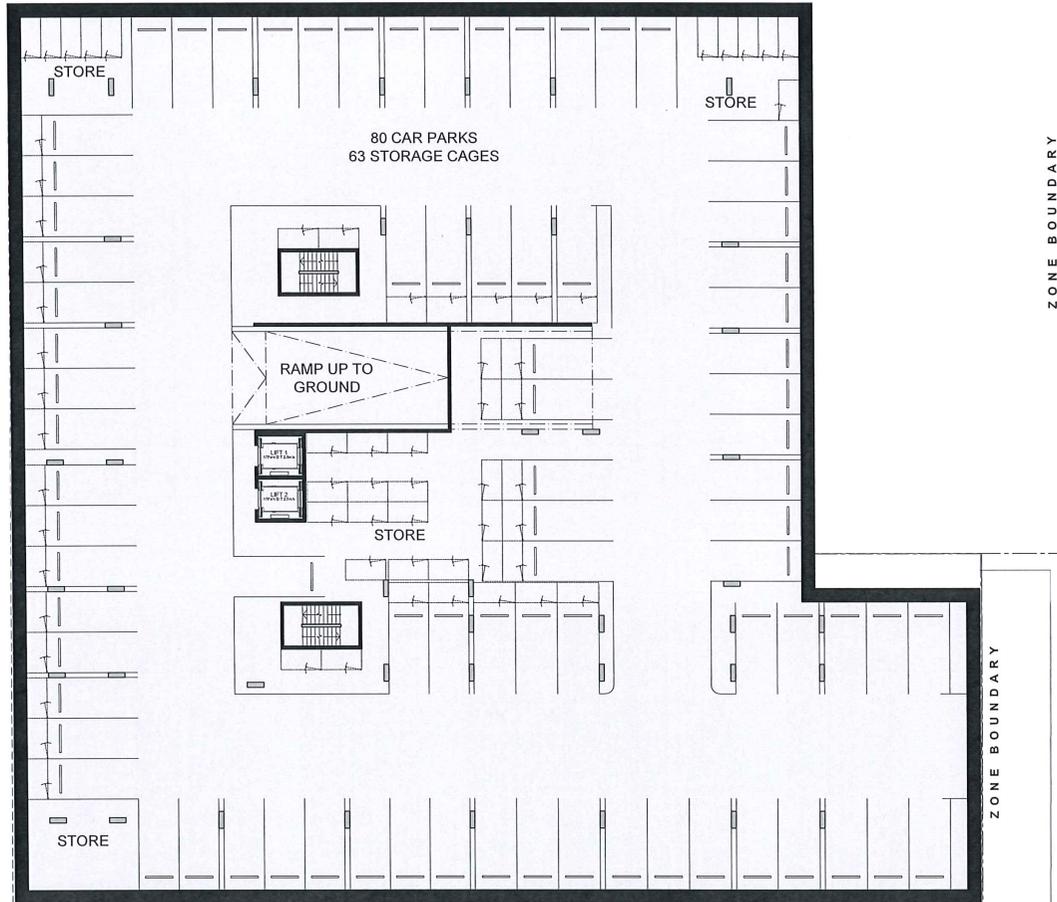
In regard to traffic generation, it is (conservatively) forecast that the proposal will generate in the order of 77 am and 84 pm additional peak hour trips. The SIDRA modelling has indicated that the intersection of Prospect Road and Pulsford Road would readily accommodate the development without causing excessive additional queues and delays. It is therefore considered that the traffic generated by the proposal will easily be accommodated on the surrounding road network. Additionally, no direct vehicle access will be provided to Prospect Road (with existing access points closed) which is considered a positive outcome.

APPENDIX A

PRUSZINSKI PACT ARCHITECTS

PULSFORD ROAD

PROSPECT ROAD



- VEHICLE ACCESS TO REAR OF SITE.
- BASEMENT RAMP WITHIN SITE TO REDUCE CROSSOVERS.
- PARKING FOR COMMERCIAL AT GROUND LEVEL.
- PARKING FOR RESIDENTIAL IN BASEMENT.
- DEEP PLANTING ZONE INCLUDED FOR PORTION OF REAR BOUNDARY.

PROJECT SUMMARY

GROUND FLOOR		
RETAIL / CAFE NORTHERN END		540sqm
RETAIL / CAFE SOUTHERN END		407sqm
TOTAL		947sqm
APARTMENTS		
1 BED		14
2 BED		36
3 BED		05
TOTAL		55
CAR PARKING		
GROUND		30
BASEMENT		80
TOTAL		110
STORAGE CAGES		
BASEMENT		63
TOTAL		63

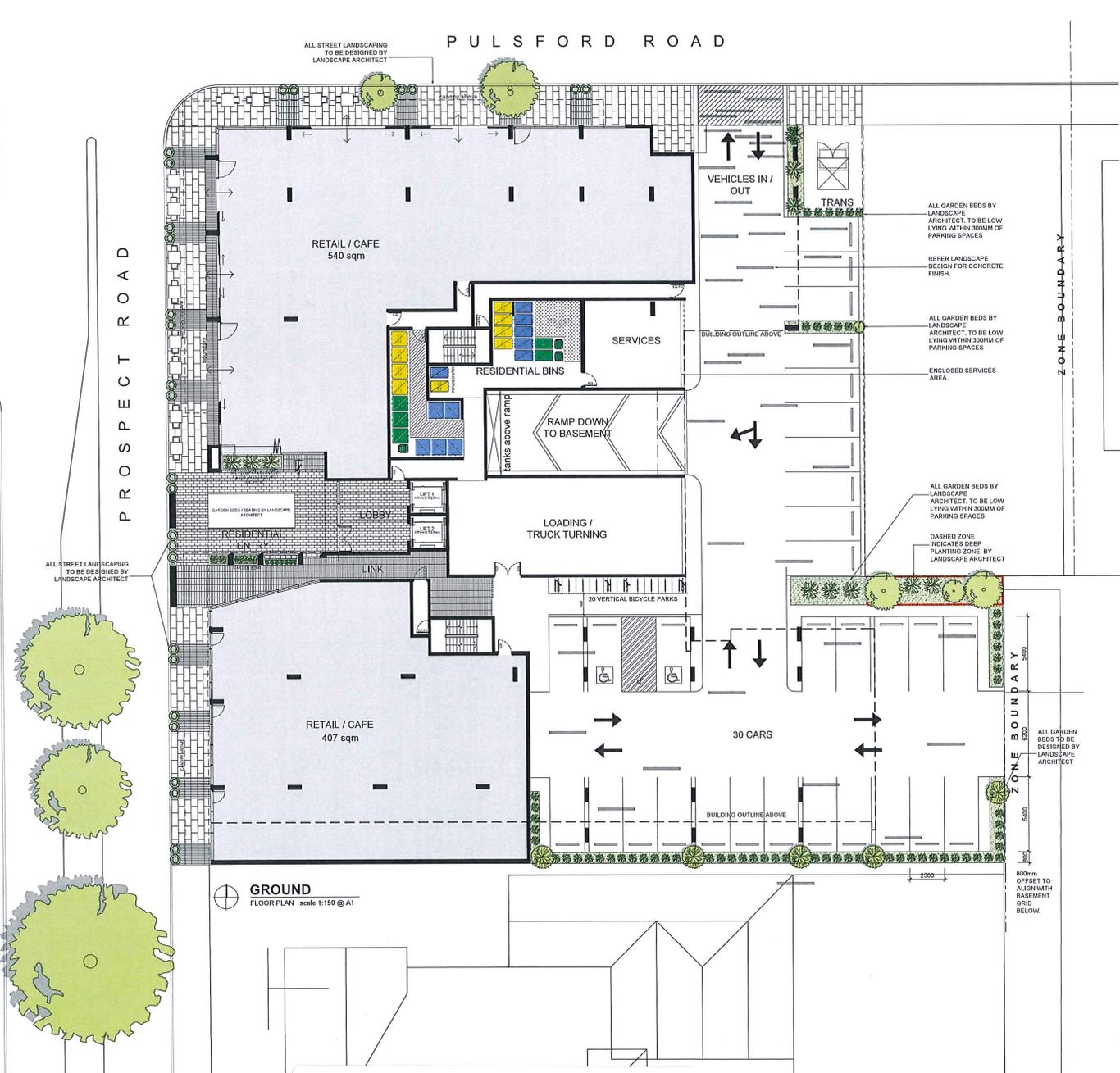
This document is endorsed under Section 37AA of the *Development Act 1993*
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED:
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED:

BASEMENT
 FLOOR PLAN scale 1:150 @ A1

PULSFORD ROAD

PROSPECT ROAD



GROUND FLOOR PLAN scale 1:150 @ A1

- VEHICLE ACCESS TO REAR OF SITE.
- BASEMENT RAMP WITHIN SITE TO REDUCE CROSSOVERS.
- PARKING FOR COMMERCIAL AT GROUND LEVEL.
- PARKING FOR RESIDENTIAL IN BASEMENT.
- CONTROLLED LINK TO PROSPECT FROM PARKING.
- MAXIMISE FRONTAGE & ACTIVATE THE STREET.
- DEEP PLANTING ZONE TO REAR OF SITE AT RESIDENTIAL BOUNDARY.
- DETAILED STREET INTEGRATION OF TENANCIES AND PUBLIC REALM.
- RESIDENTIAL ENTRY INCLUDES LANDSCAPING AND SEATING TO INTEGRATE WITH STREETScape. ALSO INCLUDES WEATHER PROTECTION FOR RESIDENTS.

PROJECT SUMMARY

GROUND FLOOR	
RETAIL / CAFE NORTHERN END	540sqm
RETAIL / CAFE SOUTHERN END	407sqm
TOTAL	947sqm
APARTMENTS	
1 BED	14
2 BED	36
3 BED	05
TOTAL	55
CAR PARKING	
GROUND	30
BASEMENT	80
TOTAL	110
STORAGE CAGES	
BASEMENT	63
TOTAL	63
LANDSCAPING (WITHIN SITE - NOT INCLUDING STREET)	
GROUND	106
L1	43
L2	24
L3	24
L4	68
TOTAL	265 sqm

CONCEPT EVOLUTION



This document is endorsed under Section 37AA of the Development Act 1993
 PRE-LODGEEMENT AGREEMENT NO: PLA 2019/12571/01
 SA GOVERNMENT ARCHITECT, KIRSTEEN MACKAY

DATE: 4/10/2019 SIGNED: [Signature]
 This Agreement remains valid for three months from this date
 DATE: 4/10/2019 SIGNED: [Signature]

APPENDIX B1

SIDRA ANALYSIS RESULTS - EXISTING

INTERSECTION SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - AM Existing]

New Site
 Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Travel Speed (Average)	49.3 km/h	49.3 km/h
Travel Distance (Total)	1495.3 veh-km/h	1794.3 pers-km/h
Travel Time (Total)	30.3 veh-h/h	36.4 pers-h/h
Demand Flows (Total)	1477 veh/h	1772 pers/h
Percent Heavy Vehicles (Demand)	4.4 %	
Degree of Saturation	0.436	
Practical Spare Capacity	124.6 %	
Effective Intersection Capacity	3384 veh/h	
Control Delay (Total)	0.36 veh-h/h	0.43 pers-h/h
Control Delay (Average)	0.9 sec	0.9 sec
Control Delay (Worst Lane)	15.7 sec	
Control Delay (Worst Movement)	35.9 sec	35.9 sec
Geometric Delay (Average)	0.3 sec	
Stop-Line Delay (Average)	0.6 sec	
Idling Time (Average)	0.4 sec	
Intersection Level of Service (LOS)	NA	
95% Back of Queue - Vehicles (Worst Lane)	0.7 veh	
95% Back of Queue - Distance (Worst Lane)	4.7 m	
Queue Storage Ratio (Worst Lane)	0.00	
Total Effective Stops	78 veh/h	94 pers/h
Effective Stop Rate	0.05 per veh	0.05 per pers
Proportion Queued	0.04	0.04
Performance Index	31.6	31.6
Cost (Total)	634.25 \$/h	634.25 \$/h
Fuel Consumption (Total)	104.5 L/h	
Carbon Dioxide (Total)	248.9 kg/h	
Hydrocarbons (Total)	0.016 kg/h	
Carbon Monoxide (Total)	0.196 kg/h	
NOx (Total)	0.374 kg/h	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	708,884 veh/y	850,661 pers/y
Delay	171 veh-h/y	205 pers-h/y
Effective Stops	37,555 veh/y	45,067 pers/y
Travel Distance	717,728 veh-km/y	861,273 pers-km/y
Travel Time	14,544 veh-h/y	17,453 pers-h/y
Cost	304,441 \$/y	304,441 \$/y
Fuel Consumption	50,141 L/y	
Carbon Dioxide	119,480 kg/y	
Hydrocarbons	8 kg/y	
Carbon Monoxide	94 kg/y	
NOx	179 kg/y	

MOVEMENT SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - AM Existing]

New Site
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Prospect Rd (S)												
2	T1	556	4.0	0.285	0.0	LOS A	0.0	0.0	0.00	0.00	50.0	
3	R2	12	0.0	0.022	9.4	LOS A	0.1	0.6	0.67	0.78	43.7	
3u	U	1	0.0	0.022	17.1	LOS C	0.1	0.6	0.67	0.78	46.3	
Approach		568	3.9	0.285	0.3	NA	0.1	0.6	0.01	0.02	49.8	
East: Pulsford Rd (E)												
4	L2	49	4.3	0.199	10.1	LOS B	0.7	4.7	0.79	0.91	40.8	
6	R2	14	0.0	0.199	35.9	LOS E	0.7	4.7	0.79	0.91	40.7	
Approach		63	3.3	0.199	15.7	LOS C	0.7	4.7	0.79	0.91	40.8	
North: Prospect Rd (N)												
7	L2	20	5.3	0.436	4.7	LOS A	0.0	0.0	0.00	0.01	49.3	
8	T1	825	4.8	0.436	0.1	LOS A	0.0	0.0	0.00	0.01	49.8	
Approach		845	4.9	0.436	0.2	NA	0.0	0.0	0.00	0.01	49.8	
All Vehicles		1477	4.4	0.436	0.9	NA	0.7	4.7	0.04	0.05	49.3	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

INTERSECTION SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - PM Existing]

New Site
 Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Travel Speed (Average)	49.2 km/h	49.2 km/h
Travel Distance (Total)	1786.1 veh-km/h	2143.3 pers-km/h
Travel Time (Total)	36.3 veh-h/h	43.5 pers-h/h
Demand Flows (Total)	1764 veh/h	2117 pers/h
Percent Heavy Vehicles (Demand)	1.4 %	
Degree of Saturation	0.478	
Practical Spare Capacity	105.1 %	
Effective Intersection Capacity	3693 veh/h	
Control Delay (Total)	0.52 veh-h/h	0.62 pers-h/h
Control Delay (Average)	1.1 sec	1.1 sec
Control Delay (Worst Lane)	30.4 sec	
Control Delay (Worst Movement)	66.0 sec	66.0 sec
Geometric Delay (Average)	0.2 sec	
Stop-Line Delay (Average)	0.8 sec	
Idling Time (Average)	0.6 sec	
Intersection Level of Service (LOS)	NA	
95% Back of Queue - Vehicles (Worst Lane)	0.9 veh	
95% Back of Queue - Distance (Worst Lane)	6.7 m	
Queue Storage Ratio (Worst Lane)	0.01	
Total Effective Stops	78 veh/h	94 pers/h
Effective Stop Rate	0.04 per veh	0.04 per pers
Proportion Queued	0.03	0.03
Performance Index	37.9	37.9
Cost (Total)	744.00 \$/h	744.00 \$/h
Fuel Consumption (Total)	111.4 L/h	
Carbon Dioxide (Total)	263.0 kg/h	
Hydrocarbons (Total)	0.016 kg/h	
Carbon Monoxide (Total)	0.202 kg/h	
NOx (Total)	0.172 kg/h	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	846,821 veh/y	1,016,185 pers/y
Delay	248 veh-h/y	298 pers-h/y
Effective Stops	37,409 veh/y	44,891 pers/y
Travel Distance	857,333 veh-km/y	1,028,800 pers-km/y
Travel Time	17,417 veh-h/y	20,900 pers-h/y
Cost	357,121 \$/y	357,121 \$/y
Fuel Consumption	53,462 L/y	
Carbon Dioxide	126,262 kg/y	
Hydrocarbons	8 kg/y	
Carbon Monoxide	97 kg/y	
NOx	83 kg/y	

MOVEMENT SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - PM Existing]

New Site
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Prospect Rd (S)												
2	T1	946	1.6	0.478	0.1	LOS A	0.0	0.0	0.00	0.00	49.9	
3	R2	29	0.0	0.044	8.3	LOS A	0.2	1.2	0.61	0.76	44.4	
3u	U	2	0.0	0.044	14.0	LOS B	0.2	1.2	0.61	0.76	47.1	
Approach		978	1.5	0.478	0.4	NA	0.2	1.2	0.02	0.02	49.7	
East: Pulsford Rd (E)												
4	L2	31	3.4	0.292	12.0	LOS B	0.9	6.7	0.87	0.98	35.0	
6	R2	16	0.0	0.292	66.0	LOS F	0.9	6.7	0.87	0.98	35.0	
Approach		46	2.3	0.292	30.4	LOS D	0.9	6.7	0.87	0.98	35.0	
North: Prospect Rd (N)												
7	L2	16	0.0	0.373	4.6	LOS A	0.0	0.0	0.00	0.01	49.4	
8	T1	724	1.3	0.373	0.0	LOS A	0.0	0.0	0.00	0.01	49.9	
Approach		740	1.3	0.373	0.1	NA	0.0	0.0	0.00	0.01	49.9	
All Vehicles		1764	1.4	0.478	1.1	NA	0.9	6.7	0.03	0.04	49.2	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

APPENDIX B2

SIDRA ANALYSIS RESULTS - FUTURE

INTERSECTION SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - AM Future]

New Site
 Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Travel Speed (Average)	48.7 km/h	48.7 km/h
Travel Distance (Total)	1563.6 veh-km/h	1876.3 pers-km/h
Travel Time (Total)	32.1 veh-h/h	38.5 pers-h/h
Demand Flows (Total)	1544 veh/h	1853 pers/h
Percent Heavy Vehicles (Demand)	4.3 %	
Degree of Saturation	0.443	
Practical Spare Capacity	101.8 %	
Effective Intersection Capacity	3488 veh/h	
Control Delay (Total)	0.77 veh-h/h	0.93 pers-h/h
Control Delay (Average)	1.8 sec	1.8 sec
Control Delay (Worst Lane)	22.0 sec	
Control Delay (Worst Movement)	41.7 sec	41.7 sec
Geometric Delay (Average)	0.5 sec	
Stop-Line Delay (Average)	1.3 sec	
Idling Time (Average)	0.9 sec	
Intersection Level of Service (LOS)	NA	
95% Back of Queue - Vehicles (Worst Lane)	1.5 veh	
95% Back of Queue - Distance (Worst Lane)	10.9 m	
Queue Storage Ratio (Worst Lane)	0.01	
Total Effective Stops	145 veh/h	174 pers/h
Effective Stop Rate	0.09 per veh	0.09 per pers
Proportion Queued	0.07	0.07
Performance Index	34.8	34.8
Cost (Total)	682.43 \$/h	682.43 \$/h
Fuel Consumption (Total)	110.6 L/h	
Carbon Dioxide (Total)	263.5 kg/h	
Hydrocarbons (Total)	0.017 kg/h	
Carbon Monoxide (Total)	0.208 kg/h	
NOx (Total)	0.390 kg/h	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	741,221 veh/y	889,465 pers/y
Delay	372 veh-h/y	446 pers-h/y
Effective Stops	69,752 veh/y	83,702 pers/y
Travel Distance	750,531 veh-km/y	900,637 pers-km/y
Travel Time	15,410 veh-h/y	18,492 pers-h/y
Cost	327,565 \$/y	327,565 \$/y
Fuel Consumption	53,103 L/y	
Carbon Dioxide	126,488 kg/y	
Hydrocarbons	8 kg/y	
Carbon Monoxide	100 kg/y	
NOx	187 kg/y	

MOVEMENT SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - AM Future]

New Site
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Prospect Rd (S)												
2	T1	556	4.0	0.285	0.0	LOS A	0.0	0.0	0.00	0.00	50.0	
3	R2	26	0.0	0.047	9.7	LOS A	0.2	1.2	0.68	0.82	43.6	
3u	U	1	0.0	0.047	17.4	LOS C	0.2	1.2	0.68	0.82	46.2	
Approach		583	3.8	0.285	0.5	NA	0.2	1.2	0.03	0.04	49.6	
East: Pulsford Rd (E)												
4	L2	73	4.3	0.397	13.5	LOS B	1.5	10.9	0.85	1.01	38.1	
6	R2	32	0.0	0.397	41.7	LOS E	1.5	10.9	0.85	1.01	38.0	
Approach		104	3.0	0.397	22.0	LOS C	1.5	10.9	0.85	1.01	38.1	
North: Prospect Rd (N)												
7	L2	32	5.3	0.443	4.7	LOS A	0.0	0.0	0.00	0.02	49.2	
8	T1	825	4.8	0.443	0.1	LOS A	0.0	0.0	0.00	0.02	49.8	
Approach		857	4.9	0.443	0.2	NA	0.0	0.0	0.00	0.02	49.8	
All Vehicles		1544	4.3	0.443	1.8	NA	1.5	10.9	0.07	0.09	48.7	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

INTERSECTION SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - PM Future]

New Site
 Giveway / Yield (Two-Way)

Intersection Performance - Hourly Values		
Performance Measure	Vehicles	Persons
Travel Speed (Average)	48.3 km/h	48.3 km/h
Travel Distance (Total)	1859.8 veh-km/h	2231.7 pers-km/h
Travel Time (Total)	38.5 veh-h/h	46.3 pers-h/h
Demand Flows (Total)	1837 veh/h	2204 pers/h
Percent Heavy Vehicles (Demand)	1.4 %	
Degree of Saturation	0.577	
Practical Spare Capacity	38.6 %	
Effective Intersection Capacity	3183 veh/h	
Control Delay (Total)	1.28 veh-h/h	1.54 pers-h/h
Control Delay (Average)	2.5 sec	2.5 sec
Control Delay (Worst Lane)	48.7 sec	
Control Delay (Worst Movement)	85.5 sec	85.5 sec
Geometric Delay (Average)	0.4 sec	
Stop-Line Delay (Average)	2.1 sec	
Idling Time (Average)	1.7 sec	
Intersection Level of Service (LOS)	NA	
95% Back of Queue - Vehicles (Worst Lane)	2.2 veh	
95% Back of Queue - Distance (Worst Lane)	15.9 m	
Queue Storage Ratio (Worst Lane)	0.01	
Total Effective Stops	149 veh/h	179 pers/h
Effective Stop Rate	0.08 per veh	0.08 per pers
Proportion Queued	0.06	0.06
Performance Index	42.2	42.2
Cost (Total)	805.60 \$/h	805.60 \$/h
Fuel Consumption (Total)	118.0 L/h	
Carbon Dioxide (Total)	278.7 kg/h	
Hydrocarbons (Total)	0.017 kg/h	
Carbon Monoxide (Total)	0.215 kg/h	
NOx (Total)	0.182 kg/h	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

NA: Intersection LOS for Vehicles is Not Applicable for two-way sign control since the average intersection delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Intersection Performance - Annual Values		
Performance Measure	Vehicles	Persons
Demand Flows (Total)	881,684 veh/y	1,058,021 pers/y
Delay	616 veh-h/y	740 pers-h/y
Effective Stops	71,621 veh/y	85,945 pers/y
Travel Distance	892,697 veh-km/y	1,071,237 pers-km/y
Travel Time	18,501 veh-h/y	22,202 pers-h/y
Cost	386,689 \$/y	386,689 \$/y
Fuel Consumption	56,656 L/y	
Carbon Dioxide	133,788 kg/y	
Hydrocarbons	8 kg/y	
Carbon Monoxide	103 kg/y	
NOx	87 kg/y	

MOVEMENT SUMMARY

▽ Site: 101 [Prospect Rd/Pulsford Rd - PM Future]

New Site
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Prospect Rd (S)												
2	T1	946	1.6	0.478	0.1	LOS A	0.0	0.0	0.00	0.00	49.9	
3	R2	52	0.0	0.075	8.5	LOS A	0.3	2.0	0.62	0.79	44.2	
3u	U	2	0.0	0.075	14.2	LOS B	0.3	2.0	0.62	0.79	47.0	
Approach		1000	1.5	0.478	0.5	NA	0.3	2.0	0.03	0.04	49.6	
East: Pulsford Rd (E)												
4	L2	49	3.4	0.577	26.0	LOS D	2.2	15.9	0.91	1.11	29.8	
6	R2	31	0.0	0.577	85.5	LOS F	2.2	15.9	0.91	1.11	29.7	
Approach		80	2.1	0.577	48.7	LOS E	2.2	15.9	0.91	1.11	29.8	
North: Prospect Rd (N)												
7	L2	33	0.0	0.382	4.6	LOS A	0.0	0.0	0.00	0.02	49.3	
8	T1	724	1.3	0.382	0.1	LOS A	0.0	0.0	0.00	0.02	49.8	
Approach		757	1.3	0.382	0.2	NA	0.0	0.0	0.00	0.02	49.8	
All Vehicles		1837	1.4	0.577	2.5	NA	2.2	15.9	0.06	0.08	48.3	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



1 October 2019

Sustainability Statement

Proposed Mixed Use Development

69-73 Prospect Road, Prospect, SA 5082

Reference: SH112901_v1



SUHO
ABN 73 091 349 021
T 1300 308 525
esd@suho.com.au
suho.com.au

Contents

Document Control	9
Executive Summary	1
1 Introduction.....	2
1.1 Purpose.....	2
1.2 Project Overview	2
1.3 Planning Requirements	2
1.4 Basis of Assessment.....	2
1.5 Sustainability Categories	2
2 ESD Features.....	3
2.1 Management & Waste	3
2.2 Indoor Environment Quality.....	3
2.3 Energy.....	3
2.4 Transport	5
2.5 Water.....	5
2.6 Materials.....	5
2.7 Land Use & Ecology	6
2.8 Emissions	6
3 Council ESD Requirements and Objectives	7
4 Conclusion	8



Executive Summary

SUHO has been engaged by Delta Projects on behalf of Chapley Group to provide an ESD Statement to support the Development Application for the proposed mixed-use residential and commercial development at 69-73 Prospect Road, Prospect SA. This project is within the jurisdiction of the City of Prospect. The Council ESD requirements for this project have been outlined in this report, along with the project's design response. The intent of this document is to outline the various ESD initiatives proposed to demonstrate the projects commitment to sustainability.

The key sustainable design strategies considered in the development include:

- Abundant access to natural daylight and ventilation
- Large balconies to improve resident amenity and connection to the outdoors
- High performance building fabric and appropriately selected glazing
- Energy efficient building services, including lighting and appropriate control devices
- Water efficient fixtures and fittings
- Preference for drought tolerant and/or native vegetation with efficient irrigation
- Bicycle parking to encourage active modes of transport
- Provision for future Solar PVs for onsite energy generation



1 Introduction

SUHO has been engaged by Delta Projects on behalf of Chapley Group to prepare an Environmentally Sustainable Design (ESD) Statement to support the Development Approval application of the 69-73 Prospect Road development.

1.1 Purpose

The purpose of this document is to demonstrate the client's commitment to ESD in the 69-73 Prospect Road development and outline Development Plan compliance.

1.2 Project Overview

The 69-73 Prospect Road development is a 5-storey apartment building with two ground floor retail tenancies. There are 55 apartments in total, made up of one, two and three bedroom apartments. The project also includes a basement and ground level carpark for residents, visitors and the commercial tenancy staff.

1.3 Planning Requirements

The local planning requirements of the Prospect Council Development Plan generally relate to categories of sustainable design, water sensitive urban design and waste management. These requirements and objectives are outlined in Section 3 of this report, along with the design response. The developer is committed to delivering a project that exceeds Council requirements, for a market that has growing expectations for ESD.

1.4 Basis of Assessment

This document and all related assessments have been based on the following:

- Project discussions and email correspondence with Delta Projects & Pruszinski PACT architects.
- The architectural drawing set from Pruszinski PACT architects.

1.5 Sustainability Categories

This Statement categorises the proposed ESD initiatives into 8 broad sustainability categories. These categories align with Green Star; a widely recognised and applied rating tool across the industry. These categories are summarised below:

- Management & Waste
- Indoor Environment Quality
- Energy
- Transport
- Water
- Materials
- Land Use & Ecology
- Emissions



2 ESD Features

The following is a summary of the ESD initiatives included in each of the categories.

2.1 Management & Waste

The following describes items relating to Management and Waste included in this project.

#	Initiative	Description	Responsibility
2.1.A	Waste Management Plan	Documentation on the floor plans outlines appropriately sized landfill, recycling and FOGO (Food and Garden Organics) waste bins based on volume generation calculations. Thought has been included into how these separate waste streams are managed, collection details and the separation of the commercial and residential waste bins as required. Waste Management calculations have been prepared by Pruszinski PACT to satisfy local requirements.	Architect

2.2 Indoor Environment Quality

The following describes items relating to Indoor Environment Quality (IEQ) included in this project.

#	Initiative	Description	Responsibility
2.2.A	Natural Ventilation	The building has been designed to allow for high levels of natural ventilation with all bedrooms and living spaces containing openable windows. Common areas such as lifts and corridors will be naturally ventilated via accessible balconies. While this will reduce energy consumption, it will also improve the connection to the outdoors and allow for fresh air into these spaces.	Architect
2.2.B	Daylight	Windows have been provided to all bedrooms and living spaces in the apartments to provide abundant natural light. Clever façade design has been incorporated to provide high levels of privacy, to encourage the occupants to keep their blinds open. The corridors on each floor include windows where practical allowing additional natural light into these spaces that would otherwise rely on 100% artificial lighting.	Architect

2.3 Energy

The following describes items relating to Energy included in this project.



#	Initiative	Description	Responsibility
2.3.A	Building Fabric	<p><u>Class 2 Apartments – Preliminary Star Ratings</u> The results for the preliminary energy modelling showed an average star rating of 6.2 stars for the 8 sample apartments modelled. This will guide the building fabric design and the insulation levels adopted during the design process. See Appendix A for Preliminary Class 2 report for full details of the preliminary specification.</p> <p><u>Commercial Spaces</u> Details on the suggested insulation specification for the commercial space can be provided once the official NCC 2019 Volume 1 Façade Calculator has been released. Actual building fabric system performance values will be confirmed following detailed energy modelling for NCC 2019 compliance.</p>	ESD Consultant / Architect
2.3.B	Glazing	<p><u>Class 2 Apartments – Preliminary Star Ratings</u> Preliminary energy modelling for a sample of 8 apartments was completed during the planning stage to provide clarification on what level of glazing performance will be required for the apartments. In the preliminary assessment single clear glazing units were used as standard, with clear double glazed units used for apartments to achieve higher performance. Actual glazing thermal performance will be confirmed following detailed energy modelling.</p> <p><u>Commercial Spaces</u> Note: For the commercial tenancies details on the suggested preliminary glazing specification can be provided once the official NCC 2019 Volume 1 Façade Calculator has been released.</p>	ESD Consultant / Architect
2.3.C	Solar PV	The roof structure will be designed to be structurally capable of having solar PV arrays installed in the future.	ESD Consultant / Contractor
2.3.D	Lighting	The project will generally include energy-efficient LEDs throughout. This initiative will enable the development to achieve an overall lighting power density of approximately 4W/m ² .	Lighting Designer / Contractor
2.3.E	Lighting Control	Common area lighting, excluding safety lighting, will be provided with daylight/motion sensors where applicable.	Lighting Designer / Contractor
2.3.F	Domestic Hot Water System	The project will most likely be adopting a gas domestic hot water system. These systems reduce overall energy consumption and greenhouse gas emissions when compared with a conventional electric system.	Hydraulic Consultant / Contractor



2.4 Transport

The following describes items relating to Transport included in this project.

#	Initiative	Description	Responsibility
2.4.A	Bicycle Parking Facilities	The project currently includes secure bicycle parking in the basement for the occupants. Bicycle parks have also been included for visitors and the retail/cafe employees and visitors. These will satisfy all local bicycle guidelines.	Architect / Contractor
2.4.B	Walk Score	The developer has selected the project's site specifically for the great location, the site achieves a Walk Score of 90. This means that the project is within close proximity of key businesses and shops allowing all errands to be accomplished on foot.	Developer

2.5 Water

The following describes items relating to Water included in this project.

#	Initiative	Description	Responsibility
2.5.A	Efficient Fixtures and Fittings	Through the use of water-efficient fixtures and fittings the development is able to achieve approximately an 8% reduction in potable water consumption. Current selection includes WELS 6 Star taps, 4 Star toilets, and 3 Star showers. If the development includes rainwater capture and storage this will increase.	Architect / Contractor
2.5.B	Landscape Irrigation	Water efficient subsurface landscape irrigation will be delivered via sub-surface drip systems, potentially using harvested rainwater.	Landscape Designer / Contractor
2.5.C	Water Sensitive Urban Design	A water sensitive urban design assessment is being undertaken by PT Design, to determine an appropriate storm water solution for the proposed project.	PT Design

2.6 Materials

The following describes items relating to Materials included in this project.

#	Initiative	Description	Responsibility
2.6.A	Construction & Demolition Waste	During demolition and construction phases, the contractor is to ensure as much material is recycled as practical. Individual bins to separate waste streams will improve recycling rates on site.	Contractor



2.7 Land Use & Ecology

The following describes items relating to Land Use & Ecology included in this project.

#	Initiative	Description	Responsibility
2.7.A	Large Balconies	Each residence is provided with large balconies with floor waste traps to encourage outdoor living and urban-scale gardening.	Architect / Contractor

2.8 Emissions

The following describes items relating to Emissions included in this project.

#	Initiative	Description	Responsibility
2.8.A	Waterless Heat Rejection	The building does not utilise any heat-rejection water. This will be achieved through the adoption of waterless heating and cooling methods.	Mechanical Designer / Contractor
2.8.B	Light Pollution	All external lighting that is not required for pedestrian safety will be positioned to avoid direct light pollution to the night sky.	Lighting Designer / Contractor



3 Council ESD Requirements and Objectives

The following table provides a summary of the overall design response in relation to City of Prospect Council requirements and objectives.

#	Objective	Design Response
Council Wide Objective 23	<p>Medium and High Rise Development (3 or More Storeys)</p> <p><i>"Buildings designed and sited to be energy and water efficient." – Page 19.</i></p>	<p>The design of the project has been developed with a number of key sustainability principles in mind including allowing abundant natural daylight and natural ventilation. This has been a key design feature in all of the apartments, achieved through the clever shape of the building and the provision of appropriate levels of privacy provided for future occupants to encourage blinds to be left open.</p> <p>An 8 percent improvement on the water efficiency from baseline can be achieved simply with water efficient fittings. Greater reductions may be achieved with the inclusion of rain water harvesting, if included as part of the water sensitive urban design solution.</p>
Council Wide Objective 39	<p>Water Sensitive Urban Design</p> <p><i>"Development consistent with the principles of water sensitive design." – Page 20</i></p> <p><i>"Development sited and designed to:</i></p>	<p>A Water Sensitive Urban Design assessment is being undertaken by PT Design. This will include Storm water management practices to minimise the sites impact on the local Storm water system in peak storm events in a safe manner.</p>
Council Wide Objective 40	<p><i>(a) protect natural ecological systems;</i></p> <p><i>(b) achieve the sustainable use of water;</i></p> <p><i>(c) protect water quality, including receiving waters;</i></p> <p><i>(d) reduce runoff and peak flows and prevent the risk of downstream flooding;</i></p> <p><i>(e) minimise demand on reticulated water supplies;</i></p> <p><i>(f) maximise the harvest and use of stormwater; and</i></p> <p><i>(g) protect stormwater from pollution sources." – Page 20</i></p>	
Council Wide Objective 41	<p><i>"Storage and use of stormwater which avoids adverse impact on public health and safety." – Page 20</i></p>	



<p>Council Wide Objectives 47-48</p>	<p>Renewable Energy</p> <p><i>“The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.”</i></p> <p><i>“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.” – Page 21</i></p>	<p>The roof will be designed structurally with the intent to have the ability to hold a large solar panel array in the future.</p>
<p>Council Wide Objectives 49-50</p>	<p>Waste</p> <p><i>“Development that, in order of priority, avoids the production of waste, minimises the production of waste, re-uses waste, recycles waste for re-use, treats waste and disposes of waste in an environmentally sound manner.”</i></p> <p><i>“Development that includes the treatment and management of solid and liquid waste to prevent undesired impacts on the environment including, soil, plant and animal biodiversity, human health and the amenity of the locality.” – Page 21</i></p>	<p>The provision of the waste management requirements for the project has been designed by Pruszinski PACT architects.</p> <p>General waste and co-mingle recycling shoots have been provided on each of the four apartment levels, with FOGO bins provided downstairs for organic waste.</p> <p>Downstairs the waste for the commercial tenancies and apartments have been separated with an additional space for hard rubbish collection. The architects have calculated the waste volumes for the commercial tenancies and 55 apartments based on local guidelines.</p>

4 Conclusion

Based on the above inclusions and the client’s commitment to ESD, the project satisfies Council’s requirements for a development of this nature.



Document Control

Job Title	69-73 Prospect Rd	SH Reference:	SH112091
Document Title	Sustainability Statement	File Reference:	R:\...\SH112091\reports
File Name	Sustainability Statement_69-73 Prospect Rd_SH112091		

Version	Date	Prepared by	Checked by	Approved by	Comments
0	10/07/2019	TS	LV	JW	Draft Revision
1	1/10/2019	TS	LV	JW	Final

Disclaimer

Although great care has been taken to prepare this report ("the Report"), Hanuman Pty Ltd A.C.N. 091 349 021 trading as SUHO does not make any representations or give any warranties or assurances as to the accuracy or completeness of the information contained in the Report or that the Report is free from errors or omission.

The Report has been prepared by SUHO based on the information supplied. All conditions and warranties (express or implied) whether arising by statute or otherwise are expressly negated and excluded to the extent permitted by law.

SUHO and its employees and agents shall not be liable for any loss, damage, cost or expense whether direct, indirect or consequential, incurred by, or arising by reason of, any person using or relying on the Report and whether caused by reason of any error, negligent act, omission or misrepresentation in the Report or otherwise.

Trademarks

All Trademarks displayed in the Report are subject to the legal rights of SUHO and the unauthorised use of any Trademark displayed in the Report is strictly prohibited.





Preliminary Results Report – Class 2 Section J

National Construction Code Series
Building Code of Australia 2016, Volume 1

Reference: SH112091

Date: 9 August 2019

BCA compliance assessment of:

Proposed Mixed Use Development – Apartments (BCA Class 2)
69-73 Prospect Road
Prospect SA 5082

Client Reference: 69-73 Prospect Rd

Report commissioned by:

Delta Projects
Level 5/100 Pirie Street
Adelaide SA 5000

On behalf of:

Chapley Group

Principal Assessor: Jim Woolcock
Member of BDAV, AIBA, HIA and MBA

A handwritten signature in black ink, appearing to read "Jim Woolcock".

Contact:

Tom Symons
commercial@suho.com.au



NatHERS RESULTS

For the preliminary assessment 8 apartments of the 55 apartments proposed for the 69-73 Prospect road development have been assessed to provide indicative results for the apartments as a whole. These results provide an indication as to the levels of insulation and glazing required to achieve compliance, at this stage they should be used as a preliminary guide only.

NCC 2016 Section J Compliance requires that the development achieve an average 6 star rating, with no individual unit achieving less than 5 stars.

Under NCC 2019 the new heating and cooling load limits will need to be achieved, as well as the 6 Star average with 5 star minimum. For the Adelaide NatHERS climate zone 16, the maximum heating load is 58 MJ/m² and the cooling load is required to achieve less than 53 MJ/m². If compliance is sought under the new code the three apartments with cooling loads higher than 53 MJ/m², will require some form of further upgrades above the specification proposed in this report. Potential options for reducing the cooling loads could either be reducing the SHGC of the glazing or the inclusion of ceiling fans.

Level	Apt No.	Individual Specifications Required	Heating Load (MJ/m ²)	Cooling Load (MJ/m ²)	Star Rating
Level 1	Unit 104	- Double Glazing - R2.0 to overhanging floor	15.7	45.2	7.4
	Unit 110	- Double Glazing	50.7	28.3	6.7
Level 2	Unit 202	- Single Glazing - R2.0 to Roof (Deck Above)	21.5	38.9	7.4
	Unit 212	- Single Glazing - R2.0 to Roof (Deck Above)	50.4	58.8	5.4
Level 3	Unit 306	- Double Glazing	32.5	51.8	6.4
	Unit 308	- Double Glazing	51.6	61.9	5.4
Level 4	Unit 403	- Double Glazing - R4.0 Ceiling Batt	45.2	64.2	5.4
	Unit 407	- Double Glazing - R4.0 Ceiling Batt	46.8	51.9	5.9

Preliminary Minimum

5.4

Preliminary Average

6.25



ASSUMPTIONS

The results above are based on the following assumptions. Please note that adjustments to these assumptions will influence the preliminary star rating results.

- Air gaps in wall construction assumed to be non-reflective 20mm.
- Ceiling height assumed to be 3050 (3200 – 150 for slab = 3050)
- Full height windows assumed to be 2700 high sliding doors.
- Other windows assumed to be awning.
- Garden Bed assumed to be 1060 high.
- Internal doors assumed to be 2100 high.
- Apt 212, Bed 2 window assumed to be width drawn on plans and 1600 high. It doesn't appear to be shown on East Elevation. East wall of Laundry & part of dining assumed to be metal clad wall i.e. no window.
- Some window locations on floor plan don't appear to correspond to elevation rendering. Windows have assumed to be as per floor plan.
- Communal garden opposite lifts assumed to have glass wall to fully enclose corridor.



BUILDING FABRIC AND SPECIFICATIONS REQUIRED

The following specifications and assumptions for the proposed preliminary material, insulation and glazing levels for the development have been used for the preliminary assessment.

Specifications for Insulation, Glazing and Building Sealing listed have been applied to ALL apartments. Additional individual specifications may be required for selected apartments only; these are listed within the results table.

BUILDING FABRIC

LOCATION	DESCRIPTION	ADDED R-VALUE
WALLS		
Party Walls:		
Between Apartments	13mm Plasterboard / R2.0 / 30mm airgap / 25mm Plasterboard / 30mm airgap / R2.0 / 13mm Plasterboard	R2.0 x2
External Walls:		
Concrete	150mm Concrete / air gap / R2.0 / 13mm Plasterboard	R2.0
Metal Clad	Metal clad / air gap / R2.5 / 13mm Plasterboard	R2.5
Corridor Walls:		
Apartment/Corridor	2x layers 13mm Fire Rated Plasterboard / R2.0 / 2x layers 13mm Fire Rated Plasterboard	R2.0
Internal Walls:		
Within Apartments	13mm Plasterboard / Nil Insulation / 13mm Plasterboard	Nil
FLOORS		
Upper Floors:	150mm Suspended Concrete Slab	R2.0
Upper Floors, Carpark Below:	Suspended Concrete Slab with soffit insulation	R2.0
Floor Coverings:	Default Carpet to bedrooms Timber Floating to Meals/Living and Passages/Entry Tiles to wet areas and Kitchen	



ROOF

Top Floor Apartments:	Metal Sheeting (Colorbond) with Anticon 55 Roof Blanket installed under sheeting	R1.3
-----------------------	----------------------------------------------------------------------------------	------

CEILING

Top Floor Apartments:	13mm Plasterboard Lining	R4.0
-----------------------	--------------------------	------

Internal Ceilings (unit above):	13mm Plasterboard Lining fixed to Suspended Slab (R2.0 Bulk insulation applied to the floor of the apartments not the ceiling)	
---------------------------------	-----------------------------------------------------------------------------------------------------------------------------------	--

Exposed Ceiling, Balcony Above:	13mm Plasterboard Lining fixed to Suspended Slab	R2.0
---------------------------------	--------------------------------------------------	------

GLAZING

Single Glazed Option	Aluminium Framed Single Glazing - Assumed Manufacturer Capral <i>Awning Window : U-Value = 6.16, SHGC = 0.75</i> <i>Sliding Door : U-Value = 6.16, SHGC = 0.71</i>
----------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Double Glazed Option	Aluminium Framed Double Glazing - Assumed Manufacturer Capral <i>Awning Window : U-Value = 4.5, SHGC = 0.53</i> <i>Sliding Door : U-Value = 4.1, SHGC = 0.59</i>
----------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

BUILDING SEALING

External Doors and windows weather-stripped (as per part J3.4)

All exhaust fans sealed to outside air and/or roof space (When not in use with a self-closing damper or similar)

Standard Surface Mounted Bayonet Lighting only, NO recessed downlights



DISCLAIMER

Although great care has been taken to prepare this report ("the Report"), Hanuman Pty Ltd A.C.N. 091 349 021 trading as SUHO does not make any representations or give any warranties or assurances as to the accuracy or completeness of the information contained in the Report or that the Report is free from errors or omission.

The Report has been prepared by SUHO based on the information supplied.

All conditions and warranties (express or implied) whether arising by statute or otherwise are expressly negated and excluded to the extent permitted by law.

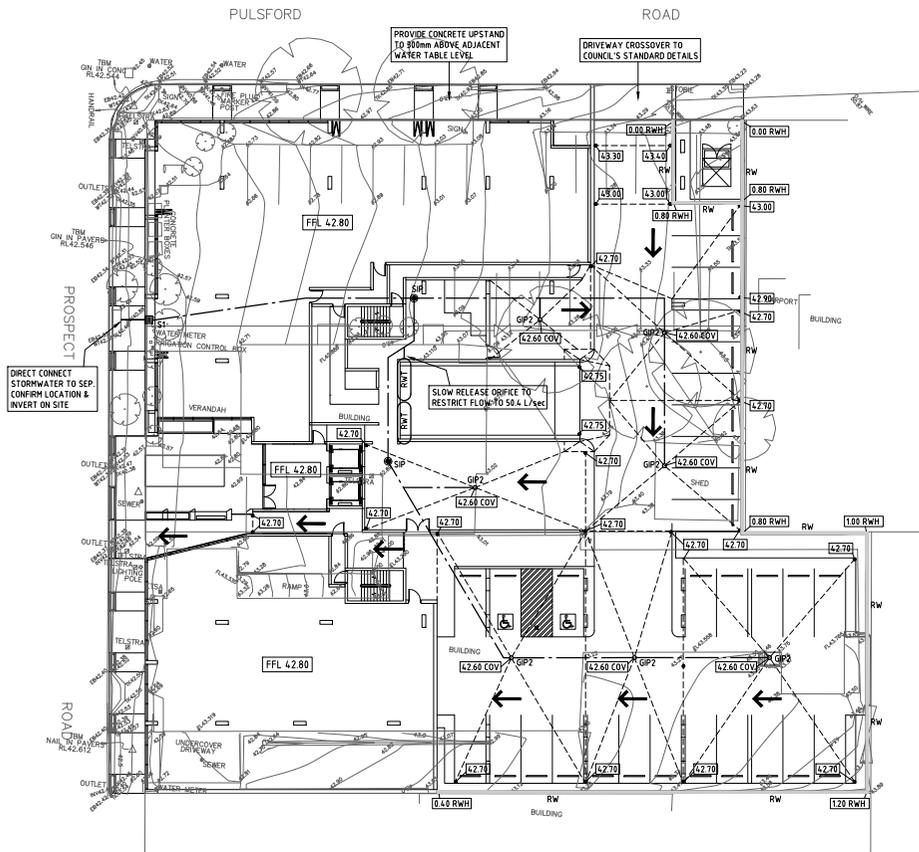
SUHO and its employees and agents shall not be liable for any loss, damage, cost or expense whether direct, indirect or consequential, incurred by, or arising by reason of, any person using or relying on the Report and whether caused by reason of any error, negligent act, omission or misrepresentation in the Report or otherwise.

TRADEMARKS

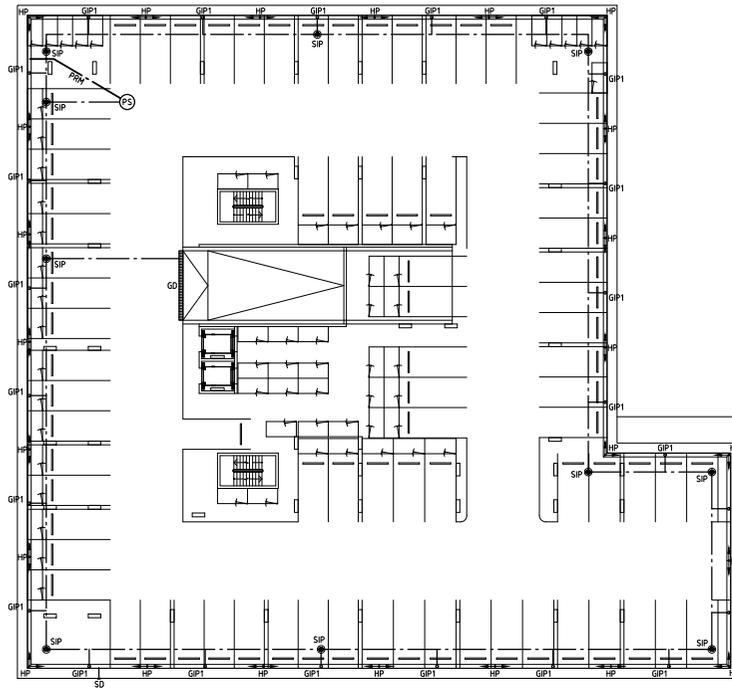
All Trademarks displayed in the Report are subject to the legal rights of SUHO and the unauthorised use of any Trademark displayed in the Report is strictly prohibited.



© Copyright 2018 SUHO, All Rights Reserved



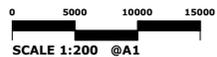
GROUND LEVEL DRAINAGE LAYOUT
SCALE 1:200



BASEMENT LEVEL DRAINAGE LAYOUT
SCALE 1:200

LEGEND

- STORMWATER PIPE TO FUTURE DETAILS
- S1 ■ STORMWATER SUMP TO FUTURE DETAILS
- RWT 2 x 5.0 HL DETENTION TANKS STRICTLY IN ACCORDANCE WITH MANUF'S DETAILS
PROVIDE INSPECTION OPENINGS, BREATHER VALVES, ETC. STRICTLY IN ACCORDANCE WITH MANUF'S DETAILS
- PS PRE-PACKAGED PUMP STATION TO PUMP MANUFACTURERS DETAILS
PUMP RATE - 5.0 L/sec
- PRM PUMP RISING MAIN TO PUMP MANUFACTURERS DETAILS
- 15.55 DESIGN LEVEL
cov - cover
- HP HIGH POINT OF SPOON DRAIN - FFL -10mm
- GP1 GRATED INLET POINT - TYPE 1
COVER SET AT LOW POINT OF SPOON DRAIN - FFL -30mm
- GP2 GRATED INLET POINT - TYPE 2
NYLOPLAST INLINE DRAIN FITTED WITH A FLEXSTORM PURE INLET FILTER
- GRADE LINE
- ← DIRECTION OF OVERLAND FLOW PATH DURING MAJOR STORM EVENT



PUMP NOTES:
PUMP SHALL BE DUAL PUMP. THE PUMP CONTROLS SHALL BE SET UP TO ENABLE ALTERNATE PUMP OPERATION AT EACH START. IN THE EVENT THAT A PUMP FAILS TO OPERATE WHEN THE WATER LEVEL IN THE WELL REACHES THE PUMP START, THE OTHER PUMP SHALL BE ACTIVATED AND A VISIBLE ALARM INITIATED. IN THE EVENT THAT BOTH PUMPS FAIL TO OPERATE, AN AUDIBLE ALARM SHALL BE INITIATED. PROVIDE BACK-UP POWER SUPPLY IN CASE OF POWER FAILURE.

NOTE:
DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AS A PACKAGE. REFER TO ARCHITECTS DRAWINGS FOR ALL SETOUT DIMENSIONS.
ALL LEVELS SHALL BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. SHOULD ANY DISCREPANCY OCCUR, THE CONTRACTOR SHALL CONTACT THIS OFFICE IMMEDIATELY FOR FURTHER INSTRUCTION.

CONTRACTORS NOTES:
COVER LEVELS GIVEN FOR PITS ARE NOMINAL ONLY. COVER LEVELS SHALL MATCH FINISHED PAVING LEVELS.
WHERE EXISTING SERVICE COVERS ARE FOUND WITHIN THE SCOPE OF THE NEW WORKS, THE CONTRACTOR MUST ALLOW TO ADJUST THE COVERS TO SUIT THE PROPOSED FINISHED SURFACE LEVEL.
THE CONTRACTOR IS RESPONSIBLE FOR CHECKING LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING ANY EXCAVATION WORK. ANY DAMAGE CAUSED TO ANY SERVICES SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT & SHALL BE REPAIRED BY THE APPROPRIATE AUTHORITIES. ALL COSTS ASSOCIATED WITH REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. PHONE DIAL BEFORE YOU DIG (1100) FOR ASSISTANCE.
WHERE PROPRIETARY ITEMS ARE SPECIFIED, ALTERNATE EQUIVALENT PRODUCTS MAY BE ADOPTED WITH THE PRIOR WRITTEN APPROVAL OF THIS OFFICE.

15.02.2019	ISSUED FOR PLANNING APPROVAL	C
16.07.2019	PRELIMINARY ISSUE	B
	PRELIMINARY ISSUE	A
Date	Revision	Issue

FOR APPROVAL

PT Design
PT Design Pty Ltd 141-149 Hould Street Adelaide SA 5000
T (08 8412 4300) E [ptdesign@ptdesign.net.au]

Designed	MP	Drawn	MP
Approved		Date	JUL 19
CIVIL		Sheet	1 of 1

Product
PROPOSED APARTMENT DEVELOPMENT 69-73 PROSPECT ROAD PROSPECT

Client	DELTA PROJECTS	N
Drawing Title	STORMWATER MANAGEMENT PLAN	Scale
Drawing Number	21144-C01	Issue
		C



STORMWATER MANAGEMENT REPORT

Prospect Road (69-73), Prospect

Prepared by:

PT Design ABN 35 008 116 916
141-149 Ifould Street, ADELAIDE SA 5000
Tel: (08) 8412 4300

Project No: 21144
Revision: -00-
Date of Issue: 23/07/2019

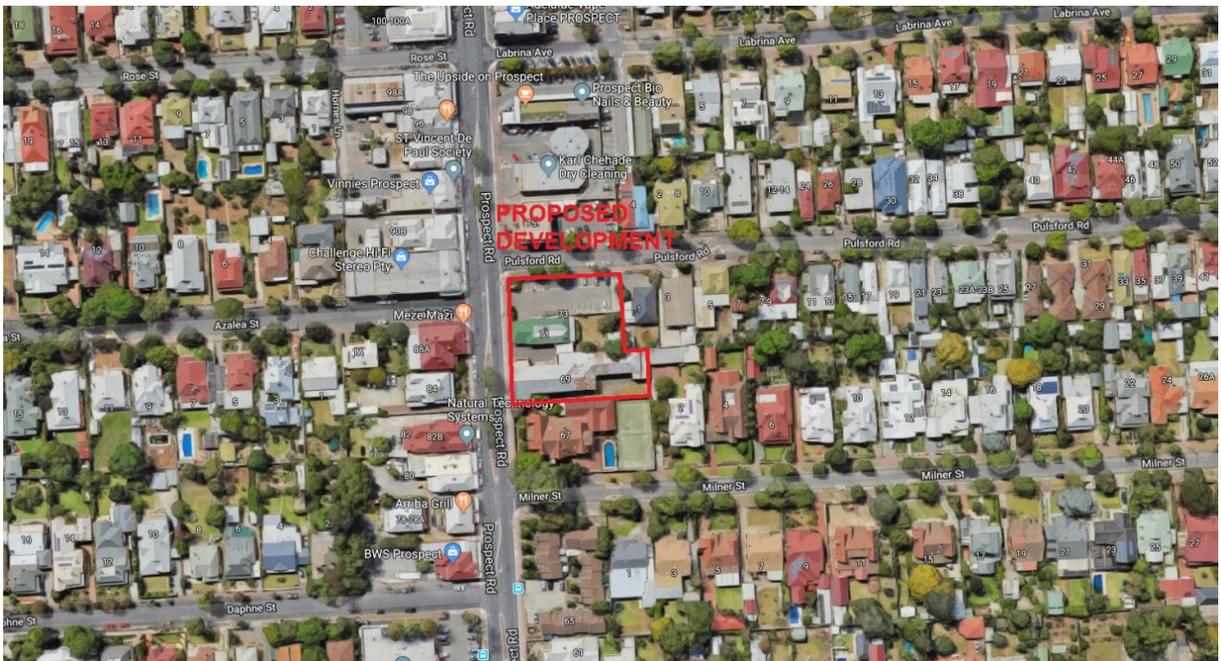
INTRODUCTION

A new apartment building with commercial tenancies on the ground floor is proposed to be constructed at 69-73 Prospect Road, Prospect. The site is located in a commercial/residential area with buildings of a similar nature in the vicinity. This report considers the stormwater management including detention in accordance with council's requirements.

THE SITE

The site is a hammerhead shaped piece of land 2758m² in area. The site is bordered by road to the north and to the west and residential properties to the east and south. The pre-development site is made up of two large commercial buildings and carparking with limited pervious areas. The site falls approx. 0.8m from the east to the west. No stormwater from outside of the property boundaries flow onto the site during 'normal' rain events.

There are two side entry pits on Prospect Road that will allow for direct connection of the stormwater.



STORMWATER DETENTION

The City of Prospect states that the post-development flow leaving the site from the critical 1 in 20 year ARI event must not exceed the flow 10 min. rain event.

Calculations show that the maximum allowable discharge rate from the site is 66.2 L/sec. With the proposed set up we have the carpark water bypassing any detention. This generates 15.8 L/sec leaving and allowable discharge rate of 50.4 L/sec for the remainder. Calculations show that we must provide 9.9 kL of detention storage to cater for this. Refer to appendix A for the supporting calculations.

Detention will be provided by way of above ground tank/s that can gravity drain to Prospect Road. The final location and/or make up of the tank will be determined during detail design development in the future.

STORMWATER DESIGN

The two ground floor tenancies and lobby will be set at RL 42.80. This is 400mm above the water table on Prospect Road protecting this face of the building from flooding during a major storm event. The northern face of the building must be provided with an upstand/bunt at the boundary wall to min. 300mm above the nearest adjacent water table level to protect the building from inundation during a major storm event.

All roof and balcony catchment areas within the site will be directed to the stormwater detention tanks. All surface water will bypass any detention and discharge direct to the street. Final stormwater pipe layout and sizes will be determined in accordance with AS3500.3 during detailed design development stage in the future.

Carpark pits draining surface water with no roof over will be fitted with a FleXstorm Pure Inlet Filter (or equivalent) to remove Suspended solids and Hydrocarbons from the surface water collected.

APPENDIX A

STORMWATER DETENTION CALCULATIONS



STORMWATER CALCULATIONS

Prospect Road (69-73), Prospect

Prepared by:

PT Design ABN 35 008 116 916
141-149 Ifould Street, ADELAIDE SA 5000
Tel: (08) 8412 4300

Project No: 21144
Revision: -00-
Date of Issue: 23/07/2019

Project:	69-73 Prospect Road	Project #	21144
	Prospect	Date	23.07.2019
Design By:	MP	Page	1

CRITICAL 1 IN 20 YEAR DETENTION VOLUME

PRE DEVELOPMENT FLOW

Time of Concentration	5 mins
Rainfall Intensity	121 mm/hr

Catchment Area	C	Area (m ²)	
Roof	0.9	1016.7	30.8
Impervious	0.75	1282.2	32.3
Pervious	0.2	459.4	3.1
Total			66.2 L/sec

BYPASSING DETENTION

Catchment Area	C	Area (m ²)	
Impervious	0.75	625.2	15.8

ADJUSTED ALLOWABLE DISCHARGE FROM TANK

Allowable flow	50.4 L/sec
----------------	------------

POST DEVELOPMENT FLOW

Time of Concentration	t mins (critical TBC)
Rainfall Intensity	²⁰ I _t mm/hr

Catchment Area	C	Area (m ²)	
Roof	0.9	2427.5	0.61
Impervious	0.75	0	0.00
Pervious	0.2	0	0.00
Total			0.61 ¹⁰⁰ I _t

Project: 69-73 Prospect Road

Project # 21144

Prospect

Date 23.07.2019

Design By: MP

Page 2

CRITICAL STORAGE VOLUME

Q in
0.61 $^{20}I_t$

Q out
50.4 L/sec

Tc (mins)	Intensity, I (mm/hr)	Q in (L/sec)	Q out (L/sec)	V in (L ³)	V out (L ³)	V total (L ³)
5	121	73.4	50.4	22030	15122	6907.991
6	112	68.0	50.4	24469	16634	7835
10	89.3	54.2	50.4	32516	22682	9834
20	62	37.6	50.4	45152	37804	7348
30	48.8	29.6	50.4	53308	52926	382
60	31.5	19.1	50.4	68820	98290	-29471
120	20	12.1	50.4	87390	189020	-101630
180	15.3	9.3	50.4	100280	279749	-179469
360	9.62	5.8	50.4	126104	551937	-425834
720	6.01	3.6	50.4	157564	1096314	-938750
1440	3.65	2.2	50.4	191384	2185067	-1993683

PEAK STORAGE REQUIRED 9834 L³

File No:
2019/12571/01

Ref No:
14554751

Pre-lodgement Agreement

ODASA Pre-lodgement No: PLA 2019/12571/01

Pursuant to Section 37AA of the Development Act, this Agreement obviates the need for a statutory referral to the South Australian Government Architect during the State Commission Assessment Panel (SCAP) process. The SCAP refers all applicable development proposals to the South Australian Government Architect, for review and comments on design merit. The Agreement must be lodged with the development application, and the application lodged within three months of the Agreement being signed.

The Agreement between the **South Australian Government Architect** and **69-73 Prospect Rd Pty Ltd** (the Proponent), signed on **4 October 2019** pertains to the development proposal for **69-73 Prospect Road, Prospect** described in the drawings listed in the schedule below, reviewed by the South Australian Government Architect on 4 October 2019. The drawings form part of the Agreement.

This Agreement is not an approval to proceed with the proposal. Development Approval from the State Commission Assessment Panel must be obtained prior to commencing work.

Development description

The proposal is for a five storey mixed use building, comprising ground floor retail tenancies and at-grade car parking and four levels of residential apartments. It also includes one level of basement car parking.

Drawing Schedule

Drawing	Drawing Number	Date	Revision
PACT Architects			
Coverpage	P-00	01.10.2019	-
Locality	P-01	01.10.2019	-
Site Context and Parti Strategy	P-02	01.10.2019	-
Basement Plan	P-03	01.10.2019	-
Ground Plan	P-04	01.10.2019	-
Level 1 Plan	P-05	01.10.2019	-
Level 2 Plan	P-06	01.10.2019	-
Level 3 Plan	P-07	01.10.2019	-
Level 4 Plan	P-08	01.10.2019	-
Streetscapes	P-09	01.10.2019	-
Design Evolution & Materiality	P-10	01.10.2019	-
Renders	P-11	01.10.2019	-
Street Views	P-12	01.10.2019	-
Elevations & Shadow Diagrams	P-13	01.10.2019	-
Sections	P-14	01.10.2019	-
Overlooking	P-15	01.10.2019	-

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

Pre-lodgement Agreement

ODASA Pre-lodgement No: PLA 2019/12571/01

Pursuant to Section 37AA of the Development Act, this Agreement obviates the need for a statutory referral to the South Australian Government Architect during the State Commission Assessment Panel (SCAP) process. The SCAP refers all applicable development proposals to the South Australian Government Architect, for review and comments on design merit. The Agreement must be lodged with the development application, and the application lodged within three months of the Agreement being signed.

The Agreement between the **South Australian Government Architect** and **69-73 Prospect Rd Pty Ltd** (the Proponent), signed on **8 October 2019** pertains to the development proposal for **69-73 Prospect Road, Prospect** described in the drawings listed in the schedule below, reviewed by the South Australian Government Architect on 4 October 2019. The drawings form part of the Agreement.

This Agreement is not an approval to proceed with the proposal. Development Approval from the State Commission Assessment Panel must be obtained prior to commencing work.

Development description

The proposal is for a five storey mixed use building, comprising ground floor retail tenancies and at-grade car parking and four levels of residential apartments. It also includes one level of basement car parking.

Drawing Schedule

Drawing	Drawing Number	Date	Revision
PACT Architects			
Coverpage	P-00	01.10.2019	-
Locality	P-01	01.10.2019	-
Site Context and Parti Strategy	P-02	01.10.2019	-
Basement Plan	P-03	01.10.2019	-
Ground Plan	P-04	01.10.2019	-
Level 1 Plan	P-05	01.10.2019	-
Level 2 Plan	P-06	01.10.2019	-
Level 3 Plan	P-07	01.10.2019	-
Level 4 Plan	P-08	01.10.2019	-
Streetscapes	P-09	01.10.2019	-
Design Evolution & Materiality	P-10	01.10.2019	-
Renders	P-11	01.10.2019	-
Street Views	P-12	01.10.2019	-
Elevations & Shadow Diagrams	P-13	01.10.2019	-
Sections	P-14	01.10.2019	-
Overlooking	P-15	01.10.2019	-

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

Outerspace Landscape Architects			
Ground Floor Concept Landscape Plan	OS1912_CP01	13.09.2019	-
Entry Concept Landscape Plan	OS1912_CP02	13.09.2019	-
Typical 1 st – 2 nd Floor Concept Landscape Plan	OS1912_CP03	13.09.2019	-
3 rd Floor Concept Landscape Plan	OS1912_CP04	13.09.2019	-
4 th Floor Concept Landscape Plan	OS1912_CP05	13.09.2019	-

Advisory Notes

The project was presented to the Design Review panel three times, over which period the design response progressed significantly.

The subject site is located on the south corner of Prospect and Pulsford Roads and is an amalgamation of three allotments, with an approximately 50 metre frontage to Prospect Road. The site is located along the section of Prospect Road between Gladstone Street to the north and Daphne Street to the south, which is identified as the High Street Policy Area within the Urban Corridor Zone. This area has an established high street character, comprising low scale buildings with a variety of uses including cafes, restaurants, shops, offices, consulting rooms and community facilities. More recently, a number of existing buildings have been rejuvenated to offer retail and hospitality tenancies, creating a highly activated local destination along this main street. The new cinema building on the corner of Rose Street and Prospect Road has also added to the activation of this locality. The subject site currently contains a single storey commercial property and associated at-grade car park, and a former church building utilised as an event venue. To the south, the adjoining property is a large former residential building operating as a child care centre. Across Prospect Road to the west, the existing context comprises single storey commercial properties, including Local heritage places at 82 and 86 Prospect Road. The existing context for the majority of Pulsford Road is predominantly residential in character with single storey attached and detached dwellings with an established built form pattern and front setbacks. The single storey property to the immediate east of the project site was recently demolished as a part of the new development of a single storey dental surgery and associated at-grade car parking to the rear of the site.

The proposal includes a four storey continuous built form edge along the street frontages, with the view to reinforcing the high street character of Prospect Road. The four storey masonry wall includes a built form break at the centre of the Prospect Road frontage through the provision of a recessed residential entry and communal garden decks. The building is proposed as five storeys tall above ground with one level of basement car parking. The fifth level at the top is set back from the north, west and south boundaries, and its restrained expression is different from the four storey built form below to reduce the visual impact. The top level also includes the central recess on the Prospect Road frontage, presenting as two separate built forms when viewed from the west. I support the proposed building height and built form composition, as I acknowledge the opportunity, in this instance, for a minor departure beyond the envisaged maximum height of four storeys (15 metres) due to the size of the amalgamated allotment. In addition, I am of the view that the proposed built form composition, including the provision of a built form break that extends to the top floor, successfully manages the visual impact of the scale and

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

bulk of the development. I acknowledge the building is significantly set back from the eastern boundary and sits within the mandated 45 degree building envelope at the residential zone boundary with the view to mitigating interface issues.

On the ground floor, two large retail tenancies are proposed fronting Prospect Road and the majority of the Pulsford Road frontage. I strongly support the provision of active use spaces along both street frontages including the street corner, and the location of the at-grade car parking to the rear of the site. I support widening the footpath that provides a generous and usable public plaza by setting back the northern half of the ground floor facade along Prospect Road. I also support the setback geometry around the central residential entry, which provides consistent footpath edges envisaged for Prospect Road. I acknowledge the inclusion of raised garden beds and seating within the recessed residential entry space. I strongly support the project team's early engagement with the City of Prospect regarding the development of the public realm areas and the commitment to delivering a mutually appropriate high quality outcome. In my opinion, the project's positive contribution to the public realm is critical to the overall success of the proposal, given the limited opportunities to provide landscaping for the rest of the project site. To that end, I acknowledge and support the engagement of a landscape architect and the project team's intent to enter into a formal agreement with the Council regarding the proposed works to the footpaths. I strongly support the intent for visually permeable ground floor frontages, however I acknowledge the challenges of solar load management on the western facade. I recommend exploration of effective solar control strategies with the view to retaining clear glazing and maximising the visual connection between the active use spaces and the public realm.

The ground floor tenancies and the residential lobby sleeve the at-grade car parking and services areas at the rear of the site, which I support. I also support the inclusion of one basement level for car parking. The enclosing of the back of house areas, including waste store, ramp to the basement car park and loading area, with the extended terrace of the first floor apartments, is also supported. I acknowledge the paving treatment of exposed aggregate concrete with feature band paving proposed for the rear of the site, with the view to contributing towards the optimum interface conditions and improvement of user amenity. I recommend inclusion of established size trees within the deep soil zone to maximise the visual and amenity contribution of soft landscaping.

Above the ground floor, the apartment levels are configured in a 'C' shape in plan with the intent to optimise apartment amenity through maximising access to quality natural light and ventilation to habitable rooms. I support the general design approach to the apartment planning and resultant built form in general. On levels one and two, the floor plates extend eastward at the southeast corner, creating a protruding built form element. I acknowledge this element does not encroach into the 45 degrees building envelope.

The proposal seeks to deliver a residential architectural expression through the use of stack bond brick slips to the four storey built form. The masonry built form also includes rendered deep reveals and chamfered masonry corners, informed by the historical built fabric in the area. I strongly support the architectural expression, masonry corner detailing and the use of materials with a tactile quality that respond to the existing fine grain character of the area. Given the masonry character is proposed to be achieved through the use of brick slips, the resolution of corner,

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

joint and fenestration detailing is particularly important. I recommend the design team continue development of detailing and materiality to ensure the envisaged level of depths and articulation of the masonry facades.

I support the provision of the canopy over the footpath along both street frontages. I also support the proposed materiality of metal cladding to the canopy and acknowledge the reduction in canopy thickness to the southern end over the Prospect Road footpath. I recognise the design intent to reference the two storey building datum to the north, however I am yet to be convinced by the canopy height, in terms of providing effective weather protection and consistency with the overall built form composition. I encourage exploration of opportunities for finer expression and lower positioning of the canopy elements.

I support the simplicity of the limited material palette, including the use of a contrasting material for the fifth floor element. I urge the project team to maintain the quality and authenticity of the selected materials and finishes through the next phases of the project delivery to successfully execute the envisaged design outcome. My support for this over height proposal is contingent on the high quality outcome as presented that successfully responds to the established high street context of the locality and the residential use, expressed through high quality materials with integrity and fine grain character.

I support the proposed apartment layouts in general, which in my opinion provide a rational and efficient outcome. I also support the variety of accommodation types being offered. In addition, I support the apartment planning strategy in general that offer generous room sizes, usable balcony proportions, and access to natural light and ventilation for all habitable rooms. While I support the provision of the roof terrace to the rear facing apartments on level one, I note the large size of the terraces appear to be disproportionate to the size of the one and two bedroom apartments. In my opinion, an opportunity exists to reconfigure these apartments with the view to providing better balanced apartment offerings. I support the provision of vertical blades to mitigate overlooking onto the first floor terrace from the surrounding apartments.

The material presented includes a thorough analysis of the proposal's impact upon the adjoining properties, particularly overlooking. I strongly support the integrated and innovative measures for controlling overlooking, such as the use of deep window hoods, vertical blades and planter boxes. In my opinion, the proposed methods sufficiently mitigate detrimental interface impacts while maintaining amenity for the apartment residents.

I strongly support the proposed lift lobby arrangement on apartment floors that provides access to natural light and outlook with the provision of communal garden decks.

Acknowledging the early stages of environmental impact analysis, I recommend the incorporation of the principles of Ecologically Sustainable Development (ESD) in the ongoing design development, aligned with the sustainability vision for the City of Prospect and the Prospect Road precinct.

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

To ensure the most successful design outcome is achieved the State Planning Commission may like to consider conditions or reserved matters to protect the following elements of the proposal, as design details are produced in due course:

- Development of effective solar control strategies to the ground floor tenancies, with the view to maintaining clear glazing and maximising the visual connection between the active use spaces and the street.
- Provision of established trees within the deep soil zone to maximise the visual and amenity contribution of soft landscaping.
- Continuing design development of detailing and materiality during the upcoming phases of project delivery to ensure the envisaged level of depths and articulation of the masonry facades.
- Refinement of the canopy expression and location.
- A high quality of external materials for building and outdoor spaces, supported by the provision of a materials and finishes samples board.

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au



File No:
2019/12571/01

Ref No:
14554751

While the Government Architect has considered the impact of design aspects relating to the proposal's height exceeding the maximum envisaged for the area and its interface impacts, the detailed assessment of whether the development plan policy is met is deferred to the State Commission Assessment Panel.

ODASA Pre-lodgement Agreement No: PLA 2019/12571/01

69-73 Prospect Road, Prospect

South Australian Government Architect



Signature
Kirsteen Mackay
South Australian Government Architect

Date **4** October 2019

The Proponent



Signature
David Cargill
Project Manager
Delta Projects
Level 5, 100 Pirie Street
Adelaide SA 5000

Date **4** October 2019

Representing

69-73 Prospect Rd Pty Ltd

Level 1
26-28 Leigh Street
Adelaide SA 5000

GPO Box 1533
Adelaide SA 5001

DX 171

T- +61(0)8 8402 1884
E- odasa@sa.gov.au





MINUTES OF THE COUNCIL ASSESSMENT PANEL OF CITY OF PROSPECT, HELD AT PAYINTHI, 128 PROSPECT ROAD, PROSPECT ON MONDAY 11 NOVEMBER 2019 AT PROSPECT 5:30PM.

PRESENT:

Presiding Member: Mr Don Donaldson
Members: Ms A De Backer, Mr R Gagetti, Mr D Cooke and Mr R Perera

IN ATTENDANCE:

Mr D Starr Assessment Manager
Mr S McLuskey Senior Development Officer (Planning)
Ms S Giles Development Officer (Planning) and Minute Taker

WELCOME:

Acknowledgment of the Kurna People as the Traditional Custodians of the Land

ON LEAVE:

Nil.

APOLOGIES:

Nil.

CONFIRMATION OF MINUTES:

Mr R Gagetti moved Mr R Perera seconded

That the minutes of the meeting of the Council Assessment Panel held on 21 October 2019 be taken as read and confirmed as a correct record.

Carried - CAP 67/19

DECLARATIONS OF INTEREST:

Ms A De Backer outlined an interest in, but not a conflict of interest for, Item 7.2 as she is a resident of Pulsford Avenue.

DEVELOPMENT APPLICATIONS:

Item 6.1: 128 Churchill Road, Prospect – Two, Three-Storey Residential Flat Buildings
Comprising 11 Dwellings

Application No: (DA 050/362/2019)

Alternative Recommendation

That the application be deferred to a subsequent meeting of the Council Assessment Panel to enable the applicant to consider amending the application to address the following concerns:

- Site amenity, particularly relating to the outlook for dwellings 4-11, a revised landscaping plan for the common driveway which includes landscaping at sufficient height and spread is requested.

- Poor waste management and bin placements on Churchill Road. Bin placement in the area of existing landscaping on Churchill Road is not acceptable.
- Concern about the visitor car parking configuration (adjacent Dwelling 4). Seek commentary about the design of the car parking space and its suitability, the provision of safe and convenient access and interaction between vehicles reversing from dwellings 2-3. Commentary should be provided from a suitably qualified expert confirming that safe and convenient access may be obtained to Dwellings 1-3 while the visitor parking space is occupied.

The Panel resolved through consensus that the Application is deferred – CAP 68/19

Item 6.2: 1 Azalea Street, Prospect – Two Storey Detached Dwelling

Application No: (DA 050/323/2019)

Alternative Recommendation

That with reference to the relevant provisions of the Prospect (City) Development Plan, the zoning of the land within which the proposed development is situated and the locality within which the land is situated, the Panel resolves that development application 050/323/2019 is not seriously at variance with the Development Plan and as such a decision shall be made on the merits of the application; and

That pursuant to the Development Act 1993, as amended, Development Plan Consent be granted to DA 050/323/2019 from Elvio Ferrara, for Demolition of Existing Dwelling and Construction of Two Storey Detached Dwelling with associated Garage, Masonry Fence, Retaining Wall and Fence, and Swimming Pool and Safety Fence at 1 Azalea Street, Prospect (CT 5866/498), subject to the following conditions:

Conditions:

1. The development shall take place in accordance with plans and details stamped by Council relating to Development Application Number 050/323/2019, except as modified by any conditions detailed herein. All works detailed in the approved plans and required by conditions are to be completed prior to the occupation or the commencement of use of the approved development.
2. The upper level windows facing East, South or West shall have:
 - a) Minimum window sill heights of 1.7m above finished floor level; or
 - b) Fixed and obscured glass to a minimum height of 1.7m above floor level; or
 - c) An awning window with obscured glass to a minimum height of 1.7m above floor level, with an opening restricted to no more than 100mm; or
 - d) Permanently fixed external screens that provide an effective screening height of 1.7m above the upper floor level and complement the external appearance of the dwelling.

The screening solution(s) shall be established prior to occupation of the dwellings and maintained to the reasonable satisfaction of Council at all times thereafter.
3. The drainage system shall be designed, installed and maintained at all times thereafter to ensure that water from the site does not:
 - a) Flow or discharge onto adjoining properties;

- b) Flow across the surface of footpaths or public ways;
 - c) Affect the stability of any building; or
 - d) Create unhealthy or dangerous conditions on the site or within any building.
4. The domestic outbuilding approved herein shall only be used for purposes consistent with the residential use of the land that do not exceed the restrictions for a 'home activity' as defined by the *Development Regulations 2008*, and shall not be used for commercial or industrial activity. A 'home activity' means the use of a site by a person resident on the site that does not detrimentally affect the amenity of the locality or any part of the locality, and that does not require or involve any of the following:
- a) assistance by more than 1 person who is not a resident in the dwelling;
 - b) use (whether temporarily or permanently) of a floor area exceeding 30m²;
 - c) the imposition on the services provided by a public utility organisation of any demand or load greater than that which is ordinarily imposed by other users of the services in the locality;
 - d) the display of goods in a window or about the dwelling or its curtilage; or
 - e) the use of a vehicle exceeding 3 tonne tare in weight;

The Panel resolved through consensus that the Application is approved – CAP 69/19

Item 6.3: 16 Mendes Street, Prospect – Two, Two-Storey Detached Dwelling

Application No: (DA 050/204/2019)

Alternative Recommendation

Mr D Cooke moved Ms A De Backer seconded

That the application be deferred to a subsequent meeting of the Council Assessment Panel to enable the applicant to consider amending the application to address the following concern:

- The northern elevation of dwelling 1 to better address the streetscape of Livingstone Avenue by providing a more active frontage and blend of materials.

The Panel resolved that the Application is deferred – CAP 70/19

Item 6.4: 10 Elderslie Avenue, Fitzroy – Two Storey Detached Dwelling Including a Swimming Pool

Application No: (DA 050/357/2019)

Alternative Recommendation

Ms A De Backer moved

That the application be deferred to a subsequent meeting of the Council Assessment Panel to enable the applicant to consider amending the application to address, site coverage, proposed garage (boundary to boundary) and impact on streetscape.

Motion lapsed for want of a Secunder

Mr R Perera moved Mr R Gagetti seconded

That with reference to the relevant provisions of the Prospect (City) Development Plan, the zoning of the land within which the proposed development is situated and the locality within which the land is situated, the Panel resolves that development application 050/357/2019 is not seriously at variance with the Development Plan and as such a decision shall be made on the merits of the application; and

That pursuant to the Development Act 1993, as amended, Development Plan Consent be granted to DA 050/357/2019 from The Galvin Group, for Demolition of Existing Dwelling and Construction of Two Storey Detached Dwelling with associated Swimming Pool and Safety Fence, Domestic Outbuilding, Verandah, Masonry Front Fence, and Fencing (greater than 2.1m in height) at 10 Elderslie Avenue, Prospect (CT 5755/217), subject to the following conditions:

Conditions:

1. The development shall take place in accordance with plans and details stamped by Council relating to Development Application Number 050/357/2019, except as modified by any conditions detailed herein. All works detailed in the approved plans and required by conditions are to be completed prior to the occupation or the commencement of use of the approved development.
2. The upper level windows facing East, North or West shall have:
 - a) Minimum window sill heights of 1.7m above finished floor level; or
 - b) Fixed and obscured glass to a minimum height of 1.7m above floor level; or
 - c) An awning window with obscured glass to a minimum height of 1.7m above floor level, with an opening restricted to no more than 100mm; or
 - d) Permanently fixed external screens that provide an effective screening height of 1.7m above the upper floor level and complement the external appearance of the dwelling.

The screening solution(s) shall be established prior to occupation of the dwellings and maintained to the reasonable satisfaction of Council at all times thereafter.
3. The drainage system associated with the herein approved dwelling shall be designed and installed so as to suitably protect the dwelling from 1 in 100 year ARI storm events, and ensure that post-development outflow rates from the site shall not exceed pre-development rates in 1 in 20 ARI storm events.
4. The drainage system shall be installed and maintained at all times thereafter to ensure that water from the site does not:
 - a) Flow or discharge onto adjoining properties;
 - b) Flow across the surface of footpaths or public ways;
 - c) Affect the stability of any building; or
 - d) Create unhealthy or dangerous conditions on the site or within any building.
5. Footpaths adjacent to the site are to be kept in a safe condition for pedestrians at all times during construction works. All driveways and footpaths traversed by vehicles using the site are

to be maintained in a reasonable condition for the duration of the works, and are to be reinstated to the satisfaction of Council on completion of the works.

All works on Council land shall be conducted to Council's specification, with all works to be bunted off safely and pedestrian safety to be maintained throughout the construction period. Plantings will also need to be undertaken in line with council specifications in terms of sight distance interference and safety to the community (thorns/poisonous plantings). Plans displaying all relevant details of the Road/Kerbing/Footpath Works shall be submitted to the Assets and Infrastructure Officer for approval prior to the commencement of any such works.

The Panel resolved that the Application is approved – CAP 71/19

Item 7.1: 221-223 Churchill Road, Prospect – Variation to Previous Approval DA 050219/2017

Application No: (DA 050/465/2019)

That pursuant to the *Development Act 1993*, as amended, Development Plan Consent be approved to DA 050/465/2019, from Le Hunte Avenue Pty Ltd for a variation to the previous approval for DA 050/219/2017: Construction of Two Three-Storey Residential Flat Buildings (comprising 14 Dwellings), with associated Landscaping and Fencing), at 221-223 Churchill Road Prospect (CTs 5199/711, 5822/964).

(As mentioned earlier in the report, Council staff note that all conditions of the original approval remain operative and no new conditions are recommended as a result of the proposed variations.)

The Panel resolved through consensus that the Application is approved – CAP 72/19

Item 7.2: 69-73 Prospect Road, Prospect – 5 Storey Mixed Use Building

Application No: (DA 050/489/2019)

Alternative Recommendation

- 1.1 The State Commission Assessment Panel (SCAP) be provided with a copy of this report and that it be advised of Council's comments, through its Council Assessment Panel, in relation to the matters described herein, noting that there may be additional relevant matters that have not been considered in this brief commentary.
- 1.2 That Council is supportive of the quality of the building's design and materiality, though it is concerned that the building departs from the maximum building height applicable to this area and that insufficient information is provided with respect to visual privacy treatments; with both of these matters having been identified by the Prospect community as being of paramount importance.
- 1.3 That the SCAP should give particular regard to the following matters:
 - 1.3.1 The Council Assessment Panel recognises that significant work has been undertaken in relation to the design in order to achieve a pre-lodgement agreement with the Government Architect, which is to be commended. Council however, considers that a number of matters warrant further consideration by SCAP as follows.

- 1.3.2 The proposed building would depart from the maximum height intended for this policy area of Prospect Road. Without having undertaken a full assessment, it is not possible to indicate support for an evident departure from the relevant policy provision.
- 1.3.3 The vertical and horizontal massing of the proposed buildings would be more acceptable with the use of different materials, finishes and design treatments to reduce the overall bulk and scale of the buildings.
- 1.3.4 The vertical split between the buildings, as well as the buildings mass when viewed to the east (as demonstrated within images on Drawings No P-12 ('Current Street Building Mass' image - Pulsford Road) and P-15 ('View from Milner Street' image - Milner Street), should be further treated so as to successfully break down the bulk and scale of these elements.
- 1.3.5 Notwithstanding the above, Council staff acknowledge the Government Architect's assessment of the success of the design at mitigating potential issues associated with the additional storey proposed.
- 1.3.6 Consistency with the Desired Character Statement, particularly with respect to an intimate scale being achieved within the pedestrian realm, would be improved through a reduced canopy height adjacent Prospect Road. Further, the entry sequence should be treated with additional canopy coverage, so as to improve the occupant and public realm amenity associated with the proposal;
- 1.3.7 The use of high quality, masonry materials and their treatment in a manner that is respectful of existing historic built fabric within the Village Heart is supported;
- 1.3.8 While the proposed visual privacy treatments are supported in concept, additional detailed information is required in order to complete a full assessment of these treatments and their success (or otherwise) at preventing overlooking to Residential Zone properties within 45 metres of the subject site (consistent with PDC 8 of the UC Zone);
- 1.3.9 Support of the inclusion of landscaping within balconies and common areas, however exploration of increased deep soil areas across the site should be undertaken to address this shortfall;
- 1.3.10 The approach and number of car and bicycle parking spaces associated with the development is supported;
- 1.3.11 A concurrent assessment under Section 221 of the *Local Government Act 1999* is being undertaken with respect to public realm works demonstrated within the proposal plans. Council staff will liaise further with SCAP staff regarding the progress and outcome of this assessment;
- 1.3.12 The volume of waste storage, and method of waste collection, proposed are supported;
- 1.3.13 While the conceptual approach to stormwater management is broadly supported, further detailed design of the stormwater management plan and incorporation of water sensitive urban design techniques should occur and be assessed by the SCAP (and/or in collaboration with Council staff);
- 1.3.14 Council encourages SCAP to impose conditions which ensure that the design quality of the proposal is delivered.

Carried by Consensus – CAP 73/19

INFORMATION REPORTS

Item 8.1: Terms of Reference

Alternative Recommendation

1.1 That the Council Assessment Panel adopt the amended Terms of Reference as presented in **Attachments 1-14**, subject to the following amendments:

1.1.1 Item 6.2 be amended as follows:

“The members of the Panel will appoint the Acting Presiding Member of the Panel, as required.”

1.1.2 Item 11.1 be amended as follows:

“Public notice of the Panel scheduled meeting will be provided at Payinthe, 128 Prospect Road, Prospect and on the Council’s website.”

1.2 That the Minutes include the Terms of Reference as adopted by the Council Assessment Panel.

The Panel resolved by Consensus that the recommendations are adopted – CAP 74/19

Item 9.1: Summary of State Commission Assessment Panel (SCAP) Decisions and Proposals Greater than \$3 Million called in by the Coordinator-General

Report received.

Item 10.1: Summary of Court Appeals

Report received.

ANY OTHER BUSINESS:

Nil

TIME AND PLACE OF NEXT MEETING:

The next meeting of the Council Assessment Panel will be held at Payinthe, 128 Prospect Road, Prospect on Monday 9 December 2019 at 5.30pm.

CLOSURE:

The meeting closed at 7:35pm.

.....
Mr Don Donaldson
(Presiding Member)
09 December 2019

29 November 2019

Janaki Benson
Senior Planner
Department of Planning, Transport and Infrastructure
Via email: janaki.benson@sa.gov.au



Ground Floor,
89 King William Street
GPO Box 2403
Adelaide SA 5001
PH: 08 8221 5511
W: www.futureurbangroup.com
E: info@futureurbangroup.com
ABN: 34 452 110 398

Dear Janaki,

RE: DA 050/465/219 – RESPONSE TO COUNCIL COMMENTS

This firm acts on behalf of Delta Projects, the applicant for the abovementioned development application.

I refer to your email dated 15 November 2019 in which you attached the comments of the City of Prospect ('the Council') via its delegate, the Council Assessment Panel. Please accept this correspondence as the formal response to the Council comments.

I have summarised and responded to the issues raised under the headings as grouped below.

Prior to summarising those issues, I confirm the Council is supportive of:

- The quality of the building's design and materiality;
- The significant work that has been undertaken in relation to the design in order to achieve a pre-lodgement agreement with the Government Architect;
- Inclusion of landscaping within balconies;
- The approach and number of car and bicycle parking spaces associated with the development;
- The volume of waste storage and method of waste collection;
- The approach to stormwater management;

With respect to matters that have been raised as concerns, those matters can be generally grouped under the headings as follows:

- Building height and exceedance of maximum storey and height in Development Plan and the impact on vertical and horizontal massing when viewed from the east;
- Intimate scale being achieved within the pedestrian realm improved by reduced canopy height adjacent Prospect Road and entry sequence should be treated with additional canopy coverage to improve occupant and public realm amenity;
- Visual treatments at preventing overlooking to Residential Zone properties within 45 metres of subject site;
- Exploration of deep soil areas across the site; and
- Further detail about water sensitive urban design.

Our consolidated response is as set out below.

Height and Massing

In response to the Council's concerns about the height and massing of the proposed building, it is worth noting the Government Architect is supportive of the building height for the following reasons:

- The fifth level at the top is set back from the north, west and south boundaries, and its restrained expression is different from the four-storey built form below to reduce visual impact;
- The size of the amalgamated allotment;
- Built form composition, including the provision of a built form break that extends to the top floor, successfully manages the visual impact of the scale and bulk of the development;
- The building is significantly set back from the eastern boundary and sits within the mandated 45 degree building envelope at the residential zone boundary.

In terms of design integrity, the applicant has engaged with the Government Architect and has responded to the guidance provided during the Design Review process where the project was presented to the Design Review Panel three times. The quality of the design is not in dispute. The Government Architect's comments in this regard are apt: "My support for this over height proposal is contingent on the high quality outcome as presented that successfully responds to the established high street context of the locality and the residential use, expressed through high quality materials with integrity and fine grain character." (my emphasis)

Whilst the Council has raised these concerns, it is noted in the Council comments, at paragraph 1.3.5 that "Council staff acknowledge the Government Architect's assessment of the success of the design at mitigating potential issues associated with the additional storey" and "the use of high quality, masonry materials and their treatment in a manner that is respectful of existing historic built fabric with the Village Heart is supported."

Pedestrian Realm

The Council has raised concerns about canopy height, particularly as it relates to weather protection.

As at today's date, the applicant has submitted a formal application to the City of Prospect under Section 221 of the Local Government Act for public realm works in the nature of the provision of landscaping, street trees and pavement treatment.

As you would appreciate this is a separate process which is still being assessed by the Council and one which may affect the solar and wind control strategy along Prospect Road and final design of canopy. Therefore, we would respectfully suggest that that this particular matter be acknowledged and be dealt with during design development as is envisaged in the Pre-Lodgement Agreement from the Government Architect.

Overlooking

The Council has raised concerns about overlooking into the dwellings within 45 metres.

- There is only one dwelling within 45 metres that has potential to be overlooked. The dwellings to the northern end of the site are separated by a commercial use, namely a dental surgery that prevents any overlooking. With respect to the dwelling at the south eastern corner of the site it should be noted:
 - » The Government Architect's expressed "the material presented includes a thorough analysis of the proposal's impact upon the adjoining properties, particularly overlooking. I strongly support the integrated and innovative measures for controlling overlooking, such as

the use of deep window hoods, vertical blades and planter boxes. In my opinion, the proposed methods sufficiently mitigate detrimental interface impacts while maintaining amenity for the apartment residents.”

It is clear from the Overlooking Section on Drawing P-15 that neither the habitable room windows nor the private open spaces of any dwelling within 45 metres of the building will be visible from any of the apartments at the south-eastern end of the proposed building courtesy of the screening measures which have been adopted.

Water Sensitive Urban Design

The Council has indicated its broad support for the conceptual approach to stormwater management, however, have sought “further detailed design of the stormwater management plan and incorporation of water sensitive urban design techniques” to be assessed by the SCAP and/or in collaboration with the Council.

The applicant has provided a stormwater management report that provides comfort to the assessing authority that stormwater can be adequately dealt with in a way that does not increase the burden on existing stormwater infrastructure.

It is confirmed, for the purposes of granting Development Plan Consent, the proposed storm water discharge from the developed site will be designed not to exceed the discharge flows from the pre-developed (existing) site, any additional volumes will be detained on site by means of above ground or below ground detention tanks/basins, to be confirmed at final design stage.

To this end, my client is willing to investigate the inclusion of further water sensitive urban design features once a complete assessment and full design of the stormwater management for the site is undertaken in the detailed design phase.

Deep Soil Zone

The Council has sought “the exploration of increased deep soil areas across the site” to address perceived shortfalls in this regard.

In response, it should be noted the applicant is currently negotiating the provision of extensive landscaping in the public realm through the provision of mature street trees along both Prospect and Pulsford Roads using species to match the existing pattern of street trees provided by the Council. Further, the Government Architect in her pre-lodgement agreement states, “I strongly support the project team’s early engagement with the City of Prospect regarding the development of the public realm areas and the commitment to delivering a mutually appropriate high quality outcome. In my opinion, the project’s positive contribution to the public realm is critical to the overall success of the proposal given the limited opportunities to provide landscaping for the rest of the project site.” (my emphasis)

The project team have investigated many different options to provide deep soil zone on the site, however, due to the requirements for the provision of on-site car parking, it has proven difficult to accommodate this. The option to engage with the Council to provide high quality public realm areas, including the provision of mature street trees (5 on Prospect and 3 on Pulsford), is a direct response to meet any perceived shortfall in the provision of deep soil zone/s on-site.

With the inclusion of the public realm landscaping, total landscaping expressed as a percentage of total site area exceeds 10%.

The applicant is committed to the provision of a series of tall trees in the deep root zone as itemised in the landscaping plan accompanying the application and listed as “C” – Deep Root Zone Trees.

Summary

We remain of the opinion, despite the handful of concerns that have been raised, this development is deserving of consent.

I am advised the State Commission Assessment Panel ('the SCAP') will consider this application at its meeting to be held on 12 December 2019. I confirm our firm has been instructed to appear before that hearing so that we may be on hand to respond to the abovementioned concerns, and to answer any queries and/or concerns the SCAP may have.

Yours sincerely

A handwritten signature in black ink, appearing to read "M. Duncan", enclosed in a thin black rectangular border.

Marc Duncan

Principal

COUNCIL WIDE

Medium and High Rise Development (3 or More Storeys)

- Objective 17:** Medium and high rise development that provides housing choice and employment opportunities.
- Objective 18:** Residential development that provides a high standard of amenity and adaptability for a variety of accommodation and living needs.
- Objective 19:** Development that is contextual and responds to its surroundings, having regard to adjacent built form and character of the locality and the Desired Character for the Zone and Policy Area.
- Objective 20:** Development that integrates built form within high quality landscapes to optimise amenity, security and personal safety for occupants and visitors.
- Objective 21:** Development that enhances the public environment, provides activity and interest at street level and a high quality experience for residents, workers and visitors by:
- (a) enlivening building edges;
 - (b) creating attractive, welcoming, safe and vibrant spaces;
 - (c) improving public safety through passive surveillance;
 - (d) creating interesting and lively pedestrian environments;
 - (e) integrating public art into the development where it fronts the street and public spaces;
 - (f) incorporating generous areas of high quality fit for purpose landscaping, 'green' walls and roofs.

Water Sensitive Design

- Objective 39:** Development consistent with the principles of water sensitive design.
- Objective 40:** Development sited and designed to:
- (a) protect natural ecological systems;
 - (b) achieve the sustainable use of water;
 - (c) protect water quality, including receiving waters;
 - (d) reduce runoff and peak flows and prevent the risk of downstream flooding;
 - (e) minimise demand on reticulated water supplies;
 - (f) maximise the harvest and use of stormwater; and
 - (g) protect stormwater from pollution sources.
- Objective 41:** Storage and use of stormwater which avoids adverse impact on public health and safety.

Crime Prevention

- Objective 46:** A safe, secure, crime resistant environment that:

- (a) ensures that land uses are integrated and designed to facilitate natural surveillance;
- (b) ensures that the layout of roads and intended purposes and functions of buildings and areas are easily understood;
- (c) promotes building and site security;
- (d) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

Development in Mixed Use, Urban Corridor, and Centre Zones

Design and Appearance

- 1 Buildings should reflect the desired character of the locality while incorporating contemporary designs that have regard to the following:
 - (a) building height, mass and proportion;
 - (b) external materials, patterns, colours and decorative elements;
 - (c) roof form and pitch;
 - (d) façade articulation and detailing;
 - (e) verandas, eaves, parapets and window screens.
- 2 Where a building is sited on or close to a side or rear boundary, the boundary wall should minimise:
 - (a) the visual impact of the building as viewed from adjacent properties;
 - (b) overshadowing of adjacent properties and allow adequate sunlight access to neighbouring buildings.
- 3 The external walls and roofs of buildings should not incorporate highly reflective materials which will result in glare to neighbouring properties, drivers or cyclists.
- 4 Structures located on the roofs of buildings to house plant and equipment should be screened from view and should form an integral part of the building design in relation to external finishes, shaping and colours.
- 5 Balconies should:
 - (a) be integrated with the overall form and detail of the building;
 - (b) include balustrade detailing that enables line of sight to the street;
 - (c) be recessed where wind would otherwise make the space unusable;
 - (d) be self-draining and plumbed to minimise runoff.

Overshadowing

- 6 The design and location of buildings should enable direct winter sunlight into adjacent dwellings and private open space and minimise the overshadowing of:
 - (a) windows of habitable rooms;
 - (b) upper-level private balconies that provide the primary open space area for a dwelling;

- (c) solar collectors (such as solar hot water systems and photovoltaic cells).

Visual Privacy

- 7 Development should minimise direct overlooking of habitable rooms and private open spaces of dwellings through measures such as:
 - (a) appropriate site layout and building orientation;
 - (b) off-setting the location of balconies and windows of habitable rooms with those of other buildings so that views are oblique rather than direct to avoid direct line of sight;
 - (c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms;
 - (d) screening devices (including fencing, obscure glazing, screens, external ventilation blinds, window hoods and shutters) that are integrated into the building design and have minimal negative effect on resident's or neighbour's amenity.
- 8 Permanently fixed external screening devices should be designed and coloured to complement the associated building's external materials and finishes.

Relationship to the Street and Public Realm

- 9 Buildings (other than ancillary buildings, group dwellings or buildings on allotments with a battle axe configuration) should be designed so that the main façade faces the primary street frontage of the land on which they are situated.
- 10 Buildings, landscaping, paving and signage should have a coordinated appearance that maintains and enhances the visual attractiveness of the locality.
- 11 Buildings should be designed and sited to avoid extensive areas of uninterrupted walling facing areas exposed to public view.
- 12 Building design should emphasise pedestrian entry points to provide perceptible and direct access from public street frontages and vehicle parking areas.
- 13 In mixed use and medium and high density residential areas, development facing the street should be designed to provide interesting and pedestrian friendly street frontage(s) by:
 - (a) including features such as frequent doors and display windows, retail shopfronts and/or outdoor eating or dining areas;
 - (b) minimising the frontage for fire escapes, service doors, plant and equipment hatches;
 - (c) avoiding undercroft, semi-basement or ground floor vehicle parking that is visible from the primary street frontage;
 - (d) using colour, vertical and horizontal elements, roof overhangs and other design techniques to provide visual interest and reduced massing;
 - (e) including awnings, eaves, verandahs or similar, to the street where setbacks and ground floor uses allow.
- 14 Where zero or minor setbacks are desirable, development should incorporate shelter over footpaths to enhance the quality of the pedestrian environment.

Outdoor Storage and Service Areas

- 15 Outdoor storage, loading and service areas should be:

- (a) screened from public view by a combination of built form, solid fencing and/or landscaping;
- (b) conveniently located and designed to enable the manoeuvring of service and delivery vehicles;
- (c) sited away from sensitive land uses.

Private Open Space

- 16** Private open space (available for exclusive use by residents of each dwelling) should be provided for each dwelling and should be sited and designed:
- (a) to be accessed directly from the internal living areas of the dwelling;
 - (b) to be at ground level and/or upper levels (comprising balconies, roof patios and the like) and to the side or rear of a dwelling and screened for privacy;
 - (c) to take advantage of, but not adversely affect, natural features of the site;
 - (d) to minimise overlooking from adjacent buildings;
 - (e) to achieve separation from bedroom windows on adjoining sites;
 - (f) to have a northerly aspect to provide for comfortable year round use;
 - (g) not to be significantly shaded during winter by the associated dwelling or adjacent development;
 - (h) to be partly shaded in summer;
 - (i) to minimise noise or air quality impacts that may arise from traffic, industry or other business activities within the locality; and
 - (j) to have sufficient area and shape to be functional, taking into consideration the location of the dwelling, and the dimension and gradient of the site.
- 17** Except where varied by zone and/or policy area provisions, dwellings located above ground level should provide private open space in accordance with the following table:

Dwelling type	Minimum area of private open space
Studio (where there is no separate bedroom)	No minimum requirement
One bedroom dwelling	8 square metres
Two bedroom dwelling	11 square metres
Three + bedroom dwelling	15 square metres

- 18** Private open space located above ground level should have a minimum dimension of 2 metres and be directly accessible from a habitable room.
- 19** Private open space may be substituted for the equivalent area of communal open space where:

- (a) at least 50 percent of the communal open space is visually screened from public areas of the development;
- (b) ground floor communal space is overlooked by habitable rooms to facilitate passive surveillance; and
- (c) it contains landscaping and facilities that are functional, attractive and encourage recreational use.

Medium and High Rise Development (3 or More Storeys)

Note: Some of the following Principles of Development Control (PDC) prescribe a measurable design solution as one way of achieving the intent of the PDC. Where this solution is met, it should be taken as meeting the intent of the principle. Alternative design solutions may also achieve the intent of the PDC and, when proposed, should be assessed on their merits.

Design and Appearance

- 20** Buildings should be designed to respond to key features of the prevailing local context within the same zone as the development. This may be achieved through design features such as vertical rhythm, proportions, composition, material use, parapet or balcony height, and use of solid and glass.
- 21** In repetitive building types, such as row housing, the appearance of building façades should provide some variation, but maintain an overall coherent expression such as by using a family of materials, repeated patterns, façade spacings and the like.
- 22** Windows and doors, awnings, eaves, verandas or other similar elements should be used to provide variation of light and shadow and contribute to a sense of depth in the building façade.
- 23** Buildings should:
 - (a) achieve a comfortable human scale at ground level through the use of elements such as variation in materials and form, building projections and elements that provide shelter (for example awnings, verandas, and tree canopies)
 - (b) be designed to reduce visual mass by breaking up the building façade into distinct elements
 - (c) ensure walls on the boundary that are visible from public land include visually interesting treatments to break up large blank façades.
- 24** Buildings should reinforce corners through changes in setback, materials or colour, roof form or height.
- 25** Materials and finishes should be selected to be durable and age well to minimise ongoing maintenance requirements. This may be achieved through the use of materials such as masonry, natural stone, prefinished materials that minimise staining, discolouring or deterioration
- 26** Balconies should be integrated into the overall architectural form and detail of the development and should:
 - (a) utilise sun screens, pergolas, louvres, 'green' facades and openable walls to control sunlight and wind;
 - (b) be designed and positioned to respond to daylight, wind, acoustic conditions to maximise comfort and provide visual privacy;
 - (c) allow views and casual surveillance of the street while providing for safety and visual privacy of nearby living spaces and private outdoor areas;
 - (d) be of sufficient size, particularly depth, to accommodate outdoor seating.

Street Interface

- 27** Development facing the street should be designed to provide attractive and pedestrian friendly street frontage(s) by:
- (a) incorporating active uses such as shops or offices, prominent entry areas for multi-storey buildings (where it is a common entry), habitable rooms of dwellings, and areas of communal public realm with public art or the like;
 - (b) providing a well landscaped area that contains a deep soil zone space for a medium to large tree in front of the building (except in a High Street Policy Area or other similar location where a continuous ground floor façade aligned with the front property boundary is desired). One way of achieving this is to provide a 4 metre x 4 metre deep soil zone area in front of the building;
 - (c) designing building façades that are well articulated by creating contrasts between solid elements (such as walls) and voids (for example windows, doors and balcony openings);
 - (d) positioning services, plant and mechanical equipment (such as substations, transformers, pumprooms and hydrant boosters, car park ventilation) in discreet locations, screened or integrated with the façade;
 - (e) ensuring ground, undercroft, semi-basement and above ground parking do not detract from the streetscape;
 - (f) minimising the number and width of driveways and entrances to car parking areas to reduce the visual dominance of vehicle access points and impacts on street trees and pedestrian areas.
- 28** Common areas and entry points of the ground floor level of buildings should be designed to enable surveillance from public land to the inside of the building at night.
- 29** Entrances to multi-storey buildings should:
- (a) be oriented towards the street;
 - (b) be visible and clearly identifiable from the street, and in instances where there are no active or occupied ground floor uses, be designed as a prominent, accentuated and welcoming feature;
 - (c) provide shelter, a sense of personal address and transitional space around the entry;
 - (d) provide separate access for residential and non-residential land uses;
 - (e) be located as close as practicable to the lift and/or lobby access;
 - (f) avoid the creation of potential areas of entrapment.
- 30** The finished ground level of buildings should be no more than 1.2m above the level of the footpath to contribute to direct pedestrian access and street level activation, except for common entrances to apartment buildings which should be at ground level or universally accessible.
- 31** Dwellings located on the ground floor with street frontage should have individual direct pedestrian street access.
- 32** The visual privacy of ground floor dwellings within multi-storey buildings should be protected through the use of design features such as the orientation, elevation of ground floors above street level, setbacks from street and the location of verandas, windows porticos or the like.

One way of achieving this is for ground floor level dwellings in multi-storey developments to be raised by up to 1.2 metres (provided access is not compromised where relevant).

Building Separation and Outlook

- 33 Residential buildings (or the residential floors of mixed use buildings) should have habitable rooms, windows and balconies designed and positioned with adequate separation and screening from one another to provide visual and acoustic privacy and allow for natural ventilation and the infiltration of daylight into interior and outdoor spaces.

One way of achieving this is to ensure any habitable room windows and/or balconies are separated by at least 6 metres from one another where there is a direct 'line of sight' between them and be at least 3 metres from a side or rear property boundary.

Where a lesser separation is proposed, alternative design solutions should be applied (such as changes to orientation, staggering of windows or the provision of screens or blade walls, or locating facing balconies on alternating floors as part of double floor apartments), provided a similar level of occupant visual and acoustic privacy, as well as light access, can be demonstrated.

- 34 Living rooms should have a satisfactory short range visual outlook to public, communal or private open space.

Dwelling Configuration

- 35 Buildings comprising more than 10 dwellings should provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling.
- 36 Dwellings located on the ground floor with street frontage should have habitable rooms with windows overlooking the street or public realm.
- 37 Dwellings with 3 or more bedrooms should, where possible, have the windows of habitable rooms overlooking internal courtyard space or other public space.

Adaptability

- 38 Multi-storey buildings should include a variety of internal designs that will facilitate adaptive reuse, including the conversion of ground floor residential to future commercial use (i.e. including floor to ceiling heights suitable for commercial use).

Environmental

- 39 Multi-storey buildings should:
- (a) minimise detrimental micro-climatic and solar access impacts on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow;
 - (b) incorporate roof designs that enable the provision of, photovoltaic cells and other features that enhance sustainability (including landscaping)
- 40 Green roofs (which can be a substitute for private or communal open space provided they can be accessed by occupants of the building) are encouraged for all new residential commercial or mixed use buildings.
- 41 Development of 5 or more storeys, or 21 metres or more in building height (excluding the rooftop location of mechanical plant and equipment), should be designed to minimise the risk of wind tunnelling effects on adjacent streets by adopting one or more of the following:
- (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street;

- (b) substantial verandas around a building to deflect downward travelling wind flows over pedestrian areas;
- (c) the placement of buildings and use of setbacks to deflect the wind at ground level.

- 42** Deep soil zones should be provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies.

One way of achieving this is in accordance with the following table:

Site Area	Minimum Deep Soil Area	Minimum dimension	Tree Size/Deep Soil Zones
<300m ²	10m ²	1.5 metres	1 small tree / 10m ² deep soil
300-1500m ²	7% site area	3 metres	1 medium tree / 30m ² deep soil
>1500m ²	7% site area	6 metres	1 large or medium tree / 60m ² deep soil

Tree size and site area definitions:	
Small tree:	<6 metres mature height and <4 metres canopy spread
Medium tree:	6 to 12 metres mature height and 4 to 8 metres canopy spread
Large tree:	>12 metres mature height and >8 metres canopy spread
Site area:	The total area for development site, not average area per dwelling

- 43** Deep soil zones should be provided with access to natural light to assist in maintaining vegetation health.

Site Facilities and Storage

- 44** Dwellings should provide a covered storage area of not less than 8 cubic metres in one or more of the following areas:
- (a) in the dwelling (but not including a habitable room);
 - (b) in a garage, carport, outbuilding or an on-site communal facility and be conveniently located and screened from view from streets and neighbouring properties.
- 45** Development should provide a dedicated area for the on-site collection and sorting of recyclable materials and refuse, green organic waste and wash-bay facilities for the ongoing maintenance of bins. This area should be screened from view from public areas so as to not detract from the visual appearance of the ground floor.
- 46** Where the number of bins to be collected kerbside is 10 or more at any one time provision should be made for on-site collection.
- 47** The size of lifts, lobbies and corridors should be sufficient to accommodate bicycles, strollers, mobility aids and visitor waiting areas.

48 Dwellings which do not incorporate ground level private open space should include external drying areas which are:

- (a) readily accessible to each dwelling;
- (b) obscured from sensitive external views, such as from the street, other balconies and habitable rooms.

Zone Interface

49 Unless separated by a public road or reserve, development site(s) adjacent to any zone that has a primary purpose of accommodating low rise (1-2 storey) residential activity should incorporate deep soil zones along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more storeys in height.

One way of achieving this is for development comprising building elements three or more storeys in height to be setback at least 6 metres (from a zone boundary) and incorporate a deep soil zone area capable of accommodating medium to large trees with a canopy spread of not more than 8 metres when fully mature.

Arterial roads

50 Centres should develop on one side of an arterial road or in one quadrant of an arterial road intersection.

51 Where centre facilities already straddle an arterial road or the intersection of arterial roads, centre development should:

- (a) concentrate on one side of the primary, or primary arterial, road or one quadrant of the arterial road intersection; and
- (b) minimise the need for pedestrian and vehicular movement from one part of the centre to another across the arterial road.

Design

52 Development within centres should provide:

- (a) public spaces such as malls, plazas and courtyards;
- (b) facilities that will enable the performance of "street theatre" and other performing arts activities in malls or other public spaces;
- (c) facilities which will enable the temporary display of artworks in public spaces;
- (d) street furniture, including lighting, signs, litter bins, seats and bollards, that are designed and located to complement the desired character;
- (e) unobtrusive facilities for storage and removal of waste materials;
- (f) public facilities including toilets, infant-changing facilities for parents, seating, litter bins, telephones and community information boards;
- (g) adequate provision for pedestrian paths and shopping trolley storage area ramps within parking areas;
- (h) access for public transport and sheltered waiting areas for passengers;
- (i) lighting for pedestrian paths, buildings and ancillary areas.

Built form

53 A single architectural theme should be established within centres through either of the following:

- (a) constructing additions or other buildings in a style complementary to the existing shopping complex; or
- (b) renovating the existing shopping complex to complement new additions and other buildings within the centre.

54 Centre development should incorporate the following:

- (a) well-designed and proportioned buildings that enhance the character and amenity of the locality and especially streetscapes;
- (b) appropriately designed forms of shelter such as verandahs and colonnades, and provision of shop windows where pedestrian movement is likely to occur; and
- (c) elements such as clock towers, courtyards and squares that create identity, interest and amenity in a manner that complements existing development in the locality.

55 Buildings should be designed to accommodate a range of uses/activities over time.

Landscaping

56 Landscaping should be provided in all centre development to:

- (a) enhance the character and amenity of the development and the locality;
- (b) visually screen storage and service areas;
- (c) enhance the appearance and amenity of parking areas by providing shade trees and appropriate other plants;
- (d) reduce the visual impact of large bulky buildings;
- (e) separate large paved surfaces into smaller and more visually appealing areas;
- (f) soften the appearance of outdoor pedestrian areas and provide weather protection; and
- (g) be co-ordinated and planned so as to assist in linking the individual components of the centre.

Traffic Management and car parking

57 To reduce the total extent of car parking areas within centres, the shared use of car parking between developments should be exploited where the opportunity exists.

URBAN CORRIDOR ZONE

Introduction

The objectives and principles of development control that follow apply in the Urban Corridor Zone shown on [Maps Pr/3, 4, 6 and 7](#). They are additional to those expressed for the whole of the council area.

The Urban Corridor Zone is divided into a number of Policy Areas. Each policy area has been defined according to the existing and desired character of the area, the type and nature of development considered appropriate and other features that differentiate one area from another. The policy areas are shown on [Maps Pr/8, 9, 11 and 12](#).

The policies for development in the Urban Corridor Zone are expressed both as general policies applying throughout the zone, and more specific provisions for each of the policy areas.

OBJECTIVES

- Objective 1:** A mixed use zone accommodating a range of compatible non- residential and medium and high density residential land uses orientated towards a high frequency public transport corridor.
- Objective 2:** Integrated, mixed use, medium and high rise buildings with ground floor uses that create active vibrant, and visually appealing streetscapes incorporating high levels of amenity.
- Objective 3:** A mix of land uses that enable people to work, shop and access a range of services close to home.
- Objective 4:** Adaptable and sustainable building designs that can accommodate changes in land use and respond to changing economic, social and environmental conditions.
- Objective 5:** Amalgamation of sites including adjacent sites that may or may not have main road frontage, are encouraged to provide better design outcomes accommodate envisaged development, design flexibility, diverse building types, landscaping private open space and dwelling sizes.
- Objective 6** A built form that provides a transition down in scale and intensity at the zone boundary to maintain the amenity of residential properties located within adjoining zones.
- Objective 7:** Noise and air quality impacts mitigated through appropriate building design and orientation.
- Objective 8:** Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Zone will enable the development of a mixed use urban environment that contributes to the economic and community vitality of the City by increasing the density and diversity of housing, businesses and other services offered to residents and the wider community.

Residential land uses within the Zone will be developed with a diversity of housing (eg row dwellings, residential flat buildings and multi-storey buildings) and sizes (eg studios and one to three or more bedroom dwellings) that incorporate affordable housing opportunities for families, students and other household types in areas with frequent public transport provision.

Issues of paramount importance to the Prospect community are:

- (a) design and appearance;
- (b) bulk, height and scale;
- (c) material quality and durability;
- (d) overlooking and preservation of adjacent privacy/amenity;
- (e) landscaping.

As one of the key Zones in the City where there will be transformation in built form, new buildings and associated landscaping and open space areas will be recognised for their design excellence by demonstrating good design principles, including:

- (a) Contextual and Desired Character – development that responds to its place, recognises and carefully considers surrounding built form, linkages and landscaping, and positively contributes to the Desired Character.

- (b) Responsive and Durable – development that is fit for purpose, adaptable and incorporates long lasting materials.
- (c) Inclusive – development that integrates the public and private realms through street activation, enhancing quality views and passive surveillance into and out of sites.

The balanced consideration of qualitative and quantitative Development Plan provisions is fundamental to achieving design excellence.

Future development in the Zone will comprise an evolving transformation of land uses, built form and scale to accommodate urban growth along transit corridors and accord with the following key elements/attributes:

- (a) The use of a predominant 2 to 4 storey building scale that will create a linear corridor that frames the main roads.
- (b) The establishment of greatest height, mass and intensity of development at the main road frontages (behind setbacks / landscaping if envisaged in the Policy Area), and will reduce in scale to transition down where there is interface with low rise residential development in the adjacent zone.
- (c) The use of designs that consider the local topography that slopes from east to west, such as raised ground floor levels on the east side of roads, lowered ground floor levels and/or car parking underneath buildings on the west side of roads, and stepping the building form across the site on properties facing north and south.
- (d) The use of building articulation and fenestration to all visible sides of buildings and supported by integrated landscaping to enhance the built form, contribute to a pleasant pedestrian environment and provide an attractive transition between the public and private realms.
- (e) The use of active frontages at ground level to contribute to the liveliness, vitality and security of the public realm.
- (f) The use and combination of natural and durable materials and finishes (self-finished or pre-finished) that respond to the predominant attributes of the area, such as brick, stone and rendered finishes and architectural elements addressing entrances, windows and eaves. Contemporary buildings and expressions are envisaged that complement the solid and lasting styles of the traditional built form of the area.
- (g) Appropriate site design, building separation, orientation and transition of building heights to address the potential for overlooking, overshadowing and noise impacts.
- (h) The use of consolidated parking areas (where possible), screened and located away from public spaces or underneath buildings and minimise access ways (number and frontage widths) and sited to retain public realm benefits.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following types of development, or combination thereof, are envisaged in the Zone:

- Affordable housing
- Aged persons accommodation
- Community centre
- Consulting room
- Dwelling
- Educational establishment
- Entertainment venue
- Licensed premises
- Office

Pre-school
Primary school
Residential flat building
Retirement village
Shop or group of shops
Supported accommodation
Tourist accommodation.

- 2 Development listed as non-complying is generally inappropriate.

Form and Character

- 3 Development should be consistent with the desired character for the zone.
- 4 Development should be in accordance with Concept Plan [Figures UrC/1 to 6](#).
- 5 Residential development in a building largely for residential living should aim to achieve a target minimum net residential site density in accordance with the following:

Policy Area	Minimum net residential site density
Boulevard	75 dwellings per hectare net; except where varied by Concept Plan Figure UrC/1 .
High Street	60 dwellings per hectare net
Transit Living	45 dwellings per hectare net.
Business	No minimum

- 6 Vehicle parking should be located to the rear of development or not be visible from public land along the primary road frontage.
- 7 Amalgamation of sites, including adjacent sites that may or may not have main road frontage, should provide opportunity for comprehensively planned development and better design outcomes in accordance with the desired character of the zone/ policy area and interface zone/policy area.

Design and Appearance

- 8 Overlooking should be prevented within an area of 45 metres and minimised beyond 45 metres, as measured from the site property boundary.
- 9 To provide visual privacy to habitable rooms and private open space of dwellings in lower density residential **and** historical (conservation) zones, views (from windows, balconies, roof terraces and the like) should be restricted to 1.7 metres above finished floor levels, through the use of screening devices that are integrated into the building design and have minimal negative effect on resident's or neighbour's amenity.
- 10 Buildings should provide visual interest to the street and promote pedestrian activity with active building spaces, particularly at the ground level, in association with high quality landscaping and other community benefits such as public art.
- 11 To maintain sight lines between buildings and the street, and to improve street activation and safety through passive surveillance, solid fencing should not be constructed between the front building line and the primary or secondary street, unless providing visual privacy to ground floor habitable rooms, in which case a combination of solid fencing, screening and landscaping should be used.
- 12 Development should minimise the number of access points onto an arterial road, by providing vehicle access:

- (a) from side streets or rear access ways;
- (b) via co-ordinated through-property access rights of way or common rear vehicle parking areas.

13 Vehicle access points on side streets and rear access ways should be located and designed to:

- (a) minimise the impacts of headlight glare and noise on nearby residents;
- (b) avoid excessive traffic flows into residential streets;
- (c) consolidate on-site circulation and provide minimal entry/exit points, unless connected to a suitable rear access way;
- (d) maintain appropriate distances from street intersections;
- (e) minimise impacts to on-street parking spaces;
- (f) minimise impacts on the public realm, including pedestrian circulation paths, mature street trees and public infrastructure;
- (g) maximise opportunities for the integration of landscaping.

Building Envelope

Building Height

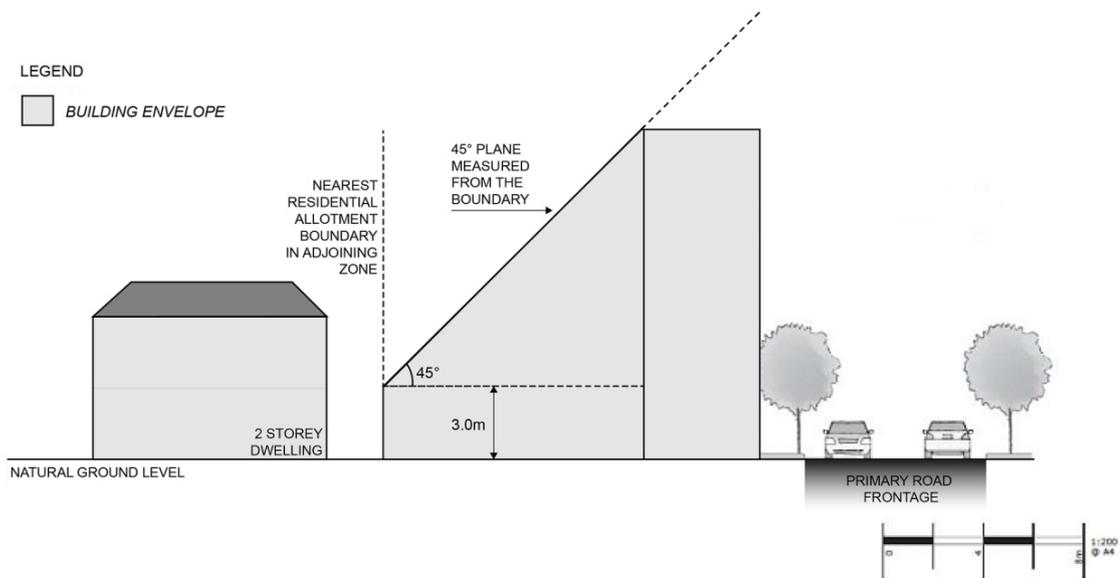
- 14** Except where airport building height restrictions prevail, the interface height provisions require a lesser height, or an alternative maximum building height is shown on Concept Plan [Figures UrC/1 to 6](#), building heights (excluding any rooftop mechanical plant, equipment or roof top garden) should be consistent with the following parameters:

Policy Area	Minimum Building Height	Maximum Building Height
Boulevard	2 storeys	4 storeys and up to 15 metres
High Street	2 storeys	4 storeys and up to 15 metres
Transit Living	1 storey	3 storeys and up to 11.5 metres
Business	2 storeys	4 storeys and up to 15 metres, except on allotments fronting Highbury Street where a 2 storey maximum applies

Interface Height Provisions

- 15** To minimise building massing at the interface with residential development outside of the zone, buildings should be constructed within the following building envelopes provided by a 45 degree plane, measured from a height of 3 metres above natural ground level at the zone boundary (except where this boundary is a primary road frontage) as illustrated in Figure 1.

Figure 1: Typical Boundary



- 16** To minimise overshadowing of sensitive uses outside of the zone, buildings should ensure that:
- (a) north-facing windows to habitable rooms of existing dwellings in adjacent zones receive at least 3 hours of direct sunlight over a portion of their surface between 9.00 am and 3.00 pm on 21 June;
 - (b) ground level open space of existing residential buildings in adjacent zones receive direct sunlight for a minimum of 2 hours between 9.00 am and 3.00 pm on 21 June to at least the smaller of the following:
 - (i) half of the existing ground level open space; or
 - (ii) 35 square metres of the existing ground level open space (with at least one of the area's dimensions measuring 2.5 metres).

Setbacks from Road Frontages

- 17** Buildings (excluding verandas, porticos, balconies and the like) should be set back from the primary road frontage in accordance with the following parameters, except where varied by the relevant Concept Plan [Figures UrC/2, 4 and 6](#) and where additional land may be required to achieve landscaping requirements:

Policy Area	Minimum setback from the primary road frontage
Boulevard	3 metres
High Street	No minimum
Transit Living	3 metres
Business	3 metres

Note: These setbacks are in addition to any setback requirements pursuant to the Metropolitan Adelaide Road Widening Plan.

- 18** Buildings (excluding verandas, porticos, balconies and the like) should be set back from the secondary road frontage or a vehicle access way in accordance with the following parameters except where varied by the relevant Concept Plan [Figures UrC/2, 4 and 6](#) and the allocation of land for quality landscaping:

Designated Policy Area	Minimum setback from secondary road	Minimum setback from a rear access way
Boulevard, Transit Living and Business	2 metres	(a) No minimum where the access way is 6.5 metres or more; or (b) Where the access way is less than 6.5 metres in width, the distance equal to the additional width required to make the access way 6.5 metres or more, to provide adequate manoeuvrability for vehicles
High Street	No minimum	As above

Other Setbacks

- 19 Buildings (excluding verandas, porticos, balconies and the like) should be set back in accordance with the following parameters:

Designated Policy Area	Minimum setback from rear allotment boundary where not on a zone boundary	Minimum setback from allotment boundary where on a zone boundary	Minimum setback from side boundary where not on a street or zone boundary)*
Boulevard, High Street, Transit Living, and Business	3 metres	3 metres if the closest portion of building when viewed from the boundary is distinctly 2 storeys or less. 6 metres in all other cases	Irrespective of height, no minimum on boundary, within 18 metres from the front property boundary. No minimum for remaining length for the ground level only. More than 18 metres from the front property boundary, 1st level and above (ie above ground level) should be setback 2 metres).

* Assumes the building fronting the boundary has no window/s or balcony/s.

- 20 Unless abutting an existing building, walls (including attached structures) that have a height of greater than 4.5 metres, located on or within 2 metres of side allotment boundaries should provide attractive and interesting façades utilising techniques and combinations such as the following:
- (a) including recessed sections of wall;
 - (b) continuing some façade detailing;
 - (c) integrated use of different building materials and finishes;
 - (d) include green landscaped walls/vertical gardens;
 - (e) include public art, including murals.

Vehicle Parking

- 21 Vehicle parking should be provided in accordance with the rates set out in [Table Pr/5](#) - Off Street Vehicle Parking Requirements for Designated Areas.

Land Division

- 22 Land division in the zone is appropriate provided new allotments are of a size and configuration to ensure the objectives of the zone can be achieved.

PROCEDURAL MATTERS

Complying Development

- 23 Complying developments are prescribed in schedule 4 of the *Development Regulations 2008*.

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

- (a) Subject to the conditions contained in [Table Pr/5](#) - Off Street Vehicle Parking Requirements for Designated Areas and [Table Pr/6](#) - Off-street Bicycle Parking Requirements for the Urban Corridor Zone:
- (i) change in the use of land, from residential to office on the ground or first floor of a building;
 - (ii) change in the use of land from residential to shop less than 250 square metres on the ground floor of a building.
- (b) A change of use to a shop, office, consulting room or any combination of these uses where all of the following are achieved:
- (i) the area to be occupied by the proposed development is located in an existing building and is currently used as a shop, office, consulting room or any combination of these uses;
 - (ii) the development is located inside any of the following area(s):
 - High Street Policy Area
 - (iii) the building is not a State heritage place;
 - (iv) it will not involve any alterations or additions to the external appearance of a local heritage place as viewed from a public road or public space;
 - (v) if the proposed change of use is for a shop that primarily involves the handling and sale of foodstuffs, it achieves either (A) or (B):
 - (A) all of the following:
 - a. areas used for the storage and collection of refuse are sited at least 10 metres from any Residential Zone boundary or a dwelling (other than a dwelling directly associated with the proposed shop);
 - b. if the shop involves the heating and cooking of foodstuffs in a commercial kitchen and is within 30 metres of any Residential Zone boundary or a dwelling (other than a dwelling directly associated with the proposed shop), an exhaust duct and stack (chimney) exists or is capable of being installed for discharging exhaust emissions;
 - (B) the development is the same or substantially the same as a development, which has previously been granted development approval under the *Development Act 1993* or any subsequent Act and Regulations, and the development is to be undertaken and operated in accordance with the conditions attached to the previously approved development;

- (vi) if the change in use is for a shop with a gross leasable floor area greater than 250 square metres and has direct frontage to an arterial road, it achieves either (A) or (B):
 - (A) the primary vehicle access (being the access where the majority of vehicles access/egress the site of the proposed development) is from a road that is not an arterial road;
 - (B) the development is located on a site that operates as an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared;
- (vii) off-street vehicular parking is provided in accordance with the rate(s) specified in [Table Pr/5](#) - Off Street Vehicle Parking Requirements for Designated Areas to the nearest whole number, except in any one or more of the following circumstances:
 - (A) the building is a local heritage place;
 - (B) the development is the same or substantially the same as a development, which has previously been granted development approval under the *Development Act 1993* or any subsequent Act and Regulations, and the number and location of parking spaces is the same or substantially the same as that which was previously approved;
 - (C) the development is located on a site that operates as an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.

Non-complying Development

- 21** Development (including building work, a change in the use of land or division of an allotment) involving any of the following is **non-complying**:

Industry, except light industry or service industry located in the Business Policy Area
 Fuel depot
 Petrol filling station, except where located in the Business Policy Area
 Public service depot
 Road transport terminal
 Service trade premises, except where located in the Business Policy Area
 Store, except where located in the Business Policy Area
 Transport depot
 Warehouse, except where located in the Business Policy Area
 Waste reception storage treatment and disposal

Public Notification

- 22** 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 classified as non-complying), are designated:

Category 1

Advertisement
 Aged persons accommodation
 All forms of development that are ancillary and in association with residential development
 Consulting room
 Dwelling
 Educational establishment Office
 Pre-school Primary school
 Residential flat building

Retirement village
Store in Business Policy Area
Supported accommodation
Shop or group of shops with a gross leasable area of 2000 square metres or less located in the High Street, Business or Boulevard Policy Areas
Shop or group of shops with a gross leasable area of 500 square metres or less located in the Transit Living Policy Area
Tourist Accommodation
Warehouse in Business Policy Area

Category 2

All forms of development not listed as Category 1

Any development listed as Category 1 and located on adjacent land to a residential zone or Historic (Conservation) Zone that:

- (a) is 3 or more storeys, or 11.5 metres or more, in height
- (b) exceeds the 'Building Envelope - Interface Height Provisions'.

High Street Policy Area

The Objectives and Principles of Development Control that follow apply in the High Street Policy Area shown in [Maps Pr/8 and 11](#). They are additional to those expressed for the whole of the council area.

OBJECTIVES

- Objective 1:** A mix of land uses including retail, office, commercial, community, civic and medium and high density residential development that support the economic vitality of the area.
- Objective 2:** Buildings sited to provide a continuous and consistent built edge with verandas/awnings over the public footpath and an intimate built scale, with fine-grained detailing of buildings in and adjacent to the public realm.
- Objective 3:** An interesting and varied skyline as viewed from the street and afar, provided by modulation in roof forms and the use of parapets.
- Objective 4:** An intimate public realm with active streets created by buildings designed with frequently repeated frontage form and narrow tenancy footprints.
- Objective 5:** A high degree of pedestrian activity and a vibrant street-life with well lit and engaging shop fronts and business displays including alfresco seating and dining facilities and licensed areas.
- Objective 6:** A safe, comfortable and appealing street environment for pedestrians that is sheltered from the weather, is of a pedestrian scale and optimises views or any outlook onto spaces of interest.
- Objective 7:** Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

This Policy Area will contain a variety of land uses including shops, offices, community centers, consulting rooms and medium-to-high density residential development, to create a destination that attracts people for a variety of reasons. Uses that generate a high frequency of pedestrian activity and activate the street, such as shops and restaurants, will be located on the ground floor, with offices, apartment-style residential development, or both, located on upper floors overlooking the street. The mix of complementary land uses will extend activities beyond normal working hours to enhance the area's vibrancy.

Development on Prospect Road will be large in scale and height whilst incorporating the dominant street podium building form of one or two storeys that abuts the footpath and continuing the established width, rhythm and pattern of façades to support a variety of tenancies with narrow frontages. Portions of the ground floor will be set back in some locations to emphasise the building entrance or to create spaces for outdoor dining. Upper levels will be offset and setback behind the street podium with variation in façade treatments, materials and colours as well as the use of modulated roof forms and parapets that contribute to a varied and interesting skyline.

Heritage buildings will be adapted and reused while maintaining their heritage qualities with development encouraged towards the rear and behind the front façades. Buildings adjacent to heritage buildings and historic conservation areas will be sympathetic to the heritage nature and character in their design while having a modern appearance.

Active street frontages will be promoted through the frequency of different tenancies, diversity of activities, a high proportion of windows and numerous pedestrian entrances. Development will continue to provide visual interest after hours, by having no external shutters.

Verandas will be provided to create a comfortable and intimate place for pedestrians, and while avoiding the need to replicate those on adjoining buildings, will complement the size, alignment and height of nearby traditional canopies.

A variety of recessed and cantilevered balconies overlooking the street are encouraged to provide a connection to the street and passive surveillance, with sufficient and varied screening to provide privacy for occupiers and to obscure furniture from view. To respect the integrity of the traditional high street character at ground level, balconies will not extend over the footpath.

Landscaping and other green infrastructure will be primarily confined to areas within the public realm and in accordance with the Prospect Road Master Plan, on buildings (roof top, walls and verandas), within rear yards, on zone boundaries or on buildings/structures to contribute to a pleasant pedestrian environment, and enhance the built form especially as viewed from adjacent zones.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 Development should provide continuity of ground floor shops, offices and other non- residential land uses along the road corridor by ensuring the ground floor of buildings is non-residential.
- 2 Shops or groups of shops contained in a single building, other than a restaurant, should have a maximum gross leasable area in the order of 2000 square metres.

Form and Character

- 3 Development should be consistent with the desired character for the policy area.
- 4 Pedestrian shelter and shade should be provided over footpaths through the use of structures such as awnings, canopies and verandas.
- 5 The ground level street frontages of buildings should contribute to the appearance and retail function of the area by providing at least 5 metres or 60 percent of the street frontage (whichever is greater) as an entry/ foyer or display window to a shop (including a café or restaurant) or other community or commercial use which provides pedestrian interest and activation.
- 6 Buildings should maintain a pedestrian scale at street level, and should:
 - (a) include a clearly defined podium with a maximum building height of 2 storeys or 8 metres in height; and
 - (b) have levels above the defined podium or street wall setback a minimum of 2 metres from that wall.

- 7 Development should respect the predominant traditional rhythm of narrow-fronted tenancies built side by side to create a largely continuous built edge to the street with varied and distinctive building façades.
- 8 The ground floor of buildings should be built to have a minimum floor to ceiling height of at least 3.5 metres to allow for adaptation to a range of land uses including retail, office and residential without the need for significant change to the building.
- 9 The finished ground floor level should be approximately at grade and level with the footpath for non-residential ground level developments.
- 10 A minimum of 50 percent of the ground floor primary frontage of buildings should be visually permeable, transparent or clear glazed to promote active street frontages and maximise passive surveillance.